

## ENGINEERING TECHNICIAN

*Department: DPW*  
*Division: Engineering*  
*Appointing Authority: DPW Director*

*Grade: S4*  
*Date: 11/19*  
*Bargaining Unit: S*

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### **Definition:**

Responsible for performance of technical duties and functions in support of engineering work activities and operations of the Engineering Division, including surveying, drafting and inspection of construction projects; assists with design contract preparation and contract administration of the City's construction and maintenance projects; maintenance of departmental records and files; administrative functions; all other work that is logical to the position as required.

### **Supervision:**

Works under the general direction and supervision of the Engineering Superintendent. Plans and arranges work load, referring unusual matters to supervisor. Works within established policies and under the general policy direction of the Engineering Superintendent.

Performs limited direct supervisory duties.

### **Environment:**

Duties are performed under typical office conditions, operates standard office equipment; field work may involve inspection or on-site visits to land use developments, construction sites, or public works facilities. Noise level is usually quiet to moderate.

Performs varied and responsible tasks and functions requiring semi-autonomous and independent judgment to ensure compliance with applicable laws, regulations, and departmental policies.

Has occasional or frequent contact with employees, departments, elected and appointed officials, citizen or governmental committees, State and Federal personnel and agencies, vendors, consultants, contractors, outside organizations and the general public.

Has access to confidential information such as departmental bid/proposal information, contracts, and other information regarding departmental business.

Errors in judgment or decisions may cause an adverse impact on employee morale, cause confusion and delay; legal or financial repercussions; waste of public funds, lower standards of service that could seriously affect the public image of the department or the city; and significantly impact long-term capital planning and infrastructure.

**Essential Functions:** (The essential functions or duties listed below are intended only as illustration of the various types of work that may be performed and are representative of those that must be met by an employee to successfully perform the essential functions of the job. 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 the position.)

Review water, sewer, drainage, access and other permit applications for compliance with City requirements.

Assists in the in-house preparation of AutoCAD plans and drawings and specifications for construction, maintenance or alteration of sewerage systems, water systems, streets, drainage and highways, buildings and other Department of Public Works facilities. Assists in contract bid preparation, advertising and award. Prepare materials list for projects and work orders, prepares cost estimates.

Work from sketches, verbal consultation, parameters or data supplied by superior. Some design calculations will be required to verify design compliance. Obtain component specifications. Prepare sketches and preliminary calculations for approval or discussion with the Engineering Superintendent. Performs field surveys and other measurements. Performs Dig Safe utility markings.

Performs inspections of construction and/or repair and maintenance of highways, sidewalks, sewer and water systems for compliance with the plans and specifications and conformance to standard construction practices; inspects material, grading, drainage, roadside development, curbing, laying of pipe, building of catch basins, manholes and drop inlets, placement of road sub-surfaces and surfaces, pouring of concrete, and related items. Notifies engineer and contractor when work does not conform to specifications or accepted construction practices so that corrective action will be taken. Assists daily construction reports and monthly contract cost summaries. Checks shop drawings to determine compliance with City specifications.

Review subdivision, multi-family housing, commercial and other development plans as submitted by developers. Analyze all components for adequacy and fulfillment of Planning Board, Zoning Board of Appeals and Department of Public Works' requirements. Make recommendations on same to Engineering Superintendent.

Responsible for the preparation of AutoCAD drawings, GIS maps, sketches and plans, revising existing plans and record drawings upon completion of projects. Maintain engineering plans, files, records and reports. Investigate public requests and complaints and recommends actions.

Assist consultants in data acquisition from department records and GIS system as requested for contracted design work. Review design drawings and specifications when submitted by consultants and make recommendations to Engineering Superintendent. Prepare engineering correspondence for signature of Engineering Superintendent.

### **Minimum Qualifications:**

### **Education and Experience:**

At least two years of broad experience with engineering principles and the design of streets, highways, water drainage and sewerage systems, sewage and water treatment plants and related facilities. Computer literacy in the types of applications utilized (AutoCAD, GIS, spreadsheets, database and word processing) particular to the work performed. General knowledge of municipal construction methods and materials.

Associate Degree in Civil Engineering or Equivalent; or any equivalent combination of education and experience resulting in the ability to independently perform duties of the position.

**Knowledge, Ability and Skill:** Knowledge of construction methods and materials, requiring complete design of small projects in highways, sewers, drains, water mains, sidewalks and similar projects. Must

possess ability to analyze technical facts and circumstances of specific projects to determine appropriate action items or plans per standard engineering and scientific methods.

Ability and skill to discuss controversial or emotional issues and matters requiring tact and poise to avoid friction in order to obtain cooperation with contractors, superiors and property owners.

Thorough working knowledge of departmental functions and operations; of standard office practices and procedures; of use and operation of standard office equipment; ability to operate a personal computer in a windows environment with proficiency in MS Office and G-Suite required; familiarity with database programs and computer hardware and software systems.

Thorough knowledge of the principles and practices of civil engineering, AutoCAD, drafting, and GIS. Working familiarity with statutes, governmental regulations and codes; departmental policies, procedures and standards pertinent to the design and construction of municipally owned streets, structures and facilities. Ability to plan, analyze, carry out projects, problem solve, consult and offer advice; requires effective written and oral communication skills.

Ability to establish and maintain satisfactory relationships with supervisors, contractors, coworkers, and the general public. Must be punctual and perform all aspects of job responsibilities with honesty and integrity.

**Physical Requirements:**

Designing, drafting, calculating and related duties involve concentration of mental and visual attention with manual coordination for sustained periods.

Moderate to heavy physical effort required to perform manual tasks on-site and possibly under adverse weather conditions. Normal working day may involve walking, lifting, standing, sitting, with moderate to frequent body movements such as reaching, bending, twisting, grasping, pulling and pushing materials. Good vision required for instrument reading and ability to perform close vision, distance vision, peripheral vision, color vision and the ability to adjust focus.

**Special Requirements:** Must successfully pass CORI/ SORI checks. Must have a valid Class D Driver’s license. Must have an acceptable driving record and be insurable under City’s policy. Must drive self to job sites and locations as necessary; some evening work may be required to attend meetings and hearings.

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**Approved:**

EXECUTED 12/13/2019 AND ON FILE IN THE HR DEPARTMENT

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Human Resources Director

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Date

Revision History: Initial 7/05, 9/08, 11/12, 3/18, 11/19

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Department Head

\_\_\_\_\_  
Mayor

[SSEA Review \_\_\_\_\_]