

ENGINEERING TECHNICIAN I

JOB DESCRIPTION

Classification Responsibilities: Under immediate to general supervision, an Engineering Technician I performs routine paraprofessional engineering work including technical drafting. This class performs related duties as required.

Distinguishing Features: This is the entry class into the Engineering Technician classification series. An employee in this class performs routine paraprofessional engineering work, which may include the preparation of rough and final engineering and architectural drawings, diagrams, and plans. An Engineering Technician I typically rotates in a variety of simple and routine assignments (i.e., updating and maintaining quarter section maps, maintaining Mesa Standard Details, transferring as-built information from blueprints onto quarter section maps, etc.), to more difficult assignments (i.e., plot plan and profile drawings from survey notes). Other drafting duties typically include drawing real estate/right-of-way maps, assigning addresses to new subdivision lots, researching engineering records to ensure accuracy of plans and specifications, and occasionally performing print room duties. The Engineering Technician I is distinguished from the next higher level, Engineering Technician II, by the former's lack of independence in determining work methods and by the closer review process. In Engineering, an Engineering Technician I reports directly to the Chief Engineering Technician, with occasional functional supervision from other technical engineering staff. This class is FLSA nonexempt.

QUALIFICATIONS

Minimum Qualification(s) Required. Graduation from high school or GED and coursework or formal training in AutoCAD, drafting, trigonometry, geometry, engineering, etcetera.

Special Requirement(s). None.

Substance Abuse Testing. None.

Preferred/Desirable Qualification(s). Some computer-aided drafting or surveying experience is highly desirable.

ESSENTIAL FUNCTIONS

Communication: Communicates with the general public, other City employees, vendors, management, contractors, and other government agencies in order to communicate and respond pleasantly to a demanding and diverse public in answering questions, explaining City policies, and handling complaints. Prepares written documents, such as memos and letters, with clearly organized thoughts using proper sentence construction, punctuation, and grammar in order to transfer information to other parties.

Manual/Physical: Distinguishes colors to detect various lines and symbols on Computer Aided Drafting (CAD) drawings. Detects traffic sounds when working near moving traffic doing field work, pole inventory, and measuring heights. Operates a variety of standard office equipment (stapler, hole punch, telephone, facsimile machine) to perform normal daily office duties. Enters data or information

into a personal computer in order to do Computer Aided Design (CAD) drawings and reports. Sorts and/or distributes incoming mail. Moves forms and pole sticks up to 25 pounds for distances of up to 100 feet to measure heights of poles.

Mental: Prioritizes and assigns work to personnel and/or prioritizes own daily functions. Conducts research and/or analyzes data to perform inventory, handle problem calls, and generate reports. Performs mathematical calculations and statistical computations for AutoCAD programs and reports. Learns job-related material through on-the-job training regarding AutoCAD using manuals and other information. Learns job-related material in a classroom setting regarding word processing.

Knowledge and Abilities:

Knowledge of:

the symbols and terminology used in engineering drawings; and basic mathematics, including geometry and trigonometry.

Ability to:

prepare engineering drawings from sketches, verbal description, and specifications;
apply the practices and techniques of drafting to produce neat, precise, and well-balanced drawings;
apply fractions, percentages, ratios and proportions, algebra, geometric construction, and the essentials of trigonometry;
utilize information from field books or sketches to create a set of design plans or working drawings;
draft real estate maps showing land acquisitions, land condemnations, right-of-way abandonments, proposed property purchases, and related location maps;
transfer as-built information from blueprints onto water, sewer, and gas quarter sections;
draw new utility lines showing line size, valve locations, public utility easements, etc.;
follow verbal and written instructions;
create a variety of charts and forms;
update drawings for the procedures manual and update Mesa Standard Details;
assign addresses to new subdivision lots;
take print requests from the general public, other divisions and departments, and answer routine questions regarding locations;
perform detailed engineering records research; and
establish and maintain effective working relationships with all those encountered during the course of work.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included does not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

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CS3711.DOCX

EEO-Tech

NDOT SAFETY-No

NDOT RANDOM-No

DOT SAFETY-No

RESP-No

JOB FCTN-ENG

INCREMENTS 55-200

PAY GRADE: 41

SECURITY-No

CDL-No

IND-9410

SWORN-No