

## Project Delivery Method Selection Guidance

### Selection Matrix Workshop

January 19, 2016  
WSDOT Construction Division




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## Determining Final PDM

Sequential tasks needed to determine Final PDM:

- Selection Process Requirements
- Selection Process Timing
- Pre-Work
- Selection Matrix Workshop
- Final PDM Approval Process




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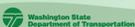
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## Final PDM Selection Process Requirements

| Estimated Project Contract Cost  | Required Process  |
|--|---|
| <ul style="list-style-type: none"> <li>• Less than \$2 Million*</li> </ul>   | Validate or Revise Part I and Complete Part V of Selection Checklist      |
| <ul style="list-style-type: none"> <li>• Equal to or greater than \$2 Million* but less than \$25 Million</li> </ul>   | Validate, Revise or Complete Part I, II, III and V of Selection Checklist |
| <ul style="list-style-type: none"> <li>• \$25 Million or greater but less than \$100 Million, or</li> <li>• Validation/Revision of Parts II and III of the Checklist does not determine a Final PDM</li> </ul> | Validate, Revise or Complete Selection Matrix                             |
| <ul style="list-style-type: none"> <li>• \$100 Million or greater, or</li> <li>• Validation/Revision of the Selection Matrix does not determine a Final PDM</li> </ul>   | Selection Matrix Workshop   |

\*This limitation refers to the estimated contract cost for Design-Build contracts and includes Construction and Design costs estimated for the potential DB contract. Project Cost is used in all other cases.




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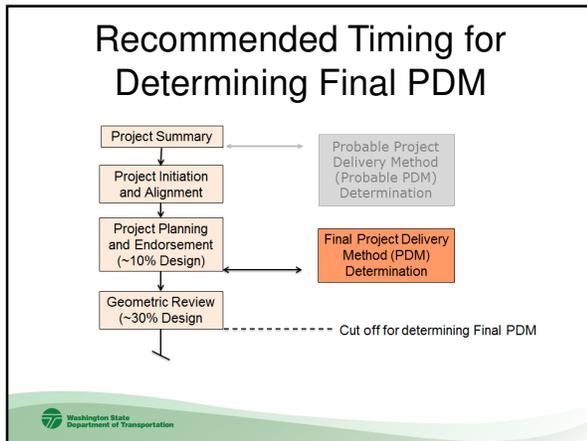
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### Workshop Participation

- Project Engineer/Project Manager assigned the design/construction of the project (this may be different offices.);
- Project Office/staff assigned to the design and construction of the project, as appropriate and available;
- Project leadership as appropriate;
- Assistant State Design Engineer;
- Assistant State Construction Engineer;
- Facilitator: facilitators for the Selection Matrix Workshop will be trained for each region and may be shared between regions.

Washington State Department of Transportation

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### Pre-Work

- Identify the team members that will participate in the Selection Matrix Workshop.
- Make sure key stakeholders are represented and there is balanced representation.
- Keep the Workshop participation as small as possible – 10- to 12 participants is optimal.

Washington State Department of Transportation

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### Pre-Work

- If one group is over represented or the number of proposed participants in the Workshop is too large, groups may provide input to their representative(s) for the pre-work meetings and Workshop.
- Make sure the ASCE and ASDE are included in pre-work meetings and participation.



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### Pre-Work

- Make sure that the project leadership is represented and support the Project Goals and priorities developed in the Pre-work meetings.
- On larger or more complex projects over \$100 Million, a facilitator for developing and prioritizing the Project Goals in the Pre-Work is recommended.



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### Pre-Work

- Plan for a note taker and presentation operator/time keeper (not participants) to support the Selection Matrix Workshop.



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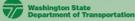
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## Pre-Work

**Before the PDMSG Selection Workshop, the Team should be familiar with:**

- PDMSG Guidance and Appendices
- PDM Attribute Comparison Spreadsheet (Appendix A.5)
- Project Summary Package
- Project Limitations, Decisions and Assumptions
- Project Attributes developed during Project Design
- Changes since Probable PDM Determined



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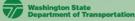
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## Project Delivery Description Worksheet

**The Workshop Leader should:**

- Provide a package of information on the Project and PDMSG for the participants prior to Pre-Work Meeting(s).
- Schedule the Pre-Work Meeting(s) so participants have enough time to review the information package at least one week before the Workshop.



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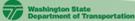
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## Pre-Work

**Before the PDMSG Selection Workshop, the Workshop Leader shall schedule a Pre-Work Meeting with Participants to:**

- Review the Probable PDM determination documentation and update information.
- Validate or Update Project Goals.
- Re-Prioritize Project Goals.
- Identify Constraints.
- Relate Project Goals to Project Development Goals.
- Review the current Risk Analysis.



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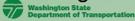
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### Pre-Work Project Commitments, Decisions and Assumptions

- Project Commitments : Know commitments to the project that may affect project scope, risks, budget or schedule.
- Project Decisions: Decisions that cannot be changed due to funding source, project approval, legislative mandate or other sources that may affect project scope, risks, budget or schedule.



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### Project Limitation, Decisions and Assumptions

- Project Assumptions: A deduction based on incomplete project information that may affect project scope, risks, budget or schedule if incorrect.



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### Questions?



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## Project Goals

- What additional Project Goals (if any) are needed on the Project Delivery Description Worksheet?
- What goals would contribute to project success?



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## Prioritize Goals

**In the Pre-work Meeting, Participants will:**

- Use scores from 1 to 10, with 1 as the lowest priority and 10 as the highest, to prioritize the Project Goals.
- Pick out the Goal considered highest and assign it a 10.
- Validate, revise or Evaluate each Goal priority by comparing it to the highest priority Goal.
- Continue until all Goals are prioritized.
- Prioritizing in this way can be used as the "weights" in the Matrix that show the relative importance of each Goal.



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## Project Delivery Goals

- Project Delivery Goals are goals related to the characteristics of the PDMs.
- A Project Goal may be identical to a Project Delivery Goal or it may have a related goal determined by the Project Goal specifics, causes or risks;
- Project Delivery Goals are a refinement of the Project Goals and are used to evaluate the ability of the PDMs to meet the Project Goals based on the characteristics of



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## Neutral Goals

- A Neutral Goal is a Project Goal that has the same rating for each proposed PDM in the Selection Matrix;
- These would be goals that have the same relative ability to be achieved, regardless of the PDM.



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## Project Constraints

- Constraints differ from Project Goals in that they MUST be accomplished for project success.
- Evaluate the Highest Priority Project Goals ("10's") to determine if any are constraints.
- Project Commitments and Decisions may create "Constraints".
- Constraints are not scored, they are Pass/Fail when evaluation the optimal PDM for the Project.
- Constraints are rare in this process.



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## Project Risks

- Preliminary Risks should be identified in the Project Summary Package and may be further developed as part of the PMP;
- Utilize the resources on the WSDOT Risk Assessment webpage <http://www.wsdot.wa.gov/Projects/ProjectMgmt/RiskAssessment/> and/or Appendix A.6- Typical Transportation Project Risks List, General Project Risks Matrix;
- Validate/Update a Qualitative Risk Analysis or use a more detailed and current Risk Analysis from your PMP in preparation for the Workshop.



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## Project Delivery Description Worksheet

The Workshop Leader will:

- Incorporate the additional information and send to the team,
- Provide the final information package to the Facilitator,
- Develop and agenda with the Facilitator for the Workshop.



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Questions?



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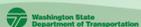
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## Selection Matrix Workshop Goals

Using a Facilitator, the Team will:

- Finalize the Selection Matrix
- Score the Project Delivery Goals
- Identify the optimal PDM
- Document the Process



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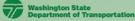
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### Final PDM Determination Selection Matrix

- Identify Project Delivery Goals in the matrix.
  - Eliminate provided Goals that do not apply to the project, secondary, or neutral.
  - Clarify the language of the provided Project Delivery Goals that apply
  - Add Project Delivery Goals, if needed



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### Final PDM Determination Selection Matrix

- Identify Project Constraints, if any, and evaluate possible methods as pass/fail.
  - Cross out columns for PDM's that fail Constraints, and do not consider further



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### Final PDM Determination Selection Matrix

- Weigh Project Delivery Goals
  - Relative importance to a successful project.
  - Use established weights or priorities, 10 (highest) – 1 (lowest), for an initial Weight
  - Select the Goal that is most important and make the weight a “10”
  - Compare each Goal to the most important Goal and assign it a Weight, either validating or updating any existing Weights.



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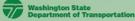
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### Final PDM Determination Selection Matrix

- Rate each PDM's relative ability to achieve the Project Delivery Goal 10 (highest) -1 (lowest).
  - Review and adjust the rating for provided Project Delivery Goals or Goals from the Probable PDM Selection Matrix.
  - Develop ratings for PDM's relating to new or revised Project Delivery Goals.



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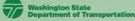
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### Final PDM Determination Selection Matrix

- Score each PDM by multiplying each Goal Weight by PDM Rating.
- Add up the score in each Column.



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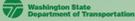
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### Final PDM Determination Selection Matrix Workshop

- If the completed Matrix indicates there is a clear choice of Final PDM, then perform an initial risk assessment for the selected PDM.
- If the highest scored PDM has unacceptable risks, the reject that PDM and evaluate the next highest scored PDM.
- If there is not a clear choice of Final PDM, then perform an initial risk assessment on all remaining Project Delivery Methods.



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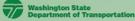
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### Final PDM Determination Selection Matrix Workshop

- If the previous steps do not result in a clear determination of the Final PDM then perform a more rigorous evaluation of all goals and risks against the three potential methods of delivery (DBB, DB and GCCM).
  - Are Project Goals clearly defined and weighed appropriately?
  - Are all risks identified?
  - Are all Constraints identified?



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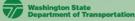
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### Questions?



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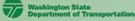
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### Final PDM Approval Process

- If the Project contract cost is \$100 Million or more; then
  - The Regional Administrator Approves the Final PDM and submits it to HQ for endorsement; and
  - The Assistant State Design Engineer and Assistant State Construction Engineer endorse the Final PDM. If they do not endorse the Final PDM, the Regional Administrator will provide the additional justification and modifications as necessary to gain the ASCE and ASDE endorsement.



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## Final PDM Approval Process

- If an exception to the guidance is requested for the Final PDM or the original Final PDM is changed after 30% design; then
  - The Regional Administrator endorses the Final PDM and recommends approval to HQ;
  - The Assistant State Design Engineer and Assistant State Construction Engineer review and endorse the Final PDM; and
  - The Chief Engineer reviews and approves the Final PDM. (delegated to the Deputy Chief Engineer in the 10/28/2015 PDMSG memo from the Chief Engineer)



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## Project Basis of Design

- The Basis of Design (BOD) will include the Final PDM determination.



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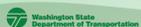
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## Questions?



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