

The DCPO Approach to Design/Build

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DCPO DESIGN/BUILD SUMMARY

When comparing the public and private sectors, the difference most generally brought up involves turnaround time. The private sector, as such comparisons would have it, can put up walls overnight. The public sector, on the other hand, lumbers along, staggering under an overabundance of rules and regulations.

As with most generalizations, this one does contain a seed of truth. The time span between inception and completion is usually longer in the public sector, all other things being equal.

But, in Massachusetts, steps are being taken to incorporate some of the techniques used in the private sector into public construction. The results are innovative accelerated procurement methods which meet the stringent oversight requirements set by the Legislature.

Design/Build was ideally suited for public construction. But, like any procurement method other than Conventional -- design, bid, and construction -- it had to be tailored to meet the particular mandates of state law, policy, and procedure.

Since Massachusetts' law only permits Conventional procurement (although DCPO is urged by the same law to explore and recommend alternative methods), legislative authorization is required before Design/Build can be used on a project. Although not law, it has been DCPO's policy to first submit to the Inspector General (a state oversight officer) a report outlining the need for and the implications of using Design/Build for a project and to submit the same report, along with the Inspector General's comments, to the State Legislature for its approval.

Once that approval has been obtained, DCPO prepares to solicit proposals from interested Design/Build teams. To protect the public's interest and to insure a high quality field of candidates, a new process unique to Design/Build has been instituted.

First, a pre-qualification round has been instituted in which interested candidates are asked to submit their qualifications. The design element of the team is reviewed by the Designer Selection Board, while the construction component must meet the standards set by the DCPO Construction Certification Section. Because of the expense and intensity of Design/Build competitions, it is felt that this pre-qualification round is beneficial to both the candidates and the state. Candidates who are unsuitable for the design/build projects are eliminated before they devote substantial time to the process while the state is allowed to commit its resources to developing the most promising proposals.

Qualification criteria include experience in projects of a similar size and a proven ability to work together. With the candidates unsuited for further consideration culled out, the Design/Build Selection Board can then conduct a more thorough review of the remaining pool of candidates.

The Design/Build Selection Board which, like the DSB, is appointed by the Governor, was created solely for the review and ranking of Design/Build projects. It oversees the competition, with technical support from DCPO and input from impacted agencies.

After the pre-qualification round, a Request For Proposals is issued to the remaining competing candidates, who also receive an honorarium to compensate for the detail required by the competition. The DBSB then reduces the pool once more, with finalists further refining their designs and proposals. A larger honorarium is provided to offset the expense involved with this step.

Although the scope and the cost are set, DCPO and the DBSB encourage creativity in the finalist's designs and interpretation of the specifications. After reviewing the final designs, the DBSB ranks the finalists and submits that ranking to the Deputy Commissioner for selection.

The process serves several functions. First, the scrutiny the project receives from the Inspector General, the State Legislature, and the DBSB insures that the public welfare will not be jeopardized. And, it also facilitates input from agencies and candidate teams alike, with the end result being well-defined schematics.

In Massachusetts the main determinant for using Design/Build on a project is the need for rapid completion. There are a number of other criteria -- agreement on the nature of the project, a strong study -- but turnaround time is first and foremost. Design/Build can cut nearly 30 months off a large scale project.

Design/Build, as tailored for Massachusetts, provides for quick turnaround by high quality teams without foresaking public safeguards. DCPO never lets go of the process. The designer and the builder work as a team, but in the end, both work for, and are accountable to, DCPO.

Q. What is a study?

- a. Massachusetts state law mandates that DCPO conduct a study for all new construction and major renovations. Implemented through DCPO's Office of Programming, which is assisted by a consulting architect/engineer familiar with the type of project being considered, the study is the first step in the development process.

The architect/engineer works with the Office of Programming to obtain input concerning the basic requirements for the building from both DCPO and the user agency. Then, after the preparation of sufficient concept abstracts of design ideas for DCPO approval, it develops the functional and space requirements for all parts of the building; develops schematic drawings and outline specifications sufficient to insure that the subsequent design phase will meet the requirements of the study; provides value engineering input; prepares an estimated cost budget and overall schedule for the project.

Q. What role does the Designer Selection Board (DSB) play?

- a. The DSB is an independent organization with 11 members selected by the Governor. For projects tracked for conventional procurement methods, the DSB is responsible for advertising for designer services and for reviewing and ranking the responses received. This ranking is then submitted to the Deputy Commissioner of DCPO who appoints the top ranking candidate unless there are compelling reasons not to. Study designers and final designers alike are subject to DSB deliberations.

For Design/Build projects, the DSB evaluates whether the design component of the team is qualified to do the work specified for the project. The Design/Build Selection Board is responsible for fully evaluating the capabilities of the team and making a recommendation to the Deputy Commissioner.

Q. How does DCPO handle changes during design and construction?

- a. Because the design and construction elements work together as a team, DCPO does not assume responsibility for change orders resulting from errors or omissions by either component. In the case of a program change, however, DCPO pays through the traditional change order process.

Q. How does DCPO provide the public safeguards which exist in conventional procurement methods when it adopts Design/Build for a project?

- a. Under Massachusetts law, the project development and execution process includes three distinct stages (study, design, and construction) carried out under three separate contracts to separate companies. By prohibiting overlap, the Legislature felt it could prevent potential problems which can arise when the design and the construction phase are conducted by a single company.

The law does, however, direct DCPO to explore and recommend alternative methods of construction including Design/Build. Before proceeding with Design/Build, DCPO must first submit a report to the Legislature outlining the projects it would like to use Design/Build for and the reasons for that decision. Although not law, it has been DCPO's policy to first submit that report to the state's Inspector General's office for its comments. Then the report, along with the Inspector General's comments, are submitted to the Legislature for its approval.

Q. In DCPO's experience, has the pre-qualification criteria affected the number and quality of responses it receives for a given project?

- a. Definitely. Successful, large-scale Design/Build projects require architects and engineers who have the experience, expertise, and capability to execute them. The pre-qualification criteria reinforces this. DCPO received a smaller number of applications than it typically receives for conventional projects. But those DCPO did receive were of a higher quality.

Q. How does the Design Build Selection Board (DBSB) go about evaluating the proposals? What does it look for and what criteria does it use?

a. The DBSB evaluates, rates, and ranks all proposals which meet the pre-qualification criteria as well as the minimum requirements set in the RFP. The evaluation criteria include the following:

- * The design quality including the program (consistency with state certification requirements, lay out efficiency and consistency with user requirements) and architectural quality (orientation, clarity of building function, flexibility, site utilization, exterior image, interior image, and conformity with specific requirements of the facility.)

- * Building performance and technology including technical consistency with RFP requirements; consistency with staffing and operating requirements; physical comforts; maintenance and environment.

- * Project management capabilities including ability of design/build team to interact effectively with the owner; scheduling capabilities; assignment of experienced staff; interaction capabilities between the elements of the Design/Build team; clarity of Design/Build organization; capacity to produce documents to meet a required schedule; quality control during design and construction; cost estimating and cost control capabilities.

- * Schedule including the implementation and achievement strategy for meeting project schedule and plan for deadlines, time saving strategies, capacity of team to meet scheduled requirements.

- * Costs including ability of Design/Build team to design and erect with a scope within the approved budget.

Q. What criteria does DCPO use to determine the amount of honorarium to be offered to the Design/Build teams for services rendered during the competition phase?

- a. DCPO recognizes that Design/Build teams invest a significant amount of time and resources in the competition. Honorariums are paid to offset part of the cost of this effort. Experience has shown that payment of the honorarium attracts higher caliber teams to the competition.

For each team, approximately 0.5 percent of DCPO's originally estimated Design/Build construction cost is allotted for the honorarium. It is, however, granted only in cases where there is full compliance with the RFP.

Q. Which Design/Build teams submitted an expression of interest to DCPO for the Suffolk County Jail project?

- a. 1. Morse/Diesel, Inc.
Jung/Brannen Assoc. and
Gruzen Samton Steinglass
2. De Matteis Construction Co.
Tilles and Assoc.
Litchfield Grosfeld Assoc., P.C.
3. The George Hyman Construction Co.
and the Stubbins Assoc.
in association with Voinovich Monacelli
4. Whitney Atwood Norcrass Assoc., Arch.
and Silver and Ziskind Arch., Planners
in association with Peabody Construction Co., Inc.
5. Perini Corp.
Cambridge Seven Assoc.
6. Gilbane Building Corp.
HDR Inc.
Stull and Lee, Inc.

7. Dimeo Construction
Keyes/Patrick Design Firm
8. R. M. Shoemaker Co.
Daniel O'Connell's and Sons, Inc.
CUH2A
9. J. F. White Contr. Co.
Morrison Knudsen Co. Inc.,
Perry Dean and Assoc.
10. George B. H. Macomber Co.
Symmes Maini and McKee Assoc., Inc.
Hellmuth, Obata and Kassabaum, P. C.

Q. What aspects of a project does DCPO control through detailed specification requirements?

- a. DCPO controls the program, the quality level, and, through the RFP, certain procedural, construction or design elements that DCPO feels strongly about.

DCPO specifies in detail the building program including technical specifications and the quality standards of construction for the facility. In addition, DCPO determines the budget cap for each project as well as the estimated completion date.

Q. How does DCPO control costs on Design/Build projects?

- a. DCPO controls costs through establishing firm estimates and caps up front and through maintaining tight control over the project to minimize the number of change orders.

During the program/study phase, the study consultant prepares a conceptual estimate from study documents and knowledge of the site, project, etc. This is checked against an independent estimate done by an independent firm. These estimates are reconciled and a budget established.

A financial cap consistent with the budget estimate is given to interested Design/Build teams. Teams submitting proposals are

required not to exceed that cap.

After the contract is awarded, DCPO pays close attention to the timely and careful handling of change orders. A reasonable contingency amount is reserved for this purpose.

Q. Why does DCPO offer honorarium?

- a. DCPO uses the honorarium as an incentive to attract highly qualified firms to the competition. When General Contractors are in a busy period, it is often difficult to interest a sufficient number of qualified firms to prepare lump sum bids on a competitive basis. As in the private sector, the honorarium is used to defray part of the bidding cost and to attract qualified bidders.

