SENIOR CAPITAL IMPROVEMENT PROJECT MANAGER*

DEFINITION OF SERIES:
The Capital Improvement Project Manager series covers positions that are involved in the project management, design, contract administration/control and quality assurance/quality control activities associated with the design and construction of County Government facilities. The work is multi-disciplinary, and often requires the employee to be familiar with a variety of engineering, design and construction disciplines and understand how each supports the overall project.

DISTINGUISHING CHARACTERISTICS:
Employees in this class lead capital improvement project team members in meeting engineering design and construction goals for very large projects and provide coaching to employees and feedback to supervisors on the performance of employees assigned to the project. The employee performs various assignments in design, plan review, project management, engineering administration and other functions, characterized by significant technical complexity, large scale, high cost, and long duration, and may involve the coordination several different engineering disciplines (e.g., architectural, civil, structural, electrical, mechanical, and environmental engineering and non-engineering domains (contracting, budgeting, etc.)

MAJOR DUTIES:
Manages very large and complex (mega) engineering projects involving multiple disciplines, taking projects from conception through design to construction and final acceptance

EXAMPLES OF DUTIES: (Illustrative Only)
- Works with architecture and engineering (A&E) firms to develop and finalize designs; ensures coordination with other county divisions, offices and departments that may have some stakeholder relationship to the project; directs, coordinates and monitors all phases of construction management activities; monitors work of contractors and County staff engaged in constructing very large scale capital projects; visits sites to observe work and to inspect materials and processes used in construction, or assigns staff to inspect materials and project activities; confers with contractors regarding schedules, safety measures, site problems, and delays; reviews and recommends the approval of project change requests and payments; prepares project reports and maintains project records and files.
- Oversees environmental studies for proposed capital improvement projects to identify potential impacts and develops or proposes possible remediation efforts; coordinates and enforces the implementation of environmental compliance measures required of regulatory bodies; oversees or performs environmental inspections, studies, reports and remediation projects.
- Serves as an expert on the review and evaluation of new or existing industry standards, codes, and practices to develop engineering standards and guides; reviews plan and proposals for compliance with guides and advises the County on design and construction issues.
- Leads the Qualification and Selection Committee for consultant and contractor selection and provides engineering expertise for developing the solicitation documents – e.g., scope of work
statements, the technical specifications and contract language – and selection criteria to
Procurement; evaluates proposals, interviews contractors/consultants, and recommends selection; 
serves on the contract negotiations team.

- Directs and manages the contract: conducts contract review, monitors, and verifies compliance 
  with and enforces the contract, communicates with the contractor on contractual issues, monitors 
  and controls project budget, processed contract amendments, addendums, change orders and field 
  orders, RFI, ASI, etc. and maintain detail log of such activities to assure expedited action and 
  monitor compliance with budget.

- Lead commissioning process throughout the design and construction and provide training of all 
  building systems for facility maintenance staff prior to completion of project.

- Communicates with developers, designers, contractors, property owners, other governmental 
  agencies, and the public to response to requests for information, to explain legal/regulatory 
  requirements, or to provide technical assistance.

- Informs others in County government, members of the public and others regarding engineering 
  policies and requirements for construction and assists such persons on such matters as regulatory 
  compliance, County policies and procedures.

- Leads and participates in meetings, work groups and task forces formed to deal with large scale 
  capital projects and related issues; prepares and participates in discussions, presentations, writes 
  reports, and recommends/obtains authorization for studies related to design and construction.

- Attends public hearings and meetings to present, or to support the presentation of, proposals that 
  may be controversial; attends community/neighborhood organization meetings to explain studies, 
  projects, department policies/programs, etc., and to respond to complaints and requests for 
  information/service.

- Confers with County staff, developers, A&E, contractors, and their representatives regarding issues 
  – such as controlling costs, project scheduling, quality control, and safety – arising during the 
  planning and completing projects. Develops options and recommendations for improvement and 
  negotiates with contractors to resolve matters.

- Uses computer applications for planning, design, analysis, and communicating.

- Performs related duties as required.

SUPERVISORY CONTROLS:
Assignments are stated in terms of broadly defined missions or functions; work is normally performed
under administrative direction with little or no technical guidance available. Based on project goals set
by the County Government officials and department management, the employee independently plans
and carries out all aspects of the assignment. The employee is expected to exercise a high degree of
independent judgment to determine the approach to be taken and the methodology to be used and
develops and implements the project plan following project management and engineering principles
and best practices, available resources, specified timelines, and other factors, and resolves most of the
conflicts that arise on own initiative, coordinating with others, and keeping the supervisor informed of
project progress and potentially controversial matters. The work is usually considered authoritative
and is reviewed upon completion for effectiveness.

SUPERVISION EXERCISED:
This is primary lead-level work. The employee directs and supervises others in the performance of
work by passing on or giving assignments or instructions to the team; provides input to the supervisor
on the work of team members; coordinates all project activities; coaches and advises team members;
assigns and monitors project work performed by employees and contractors; oversees the maintenance
of project related work records; and directs staff so project milestones are met.

GUIDELINES:
The employee follows standard and generally-accepted project management principles (including contract administration processes and procedures), engineering standards (for one’s own discipline and, as required, in other disciplines/fields), building, fire and life safety codes, accessibility rules and other federal, Maryland and local regulations (such as the County’s manual for planning, design and construction of sustainable buildings) to ensure that designs, building plans, specifications, and as-built features comply with regulatory requirements. Other important guides cover zoning, procurement, land surveying, land acquisition planning, maintainability-sustainability guides and ‘green building’ standards. On occasion, the employee exercises resourcefulness and creativity in selecting, adapting, and applying or devising the new guides to address projects requiring unique approaches.

COMPLEXITY:
Assignments are technically complex and involve the coordination of multi-discipline activities related, but not limited to, architectural, civil, structural, electrical, mechanical, and environmental engineering. Overall project management includes responsibilities for contract administration/control and quality assurance/quality control of projects and requires a professional construction engineering design background. Typical assignments involve situations, some of which are novel or lacking in precedent, that must be analyzed to determine appropriate courses of action. Many situations contain uncertainties and unknowns, some the result of new technology, which call for exercise of seasoned judgment.

SCOPE AND EFFECT:
The scope of the work typically involves very complex activities associated with engineering design, capital project management and building instruction. The employee is responsible for projects from conception through acceptance of designs, or from construction through final acceptance of completed work, and the design-construction projects impacts critical County infrastructure and/or facilities. The work typically involves resolving critical problems, implementing innovative building design concepts and the development and presentation of recommendations concerning complex and sensitive issues that affect facility tenants, county residents and the general public using the facility or serviced by the tenants, county residents, county government operations, etc.

CONTACTS:
Contacts are with public and private officials, including community groups (such as associations, preservationists, disability rights advocates, etc.), contractors, architecture and engineering (A&E) firms, utilities, regulatory agencies, lawyers, consultants, elected officials, department/agency staff, facility tenants, and other capital improvement project managers. The purpose of these interactions is to plan and coordinate operational matters, provide advice/guidance on construction plans and documents, resolve complex problems, address County actions related to the impact of construction projects on the community. Contacts may be contentious, and the employee may need to negotiate, persuade, and defend the County’s position.

PUBLIC SERVICE /ASSISTANCE:
Positions assigned to this class provide limited one-to-one public service and assistance to individuals outside of the County Government. The employee may periodically interact with the public, but this interaction is incidental to the primary purpose of the job.

HAZARDS:
Risks associated with construction activity include general site conditions, street traffic, moving equipment, uneven terrain or constructed spaces and possibility of falling materials. The employee typically spends five to ten percent of the work time in environments where a hard hat, steel-toed safety shoes, hearing protection or other personal protective equipment and caution are required.

**MINIMUM QUALIFICATIONS:**

**Experience:** Seven (7) years professional experience in an architectural or engineering discipline with a focus on the management of projects involving the design and construction of large facilities, to include total responsibility for all aspects of the project, including contract administration, scheduling, budgeting, quality assurance/quality control, and public interface.

**Education:** Graduation from an accredited college or university with a master’s degree in Architecture, Mechanical, Civil/Structural, Electrical or Environmental Engineering or a related engineering discipline, or Construction Management.

**Substitutions:** An equivalent combination of education and experience may be substituted, provided such combination includes at least 24 credits of graduate level coursework (or an equivalent amount of accredited professional training) in engineering, architecture, construction, or related courses appropriate to the position.

**Knowledge, Skills, and Abilities:**

**Expert Knowledge of:**

- Standard professional design and construction concepts, principles, practices, and techniques related to an engineering or architectural discipline and an understanding of roles of various engineering disciplines – including but not limited to, civil/structural engineering, mechanical engineering, electrical engineering, and environmental engineering – in the design and construction of modern, efficient facilities.
- Building and building system functionality, maintainability, and sustainability, including ‘green building’ objectives, principles, and practicalities.
- The characteristics and uses of construction and building materials, including state-of-the art construction technology and materials.
- County, department and unit missions, operations, policies, and procedures, as well as the impact of State/federal regulators and utility companies, and the laws/regulations relevant to the construction/renovation of facilities.
- Project management methodologies, practices and techniques and skill in applying project management skills including monitoring, guiding and coordinating the work of others (e.g., A&E professionals, A&E firms, construction contractors, etc.), developing contract agreements/amendments for facility design and construction and the performance of other professional services.
- Key aspects of land surveying pertinent to projects.
- County, department and unit missions, operations, policies, and procedures, as well as the impact of State/federal regulators and utility companies, and the laws/regulations relevant to the construction/renovation of facilities.
- County (self-insured) insurance requirements, County permitting and other federal, State, County or municipal (such as City of Rockville) regulations, requirements or guidelines to manage construction projects and administer construction contracts.
Skill in:

- Interpreting County, State of Maryland, federal, and municipal codes and in the permitting and inspection processes, industry standards and other guidelines affecting facility design and construction/renovation.

- Managing large and very large scale design and construction projects including developing the project plan, charter and project schedule; assessing risks and developing steps to mitigate the risk; identifying resource requirements (e.g., project budget, request for proposal development, skills requirements of the project team, the contractor selection etc.); negotiating and administering contracts; monitoring project progress, signing off and authorizing payments at the completion of the project.

- Problem solving to select, organize, and logically process relevant information (verbal, numerical or abstract). This includes skill in identifying subtle aspects of problems and making recommendations and decisions, conceiving complex designs and preparing/reviewing architectural drawings, developing options, analyzing cost estimates, etc.

- Interpersonal skills including interacting with others in a businesslike, customer service-oriented manner; direct/lead project team members and establishing and maintaining effective working relationships; and negotiating and persuading others.

- Conveying and interpreting written and oral information (including facts, assertions, and arguments), draw inferences, form hypotheses and develop logical arguments so that others will understand and, at times, agree or be convinced or persuaded. This includes skill in listening 'actively' to ascertain key information, including perspectives, concerns, wants and needs of others and in expressing information in ways that help people understand technical and non-technical issues and skill in preparing written reports, design specifications, contract documentation, records of unit activities, and correspondence.

- Using a computer, office suite software (such as MS Office), enterprise software and specialized software (such as Primavera and MS Project) to communicate, manipulate data, prepare presentations, conduct research, budget, requisition, plan/schedule projects and perform other functions. Skill in using computer engineering applications and models

Licenses, Registrations, Certifications, or Special Requirements:
There will be no substitutions for this section.

- Positions within this class require licensing as a Professional Engineer (PE) or Registered Architect (RA) by the State of Maryland.

- Applicants with appropriate experience and licensing from another state will be considered for appointment but will be required to obtain reciprocal licensing from Maryland within six months of appointment to this class.

- Possession and maintenance of Project Management Professional (PMP) or similar certification.

- Possession and maintenance of a valid Class "C" (or equivalent) driver’s license from the applicant's state of residence.

Work Environment:
The employee works mainly in offices, meeting rooms and other places that are adequately heated, lighted and ventilated. However, there is also field work, such as field surveys and construction project visits, where there is dust, dirt, grease and exposure to adverse weather.
Physical Demands:
While at the construction site, the employee will move on rough or uneven terrain. The employee may kneel, stoop, bend and reach, or use of ladders to view restricted spaces or access building mechanical systems.

PROBATIONARY PERIOD:
Individuals appointed to a position in this class will be required to serve a probationary period of twelve (12) months and, if promoted to a position in this class, will be required to serve a probationary period of six (6) months. Performance will be carefully evaluated during the probationary period. Continuation in this class will be contingent upon successful completion of the probationary period.

BARGAINING STATUS: Positions assigned to this class are normally unrepresented.

MEDICAL PROTOCOL: Medical History Review – Low Risk

PROMOTION POTENTIAL:
This is the budget-level and highest level of the Capital Improvement Project Manager series.

CLASS SPECIFICATION HISTORY:

Class Established: April 2018
Revised (format): October 2018