

New construction options

July 25, 2012

Overview

Ohio legislation approved in 2011 allows new construction-delivery methods on government-funded projects. State administrators describes these Ohio Construction Reform options as providing opportunities for faster completion of projects, cost reduction, and less risk for project owners.

The new methods can be used by state agencies, colleges/universities, counties, townships, municipal corporations, school districts, or other political subdivisions. The Cleveland Metropolitan School District intends to use two of the optional methods for construction of two high schools in the current Segment 5 of its construction program and another of the optional methods for three K-8 schools planned for Segment 6.

Previously Ohio law had required use of what is known as multiple-prime design-bid-build project delivery.

Under that method, an owner would hire an architect to design a building according to the owner's requirements, and the Ohio School Facilities Commission would hire a construction manager to perform project cost estimates, establish construction schedules, facilitate bidding, and direct the prime contractors through completion of the project, facilitating contract change-order requests along the way. The owner would award prime contracts to the low bidders for each of the various components of construction: site work, general trades, plumbing, electrical, etc. The contractors would construct the building according to the specifications and designs established by the architect. The prime contractors would hire subcontractors at their own risk to execute parts of their contracts.

Under Ohio Construction Reform, public owners may still use the multiple-prime design-bid-build method. But now, they may instead choose from these additional options:

- **General Contracting (GC)**, or single-prime design-bid-build. Under this method, the owner hires an architect/engineer to design the building according to the owner's requirements, and then the public authority, such as the School District, selects the lowest responsive lump-sum bid by a responsible single general contractor that will hire all subcontractors and construct the building.
- **Design-Build (DB)**, in which a single entity assumes risk for final design and construction of a facility for a Guaranteed Maximum Price (GMP), including hiring all subcontractors. The owner hires a "criteria architect" to establish initial design parameters and provide other assistance.

- **Construction Manager at Risk (CMR)**, in which the owner selects a construction manager that hires all subcontractors and delivers the project for a Guaranteed Maximum Price after the owner's architect/engineer has designed the building according to the owner's requirements.

The traditional multi-prime delivery method and the new General Contractor method both require selection of the lowest responsive bid by a responsible contractor. Ohio Construction Reform allows more flexibility in selecting the contract award winner for CMR and DB projects through a process called "best-value selection" that does not necessarily mean that the lowest-cost proposal wins the contract. According to the State Architect's Office, best-value selection describes a process in which "award is based upon a combination of pricing and performance considerations to determine the offer deemed most advantageous and of the greatest value to the public authority."

In general, the optional delivery methods reduce or eliminate the traditional role of the construction manager, shifting those functions to others. Some of those duties may be done by the criteria architect in DB projects, and public owners may and probably will retain an "owner's agent" to assist with such tasks as quality assurance.

All three new delivery options provide an opportunity to add contract special conditions that will allow the School District to pursue its goals for community inclusion in workforce participation and student training in the construction trades. Failure to exercise a good-faith effort to comply with these conditions could result in financial penalties or future consideration of a contractor as not responsible.

The DB and CMR options include a detailed and probably time-consuming subcontractor-prequalification process that allows the public owner to reject companies as not responsible on the basis of past performance and other considerations.

It should be noted that references to a lump-sum bid by or a Guaranteed Maximum Price might suggest that construction costs are capped. However, this is not necessarily the case.

Both the lump-sum bid and the negotiated Guaranteed Maximum Price include contingency amounts that possibly may be tapped if pricing assumptions used in the contract turn out to be incorrect. However, change orders arising from such things as District-requested design or specification changes (GC, CMR, DB) or architectural mistakes (GC, CMR) may result in change order costs that are deemed to be outside the scope of the contract sum and contingency. Such costs may be borne solely by the District and the co-funding Ohio School Facilities Commission. It remains unclear how claims against the contingency funds will be evaluated and how unused contingency funds will be allocated.

Following is a more-detailed discussion of the major elements of the optional Ohio Construction Reform delivery methods. Details of how some aspects will be adapted for application to OSFC co-funded projects are still being worked out.

CMSD tentatively plans to use the traditional multi-prime design-bid-build delivery method for Segment 5's Cleveland School of the Arts, because the anticipated start of construction is too near for successful implementation of a new option. The District plans to use a modified CMR method for the new John Marshall High School, the GC method for the new Max Hayes Vocational High School, and the DB option for Segment 6's three PreK-8 schools.

General Contracting projects

The General Contracting method is the option most similar to the delivery system previously required for Ohio government. It still follows the Design-Bid-Build format.

The chief difference is that there is a single point of responsibility for all construction. This is regarded as a way to simplify contract administration for the public owner and its construction manager or owner agent, which might save money.

In addition, the general contractor might have more incentive than a traditional construction manager to ensure coordination of trades contractors to control costs.

A prospective general contractor makes a lump-sum bid. The selected general contractor is responsible for any subcontractors hired, although the public authority (as currently is the case) has the right to disallow use of specific subcontractors for cause.

A construction manager and/or owner's agent will be needed to handle bidding matters, ensure quality of construction, review pay applications and change order requests and coordinate the activities of outside firms for such things as testing and environmental evaluations. However, CM coordination of the activities of multiple prime contractors will no longer be needed, as there will be only one prime contractor.

Design-Build projects

A designer-builder is a single entity that is solely responsible to the public authority for both project design and construction. The DB firm holds subcontracts and assumes risk for cost overruns. This method in particular is regarded as a means of containing costs, partly because the design-build firm, rather than the owner/OSFC, would bear the expense of making changes due to architectural errors and omissions.

The DB may be an integrated firm with design and construction capability; a joint venture between an architect/engineer and a contractor; a contractor-led team in which a contractor engages an architect/engineer as a design consultant; or a designer-led team in which an architect/engineer engages a contractor to perform the construction.

In this delivery method, the owner hires a criteria architect to establish basic requirements and specifications and assist the owner throughout the construction process.

The role of a construction manager (CM) and/or owner's agent will be more limited because the criteria architect will perform some of the CM's traditional functions and because, by definition, there will be no need for someone to coordinate activities of the primary architect and contractors, which will be the same entity. Also, pricing to a large extent will be part of the proposals of designer-builders competing for the contract.

However, the School District still will need help in evaluating DB proposals and negotiating a Guaranteed Maximum Price (including contingency amount), ensuring quality of construction, evaluation of pay applications and change orders, etc.

The District's project team typically would consist of its in-house project manager, an owner's representative, and a criteria architect/engineer.

One of the most important functions of the criteria architect is to assist the public authority in evaluating the statements of qualifications submitted by design-build firms, including those of the DB firm's proposed architect of record. Other vital functions of the criteria A/E include:

- Verification or development of the basic Program of Requirements that the eventual final design must satisfy.
- Validation of the project's scope, budget, and schedule.
- Development of the project definition and criteria.
- Assistance with development of a Request for Qualifications to potential DB firms.
- Assurance that the proposed designs and ensuing construction comply with the design criteria and owner requirements.
- Certification that payment requests are justified by completed work.
- Management of quality testing and special inspections.
- Analysis of contract claims for additional compensation.
- Assistance with the owner's review of the Designer-Builder's punch list of task completions, and performance of the final inspection.

The criteria architect and the DB firm perform many of the duties usually done by the construction manager under the multi-prime design-bid-build system.

According to Ohio officials, the DB process offers these potential advantages:

- Single point of responsibility for the owner (in this case the School District).
- Faster completion than design-bid-build. Construction mobilization and ordering of long-lead items can occur during, not after, the design process, and, since the designer and builder do not have separate interests, the DB firm has an incentive to make quicker field decisions.
- Good cost control. Design decisions are not made without regard to cost. The builder can directly and immediately provide feedback regarding cost and constructability of design ideas.
- Early negotiation of Guaranteed Maximum Price.
- Owner sees design concepts from multiple teams.
- Improved quality. No longer can the A/E blame the builder, or vice versa, for problems that might result from mistakes or cutting corners. The DB firm is liable for design negligence, construction negligence, operation and maintenance performance, warranties, and documentation.

State officials list potential disadvantages of Design-Build as:

- Less owner influence during design.
- Costly competitive process for DB bidders that do not win the project contract, which could limit the number of firms willing to bid.
- Less owner control after the DB team is selected.

Construction-Manager-at-Risk projects

Construction Manager at Risk (CMR) is a delivery method under which the public owner transfers cost-overflow risks at a certain point to a construction manager who manages and builds the project under a Guaranteed Maximum Price.

Under this delivery option, the construction manager acts as agent of the owner during the preconstruction phase, establishing cost estimates based on designs of the owner's architect and advising on such matters as constructability and project schedule. The construction manager is paid on a fee-and-reimbursable-cost basis during this phase.

Then, the owner and the construction manager negotiate a construction GMP, a lump-sum, fixed cost (including contingency amount) to be paid on a construction-progress basis. At this point, the construction manager becomes the CMR, a general contractor that holds all subcontracts and assumes risk for cost overruns.

The architect in CMR projects is chosen by the public owner in much the same way as under the previously mandated design-bid-build multi-prime method – through evaluation of responses to a Request for Qualifications (RFQ).

The selection of the CMR is made through a best-value analysis.

The CMR contract consists of a group of documents: definitions, an agreement form, a GMP amendment, and general conditions.

The agreement form sets forth basic contract information -- the scope of work, minority/female contracting and workforce commitments, compensation in the preconstruction stage, and basic parameters for the construction-stage compensation to be set later in the GMP amendment. It also signals entry into the contract when completed and signed by the construction manager and the contracting authority.

Preconstruction payments to the construction manager consist of a stipulated fee, capped personnel expenses based on hours worked, and reimbursement for other expenses at no markup.

During preconstruction, the role of the construction manager is much the same as it has been under the previously used method: reviewing design documents and confirming whether they align with the scope, schedule and budget of the project. The CM may engage a design-assist contractor as its consultant for this task.

Preconstruction is defined as having several stages:

Program Verification – Reviewing and analyzing preliminary program documents, schedule, budget, and site issues.

Schematic Design -- Advising the owner on the project schedule and construction budget, assisting the owner and the architect with required filings, making a preliminary analysis of types and quantities of labor that will be needed, recommending alternative approaches, reviewing schematic design documents for clarity, completeness, coordination and constructability, and giving opinions on the budget and schedule.

Design Development -- Advising the owner on the project schedule, construction budget and other requirements; assisting the owner and architect with required filings; and submittal of an updated schedule, detailed cost estimates and a refined subcontracting plan, including a proposed list of prospective bidders for each bid package, a bidding schedule, and fully developed subcontractor prequalification criteria.

GMP Proposal and Amendment – The construction manager submits a proposal for total CMR compensation, including the cost of all subcontracts, from the date of a Guaranteed Maximum Price amendment through close-out for proper, timely, complete performance of the work for a fixed lump sum. The owner and the prospective CMR then negotiate the Amendment.

The prospective CMR and the public owner may in the end fail to reach agreement on terms of a GMP amendment that is on budget. If that occurs, then the

public owner may terminate the process and select an alternative construction-delivery method, such as traditional multi-prime with CM as agent or single-prime General Contracting. If a GMP amendment is signed and established, the construction manager becomes the general contractor, the CMR, and the project proceeds with final selection of subcontractors and then sitework and construction.

In the case of John Marshall High, the OSFC already has a Segment 5 construction manager contract with a joint venture known as OHGR (Ozanne, Hammond, Gilbane, Regency) that will have to be modified to allow for transition to the CMR option. Therefore, the process outlined above will be hybridized, because OHGR will not be allowed to submit a CMR proposal. The School District intends to retain OHGR and/or its member companies as owner agent for the remainder of the project.

The District solicited and received CMR proposals due in mid-July 2012.

Best-value selection of contractors

Best-value selection of CMR and DB firms involves two phases, first a Request for Qualifications (RFQ), then a Request for Proposal (RFP).

The public authority, such as the School District, must first identify qualifications criteria and how to evaluate them and identify performance and pricing criteria and how they are to be weighted and evaluated. The public agency must identify any minimum or mandatory technical requirements and must establish a process for maintaining records of decisions made in each phase.

The public authority must establish a qualifications evaluation committee. In CMR projects, the committee may include the architect/engineer, but that person is not allowed to vote. For DB projects, the criteria architect must be consulted, but the criteria architect is not allowed to vote.

During the qualifications phase, the public authority must answer all questions from interested firms in writing and must make all questions and answers available to all interested firms.

The evaluation committee must select and rank at least three firms that it deems most qualified unless it certifies in writing that fewer than three are available. Once the committee has selected this “short list” of qualified firms, the public agency must begin the RFP phase by releasing to them its request for pricing and technical proposals.

For CMR projects, the public agency must provide:

- A description of the project, including a statement of available design detail.
- A description of any preconstruction services.
- The form of construction management contract.
- A description of how the Guaranteed Maximum Price for the project shall be determined.
- A request for a pricing proposal, including the estimated cost of construction for the project.

Proposals by CMR candidates must include a list of key personnel for the project, a statement of the general conditions and contingency, and a fee proposal that includes a

preconstruction fee, construction fee, at-risk fee, general conditions cost, and contingency percentage.

For DB projects, the public agency must provide:

- A description of the project and project delivery.
- The design criteria produced by the criteria architect/engineer.
- A description of the proposed design services.
- The form of the design-build services contract.
- A description of how the Guaranteed Maximum Price will be determined.
- A request for a pricing proposal, including the estimated cost of construction for the project, for the purpose of calculating the fees proposed by a design-build firm.

Proposals by DB candidates must include:

- A list of key personnel and consultants for the project.
- Design concepts adhering to the design criteria produced by the criteria architect or engineer.
- A statement of general conditions and contingency (percentage).
- A preliminary project schedule.
- A pricing proposal that includes design services fee, pre-construction fee, design-build fee.

In both CMR and DB projects, the public agency must provide each respondent with the opportunity for an interview in which it can clarify elements of its proposal and respond to questions about the proposal. The interview itself is not to be scored by the evaluation committee.

If a public authority finds a major discrepancy or irregularity in a pricing proposal, it must notify the proposer in writing to address the concern at the interview and require the firm to provide its response in writing no later than the date of the interview.

The evaluation committee then is to evaluate each proposal based on the criteria established in the RFP for performance and pricing. The committee is supposed to evaluate the performance elements separately from the pricing elements and then combine the two evaluations into a single final evaluation. The committee then must rank the short-listed firms based on the final evaluations.

Prequalification of subcontractors

Prequalification of subcontractors is required for Construction Manager at Risk and Design-Build contracts. The state requires that a CMR or DB firm establish criteria for evaluating prospective bidders on subcontracts. These criteria must be consistent with rules adopted by the state's Department of Administrative Services, and the criteria are subject to approval by the public authority, which may require additional evaluation criteria of its own.

Established criteria must include the prospective bidders' experience, financial condition, conduct and performance on previous contracts, management skills, ability

properly to execute the subcontract, and ability to further any goals set as part of diversity and inclusion programs required by the public authority.

Evaluation by these criteria is required before subcontract bidding.

The CMR or DB firm must identify at least three prospective prequalified bidders for each subcontract unless it can demonstrate to the satisfaction of the public authority that three are not available.

During the process, the CMR or DB must develop bidder interest in the project, including those prospective subcontractors that the public authority has asked the CMR or DB to contact. The CMR or DB must issue Requests for Qualifications (RFQs) to prospective subcontractors, and forward any questions to the public authority's architect or criteria architect.

The CMR or DB must accept for evaluation the timely submitted qualifications of any prospective bidder, evaluate them, and notify each prospective subcontractor about whether it has been deemed qualified. Names and qualifications of all qualified prospective subcontractors must be submitted to the public authority.

The public authority in turn determines whether each submitted prospective subcontractor meets its criteria and may eliminate any that it deems not qualified. The CMR/DB must notify any rejected prospective subcontractor, in writing, of the decision. If the CMR/DB receives written objection from an eliminated prospective subcontractor within five days after notification is received, the objection must be delivered to the public authority, which may respond to the objection in writing through the CMR/DB.

After prequalification is accepted by the public authority, the CMR or DB must solicit a proposal from each prospective subcontractor on the list.

The CMR/DB must complete the subcontractor prequalification process for each subcontract no later than 30 days before bids are to be solicited and must create a bid package for each subcontract and solicit bids from the qualified prospective subcontractors no later than 60 days before work is scheduled to begin.

The subcontract bidding process is the responsibility of the CMR/DB, which must issue bidding documents, conduct pre-bid conferences, forward questions to architects, assist architects with bid document addenda, prepare a bid analysis, conduct pre-award conferences, and report information to the public authority.

No later than 25 days before work is to begin, the CMR/DB and public authority must meet to review bids and determine to which subcontractor(s) an award will be made. Selection of the lowest bidder is not required, although if the public authority insists on a higher bidder than desired by the CMR or DB, a project cost increase conceivably could result. During the review meeting, the public authority may reject a proposed subcontractor as non-responsible.

Solicitation and selection of a subcontractor shall be conducted under an "open book pricing method," meaning generally that the CMR/DB must make available to the public authority on request all documentation related to the bidding, pricing or performance of a contract.

No less than 10 days before work is to begin, the CMR/DB must submit a Subcontractor & Material Supplier Declaration form for approval. If a proposed subcontractor or supplier is rejected as not responsible by the public authority, the CMR/DB must propose another subcontractor, and the CMR/DB will not be entitled to any resulting adjustment of contract sum or contract time.

Self-performed work

A CMR or DB firm can bid to perform work with its own employees, rather than engage a subcontractor, if it notifies the public authority of its intent to bid on a portion of the work and the public authority reviews that work and agrees on its scope. The CMR/DB must seek the public authority's permission to bid at least 14 days before issuing bid documents.

If the public authority grants permission, the CMR/DB must meet all bidder pre-qualification criteria, and the bidding documents must specifically state that a self-perform bid may be submitted. The CMR/DB must ensure strict separation of its personnel involved in bidding from its project personnel. Communication between these groups is prohibited until after bids are opened.

A sealed bid for self-performed work must be submitted to the public authority at least 48 hours before the deadline for all other bids for the same work.

If a self-performed bid is submitted and fewer than two other bids are received, the public authority may require a rebid.

If self-performed work is awarded, the CMR/DB may not use contingency funds for that work in the event that it incurs unexpected costs.

Special conditions

Construction reform regulations allow the School District to attach special conditions to contracts to enhance attainment of its community inclusion goals.

Regarding workforce participation, CMSD has long-established goals of 20 percent participation by minorities, 5 percent participation by women, and 20 percent participation by District residents. In addition, the District has pledged to seek construction-trades employment opportunities for its graduates.

A list of related contract special conditions sanctioned by the OSFC was attached to a recent CMSD Board of Education resolution authorizing the District to pursue alternative construction-delivery options for the Segment 5 high schools and Segment 6 PreK-8s. The conditions include the following provisions:

- A contractor must include in its base bid all costs associated with up to 20 site visits per school year (August – May) made by CMSD students being educated in construction trades. The School District would pay for student transportation to the site. (A lawyer for the District said it would also provide insurance coverage for accidental injury.) The contractor's superintendent is to work with School District officials to coordinate the areas of the project that are appropriate for student visitors, and the superintendent is to accompany students during field trips.
- A contractor is required to employ for a minimum of 400 hours per \$1 million (pro-rated) of contract value recent (since 2007) graduates of a District high school who have completed the construction-training program at Max Hayes, an equivalent program at another District high school, or an equivalent program recognized by the Ohio or U.S. governments. The cost of complying with the requirement is to be

included in the contractor's base bid. The contractor would have full authority to retain, discipline or terminate these employees.

- A contractor must demonstrate a good-faith effort to meet the above employment requirement or be considered in breach of the contract. The OSFC or School District will consider such a breach in determining the appropriateness of any future contract awards to the contractor.
- A contractor may be excused from the above requirement if there are qualifying CMSD graduates trained in the contractor's trade.
- If a contractor cannot hire qualifying former CMSD students because to do so would violate the contractor's prior contractual relationships or if a contractor elects not to hire such individuals, then the contractor will not be entitled to receive payment for those hours included in its base bid, or the School District and OSFC may offset an equivalent number of hours on any claim the contractor asserts on change orders.
- If a contractor does not engage in good-faith efforts to hire former students of the School District or comply with the employment provision, the District may deduct from any claim or change order \$1,000 for each 150 hours, pro rated, from funds otherwise payable to the contractor.

Enforcement of any penalties clearly will require that the District sufficiently document any lack of compliance by a contractor.

Information for this report was compiled from information supplied by state officials in an Ohio Construction Reform Academy class, OCR Academy documents posted on the OSFC Web site, and responses to BAC questions by the School District and its legal counsel and by an OSFC planning manager.

Contact the BAC: You may reach the Bond Accountability Commission at bondaccountability@hotmail.com, or call (440) 781-8654.