



City of Irving Job Description

Civil Engineer

FLSA Status:	EXEMPT	Job Department:	Capital Improvement Program (CIP)
Job Code:	34211	Reports To (Job Title):	City Engineer or Engineering Manager

PURPOSE

To support senior staff with engineering design, technical documentation, and project management of in-house public works assignments and perform a variety of technical tasks relative to assigned area of responsibility.

ESSENTIAL DUTIES AND RESPONSIBILITIES

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily.*

- Serve in the role of a design engineer, project manager, and construction manager for CIP projects.
- Prepare and design project contracts and drawings for a variety of capital improvement projects including water, wastewater, paving, and drainage plans.
- Manage the construction phase of capital improvement projects, including the review of monthly estimates and writing & negotiating change orders with assistance from the Engineering Inspectors.
- Conduct pre-bidders' meetings to provide answers about construction sequencing, working day assessment, construction safety, and allowable construction materials.
- Train and direct engineering staff in research, drafting and design.
- Assist the general public and private contractors with questions and comments.
- Review, recommends and makes field changes to plans.
- Use GIS system to retrieve utility and property information.
- Prepare contract specifications for the CIP Department.
- Organize and conduct meetings with various agencies, contractors, and clients.
- Identify needs for additional right-of-way or easements for projects.
- Manage multiple aspects of the construction process, including citizen inquiries, the relocation of utilities, investigating problems in the field, and negotiating prices with engineers and contractors for additional services.
- Perform related duties as assigned.

OTHER DUTIES AND RESPONSIBILITIES

- Represent the CIP Department in meetings with residents and governmental agencies.

SUPERVISORY RESPONSIBILITIES

Functional and Technical Supervision - Regular responsibility for giving direction and guidance to employees as a lead worker, project manager or internal advisor. As an ongoing part of the position, the employee can expect to supervise approximately 12-25 employees.

FINANCIAL / BUDGETARY RESPONSIBILITY

Administers monthly pay estimates during construction phase of projects. Responsible for estimating proposed construction costs. Monitors and evaluates project budgets during design.

QUALIFICATIONS:

The requirements listed below are representative of the knowledge, skill, and/or ability required.*

EDUCATION

- Civil Engineering Bachelor's degree (B.S.) from accredited four year college or university.

EXPERIENCE

- Three (3) years of civil engineering experience.

CERTIFICATES, LICENSES, REGISTRATIONS

- Appropriate, valid, state-issued driver's license.
- Texas Professional Engineering License.

KNOWLEDGE OF

- Design: Design techniques, principles of surveying, tools, and instruments involved in the production and use of precision technical plans, blueprints, drawings, and models. General understanding of project budgeting.
- Building and Construction: Materials, methods, laws and the appropriate tools to construct objects, utility systems, structures, and buildings.
- Computers and Electronics: Computer hardware and software including applications and programming, especially CAD and other technical design related programs.
- Regulations: Federal, state, and municipal restrictions, laws, and ordinances that govern the planning and ongoing management of a project.
- Construction Contract Management: The principles involved in managing projects such as: bidding, Requests For Information, shop drawings, negotiating change orders with contractors and document field changes.

SKILLS AND ABILITIES IN

- System Analysis: Determining how a system should function and how changes in conditions, operations, and the environment will affect outcomes.
- System Evaluation: Identifying measures or indicators of system performance and the actions needed to improve or correct performance relative to the goals of the system.
- System Perception: Discerning when important changes have occurred or likely will in a system.
- Management of Material Resources: Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work.
- Interactive Presentation: Effectively presenting information and responding to questions in writing or orally to various groups ranging from directors, to managers, to technical and non-technical staff to the general public.
- Analysis & Complex Problem-Solving: Applying advanced mathematical concepts, analyzing very complex problems, identifying alternate solutions, projecting consequences of proposed actions and implementing recommendations in support of goals.

GUIDANCE RECEIVED

Accepted Methods and Procedures

Broad supervisory direction, seasoned knowledge, accepted methods and procedures, and stated policies guide completion of assignments and decisions made. Makes recommendations to superiors about moderately complex issues and procedural changes.

CONTACTS

Frequently, this position interacts with Water Utilities, Traffic, Parks & Recreation, Police, Fire, Code Enforcement, Building Inspections, Real Estate Services, and Information Technology. Often, it will engage with outside agencies such as Dallas County, DART, TxDOT, flood control districts, Trinity Railway Express, franchise utilities, engineering firms, adjacent cities, neighborhood and homeowners' associations, and residents.

EQUIPMENT AND PROPERTY

This position utilizes computers, plotters, fax, printers, an automobile and a calculator.

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.*

The employee constantly is required to listen, see, stand, talk, and/or walk. Frequently, s/he is required to sit. Occasionally, s/he is required to carry, drive a vehicle, reach, stoop, and/or lift up to 50 pounds. Rarely, s/he is required to balance, kneel, pull, push, and/or smell.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.*

The employee occasionally is exposed to moving mechanical parts; high, precarious places; and extreme temperatures or weather conditions. The noise level in the work environment is usually moderate.

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

Note: A class specification is a general listing of duties, responsibilities, knowledge, skills, and abilities required of an incumbent assigned to a particular class of work. There may be one or multiple positions assigned to a single classification; therefore, the class specification lists those work attributes that are common to every incumbent in the class.