Nothing in this job description restricts management's right to assign or reassign duties and responsibilities to this job at any time.

DUTIES This is a non-career, term job with the Metropolitan Washington Airports Authority (Airports Authority). The incumbent serves as the Airports Authority's Quality Assurance/Quality Control Program Manager administering the Airports Authority's independent Quality Program Plan for the Dulles Corridor Metrorail Project (Rail Project).

--Administers the Airports Authority's Quality Program Plan (Plan) for the Rail Project, which is overarching to the design-build contractor's quality assurance/quality control program. Specifies Rail Project procedures and instructions for systemically assuring and controlling quality, preventing defects and resolving problems with nonconforming materials, processes, etc. (such as unauthorized or inadequate substitutions or field expedients). Reviews Plan for needed updates and implements changes, as necessary.

--Reviews the design-build contractor's quality-related plans, procedures, and instructions. Ensures they are consistent with the requirements of the Federal Transit Administration (FTA), Washington Metropolitan Area Transit Authority (WMATA), and generally-accepted quality assurance standards, or requires changes to bring them to standard.

--Evaluates the design-build contractor's quality-related performance on a periodic basis. Conducts quality audits of the design-build contractor's design, construction materials, construction processes, quality control inspections, and testing activities. Monitors the design-build contractor's design change, nonconformance control, and corrective action processes to ensure they are aligned with the Airports Authority's Plan.

--Reviews quality inspection reports and observes Rail Project operations to: directly verify adherence to quality plans and procedures; rate quality control and identify defects and assure corrections; assess the effectiveness of quality controls/procedures; and serve as a basis for adjusting surveillance or control over operations. Coordinates with the quality assurance/ inspection personnel of the design-build contractor, WMATA and other parties.

--Is a key Airports Authority technical representative to the Legal Counsel's Office in asserting quality assurance/control requirements in cases of unyielding problems. Advises on technical issues and assists in developing overall case strategy. This includes interpretations of quality assurance/control issues and recommendations on expert witnesses on the design-build continuum that emanate from quality assurance/control issues, such as strength and durability of fasteners specified v. actual fasteners used.

--Makes periodic and special site visits during all phases of design and construction to assess adherence to quality assurance procedures (such as presence of inspectors, sampling of materials) and to personally quality inspect materials, fasteners, adhesives, welding techniques, etc.

--Communicates and interacts effectively with internal and external business contacts, including, but not limited to, other members of the unit/team, other Airports Authority employees (such as

managers, supervisors, and professionals), regulators, employees of partner organizations, design-build contractor managers, architects, engineers, quality assurance specialists, quality inspectors, building code inspectors and construction inspectors.

--Uses a computer, tablet, smart phone, or programmed calculator for various applications (email and communications, word processing, data entry, compiling information for reports, spreadsheets, graphics, flow charting, planning, scheduling, presentations, etc.), as well as specialized software/systems used on the Rail Project to make quality assurance calculations and to perform similar functions.

--Drives a sedan or other vehicle to get to/from/around construction, warehouse and supplier sites or meeting locations.

-- *Performs related duties as assigned.*

Critical features of this job are described under the headings below. They may be subject to change through reasonable accommodation or otherwise.

MINIMUM QUALIFICATIONS (MQs)

To be rated qualified for this job, an applicant must meet all of the MQs listed below at the time of vacancy announcement closure.

1. A Bachelor's Degree in Engineering, Architecture, Construction Management or any other field providing a strong foundation for successful performance in the DUTIES in this job description, or an equivalent combination of education, experience and training that totals four years; ; the bachelor's degree (or equivalent combination of education, experience and training) must include, but is not limited to, acquisition and exercise of knowledge/skills in the area of quality management across the project planning-design-construction continuum.

2. Seven years of <u>progressively responsible</u> experience in quality assurance management on large design build projects that includes substantive work in most of the DUTIES in this job description including: (a) reviewing contractor design-build plans for quality assurance controls (such as procedures and instructions for systemically assuring and controlling quality, preventing defects, and resolving quality issues) and ensuring they meet standards; (b) conducting reviews of the work of units/teams/projects to evaluate conformance with established QA, QC and other procedures and to evaluate the effectiveness of the procedures; (c) verifying adherence to quality plans and procedures, rating quality control and identifying defects and assuring corrections, and assessing the, effectiveness of quality controls/procedures; and (d) performing quality assurance inspections; monitoring and evaluating the quality of construction management and construction activities.

A Master's Degree in Engineering, Architecture, Construction Management or any other field providing a strong foundation for successful performance of the DUTIES in this job description may be substituted for two of these seven years of experience provided it includes acquisition of bodies of information relevant to 2(a) through 2(d) above.

PREFERRED QUALIFICATIONS

The qualifications listed below (if any) are preferred and may be considered in the selection process, but are not required to be rated qualified for this job.

1. Licensed as a Professional Engineer (PE) or Architect.

2. Substantial experience in creating and overseeing the quality assurance controls for of large scale public sector construction projects costing over $500 million.

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER FACTORS (KSAOs)

The following KSAOs are required for successful performance of this job and are a basis for rating and ranking applicants who are found to meet the MQs. *Local, Federal, airport industry or Airports Authority-specific bodies of knowledge listed below may be acquired on the job, typically; ability to rapidly acquire them is required at the time of vacancy announcement closure.*

1. Comprehensive knowledge of the concepts, principles and practices of quality assurance and quality control (including statistical analysis and sampling techniques) to develop internal (Airports Authority) quality assurance/control processes and procedures, review external (design-build contractor, FTA, and WMATA) quality assurance/control processes and procedures, and monitor adherence to internal and external quality assurance/control requirements. This includes knowledge of (a) design-build program management, of contractor design and construction engineering, of workload planning, of procurement/supply and related matters to develop, review, monitor and report on quality assurance within these activities and (b) quality inspection, test and measurement techniques to assess quality inspection procedures, review quality inspection reports, etc.

2. Knowledge of design-build processes for rail lines and facilities and of rail construction standards, procedures and practices to ensure that Rail Project design products and construction activities adhere to quality standards.

3. Knowledge of, and skill in, quality assurance techniques and processes to conduct quality inspections, tests, and measurements on Rail Project construction/materials.

4. Knowledge of key regulatory agencies, such as the Environmental Protection Agency (EPA), OSHA and the FTA, and their requirements applying to the Rail Project; of Airports Authority contracting policies and processes; of Airports Authority design guidelines and construction management procedures; of building and rail transit safety codes that apply to the Rail Project; of essential rail line operational, safety and security requirements; and of other project-related requirements, standards and procedures to advise on the full range of quality control/quality assurance issues related to the design and construction of the Rail Project and to certify Rail Project work for the Rail Project Sponsor (Grantee), and to perform related functions.

5. Skill in problem solving to select, organize and logically process relevant information (verbal, numerical or abstract) to solve a problem. This includes the ability to recognize subtle aspects of problems and identify relevant information. Examples include skill in planning and developing internal quality assurance/control systems, in applying internal and external quality assurance/control standards through structured audits of quality (using a variety of means and techniques, such as sampling and statistical analysis, and including coordination with the design-build contractor, WMATA and regulatory agencies), and in interpreting and applying technical criteria (such as specifications) to ensure compliance and to detect deficiencies.

6. Skill in oral communication to understand verbal information (facts, assertions and ideas) and to express such information verbally so that others will understand and be convinced or persuaded. This includes skill in encouraging effective oral communication by others, including contract designers, design-build contractor representatives and construction managers, and in making formal presentations or serving as an expert witness.

7. Skill in written communication to understand written information (facts, assertions and ideas), draw inferences, form hypotheses and develop logical arguments, and to express such information in writing so that others will understand and be convinced or persuaded. This includes skill in the review of the written work of others (such as external quality control personnel) to detect and resolve discrepancies in designs and reports, exchange data and information, etc., as well as skill in preparing quality control reports, drafting technical documents, etc.

8. Interpersonal skills to interact effectively with business contacts in a business like, customer service-oriented manner.

9. Skill in using a computer and modern office suite software to maintain records, develop reports and perform other functions, with primary emphasis on the following applications: communication, planning and scheduling (such as Outlook), word processing (such as Word), spreadsheets and statistical analyses (such as Excel) and presentations (such as PowerPoint); and in using other Rail Project specific software.

RESPONSIBILITY Is responsible for implementing and, on a daily basis, monitoring and controlling all quality assurance activities in support of the design and construction of the Rail Project so the activities meet all requirements, including, but not limited to FTA and WMATA requirements. The work directly and significantly affects quality assurance and control of the Rail Project through a systemic, overarching program to achieve and maintain quality in design and construction across the Rail Project design-build lifecycle and help keep the Rail Project on track, on time and cost effective.

Reports to Director, Quality Assurance and Control (Supervisor) who has final responsibility for quality assurance, quality control, safety and security for the Rail Project. The incumbent performs work independently in all areas, from development of the Airports Authority's Quality Program Plan to periodic audits of the design-build contractor's quality control activities to independent, direct on-site inspections; this includes assessing adherence to standards and making

recommendations on quality assurance program modifications or specific corrections. The Supervisor may make some initial assignments in terms of overall objectives, priorities and special considerations (technical, political and practical) with special assignments given on a broad range of quality assurance issues for expeditious resolution. The incumbent recommends or interprets policies and standards in accordance with regulations, guidelines, programs and objectives; keeps the supervisor informed of overall programmatic progress and important events; and resolves most quality assurance problems that arise without assistance or refers them directly, with appropriate advice and recommendations, to the supervisor or cognizant office (such as the Office of the Legal Counsel) for resolution or guidance. Work is expected to be technically accurate and, typically, it is reviewed in terms of overall conformance with established Airports Authority policies and procedures, FTA or other reporting requirements and other guidelines, customer service, balance in trade-offs and other factors, including acceptance by the project management oversight committee and goals and measures.

Guidelines include Federal, Virginia and local laws, regulations or programs (including WMATA) affecting quality assurance for rail construction and grants applying to the Rail Project; Airports Authority programs, guidelines, policies and procedures on contracting, conflict resolution, etc.; building codes and other technical standards applying to the Rail Project; generally-accepted standards concerning quality assurance (including maintainability) in the design-build process and standard procedures of the construction industry and various rail and building trades; engineering references; specific construction contracts awarded under the Rail Project; etc. The incumbent uses: (1) judgment in applying a particular reference, along with experience, to determine when construction materials, techniques, etc. are in compliance with requirements or whether nonconformance or inadequate substitution exists and intervention or corrective action is needed, and (2) initiative in recommending actions to prevent, minimize or correct deficiencies. May refer directly to the Legal Counsel's office, as authorized by the supervisor, for advice or assistance on new or particularly complex legal, regulatory or contractual issues affecting his/her work.

EFFORT Work is primarily sedentary, but includes work in the field on a regularly recurring basis. May sit for extended periods when in the office. Traverses areas of uneven terrain and unfinished construction and moves and positions self to gather data in the field and inspect work on site. Examines color-sensitive materials, e.g., painted steel siding, wiring and other building materials. Observes construction in progress. Responds to alarms of backing construction or service vehicles. Uses computer equipment, a calculator, telephone, radio and other electronic equipment frequently. Regularly reviews drawings, printouts and other documents containing small print, symbols and engineering notations. Transports files, opens and closes file drawers, and performs similar activities. Ascends/descends unfinished stairs and supports self on ladders and in somewhat awkward positions to inspect hard-to-access places. In driving, operates vehicle using judgment in consideration of weather, traffic and other factors.

WORKING CONDITIONS Works primarily in an adequately lighted, ventilated and temperature controlled office; however works regularly outdoors at job sites, amid rail construction or in or atop unfinished buildings and other structures. While in the field, is subject to adverse weather conditions and dust/grease/dirt. May be exposed to hazardous substances in areas of new construction or environmental clean-up. Is subject to noise from construction equipment and potential for injury arising from accidents (involving construction equipment, moving vehicles,

falling debris, etc.) that are common to the construction industry. Wears hard hat, safety glasses, ear protection, boots or safety shoes, and other personal protective gear, as necessary. Follows established safety practices to eliminate, avoid or minimize potential hazards to self, as appropriate to work site and circumstances. Is subject to job pressures and interpersonal conflicts due to quality audits that reveal discrepancies which must be corrected under tight project schedules within strict budgets, and balancing the at-times competing interests of the Airports Authority and other entities.

OTHER SIGNIFICANT JOB ASPECTS Assignments may require some night and weekend work.