## Design Build Contracts: Innovative, Efficient & Cost-Effective

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The concept of a Master Builder where one entity has sole responsibility for design, engineering and construction is one that dates as far back as ancient Mesopotamia.<sup>1</sup> Although the use of the Master Builder has declined over the last several centuries, there has been a resurgence of this project delivery system in the form of the design/build approach. The design/build approach is an innovative construction technique which allows a single procurement for the design and construction of projects. Under

the design/build concept, the contracting agency identifies the end result parameters and establishes the design criteria minimums. The prospective bidders then develop proposals which optimize their construction capabilities.

Throughout most of the 1900s, almost all commercial construction projects were done pursuant to the design/bid/build approach, whereby facility owners would contract with different entities at different phases for the architectural design, engineering and construction of projects. Over the last two decades, however, there has been a significant increase in the number of design/build projects, from 15% in 1990, to approximately 40% nationwide in 2006.<sup>2</sup>

The increase in the usage of the design/build approach is a natural progression, as the design/build technique opens up a new degree of flexibility for innovation and presents numerous benefits for both the contractor and the public entity owner. There are four main benefits to the design/build technique:<sup>3</sup>

- 1. **Reduction in Project Cost**: Project savings stem from: a) reduced administrative expenses, as there is only one solicitation to administer and monitor; b) the employment of value engineering techniques whereby the design team, after evaluation of design and construction alternatives, develops and presents the most cost effective construction designs; c) optimization of work force, equipment and scheduling; and d) earlier costs forecasts as the design and construction costs are all included in the one proposal submitted by the design/build firm.<sup>4</sup>
- 2. **Reduction in Project Time**: Compared to traditional contract procurement, the design/build technique assigns both the design and construction to one firm, therefore shortening the lag time typical of the design/bid/build approach. In some cases the design/build approach allows construction to begin before plans are complete.

<sup>&</sup>lt;sup>1</sup> http://www.dbia.org/about/

<sup>&</sup>lt;sup>2</sup> http://www.dbia.org/about/

<sup>&</sup>lt;sup>3</sup> http://cms.transportation.org/sites/designbuild/docs/Florida%20DB%20Report%202003.pdf

<sup>&</sup>lt;sup>4</sup> http://www.constructionweblinks.com/Resources/Industry\_Reports\_Newsletters/Aug\_30\_2004/desi.html

- 3. Accountability: Design/build provides a single point of contract responsibility for quality, cost and schedule from design through construction. This reduces change orders and claims due to errors and omissions. Additionally, the dispute resolution process is shorter as there are fewer responsible parties to the design/build contract.
- 4. **Innovation**: Design/build allows the contractor maximum flexibility to choose innovative designs, materials and construction techniques.

In Florida, the design/build approach was initially introduced by the 1987 legislature and was the first innovative contracting concept to be used in the state. The 1987 legislation authorized the Florida Department of Transportation, ("FDOT"), to experiment with a \$50 million dollar pilot program which identified resurfacing, bridge replacement, new construction, multi-lane new construction, reconstruction, and fixed capital outlay and parking garages as potential design/build projects.<sup>5</sup> Subsequent to the original legislation, there have been several re-authorizations and expansions of the design/build program. Currently, section 337.11, Florida Statutes, allows the use of "design/build contracts" for, among other things, buildings, major bridges, limited access facilities and rail corridor projects.<sup>6</sup> The design/build concept has likewise been used successfully by at least twenty-six states, several municipalities and local public agencies to advance projects. Many of these projects, however, have been centralized in the area of bridge construction.

Since its introduction, the State of Florida has seen significant costs savings from the use of the design/build technique. In a 2003 report on the design/build program, the FDOT noted that for the thirty-three design/build projects completed between 1996 and 2003, the official FDOT costs estimates were approximately \$162 million, while the amount actually spent on the projects, as a result of the usage of the design/build approach, was approximately \$137 million, which translates into \$25 million worth of savings to the state.<sup>7</sup>

Given the state of the global economy and the difficulties with the Florida budget, state officials are looking to expand the use of design/build contracts as a mechanism to save the state millions of dollars. Currently, there are several bills up for review in the 2009 legislative session that will look at the use, regulation and proliferation of design/build contracts. Specifically, House Bill 1021, sponsored by Representative Aubuchon, and Senate Bill 424, sponsored by Senator Gardiner, calls for the use of design/build contracts in 25% of transportation projects by July 1, 2014 and for the granting of stipends to unsuccessful design/build firms as an incentive to encourage not only innovation in design but competition. Similar language is also included in the transportation committee bill, Senate Bill 932.

Undoubtedly, despite its extensive history, the design/build approach is re-emerging as one of the hottest concepts in public construction as it allows the contractor maximum flexibility for innovation in the selection of design, materials and construction methods. Further, the technique has an ongoing track record for providing significant and well-needed cost savings. As

<sup>&</sup>lt;sup>5</sup> http://cms.transportation.org/sites/designbuild/docs/Florida%20DB%20Report%202003.pdf

<sup>&</sup>lt;sup>6</sup> Fla. Stat. § 337.11 (7) (2008)

<sup>&</sup>lt;sup>7</sup> http://cms.transportation.org/sites/designbuild/docs/Florida%20DB%20Report%202003.pdf

such, it is expected that the use of this timeless construction technique will not only increase but reemerge as the dominant design, construction and procurement method.



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