



Engineering Technician

DEFINITION

Under direction, perform technical engineering design, drafting, surveying, recording, and construction inspection work in the office and field.

SUPERVISION RECEIVED

Reports to the Assistant City Engineer or the Engineer.

SUPERVISION EXERCISED

May exercise technical and functional supervision of part time and seasonal staff.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

Inspect public works and utility construction work for specification standards; inspect base for street work to ensure that it is according to proper grade; inspect the installation of water and sewer lines and facilities for proper trenching, backfilling, and safe construction methods and for proper quantities and qualities of material according to specifications.

Perform routine material tests; schedule contract materials testing.

Provide information to contractors regarding requirements of codes, ordinances, specifications, and plans.

Perform routine field surveys to verify compliance with construction plans; operate printing machine as required.

Assist in the review of new project plans and specifications.

Prepare reports of inspections, construction progress, completions, and other reports required.

Perform technical engineering design by calculating distances, ties, angles, traverses, and closures; plot cross sections and earthwork; gather and tabulate statistics in connection with engineering operations.

Perform drafting duties including preparation of topographical maps, construction drawings, and facilities locations; use AutoCAD for drafting functions.

Prepare and maintain reports and records of activities; prepare preliminary pay estimates for construction projects.

Establish and verify street and utility grades; compile specifications for project construction.

Coordinate with other departments on GIS system.

OTHER JOB RELATED DUTIES

Perform related duties and responsibilities as assigned.

ESSENTIAL JOB RELATED QUALIFICATIONS

Knowledge of:

Pertinent federal, state, and local laws, codes, regulations, and departmental policies governing the construction of assigned projects.

Principles and concepts of land surveying.

Occupational hazards and standard safety practices necessary in the area of public works maintenance and inspection.

Principles and practices of engineering construction inspection.

Engineering plans and specifications.

AutoCAD and ArcINFO and other related software and hardware tools.

Mathematical principles including algebra, geometry, and trigonometry.

Modern office practices, methods, and computer equipment.

Principles and procedures of recordkeeping.

Safe driving principles and practices.

Skill to:

Operate a wide variety of equipment and tools used in land surveying.

Operate modern office equipment including computer equipment and software.

Operate a motor vehicle safely.

Operate a wide variety of equipment and tools used in engineering/construction inspection in a safe and effective manner.

Ability to:

Review and analyze construction plans, specifications, and maps for conformance with City standards and policies.

Deal firmly and tactfully with contractors, engineers, and property owners.

Apply laws, regulations, codes, and departmental policies governing land surveying.

Prepare and maintain accurate and complete records.

Prepare clear and concise technical reports.

Read and interpret engineering specifications.

Communicate clearly and concisely, both orally and in writing.

Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work.

MINIMUM QUALIFICATIONS

Experience:

Two years of experience in engineering inspection, surveying, drafting, and/or public works and utilities construction.

Training:

Equivalent to a high school diploma supplemented by college level engineering coursework or one year of vocational training in engineering inspection, surveying, and drafting.

License or Certificate:

Possession of, or ability to obtain, an appropriate, valid driver's license.

SPECIAL REQUIREMENTS

Essential duties require the following physical skills and work environment:

Ability to work in a standard office environment; ability to sit, stand, walk, kneel, stoop, crawl, twist, climb, and lift 50 lbs.; exposure to heat, cold, outdoors, confining work space, mechanical hazards, and electrical hazards; ability to travel to different sites and locations.

Effective date: July 2004

Revised: February 2009