



ENGINEERING TECHNICIAN 2

Department: Planning and Public Works
Job Class #: 909300
Pay Range: Engineering/Technical 03

FLSA: Non-Exempt
Represented: Yes

Classification descriptions are intended to present a descriptive list of the range of duties performed by employees in this class and are not intended to reflect all duties performed within the job.

GENERAL FUNCTION: This is basic technical work in support of field and office engineering. An employee occupying a position in this class is responsible for performing independent and responsible technical work involving various phases of one or more of the following areas: surveying, design and drafting, planning or traffic operational studies, plat and development review, compliance inspections, materials inspections or related technical engineering work. Incumbents receive direct supervision but are expected to exercise initiative and judgment in carrying out assignments according to established standards, policies and procedures. Work assignments are reviewed while in progress and upon completion by a class of a higher level.

This position is distinguished from the Engineer Technician 1 class by the performance of more specialized and complex technical functions which are completed under less direct supervision.

ESSENTIAL FUNCTIONS:

- Develops, updates and maintains paper and computerized files, records, and databases; retrieves reports, drawings, and plans.
- Utilizes computer terminal to input and retrieve information; compiles data to produce useful reports.
- Provides routine technical information and explains routine policies and procedures to the public in person, on the telephone and in writing.
- Performs manual drafting or automated drafting work to assist in the preparation of plans, blueprints and engineering drawings for structural, architectural, mechanical, or electrical engineering projects. Prepares sketches and reports from information gathered in field notes.
- Makes mathematical calculations, compiles data, and computes quantity and cost estimates.
- Locates property on appropriate maps or construction plans; interprets notations on maps and atlases; updates and maintains various county atlases and maps, road logs and annexation records.
- Performs survey and mapping functions in the office or field environment; operates survey equipment; reduces data from field books.
- Performs drafting to prepare planimetric, topographic and right of way drawings.
- Establishes points and elevations, proper location and drainage for streets, sewers, runways, and structures. Plots profiles and cross sections, figures grade lines, calculates volume and areas, tabulates structural excavations, plots and calculates traverses.
- Visually inspects initial project site and compiles field reconnaissance reports; reviews incoming submittals for overall compliance with established policies and guidelines.
- Performs field checks and reviews for proposed development projects, as required by citizen complaints, code violations and flood plain development applications.
- Reviews road geometrics and traffic related maintenance work.
- Conducts manual and machine traffic counts, reduces data and evaluates results.
- Conducts various traffic-related studies, including ball bank, delay, sight distance, and spot speed studies, and sight plan surveys for schools.

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- Participates in the Pavement Management Program by collecting and inputting data, assisting in data analysis, and helping in overlay recommendations. Operates and maintains the equipment used in data collection, such as the road rater.

OTHER JOB FUNCTIONS:

- Inspects components of ongoing construction projects or simple structures adhering to strict guidelines to ensure contractors are complying with design plans, specifications and other contractual obligations.
- Reads and plots property legal descriptions; plots parcels on various maps of different scales.
- Inspects and prepares pay quantities and makes entries to construction including documentation and measurements.
- Completes written reports on specification compliance for a variety of operations including hot mix plants and concrete batch plants, earthwork or bituminous surface treatment.
- Collects samples and performs density tests and on site materials tests such as slump test on concrete, makes concrete cylinders, operates densometer and reports the results of the tests as required.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

- Mathematics, including algebra and trigonometry, and some knowledge of physics.
- Principles, practices, and equipment used in surveying, drafting and civil engineering.
- Computerized spreadsheet and word processing applications, computer aided
- Drafting and other related computer programs.
- Applicable state and federal laws, ordinances and rules.

Ability to:

- File plans and other materials alphabetically, numerically or by other predetermined classifications.
- Read and understand engineering plans and specifications and to become familiar with engineering standards and department policies.
- Understand and execute moderately complex oral and written instructions.
- Use independent judgment in completing assignments.
- Develop new applications of existing computer programs.
- Establish and maintain effective working relationships with fellow employees and the general public; ability to maintain a courteous attitude even in stressful and unpleasant situations.
- Prepare drawings from completed survey information and notes.
- Make field measurements and complete calculations using computers or calculators.
- Bend, stoop, climb, and walk on uneven terrain.
- Work outdoors for extended periods of time in all types of weather conditions.
- Physically perform the essential job functions.
- Meet the travel requirements of the position.

MINIMUM REQUIREMENTS TO APPLY: High school graduation or equivalent with two or more years of progressively responsible technical engineering experience in one or more areas. Additional technical training or education may substitute equally for the experience. Satisfactory physical condition, as evidenced by a County-approved physical examination, may be required prior to appointment to the position.