Written by Omar Osman, management of building a building can be done without any planning and construction scheduling. Construction planning and scheduling are implemented when documents and charts help the manager or contractor to complete the construction project. In fact, in the past a skilled craftsman was able to build a building without any plans, not to mention detailed planning with certain documents and outputs. Nevertheless, the plan remains and its management remains, even in the minds of the craftsman. In reality, such things are no longer available now, although the construction project is merely to modify the home, plans are still needed for approval by local authorities. Failure to do so will cause the homeowner to be charged with violating the law provisions in a country.

Similarly, the management of a building or a construction project requires a more systematic approach because of the complex construction process, the use of diverse sources and the sophisticated technology that can be used and the increased legal requirements to be followed. The construction management described in this book examines what should be done in the construction contractor’s organization. This approach is somewhat different with the approach used through a comprehensive project management approach as outlined by the Project Management Institute.

Books written on construction management have led to technical and engineering aspects. Indeed, it cannot be denied the importance of technical and engineering matters in construction. It covers the construction of buildings, infrastructure and various other types of writing facilities that examine matters related to the knowledge needed to build and include engineering requirements. Some point out that site supervision and specific aspects are needed to manage specific matters at construction sites. There are also books specifically written to describe technical management matters such as scheduling and specific techniques regarding managing construction processes (Burton and Mitchell 1994). Complex projects are usually large projects or mega projects such as the construction of dams, long bridges and tunnels in the ground. Among the complex projects include the Kuala Lumpur City Center and PETRONAS Twin Towers, the Kuala Lumpur flood mitigation tunnel known as SMART Tunnel, Channel Tunnel and the Bakun Dam.

The approach used in this book covers three key aspects of management, i.e., frameworks, processes and resources that are then used to analyze construction management. This book uses three-way in describing construction management, which analyzes construction management through existing and modified concepts. For example, this book uses the concept of three aspects of analysis: Entities, phases and processes. The book also uses the concept of construction management framework that divides into production, resource (workforce, technology, materials and components, finance, time and environment) and construction management itself.

In managing the construction, a construction manager and his organization are advised to use the strategy of dividing the construction management into two phases, pre-construction and construction including pre-occupation. In each of these phases, there are several processes that need to be emphasized, for example in the pre-development phase there is planning during tender, prelembing planning and construction preparation. Construction management applications are used to provide relevant examples in each chapter by analysing the problem and solution suggestions. This book is divided into 10 chapters.