



The Legis Report

Summer 2004

DESIGN BUILD BASICS

Design-Build as a contracting mechanism has been available to the capital construction industry for many years. The American Institute of Architects [AIA], the Associated General Contractors [AGC], the Engineers Joint Contract Documents Committee [EJCDC] and other organizations have developed design-build contract forms to facilitate such agreements. There are many well-established contractors that provide this type of construction service, particularly in the commercial and industrial buildings area.

The Conventional Approach - First, let's consider the conventional approach to constructing a commercial building. Typically, there are three entities involved in the project. There is the entity which will own the completed project, ("Owner"). Our Owner has the need for a commercial building, a multi-unit office-warehouse complex, which it intends to operate as an investment property. The Owner's goal is to lease the completed office-warehouse units to commercial tenants. To move the project forward, our Owner engages a firm with experience in designing this kind of project, ("Architect-Engineer"). Once the Architect-Engineer completes the design and the various local regulatory agencies are satisfied, it assists our Owner in obtaining bids from qualified contractors for the construction work. After the bids have been received and evaluated, our Architect-Engineer recommends that our Owner engage one of the contractors, ("Building Contractor") to construct the complex. After some negotiation and with the advisement of the Architect-Engineer, our Owner enters into a contract with the Building Contractor to construct the complex. As the construction work progresses, the Architect-Engineer observes the work, assuring that the quality standards called for in the contract are being met. The Architect-Engineer also reviews the Building Contractor's payment requests to the Owner. In this approach, our Owner holds two separate contracts, one with Architect-Engineer for the design and construction inspection and one with the Building Contractor for the actual construction. In this scenario,

there is no contractual relationship between the Architect-Engineer and the Building Contractor, even though the two parties interact significantly during the work. It is not unusual for the Architect-Engineer to interpret its design, make decisions on behalf of the Owner and issue directives to Building Contractor during the course of construction.

The advantages of the conventional construction approach are: our Owner is in possession of a complete design before committing to construction, the design is optimized to our Owner's needs, and the construction work is inspected by a party independent of the contractor. The disadvantages include: the process is lengthy from initiation to completion, our Owner holds two separate contracts with parties who often are in conflict, the total contracted cost is not known until the construction contract is negotiated, and the contractor rarely has an opportunity to bring construction efficiencies to the design.

The Design-Build Approach - The Design-Build approach differs from the conventional construction approach in fundamental ways. There are generally only two entities: the owner and the design-build contractor. There are various types of design-build entities. One consists of a construction contractor with a registered architect (or architects) on staff capable of this kind of design. The necessary engineering work is often subcontracted out. This arrangement is often seen in smaller projects: offices, warehouses, small industrial buildings, etc. The other type of entity is a partnering of a construction contractor and an architect-engineer firm in the form of a joint venture or a limited liability corporation [LLC]. This arrangement is common for larger, more complex projects where each firm brings special qualifications to the work. However, on larger projects requiring significant working capital for the design-build entity, it is not unusual for a large general contractor to subcontract the design work to an architect-engineering firm. In all of these arrangements, our Owner enters into a contract with a single entity, ("Design-Builder"), for the design and construction of the project.

The advantages of the design-build approach are: our Owner can look to a single entity, the Design-Builder, for the complete project; our Owner will know the total contracted cost at the beginning of the project; the design should include the most efficient construction practices and most the economic materials; the design does not have to be as detailed as is necessary on conventional designs; disputes and disagreements between the designer and the contractor are eliminated, and - of great importance to our Owner - the project can often be completed and ready to produce revenue 15 to 25 percent faster than under the conventional construction approach. There are, of course, disadvantages: the plans and specifications, while sufficient for construction, are usually less detailed than that traditionally associated with conventional design; the Design-Builder's qualifications and commitment to quality must be thoroughly vetted by our Owner before entering into a contract, for there is no independent inspection of the work, as is the case in the conventional approach; and our owner will not see the fully developed design until after having committed to the full price of the project.

There are several keys to a successful design-build project. Our Owner must deal only with honest, experienced design-build contractors. But honesty and fair dealing is not enough. The contractors must be experienced not only in the type of construction under consideration but also have successfully completed work under design-build contracts in the past. Design-build proposals are more expensive for the contractor to prepare than conventional construction proposals. The proposing contractor on a design-build project must develop a conceptual design and then price that design, whereas, the proposing contractor on a conventional project need only price the design prepared by the Owner's architect.

Other Issues - There are inherent problems with the conventional model. First, the parties that interface the most, the contractor and the architect, have no direct contractual relationship and must deal thorough their respective contracts with the owner. Second, the architect is not a truly 'independent' party when dealing with issues involving interpretation of the plans and specifications or design deficiencies. The design-build approach simplifies the contractual situation somewhat. The conflicts between the contractor and the architect are eliminated in the design-build two-party contract arraignment, but more burden is put on the owner in deciding with whom to do business.

Design-build is at its best when dealing with projects that both parties understand well. Simple, straightforward projects such as warehouses and industrial buildings which generally have lesser aesthetic content are good candidates for design-build. It should be noted that design-build also has an application in significantly different areas of capital construction. There, it is applied to complex, highly technical projects such as process plants, mills, power plants and like, often because the design-build team brings proprietary equipment or systems to the project.



A SCHEDULING FIRST

The Association for the Advancement of Cost Engineering (AACE International) held its first examination for the Planning & Scheduling Professional certification at the Association's annual meeting on June 12, 2004 in Washington, DC. The PSP is the first certification for professional schedulers in the construction industry. Legis Managing Principal, Michael C. Ray, PE, CCE, PMP, chaired the PSP Task Force that created the program for the Association.



A "WET" YEAR

Legis staff members assisted clients in three separate disputes involving trespass of surface water in the Atlanta metro area over the past year. In each case, a developer or builder had constructed a facility that modified or altered the flow of the surface water in a manner injurious to an adjacent landowner. The Legis Staff members, J. Michael Foley, PE, CCE, Patrick S. Ray, CCC, PMP and Michael C. Ray, PE, CCE, PMP were involved in the field investigations and contributed to the reports which supported the actions filed by the clients' attorneys.

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