



ENGINEERING ASSISTANT/SENIOR ENGINEERING ASSISTANT

DEFINITION:

Dependent on department assignment, perform complex paraprofessional technical duties and support work involving current and planned development and public works projects and programs. Incumbents are responsible for the scope of work in their assigned area of discipline. Assignments include Capital Program Implementation, Construction Programs, Development Services, Public Works Projects Traffic/Transportation Engineering, Utilities Infrastructure Engineering or and Contract Management.

SUPERVISION RECEIVED AND EXERCISED:

Engineering Assistant: This is the journey-level class in this paraprofessional engineering series. Positions at this level are distinguished from the Senior Engineering Assistant level by the performance of less than the full range of highly responsible duties and essential functions assigned within this series. Engineering Assistants may also supervise staff and assist in staff training. Supervision of this position will vary depending on department assignment.

Senior Engineering Assistant: This is the advanced or senior-level class in this paraprofessional engineering series. It is distinguished from the Engineering Assistant level by the performance of the full range of duties and essential functions assigned within this series. The Senior Engineering Assistant is capable of working independently, under minimal instruction or assistance. Incumbents assigned to this class are expected to perform highly responsible and more demanding/difficult types of paraprofessional engineering support in the office and field. Senior Engineering Assistants may also supervise staff and assist in staff training. Supervision of the Senior Engineering Assistant and Engineering Assistant will vary on department assignment.

EXAMPLES OF DUTIES:

The following are typical illustrations of duties encompassed by the job class regardless of department assignment. This not an all-inclusive or limiting list:

Essential Job Functions:

- Supervise, coordinate and/or perform paraprofessional engineering work appropriate to the branch of assignment.
- Conduct or assist in the preliminary study of engineering projects and prepare and/or support the preparation of plans for public streets, water, sewer and storm improvements and other public projects.
- Prepare preliminary drawings for public works projects, tabulate field data, evaluate and modify standard specifications.
- Prepare and process contracts, payments, and other documents.

- Review plans, maps, specifications, cost estimates and other work to ensure compliance with laws, codes, standards and engineering practice.
- Confer with engineers, contractors and developers in relation to public works projects and subdivision plans, and recommend changes or modifications as necessary.
- Prepare reports and applications for State and Federal funding. Administer funding programs and projects.
- Manage Department Procurements.
- Attend public meetings and respond to public questions, concerns and complaints.
- Supervise, train, evaluate and coordinate the work of assigned subordinate staff.
- Provide technical information, assistance and support to personnel in other departments and to the public.
- Update various City maps through AutoCAD or GIS mapping.
- Maintain files and perform recordkeeping concerning parcel maps, private improvements and/or construction project records.
- Prepare written staff reports for departmental use and/or present reports to the City Council and City Commissions.
- Respond and work to resolve internal and external customer complaints, questions and concerns.
- Prepare and write specifications and technical reports.
- Evaluate technical engineering problems and make independent decisions and recommendations.
- Perform field inspections in area of assignment, which can include public infrastructure construction, utility projects, traffic designs, and other engineering projects as necessary to ensure the projects are in conformance with City policies and standards and City approved plans and specifications.
- Regular, predictable, consistent and timely attendance is an essential function of the position, in that the failure of such attendance undermines the City's ability to provide critical public services impacting public health.

The following are examples of additional responsibilities associated with specific areas of discipline assignments:

Capital Program Implementation:

- Serve as project manager for projects.
- Prepare preliminary studies, plans, specifications and estimates for capital project improvements.
- Ensure proper, timely inspection and reporting for assigned construction projects.
- Manage projects to verify contractor performance and to support contractor payment estimates, identify potential construction scheduling problems and enforce construction safety procedures.
- Assist in preparation of long-range capital improvement programs and budgets.
- Complete calculations for design, surveying and other construction work.

Construction Programs:

- Perform field inspections of public infrastructure construction (grading, street

improvements, water, sewer and storm drain) for private development and/or City projects to ensure the public works are in conformance with City policies and standards and City approved plans and specifications.

- Serve as construction manager for small projects.
- Perform or oversee materials testing, survey work and calculations.
- Perform proper, timely inspection and reporting for assigned construction projects.
- Inspect projects to verify contractor performance and to support contractor payment estimates, identify potential construction scheduling problems and enforce construction safety procedures.
- Complete calculations for surveying and other construction work.

Development Services:

- Supervise, coordinate and perform complex technical plan checks and reviews of City engineering plans, engineering reports, technical memoranda, subdivision plats, improvement drawings, assessment district plans, and maps, etc. to ensure accuracy and compliance with development conditions, municipal code provisions, City specifications, sound engineering practices and City and State policy, including parcel and subdivision criteria.
- Coordinate with other divisions and departments in the writing of conditions and agreements for land entitlements.
- Interpret and explain City policies and ordinances to the public relating to public works projects, including but not limited to roads, drainage, water, sanitary, parks, buildings and related projects.
- Prepare recommendations and Council agenda reports, resolutions and attachments, for abandonments of rights-of-way, easements, street name changes, final map approvals, Improvement Acceptance, and release of agreements, and other items related to development engineering.
- Answer inquiries by providing information shown on maps and in-office files including researching for easements, right-of-way restrictions, and other restrictions on the use of property and parcels.
- Issue and prepare permits such as public encroachments, transportation, water hydrant and grading permits including proper accountability for fees collected.
- Conduct field inspections, as necessary, to verify plan coordination with existing conditions and other requirements, including suggestions for correcting noncompliance.
- Validate engineering calculations and cost estimates.
- Represent the City with applicants and the Development community.
- Operate and modify the City's enterprise information system for various types of permits, fee collection, and record management.
- Check legal maps, parcel maps, tract maps, lot line adjustments, and easement deeds for accuracy, completion, and legal conformance.
- Determine and collect fees and bonds as required by conditions of approval.
- Prepare legal descriptions for public rights-of-way, easements, dedications, annexations and re-zonings.
- Prepare plans and legal descriptions for right-of-way acquisition.

Public Works Programs:

- Provide support to the Public Works maintenance and operations functions pertaining to streets, signs and markings, electrical services, building and fleet maintenance and other Public Works groups as assigned.
- Conduct or assist in the preliminary study of Public Works projects and prepare and/or support the preparation of plans for facilities, public streets, water, sewer and storm improvements and other public projects.
- Prepare and process contract documents, payments, and other documents. Review plans, maps, specifications, cost estimates and other work to ensure compliance with laws, codes, standards and engineering practice.
- Confer with engineers, contractors and developers in relation to public works projects and subdivision plans and recommends changes or modifications as necessary.
- Prepare reports and applications for State and Federal funding.
- Manage department procurements and contracts related to fleet and facilities, electrical, water production and distribution, storm water, sewer collection and treatment, signs and markings and streets.
- Supervise, train, evaluate and coordinate the work of assigned subordinate staff.
- Provide technical information, assistance and support to personnel in other departments and to the public.
- Develop and implement goals, objectives, policies, procedures, schedules, and work standards for the various operating groups within the Public Works Department.
- Research and analyze complex problems, evaluate varied information and data, and exercise sound independent judgment within established guidelines.
- Coordinate maintenance service programs with other City departments and with outside agencies.
- Assist in the process of identifying City-wide or Department-wide information system needs, including computer hardware/software and training programs.
- Manage contracts within the Public Works Department. This includes developing Request for Quotations (RFQ), monitoring for compliance and budget.
- Prepare and write procurement specifications and contracts.
- Serve as project manager for Public Works projects.
- Perform related duties as assigned.

Traffic / Transportation Engineering:

- Investigate concerns and complaints related to traffic safety and traffic engineering.
- Prepare preliminary studies, plans, specifications and estimates for transportation system improvements.
- Perform traffic studies and surveys, process and evaluate data and provide independent recommendations regarding results.
- Execute, maintain and update standards regarding neighborhood traffic calming.
- Investigate and provide independent recommendations for improvements to the transportation network.
- Review traffic operations and collisions and recommend corrective measures to improve traffic safety.

Utility Infrastructure Engineering:

- Monitor the production and quality of the City's water supply.

- Plan, organize, coordinate activities within water and wastewater collections departments associated with permit and compliance requirements, special studies and reporting.
- Establish regulatory compliance and related programs and priorities, direct the review and analysis of new and changing regulations.
- Interpret Federal and State regulations related to drinking water quality, and wastewater collections.
- Provide technical expertise to other environmental aspects of department operations to ensure compliance; assists to develop and update City ordinances.
- Coordinate department programs with regulatory agencies to comply with applicable regulations.
- Represent the City and works closely with regulatory agencies and public and private organizations to provide information and technical assistance to facilitate cooperative and timely resolution of issues and problems; represent the City in interactions with the public in regard to permitting and water quality issues concerning water, wastewater, and storm water.
- Understand basic chemistry as it relates to water and water quality.

QUALIFICATIONS

Engineering Assistant:

Knowledge of:

- Federal, State, City and County laws, codes and ordinances relating to City authorized construction projects.
- Current principles and practices, methods and materials of various public works projects that are managed by the City including engineering, design, construction, inspection, operations and maintenance.
- The basic principles and methods of administrative analysis and/or personnel and fiscal management.
- Principles and practices of leadership, motivation, team building and conflict resolution.
- Plan checking and review techniques.
- Engineering mathematics, information technology, drawing, drafting, and surveying.

Skill to:

- Understand, interpret, apply and comply with City Ordinances and Public Works and Community Development Department policies.
- Read and interpret plans and specifications and conduct inspections for various public works projects for determining compliance.
- Draft plans and specifications to go out to bid on Public Works projects.
- Perform a variety of paraprofessional mathematical design and engineering computations.
- Prepare and present clear, concise, and competent reports, both orally and in writing.
- Establish and maintain cooperative working relationships with co-workers and those contacted in the course of work.
- Plan, organize and administer comprehensive projects including office and field activities with in-house and contract personnel.
- Supervise, direct, coordinate, and evaluate the work of assigned personnel.

Ability to:

- Develop cooperative public relations with other City departments, developers, businesses, and the general public.

Senior Engineering Assistant:

In addition to the above qualifications for Engineering Assistant:

Knowledge of:

- As it pertains to the branch of assignment. Advanced practices and procedures for checking, reviewing and preparing designs, plans, maps, specifications, estimates, reports and studies related to Public Works.
- Knowledge of State/Federal regulations as it applies to the assigned area of expertise.
- Practices and procedures for consultant or construction contract administration.
- Recent advancements, current literature, and other sources of information regarding development, public works and/or civil engineering.
- Municipal operations as they relate to other City departments and divisions.
- Principles and practices of budgeting, personnel and program supervision and training.

Skill to:

- Use a variety of engineering tools, equipment and information from data collection, materials testing or drafting.
- Communicate persuasively, clearly and concisely, both orally and in writing.
- Present reports to Councils, Boards and staff.
- Supervise, train and evaluate assigned staff.

MINIMUM EDUCATION AND EXPERIENCE:

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:

Engineering Assistant

High School Diploma supplemented with additional college level coursework in civil engineering, construction technology, land development, project management or a closely related field from an accredited college.

Associate's Degree in a related field is highly desirable.

Senior Engineering Assistant

In addition to the above, college level coursework or certification in a related field is desirable. A Bachelor's Degree is a plus.

Experience:

Engineering Assistant

Four (4) years of increasingly responsible experience in paraprofessional engineering.

Related education beyond two (2) years of full-time college level work may be substituted on a year-for-year basis.

Senior Engineering Assistant

One year of increasingly responsible work experience comparable to an Engineering Assistant with the City of Woodland.

License and Certificates: (for both assignments)

Valid California Class "C" Driver's License, upon hire.

ADA COMPLIANCE:

Physical Ability: Positions in this class typically require climbing, balancing, stooping, kneeling, crouching, reaching, standing, walking, pushing, climbing, pulling, lifting, fingering, grasping, talking, hearing, seeing, and repetitive motions.

Light work: Positions in this class typically exerts in excess of 25 pounds of force occasionally, and/or in excess of 50 pounds of force constantly to move objects.

OTHER REQUIREMENTS:

Sensory Requirements:

Requires the ability to recognize and identify similarities and differences between shade, degree or value of colors, shapes, sounds, forms, textures or physical appearance associated with objects and people.

Environmental Factors:

May be subjected to moving mechanical parts, electrical currents, vibrations, fumes, odors, dusts, gases, poor ventilation, chemicals, oils, extreme temperatures, work space restrictions, intense noises, and environmental dangers.