

HIGHWAY DESIGN TECHNICIAN III

DESCRIPTION: Under limited supervision, using Computer Aided Design (CAD) technology performs drafting work on entire assigned Department of Roads projects, including interstate, expressway, urban, and architectural; performs related work as required.

EXAMPLES OF WORK: (A position may not be assigned all the duties listed, nor do the listed examples include all the duties that may be assigned.)

Resolves technical drafting and CAD problems, including design conflicts that do not accurately address the intended design by interpreting specifications, standards, and manuals.

Inputs horizontal and vertical alignment data using design software.

Computes areas of pavement, driveways, and sidewalks for construction and removal quantities.

Develops new procedures to solve CAD problems; documents the procedures for use as a guideline by division personnel.

Creates CAD cells and cell libraries unique to the project for use in developing a set of design plans.

Prepares graphic displays for public hearings and informational meetings, coordinating the project with technicians and personnel in other divisions.

Combines scanned file information into the design files by identifying, determining, and incorporating practical adjustments.

On projects requiring a team effort, coordinates and guides the work of Highway Design Technicians in accordance with established requirements, to assist supervisory staff in the timely accomplishment of the assigned workload.

Trains Highway Design Technicians, as directed, in specific task and job practices and procedures to improve and maintain the performance levels of these employees.

Reviews and reports on the work performance of co-workers to determine overall conformity to established timetables and quality standards, and to communicate employee production levels and training needs.

FULL PERFORMANCE KNOWLEDGE, ABILITIES AND SKILLS REQUIRED: (These may be acquired on the job and are needed to perform the work assigned.)

Knowledge of: thorough knowledge of horizontal (spiral)/vertical alignment, equations, ties, and coordinates; detailed knowledge of requirements for various construction plans; reprographics.

Ability to: visualize entire project to understand phasing requirements; instruct others on detailed procedures; locate proper resources to solve problems, get answers.

HIGHWAY DESIGN TECHNICIAN III (continued)

Skill in: coordinating the work of others and maintaining an efficient work flow, performing the most complex drafting calculations.

ENTRY KNOWLEDGE, ABILITIES, AND SKILLS REQUIRED: (Applicants will be screened for possession of these through written, oral performance, and/or other evaluations.)

Knowledge of: how to apply standards and procedures; current standard plans and special plans.

Ability to: be proficient in applying CAD technology to drafting tasks; apply standard or special plans appropriately; interpret and utilize survey notes.

Skill in: communicating with designers or squad leader about drafting problems; properly composing sheet layout.

JOB PREPARATION GUIDELINES: (Entry knowledge, abilities, and/or skills may be acquired through, BUT ARE NOT LIMITED TO, the following coursework/training and/or experience.)

Any combination of training and/or experience that will enable the incumbent to possess the required knowledge, abilities and skills. A general qualification guideline for positions in this class is high school education or equivalent AND education or experience in civil drafting, and/or design.