



FINANCING DESIGN-BUILD CONSTRUCTION: One City's Experience - Part I - Defining Design Build

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Editor's note: This article is the first of a two-part series on the City of San Francisco's experience with an innovative financing structure utilized to finance a jail facility. Part two of the article will be published in the September 2001 edition of *DEBT LINE*.

San Francisco bond transactions, like the City's renowned politics, are unerringly unpredictable. Last summer, the City's tried and true municipal lease structure was almost derailed by a quirky little construction fad known as "design-build."

The City is a frequent issuer of lease-backed financings, either as lease revenue bonds or certificates of participation ("COPs"). We adhere to a standardized project lease and with each ensuing issue, we perfect yet another piece of our documentation. Credit analysts know our transactions well. The City's lease-backed financings carry solid A ratings and a coveted AA-minus from S&P. Our deals consistently garner attractive insurance bids from prominent bond insurers and we frequently procure surety policies in lieu of cash reserves.

Understandably, one would be justified in relying on the City's tested recipe for COP issuance. We certainly took it for granted and last July began finalizing preparations for sale of \$137 million COPs to finance new construction of a replacement jail facility, County Jail No. 3. This particular project had already been nine years in the making and, with a judicial court deadline looming fast, the last thing the City needed was another delay, or another expense. The truth, however, is that the very delivery method crafted to reduce the project's timeline almost doubled its financing cost.

Methods of Project Delivery

As most public works personnel would happily advise us, there are several methods for delivering a construction project. In fact, Barry Bramble and Joseph West, in their book *Design-Build Contracting Claims*¹ enumerate seven such methods: (i) design-bid-build, (ii) agency construction management, (iii) at-risk construction management, (iv)

multiple prime contracting, (v) design-build, (vi) design-build-operate-maintain, and (vii) fast-track or phased construction.

The reality is that public finance officials only participate in one stage of the delivery system—the raising of funds. We concern ourselves with project delivery on a need-to-know basis: how much, by when, and with what contingencies? Based on San Francisco's recent experience, we now know that one's working knowledge of project delivery methods becomes increasingly more significant as a project ventures away from the traditional design-bid-build method and towards design-build or fast-tracked construction.

Traditional Project Delivery

Design-bid-build is a delivery method already known to most public finance officials. As the name suggests, the delivery process is divided into two main phases: design, then build. An architect or engineer is retained by the project owner to independently design a functional, affordable facility meeting the owner's precise specifications. The architect also may draft the construction documents which both provide the basis for bidding the job and strictly govern the work to be performed by the builder. Bids are then received from builders (known as general contractors or prime contractors). The bids include the direct costs, overhead, and profit of the prime contractor and the costs of all subcontractors who will perform a part of the prime contractor's obligations. The contract is awarded on a least-cost, fixed price basis for the timely performance of work, pursuant to a schedule dictated by the project owner in the construction documents.

Under design-bid-build, municipal bonds are issued simultaneously with the execution of the construction contract. Architectural and documentation costs are frequently "recovered" from bond proceeds. The public finance officer's prime concern with this stage of delivery is simply that a reimbursement resolution has been properly authorized. Following award of the bid, our concern centers on the all-in cost, schedule of periodic expenditures, projection

¹ *Design-Build Contracting Claims*, Barry B. Bramble and Joseph D. West, editors, Aspen Law & Business, a division of Aspen Publisher, Inc. Copyright 1999. Chapter 1.01, page 3. See also *Alternative Delivery Systems 5*, A. Phillips, L. Cook, D. Cummings & B. Bramble, National Construction Law Center. Copyright 1997.

for substantial completion² and allowance for contingencies or change orders³. These estimates, presented by the prime contractor and reviewed by public works personnel, become the basis for the amount of bonds issued.

Design-Build Delivery

Design-build, by contrast, is a delivery method gaining popularity among public works personnel. One of its primary objectives is to condense the project timeline by compressing the delivery process from two distinct phases into one. Instead of two contracts with two key players, the project owner enters into one contract with a design-build team or joint venture that both designs and constructs the facility. The team may appoint any of the key parties (contractor, architect/construction manager, or a joint venture of the two) as the prime contractor who will enter into the contract with the project owner.

The project owner prepares a project concept and list of project criteria and requirements. In some cases, the project owner may even prepare an initial design, as San Francisco has done, to include as part of a bid package. The initial design constitutes between 15% and 40% of the total design work and is ultimately completed by the winning team.

Bids are received from design-build teams and frequently awarded on the basis of the qualifications and expertise of the prime contractor. Project cost and delivery are subject to further negotiation. This varies somewhat from the design-bid-build process wherein the design contract is awarded based on the qualifications of the architect and the construction contract is awarded to the builder offering the lowest responsive bid. In fact, California law specifically requires the construction portion of any public works contract to be awarded on a least-cost basis. Thus, many local jurisdictions do not have the requisite statutory authorization to employ the design-build method of construction; however, many federal agencies frequently rely on it. Award of the design-build contract, while varying from jurisdiction to jurisdiction, attempts to marry the two processes. Ultimately, the prime contractor agrees to deliver the project for cost plus a fee, a lump sum payment, or a guaranteed maximum price.

Design-build delivery may result in time savings on several fronts, which in turn may result in cost savings. First, such savings may accrue from having a single, responsible entity with whom the project owner negotiates terms and manages and enforces performance. Second, savings may accrue from the elimination of the bid process following design completion. And third, savings may accrue from the commencement of work at the project site before all of the design is complete and/or approved by the project owner. The ultimate benefit, according to Bramble and West, is “the ability to have the entire construction team, including subcontractors and suppliers, provide input into the design and engineering details to make sure it is workable, cost-effective and safe and that it minimizes the time required for the project.”⁴ The corollary disadvantage is that the designer now has the building contractor’s interests tied to its own interests and thus the designer has a financial incentive to reduce quality to benefit the design-builder’s bottom line. Not surprisingly, the design-build method presents many other advantages and disadvantages which are beyond the scope of this article.

Under design-build, municipal bonds are issued simultaneously with the execution of the contract, known as the design-build agreement or DBA. Like the more traditional design-bid-build, a public finance official’s concern centers on the all-in cost, schedule of periodic expenditures, projection for substantial completion, and allowance for contingencies or change orders. However, since the project has neither been designed nor bid, these estimates may be subject to significantly greater uncertainty, especially if the project owner has not secured a guaranteed maximum price contract. Furthermore, since the design-build process is still relatively untested among California public works departments⁵, there is little quantitative evidence with which to gauge the reliability of the costs and timelines or measure the appropriate reserve for unforeseen contingencies.

Next month’s article will discuss the City of San Francisco’s first experience financing using the design-build process.

² Substantial completion is the date by which a facility will be “substantially” ready for occupancy. In most jurisdictions, substantial completion is evidenced by a certificate of temporary occupancy issued by the local department of building inspections. Final completion typically follows within 60 days and represents the period during which “punch list” items (installation of switch-plate covers, etc.) are completed.

³ Most construction contracts allow for “change orders” by the project owner; that is, a change primarily to the scope and materials enumerated in the contract documents. For example, a contractor’s bid price may be based on a medium grade material, such as a specified type of window pane. During actual construction, the project owner may elect to use a higher grade of pane. The additional cost of the upgrade is borne by the project owner. Conversely, the project owner may elect to use a cheaper material and the savings can be applied against the cost of other upgrades.

⁴ *Design-Build Contracting Claims*, Barry B. Bramble and Joseph D. West, editors, Aspen Law & Business, a division of Aspen Publisher, Inc. Copyright 1999. Chapter 1.03, page 11.

⁵ Some jurisdictions, such as the City of San Diego, have built and financed public works projects that utilized the design-build approach.

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