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# Mega Project Assessment

Prepared for  
Washington State Department of Transportation

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# Introduction

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The Washington State Department of Transportation (WSDOT) is currently engaged in delivering multiple major capital construction projects, including Alaskan Way Viaduct (AWV) Replacement, SR 520 HOV and Bridge Replacement, and Columbia River Crossing. These projects are each estimated to cost over \$3 billion, and are in varying stages of delivery. Additionally, several other mega and large projects are anticipated to begin in the near future, such as the SR 509/SR 167 “Gateway” project and I-5 reconstruction, as well as funding to complete the SR 520 Westside improvements, continued work on I-405, and I-90 Snoqualmie Pass improvements.

In March, incoming Secretary of Transportation Lynn Peterson requested that an assessment be made of the three mega projects currently underway. CH2M HILL and Tom Warne and Associates were contracted by task order to perform this assessment for Secretary Peterson, the WSDOT Chief Engineer, and WSDOT senior management. The areas of program delivery potentially subject to the review included:

- Project staffing/expertise, staffing levels, reliance on consultants, roles and responsibilities (including project support offices (construction, bridge design, region, environmental) and other public or private partners involved with project delivery)
- Project organization
- Project communication – internal and external
- Risk management
- Scope management
- Budget management
- Schedule management
- Issue and internal/external conflict escalation and resolution

Subsequent to issuance of the original task order, work related to the Columbia River Crossing project was removed from the scope of work. The project was not funded for final design and construction during the 2013 legislative session, and the WSDOT project team has been disbanded.

In addition to a document review (Attachment A), interviews were conducted with WSDOT executives, staff from Olympia, and the project teams (Attachment B). Based on those interviews, the following areas emerged as topics of focus for this report:

- 1.0 Organizational Structure
- 2.0 Lessons Learned
- 3.0 Delivery Methods/Selection
- 4.0 Workforce/Project Staffing
- 5.0 Quality Assurance
- 6.0 Other Considerations

Recognizing the emerging need for WSDOT to position itself for the next group of mega projects that may be funded in the near future, WSDOT executives requested that this assessment be prospective in nature and respond to the question—what can WSDOT do for these new mega projects in relation to the six topic areas listed above? Our observations and recommendations reflect the desire to use nationally recognized best practices, and build upon the experience that WSDOT has delivering major programs.

Both AWV and SR 520 are mature programs that are well into construction. Delivery strategies have been established and both programs are being delivered through a series of construction contracts, utilizing both design-bid-build and design-build methods. Both projects have 100% oversight by the Federal Highway

Administration (FHWA). FHWA is the lead federal agency for National Environmental Policy Act environmental reviews. As a funding partner, FHWA has the fiduciary responsibility to ensure that the projects are administered in a manner consistent with federal law and that federal funds are used appropriately. As such, detailed project management and finance plans are in place. The AWV program is fully funded for the \$3.1 billion program. The SR 520 program is not fully funded, with improvements between the Montlake interchange and I-5 not funded at this time, as well as funding for the west approach bridge south, which will replace the existing roadway/bridge that carries eastbound traffic between the Montlake interchange and the floating bridge.

# 1. Organizational Structure

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WSDOT, which is organized into six geographic highway regions and the Washington State Ferries, is responsible for project delivery and operations. From 2001 to 2009, the Urban Corridors office provided oversight of mega projects in the Puget Sound area. Reorganization in 2009 resulted in the reassignment of these projects. The AWV and the SR 520 programs now directly report to the Chief Engineer. The I-405 Program office was absorbed into the Northwest Region management structure.

This reorganization left an inordinately large number of employees directly reporting to the Chief Engineer (17). Under ideal circumstances, with little direct supervision required by the Chief Engineer, this might have been acceptable. The truth, however, is that at a time when the AWV and SR 520 projects were moving into the peak of delivery, much more was required of the Chief Engineer than he was able to provide, leading to circumstances on the SR 520 program where a void of direction was filled with either self-direction or immobilization for want of a decision or intervention.

It is common for mainstream departments of transportation (DOTs) to want to absorb mega projects into their regional processes and oversight. Ultimately, the regions recognize that the assets will become their responsibility for operations and maintenance. Although regional offices are well-equipped to ensure the appropriate planning, design, and construction of the majority of projects, across the country mega projects are separated from regional oversight to ensure the ability to streamline processes and accelerate delivery, and to be transparent and accountable at the highest level.

## Cultural Barriers

Because mega projects are often on the leading edge in terms of alternative contracting, including innovative quality assurance, regional employees have cause to second guess procedures utilized by the mega project managers. The time-tested and proven methods of addressing process in general (traditional checks and balances within the Department are ill-suited to quickly address issues as they arise on mega projects) are often too labor- and time-intensive, and frankly inappropriate in an alternative contracting scenario, such as Design Build or General Contractor Construction Management (GCCM). Also, mega projects are very professionally appealing and high profile in the community. How can a Region Administrator be doing their job and not know the inner workings and day-to-day decisions being made on the most significant project in their region?

## Recommendations

Mega projects should continue to operate independently from the WSDOT regional offices. They should report directly to the Chief Engineer and Project Managers to be supported at the highest level within the Department.

The Office of the Chief Engineer should be reorganized to be more focused on the following three primary areas:

- Regional Operations
- Mega Project Delivery
- Environmental and Engineering Functions in Headquarters

Over the past 3 years, the Chief Engineer has had 17 direct reports due to retirements and restructuring, which has resulted in a lack of mega project focus at the Chief Engineer's level. It should be noted that during the development of this report, a new Chief Engineer with mega project experience has been appointed, and other changes are being implemented that will strengthen mega project support. Additionally, a Deputy Chief Engineer position has been re-established in order to support the Chief Engineer.

## 2. Lessons Learned

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Because of the nature of mega projects, the opportunities for learning and developing a knowledge base is significant. How do you ensure that it is not only the project team who learns these lessons? How can these experiences be leveraged to making better choices on the next job?

### Transfer Knowledge

It is common for mega project directors to say—to learn what I have learned over the term of this project, a person would have to be with me every day, because the learning does not occur in spurts and starts, but rather, it is continuous. Cataloging all of these continuous experiences is neither practical nor possible; however, a sampling of them should be recorded and shared with those who might benefit the most. How this task can be accomplished is debatable. Is there a central clearing house of lessons learned, or do individual project managers amass their own lessons learned individually? Sharing lessons learned might be accomplished through an online repository, central collecting point, regular training, or annual engineering conference presentations.

WSDOT has from time-to-time created rotational assignment opportunities, which enable employees from across the state to gain experience in a project or program outside of their region. This is currently the case with the administrator of the AWV program, who is on an extended temporary duty assignment from Yakima. These opportunities provide valuable experience for the employee, and in the long run benefit the Department as a whole.

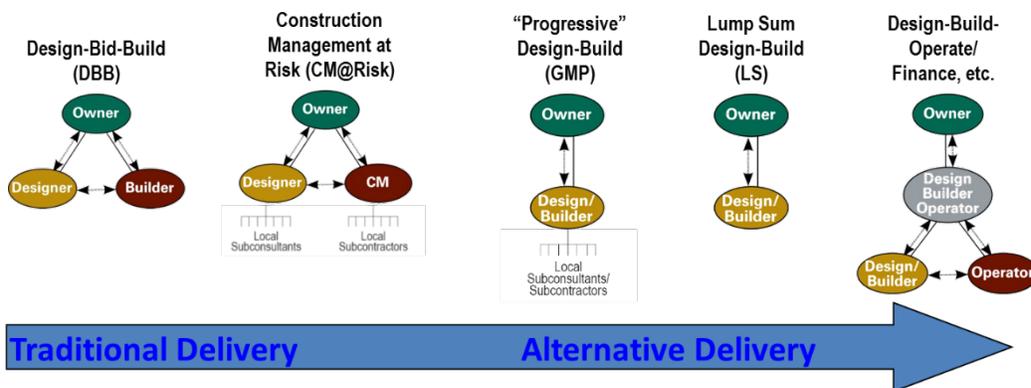
### Recommendations

Valuable experience being gained by the teams on WSDOT mega projects should be captured and shared statewide. Exploring rotational assignments will help cultivate new ways of doing business across the state. WSDOT should also build relationships with other state DOTs that are delivering mega projects and utilizing alternative delivery methods.

### 3. Delivery Methods/Selection

Any attempt to summarize complex contracting methodologies could be accused of over-simplification. Admittedly, this will be a simple summary, with many nuances left for further discussions. With that in mind, one might think of contracting methods as a tool to manage and/or transfer risk from the owner to the contractor in varying degrees from little to nearly all. Further, all methods might be considered public private partnerships since the private sector is always engaged by the public owner contractually at some point in the project development process. As shown on the graphic below, design-bid-build is on the one end of the risk allocation spectrum and design-build-operate-maintain-finance is on the other end of the spectrum.

## Project Delivery Options



### Design-Bid-Build

The most commonly used and best understood transportation industry contracting method is design-bid-build. It is also the method of least risk transference to the contractor. Under this method, the owner either self-performs or contracts with an engineering consultant for the design phase of the project. Plans, specifications, and estimates are prepared by the engineer, after which bids are accepted, with the lowest responsible bidder being awarded the contract. Significant risk is retained by the owner, since the design was prepared by the public entity. Risk associated with unforeseen conditions and unexpected complications is retained by the public owner. The highway construction design-bid-build model begins to break down for larger projects. The owner cannot respond quickly enough and the value of time is just too large for the owner to maintain the responsibility.

### General Contractor Construction Management

The GCCM method differs from traditional design-bid-build contracting as follows:

- The general contractor is selected using a qualifications selection process at the start of the design process.
- The contractor contributes to the design using innovative ideas with the goal of reducing costs and risks.
- The contractor, owner, and designer employ value engineering concepts throughout the design process.
- An independent cost estimator validates the estimates of the designer and the contractor.
- At the end of the design phase, only the selected general contractor submits a bid, and the owner can accept or reject the contractor bid. If rejected, the owner bids the package in a traditional fashion.

The objectives of GCCM are to encourage innovation, accelerate delivery, decrease traffic impacts, and, through risk identification/mitigation, establish a fair price.

## Design-Build

Under design-build, an owner combines the design and construction phases of a project into a single contract. In some cases, it is a single contractor, while on larger projects it might be a joint venture or consortium of contractors. The contractor's proposal becomes the contract between owner and contractor, while the designer works directly for the contractor. As aspects of the design are complete, construction immediately begins, which accelerates the delivery schedule.

## Design-Build Hybrids

Under fixed price or best value design-build projects, a contractor is selected based on the proposed scope of work, schedule, traffic impacts, quality, innovation, and cost under the fixed price. This method enables the Department to consider the most attractive offer based on the specific drivers of the project, as listed below:

- **Design build with options:** Additive or deductive alternatives allow the owner to obtain hard bids on elements of work that might be either added, or deducted, from the work in order to hit budget targets.
- **Design build – task orders:** The design builder has an established scope of work broken into task orders. Any combination or all the task orders could be executed. Task orders detail the amount and location(s) of the work. There is no guarantee of minimum or maximum quantities of work.
- **Progressive design-build:** This method reduces the amount of time needed for procurement and establishes a relationship with the contractor before a guaranteed maximum price is identified. During the process, the owner has the ability to adjust scope, if necessary, to adapt to changing estimates, or competitively bid the work.

## Delivery Agent

Under this method, the owner contracts with an agent, who takes the traditional role of the DOT to procure, execute, oversee, and audit the project process. FHWA Rules under Special Experimental Program 15 (SEP-15) allow state transportation agencies to enter into partnership agreements for program management and delivery of major capital programs.

## Design-Build-Operate-Maintain-Finance

This method often represents the classic public-private partnership, or P3. As its name denotes, a contractor designs and builds, then operates, maintains, and finances the whole project. Often, there is a term after which operation and maintenance of the facility reverts to the owner.

P3s have several advantages for an agency and the public. By definition, the concessionaire is responsible for fully financing the project (some agency funding may be included, but it can be limited). This allows the facility to be built without the agency incurring debt, the risk of cost overruns, or an obligation to pay off bonds that may be issued to finance the project. P3s are typically toll-financed facilities, and the concessionaire would also be responsible for toll collection. The advantage for the public is that the facility can be built sooner, if the public agency lacks the funding or debt capacity to finance the improvements.

## Quality Control/Quality Assurance

The contracting methods discussed above for Quality Based Methods, Design-Build and P3's require reconsideration of the traditional quality control (QC) and quality assurance (QA) approaches to project management. Traditionally, the owner's project management provides for inspection, certification, and verification throughout the project process. Stepping away from this method of project management can be

difficult for an owner, but becomes necessary to enable the innovation desired and risk transference under differing contracting methods. During design, the owner performs over-the-shoulder reviews; during construction, the owner samples or audits the QC/QA program of the contractor. Design-build and GCCM contracting nearly always use this method, with differing levels of commitment. For example, an owner might choose to give the contractor the QC, while retaining the QA, or might share in the QA role with the contractor.

The level of commitment to contractor-provided QC/QA is commensurate with the amount of risk transference to the contractor.

## Contracting Tools

The following contracting strategies can be used in any of the above forms of contract. WSDOT has and should continue to utilize these type of contracting provisions as appropriate.

### Incentive/Disincentive

Incentives and disincentives are often added to design-bid-build and all other types of contracts. These might be tied to user costs, or established in another fashion. User costs are the financial impacts borne by the traveling public because of a highway construction project and can include:

- Construction zone user travel-time delay
- Additional user fuel costs in construction zones or detours
- Cost of projected increase in crash rates in work zone
- Detour road impact costs, including maintenance of traffic and potential costs of winter shutdowns
- Costs of potential delays to subsequent or adjacent projects

A logical and repeatable methodology to establish user costs provides for a monetary incentive/disincentive to enable the work to progress more quickly with the least amount of disruption.

### Cost Plus Time (A+B)

Cost plus time, also known as A+B bidding, is a contracting method where award of a contract is based on a combination of both cost (A) and time (B). This tool encourages the contractor to minimize the time spent affecting travelers during the construction period and often leads to double-shifting, night work, or innovative impact-reducing strategies such as prefabrication or offsite work.

### Lane Rental

Lane rental encourages contractors to minimize road user impacts during construction. The lane rental fee is applied during the time the contractor occupies or impedes a lane of traffic and is based on estimated cost of delay or inconvenience to the road user during the rental period. Urban projects are often the best candidates for lane rental because of the significant impact construction zones can create on high-volume roads.

### Quality-Based Methods

While many highway construction projects come with workmanship and materials warranties, they are typically limited in their application. Some owners are experimenting with longer-term warranties as a contracting method. Rather than specify methods and means by which products are delivered, the owner indicates the performance expected from the product and steps out of the role of overseer of the methods used by the contractor. Term-specified performance risk is transferred to the contractor through this contracting tool.

## Summary of Delivery Methods/Selection

The previous brief descriptions of contracting methods are intended to shed light on the wide array of tools available for application to specific needs of individual projects. For example, on one project it might be important to be hyper-responsive to the needs of business or property owners along the corridor. On

another project, it might be important to maximize the scope of work, or another it might be important to minimize traffic impacts. WSDOT should be given every tool available to encourage contractor responsiveness, or to stretch the work as far as possible, or find a way to build the work without disrupting traffic, or a combination of all of the above.

Consistent with other DOTs in America, WSDOT delivers most of their projects using design-bid-build. This practice is appropriate for many of the routine projects necessary for the ongoing upkeep of the system, and should continue. However, alternative contracting approaches should be considered for mega projects, significant risk projects, complex projects, projects in need of competitive innovations, or time-sensitive projects such as the recent Skagit River bridge.

At WSDOT, there appears to be less structure in terms of how decisions are made regarding delivery methods. Thoughtful consideration of the risk profile of specific mega projects will lead to a delivery method tailored to the project. We recommend that the highest-level executives within WSDOT consider all possible scenarios before selecting the contracting approach, and then consider how authority should be aligned for the specific projects. Many nontraditional delivery methods require the project management personnel to operate and make decisions at a faster pace than what traditional policy and support areas provide. Follow-through by the project management personnel along with the agency resource leaders supporting the project should be monitored through project reporting, such as the quarterly project updates to WSDOT executives.

In terms of risk allocation, traditional design-bid-build contracting leaves much of the contracting risk for constructability and design liability with the owner because the design is self-performed and the scope is fully controlled by the owner; the owner is largely responsible for construction impacts. Design-build allocates all the design risk and responsibility for construction impacts to the contractor and might be considered the opposite end of the spectrum in terms of risk allocation. GCCM is a hybrid with some risk allocated to the contractor and some to the owner, depending on who might best be able to mitigate the risk. GCCM allows the owner to fully control design, and work with the contractor during final design to minimize construction impacts and reduce some risks.

With the transfer of risk to the contractor under a design-build contract, it is important to note that the agency has less direct control once the contract issued. Many challenges that are routinely solved by WSDOT under a traditional design-bid-build approach become the responsibility of the contractor. As such, it is critical that WSDOT maintain adherence to outcomes, as opposed to process. If the Department becomes too directive, it could shift risk back to the state, which would defeat one of the fundamental benefits of design-build.

WSDOT has successfully completed over 20 design-build projects, mostly in the Puget Sound area. While it might appear to be a large number of projects, the number of WSDOT employees exposed to the methodology is limited and has been concentrated in the Northwest Region. The Northwest Region has some of the more complicated urban areas with huge construction delivery challenges. This does not mean that the rest of the state is less progressive—just that the types of projects, level of funding, and risk management considerations may not benefit from a different method of delivery. With the limited exposure, it is safe to assume some bias against alternative procurement processes only because it is different than the norm. When appropriate, the use of alternative procurement methods in other WSDOT regions would expand the knowledge base and enable region project managers to tailor the procurement method to meet the needs of their projects.

It appears WSDOT is limited in their ability to use GCCM contracting. This method has been used for decades in the vertical construction arena and now successfully by other state DOT's and also by the city of Seattle. Adjustments to current state law should be considered to make this a viable contracting approach and thus giving WSDOT the ability to use the full spectrum of contracting tools available.

## Recommendations

Selection of the best contracting approach should be based on the specific risks and goals of the project. A thorough risk assessment will provide critical insight into the selection of the appropriate delivery method. For complex or large projects, this decision should be endorsed by key team members and the Chief Engineer. Efforts should be made to ensure the decision is not unfairly biased. WSDOT should seek legislative authorization to utilize GCCM approaches to delivery in addition to the existing design-build authority.

When selecting a contracting method, the Department should:

1. Perform a thorough risk analysis to identify and quantify all project risks.
2. Consider the amount of risk that should be retained versus transferred to the contractor.
3. On mega projects, the Chief Engineer should review and approve the delivery strategy.

P3s represent an opportunity to deliver projects the state might otherwise be unable to currently deliver. A pilot program for a limited number of projects authorized by the legislature would allow the state to evaluate future potential of P3s.

## 4. Workforce/Project Staffing

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Staffing of mega projects in the context of the overall WSDOT program is a complex resource management issue. Fundamentally, WSDOT is committed to being a “strong owner” in managing delivery mega projects. This philosophy was an important lesson learned from other mega projects across the country. When the Nickel Funding Package and the Transportation Partnership Program (TPA) were enacted in 2003 and 2005, respectively, hundreds of projects across the state were delivered in a relatively short period of time. Aside from the mega projects, most of these projects were delivered using the traditional design-bid-build approach and established WSDOT processes. Program delivery has been successful, but this approach required the addition of hundreds of new employees to the WSDOT engineering workforce. At the time, there was a general feeling that the work could be accomplished more efficiently by simply staffing up. There was also a concern that utilizing consultant resources would result in increased engineering costs up front, when project budgets were established under the assumption of using WSDOT employees to perform the work. In our discussions with several WSDOT executives from central and eastern Washington, they also expressed concern that it was difficult to get consultants to commit to full-time assignments east of the mountains.

While the Nickel and TPA programs have been successful, the resulting peak in employment has resulted in a need to reduce the size of the engineering workforce over the past several years. The Department has been actively managing this effort, as reported by Secretary Hammond in the September 16, 2011, report on WSDOT’s workforce strategy.

WSDOT has organized the SR 520 and AWV project teams with the assistance of a General Engineering Consultant (GEC) to help manage and perform project delivery tasks. As such, these projects are staffed using a mix of WSDOT and consultant staff. This is typical for large transportation projects across the country. Mega projects are typically staffed by a mix of owner representatives (WSDOT) and consultants. The GEC is hired with the ability to bring in national and international expertise needed for the particular project. The mix and balance of WSDOT and consultant employees is one that is constantly changing based on the needs of the project and skills of the Department. The lead consultant team members are co-located with the WSDOT project management team. Co-location is commonly used on mega projects to improve communication and coordination.

The current reduction in force has put pressure on the mega projects to utilize state resources to the fullest extent possible. While managing makeup and composition of the team is an inherent project management responsibility of the project team, it has become more complicated in the context of the current WSDOT reduction in force. Additionally, many WSDOT employees currently working on the SR 520 and AWV programs face uncertain futures as the programs wind down over the next several years.

### Recommendations

As the Department looks forward to the next cycle of new project and program funding, care should be taken to not automatically “staff up” when transportation funding is increased and new major project teams are formed. WSDOT should avoid cyclical hiring and downsizing. Backfilling positions should be carefully managed. In our opinion, cyclical hiring and reductions work against the benefits represented by a stable agency workforce for skill retention and leadership succession. Although short-term cost savings on delivery of individual projects of the Nickel and TPA programs may have occurred by increasing the size of the agency, the long-term impact of subsequent reductions in force may be more costly and detrimental in the long run to the Department.

Overall management of the WSDOT workforce, staffing of mega projects, and utilization of consultant resources should happen collaboratively across the Department. This effort has been ongoing, and should be a focus when new projects are funded in the future.

It is important to utilize project employment (project positions are separate from other reduction-in-force actions that may be occurring in the Department). This will help stabilize WSDOT workforce needs on mega projects. These positions should be well thought out and include an up-front, end-of-project transition strategy for permanent employees.

Under design-bid-build delivery, the Department has exclusively retained responsibility for QC and QA during construction. For peaks in workforce needs, WSDOT generally hires temporary employees. These responsibilities could be done by shifting some of the QC or QA work and risk to the contractor, similar to design-build.

WSDOT has successfully utilized GECs on stand-alone mega projects. In other states, GECs have been used to successfully deliver statewide programs such as bridge rehabilitation, and replacement. This model may be applicable on future statewide WSDOT programs. For example, if funding becomes available to deliver the fish passage culvert program, instead of adding additional WSDOT staff on a statewide basis, a GEC model could be utilized by bundling projects into one program delivery contract.

Succession planning should be done for current and future mega project leadership. Mega projects can last 10 to 15 years from concept through final completion, so it is expected that changes in project leadership will occur throughout the life of the project. It is important that succession planning occur so that transitions in leadership are anticipated and managed proactively

## 5. Quality Assurance

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The AWV and SR 520 programs have detailed project management plans that include design QA protocols. The processes, which were established by the consultant GEC teams, represent state-of-the-art QA processes. Additionally, WSDOT was one of six states that participated in a domestic scan tour on Best Practices in Quality Control and Quality Assurance in Design, sponsored by the National Cooperative Highway Research Program. The tour captured best practices nationwide, and toured 10 different states. Several key practices are relevant to ensuring high-quality design on mega projects:

- Good communication between consultants and in-house designers
- Regularly scheduled review meetings for all disciplines involved
- Third-party consultant reviews
- Single-point data systems

During development of the SR 520 pontoon design-build contract designers in the bridge office did not use the project document control system established for the project, and did not participate in program quality reviews. The bridge office had previously established internal design QA procedures which they deemed adequate during design of the pontoons. It cannot be known after the fact if the SR 520 post-tensioning design issues could have been avoided by an independent structural review, but in every other aspect of the program there were independent reviewers. Additionally, during preparation of the pontoon construction contract, technical requirements issued by the bridge office were provided for the first time when the contract Request for Proposals were about to be issued. In some cases, the technical requirements were viewed as too prescriptive for design-build, and had to be reworked at the eleventh hour. This could have been avoided if the project team had been fully engaged throughout the process of preparing the technical requirements for the design-build contract

Errors on any project can become problematic, but on a mega project, they can have compounding impacts. Independent design reviewers and QA can help minimize the occurrence of costly design errors.

### Recommendations

There are sufficient design QA processes in place on both the AWV and SR 520 programs. Important lessons can be learned from the SR 520 pontoon design and construction issues, and how to resolve internal team alignment issues, which contributed to the design errors. Ownership of design QA should be a consideration when selecting contract delivery methods.

## 6. Other Considerations

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### Oversight/Expert Review

For this assessment, we interviewed transportation legislative leadership members, who expressed concern about oversight of the mega projects. In the past, the legislature has established several expert panels, which were established for a one-time purpose, as listed below:

- 2006 Expert Review Panel (AWV and SR 520)
- 2009 AWV Independent Cost Estimate Report
- 2011-2013 AWV Expert Review Panel
- 2013-2015 AWV Expert Review Panel
- AWV Executive Oversight Committee

Individually, the AWV and SR 520 projects have also employed subject matter experts from outside the project team to participate in cost-risk workshops, constructability workshops, contract packaging, and contract-type selection workshops. The use of these subject matter experts has been beneficial to program delivery and should be a continued practice.

WSDOT has an established practice of quarterly project reviews for all projects, including the AWV and SR 520 programs. These reviews are attended by the Chief Engineer and key staff from WSDOT Headquarters and Northwest Region.

The I-405 Team suggested that a standing panel be established under the Chief Engineer to assist in WSDOT oversight of mega projects and to provide guidance on current best practices on design-build and mega project delivery.

### Recommendations

Consideration should be given to establishing a standing internal mega project panel that would include outside subject matter experts. Besides providing technical guidance, the panel could become a forum for lessons learned on the major programs. The panel could be tasked with documenting best practices from within the Department and nationally.

### Internal WSDOT Procedures

WSDOT's Design-Build Guidance has not been updated since 2004. Many design-build contracts have been issued since that time, and new processes have emerged. The manual should be updated, and additional alternative delivery options included.

## ATTACHMENT A

# Literature Reviewed

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**ATTACHMENT B**

# Persons Interviewed

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## **Elected Officials**

Washington State Senator Curtis King  
Washington State Senator Tracy Eide  
Washington State Representative Judy Clibborn

## **WSDOT Headquarters**

Lynn Peterson, WSDOT Secretary  
Keith Metcalf, WSDOT Interim Chief Engineer  
Craig Stone, WSDOT Assistant Secretary for Tolling  
Jeff Carpenter, WSDOT State Construction Engineer  
Pasco Baktovich, WSDOT State Design Engineer  
Todd Harrison, WSDOT Acting Bridge and Structures Engineer  
Bruce Thill, WSDOT Bridge and Structures Office

## **SR 520 Program**

Julie Meredith, Project Director  
Larry Kyle, HDR  
Tom Horkin, HDR  
Don Forbes, Brittingham Associates  
Brian Dobbins, WSDOT  
Dave Ziegler, WSDOT  
Dewayne Mattlock, WSDOT  
Rafael Reyes, WSDOT  
Tom Baker, WSDOT

## **SR 99 AWW Program**

Linea Laird  
Matt Preedy  
Todd Trepanier  
Ron Judd

## **WSDOT Northwest Region**

Lorena Eng, Northwest Region Administrator  
Kim Henry, I-405 Program Director

## **Others**

Joe Gildner, Sound Transit  
Tim McClure, Sound Transit  
Goran Sparrman, Deputy Director, Seattle Department of Transportation  
Bob Donegan, Seattle Waterfront Business owner  
Doug MacDonald, former WSDOT Secretary  
Paula Hammond, former WSDOT Secretary