Project Delivery & Innovative Practices Study of Washington State DOT – Phase 2

Presentation to JTC

December 3, 2025

Study proviso summary

Continuation of Alternative Project Delivery Methods and Innovative Practices Study from 2024

The Joint Transportation Committee (JTC) directed a continuation of the alternative project delivery methods and innovative practices study in the 2025 Supplemental Transportation Budget, Section 204, to provide additional consultation on collaborative contracting approaches that WSDOT may use to increase competition and support containment of costs and project delivery schedule.

Key tasks:

1. Overview of federal and state use of IDIQ and MATOC contracting approaches
2. Case study of infrastructure collaboration efforts (e.g. Infrastructure LA model)
3. Project cost estimating:
    a) Industry standard estimating practices aligned to decision-making
    b) Options for aging estimates
    c) Strategies and examples for enhancing estimate transparency
4. Surety bonding
5. Overview of other innovative approaches for controlling costs and increasing competition

Project Cost Estimating

WSDOT Estimating and Budgeting Practices

- WSDOT has adopted an estimate classification system similar to those promoted by various standards setting organizations, including American Society of Testing and Materials (ASTM) International and the Association for Advancement of Cost Engineering (AACE)
- However, unlike processes used in the private sector, legislative budget requests and authorizations are not presented in terms of estimate classes or accuracy ranges
- WSDOT must work within a project-specific rather than a programmatic budgeting approach for delivery of its improvement program.
- Recommendations- To improve communication and transparency, WSDOT should consider:
  - Recasting estimates for budget authorizations as ranges, and/or
  - Identifying the applicable estimate class

This would help convey the principle that an estimate represents a range of possible outcomes, not a single fixed number

Project Cost Estimating

Industry Standard Estimating Practices to Support Decision-Making

- Estimate classification systems are used by several organizations across industries to categorize cost estimates based on their level of detail, intended purpose, and expected accuracy

ASTM E2516, Standard Classification for Cost Estimate Classification System

ESTIMATE CLASS	DEGREE OF PROJECT DEFINITION	END USE OF ESTIMATE	ESTIMATING METHODOLOGY	EXPECTED ACCURACY RANGE
Class 5	0 to 2%	Screening or feasibility	Stochastic or judgement	+50% to -30%
Class 4	1 to 15%	Concept study / feasibility	Primarily stochastic	+30% to -20%
Class 3	10 to 40%	Budget authorization or control	Mixed but primarily stochastic	+20% to -15%
Class 2	40 to 70%	Control or bid/tender	Primarily deterministic	+15% to -10%
Class 1	70 to 100%	Check estimate or bid/tender	Deterministic	+10% to -5%

Project Cost Estimating

WSDOT Estimating and Budgeting Practices

Project Development Phase	Percentage of Design Completed	Purpose of Estimate	Methodology	Tools	Estimate Range
Planning Washington Transportation Plan Highway System Plan Design Studies Route Dev. Plans	0% to 2%	Screening or Feasibility WTP/HSP (20-Year Plan) WTP – Washington Transportation Plan HSP – Highway Systems Plan	Parametric	PLCE and/orMP3	-50% to +200%
Pre-Design	1% to 15%	Concept Studyor Feasibility Implementation Plan (10 Yr. Plan)	Parametric Risk-Based	PLCE and/orMPE Risk assessment models	-40% to 100%
Scoping Project Summary (PD, DDS)	10% to 30%	Budget Authorization or Control Capital Improvement & Preservation Plan (CIPP)	Parametric Historical Bid-Based Risk-Based	PLCE and/orMP3 UBA, BidTabsPro Risk assessment models	-30% to +50%
Design Design Documentation I/S Plans for Approval Design Approval	30% to 90%	Design Estimates (Project Control of Scope Schedule Budget)	Historical Bid - Based Cost-Based Risk-Based	UBA, BidTabsPro, Risk assessment models	-10% to +25%
PS&E Plans, Specs, Estimate (R/W Plans approved)	90% to 100%	Engineer's Estimate (prior to bid)	Historical Bid - Based Cost-Based Risk-Based	EBASE, UBA, BidTabs Pro, Risk assessment models	-5% to +10%

WSDOT Cost Estimating Matrix

Source: WSDOT Cost Estimating Manual for Projects (January 2025)

Project Cost Estimating

Aging Projects

WSDOT's estimating standards provide state-of-the-practice guidance for how to age a given slate of projects

- WSDOT's Estimating Manual (January 2025) provides three, regionally adjusted, standard inflation tables:

Construction Cost Index (CCI):	Reflects general construction trends in WA
Regional Wage Index (RWI):	Adjusts for labor cost changes
Price Escalation Index (PEI):	Accounts for future cost increases based on market forecasts

  These indices are similar to those used by other DOTs to reflect inflation and market trends in their regions

- WSDOT Secretary's Executive Order No. E 1053.02 advises estimators and project managers to:
  - Use the inflation tables to adjust project costs from current year dollars to year of expenditure dollars
  - Monitor market conditions and industry capacity, and consider adjusting advertisement dates to minimize concurrent lettings and improve competition (for major, multi-year projects)

Project Cost Estimating

Enhancing Transparency

- Since 2001, WSDOT has produced quarterly performance and accountability reports that provide updates on key agency functions. Known as the “Gray Notebook”, these reports evolved to track a broad range of performance indicators and statistics.
- From 2001 through 2019, the Gray Notebook was available as a downloadable and printable PDF on the WSDOT website and featured:
  - Tabular roll-ups of key programmatic project delivery information, including the percentage of projects completed early or on-time, within scope, under, over, or on-budget, and both on time and on-budget
  - Project-level tabular summaries, indicating whether individual projects were advertised on time and subsequently were completed on schedule and within budget
- In 2020, in response to shifting user preferences toward more digital and interactive experiences, the Gray Notebook began transitioning to a fully online, interactive platform

Project Cost Estimating

Enhancing Transparency

Project description	Fund type	On-time advertised	On-time completed	Within scope	Baseline estimated cost	Current estimated cost	On budget	Completed on time, on budget
SR 522/I-5 to I-405 - Multimodal improvements (King)	TPA	Early	Early	√	$22,581	$22,487	√	√
SR 3/SR 303 Interchange (Waaga Way) - Construct ramp (Kitsap) An additional $1.4 million is required to properly dispose of runoff storm water.	Nickel	√	√	√	$24,828	$26,313	Over	
SR 3/Imperial Way to Sunnyslope - Add lanes (Kitsap) Advertisement date was delayed due to unresolved utilities issues.	TPA	Late	Early	√	$2,911	$1,609	Under	√
SR 401/US 101 to E of Megler Rest Area Vicinity - Upgrade guardrail (Pacific)	Nickel	Early	Early	√	$296	$152	Under	√

Note: Dollars in Thousands

Example Gray Notebook Extract circa 2008 - 2019

Project Cost Estimating

Enhancing Transparency

- **Recommendations** - Key metrics to consider tracking and communicating for budgeted projects include:
  - **Award Growth:** Variance between Engineer's Estimate and Contract Award Price
  - **Cost Growth:** Variances between
    - Contract Award Price and projected Estimated Cost at Completion (Active Projects)
    - Contract Award Price & Final Cost at Completion (Completed Projects)
  - **Schedule Growth:** Variances between:
    - Original Completion Milestone and projected Completion Date (Active Projects)
    - Original Completion Milestone and Final Completion Date (Active Projects)

Surety Bonding

Background

- In 2009, Washington State Senate Bill 5499 authorized WSDOT to accept surety bonds for less than 100% of the contract value on projects over $250 million
  - Contractors still had to provide both performance and payment bonds, with WSDOT setting amounts sufficient to cover the state's exposure to loss, but not less than $250 million
  - WSDOT's analysis indicated that maximum risk exposure on highway projects typically averages about 30% of total contract value
  - The legislation also required WSDOT to develop risk assessment guidelines, subject to approval by the Office of Financial Management (OFM), before allowing reduced bond amounts
- The authority expired at the end of FY2016 and reverted to the requirement to provide performance and payment bonds at 100% of the contract price

Surety Bonding

Industry Perspectives

- **Prime Contractors:**
  - Large “Tier 1” contractors are generally capable of obtaining 100% bonds for large DB projects greater than $500M. However, intermediate and smaller contractors often face bonding challenges when pursuing larger contracts.
  - Industry has also expressed that insurance costs are becoming exorbitant (e.g. cost of a $50M builders risk/general liability policy can be $0.50/dollar), and it would be more cost effective to include a $25M contingency pool for risks typically covered under the policy.
- **Subcontractors:** 2020 *Surety Bonding Accessibility Study: OMWBE and HUB Contractors*, performed by Western Washington University, noted that small business subcontractors and DBE firms have had difficulty establishing credit and building sufficient bonding capacity, particularly for large projects with multi-year durations.

Surety Bonding

Recommendations

- **Consider reinstating the legislative authority** for WSDOT to allow for surety bonds less than 100% of contract price for select DB projects greater than $500M, where risk profiles justify reduced bonding
- **Develop a procedure for conducting risk-based probable maximum loss assessments** to assess project-specific risks and potential financial exposure if bonding is less than 100%
- **Adopt a phased bonding approach** where performance bond requirements adjust at key project milestones. **Consider allowing alternative forms of performance security** such as:
  - Parent company guarantees (PCG)
  - Letter of Credit (LOC) from a financial institution
  - Hybrid approaches combining construction bonds with other security for non-construction obligations (e.g., extended warranty/performance guarantees, O&M obligations

Indefinite Delivery Indefinite Quantity (IDIQ) Contracting

Washington State Experience – Job Order Contracts are permitted under RCW 39.10.430

- JOC Contract Award Process is standard for the industry
  - Dollar limit:
    - Maximum amount per work order: **$500,000** (excluding state sales and use tax)
    - Total contract amount per year: **$4M to $6M** (based on agency)
  - Scope restrictions:
    - No more than **20%** of a work order's value can be items not in the unit price book
    - At least **90% of the work must be subcontracted** to entities other than the job order contractor

Because the RCW provisions impose relatively low ceiling amounts for total contract value and individual work orders, the use of JOCs by public agencies in Washington has been generally limited to **smaller projects.**

WSDOT is currently not utilizing (except for minor maintenance)

Indefinite Delivery Indefinite Quantity (IDIQ) Contracting

Potential Advantages and Disadvantages of utilizing IDIQ methods

Advantages

- **Streamlined Procurement:** Eliminates the need for the procurement of individual contracts, saving time, administrative effort, and cost for the owner and industry
- **Flexibility and Efficiency:**
  - Allows agencies to quickly issue task orders for specific needs
  - Can be used to facilitate use of unused funding at end of fiscal year
- **Diversity:** Structuring work in small tasks may offer increased opportunities for smaller businesses
- **Collaboration:** Long-term contracts can foster a spirit of cooperation/partnership between contractors and the agency

Disadvantages

- **Reduced competition:** Potential contractors may be discouraged from pursuing IDIQ contracts due to a lack of:
  - Work guarantees
  - Advance knowledge of the timing and duration of the work
- **Potential administrative challenges:**
  - More upfront research and planning needed to establish a unit price book aligned to market conditions (for JOC)
  - Managing multiple contractors under one umbrella contract requires significant oversight. Task order competitions, evaluations, and performance monitoring can be time-consuming (for MATOC)

Indefinite Delivery Indefinite Quantity (IDIQ) Contracting

Recommendations

- Enhancing WSDOT's current IDIQ process could be used to:
  - Facilitate use of unused funding at end of fiscal year
  - Offer increased opportunities for smaller businesses by structuring work in smaller packages
- Legislative changes would be needed to:
  - Adjust current JOC constraints to increase process flexibility and attract competition
  - Implement a MATOC approach

Additional Report Topics

Other topics addressed in the report include:

- Infrastructure collaboration efforts with a case study on Infrastructure LA
- Other innovative approaches to increase contract competition and/or support containing costs and project delivery schedule, including
  - Alliance contracting
  - Fixed price / variable scope

Questions

Thank you!