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## CHAPTER 22. Alternate Project Delivery

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## 22.1 Policy

An alternative to the design-bid-build project delivery method should be considered when

1. A cost savings is anticipated from an alternative method
2. Project delivery time warrants the use of the alternative method
3. Unique attributes of the project warrant having a contractor introduced to the project team before the project is fully designed

The contractor's technical knowledge of design and construction methods and the increased integration of design and construction will, in some circumstances, yield cost savings and faster project completion. In addition, the Authority's risk for design defects can be mitigated under a design-build delivery system.

In other situations, the factors that may warrant use of the traditional design-bid-build method include:

1. Responsiveness of the traditional design process to the Authority's needs
2. The design and construction quality advantages of an arms-length relationship between designer and builder
3. The availability of price competition in the sealed bid process
4. The increase in opportunities for a larger number of designers and builders

The Brooks-Act is not applicable in selecting the source for alternate project delivery methods.

## 22.2 Selecting Project Delivery Method

Alternatives to the Design-Bid-Build project delivery method should be used when the Contracting Officer, in consultation with the customer department, determines that the conditions make an alternative project delivery method most advantageous for the Authority. The determination may include the policy considerations listed in the preceding section together with consideration of the extent to which the following apply:

1. Project definition complete
2. Environmental clearances secured
3. Design criteria complete
4. Construction standards complete
5. Level of design adequate to support a firm, fixed price and to assure users of adequate functionality
6. Risk analysis adequate to reduce to an acceptable level the risk premium in a firm, fixed price
7. Project performance criteria complete
8. Funding in place
9. Adequate competition among possible design/build contractors

Project delivery methods that may be considered for use are described below. Other methods or variations of methods that have been developed and used in the industry may also be considered by the Contracting Officer:



1. Agency construction management – Traditional design-bid-build where a construction management firm acts as an agent for the Authority in selecting and contracting with the designer and builder.
2. Design-build – Award of a single contract with a firm, fixed price to complete the design and construction of a facility.
3. Construction-manager-at-risk – Where the construction contractor is retained to provide pre-construction services during the design phase, and thereafter provides a guaranteed maximum price for the construction of the project.
4. Design-build-operate-transfer – The design-build contractor owns or leases and operates the project upon completion, and then transfers its interest to the Authority at the completion of the contract term.
5. Design-build-operate-maintain – The Authority owns the project but the design-build contractor operates and maintains the assets upon completion for a specified term.
6. Design-build-finance-operate – The design-build contractor finances the project in whole or in part and operates it upon completion. While equity participation in the project by the private contractor/operator is possible, in infrastructure projects that do not have adequate revenue, the contractor/operator's costs, including financing, and profit are included in the contract's payment structure.
7. Outsourcing – A broad term including all alternative project delivery methods where responsibility is assigned to a private firm and focusing particularly on contracting for operations and maintenance.
8. Public/private partnerships – A broad term including project delivery methods where a private firm assumes more responsibility than in traditional project delivery.

### **22.3 Design-Build**

The Contracting Officer, the Contracting Officer's Technical Representative and the user department representative should agree that the solicitation will include enough performance specification or preliminary design information to support the design-build project delivery method. The design-build method requires a performance specification or preliminary design that makes it feasible to arrive at a final price or a guaranteed maximum price<sup>1</sup> as part of the evaluation and selection of the design-build contractor, and that reduce the project risks to a point that the design-builder's allowance for the risk (contractor's risk premium) will be acceptable. The design-builder will be responsible for completing the design and construction, subject to the Authority's approval at predefined points for compliance with project design, construction, and performance standards. The most common form of design-build is when a general contractor is in the lead, and retains a designer as a subcontractor. The design-builder could also be an integrated firm that has internal design and construction capability, a joint venture, a limited liability company, a developer or a designer-led team that subcontracts construction services. The key attribute of the design-build method is that the designer-of-record and the construction contractor have a direct contractual relationship with each other.

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<sup>1</sup> Compensation terms will depend on the project and work to be performed, but design-build objectives will be best achieved with a firm, fixed-price contract.



### **22.3.1 Market Research Preparation for RFP**

The Contracting Officer may conduct market research regarding the feasibility of and extent and quality of the supply market for a particular design-build contract. The Contracting Officer may use a request for expressions of interest (“RFI”) or any other method that does not unduly create an advantage for any potential offeror.

### **22.3.2 Request for Qualifications**

Although not required in all cases, in general a request for qualifications (“RFQ”) should be issued for a design-build project before requesting proposals from the qualified firms. The benefits of requesting qualifications before requesting proposals include:

1. Limiting the number of entities that must invest in the expense of preparing a complete proposal to those that may reasonably be expected to qualify for award.
2. Allowing the potential offerors and the Authority to focus on and resolve the principal qualifications of each team before addressing specific proposal issues.
3. Allowing the Authority to refine the RFP and its contracting strategy based on firm knowledge of the probable offerors.

Supplemental information or revised statements of qualifications may be requested before determining which firms are qualified.

### **22.3.3 Request for Proposals**

RFPs will either be publicized in the manner required for competitive solicitations or will be issued to the firms found qualified pursuant to an RFQ process. In some cases, a draft RFP may be issued to qualified proposers for comment before issuance of the final RFP. Upon receipt of proposals, the most advantageous of the initial offers may be accepted, or the Authority may hold discussions with one or more offerors and/or request revised offers.

### **22.3.4 Contract Administration**

RFPs and contracts for design-build project delivery should be particularly clear regarding Authority approval points and should provide the basis for Authority approval or disapproval. An objective of the design information specified for the design-builder and of merging the remainder of the design with the construction is to minimize the number of contract changes required. The system of cost estimation (including, as appropriate, a work breakdown structure) should support the determination of any equitable adjustments to price.

Progress payment terms and procedures for the design-build contract should be tailored to the compensation methods and work schedule in the contract.

## **22.4 Construction Manager at Risk**

In contrast to the design-build method, the construction-manager-at-risk (CM at Risk) (CMAR) project delivery method does not have the designer-of-record in privity of contract with the construction contractor. However, unlike the design-bid-build method, CMAR provides for the contractor’s participation in the design process before a firm fixed price could reasonably be established. The CMAR project delivery method includes a contract whereby the contractor provides preconstruction advisory services during the design phase of a project, which services generally relate to value engineering, conceptual estimating and scheduling, and constructability reviews. Then, based in part on those pre-construction



services, the contractor will establish a guaranteed maximum price (GMP) or other terms<sup>2</sup> for the completion of the project.

#### **22.4.1 Request for Qualifications**

As in the case of design-build project delivery method, an RFQ may be issued in advance of the solicitation of CMAR offers and a list of firms qualified to receive an RFP may be designated. Although there is the potential for additional subcontracting, evaluation of the qualifications of responders to the RFQ may include analyzing the extent to which the initially qualified proposer will directly perform the work.

#### **22.4.2 Request for Proposals**

As in the design-build method, the competitive proposal method is the procurement method generally used for the CMAR project delivery method. The criteria for evaluating proposals should be set out in the RFP and may include the approaches proposed for establishing the GMP and for subcontracting.

#### **22.4.3 Preconstruction Phase Contract Terms**

The contract may provide for compensation to the contractor during the phase prior to the establishment of a GMP. The basis for compensation will depend on the work to be performed, but may be on a cost reimbursement (e.g., cost plus fixed fee) basis.

#### **22.4.4 Subcontracts**

The Construction Manager may carry out the work through its own forces or through subcontracting. To assure a fair and reasonable price, the RFP and CMAR contract may provide for Authority oversight of subcontracting awards before establishment of a GMP.

#### **22.4.5 Guaranteed Maximum Price**

The CMAR contract will require the parties to negotiate a GMP prior to a project development milestone, percent completion, or another specific triggering event or condition. The contract may provide that if the Authority determines that a fair and reasonable GMP cannot be established, the Authority has the alternative to convert the project delivery method to design-bid-build by inviting offers for all or a portion of the remainder of the work.

#### **22.4.6 Contract Administration**

RFPs and contracts for CMAR project delivery should be particularly clear regarding Authority approval points and should provide the basis for Authority approval or disapproval of subcontract awards prior to establishment of a GMP, as well as when the GMP will be set and what happens if there is failure to reach agreement on a GMP. After establishment of a GMP, the contract should provide for Authority determination of compliance with conformance to the project design, construction, and performance standards. The system of cost estimation and actual cost reporting (including, as appropriate, a work breakdown structure) should support the determination of any equitable adjustments to price and the computation of any incentives based on GMP.

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<sup>2</sup> While the compensation terms for completion of the work will depend on the work to be performed, objectives of the CM@Risk project delivery method are best served with a GMP.



## **22.5 Other Alternative Project Delivery Methods**

The design-build delivery method can include, where appropriate, additional features such as operation and maintenance of the project, either while under the Authority's ownership or while under the ownership or leasehold control of the design/builder, and full or partial financing of the project. The features described in this section are illustrative and should not be considered exclusive.

### **22.5.1 *Design Build Operate Maintain (DBOM)***

Under this delivery model, a single entity, typically but not necessarily a consortium or joint venture, is contracted with not only to design and build the project but also to operate and maintain it for a specified length of time, after which the Authority takes over control. An expected advantage to this approach is that the design and construction of the project will be performed with a focus on its efficient and reliable operation and maintenance because the design/builder will be actually and financially responsible for those elements.

### **22.5.2 *Design Build Operate Transfer***

This delivery model is the DBOM approach with the added feature that the entire project is owned by or under lease to the DBOM contractor for a specified length of time, after which ownership or full control is restored or transferred to the Authority. While the DBOM method transfers virtually all risk involved in the design, construction and operation of the project to the contractor, in this approach even any remaining risks involved in ownership of the project are shifted to the contractor. Given the nature of the Authority's operations and property, this delivery model will rarely be appropriate.

### **22.5.3 *Design Build Finance Operate and Maintain***

This is also a DBOM delivery method, with the added feature that the contractor is expected to provide full or partial financing for the project. Financing, in this context, is not synonymous with funding. This approach may be considered when it may be advantageous to the Authority to have a contractor obtain financing, such as when the Authority is unable to access financing when the need for a project arises or when the contractor is able to access financing at an advantageous cost. This delivery method may also be considered in connection with a revenue-generating project where it could be advantageous to the Authority to permit the contractor to fund the project in whole or in part in return for granting the contractor a financial stake in the expected revenue stream.

### **22.5.4 *Procurement Methods***

The procurement methods available for design-build contracting may be used in proceeding with any of the foregoing delivery methods. Evaluation and selection criteria specific to the added features, such as experience and capability in operating and maintaining similar projects, must be determined and included in the solicitation.