

SENIOR ENGINEERING INSPECTOR

DEFINITION

Under direction, performs a variety of complex technical duties involved in visually and physically inspecting construction to ensure compliance with District approved plans and specifications; inspects the larger and most complex construction projects and facilities including water and sewer pipelines (mains, laterals, and services), water booster stations, sewage lift stations, wells, reservoirs, and related facilities, infrastructure, and assets; inspects mechanical, structural, and electrical systems as well as painting, coatings, asphalt, concrete, fencing, and landscaping; inspects backflow devices and ensures no cross connection occurs at new project sites; tests new installation of water facilities (pressure test, observe chlorination and bacteriological sample collections) and sewer facilities (observe air test, mandrel test, cleaning and video); and performs related duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisory or management personnel. Exercises no direct supervision over staff.

CLASS CHARACTERISTICS

This is the advanced journey-level classification in the Engineering Inspector series. Incumbents work under direction and exercise a higher level of discretion and independent judgment in performing the full range of technical and complex inspection tasks of a specialized nature to support the work of the Engineering and Water Resources Department. Work requires in-depth knowledge of District functions, and specialized knowledge of the technical aspects of inspection including policies, procedures, rules, and regulations applicable to the construction of water and wastewater facilities, infrastructure, and assets. Assignments are given with general guidelines and incumbents are responsible for establishing objectives, timelines, and methods to deliver work products or services. Work is typically reviewed upon completion for soundness, appropriateness, and conformity to policy and requirements.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the typical functions of the job.

- Visually and physically inspects complex construction to ensure developers and contractors are in compliance with District approved plans and specifications, District standards, and Occupational Safety and Health Administration (OSHA) regulations; reports practices that violate or may violate state, county, or District safety standards, including confined space entry procedures.
- Writes daily reports noting the progress of work performed as well as workforce used, equipment used, weather conditions, and any problems or unusual field conditions or events that occur.
- Participates in pre-construction meetings with developers and contractors to provide information related to District procedures; reviews plans prior to project start; meets with and/or responds to inquiries from developers or contractors during the life of the project;

conducts daily inspections and site checks; maintains up-to-date as-builts throughout the project.

- Coordinates with city and county inspectors to determine specific requirements for each project including permits, traffic control, repairs, and backfill compaction requirements; coordinates with city, county, state, and associated agencies to ensure compliance with requirements, regulations, standards, and permits.
- Coordinates and directs consultant inspectors on all testing required by the District including backfill compaction, hydro-static test, air-test, welding, asphalt, concrete, chlorination, bac-t sampling and backflow testing.
- Reviews and provides comments on submittals supplied by contractors including plan check submittals for development projects; ensures materials meet District standards and inspects material upon receipt.
- Schedules and coordinates tie-ins of new and existing water and sewer lines; coordinates with Operations Department before and during shutdown; ensures that all materials needed are on the job site before shutdowns take place; performs field test including to pull bac-t samples.
- Inspects all new backflow devices installed for new developments; ensures that proper backflow protection is in place after hydrant meters are installed on job sites; inspects meter boxes and releases meters for installation.
- Serves as liaison between the District and outside contractors on large or specialized construction projects.
- Participates in reviewing and providing comments on capital improvement projects and interagency projects; provides inspection services as requested.
- Reads, understands, and ensures compliance with the District's Safety Manual; attends safety meetings, as required; reports all accidents, violations, or infractions as required.
- May plan, lead, and review the work of staff responsible for performing construction inspections; motivates team and individual performance; provides training to assigned staff in conducting inspections of complex facilities and projects.
- Assists in developing and revising inspection work processes; promotes and ensures a high performance, customer service-oriented work environment which supports achieving the Department's and the District's mission, strategic plan, goals, and objectives.
- Performs related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Operations, services, and activities of a construction inspection program.
- Modern construction principles, practices, and terminology.
- Materials, methods, and techniques used in the inspection of construction projects.
- Operating characteristics of construction and construction inspection tools and equipment.
- Excavating and backfilling operations.
- Water and sewer systems including maintenance and repair typically performed on water, wastewater, and recycled water systems.
- Principles and practices of engineering as applied to construction inspection.
- Advanced methods and techniques of detecting construction defects and faults.
- Methods and techniques of construction plan and specification review for compliance with established construction standards.
- The organization and operation of the District and of outside agencies as necessary to assume assigned responsibilities
- Principles of providing functional direction and training.
- Mathematic principles.

- District and mandated safety rules, regulations, and protocols, occupational hazards, and standard safety precautions including working knowledge of current confined space entry and trench shoring regulations.
- Principles of record keeping and report preparation.
- Applicable federal, state, and local laws, rules, regulations, and procedures relevant to assigned function.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language to effectively perform the work.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Lead and conduct technical inspections on a variety of complex construction projects utilizing advanced knowledge and following proper inspection techniques.
- Determine the stage of construction during which defects are most easily found and remedied.
- Detect and locate faulty materials and poor work quality and document findings.
- Ensure construction is in compliance with established regulations.
- Read, understand, and interpret construction plans, standard specifications and drawings, blueprints, and related documents.
- Safely and effectively operate a variety of construction inspection equipment.
- Understand, interpret, explain, and apply all pertinent laws, codes, and ordinances and District policies, procedures, and work standards relevant to work performed.
- Effectively represent the District to outside individuals and agencies to accomplish the goals and objectives of the unit.
- Perform mathematical calculations.
- Comply with District and mandated safety rules, regulations, and protocols.
- Prepare and maintain technical reports, accurate logs, records, and clear and concise written reports of work performed.
- Plan, organize, and coordinate the work of assigned staff.
- Effectively provide staff leadership and work direction.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy and procedural guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Education:

Equivalent to the completion of the twelfth (12th) grade supplemented by vocational/technical training in construction management, water utility construction inspection, or a related field.

Experience:

- Six (6) years of experience in utility construction/maintenance or inspection experience.

Licenses and Certifications:

- Possession of, and ability to maintain, California Class C driver's license.
- Possession of a valid Grade T1 Water Treatment certificate or D2 Water Distribution certificate issued by the California State Water Resources Control Board, to be maintained throughout employment.

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

Indoor and outdoor environments; travel from site to site; exposure to noise, dust, grease, smoke, fumes, gases, electrical currents, toxic agents/chemicals, and inclement weather conditions; work with or in water; work and/or walk on various types of surfaces including slippery or uneven surfaces and rough terrain; regularly work near moving mechanical parts; and work around moderately loud noise levels.

PHYSICAL

- Level Two
- Pulmonary

Incumbents require sufficient mobility to work in an office and field setting; stand, stoop, reach, bend, kneel, squat, and walk on uneven terrain, loose soil and sloped surfaces; reach and twist; push, pull, lift, and/or carry moderate amounts of weights; operate assigned equipment and vehicles; requires a sense of touch, finger dexterity, and gripping with hands and fingers; ability to verbally communicate to exchange information.

VISION

See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

HEARING

Hear in the normal audio range with or without correction.

ADDITIONAL REQUIREMENTS

Incumbents may be required to work evenings, nights, and weekends.