



Design-Build 101

One entity, one contract, one unified workflow -
From concept to completion

FOR THE EXPERIENCE

MOWERY

What is Design-Build?



Design-Build Contractual Relationship

TRADITIONAL PROJECT DELIVERY



Owner must manage **two** separate contracts; owner becomes middleman, settling disputes between the designer and the contractor. Designer and contractor can easily blame one another for cost overruns and other problems.

VS

DESIGN-BUILD PROJECT DELIVERY



Owner manages only **one** contract with a single point of responsibility; designer and contractor are on the same team, providing unified recommendations. Changes are addressed by Design-Build entity, not used as excuses.

Design-build is a method of project delivery in which one entity – the design-build team – works under a single contract with the project owner to provide design and construction services. Our team can begin the build phase concurrent with the design phase, meaning we can get shovels in the ground much earlier than other delivery methods. This time savings can equate to cost savings, too, by reducing project and opportunity costs through minimizing the time owners must carry construction financing and related costs.

Our design-build approach also creates a streamlined communication process. Instead of owners needing to relay important project information to the design firm(s) and construction firm, owners work directly with one point-of-contact. This entity is considered the single source of responsibility and contractual risk for all phases of the project including cost estimating, assessments, pre-construction, engineering, design, subcontracting, construction and post-construction.

Design-Build Advantages

- Contractor is the single source of responsibility
- Owner has one point of contact
- Cost savings through value engineering and ongoing review process throughout the life of the project
- Rapid Delivery = Time savings – components of the project can overlap saving time
- Streamlined communication with the owner
- Improved risk management due to the team approach to developing the drawings and specifications. Approach minimizes change orders throughout the process.
- Reduced project/development costs

Source: "DBIA." What is Design-Build?. www.dbia.org/about/Pages/What-is-Design-Build.aspx Accessed 23 Aug. 2017.

Comparison of Project Delivery Methods*

*across varied project types and sectors

METRIC	DESIGN-BUILD VS. DESIGN-BID-BUILD	DESIGN-BUILD VS. CM@R
UNIT COST	6.1% lower	4.5% lower
CONSTRUCTION SPEED	12% faster	7% faster
DELIVERY SPEED	33.5% faster	23.5% faster
COST GROWTH	5.2% less	12.6% less
SCHEDULE GROWTH	11.4% less	2.2% less

Source: Construction Industry Institute (CII)/Penn State Research comprising 351 projects ranging from 5,000 to 2.5 million square feet. The study includes varied project types and sectors.

Re: "Comparison of U.S. Project Delivery Systems." Mark Konchar & Victor Sanvido. *Journal Construction Engineering and Management*, Vol. 124, No. 6 (1998), pp. 435-444

Source: "DBIA." What is Design-Build?, www.dbia.org/about/Pages/What-is-Design-Build.aspx Accessed 23 Aug. 2017.



Design-Build Method



The Design-Build Process

During the Design-Build process and unlike other construction delivery methods, phases of the project overlap to provide rapid project delivery. It's critical all team members communicate throughout the process.

The process has five phases:

- 1 Selecting a Design-Builder
- 2 Preliminary Design/Cost Estimate (Pre-construction assessments)
- 3 Design (architectural/engineering final design plans)
- 4 Construction
- 5 Post-construction/Warranty

Let's look at each step a little closer.

1. SELECTING A DESIGN-BUILDER

While other methods start by selecting an architect or designer, the design-build construction process begins by selecting a Design-Builder. In Design-Build, the best value is delivered by evaluating budget solutions early in the design phase and adjusting price estimates continually as the design progresses. In other words, the

project is designed to the budget, and cost reductions are considered early in the design to avoid unnecessary rework of the design documents. Some would argue that less design is required. In other traditional methods, once the design documents are finished, the project is bid and that is when the owner finds out it is unaffordable, which leads to a redesign of the project.

When choosing the Design-Build method, it is critical to select the right firm and make sure they are equally strong in delivering a thoughtful and functional design (that is also compatible with your own taste) as well as an efficient and cost-effective construction process that meets your deadline and budget. It's important to evaluate each side (design and construction) separately before coming to a final decision to ensure your satisfaction throughout the entire life of the project. In addition, understanding the firm's experience and process is critical.

2. PRELIMINARY DESIGN/COST ESTIMATE (PRE-CONSTRUCTION ASSESSMENTS)

During the preliminary design phase (or what can be referred to as the programming phase), the Design-Builder’s team learns (or through a detailed process-gathers information) about your business, industry, goals, vision for the current and future needs of the facility (often referred to as the “program”), and budgetary goals or constraints. Designers and engineers begin the design, mechanical, structural and electrical assessments. Additional project considerations are evaluated including job site assessments to determine land development related requirements and possible regulatory impact. If you’re renovating an existing space, an assessment of the current facility will identify needs. Codes, compliance, topography and natural resources will all be taken into consideration.

Updated preliminary cost estimates will be provided (if necessary) taking these considerations into account.

3. DESIGN (ARCHITECTURAL/ENGINEERING DESIGN)

The next phase is finalizing the conceptual and schematic designs from an architectural and engineering standpoint as well as the construction documents. The team works together under one umbrella to deliver the most cost-effective and efficient plan that meets the client’s needs.

4. CONSTRUCTION

The construction phase is where time is saved because as the plans are being finalized, the job site is being prepared for the build. By overlapping construction and design, more aggressive deadlines are possible.

5. POST-CONSTRUCTION/WARRANTY

Once the project is complete, walk throughs are conducted and core documentation is provided to the owners and facility managers.

Should an issue arise, Mowery offers a **3-Year Extended Warranty** on all projects. We believe in standing behind our work and building it as if it’s our own.

MOWERY FOR YOUR NEXT DESIGN-BUILD PROJECT

Mowery’s In-House Fast-Track Design-Build Capabilities will help get your project done on time and budget. Our experienced Design-Build team is here to answer your questions and help guide you through the process.

Contact us today to learn more about our approach to Design-Build, and our promise to deliver an exceptional experience.

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