APPROVED BY: THE CHIEF ADMINISTRATIVE OFFICER

EFFECTIVE: November 2025

ASSISTANT ENGINEER I/II - CIVIL

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.

DEFINITION

Under direct or general supervision, performs civil engineering assignments in support of the planning, design, construction, implementation, operation, and maintenance of the District's facilities and systems including, but not limited to, conducting engineering studies and preparing and reviewing reports, designs, and construction plans and specifications; provides engineering, hydrogeologic, and scientific support in the management of the District's water supply; manages small engineering projects and/or manages a specific phase (planning, design, or construction) of a larger engineering project; and performs a variety of tasks relative to assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

Assistant Engineer I - Civil

This is the entry-level within the professional engineering class series. Initially under direct supervision, incumbents learn to apply concepts in engineering, water resource management and planning, economic and/or environmental compliance to resolve problems. Positions exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise. As experience is gained, assignments become more varied and are performed with greater independence.

Assistant Engineer II - Civil

This is the experienced-level within the professional engineering class series It is distinguished by incumbents possessing some experience in performing engineering work; however, incumbents do not possess and exercise the full breadth and depth of knowledge and ability of the Associate Engineer class. Incumbents manage engineering projects of a smaller scope, size, budget, duration, and complexity and/or a specific phase (planning, design, or construction) of a larger project under the guidance of a higher-level engineer. Incumbents use

judgment and decision-making authority in identifying, evaluating, adapting, and applying appropriate engineering concepts, guidelines, references, and procedures to resolve moderate to complex problems under the guidance of a more experienced staff member.

The Assistant Engineer II – Civil is distinguished from the Associate Engineer - Civil in that the latter independently manages projects through all phases (planning, design, construction, and close-out), possesses and applies technical competence in one or more fields/specialties of engineering, and/or provides lead direction or full supervision to less experienced engineering staff on an on-going or project basis.

Positions in the Assistant Engineer I and II – Civil classifications are flexibly staffed so that positions at the II-level are filled by advancement after two (2) years of performing professional-level engineering work. Advancement however, is at the discretion of management and is dependent on demonstrating possession of the knowledge, ability, and certification requirements of the higher-level class.

SUPERVISION RECEIVED AND EXERCISED

Assistant Engineer I – Civil

Receives direct supervision from assigned supervisory and managerial staff. Employees within this class work in the presence of the supervisor or in a situation of close control and easy reference. Work assignments are given with explicit instructions or are so routine that few, if any, deviations from established practices are made without checking with the supervisor.

Assistant Engineer II - Civil

Receives general supervision from assigned supervisory and managerial staff. Employees within this class have assigned duties that require the exercise of judgment or choice among possible actions, sometimes without clear precedents and with concern for the consequences of the action. Employees may or may not work in proximity to their supervisor.

May provide lead direction on an on-going or project basis.

TYPICAL DUTIES

The duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this position. Management reserves the right to add, modify, change, or rescind the work assignments of different positions.

1. Conduct engineering studies, investigations, and analyses regarding issues such as the environmental, hydraulic, geotechnical, seismic, hydrologic, geomorphic, water quality, and treatment process aspects of water supply and flood control facilities and sites and water supply planning, numerical modeling and analysis, forecasting and risk analysis, hydrogeological studies, feasibility studies, water resources systems simulations, water quality and chemistry studies, financial analyses and pricing scenarios, and other statistical analysis; apply engineering principles and practices to varied problems, such

as infrastructure fragility and vulnerability analyses, condition assessments, feasibility reports, event incident/root cause analysis, and testing for system deficiencies, code non-compliance conditions, and system/structural anomalies; prepare engineering calculations; research, collect, and analyze engineering data, statistics, and surveys.

2. Provide technical support in all phases of engineering projects including planning, design, construction, and close-out; learn and perform basic project management activities, including developing requests for proposals, cost estimates, work plans, budgets, schedules, and baseline requirements and contract negotiations and management.

3. Prepare engineering specifications, drawings, sketches, and other supporting documentation for proposed engineering projects; review drawings, plans, and other work submitted by external consultants, engineers, contractors, and developers for conformance with professional codes, standards, and District specifications; prepare technical and administrative correspondence and reports.

4. Provide support to District construction projects, including inspecting contractor installations, reviewing design changes, submittals, and requests for information from contractors, interpreting contract documents, and assisting in negotiating and approving change orders and claims.

5. Prepare technical reports documentation regarding engineering-related issues.

6. Participate in the initiation of solicitations, including requests for proposals to provide materials and services; participate in the evaluation of submittals; assist in negotiation and execution of contracts; prepare Board Agenda items for contract approval; assist in administering and managing contracts ensuring compliance with all requirements.

7. Participate in the preparation and negotiation of water supply contracts, imported water delivery schedules, construction plans, designs, and specifications, and other agreements related to assigned projects and programs.

8. Coordinate regulatory, environmental, and/or construction permit activities and processes within the District and with outside agencies.

9. Prepare procurement specifications for systems and equipment; review and comment on vendor designs and drawings to ensure compliance with District standards and specifications; resolve vendor problems; participate in the evaluation, testing, and selection of vendor products; inspect purchased equipment to ensure compliance with specifications.

10. Register, classify, and create preventive maintenance plan, perform risk assessment, and provide replacement cost and cycles for assets.

11. Prepare and negotiate water supply contracts, imported water delivery schedules, construction plans, designs, and specifications, and other agreements related to assigned projects and programs.

12. Prepare and review technical and regulatory reports regarding issues such as water supply operations and management, groundwater monitoring, contamination, and

protection, surface water and groundwater quality, National Pollutant Discharge Elimination Systems (NPDES) permit compliance, and long-term water supply modeling and analysis.

13. Develop and review staff reports related to water resources projects and programs; present to various commissions, committees, and boards; may present information to the Board of Directors.

14. Develop and maintain various databases and computer files and use specialized engineering software.

15. Meet with water suppliers and retailers, contractors, engineers, developers, architects, a variety of outside agencies, and the general public in acquiring information and coordinating engineering matters.

16. Attend and participate in professional group meetings; stay abreast of and interpret new trends, laws, regulations, technology, and innovations in the related field of engineering and their impact on the District; develop and recommend compliance strategies.

17. Pursuant to California Government Code Section 3100, all public employees are required to serve as disaster service workers subject to such disaster service activities as may be assigned to them by their supervisors or by law.

18. Employees have a responsibility for safety; for following safety regulations and safety policies and procedures applicable to their work.

19. Perform related duties and responsibilities as required.

In addition to above, Assistant Engineer II - Civil performs the following duties:

20. Manage small engineering projects and/or manage a specific phase of a larger engineering project such as planning, design, or construction and implementation; develop work plans consisting of mission, objectives, scope of work, budget, schedules, and baseline requirements; identify issues, recommend solutions, and under guidance of higher-level staff, implement solutions to manage risks and issues.

QUALIFICATIONS

The level and scope of the knowledge, skills and abilities listed in this section are related to the job duties as defined under Distinguishing Characteristics.

Assistant Engineer I - Civil

Knowledge of:

Principles, practices, concepts, and standards of engineering as applied to assigned field/specialty of engineering.
Principles, practices, concepts, and standards of water resources management, natural resource management, engineering, hydrogeology, geology, hydrology, hydraulics, and/or environmental sciences.

Principles and practices of numerical modeling and analysis, forecasting and risk analysis, and statistical analysis.
Principles, practices, theories, and methods of water supply planning, operations, and management, groundwater monitoring, contamination, and protection, water quality, and long-term water supply modeling and analysis.
Principles of mathematics and its application to engineering work.
Practices of researching engineering and design issues, evaluating alternatives, making sound recommendations, and preparing and presenting effective and technical reports.
Office practices, methods, and computer equipment and applications related to the work.
English usage, grammar, spelling, vocabulary, and punctuation.
Principles and techniques for providing customer service by effectively dealing with the public, vendors, contractors, and District staff.
Each employee shall possess a reasonable understanding of their roles and responsibilities as defined in the District's Injury and Illness Prevention Program.

Ability to:

Apply engineering principles, practices, concepts, and standards to engineering problems.
Apply water resources principles, practices, concepts, and standards to water supply planning, operations, and management, groundwater monitoring, contamination, and protection, and water quality problems.
Prepare, understand, and interpret construction plans, specifications, drawings, and other engineering documents.
Perform engineering and statistical calculations.
Analyze, interpret, summarize, and present technical engineering information and data in an effective manner.
Learn to independently conduct comprehensive engineering studies, investigations, and analyses.
Learn, interpret, apply, explain, and ensure compliance with applicable federal, state, and local policies, procedures, laws, and regulations, and District engineering policies and procedures.
Learn to conduct engineering research projects, evaluate alternatives, make sound recommendations, and prepare effective technical reports.
Use office equipment including computer equipment and specialized software applications programs.
Prepare clear and concise reports, correspondence, and other written materials.
Communicate clearly and concisely, both orally and in writing.
Effectively represent the unit and the District in meetings with contractors, engineers, developers, architects, a variety of outside agencies, and the general public.
Organize and prioritize multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
Make sound, independent decisions within established policy and procedural guidelines, and best engineering practices.
Establish and maintain effective working relationships with those contacted in the course of work.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Graduation from an accredited four-year college or university with major coursework in civil engineering or a field related to assigned functional area(s).

OR

Possession of a valid California Engineer-in-Training (EIT) Certificate with two (2) years of associated paraprofessional engineering experience.

Experience

None.

License or Certificate

Possession of a valid California Driver's License and a satisfactory driving record may be required at the time of appointment and as a condition of continued employment, but only when driving is an essential function of the position. If the Driver's License requirement applies to a particular classification, it will be clearly stated in the job posting.

Assistant Engineer II – Civil

In addition to the qualifications for the Assistant Engineer I – Civil:

Knowledge of:

Principles and practices of project budgeting, cost estimation, funding, project management, and contract administration.
Recent and on-going engineering related developments, including information technology, current literature, and sources of information related to the operations of assigned area of responsibility.
Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.

Ability to:

Independently conduct comprehensive engineering studies, investigations, and analyses.
Interpret, apply, explain, and ensure compliance with applicable federal, state, and local policies, procedures, laws, and regulations, and District engineering policies and procedures.
Conduct engineering research projects, evaluate alternatives, make sound recommendations, and prepare effective technical reports.

Training and Experience Guidelines

The following combination represents the minimum training and experience requirements for this classification:

Training

Graduation from an accredited four-year college or university with major coursework in civil engineering or a field related to assigned functional area(s).

OR

Possession of a valid California Engineer-in-Training (EIT) Certificate with two (2) years of associated paraprofessional engineering experience.

Experience

Two (2) years of professional engineering experience.

License or Certificate

Possession of a valid California Driver's License and a satisfactory driving record may be required at the time of appointment and as a condition of continued employment, but only when driving is an essential function of the position. If the Driver's License requirement applies to a particular classification, it will be clearly stated in the job posting.

Some Assistant Engineer II - Civil positions may require registration with the State of California as a Professional Engineer (PE).

WORKING CONDITIONS

Environmental Conditions

Office and field environment; some positions require frequent field visits or occasional field assignments; travel from site to site; work closely with others or alone; exposure to electrical and radiant energy; irregular work hours including overtime and possible rotating shifts; some positions may involve exposure to inclement weather; heat, cold, dampness, chilling and dry atmospheric conditions; uneven terrain; slippery surfaces; work in confined spaces; work at elevated heights, work with machinery; work around moving vehicles and around high traffic; exposure to biohazards; dirt, dust, fumes, vapors, smoke, gases, noise, poison oak, chemicals, biological and chemical contaminants, wildlife, and other conditions associated with construction sites, water treatment plants and urban and remote field conditions.

Physical Conditions

Essential and other important functions may require maintaining physical condition necessary for walking, standing or sitting for extended periods of time; audiovisual acuity; manual dexterity; moderate lifting; operating motorized equipment and vehicles, walking on uneven surfaces including hard terrains, uneven slopes, and inclined surfaces; stooping, pushing, pulling, squatting, crawling, twisting, kneeling, climbing, and bending at neck and waist; simple grasping; fine manipulation; power grasping; work above and below shoulder and in awkward positions.

CLASS LEGEND

Established Date:		
Employee Groups:	ES	
Revisions Dates:	1/2018, 5/2019, 11/2025	
FLSA Status:	Non-Exempt	
	Current	Previous
Class Code:	ED1/2	
Series Code:	2EC	
Family Code:	E01	
Previous Titles:	N/A	Assistant Engineer I/II (Civil)
Analyst:	FD	