

As a Civil Engineer for the Dulles Toll Road (DTR), you will serve as the principal engineer for multi-disciplinary Capital Improvement Program (CIP) and Renewal & Replacement Program projects.

### **JOB DESCRIPTION**

- Civil Engineer Toll Road
- Works under the general supervision of the Design Department Manager.
- Serves in the Design Department in the Office of Engineering at Washington Dulles International Airport (IAD).

Serves as the Airports Authority's principal engineer and focal point for management of planning, design, and construction for the Dulles Toll Road (DTR) Renewal and Replacement (R&R) Program and the DTR Capital Improvements Program (CIP). Performs related functions.

### **GENERAL RESPONSIBILITIES**

- Serves as Principal Staff Technical Advisor for multi-disciplinary R&R and CIP projects, with a focus on horizontal civil engineering.
- Represents the Airports Authority's civil engineering interests on the DTR along the entire Dulles Corridor, including Route 606 and Route 50.
- Specifies or advises on regulatory requirements, design standards, and related issues (e.g., site configurations, adjacent construction, environmental permitting) for design criteria.
- Reviews work of consulting Architecture and Engineering (A/E) firms, including preliminary and final designs for major roadway sections, signals, interchanges, and facilities to ensure conformance with Airports Authority standards to ensure front-end cost and quality control.
- Coordinates with other engineers and urban planners concerning current and future demand, including the need for connectors between the Dulles Toll Road and Interstate System.
- Conceives and recommends engineering studies; establishes or approves functional criteria, performance requirements, and related specifications.
- Provides technical representation to the Office of the General Counsel in defending against contractor design construction claims and assists in developing overall case strategy.
- Serves as a Project Manager. Manages the program budget (R&R and CIP) and contract. Ensures that work has been completed in accordance with contracts, quality standards, and Airports Authority goals for Disadvantaged Business Enterprises (DBEs) and Local DBEs.
- Ensures coordination between Washington Dulles International Airport (IAD), managing consultants, contractors, and government agencies to minimize effects on operations.
- Represents the Airports Authority with Federal, state, and local government organizations and transportation agencies.
- Serves as Construction Manager and monitors quality control, safety, operations, progress, and adherence to plans and specifications. Coordinates on safety of operations with the Safety Program Manager for the Dulles Corridor Enterprise.
- Minimizes potential for contractor claims in construction.
- Makes site visits during all phases of planning, design, and construction.

- Serves as a Contracting Officer's Technical Representation (COTR) for the Dulles Toll Road R&R and CIP projects. Acts as liaison with procurement officials before and throughout construction. Chairs the Evaluation Committee and leads technical aspects of negotiations.
- Reviews construction progress reports, shop drawings, material lists, and samples. Confers with designer on contractor-submitted items to ensure design intent is accomplished.
- Oversees Airport Authority's federally mandated Bridge Inspection Program and related audits.
- Coordinates with Virginia Department of Transportation (VDOT, Federal Highway Administration (FHWA), Washington Metropolitan Area Transit Authority (WMATA) staff on transportation infrastructure and adjacency issues.
- Performs other duties as assigned.

### **QUALIFICATIONS**

- Five years of progressively responsible experience in civil engineering, with emphasis on engineering design contract management and construction program management.

### **KNOWLEDGE, SKILLS AND ABILITIES**

1. Comprehensive professional knowledge of the principles and practices of civil engineering and skill in applying it to the design, construction, and maintenance of major arterial roadways and their connections to interstate highways.
2. Ability to apply engineering disciplines to review, coordinate, and advise on designs of tracks, stations, parking areas, access, and other issues and projects.
3. Knowledge of construction industry practices, quality control, safety requirements, and related standards and ability to apply it to the construction of arterial roads.
4. Knowledge of the laws, regulations, and standards of regulatory agencies, such as the Federal Highway Administration, Environmental Protection Agency, and Occupational Safety and Health Administration, and skill in applying it to ensure the compliance of design and construction projects for arterial roads.
5. Ability to perform complex analyses of data and information and make recommendations.
  - Ability to speak and write effectively.
  - Skill in using a computer and modern office suite software, with emphasis on engineering systems/software.

### **PREFERRED QUALIFICATIONS**

- Experience managing projects and contracts for construction of arterial roads.

### **EDUCATION**

- A Bachelor's Degree in Civil Engineering, or related field, or an equivalent combination of education, experience, and training that totals four years.

- A fully equivalent combination of education and training beyond what is needed to satisfy the education requirement may be used to substitute for up to two of the five years of experience. For example, a master's degree may substitute for two years of experience.

### **CERTIFICATIONS AND LICENSES REQUIRED**

- A state driver's license in good standing.
- Licensure as a Professional Engineer (PE) in the Commonwealth of Virginia or ability to obtain licensure within 180 days from the date of the Final Offer Letter.

### **NECESSARY SPECIAL FACTORS**

- Licensure as a PE in the Commonwealth of Virginia must be maintained.
- Work is typically reviewed in progress and upon completion for quantity, quality, timeliness, teamwork, customer service, and other factors.
- May be required to work nights and weekends depending on project schedules and operations.
- Is subject to adverse weather conditions and exposed to dirt, grease, odors, hazardous substances, and loud noise when visiting construction sites. Wears protective equipment, as required.