



SITE PRODUCTION & MANAGEMENT SUBMISSION1 – M5X01875

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Introduction

The purpose of this report is to discuss the role that the Project Manager executes at distinctive project phases of a developments lifecycle. Additionally, to provide an overview of the tasks which require completion under the PCM supervision from inception to handover.

The Role of the PCM in Construction Phases

Dainty et al (2007) Avers that a proficient and successful Project Construction Manager (PCM) must possess an astute awareness of the importance of clear communication during every phase of a project. Furthermore, asserting that the PCM must possess additional personal qualities such as:

- Leadership & Management Skills
- A good attitude e.g. Integrity, Composure, Enthusiasm.
- Approachable e.g. Empathy, Compassion.
- Adaptable to overcome problems with a cool head.
- Ability to delegate without the need for micromanagement.

CIOB (2014) Proffers that the PCM is prominent in all phases of construction projects but is much more involved in some stages than others. Additionally affirming, that the Life Cycle stages are broken down into key milestones which must be controlled with accuracy in accordance with the client specifications. The project phases of construction are:

Inception

Clinton (2017) Asserts, that during the Inception phase of a project, a PCM can be appointed by the client post inception phase or employed prior to commencement to convey professional advice:

- Outline the Key Elements of the Project e.g. Objectives & Constraints.
- Promote and plan Sustainable Construction Scheme (SCS) criteria e.g. BREEAM to maximise achievable points within the management categories specified within the Technical Manual (2014).

- To assist the client to prepare and proceed to feasibility studies of the development.

Hess (2009) affirms that this initial phase can be controlled solely by a design professional, but may also be planned by the PCM “Construction Managers, who are a relatively new breed, may also assume this role”.

Feasibility

Edwards (1995) states, that the Project Construction Manager is responsible for the evaluation of feasibility at every stage of development. Moreover, adding that at feasibility stage specifically, consultation between the client and PCM must establish all specifications to define the projects key objectives. The PCM must also clearly display the vision to take the project from concept to completion. Being Intensely involved with all phase attributes to:

- Define the Clients Specifications for the project brief.
- Discuss and utilise the available methods to complete tasks within the financial restraints specified by the client.
- Help the client establish a clear understanding of the project and decide if the project should progress to the next stage.

Kulwin (2017) Affirms this, additionally asserting that the production of a feasibility report to the client establishes an understanding of the specification require.

Strategy

Atkin and Borgbrant (2009) stipulate that, at the strategy phase, the PCM is more involved within a project. Additionally, surmising that fundamental strategic management decisions are made at this stage of development by:

- Appointing the management team and hierarchy.
- Employing accountability and Conflict resolution systems to remedy problems that may arise on site.
- Producing a Financial Programme to ensure expectations are met and the project remains a worthwhile investment.
- Producing the most suitable Procurement Route for the development.
- Creating a preliminary BIM Strategy to produce a preliminary programme of works.
- Deciding when Sustainable Construction Scheme assessments will be executed.
- Generating the documentation required to initiate the tendering Process.
- Securing the contractors via acceptance and agreement contracts.

CIOB (2014) States that the implementation of a “Responsible Accountable Consulted Informed”. (RACI1) will help to improve this process by implementing a governance programme to the project.

Pre-Construction

Loosemore (2003) avers that the Pre-Construction phase of a project begins at the point the contract is awarded to the contractor post tender process. Moreover, stating that this period can last weeks or months depending on the complexity of the build. During this time, the PCM oversees specific attributes to:

- Finalise the Design with all documentation and specification agreed with client.
- Generate a finalised BIM Model to allow accurate milestone-management.
- Make sure that all materials are ordered in correspondence to the specified building Information model.
- Ensure that the client has secured funding for the development to proceed.
- Certify that the Contractor has the required funding to carry out the development specification.
- Confirm that the site is available for the contractor to start work and has the necessary equipment.
- Create and implement Site Health and Safety reports and guidelines.
- Ensure the site has unobstructed access and does not have any problems which could impact on the build time.
- Obtain final Approval from client to proceed with construction.
- Supervise the handover of the site from the client to the contractor.
- Ensure that CDM 2015 regulations will be followed.

Klinger (2006) insists that the pre-construction and strategy stages are the most important to the PCM. Additionally, determining that the Pre-construction phase is very similar in different projects “Public and Private developments follow much the same pre-construction process”.

Construction

Lawson et al (1999) state that the Construction phase is rarely successful if meticulous strategy and planning is not completed correctly in the previous phases of the development. Additionally, suggesting that the construction phase is the stage at which most emphasis is based when evaluating the PCM skills and performance in the completion of:

- Contract documents, signed and distributed to the Contractors and relevant personnel.
- The Handover of site from client to the contractor to enable works schedule to commence.
- Evaluation of the contractor work schedules and method statements.
- Hold recorded site meetings to enable contract changes such as variation orders or unsatisfactory work to be addressed at the earliest stage.
- Monitor all financial plans and restrictions during each phase.
- Perform quality assessments of the contractors work before proceeding to the next phase and to ensure that time specific milestones are on schedule.
- Enforce all Health and Safety legislation, as well as performance analysis of site security.

- Perform Routine inspections of all aspects of the site including the impact on the locality of the site e.g. Neighbours, Ecology, Waste management.
- To ensure that all specification documentation is adhered to and that SCS mandatory criteria are ready for inspection e.g. Breeam, Building regulations.
- Ensure that all parties involved with the development carry out contract obligations within agreed parameters.

Bennett (2007) confirms this and proffers “Now the emphasis is on monitoring and controlling various aspects of the developments construction stage”.

Testing, Commissioning & Handover

Rumane (2016) avers, that this post-construction phase requires the PCM to carry out quality control testing to contractors completed works. To ensure that all contract requirements or agreements have been completed within the clients specified standards. The PCM must also produce all required documentation with user information regarding:

- Operation and Maintenance Manuals – O&M
- Performance and Warranty Certificates e.g. A-rated appliances
- Records of safety testing e.g. Gas and electrical certification
- Operation Manuals for new occupier
- Updated Fire and Health and Safety
- Complete Sustainable Construction Scheme documentation criteria requirements e.g. to Obtain Passivhaus or Breeam certification.

Conclusion

The role of the PCM during a planned development is most efficient when implemented at the earliest possible phase. Although, it is not mandatory to appoint a dedicated Construction manager at inception phase. The benefits of doing so are highly apparent, especially when implementing a Sustainable Construction Schemes such as Breeam. To be an efficient PCM, excellent interpersonal skills are required to carry out the required tasks within the set phases as detailed in this report. It is also perceptible that it is not essential to possess a strong knowledge of construction although the process of any build will benefit from at least a basic understanding of the subject matter.

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