Washington DOT Headquarters DB Program Summary

General Information	
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Relevant Statute and Regulations	*RCW 47.20.780, Design-build - Competitive Bidding and RCW 47.20.785, Design-Build Qualified Projects.* • 47.20.780 authorizes DOT to enter into DB contracts **greater than two million dollars**. The process must include a scope of services, contractor prequalification requirements, criteria for evaluating technical information and project costs, contractor selection criteria, and issue resolution procedures. • 47.20.785 authorizes DOT to use the design-build procedure for public works projects **over two million dollars** when: (1) The construction activities are highly specialized and a design-build approach is critical in developing the construction methodology; or (2) The projects selected provide opportunity for greater innovation and efficiencies between the designer and the builder; or (3) Significant savings in project delivery time would be realized.

DB Program Characteristics	• First DB project executed in 2001
	• 29 DB projects in the last 15 years
	• Size of projects:
	  - 5 mega-projects/programs > $300M (3 SR 520 contracts)
	  - 4 projects in $100 - $200M range
	  - 4 projects in $50 - $100M range
	  - 8 projects in $10 - $50M range
	  - 8 small projects $2M - $10M

Agency Culture, Organization and Training	

Dedicated DB Program Staff	• Dedicated DB staff at headquarters (HQ)
	  - Through September 2014, 1 F/T Assistant State Construction Engineer (ASCE) was assigned to support the development of the DB program while providing direct project support DB projects.
	  - Now have 1 F/T DB Engineer supporting DB Program development and half- time ASCE
	• DOT is decentralized in general
	  - HQ acts in a supporting role providing oversight of DB (ASCEs are all out of HQ)
	  - Region staff PEs/PMs manage DB projects
	• Certain regions have the expertise
	  - NW regions (NW and Urban Corridors) does most of DB projects (also Olympic region)
	  - Most of expertise is in those regions located in the central Puget Sound area
	• DOT is trying to capture DB lessons-learned and disseminate to other regions
	• In 2015 instituted an internal WSDOT DB Work Group consisting of project engineers (PEs) and project managers (PMs) .WSDOT DB workgroup (HQ design, construction, regions, and ferries) support the development of WSDOT DB policy, contracts and manuals.
	  - New tools and processes are being developed by DB Workgroup and HQ staff (Guidebook, templates)
	  - Push is to develop more detailed DB guidance to supplement existing design and construction policy manuals
	  - Process for manuals and contracts is to work with industry, address comments, then go to FHWA for final approval

Outsourcing	• For "Nickel" funding package, WSDOT staffed up and supplemented region and program teams with consultant support • With new funding package, intent is to create a sustainable workforce and supplement with consultant staff • Consultants are used to supplement staff particularly for larger projects or programs • Large project staffs in western regions include higher percentage of consultant staff
DB Project Team Makeup	Team composition varies - for large projects, use a blended team with consultant services
Internal Issues Related to DB Use	• Most DBs institutional knowledge is in western regions; in eastern regions the lack of experience has caused misconceptions about value of DB, or lack of understanding • HQ trying to do information exchanges for regions on DB and create experts. The Department's DB experience is primarily in the central Puget Sound areas involving limited NW and Olympic region staff. Within these regions, there are manystaff outside of those DB focused teams that do not have DB knowledge or experience. • The current mandate is to evaluate all projects for optimal delivery method using Project Delivery Method Selection Guidance (PDMSG), and, based on PDMSG result, use most appropriate delivery method • Legislature dropped limit from $10M to $2M, which should increase use of DB and GC/CM for smaller projects in all regions (for GC/CM also need to go through and additional step to get board approval)

Industry Issues Related to DB Use	• AGC and ACEC are strong proponents
	
	• Local 17 Union is concerned about effect of DB on DOT employees
	
	• DOT teams with AGC Subcommittee for DB and ACEC representation to set policies and a forum through which industry can raise issues
	
	   - Subcommittee provides subject matter experts (to go through comments, prioritize, and resolve comments) for contract document updates
	
	   - In past 1.5 years, DOT has been engaging industry at a higher level in all aspects of DB program (including contracts and manuals)

Procedural Guidance and Template Documents	• WSDOT is focused on standardizing its DB documents, which would also include contract documents, along with policy and guidance documents. Our contract documents would include the Request for Qualifications (RFQ), Instructions to Proposers (ITP) and the Request for Proposal documents (Chapters 1 and 2).
	
	• Our policy and guidance document will be the Design-Build Manual. Training will be focused on supporting the DB Manual.
	
	• Trying to create standard language in Templates (to achieve FHWA pre-approval) for items that are pre-approved to streamline process (boilerplate Chapter 1 and technical Chapter 2)
	
	• DB task force currently updating Chapter 2 technical requirements template with industry review and comment
	
	• The 2004 DB guidebook will be updated. The 2004 DB Guidebook is focused primarily on the planning and development of DB projects while relying on other WSDOT policy and guidance documents (i.e. Design Manual, Construction Manual). The State Construction Office is leading the development of what we refer to as the Design-Build Manual. It will provide more comprehensive policy and guidance for the planning, development, procurement, execution and administration of DB projects.
	
	• All boilerplate and project-specific language combined into one template RFP document
	
	   - Users currently cannot differentiate between standard language and project-specific
	
	   - Goal is to find a way to clearly differentiate boilerplate and optional language

Training	• Currently provide relatively informal or short-term training • Priority is to develop more formal training DB 101, procurement, development, etc. The training is intended to be in alignment and support the policy and guidance in the DB Manual. • Regions have developed their own training programs • Peer forums (using "Lync" meeting software) will be implemented in future

Selection of Project Delivery Method
Drivers for Using DB	The basic criteria are established by RCW 47.20.785 summarized as: highly specialized construction activities; provide opportunity for greater innovation; and significant savings in project delivery time.

Process and Tools	• As of October 2015, WSDOT uses a formal decision tool for project delivery method selection – Project Delivery Method Selection Guidance (PDMSG) originating from University of Colorado pooled fund study and modified for WSDOT's program. Prior to that, all projects were pursued using DBB unless the region/program specifically requested approval (through WSDOT's Chief Engineer) to use DB as the delivery method. The request needed to demonstrate how the project met the basic requirements of RCW 47.20.785 with other supporting documentation.
	• Delivery method options include DBB, DB, and GC/CM
	• Project delivery method (PDM) determined in two stages:
	- Probable PDM in Project Summary Phase
	- Final PDM at 10% design.
	• Selection checklist is initial tool used to determine probable PDM
	• Selection matrix is a decision tool used to determine PDM for larger more complex projects (>$25M) or where checklist did not adequately determine PDM
	• Analysis includes an assessment of project goals, constraints, and project risks
	• As of October 2015, Regions, Corridor programs, and WSF (Ferries) will implement PDMSG with Project Development Process for all new projects and for existing projects where design is <30%
Key Considerations	Key considerations are incorporated into PDMSG
	• Projects <$2M, use Part I and IV of selection checklist that address selection of a probable PDM at a summary level based on certain project attributes
	• Projects $2M - $25M, Parts I-IV of selection checklist to identify and score project goals and constraints, and select PDM.
	• Projects $25M - $100M, will use a selection matrix scoring system and perform a risk assessment to validate PDM selection.
	• Projects >$25M, the use of a selection workshop with a facilitator strongly recommended; ASCE and Assistant State Design Engineer (ASDE) from HQ participate
Entity Making the Delivery Decision	• Regional administrator endorses decision and recommends approval
	• ASDE and ASCE review and endorse the final PDMSG selection for projects >$100M, or when exceptions to the PDMSG are pursued,
	• For projects <$100 M that are consistent with the PDMSG, regions have the authority to make the determination.
	• Chief Engineer reviews and approves PDMs where regions/programs are pursuing the use of a PDM that is not consistent with the PDMSG outcome (an exception).

DB Project Development	
Timing of the Delivery Decision	Delivery decision is should be made after project summary package and during preliminary scoping (as early as 1-10% design). Based on current DB project experience, typically decision was made in the range of 10-30% design (this was incorporated into PDMSG). Design must be advanced enough to get environmental, permits, 3rd party, utility agreements before release of an RFP
Project Development Activities	• Standard process is to develop a project summary package regardless of delivery (per Design Manual). At this stage the PDMSG would be implemented to make preliminary recommendation of a PDM as part of the project scoping effort. The final PDM is then determined during preliminary project design (10-30%)
	• Standard DBB process is modified for DB. Based on the difference in delivery methods, the project development process is different. Each region has the flexibility to modify the processes as long as the processes provide a consistent outcome and required deliverables. The mission of HQ is to provide policy and guidance that the regions/programs can use to support their project development efforts.

Use of Performance Requirements	Use of performance criteria depends on project goals and risks, and project or project elements. RFP documents include performance criteria/measures that will used for scoring (performance criteria are generally used much more for DB projects)
Issues, Lessons Learned	DBIA best practices are incorporated to extent possible.

Procurement Process	
Delivery Options	- Two-Phase Best Value DB - Have used upset price and BAFO (2 projects) - RCW 39.10 references General Contractor / Construction Manager (GC/CM) - Variable scope DB with upset price has been only used on one DB project. Variable scope has been used on DBB projects during times of uncertain bid price prices.
Procurement Steps	In accordance with the two-step Best-Value process: - RFQ is issued and the general scope of the project is provided with general conceptual aids. A voluntary submitter's meeting is conducted a week or two after posting the RFQ, but the DRAFT RFP is not typically provided. - SOQs are evaluated to establish a short list (based on qualitative evaluation and adjectival scoring process to establish a ranking) - Firms are notified of their ranking - Shortlisted firms are invited to respond to the RFP - RFP issued - Voluntary proposer meeting (WSDOT lead) - Request for supplemental borings (if applicable) and addenda to Geotechnical Data Report - Confidential Proposer 1:1 meetings with the shortlisted Proposers - Submission of ATCs - Proposals are evaluated - Initial pass/fail responsiveness evaluation - Upset determination (if applicable) - Technical evaluation - Best Value determination (Price – sum of technical credits) - Formal discussions and a Best and Final Offer process may be used as desired - Debriefing
Selection Method	- For best value, price adjusted by technical credits - Price is predominant weighting (80-90%); WSDOT has had 2 projects where the technical credit did differentiate between the low bidder and the apparent best value.
Bundling DB Projects	N/A
Use of Alternative Technical Concepts (ATCs)	ATCs process seems to work well. WSDOT uses one-on-one confidential meetings to clarify ATCs
Stipends	- Stipend amounts vary depending on the level of effort expended by the Proposers. The stipend is intended to pay a portion of the proposer's costs, not all costs. WSDOT estimates stipend costs typically .1-.3% of the estimated project costs but might be higher for selected projects. - Paying stipends grants the successful proposer access to the innovative ideas of the unsuccessful firms.

Other Comments	• Only one protest
	• Questions have been asked regarding consistency of procurement process
	• Some industry new to DB have asked how to break into DB
	• Debriefings are very valuable to explain selection decisions
	• Perceived gaps:
	- Evaluation of DB team at end of project is not practiced now and will be implemented
	- Reference checks for RFQ process

Risk Allocation

Risk Management Philosophy	• DB matrix with pre-assigned risk allocation was worked out with industry – there can be variations to allocation based on size and risk analysis (CVEP and CRA)
	• Analysis should determine where risk transfer should be on project by project basis
Differing Site Conditions	Shared
	• Based on risk matrix
	- DOT responsible for geotechnical investigation based on preliminary design
	- DB team responsible for geotechnical investigation based on proposal; DB team then develops proposal-specific geotechnical analysis report
	• WSDOT may use a differing site condition (DSC) risk allocation pool set at specific cap (e.g. if cap is set at $6M, DB team can't ask for change orders for DCS under $6M)
Permitting	DOT
	• DOT responsible for primary permitting risk
	• If changes are needed based on DB proposal, DB responsible for modifying permit
Utilities	Shared
	• DOT identifies all utility impacts, relocations, etc.
	• DB team issued change orders for utilities not shown in baseline, but they are responsible for utilities not found during their required site investigation
Right-of-Way	DOT
	• DOT responsible for ROW acquisition. The RFP provides a means for the DB to pursue additional permanent ROW for the Work, but it requires DOT approval.
	• DB responsible for obtaining additional temporary construction easements
Third Parties (local agency)	Shared
	• DOT responsible for 3rd party agreements (Fed, local, private)
	• DB responsible for coordination

DB Contract Administration

Design Oversight	• Co-location is a best practice for larger projects Designer doesn't disappear at end of design – continues through construction
	• Design reviews work relatively well; needs to emphasize review versus approval
Construction Oversight and Quality Management	• Construction roles and responsibilities can be an issue
	• More focus needed on DOT quality roles (audit vs inspection and testing)
	• Process for quality verification needs to be better defined
	• Major programs have diverged somewhat in how quality is handled
	- Larger programs have resources to develop more sophisticated systems (i.e. CATS construction audit tracking system, etc.) but they are not consistently applied

Training	• WSDOT has developed contract administration training on 405 corridor, also the 520 program, and Olympic region The Olympic Region used a mentoring approach for the Puyallup River Bridge DB project.
	• Plan to provide training by HQ
	• The WSDOT DB Work Group is another forum where WSDOT staff are beginning to share knowledge and experience as new policy and guidance is being developed.
Best Practices and/or Lessons Learned	• HQ view is that more focus needed on DOT quality roles (audit vs inspection and testing)
	• Process for quality verification needs to be better defined
	• The WSDOT DB Work Group is another forum where WSDOT staff are beginning to share knowledge and experience as new policy and guidance is being developed.

Performance Outcomes	
Tracking of Metrics	• Certain metrics tracked on all projects in the Construction Contract Information System (CCIS) - not specifically for DB
	• Tracking mechanisms don't work as well for DB
	• Construction audit tracking system (CATS) used on DB –measures non-conformances (although it is possible to mine data, there is not consistent implementation or analysis of CATS information.
Success Factors	All the factors are important
	• Interaction of the DB Team
	• Communication and coordination
	• Clarity of RFP scope
	• ATCs
	• Performance criteria
	• Timely reviews (need to commit to the expedited DB process)
	• Equitable risk allocation
	• DB qualifications
Other Comments (future approaches)	• Streamlined process for DB for smaller or emergency projects
	• DB with maintenance options