

**CITY OF BIG RAPIDS  
JOB DESCRIPTION**

**CIVIL ENGINEER**

**Supervised By:** Director of Public Works  
**Supervises:** Employees as assigned

**Position Summary:**

Under the general direction of the Director of Public Works, assists and/or performs planning, field survey, project management, inspection, computerized drafting, design and office/field work in connection with the construction of sewers, water mains, sidewalks, roadways, bridges and other municipal projects. Responsible for protecting and preserving the assets of the City of Big Rapids, Mecosta County and its citizens. Provides technical expertise and professional engineering services for a wide range of projects. Ensures that projects are completed in accordance with applicable laws, codes, ordinances and accepted practices.

**Essential Job Functions:**

An employee in this position may be called upon to do any or all of the following essential functions. These examples do not include all of the duties which the employee may be expected to perform. To perform this job successfully, an individual must be able to perform each essential function satisfactorily.

1. Participates in establishing and implementing engineering and utility policies and agreements.
2. May be called upon to investigate, design, and supervise and conduct inspections of engineering projects including paving, roadway improvements, culverts, building design and demolition, bridge work, parks and other major projects.
3. Assists the Director in directing aspects of departmental operations including personnel, budgeting, general administration, and capital needs assessment. Assists in developing and implementing departmental policies and procedures in accordance with departmental needs, directives and legal requirements.
4. Assists in developing, and administers applicable areas of the annual departmental operating and capital budgets. Ensures effective and efficient use of budgeted funds, personnel, materials, facilities and time. Approves purchases and prepares departmental financial summaries as required.
5. Prepares and/or reviews project bid specifications, reviews bids and recommends the bid most beneficial to the agency. Oversees contracted projects to ensure adherence to project specifications, costs and timelines.
6. Provides technical reviews and advice to the City Manager, City Commission, Mecosta County Road Commission and other departments. Researches engineering and regulatory issues, prepares summaries and presents findings.
7. Prepares surveys and designs of sidewalks, streets, water mains, storm sewers, sanitary

- sewers, and any other municipal construction projects as assigned. Prepares sketches and computations relative to field surveying work.
8. Performs engineering and field calculations; prepares pay and cost estimates. Prepares, maintains, and files a variety of engineering records.
  9. Works with other departments, with regard to existing GIS information, project planning, CIP planning, design projects, permits, and problem solving.
  10. Keeps abreast of legislative and regulatory developments, new administrative techniques and current issues in the engineering field through continued education and professional growth. Attends conferences, workshops, and seminars as appropriate.
  11. Performs related work as required.

**Required Knowledge, Skills, Abilities and Minimum Qualifications:**

The requirements listed below are representative of the knowledge, skills, abilities and minimum qualifications necessary to perform the essential functions of the position. Reasonable accommodations may be made to enable individuals with disabilities to perform the job.

Requirements include the following:

- A Bachelor's degree in civil engineering or related engineering field from an accredited college or university.
- One to three years of design, inspection and contract administration experience on municipal projects or equivalent experience.
- A Michigan vehicle operator's license.
- EIT/FE certification is preferred with a goal of a Professional Engineer license.
- Substantial knowledge and understanding of applicable state and local building codes and ordinances, engineering practices, and construction techniques.
- Substantial knowledge of the principles and practices of land surveying, plan review and site inspection.
- Substantial knowledge of surveying, construction inspection and civil engineering practices and procedures.
- Skill in compiling and evaluating complex engineering guidelines and formulating policy, standards, and service recommendations.
- Skill in interpreting and applying municipal codes and ordinances.
- Ability to communicate effectively, present ideas and concepts orally and in writing, and make presentations in the public forum.
- Ability to establish and maintain effective working relationships and use good judgement,

initiative and resourcefulness when dealing with employees, professional contacts, regulatory agencies, contractors, elected officials, and the public.

- Ability to critically assess situations, effectively plan and implement plans, and work effectively under stress, within deadlines and changes in work priorities.
- Ability to attend meetings scheduled at times other than normal business hours, travel to other locations and respond to emergencies on a 24-hour basis.
- Performs other work as required.

**Physical Demands and Work Environment:**

The physical demands and work environment characteristics described here are representative of those an employee encounters while performing the essential functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to communicate with others in person and on the telephone. The employee is frequently required to travel to all types of locations within the City. The employee is occasionally required to view and take measurements at varying heights and on different types of terrain. The employee must frequently lift and/or move items of light to moderate weight. The employee is frequently required to review and create written documents and drawings, process paperwork and utilize a computer.

While performing the duties of this job, the employee regularly works in a business office setting and frequently works at various indoor and outdoor locations throughout the City. The employee is occasionally exposed to outside weather conditions, loud noises, toxic or caustic chemicals, moving mechanical parts, dust or airborne particles, and fumes. The noise level in the work environment is usually quiet, and may be loud in field situations.