

## Maryland SHA

General Information	
Contact Information	<p><b>Jeffrey T. Folden, P.E.</b>  <a href="mailto:jfolden1@sha.state.md.us">jfolden1@sha.state.md.us</a>            410-545-8814</p>
Relevant Statute	<p>Md. State Finance and Procurement Code Ann. §3-602(g)</p> <ul style="list-style-type: none"> <li>• Authorizes design/build and fast-tracking for capital projects for projects where “total project funding” will be used</li> <li>• This is the funding for the planning, design, construction, and equipment of a capital project through a single appropriation or authorization or through a proposed capital lease.</li> <li>• Statute contains no substantive information or requirements about the design-build process</li> </ul> <p>Additional regulation for procurement is included in Maryland State Finance and Procurement Article of Annotated Code and the Code of Maryland Regulations (COMAR), including processes for conducting best value procurements.</p>
DB Program Characteristics	<ul style="list-style-type: none"> <li>• About 10 DB projects in the last 5 years</li> <li>• Most projects range from \$20 to \$50 million</li> </ul>

Agency Culture, Organization and Training	
Dedicated DB Program Staff	<ul style="list-style-type: none"> <li>• The Office of Highway Development’s Innovative Contracting Division (ICD) is responsible for overseeing SHA’s DB program               <ul style="list-style-type: none"> <li>- About 50% of Division Chief’s work is DB</li> <li>- 1 F/T staff dedicated to DB; Trying to bring 2 more individuals up to speed on DB</li> </ul> </li> <li>• ICD leads the project development and procurement process for all SHA projects delivered by the Office of Highway Development (OHD). Construction is lead by the District Construction Office with ICD overseeing the final design process. If a project is delivered by another office, that office leads the project development and procurement process with support from ICD. Construction is still led by the District Construction Office with the lead design office overseeing the final design process.</li> </ul>
Outsourcing	Consultants may be used to perform preliminary engineering
Internal Issues Related to DB Use	Nothing noteworthy
Industry Issues Related to DB Use	Nothing noteworthy
Procedural Guidance and Template Documents	<p>SHA Design-Build Manual, January 23, 2013, which provides extensive discussion of how to conduct the procurement and administration of a DB project. SHA considers the manual to be somewhat outdated, and it is scheduled to be updated into an Alternative Project Delivery Manual (including CM/GC) in the near future.</p> <p>SHA uses its standard design and construction contracts as a template for DB, but has not developed standard DB contract forms at this point in time.</p>
Training	No formal training program

Selection of Project Delivery Method	
Drivers for Using DB	See discussion below on Key Considerations

<b>Process and Tools</b>	<ul style="list-style-type: none"> <li>• Have just started to use a version of Colorado’s PDSM, tailored to suit Maryland’s program</li> <li>• Would like to apply the PDSM to all projects, but often a required project completion date dictates the use of DB</li> <li>• The team may begin to discuss procurement options when selecting the delivery method, but only in an informal manner</li> </ul>
<b>Key Considerations</b>	<p>The PDSM has the following considerations as primary evaluation factors:</p> <ul style="list-style-type: none"> <li>• Project Complexity &amp; Innovation</li> <li>• Delivery Schedule</li> <li>• Level of Design</li> <li>• Cost</li> <li>• Risk</li> </ul> <p>Project characteristics that may not be suitable for DB:</p> <ul style="list-style-type: none"> <li>• A project may not be well-suited for DB if the specific requirements cannot be adequately defined (however, Progressive DB may be an alternative when the specific requirements cannot be defined to a level where a design-builder can establish construction schedule and cost at the “bid” stage)</li> </ul>
<b>Entity Making the Delivery Decision</b>	Lead Design Office

<b>DB Project Development</b>	
<b>Project Development Activities</b>	<p>As identified in the SHA DB Manual:</p> <ul style="list-style-type: none"> <li>• Identify projects in the early stages off project development for DB procurement.</li> <li>• Develop procurement Strategy suited for chosen project.</li> <li>• Identify roles and responsibilities of all stakeholders.</li> <li>• Prepare Concept Plans, Specifications, Invitation for Bidders (IFB) and/or Requests for Proposals (RFPP)</li> <li>• Oversee Project through design and construction.</li> </ul>
<b>Use of Performance Requirements</b>	<ul style="list-style-type: none"> <li>• SHA DB Manual indicates substantial interest in using performance specifications for major elements of the work</li> <li>• SHA has used performance specifications since 2007, particularly in the areas of maintenance of traffic and roadway (For example, it will identify an outcome, such as a 4-lane divided highway)</li> </ul>
<b>Lessons Learned</b>	Nothing noteworthy

<b>Procurement Process</b>	
<b>Delivery Options</b>	<p>Competitive Sealed Proposals</p> <ul style="list-style-type: none"> <li>• Shortlist on qualifications during Step 1</li> <li>• Award based either on low price or best value (price/technical tradeoff)</li> <li>• Progressive DB (trying it on one project – Interstate 270 Innovative Congestion Management)</li> <li>• Decision made by the Lead Design Office with assistance of ICD</li> </ul>

<b>Procurement Steps</b>	<p><i>Low Price</i></p> <ol style="list-style-type: none"> <li>1. Informational Meeting</li> <li>2. Request for Proposals (RFP) issued – request for technical proposals</li> <li>3. Technical evaluation team reviews proposals (adjectival rating system)</li> <li>4. Evaluation Committee (EC) convenes to arrive at an overall consensus score</li> <li>5. EC recommends a reduced candidate list (RCL) to the Selection Official/Committee</li> <li>6. Short-listed teams submit bids</li> </ol> <p>Price proposals are not publicly opened. Price evaluations are completed for reasonableness and realism and either a recommendation is made to select the low priced proposer or enter into discussion with each responsible and responsive proposer.</p> <p><i>Best Value</i></p> <ol style="list-style-type: none"> <li>1. Informational Meeting</li> <li>2. Advertise RFQ (including draft RFP)</li> <li>3. Technical evaluation committees review the submitted SOQs (adjectival rating system)</li> <li>4. EC convenes to arrive at an overall consensus score</li> <li>5. EC recommends RCL to selection official (Usually about 3-5 teams are short-listed – look for natural breaks in the scores)</li> <li>6. Final RFP is distributed to the RCL</li> <li>7. ATCs (if desired)</li> <li>8. Technical Evaluation Teams evaluate each technical factors (adjectival rating system)</li> <li>9. Separate price evaluation teams will evaluate the price proposals for price reasonableness and price realism</li> <li>10. Technical evaluation findings presented to the EC, which will arrive at an overall consensus score</li> <li>11. Results of the Price Team will be revealed to the EC</li> <li>12. Based on relative importance of price vs. technical, EC will come to a consensus recommendation (trade off analysis)</li> <li>13. Recommendation presented to the Selection Official/Committee</li> </ol>
<b>Selection Method</b>	<ul style="list-style-type: none"> <li>• Cost/technical trade-off analysis (based on adjectival rating scale and adjectival weightings)</li> <li>• Project awarded to other than the lowest priced proposer/bidder about 3 times</li> </ul>
<b>Bundling DB Projects</b>	<ul style="list-style-type: none"> <li>• Have successfully bundled small bridge deck projects</li> <li>• Attempted to bundle fish passage work into a DB contract <ul style="list-style-type: none"> <li>- Was less successful</li> <li>- External agency review hindered the process</li> </ul> </li> </ul>
<b>Use of Alternative Technical Concepts (ATC)</b>	ATCs may be used on both best value and low price
<b>Stipends</b>	Stipend calculated by formula: 0.2%
<b>Other Comments</b>	Bid protest recently lodged regarding interpretation of the adjectival scores and price technical tradeoff decision, which resulted in a Maryland Board of Contract Appeals decision favorable to SHA (agency had broad discretion to make decisions in its best interests)

<b>Risk Allocation</b>	
<b>Risk Management Philosophy</b>	Risk identification and management workshops conducted, with the results used to develop a strategy for the project

<b>Differing Site Conditions</b>	Follows typical SHA specifications. If site conditions could not have been identified by SHA and DB before proposals, then SHA will generally assume the risk for cost adjustments/change orders
<b>Permitting</b>	<ul style="list-style-type: none"> <li>• Permitting agencies can have a high impact on meeting project objectives</li> <li>• E&amp;S reviews are time consuming and it is difficult to get commitment from external agencies to review plans in a timely manner. MDSHA recently received delegated authority to conduct E&amp;S reviews internally (jury is out on whether or not the SHA will be more efficient; fear is that SHA will be more critical)</li> </ul>
<b>Utilities</b>	<ul style="list-style-type: none"> <li>• SHA tries to get power work out the way before NTP</li> <li>• Wet utilities can be put on DB Teams</li> </ul>
<b>Right-of-Way</b>	<ul style="list-style-type: none"> <li>• SHA tries to have the ROW cleared by NTP</li> <li>• If ROW acquisition will be conducted in phases, the RFP should identify the dates on which the ROW will be cleared</li> </ul>
<b>Third Parties</b>	

<b>DB Contract Administration</b>	
<b>Design Oversight</b>	<p>The process below is being used on SHA's most current project, and SHA intends to look at how well the process performed as it considers it for future projects:</p> <ul style="list-style-type: none"> <li>• DB is responsible for Design QC and QA</li> <li>• DB to provide a Lead Design Firm and an Independent Design Quality Assurance Firm (IDQA) <ul style="list-style-type: none"> <li>- Lead Design Firm is responsible for QC</li> <li>- IDQA Firm is responsible for QA, including reviewing and approving the Design Quality Control Plan (DQCP) prepared by the Lead Design Firm and certifying that all design submittals are in compliance with the contract documents</li> </ul> </li> <li>• Design audit process includes weekly reporting by the IDQA including copies of all submissions, reports, checks, etc. by the Lead Design Firm and all review comments by the IDQA</li> <li>• SHA reviews the weekly updates to ensure the design review process and submissions are in compliance with the DQCP and contract requirements.</li> </ul>
<b>Construction Oversight and Quality Management</b>	<ul style="list-style-type: none"> <li>• No appreciable differences in construction oversight for DB versus traditional DBB</li> <li>• For SHA's current MD404 project, SHA approval of a design package is not required to begin construction (however, all permits must be received, any necessary environmental reevaluation completed, and the SHA must have certified that it is in possession of the ROW for that package). Previous processes required approvals before construction.</li> </ul>
<b>Payment</b>	
<b>Best Practices and/or Lessons Learned</b>	Some pushback from industry that having a GEC onsite getting paid by the hour was creating more comments than necessary

<b>Performance Outcomes</b>	
<b>Tracking of Metrics</b>	<ul style="list-style-type: none"> <li>• Master sheet that tracks project information</li> <li>• Last year, SHA did \$136 million in DB projects (3 contracts) – engineer's estimate was \$134 million</li> <li>• Per SHA DB Manual, change orders on SHA DB projects are less than 2% of the contract cost.</li> </ul>

<p><b>Success Factors</b></p>	<p><i>Primary Success Factors</i></p> <ul style="list-style-type: none"> <li>• Communication and coordination between all parties</li> <li>• Clarity of RFP scope</li> <li>• Use of performance criteria</li> <li>• ATCs</li> <li>• Timely owner reviews/approvals</li> </ul> <p><i>Secondary Success Factors</i></p> <ul style="list-style-type: none"> <li>• Interaction of the DB Team and DB qualifications (always getting the “A” team, so hasn’t been an issue)</li> </ul>
<p><b>Other Comments</b></p>	<p>Permitting agencies can have a significant impact on meeting project objectives</p>