

TRANSPORTATION ENGINEER III

Code 0117

Salary Grade 0017

I. CLASSIFICATION DEFINITION:

This is journey level professional civil engineering work applying engineering theories, principles and standards to a variety of complex engineering projects and processes in highway, traffic, construction, structural, rail, port, airport, maintenance, materials or other transportation areas. Employees in these positions may serve as project managers and provide guidance and direction to a project team and consultants, or supervise assigned engineering technicians or may have journey level expertise in either a broad range of engineering areas or a specialized area.

Employees receive general supervision from a higher level engineer or engineering supervisor. Work is performed in an office setting and in the field; work may require physical inspection of job sites.

Positions assigned to the Transportation Engineer III classification are journey level positions distinguished from the Transportation Engineer II by the responsibility for project management or supervisory duties or the independent handling of more complex engineering projects requiring greater independent decision making and a broad range of engineering knowledge and skills.

II. MINIMUM QUALIFICATIONS:

Education: Possession of a bachelor's degree in engineering from an accredited college or university.

Experience: Two years experience in professional engineering.

Notes:

1. Additional work experience in professional engineering, or in technical engineering at the journey level or above, may be substituted on a year for year basis for the required education.
2. Possession of a Master's Degree in engineering may be substituted for one year of the required experience.
3. Persons currently registered as Professional Engineers in the State of Maryland, or in a state with comparable requirements, are considered to have met the education requirements.

Licenses, Registrations and Certificates:

1. Employees of the Maryland Transportation Authority may be required to possess an Engineer-In-Training License from the Department of Labor, Licensing and Regulation.
2. Employees in this classification may be assigned duties which require the operation of a motor vehicle. Employees assigned such duties will be required to possess a motor vehicle operator's license valid in the State of Maryland.

III. EXAMPLES OF WORK: (Examples are illustrative only)

Prepares engineering designs, plans, specifications and cost estimates for the construction/rehabilitation of roads, bridges, communications systems, traffic management systems, storm drains, rail, buildings and other transportation facilities;

Participates in public hearings, finalizes plans, drafts specifications, etc.;

Administers consultant contracts including approving monthly invoices and progress payments;

Reviews and comments on design submittals from consulting engineers to ensure compliance with standards and regulations; meets with consultants to resolve problems;

Assists and conducts the review and evaluations of Consultant Technical Proposals and Extra Work Requests;

Reviews plans and specifications for transportation facilities submitted for new construction, rehabilitation or improvements to ensure compliance with contracts, regulations, engineering standards;

Prepares and maintains a variety of engineering documents including plans, specifications, contracts, maps, standards, etc.;

Serves as project manager for the installation of communications systems;

Reviews and comments on maintenance contract submittals to ensure compliance with standards and regulations; communicates with contractors to resolve problems;

Serves as project manager on routine engineering projects; conducts field work, surveys, research, preliminary and final design; determines construction quantities; writes proposals; prepares contract documents, right of way and easement descriptions; provides engineering detail for environmental impact statements; develops cost estimates; coordinates project among outside agencies, property owners and other divisions within the agency;

Prepares reports and memos describing the project; conducts inspections of work as needed;

Answers inquiries from other agencies, interested parties and the public regarding engineering projects;

Maintains and prepares public works installation and project records and reports;

Provides information to and works with architects, engineers, contractors and developers to ensure adherence to proper standards and codes;

Conducts research; evaluates and makes recommendations regarding proposed and existing laws, standards and policies; writes contracts for engineering services; prepares requests for proposals; participates in selecting engineering consultants and contractors;

Serves as project liaison with the project construction engineer during the construction phase; makes changes and additions to the construction plans as needed;

Analyzes capacity, planning and highway system performance data and prepares traffic projections;

Conducts studies and research to analyze and project present and future needs as they relate to engineering designs and solutions to current and anticipated problems;
Provides data and other information to interested groups;
Attends a variety of meetings;
May provide testimony at formal hearings or in court;
May plan, organize, coordinate, schedule, assign and evaluate the work of engineering technicians;
Provides training and work performance counseling as needed;
Performs other related duties.

IV. REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Knowledge of professional civil engineering principles, practices and methods;
Knowledge of design principles, strength of materials and stress analysis required in planning construction/rehabilitation projects;
Knowledge of computer applications relative to engineering projects;
Knowledge of construction standards and regulations;
Knowledge of effective supervisory methods and practices;
Skill in reading maps, deeds, plats and plans;
Skill in preparing accurate plans, specifications, cost estimates and engineering reports;
Skill in making accurate engineering computations and drawings;
Ability to maintain a variety of technical records and adapt records systems for computerization;
Ability to plan, organize, coordinate, assign and evaluate the work of engineering technicians and other support staff;
Ability to communicate effectively and prepare technical reports;
Ability to establish and maintain effective working relationships with other employees, engineers and architects and the general public;
Ability to physically perform essential duties.

V. SPECIAL REQUIREMENT:

Applicants may be subject to a background check which may impact employment. A history of arrest or conviction is not an automatic disqualification to employment. Applicants, who are considered for work at the Maryland Aviation Administration, are subject to an extensive pre-employment security background check as required by the Federal Aviation Administration, Federal Aviation Regulation Part 107.

Date Adopted: July 1, 1997
Date Revised: July 1, 2001
Date Revised: July 1, 2008

APPROVED: _____
Director, Office of Human Resources