

ASSISTANT CIVIL ENGINEER I

DISTINGUISHING FEATURES OF THE CLASS:

This is a technically advanced civil engineering position in the Department of Public Works. The incumbent is generally assigned to manage projects that involve design and reconstruction of county highways and bridges, along with collateral facilities such as drainage systems and retaining walls. The employee evaluates the condition of the assigned project area and in association with a higher level engineer, develops plans and specifications to meet project needs in accordance with budgetary constraints and within regulatory guidelines.

The position has significant interaction with the general public, utilities, local municipalities and contractors as it coordinates the entire project through to completion. In addition, the position may be assigned to oversee other specialized functions within the division such as the survey crew. The position differs from Junior Civil Engineer in that it is responsible for overall project management, whereas a Junior Civil Engineer typically assists in certain aspects of a project or manages a small project under direct supervision as part of overall training. The position differs from Assistant Civil Engineer II (Design) in that the higher level position is the project engineer with legal authority to approve final plans, coordinates overall design activity, and is responsible for technical development of the staff. Supervision is normally exercised over the work of subordinate employees.

TYPICAL WORK ACTIVITIES:

Typical work activities for incumbents in this title include those listed below in addition to those typical work activities performed by lower level titles in the series. They are indicative of the level and types of activities performed by incumbents in this title. It is not meant to be all inclusive and does not preclude a supervisor from assigning activities not listed which could reasonably be expected to be performed by an employee in this title.

1. Meets with project engineers and administrative staff to discuss parameters of assigned projects;
2. Conducts field investigations, traffic and accident studies, and gathers pertinent information and prepares preliminary project status reports;
3. In consultation with supervising engineers, prepares design proposals including computer generated drawings, specifications, cost estimates, contract documents, and state and federally required permits and documentation;
4. Coordinates work with utility companies, contractors, home owners, municipalities and state and federal agencies;
5. Inspects work in progress for conformance with plans and specifications; prepares daily inspection reports and periodic progress reports and prepares and processes design changes;
6. Reviews contractor's periodic cost estimates and requests for payment and submits for payment;
7. Assigns various project tasks to subordinate personnel; reviews work and instructs in proper engineering methods and procedures;
8. Directs field work in connection with surveying; checks work for completeness and accuracy;
9. Provides technical engineering assistance to employees, towns and villages;
10. Supervises and participates in the technical work in connection with issuance of permits;
11. Supervises subordinate engineering staff and assists in their training and professional development;
12. Prepares a variety of reports and studies.

ASSISTANT CIVIL ENGINEER I (Cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Thorough knowledge of the principles of engineering, physics, and mathematics as related to civil engineering;

Good knowledge of the practices, theories, and procedures of civil engineering, including surveying and related computations;

Good knowledge of construction materials, methods, standards, and tests; good knowledge of the planning, design, construction, and maintenance of highways and related structures;

Good knowledge of applicable codes, laws, rules, regulations and procedures governing civil engineering design and construction;

Working knowledge of the principles of supervision;

Ability to train and supervise subordinate staff;

Ability to prepare finished plans, designs, specifications, and narrative reports;

Ability to plan, schedule, coordinate, and evaluate repair, maintenance and construction programs;

Ability to establish cooperative relationships with subordinates, co-workers, contractors and their staff, and other officials;

Ability to select, from a variety of engineering alternatives, the most effective and cost efficient methods;

Ability to design construction proposals;

Ability to gather, analyze, and evaluate information from a variety of sources and recommendations and proposals;

Ability to perform complex mathematical and engineering calculations;

Ability to analyze the condition of roads, structures, equipment, embankments, and construction projects and determine maintenance, repair and construction needs;

Personal characteristics necessary to perform the duties of the position;

Physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS:

- EITHER: (A) Graduation from an ABET-Accredited college or university with a Bachelor's degree in Civil Engineering and two (2) years of full-time highway engineering experience involving design, construction and maintenance;
- OR: (B) Completion of the NCEES Fundamentals of Engineering (FE) exam and one (1) year of full-time highway and/or bridge engineering experience involving design, construction or maintenance.

SPECIAL REQUIREMENT:

A department head may require the possession of a valid driver's license at time of appointment and to maintain position.

EG0202

ADOPTED: 04/10/84

REVISED: 04/02/90 07/01/91 01/26/98 10/10/07 04/06/18