

Engineering Associate

Job Code
8258B1

Job Title
Engineering Associate III

Pay Grade
31

CONCEPT:

Performs engineering tasks that do not require a professional license and evaluates the work of consultants, contractors and facility operators, under the supervision of a professional engineer.

TASKS:

- Participates in a formal on-the-job training program designed to provide exposure to and experience in phases of highway planning, location, design, construction, maintenance, materials testing and research, and traffic studies or other civil engineering projects as deemed necessary.
- Participates in a formal on-the-job training program designed to provide exposure to and experience in phases of the evaluation of designs for devices, facilities and systems to provide portable water or control and dispose of air, water or solid pollutants and wastes as deemed necessary.
- Receives professional training in the application of theory to the resolution of engineering problems and projects.
- Participates in the development of road, bridge, building, water or environmental control plans by performing advanced mathematical calculations and computations, drafting and detailing, and minor design duties.
- Under the guidance of a professional engineer, reviews prelimit and final plans and specifications of construction work to determine compliance with sound engineering practices and established standards, codes, and regulations; makes recommendations as to acceptance or revision.
- Serves as project leader on construction projects for highway, bridge or related engineering assignments; and inspects construction sites for correct application of all policies, specifications, plans, maps and other documents in relation to the project.
- Supervises and participates in the field collection and analysis of engineering and technical data for less complex studies of water supply and waste water treatment facilities, air pollution sources, and hazardous or solid waste management systems.
- Writes and issues operating permits which stipulate special discharge or operational requirements for municipal, industrial, commercial and agricultural water supply, waste water treatment, air pollution control or solid waste management facilities.
- Conducts research, tests, or surveys associated with soils, pavement slope stability, and foundation analysis.
- Assembles charts, tables and maps in the preparation of technical and detailed reports of investigations; conducts follow-up inspections to ensure compliance with rules and regulations; and makes recommendations.
- Designs, details, prepares layouts and reviews complete sets of engineering plans for routine roads, bridges, pavements, building and other structures and water projects; assists in the preparation of plans for substantial portions of major projects.
- Reviews plans, specifications and related proposals of the construction or modification of standard facilities, systems and devices which treat waste water, supply potable water, solid or hazardous waste management, underground storage, mining, and/or control of air pollution; analyzes and validates data associated computations; and recommends modifications to facility designers.
- Performs critical review of submitted design plans and specifications for preparation of water permits, water applications, and other documents within state laws and regulations.
- Reviews plans for construction of all or portions of bridges and highways including signing for permanent highways and detours, and related matters such as soils, materials, drainage, geology, hydraulics and hydrology.
- Reviews reports, plans and specifications for the construction or modification of waste water treatment, water supply, air pollution control, remediation, mining, industrial ventilation, and solid waste storage and disposal facilities to determine if facility designers have made accurate and appropriate calculations

in their preparation, and directly contacts the designer to resolve any questions concerning these interpretations.

- Conducts post-construction inspections of new or modified environmental control facilities to determine if they have been completed in accordance with the approved plans and specifications and are functioning in the manner intended.
- Conducts operational inspections and engineering field evaluations of moderately complex water supply, waste water treatment or solid waste management facilities and prepares reports and makes corrective recommendations.
- Develops and obtains technical data necessary to make an engineering evaluation of a special environmental problem relating to public water supply, waste water treatment, air and ground pollution, or solid waste management, and prepares a final report which identifies, substantiates and quantifies the nature of the problem and includes appropriate recommendations.
- Conducts data collection and analysis on soil and pavement or tests on new materials or procedures; supervises field crews in correct methods of collection; prepares comprehensive reports.
- Prepares reports and recommendations to the public concerning dam safety or other engineering evaluations by analyzing engineering data obtained through field work, research or by other engineers.
- Maintains data verification system for water regulation and administration.
- Directs a staff of engineers and technicians in overseeing construction projects in an assigned geographic area; provides engineering guidance and interprets specifications, plans, and special provisions for staff; resolves conflicts between staff and contractors regarding intent of plans and specifications.
- Designs or directs the preparation of plans or construction of a wide range of engineering projects, including but not limited to small buildings, parking lots, roads, storm or sewer drainage systems, traffic control plans, and road surface designs.
- Determines scope of studies of traffic, census and location data according to engineering standards and all other appropriate criteria. Assigns work; performs and oversees analysis of data for development of highway and traffic places.

LEVELS OF WORK

- Class Group consists of one class.

Engineering Associate III: This is professionally supervised engineering work. Work includes independently performing several engineering projects which range from simple to complex or performing detailed reviews of engineering plans, specifications and reports. These projects may involve specialized aspects of engineering, planning aspects of engineering, or checking performance of completed projects. Work may also involve developing methods and conducting special study projects of an investigative or planning nature. Work may require such administrative tasks as record keeping, budget development, allocation of equipment and staff, and evaluation. Assignments require the application of standards and guidelines.

Minimum Requirements: Bachelor's degree in engineering and an Engineer in Training or Fundamentals of Engineering certificate.

REF: 12/13

REV: 7/14

REV: 6/16

REV: 10/22