### **CITY OF LEMON GROVE**



Class Title: Engineering Inspector
Department: Engineering Services Department

## **GENERAL PURPOSE**

Under general administrative direction of the Engineering Services Director/City Engineer, conduct surveys and inspections of capital improvement projects, development projects, grading permits, construction permits, city right-of-way, public improvements, and underground utilities to ensure conformance with standard specifications and safety standards; and maintain records and prepare reports on projects inspected; and perform other related duties as required.

### **SUPERVISION RECEIVED AND RESPONSIBILITIES**

This position receives direction from the Engineering Services Director/City Engineer and may provide direction to support staff.

#### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

### **Routine Duties**

- Inspect work quality and materials used in a variety of public works projects during various stages
  of construction and remodeling, including excavations, utilities, streets, sidewalks, bridges, gutters,
  structural concrete, storm drain systems, water mains, services, and various other facilities; check
  line, grade, size, elevation and location of structures; ensure compliance with applicable codes,
  ordinances and regulations;
- Take samples of materials for examination or analysis by laboratories; review tests of construction material including asphalt, sand, gravel, concrete and aggregate base;
- Monitor the work of soil engineers and geologists; ensure conformance with engineering specifications; perform routine materials and density field tests;
- Inspect traffic signal construction and installation and street light installation to ensure conformance to appropriate standards;
- Prepare detailed documentation of construction progress and inspection; prepare various reports
  on daily operations and activities; Provide complex support on engineering projects; conduct
  research and prepare recommendations for review with professional engineering staff;
- Observe work during progress and upon completion; confer with developers, contractors, superintendents, inspectors, and owners; ensure that safety procedures are followed; advise contractors of changes in plans and variances; issue stop orders as appropriate;
- Conduct preliminary inspections of land; assist in the location and identification of underground utilities, including sewer lines, storm drains and street lighting; ensure that lines are clearly marked;
- Respond to citizen inquires/complaints regarding public works and development projects; Assist the public at the front counter;

- Perform a variety of related office or field tasks to gather, analyze and record data; prepare
  various inspection reports and documents for a variety of engineering activities; maintain files and
  reports regarding inspection activities and findings; research documents for response to requests
  from contractors, city departments, and the general public;
- Prepare a variety of memos, letters and other correspondence related to plan reviews; Organize
  and maintain a variety of files and reports for easy reference and historical record;
- Assist in developing specifications for future contracts; gather quantity information for contract bids and billing;
- Operate and maintain a variety of traffic engineering devices and equipment;
- Respond to claims; research files and review job site conditions; may give depositions or provide other assistance:
- Respond to after hour emergencies; able to work during day, night, holiday, and weekends as required;
- Act as a liaison between the city, contactors, developers; respond to and resolve questions;
- Attend regional meetings and workshops; participate in appropriate City meeting functions consistent with the objectives of department;
- Makes recommendations to City staff, consultants and contractors on construction materials, methods and/or equipment; and
- Perform related duties and responsibilities as required.

#### **EDUCATION AND EXPERIENCE**

Any combination of education, training and experience that clearly demonstrates possession of the knowledge and abilities needed to perform the typical duties listed above. A typical way to obtain the knowledge and abilities would be:

- Graduation from high school, GED, or equivalent; supplemented by college level course work in engineering, drafting or related area. Associate's degree in Engineering is highly desirable; and
- Two years of responsible inspector experience involving the construction and maintenance of public works facilities.

## LICENSES AND CERTIFICATION

Possession of a valid Class C, California driver's license

# **NECESSARY KNOWLEDGE, SKILLS, AND ABILITES**

## **Knowledge of:**

- Methods and techniques of public works inspection;
- Principles of soil and geological conditions:
- Asphalt mix and proper paving and testing functions;
- Operational characteristics of soil testing equipment;

- Storm drain and sewer systems construction and testing functions;
- Construction principles, practices and terminology;
- Applicable laws, regulations, codes, ordinances and policies governing public works construction;
- Basic mathematics including algebra, geometry, and trigonometry as applied to construction inspection work;
- Basic principles of civil engineering and design;
- Materials, methods, and techniques of modern construction;
- Engineering maps and records;
- Construction plans and specifications;
- Modern office procedures, methods, and computer equipment;
- Pertinent Federal, State, and local laws, codes, and relating to traffic and civil engineering; and
- Customer service methods and techniques.

## **Ability to:**

- Interpret and apply laws, regulations, codes, ordinances, and policies governing the construction of public works projects;
- Read and interpret plans and specifications;
- Determine if construction systems conform to City Code requirements;
- Apply technical knowledge and follow proper inspection techniques to examine workmanship and materials and detect deviations from plans, regulations and standard construction practices;
- Make basic mathematical computations rapidly and accurately;
- Enforce necessary regulations with firmness and tact;
- Understand and carry out oral and written directions;
- Communicate clearly and concisely, both orally and in writing;
- Establish and maintain cooperative working relations with those contacted in the course of work;
- Maintain mental capacity which allows the capability of making sound decisions and demonstrating intellectual capabilities; and
- Maintain effective audio/visual discrimination and perception to the degree necessary for the successful performance of assigned duties.

## TOOLS AND EQUIPMENT USED

 Personal computer, including word processing, spreadsheet and data base software (Office 2000, MetroScan, WinCan), office and cellular (including two-way) telephones, two-way 800 radio, digital camera, microfiche, television, video cassette recorder, 10-key calculator, facsimile, and photocopier.

## PHYSICAL DEMANDS AND WORK ENVIRONMENT

The conditions 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 the essential job functions.

# **Physical Demands**

Requires frequent lifting, pulling, and/or pushing objects that weigh up to 50 pounds. Frequently required to sit, stand, reach, lean, twist, turn, bend and kneel, use hands to finger, handle, grasp, feel or operate objects, sit for prolonged periods of time. Hear and speak to contractors, the general public and City staff on the telephone and in person. Read engineering drawings, plans, specifications, reports, contracts, correspondence, memoranda, and other records. Requires vision (which may be corrected) to read small print often found on construction blueprints and other documents. Operate a multitude of office equipment.

### **Work Environment**

- Work environment is fast paced and can be loud;
- Travel from site to site, use of personal vehicle may be required;
- Extensive field work may be required, and
- May be exposed to inclement weather.

# **GUIDELINES**

The duties listed above are intended only as illustrations of the various types of work that may be performed. The list may not include all required duties. The omission of specific duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Approved by Lemon Grove City Council: April 6, 2004