



Phwint Phyo Thit



Job Title

MEP Engineer

Reports To

The **MEP Engineer** will report to his/her **Department Director, Project Manager** and **Team Leader**.

Job Overview

- Managing, designing, developing, creating and maintaining construction and installation of Mechanical, Electrical and Plumbing (MEP) projects.
- Conducting on-site investigations, manage, control, inspection, review and analyzing data. Manage, evaluate, and assess information related to Mechanical and Electrical systems necessary to construct the project on time in a safe manner, within budget, and to the quality specified by the contract documents.
- Assessing potential risks, materials and costs and lead the project team, sub-contractors on site.
- Providing expertise in MEP planning, methodology, execution, management and control. Providing support to proposal development, design, construction and installation, maintenance of MEP networks in the construction project.
- Participating in and providing support to project design activities including development of project theories of change and strategic frameworks (Results Frameworks, Log Frames).
- Developing a monitoring and evaluation MEP plans.
- Helping determine performance and impact indicators and targets.

Responsibilities and Duties

- Manage, design, develop, create and maintain small-scale through to largescale construction projects in a safe, timely and sustainable manner
- Conduct on site investigations and analyze data (maps, reports, tests, drawings and other)
- Carry out technical and feasibility studies and draw up blueprints that satisfy technical specifications
- Assess potential risks, materials and costs
- Provide advice and resolve creatively any emerging problems/deficiencies
- Oversee and mentor staff and liaise with a variety of stakeholders
- Handle over the resulting structures and services for use

- Monitor progress and compile reports in project status
- Manage budget and purchase equipment/materials
- Comply with guidelines and regulations including permits, safety etc. and deliver technical files and other technical documentation as required.
- Prepare and manage the contract item's list for all components, materials, and systems to ensure that all dates are in compliance with the project schedule with the appropriate approval status.

Qualifications

- Proven working experience in MEP engineering
- Excellent knowledge of design and visualizations software such as AutoCAD, BIM 3D or similar
- Proficiency in site layout, grading, utility design, erosion control, regulatory approvals etc.
- Project management and supervision skills
- Strong communication and interpersonal skills
- License of professional engineer
- B.Tech./B.E in Mechanical & Electrical Engineering above
- Physical Demands: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. Performance of the duties will occasionally require physical ability to climb permanent and temporary stairs, ability to climb ladders and negotiate work areas under construction.

Construction MEP Engineer

PPT Engineer's responsibilities of Construction Supervision, Site Management and Quality Control:

1. Site Handover and Preparation

- The Engineer shall hold and preside over a kick-off meeting with the Client and Contractor(s).
- The Engineer shall issue handover notice of the site to the Contractor(s) as per the general conditions of contract in coordination with the Client.
- Check and approve the Contractor(s) construction/ shop drawings in coordination with the Client.
- Review and approve the construction layout plan including the Contractors' base camp, laboratory, and other facilities and help establish the project construction details within the site as per the working drawings.
- Prepare a detailed Construction Supervision and Quality Control Plan for client's approval and perform quality control of contractors/ suppliers works, such as set out survey and measurement, field and laboratory tests, foundation excavation works, structural concrete work, erection of steelwork, tec. Review and prepare as required

“Health & Safety Plan” and “Environmental and Social Management Plan” and monitor contractors’ compliance with the Plans/ regulations.

2. Review of Contractor(s)’ Implementation Schedule

- The Engineer should carry out a thorough review of the Contractors and suppliers’ proposed implementation schedule and prepare a Consolidated Program in coordination with the Client. Interrelations between the various activities, including compatibility between civil and mechanical/electrical works, shall be carefully reviewed particularly with respect to time schedule, commencement and completion dates to prevent possible delays and disruptions. At the end of this procedure, an agreed implementation schedule should be provided by the contractor(s) to the satisfaction of all parties.

3. Supervision of Construction Works

- The Engineer should provide the necessary supervisory staff to be employed during the period of implementation in executive and supervisory capacities in respect of the construction contracts. The Engineer will be delegated with all normal duties and powers of the “Engineer” for the implementation of the project.
- It will be the responsibility of the Engineer to supervise all operations on behalf of the Client and to ensure that the work of the Contractor(s) is carried out in a proper workmanship and expeditious manner and in accordance with the contract documents.
- The Engineer will, in coordination with the Client; check, approve, reject and record, as per the technical specifications, as the case may be, inter alia, the following:
 - Contractor(s)’ construction plant and equipment:
 - Material of construction;
 - Testing procedures and results;
 - Construction of site works: concrete structures, steel structures, finishing, mechanical & electrical works and other utilities as required;
 - Manufacturing, installation, tests, initial operation and preparation for commissioning of electrical mechanical equipment
- Review and approve all submittals, including method statements, construction/ shop drawings, etc. submitted by the Contractors / suppliers for permanent and temporary works, formwork, etc. to ensure conformity with construction contracts and that the work can be carried out safely and in accordance with recognized and accepted practices.
- Assess any design modifications that may become necessary during contracts execution, and propose technically acceptable modifications, or assess and approve contractor(s) / supplier(s) proposals in consultation with the client.
- Monitor any emergency and unsafe conditions and report to the client for speedy response / remedial actions.
- Upon the occurrence of unforeseen circumstances, which in the opinion of the Engineers are susceptible to cause modifications to the nature and/or cost of the works and the construction program, the Engineers shall prepare and submit promptly special reports, suggesting solutions, etc.

- Monitor contractor's compliance with the specific provisions of the Construction Environmental and Social Management Plan, Occupational Health and Safety provisions, relevant national legal obligations and specific contractual provisions.

4. Issue of Instructions to the Contractor(s)

- These services will relate to the fulfillment of the contractor(s) duties from drawing up and approval of the work program till the completion of works. The services will include issuing field instructions in writing as required relating to:
- Quality of materials used in the works
- Equipment and methods of construction
- Supervision, checking and testing of works carried out
- Clarification of drawings and specifications
- Progress of works to ensure that the work program is adhered to
- The Engineer shall not give any instructions which are likely to increase the cost of works without the prior approval of the Client.

5. Manage and Report to the Client on Progress of Works

- It is of utmost importance that the progress of the Works, including timely manufacturing and delivery of mechanical equipment, be in accordance with the programmed implementation schedule since the timely implementation of the project necessitates the strict adherence to the approved timetable. The Engineer will keep the Client advised continuously as to work progress. If any deviation from the implementation schedule occurs, the Engineer will inform the Client about the necessary measures to be taken to avoid/ minimize delays in the overall project implementation schedule. The Engineer will also assess and approve modification proposals in the construction program and time schedule as required or suitable in consultation with the client.
- Cooperate with the project team, subcontractors, owner's consultants and representatives to ensure optimal alignment and efficient systems installation.
- Prepare and manage the contract item's list for all components, materials, and systems to ensure that all dates are in compliance with the project schedule with the appropriate approval status.
- Participate in schedule update meetings and provide the latest information for an informed and accurate schedule.
- Evaluate and manage the processing of RFI's.
- Manage the budget including the review, evaluation, and negotiation of all change orders with understanding of the financial status of all subcontractors.
- Supervise, coach and mentor Assistant MEP Engineers.
- Co-lead the MEP Coordination Process with each system Engineer, ensuring overall installation is in compliance with the design requirements, operations and maintenance fundamentals, and quality standards.
- Prepare scope of work documents with a division of responsibility for trades and specific scopes of work for temporary operations.
- Partner with the MEP Superintendent to resolve conflicts between the mechanical and electrical systems with the site logistics plan and in compliance with the project schedule.

- Co-lead with the MEP Superintendent the overall turnover process including start-up, testing, commissioning and closeout.
- Conduct regular project walkthroughs with the MEP staff to ensure that work is proceeding in accordance with the contract documents, coordination drawings, and approved submittals.
- Identify and inform field staff of difficult installation requirements in sufficient time to allow for proper planning and execution.
- Manage and secure all municipal and agency documentation required for temporary certificates of information and system operation.
- Create and implement the quality control plan with the MEP Superintendent.

6. Inspection and Testing of Works

- At all stages of implementation, the Engineer shall carry out regular inspection of materials and workmanship and acceptance tests on his own cost to ensure compliance with the specifications. Where work on site at any time during the implementation does not meet the requirements of the specifications, it shall be removed or rectified.
- Carry out inspection at time of substantial completion of the works and arrange, for issue of the Initial Hand-Over Certificate in coordination with the Client.
- Undertake periodic inspections during the Defects Liability Period and notify the Client and Contractor of any defect on the construction and installation works, and supervising their repair. Following the expiry of the Defects Liability period, arrange for issuing the Final Hand-Over Certificate in coordination with Client.
- Co-lead with the MEP Superintendent the overall turnover process including start-up, testing, commissioning and closeout.

7. Approval of Payment Certificates

- The Engineer shall, in parallel with the Contractor(s), make field measurements of all works done, which will be required for checking and certifying the Contractor(s) Interim payment Certificates.
- Prepare and issue the Certificate of Payment for draft statement of accounts and for final statement of accounts.
- The Engineer shall keep the appropriate register of works whose format will be elaborated by the Engineers and agreed by the Supervisor or Project Manager.

Signature:

Employee Name:

Date: