

## **POSITION DESCRIPTION**

**Engineering Specialist Management**

**Working Title: Mechanical Construction Designer**

**Division of Facilities Management, Bureau of Building Management**

**December, 2014**

**Position Number: 021891**

## **POSITION SUMMARY**

Under the general supervision of the Section Chief, Bureau of Bureau of Building Management, this position serves as a project engineer and construction manager for the Division of Facilities Management (DFM) program in the Department of Administration (DOA). As Engineering Specialist Management (ESM), this position reviews and/or approves periodic payment requests and change orders. This position performs engineering reviews, construction administration, troubleshooting investigation, and oversight of projects delegated to the Bureau. The ESM must develop and implement policies and procedures, manage the budget, make timely and important project decisions on engineering issues, and accept responsibility for a wide range of mechanical construction projects. This position is responsible for planning the project, developing the budget, project scheduling, and performing inspections to ensure work is complying with plans and regulations, and progressing in an orderly, safe and timely manner. The ESM will have the experience and ability to communicate and work effectively with DFM designers, building managers, asst bureau directors, architect consultants, engineers, tenant agencies, and trade shop supervisor/ and staff, and Division of Facilities Development (DFD) Engineering staff.

The ESM is responsible for providing mechanical technical assistance to the Building Managers, Space Planning and Leasing, building maintenance staff and the DFD regarding operational problems, conditions, HVAC system effectiveness, electrical issues and solutions, plumbing, controls and general construction.

## **GOALS AND WORKER ACTIVITIES**

**40% A. Manage and direct the construction project activities of building upgrades which includes all mechanicals and remodeling projects being implemented or managed by the Division. Ensure the construction is completed in accordance with all applicable laws, codes statutes, administrative requirements, approved programs, schedule and budgets.**

A1. Provide supervision and administration of state construction and mechanical maintenance projects at various DOA state owned facilities. Supervise and manage multiple construction projects related to the design, construction, operation, and maintenance of state-owned buildings.

A2. Provide construction mechanical estimates or bids, assist in preparing construction contracts, and assure timely material purchases and deliveries.

A3. Manage project schedules to facilitate completion of design and construction within framework of Wisconsin State Building Commission approval, and which allows for timely occupancy.

A4. Review and approve A/E and contractor payment requests. Review and/or approve periodic payment requests and change orders to ensure work paid for has been performed and changes to contract plans and specifications for schedules are priced appropriately.

A5. During the construction phase, perform a full range of quality control over the construction activity of in-house trade staff, contractors, subcontractors, and consultants.

Oversee the performance of contractors and subcontractors who are constructing, renovating, or repairing of mechanical systems.

A6. Enforce A/E contract requirements and provide evaluation of Architect/Engineer performance.

A7. Manage project funds responsibly ensuring expenditures are appropriate and necessary, payments are timely and unused funds are promptly reverted.

A8. Review and approve change orders to A/E and construction contacts.

A9. Provide post construction/occupancy evaluations for division projects. Provide evaluations and recommendations, including necessary repairs and maintenance items.

A10. Provide onsite examinations of any general construction building or mechanical failures or problems to determine the cause.

A11. Develop construction punch list items for in-house trades staff and contractors for project closeout.

A12. Coordinate project closeout procedures by securing as-builts, O&M warranty documentation from contractors and vendors.

A13. Conduct post-construction evaluation with input from DFM and the tenant agency.

A14. Research, review and evaluate new products, techniques, systems and construction methods that will be used in projects.

**10% B. Work with the DFM designers, DFD engineers and architect/engineers that are preparing designs for new office spaces, mechanical (HVAC), electrical system & plumbing upgrades and exterior repairs.**

B1. Coordinate the work of professional architectural/engineering (A/E) resources, trades staff and other technical and professional employees. Work with A/E staff and other professional consultants to assure that technical and code requirements of plans and specifications are met and project meets all mechanical expectations.

B2. Work with the DFD when the project requires their approval and oversight. Implement DFD Policy and Procedures in accordance with codes, laws and regulations.

B3. Coordinate and conduct with building management of DOA state owned buildings, investigations on complicated mechanical, plumbing and electrical systems to determine the need of repair and/or upgrades to the systems.

**20% C. Provide technical assistance to the Building Mangers, Space Planning, Building Maintenance staff in all aspects of mechanical, electrical and plumbing (MEP) for remodeling and repair projects within DOA. Work with the DFD engineers on solutions to all MEP issues for the DOA state owned facilities.**

C1. Assist the space interior design planners on DOA office remodeling projects for recommendation on mechanical, electrical, plumbing and fire protection changes by code.

C2. Elevate and determine corrective action for mechanical performance problems or deficiencies. Make recommendations for replacement, repairs and/or replacement with maintenance staff, building managers and vendors.

C3. Prepare detailed reports, cost estimates, bidding plans & specifications for various mechanical, electrical and plumbing systems.

C4. Research the mechanical equipment capability and capacity and recommend changes to systems to fully utilize the existing equipment.

C5. Ensure that project work will have no adverse effects, provides desired results, and is not in conflict with long-range plans for the DOA facilities in the aspect of the mechanical systems. Review project plans to make certain there are no violation of established codes and policies. Provide alternatives when appropriate.

C6. Determine parameters and make recommendations for system solutions regarding HVAC, electrical, plumbing and fire protection for new and existing DOA facilities in advancement of projects.

**15% D. Participate in the development of the annual and biennial budget requests prepared by the Bureau for the Division projects. Direct and manage the preparation of the individual project requests to assure appropriateness and justification of each project.**

D1. Participate in the development of the annual project budget and biennial capital budget for the division. Review project submittals from division staff to fully understand the justification and importance of each project. Prepare and review the cost estimates prepared by building managers and trades.

D2. Coordinate division projects schedules to allow for tenant occupancy schedule and required construction timing the end tenant inconvenience is. Review inter-relationships of construction projects and resulting impact on tenant occupancy.

D3. Develop construction alternatives, conferring with facility designers, architectural, mechanical and electrical engineers to establish feasibility and effect for the project on building heating and cooling systems, the tenant's data communication systems and final scope and impact regarding proposed tenant agency floor plan changes.

D4. Provide a critical assessment of all drawings and specifications prepared by A/E staff and consultants to ensure conformance to division and department policies and procedures, suitability for bidding and construct ability.

**10% E. Coordination of space utilization efforts, work with the Bureau of Space Management and Occupancy to attain the highest possible occupancy rate in DOA state owned buildings. Participate in the development of test fit scenarios including MEP concerns, conceptual budgets, and proposed layouts for options of tenant occupancies. Coordinate efforts of architects, engineers, tenant staff and agency representatives for construction planning and space management.**

E1. Coordinate efforts of building management and tenant representatives during space programming, test fits, conceptual layouts, and needs development with architects/engineers and Bureau of Space Management staff.

- E2. Work with the Division of Facilities Development staff and other agencies to develop program statements and RFP documents for major remodeling and new construction of DOA state owned facilities.
- E3. Review monthly reports of vacant space in buildings managed by the Division.
- E4. Discuss program and layout alternatives with building management, tenant representatives and DFD staff for conceptual layouts and test fits.
- E5. Assist with the definition of the scope of work, estimated cost including MEP costs, construction planning and phasing for space build-out projects
- E6. Complete construction cost estimates and timelines for potential remodeling and renovation projects. Prepare life cycle cost analyses of development alternatives.
- E7. Utilize the Division's computer based design tools to create, present and review design and construction alternatives. Assist in the preparation of design plans, specifications and bidding materials for procurement of products by the Division.

**5% F. Perform general administrative and mechanical engineering functions.**

- F1. Develop and implement mechanical engineering design and construction standards.
- F2. Participate in planning and development of the annual operating budget for the bureau as well as the six-year plan for all the facilities managed by the Division.
- F3. Act as project leader for special division-wide studies or program. Coordinate input from other Division managers and staff. Prepare reports for consideration and action by DOA administrators and managers.
- F4. Assist with special projects as assigned by the bureau director.

**Knowleges, Skills, and Abilities:**

- 1. Knowledge of, and technical skills and expertise in, project management, quality management and quality engineering.
- 2. Expertise in the building industry and construction / renovation practices.
- 3. Ability to review and interpret drawings and specifications.
- 4. Skills and abilities in negotiation, collaboration, communication, analysis, conceptualization, budgeting, time and resource management, statistical methods.
- 5. Excellent teamwork skills.
- 6. Ability to successfully manage multiple projects simultaneously.
- 7. Proficiency in computer skills.
- 8. Effective oral and written communication skills.
- 9. Strong customer relationship management skills.