

## SENIOR TRAFFIC ENGINEER

*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.*

### **SUMMARY DESCRIPTION**

Under direction, ensures the safe and efficient operation of City streets by leading, overseeing, and performing advanced level traffic engineering studies, traffic complaint investigation, traffic plan review, signal system design, monitoring and control, and field and office engineering.

### **DISTINGUISHING CHARACTERISTICS**

This is the advanced journey level class in the Traffic Engineer series. 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 professional traffic engineering duties. Employees at this level are required to be fully trained in all procedures related to assigned area of responsibility.

### **REPRESENTATIVE DUTIES**

*The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

1. Lead, plan, train, and supervise the work of engineering staff responsible for traffic and transportation engineering; verify the work of assigned employees for accuracy, proper work methods, techniques, and compliance with applicable standards and specifications.
2. Review plans for streets and interchanges prepared by consultants to see that they meet established specifications.
3. Prepare, review and implement traffic signalization plans; review traffic signal operations and verify correct operation.
4. Perform advanced professional engineering work in connection with municipal traffic projects.
5. Ensure that traffic signals are well maintained by County signal electricians; perform field reviews and submit repair requests.
6. Provide traffic signal timings that allow for minimum delay at each intersection; review proposed timings of consultants.
7. Review development plans and capital improvement plans and make recommendations regarding traffic circulation patterns, roadway capacity and other traffic related issues; meet with developers and consultants to resolve issues.
8. Gather and interpret data and prepare reports on traffic issues such as speeding, volume, circulation patterns, roadway capacity, accidents, parking requirements and projected traffic lanes needed.

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9. Provide information to the public about traffic operations and planning for future projects; attend meetings with City police officers and school district staff related to school safety issues; receive, investigate and respond to complaints regarding traffic signals and hazards.
10. Prepare grant funding applications for various transportation projects and traffic signals; process and track grant applications and funds.
11. Analyze traffic accident reports and make recommendations; provide data and evidence regarding traffic accidents on City streets.
12. Work with other City departments on traffic and landscape/and lighting district issues; prepare the work program for staff and for the county traffic signal maintenance electricians; provide work orders for the signing and striping of streets.
13. Represent the City at Countywide transportation committee board meetings and other meetings regarding the City's transportation interests.
14. Participates on a project development team for regional transportation projects including reviewing traffic studies, traffic models, geometric plans, traffic signal plans, and road construction plans and specifications.
15. May assist in the field engineering and inspection of signals and other traffic control devices.
16. Perform related duties as required.

**QUALIFICATIONS**

*The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

**Knowledge of:**

- Operations, services, and activities of a traffic engineering program.
- Principles of supervision, training and performance evaluation.
- Advanced principles and practices of civil engineering and their application to traffic engineering.
- Equipment and materials used in street construction and maintenance.
- Public works contract administration including contract preparation, contractor selection, administration of contract work, change orders, disputes, claims, equal opportunity and closing of contracts.
- Traffic modeling, design and drafting methods and equipment.
- Traffic signal timing methods and software.
- Electrical engineering principles as related to signals and street lighting.
- Occupational hazards and standard safety practices.
- Pertinent federal, state, and local codes, laws, and regulations.

**Ability to:**

- Lead, organize, supervise and evaluate the work of staff.
- Independently plan, perform and coordinate advanced level professional and technical traffic engineering studies and surveys.
- Interpret, explain, and enforce department policies and procedures.
- Analyze problems and develop effective alternatives for their solutions.
- Oversee and coordinate the work of consultants and contractors.

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- Write clear, concise and accurate technical and non-technical reports, correspondence and memoranda; prepare reports, agreements and accurate records.
- Prepare accurate plans, specifications, cost estimates and engineering reports and make accurate engineering computations and drawings.
- Coordinate traffic engineering activities with activities of other divisions and outside organizations.
- Take coaching, instruction, and feedback with a cooperative and positive attitude.
- Deal tactfully with the public, high level staff or other public and private agencies, contractors, private engineers, governmental officials and other City employees.
- Explain complicated technical matters in non-technical terms.
- Work independently in the absence of supervision.
- Understand and follow oral and written instructions.
- 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**

**Education/Training:**

A Bachelor's degree from an accredited college or university with major course work in civil engineering, traffic engineering, or a related field.

**Experience:**

Five years of increasingly responsible and professional traffic engineering experience, with two years of experience comparable to that of an Associate Civil Engineer/Traffic with the City of Antioch.

**License or Certificate:**

Possession of an appropriate, valid driver's license.

Possession of registration as a Traffic Engineer in the State of California or if registered in another state, the ability to obtain registration as a Traffic Engineer in the State of California within one year of appointment.

Possession of registration as a Civil Engineer in the State of California is desirable.

**PHYSICAL DEMANDS AND WORKING 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.*

**Environment:** Work is performed primarily in a standard office setting with occasional exposure to an outdoor field setting and travel from site to site.

**Physical:** Primary functions require sufficient physical ability and mobility to work in an office setting; to stand or sit for prolonged periods of time; to occasionally stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate office equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; and to verbally communicate to exchange information.

FLSA: Exempt

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Created: January 2004  
Revised: September 2013

This class specification identifies the essential functions typically assigned to positions in this class. Other duties not described may be assigned to employees in order to meet changing business needs or staffing levels but will be reasonably related to an employee's position and qualifications. Other duties outside of an individual's skill level may also be assigned on a short term basis in order to provide job enrichment opportunities or to address emergency situations.