

Construction Manager/General Contractor (CM/GC) is an alternative contracting method (ACM) in which an owner uses two separate agreements to deliver design and construction: one agreement with a professional services consultant (designer) and one agreement with a construction manager/general contractor (CM/GC Contractor). CM/GC allows for early contractor feedback during the design process while allowing the owner to have more control of the designer during project development.

The CM/GC Contractor is usually selected through a one-step, qualifications-based process. However, a two-step process can be used in unique circumstances or if required by statute. Evaluation criteria are based primarily upon qualifications, experience, and approach to managing each phase of the CM/GC process, preconstruction and construction. While construction cost is generally not considered as an evaluation factor, other cost-related factors, such as preconstruction costs and overhead and profit fees may be considered.

The CM/GC Contractor performs services pursuant to a two-phase agreement that includes a preconstruction phase and a construction phase.

Preconstruction Phase | CM/GC Contractor Activities

- Participation in project development discussions; constructability reviews; risk management activities; cost estimating; scheduling; and other preconstruction services to develop work packages and a guaranteed maximum price (GMP)

Construction Phase | CM/GC Activities

- Construction of the project, assuming agreement on a GMP can be achieved.

The designer's agreement is similar to traditional design-bid-build projects but should include additional scope to allow participation in discussions with the CM/GC Contractor and to support design activities that may result from CM/GC Contractor feedback.

During the preconstruction phase, the owner, designer, and the CM/GC Contractor work collaboratively to advance project development. The CM/GC Contractor will provide feedback throughout the preconstruction phase when scope requirements, constructability issues, risk allocation, or schedule constraints may impact the ability to meet the owner's budget. In a typical CM/GC project, the design development is progressed to specific milestones, such as 30% completion or 60% completion. Once a milestone is reached, the CM/GC Contractor and an Independent Cost Estimator (ICE) for the owner prepare construction estimates. If the estimate exceeds an established threshold (typically 5-10%), the ICE and the design-builder will identify and address the differences in cost principles that caused the discrepancies and work to correct those for the next pricing milestone. Generally, there are no more than three pricing milestones before negotiating a GMP. The design of the project is typically advanced to 90-100% prior to agreement on a GMP.

In CM/GC, development of the risk register is a critical process that facilitates alignment on price through detailed planning for specific risks. Design and risk mitigation activities can progress before the GMP is set. This approach attempts to avoid large contingencies being embedded within the GMP by optimizing risk allocation and risk mitigation strategies. It also allows for risk pricing to be reviewed separately from raw costs, accelerating agreement on the construction price. The risk register is continually updated during the preconstruction phase. When risks materialize during construction, the risk register guides potential compensation and schedule adjustments.

In some cases, use of an early work package may be used to expedite acquisition of materials or equipment and even allow construction of some components. However, approval of early work packages should consider the impact on the overall project.

Construction of a CM/GC project follows processes similar to that of design-bid-build (DBB) projects.

Primary CM/GC Benefits

- ❖ Efficient, low-cost procurement process that allows selection of the most qualified team
- ❖ Early contractor engagement
- ❖ Owner control of design decisions is similar to DBB
- ❖ Facilities use of innovative construction methods
- ❖ Potential to expedite project delivery
- ❖ Improved risk allocation and management
- ❖ Potential for early work packages