

## SENIOR ENGINEERING TECHNICIAN

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.*

### **JOB OBJECTIVES**

Under supervision, to perform technical level duties in support of the City's engineering and capital improvement projects; and to provide information and assistance to contractors, developers, engineers and the general public on the City's engineering services and activities.

### **DISTINGUISHING CHARACTERISTICS**

In addition to the duties of the Engineering Technician, positions at this level are distinguished from other classes within the series by the level of responsibility assumed and the complexity of duties assigned. Employees perform the most difficult and responsible types of duties assigned to classes within this series. Employees at this level are required to be fully trained in all procedures related to assigned area of responsibility.

### **ESSENTIAL FUNCTION STATEMENTS**

*The following tasks are typical for positions in this classification. Any single position may not perform all of these tasks and/or may perform similar related tasks not listed here:*

Prepare construction drawings, details and maps for assigned projects; draft drawings from engineering sketches, survey field notes and other data using a variety of specialized computer software and equipment.

Provide technical support to a variety of engineering studies; research, collect, interpret and record data; prepare maps, graphs, drawings and reports to present study results.

Prepare presentation graphics, maps and drawings for all departments, City Council, special committees and various other organizations or agencies.

Research, collect and interpret survey plats, deeds, notes and other legal records from a variety of government records; prepare information for automation as directed.

Perform technical level duties in support of the City's engineering and construction capital improvement projects including City buildings, streets, utility, transportation and related systems.

Provide information and assistance to contractors, developers, engineers and the general public on engineering services and activities; respond to general inquiries concerning permit requirements, utility locations, property title and related issues; ensure issues are resolved in a timely and efficient manner.

Perform construction inspection duties on assigned projects; monitor and review work performed by contractor; ensure work performed complies with project standards and contracts; coordinate materials testing with contracted services; refer issues to higher level engineering staff as required.

Perform field survey duties; operate survey equipment including levels, theodolite, transits, electronic measuring devices and other equipment used to measure distances, angles and elevations; maintain accurate and legible field notes of survey work performed including lines, angles, distances, benchmarks and mathematical calculations.

**AUXILIARY FUNCTION STATEMENTS**

Conduct field inspections of construction projects as requested. Prepare special engineering drawings for intra departmental use.

Perform general clerical duties; answer phones, respond to questions at a public counter and issue encroachment permits.

Follow all safety rules and procedures established for work area.

Perform related duties and responsibilities as directed.

**QUALIFICATIONS**

**Knowledge of:**

Operations, services and activities of a comprehensive municipal engineering design and construction program.

Methods and techniques of conducting site and field investigations and surveys.

Basic principles and practices of engineering construction.

Methods and techniques of using survey equipment.

Methods and techniques of researching, compiling, interpreting and presenting statistics and data.

Operational characteristics of a variety of equipment used in surveying and inspection work.

Mathematical principles as applied to engineering work.

Principles and practices of record keeping.

Operational characteristics of a geographic information system.

Advanced computer aided drafting and design methods.

Modern office procedures, methods and equipment including computers, supporting word processing and spreadsheet applications and specialized engineering software programs.

Occupational health and safety standards.

Pertinent Federal, State and local codes, laws and regulations.

**Ability to:**

Perform routine technical engineering duties in support of capital improvement projects.

Use survey instruments.

Perform construction project inspection duties.

Prepare a variety of drawings, sketches, maps, graphs and related technical documents.

Perform mathematical calculations quickly and accurately.

Prepare presentation graphics, maps and drawings.

Research, collect and interpret survey plats, deeds, notes and other legal records.

Maintain accurate engineering file and records.

Prepare clear and concise reports.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

### **Education and Experience Guidelines**

*Any combination of education and experience that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

#### **Education:**

Equivalent to the completion of the twelfth grade supplemented by two years of college level coursework in civil engineering or a related field.

#### **Experience:**

Four years of increasingly responsible technical engineering experience.

### **PHYSICAL DEMANDS AND WORKING CONDITIONS**

*The physical demands herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform these essential job functions.*

**Environment:** Field environment; occasional office environment; exposure to computer screens. Exposure to the elements.

**Mobility:** Walking, standing, or sitting for prolonged periods of time; extensive use of computer keyboard.

**Vision:** Visual acuity to read computer screens

**Other Factors:** Incumbents may be required to work extended hours including evenings and weekends. Incumbents may be required to travel outside City boundaries to attend meetings.