

## CITY OF QUINCY

### CLASS SPECIFICATION

**CLASS TITLE:** CITY ENGINEER

**DEFINITION:**

This is a non-union, Fair Labor Standards Act exempt position responsible for performing a variety of professional engineering duties supporting the construction of public works projects; designing, preparing or reviewing projects for the development of City infrastructure to ensure compliance and compatibility with existing systems and applicable codes, standards, specifications and practices; conducting various field inspections and plan reviews to ensure compliance with applicable engineering and City standards; providing assistance and information to contractors, engineering professionals and the general public; and performing related work as required under the direction of the City Administrator.

**TYPICAL TASKS:**

1. Prepare bid documents, contract documents, specifications, cost estimates and engineering drawings for assigned projects; oversee the work of engineering consultants contracted to design public works projects; review engineering cost estimates for project development; coordinate meetings and construction activities with contractors, local utility companies, public agencies and various City Departments.
2. Research to determine funding source availability for capital projects, including agency grants, city funds, and Local Improvements Districts.
3. Participate in project bid opening and award process. Prepare Notice of Award, Notice to Proceed and Notice of Completion letters to contractors and State agencies as required.
4. Provide project coordination and administration functions; conduct preconstruction meetings with developers, contractors and City personnel; establish guidelines and special conditions for construction projects within limits of codes and regulations; review construction schedules and project management submissions.
5. Manage projects through construction phases to completion; administer field inspections of public works projects in progress to ensure compliance with bid specifications and applicable laws and codes; ensure project costs are within budgets.

6. Review plat submissions, construction drawings, engineering plans, specifications and professional reports for compliance with engineering and construction standards; work with developers and contractors to ensure development projects comply with City Codes, standards and practices.
7. Participate in technical plan reviews and the review of land applications as assigned; assist in analysis of designs and drawings to ensure compliance with City Codes and policies; provide for inspection of subdivisions for final acceptance.
8. Administer the maintenance and updating of comprehensive utility plans; evaluate projected utility and transportation needs of future development to ensure infrastructure will be able to accommodate City growth.
9. Review engineering plans and SEP A submissions to ensure compatibility with existing systems and compliance with City standards and Comprehensive Plan.
10. Respond to questions and inquiries from contractors, engineering professionals and the general public; review and respond to public requests and/or complaints; investigate issues involved and recommend appropriate action.
11. Prepare and maintain financial records used to verify accuracy of billing invoices relative to public works projects received from consultants and contractors; regularly update status of project budgets; prepare and file expenditure and progress reports; review and approve invoices for payment within established timelines
12. Prepare and maintain all office and engineering records and reports related to civil engineering projects and activities; assist in the preparation and updating of annual reports and budgets.
13. Assist in the acquisition of rights-of-way and easements; meet with the public on related issues and negotiate costs for council approval.

#### EDUCATION /EXPERIENCE:

1. Equivalent to a Bachelors degree from an accredited college or university with major course work in civil engineering or a related field is required.
2. Two years of professional engineering experience is required.

#### QUALIFICATIONS:

##### Knowledge of:

1. Principles and practices of project management and administration.
2. Methods and techniques of contract negotiation.

3. Advanced mathematical principles as applied to engineering design.
4. Principles and practices of civil engineering.
5. Methods and techniques of conducting field inspections.
6. Methods, techniques, tools and equipment used in the construction of public works projects.
7. Principles of business letter writing and basic report preparation.
8. Pertinent Federal, State and local laws, codes and regulations.
9. Funding sources available for public works projects.

Ability to:

1. Perform routine field inspections and plan reviews.
2. Inspect public works projects for conformance with plans and specifications.
3. Read, interpret and correct engineering plans, specifications and drawings for compliance with applicable standards.
4. Prepare clear and concise reports.
5. Design projects using current computer programs and software applications.
6. Interpret and apply applicable Federal, State and local laws, codes and regulations.
7. Operate a variety of office equipment in an effective manner.
8. Communicate clearly and concisely, both orally and in writing.
9. Assume management responsibility for assigned engineering projects.
10. Participate in project coordination and administration functions.
11. Prepare bid documents, contract documents, specifications, cost estimates and engineering drawings.

PHYSICAL DEMANDS:

1. ENDURANCE-MOVING ABOUT: Constantly (2/3 or more of the time). Move from location to location.
2. ENDURANCE-OVERALL STRENGTH: Medium work. Exerts force and/or lifts or carries objects weighing up to 100 pounds rarely, 25 to 50 occasionally, and/or 10 to 20 pounds constantly.

3. WALKING: Occasionally. Move about on foot.
4. SITTING: Frequently (1/3 to 2/3 of the time). Remain in a seated position.
5. LIFTING/CARRYING: Periodic – Does not occur on every shift. Lift by manually raising or lowering an object from one level to another (including upward pulling), and/or carry (transport) an object, usually holding it in the hands or arms, or on the shoulder.
6. PUSHING/PULLING: Periodic – Does not occur on every shift. Push by exerting force on an object so that it moves away from the force of worker (including slapping, striking, kicking, and treadle action); and/or pull by exerting force on an object so that it moves toward the force of worker (including jerking).
7. CONTROLS: Frequently (1/3 to 2/3 of the time). Use one or both arms and/or hands and/or one or both feet or legs to move controls on machinery or equipment.
8. CLIMBING: Frequently (1/3 to 2/3 of the time). Ascend or descend ladders, stairs, scaffolding, ramps, poles, ropes, and the like using the feet and legs and/or hands and arms.
9. BALANCING: Occasionally (up to 1/3 of the time). Maintain body equilibrium to prevent falling when walking, standing, crouching, or running on narrow, slippery, or erratically moving surfaces.
10. BENDING/STOOPING: Occasionally (up to 1/3 of the time). Stoop by bending the body downward or forward by flexing the spine at the waist, and/or bend by extending the spine backward or from side to side.
11. KNEELING/CROUCHING: Occasionally (up to 1/3 of the time). Kneel by bending the legs at the knees to come to rest on the knee or knees, and/or crouch by bending the body downward and forward by bending the legs and spine.
12. REACHING: Frequently (1/3 to 2/3 of the time). Extend the hands and arms in any direction.
13. HANDLING: Frequently (1/3 to 2/3 of the time). Seize, hold, grasp, turn, or otherwise work with the hand or hands.
14. ROTATION: Frequently (1/3 to 2/3 of the time). Twist and turn the spine or a ball and socket joint such as the shoulder or hip.

15. TALKING: Constantly (2/3 or more of the time). Express or exchange ideas by means of the spoken work to impart oral information to clients or to the public and convey detailed spoken instructions to other workers accurately, loudly, or quickly.
16. HEARING: Constantly (2/3 or more of the time). Perceive the nature of sounds by the ear and understand verbal communications from others.
17. SEEING: Constantly (2/3 or more of the time). Obtain impressions through the eyes of the shape, size, distance, motion, color, or other characteristics of objects.

SPECIALIZED DEMANDS:

1. DRIVING: Occasionally (up to 1/3 of the time). A current, valid, and properly classed driver's license is required; driving record must, for a period of three years immediately preceding employment or any date during employment thereafter, be free of any violation for: 1) reckless driving, 2) hit and run, 3) driving under the influence of alcohol or drugs, or 4) more than three moving violations of any other type. Operate motor vehicle, as in a car, van, or truck in the course of one's employment.
2. VIDEO DISPLAY TERMINALS: Frequently (1/3 to 2/3 of the time). Read, enter, change, or obtain information from a monochrome or color video display terminal (computer).
3. KEYBOARDS: Frequently (1/3 to 2/3 of the time). Enter and/or manipulate data on computer keyboards. Keyboards may include keys that have an identical image to the key punched (as in ordinary alpha/numeric personal computer keyboards), or may utilize various symbols to relate or describe items entered.

ENVIRONMENTAL CONDITIONS:

1. LOCATION: Both inside and outside. Work time is predominantly spent inside (where there is protection from weather, but not necessarily from temperature changes) but it is occasionally necessary to move outside (where there is no effective protection from weather) for inspection of progress of work. May be outside for an entire shift during summer or winter times.

2. STAIRS/STEPS: Frequently (1/3 to 2/3 of the time). Ascend or descend stairs, steps, or similar uneven surfaces to access any required work area or other area related to functioning in the workplace.
3. EXTREME COLD: Periodic - Does not occur on every shift. Endure temperature(s) sufficiently low to cause marked bodily discomfort unless exceptional protection is used.
4. EXTREME HEAT: Periodic - Does not occur on every shift. Endure temperature(s) sufficiently high to cause marked bodily discomfort unless exceptional protection is used.
5. WET CONDITIONS: Periodic - Does not occur on every shift. Endure contact with water or other liquids.
6. NOISE/VIBRATION: Frequently (1/3 to 2/3 of the time). Endure sufficient noise, either constant or intermittent, to cause marked distraction or possible injury to the sense of hearing, and/or sufficient vibration (production of an oscillating movement or strain on the body or its extremities from repeated motion or shock) to cause bodily harm if endured day after day.
7. UNIQUE HAZARDS: Frequently (1/3 to 2/3 of the time). Endure situations in which there is exposure to the definite risk of bodily injury, including atmospheric conditions; proximity to moving mechanical parts; exposure to electrical shock; work in high, exposed places; exposure to radiation; working with explosives; or other unique environmental conditions.

#### LEARNING DEVELOPMENT DEMANDS:

1. REASONING: Elevated. Apply principles of logical or scientific thinking to define problems, collect data, establish facts, and draw valid conclusions; interpret an extensive variety of technical instructions in mathematical or diagrammatic form; deal with several abstract and concrete variables.
2. MATHEMATICAL: Intermediate. Deal with algebraic systems of real numbers; linear, quadratic, rational, exponential, logarithmic, angle and circular functions, and inverse functions; related algebraic solutions of equations and inequalities; limits and continuity, probability, and statistical inference. Apply deductive axiomatic geometry, plan and solid; and rectangular coordinates. Use practical application of fractions, percentages, ratio and

proportion, logarithms, practical algebra, geometric construction, and essentials or trigonometry.

3. **READING:** Elevated. Read literature, technical material and journals, financial reports, and legal documents.
4. **WRITING:** Intermediate. Prepare business letters, expositions, summaries, and reports, using prescribed format and conforming to all rules of punctuation, grammar, diction, and style.
5. **SPEAKING:** General. Speak before groups with poise, voice control, and confidence, using correct English and well-modulated voice.

#### TEMPERAMENT REQUIREMENTS:

1. **DIRECTING/CONTROLLING:** Accept responsibility for formulating plans, designs, practices, policies, methods, regulations, and procedures for operations or projects; negotiate with individuals or groups for agreements or contracts; and supervise subordinate workers to implement plans and control activities.
2. **INFLUENCING:** Write, demonstrate, or speak to persuade and motivate people to change their attitudes or opinions, participate in a particular activity, or purchase a specific commodity or service.
3. **VARIATION:** Make frequent changes of tasks involving different aptitudes, technologies, techniques, procedures, working conditions, physical demands, or degrees of attentiveness without loss of efficiency or composure.
4. **ELEVATED STRESS:** Cope with circumstances exasperating to self or others; meet deadlines; and work around or within non- or inferior performance by others.
5. **INTERPERSONAL:** Demonstrate willingness to allow interpersonal relationships in job situations beyond receiving work instructions. Demonstrate ability to supervise construction projects and make contractors live up to their agreements.
6. **DECISIVE:** Solve problems, make evaluations, or reach conclusions based on subjective or objective criteria, such as the five senses, knowledge, past experiences, or quantifiable or factual data.

RELATIONSHIP REQUIREMENTS:

1. DATA: Coordinating - Determine time, place, and sequence of operations or action to be taken on the basis of analysis of data; execute determinations and/or reports on events.
2. PEOPLE: Supervising - Determine or interpret work procedures for a group of workers, assigned specific duties to them, maintaining harmonious relations among them, and promoting efficiency.
3. THINGS (EQUIPMENT/MACHINERY): Precision Working - Use body members and/or tools or work aids to work, move, guide, or place objects or materials in situations where ultimate responsibility for the attainment of standards occurs and selection of appropriate tools, objects, or materials, and the adjustment of the tool to the task required.

OTHER:

1. This job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

The City of Quincy is an Equal Opportunity Employer.