

# Project Delivery for the Private Owner

The decision to invest in a new facility or renovation project is usually based on a very thorough business analysis to justify the return on the investment. The selection of an appropriate project delivery system and design/construction team can affect one's ability to meet the project goals. As most owners do not regularly contract for facility design and construction services, they may not be well versed in selecting a project delivery method and project team.

This article summarizes a book entitled *Selecting Project Delivery Systems: Comparing Design-Build, Design-Bid-Build, and Construction Management At Risk.* The book is published by The Project Delivery Institute and written by Victor Sanvido and Mark Konchar.

The book summarizes the findings of a research study where 315 construction projects are analyzed. A project's goals are commonly defined in terms of square footage and function. A project should be further defined with business goals that include target values for:

- Total project construction cost per square foot
- Total project delivery timeline (expressed in FT<sup>2</sup> per month for large projects)
- Cost and schedule growth constraints expressed as the maximum allowable

growth over preferred budget and schedules

- The quality of the envelope, structure, interiors, MEP systems and equipment, each ranked as very important, important, or not important

Three common project delivery methodologies, design-bid-build (DBB), construction manager at risk (CM@R), and design-build (DB) were studied, and the results summarized in the table below. The project's business goals can be matched with the different delivery system performance. The project team should be selected after the project delivery system. The selection process should emphasize that projects are built by a team of people, not just tools. "The project team is the collection of people with its skills, experience, motivation, organizational allegiances and support, who, together, are responsible for delivering" the project.

The selection process should pre-qualify proposing companies and their full team, including major subcontractors, to ensure the whole team has the knowledge, experience, and depth to meet the project's goals. Regardless of the delivery system, research reveals the following factors critical for successful projects:

- Pre-qualification of potential project teams to ensure all members have the relevant experience in both the project type and delivery method
  - Good communication and chemistry between team members and owner
  - Elimination of onerous contract clauses that hinder good communication and team work when risk is not appropriately assigned
  - Selection of construction entities, including critical subcontractors, before design starts
  - Timely decisions by owners
  - Contracts that encourage and reward the project team for cooperation
- Using this information, an owner can be confident that a project will meet their business goals. ▲

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ATTRIBUTE	DB vs DBB	CM@R vs DBB	DB vs CM@R	LEVEL of CERTAINTY
Unit Cost	6.1% lower	1.6% lower	4.5% lower	99%
Construction Speed	12% faster	5.8% faster	7% faster	89%
Delivery Speed	33.5% faster	13.3% faster	23.5% faster	88%
Cost Growth	5.2% less	7.8% more	12.6% less	24%
Schedule Growth	11.4% less	9.2% less	2.2% less	24%

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