

3.0 Why Construction Management?

Construction management has been used successfully in all delivery methods for Owners who do not continuously maintain the staff expertise or numbers necessary to deal with the complex responsibilities involved in the delivery of major capital projects. The CM frequently helps the Owner identify which delivery method is best for the project.

The construction management approach utilizes a firm (or team of firms) with construction, design and management expertise to temporarily expand the Owner's capabilities so that the Owner can successfully accomplish its program or project.

A CM frequently has a role in both traditional and alternative project delivery methods as a trusted advisor to the Owner in oversight of the party at risk in the arrangements. In such cases, the CM may have a reduced scope of work, but participates in the decision-making process on behalf of and in concert with the Owner. This can be particularly helpful in design-build where substantial scope definition responsibility and project control have been assigned to the design-builder, and there exists no natural check on the design-builder.

CM as Agent or At Risk

As previously mentioned, construction management comes in two general forms:

- » *Agency CM*: The CM acts as the Owner's principal agent to advise on or manage the process from project conception to completion.
- » *CM at risk*: The CM provides professional management assistance to the Owner prior to construction and advice on constructibility, budget and schedule considerations. The CM later converts to the equivalent of a Contractor during construction.

The key difference between these two forms is that the CM at risk is in fact a distinct delivery method due to its responsibility for construction performance. Agency construction management, on the other hand, is a distinct set of services that can be applied to any delivery method.

Role of the CM

Use of a professional consultant in construction management improves the Owner's confidence in the success of the project. This enhanced confidence grows out of the ability of a professional CM to make expert recommendations regarding:

- » Most effective use of available funds
- » Enhanced control of the scope of the work
- » Optimal project/program scheduling options
- » Best use of individual project team members' expertise
- » Maximum avoidance of delays, changes and claims
- » Enhanced design and construction quality
- » Optimum flexibility in contracting/procurement options

Construction management includes a significant component often missing from the project delivery systems--a comprehensive management and control effort applied to the project for the Owner, beginning in the early program planning stages and continuing through project completion. It involves the application and integration of comprehensive project controls to the design and construction process and generally includes the following:

- » Development of a written scope understood by all of the participants
- » Development of thorough design criteria for issue to the Designer
- » Design quality assurance throughout the design process
- » Consideration of material, systems and process alternatives
- » Constructibility review
- » Code compliance review
- » Milestone cost estimating—to ensure design complies with the budget
- » Matching construction spending to funds availability
- » Construction specification enforcement
- » Continuous schedule enforcement

The implementation of these management activities turns the planning, design and construction process into one which maximizes the Owner's control over the project's scope, quality, time, and cost, and adds predictability of the outcome of the project from start of programming to completion of construction.

Early development of the scope of the project provides information for the establishment of a baseline budget and schedule. Because of the continuous

monitoring of the schedule and project cost during the progress of the project, the impact of changes and new information on this baseline can be evaluated and corrective action taken when most effective. Well formulated and priced construction bid packages, developed during the planning and design process, are the key to minimizing changes and avoiding disputes and delays during construction. This is the Owner's most powerful tool in assuring a positive outcome for the project.

The addition of a CM does not lessen the Owner's control over the project, but enhances it through the Owner's acquiring as adjunct staff an organization of experts in the design and construction process that will enable the Owner to make informed and timely decisions during the evolution of the project.

When an Owner implements a program or project using a consultant CM, it allows the Owner to make use of the expert advice available, advice that is unaffected by any potential conflict of interest. The Owner is still able to obtain the advantages of the many procurement methods, but with much greater control over and confidence in the outcome.