

HIDALGO COUNTY PLANNING DEPARTMENT

ENGINEERING TECHNICIAN II

GENERAL DESCRIPTION

Performs moderately complex (journey-level) paraprofessional civil engineering work; Work involves preparing engineering design plans, project inspections, review of subdivision plans; interpret engineering field data and incorporate such data into design plans; May train others. Works under general supervision, with moderate latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Performs calculations and drafting for design work including but not limited to production quantity summaries, hydraulic studies, roadway design plans, utility studies, right-of-way maps, traffic control, lighting/signal plans, and other related information as requested

Prepares and drafts engineering plans and profiles both manually or using computerized software such as AutoCAD; draws charts on statistical data, and update/revise storm water and various maps such as base maps, beard maps, annexation maps, master atlas and address maps

May use Civil/Survey, Earthworks, Design, DTM, COGO, and other interactive graphic design programs

Provides information to the public regarding utilities, easements, fences, right-of-way addresses and/or flood zones when requested

May attend specialized design schools to maintain abreast of the latest automated design tools and technologies

Gathers and researches information pertaining to utilities, right-of-way, structural, architectural, mechanical information, and other areas related to the Planning Department as necessary

Conducts surveys and field work; inspecting, designing, and preparing maps for presentation

Maintains records and design plans; works on the reproduction of plans

Writes general notes, specifications, and special provisions following generally accepted practices to ensure applicable information is included

May schedule, coordinate and prepare plans and documents for public hearings

May review others work for drafting and/or calculation errors

Performs other related duties as assigned

GENERAL QUALIFICATION GUIDELINES

Experience and Education

Graduation from a high school or equivalent (GED)

Associate's degree in related field

Minimum of three (3) years of experience in Computer Aided Drafting, surveying, and/or related engineering work

Previous experience in subdivision design, review and planning required

Two (2) years of experience may substitute one (1) year of education

Certificates, Licenses & Registration

Must have a current valid Texas motor vehicle operator's license

Must be able to be insured by the County's insurance carrier

Certification in computer aided drafting or related field

Knowledge, Skills, and Abilities

Knowledge of surveying and engineering principles, techniques, and procedures; of mathematics; and of applicable safety requirements

Knowledge and skill in the operation of AutoCAD software and other drafting related software/tools

Knowledge on subdivision rules and regulations as well as preparation and review of subdivision plans

Skill in the operation and maintenance of applicable equipment including but not limited to the following: drafting printers and plotters, calculators, drafting tools, surveying and measuring instruments, and other related equipment

Ability to conduct inspections and prepare reports

Ability to read, analyze, and interpret blueprints, engineering periodicals, professional journals, technical procedures, or governmental regulations

Ability to write reports and business correspondence

Ability to effectively present information and respond to questions from groups, contractors and employees of the organization

Ability to work with mathematical concepts such as probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry

Ability to apply concepts such as fractions, percentages, ratios, and proportions to practical situations

Ability to solve practical problems and deal with a variety of concrete variables in situations where standardization exists

Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form

Employee may be assigned other duties in addition to those listed; duties may change according to the changing needs of the County

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.

While performing the duties of this job, the employee is regularly required to talk or hear. The employee frequently is required to stand. The employee is occasionally required to walk; sit; use hands to find, handle, or feel objects, tools or controls; reach with hands and arms; climb or balance; stoop and kneel.

The employee must occasionally lift and/or move over 25 pounds. Specific vision abilities required by this job include close vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT:

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

The noise level in the work environment is usually moderate.

SAFETY REQUIREMENTS:

Maintain physical conditions appropriate to the performance of assigned duties and responsibilities which may include the following:

- sitting for extended periods of time

- operating assigned equipment

Maintain mental capacity which permits:

- making sound decisions and using good judgment
- demonstrating intellectual capabilities

Effectively handle a work environment and conditions which involve:

- working closely with others
- working in a multi-task environment

Maintain effective audio-visual discrimination and perception needed for:

- making observations
- reading and writing
- operating assigned equipment
- communication with others
- required to follow the Hidalgo County Accident Prevention Plan and department's safety regulations