

**City of Grass Valley
JOB DESCRIPTION**



Engineering Technician

Department: Public Works Department

FLSA Status: Non-Exempt

Reports To: Senior Civil Engineer

Unit: 2 /Classified Full-Time Position

Adopted: January 26, 2010

SUMMARY OF JOB PURPOSE

Under direct supervision, the Engineering Technician assists in a variety of technical civil engineering work involving both field and office support of engineering projects; assists in the preparation of engineering sketches, exhibits, plans, maps, cost estimates and bid specifications; collaborates and confers with developers, architects and engineers; and provides support to professional engineering staff.

This classification is assigned to specific functional areas; duties and assignments may overlap depending on the operational needs of the department and staffing levels.

This is the full journey level class within the Engineering Technician series. Incumbents in this position receive instruction or assistance as new or unusual situations arise and are fully aware of the regular operating procedures and policies of the work unit. This class is distinguished from the Senior Engineering Technician in that the Engineering Technician performs the less complex technical engineering functions and has no supervisory responsibility.

SUPERVISION RECEIVED AND EXERCISED

Under the overall direction of the Public Works Director/City Engineer, direct supervision is provided by the Senior Civil Engineer. The incumbent exercises no supervisory responsibilities.

ESSENTIAL FUNCTIONS

The incumbent will, under direct and immediate supervision (listed, but not limited to):

1. Provide routine technical staff assistance on engineering projects; conduct research to determine available data; prepare preliminary designs and plans; review plans with professional engineering staff assistance;
2. Collaborate and confer with developers, architects, engineers, contractors and the general public; provide information and assistance; interpret and explain laws, codes and regulations related to development activities;
3. Maintain official maps, drawings and master plans; research material for public and staff use;
4. Perform map and improvement plan reviews and research project design requirements;
5. Prepare exhibits, maps, construction plans, specifications and as-built plans;
6. Perform technical engineering functions related to traffic, including; reviewing traffic control plans, taking traffic counts, and assisting with traffic studies;

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7. Prepare conditions of approval for development projects; review and comment on the progress of development projects;
 8. Provide responsible technical assistance to professional engineering staff on special projects, as assigned;
 9. Perform field investigations and gather data for the preparation of the design phase of in-house projects;
 10. Perform field surveying including topographic survey, lay-out and grade staking;
 11. Perform engineering calculations; prepare materials and cost estimates and review calculations of others;
 12. Participate in the reproduction of plans and the preparation, filing and retrieval of engineering maps, documents and records;
 13. Respond to inquiries from contractors, utility companies, consultants and the general public regarding City construction projects;
 14. Assist engineers in the preparation of bid specifications and construction design specifications for capital improvement projects; prepare exhibits and reports as required;
 15. Prepare and review various reports for a variety of engineering activities;
 16. Produce and plot maps, charts and related graphics for presentations;
 17. Research project files for staff and the general public; provide information on improvements, status of land divisions, easements, fees and agreements;
 18. Perform a variety of related office or field tasks to gather, analyze and record data; prepare a variety of memos, letters and other correspondence related to plan reviews;
 19. Perform plan checking including reviewing and finalizing material take-off calculations and quality assurance;
 20. Prepare and update maps consistent with project improvements; utilize specialized geographic information systems software to generate, update and maintain mapping systems as assigned;
 21. Attend meetings and seminars related to engineering as assigned;
 22. Enter and work in confined spaces;
 23. Work as a member of a team.

Knowledge of:

1. Principles of civil engineering and design;
2. Drafting techniques, terminology, methods and instruments including computer aided design (CAD) technology;
3. Materials, methods, and techniques of modern construction;
4. Engineering maps and records;
5. Construction plans and specifications;
6. Survey principles and practices;
7. Soils analysis;
8. Construction technology and inspection;
9. Customer service methods and techniques;
10. Techniques for development and maintenance of data archives and map libraries;

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11. Technical report writing techniques;
 12. Office procedures, methods, and equipment including computers and applicable software applications;
 13. Applicable laws, regulations, codes, department policies, governing assigned technical engineering duties.

Skills in:

1. Interpreting and complying with provisions of applicable codes, ordinances and regulations enforceable by the City;
2. Inspecting assigned areas for a wide variety of construction, maintenance, repair and risk management issues;
3. Applying laws, regulations, codes and departmental policies;
4. Recognizing, prioritizing and accomplishing needed tasks;
5. Researching, preparing and writing clear and concise technical reports; communicating clearly, concisely and effectively, both orally and in writing.

Ability to:

1. Perform all work and activities in a safe manner and recognize unsafe conditions including confined spaces;
2. Conduct engineering and inspection processes;
3. Operate still and video cameras for accurately recording field conditions and gathering data;
4. Read engineered plans, interpret standard drawings and specifications, survey notes, maps and reports;
5. Climb stairs and ladders;
6. Adapt to changing technologies and learn functionality of new equipment and systems;
7. Work as a team member;
8. Drive and operate standard and automatic drive motor vehicles;
9. Follow oral and written instructions;
10. Communicate clearly, concisely and effectively, both orally and in writing;
11. Maintain cooperative working relations with the general public.

QUALIFICATIONS

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, skill and/or ability required.

Education and Experience:

Any combination of education and experience that would demonstrate the knowledge, skills and abilities as outlined above is qualifying. A typical way to obtain the knowledge and skills is:

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1. To have a high school diploma or GED and college level course work in engineering, drafting or related area;
And
 2. One (1) year of increasingly responsible technical engineering experience.

Certificates, Licenses, Registrations

Must have a valid Class C California Drivers License with an acceptable driving record and pass an appropriate background check prior to hire date.

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

LANGUAGE SKILLS

Ability to read, write and communicate in English at a level required for successful job performance.

MATHEMATICAL SKILLS

Ability to use and understand basic mathematical concepts such as: adding, subtracting, multiplying, dividing, simple fractions and percentages.

REASONING ABILITY

Ability to understand and carry out instructions furnished in written, oral or diagram form; analyze and resolve problems involving circumstances and or events using standardized methods or procedures.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

While performing the duties of this job the employee is regularly required to stand, walk, sit, drive, use hands and fingers, handle or feel, reach with hands and arms, grasp, hold, and manipulate tools, and talk and hear. The employee is occasionally required to climb, balance and stoop, kneel, crouch, or crawl and must frequently lift and/or carry up to 50 pounds alone, and up to 100 pounds with assistance. Hear in the normal audio range with or without correction. Specific vision ability required by this job includes close vision, color vision, peripheral vision, depth perception and ability to adjust focus with or without ocular aids. The employee must be able to work in variable temperatures and weather conditions and have the ability and willingness to work around and to tolerate unpleasant odors and objectionable substances common to the field.

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WORKING ENVIRONMENT

While performing the duties of this job the employee is regularly exposed to outside conditions, wet and/or humid conditions, rain, snow and heat; moving mechanical parts; fumes or airborne particles and toxic or caustic chemicals. The employee is occasionally exposed to risk of electrical shock and vibration; and the noise level in the work environment is usually loud.

GENERAL

The City reserves the right to revise or change classification duties and responsibilities as the need arises. This description does not constitute a written or implied contract of employment.

I have read and understand the contents of this job description, and I have received a copy of this job description for my records.

Print Name: _____

Signature: _____

Date: _____