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Outline

• Discuss research key findings
• Overview of the Handbook
• Specifics of partnering projects delivered using alternative contracting methods
• Summary
• Questions
Key Findings

• A number of DOTs stopped using formal partnering after implementing it because they failed to make a compelling business case for the invested resources and time.

<table>
<thead>
<tr>
<th>Never used partnering</th>
<th>Used to partnering in 2012 but stopped</th>
<th>Did not use partnering in 2012 but now do</th>
<th>Continuing use of partnering since 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Mexico</td>
<td>North Dakota</td>
<td>Alaska</td>
<td>California</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Oregon*</td>
<td>Delaware</td>
<td>Colorado</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>*only if requested</td>
<td>Idaho</td>
<td>Florida</td>
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<td></td>
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<td>Indiana</td>
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<td>Pennsylvania</td>
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<td></td>
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<td>South Carolina</td>
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<td></td>
<td></td>
<td></td>
<td>Texas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Virginia</td>
</tr>
</tbody>
</table>
Key Findings

• Some DOTs that stopped using formal partnering have actually *institutionalized* the principles of partnering as routine business practices.
  – Compared 5-year claims history of Ohio and Utah that partner most projects to Montana and Vermont that stopped formal partnering.
  – No statistically significant difference among them

• Institutional Examples: Standing DOT dispute escalation process & ongoing agency-industry councils to address issues common to more than a single project.
Key Findings

• Identified 21 cases where some the partnering agreement was referenced as proof of a binding responsibility, i.e., *promissory estoppel doctrine*.
  – Change order/delay claim: 10 cases.
  – Personal injury: 5 cases.
  – Right of way/environmental/permitting issues: 4 cases.
  – Breach of promise: 2 cases.

• Even with “nonbinding” in the title, the partnering agreement/charter is part of the official record and discoverable in litigation.

• Need to be cautious when drafting these.
Key Findings

• The industry has recognized that not all projects require formal partnering using an external facilitator and evolved three levels of partnering intensity:
  – **Formal partnering** – external facilitator
  – **Semi-formal partnering** – trained internal DOT facilitator.
  – **Informal partnering** – facilitated by DOT project personnel.
Key Findings

• Partnering organizational maturity can be measured.
• Maturity improves as partnering principles are institutionalized.
• Mature organizations can use lower levels of partnering intensity to achieve desired project goals.
Handbook Purpose

• Provide guidelines for applying the principles of partnering to projects delivered by all alternative contracting methods (ACMs) as well as traditional low bid

• Update to 1st edition of AASHTO’s Partnering Handbook
  – Did not include ACMs
Handbook Chapters

Chapter 1 – Partnering: What is it?
Chapter 2 – Why is Partnering Important
Chapter 3 – The Partnering Spectrum
Chapter 4 – Alternative Delivery and the Role of Partnering
Chapter 5 – Partnering on CMGC Projects
Chapter 6 – Partnering on DB Projects
Chapter 7 – Partnering on P3 Projects
Chapter 8 – Partnering at the Programmatic Level
Chapter 9 – The Partnering Process
Chapter 10 – Partnering’s Potential Impact on Project Risk
Chapter 11 – The Partnering Workshop
Chapter 12 – Issue Resolution
Chapter 13 – Why is it Important to Measure the Performance of Your Partnership?
Chapter 14 – The Future of Partnering
The Business Case for Partnering

• The business case for partnering includes both tangible and intangible benefits and is highly dependent on a given agency’s organizational partnering maturity.

• A less mature DOT will need to depend more on the tangible benefits found in other states to make the value for money case because its upper management and their overseers will be less inclined to make the “leap of faith” as they will be less familiar with the value of the intangible benefits of enhanced business relationships.

• The business culture of DOTs that have not fully adopted alternative contracting methods will find that it is difficult to rapidly change a corporate culture that has been operating the same way for decades.
Principles of Partnering

- Trust
- Commitment
- Cooperation, Teamwork, and Relationships
- Issue Resolution
- Measurement and Feedback
- Continuous Improvement
## Partnering Process Model

### Stage: Organizational Partnering Maturity
- **Determine Level of Partnering Maturity**
- **Organizational Partnering Maturity Self-Assessment**
- **Necessary Guidance On Hand?**
- 
  - **Yes**
  - **Develop Agency Partnering Guidance**
  - **No**
    - **Identify Project**
    - **Determine Level of Partnering Intensity**
    - **Partnering Intensity Tool**
    - **Select Intensity Level**
    - **Develop Partnering Plan**
      - **Partnering Plan**
      - **Workshop Agenda**
      - **Key Success Factors**
      - **Performance Measures**
      - **Draft Goals & Objectives**
      - **Draft Charter**
      - **Draft Escalation Ladder**
      - **Risk Register**
      - **Maintenance Plan**
      - **Other Items as req’d**
    - **Hold Workshop**
      - **Joint Risk Workshop if req’d**
      - **Revised Risk Register**
    - **Final Charter, Ladder, etc.**
    - **Hold Follow-up Meetings**
      - **Corrective Actions, if req’d**
- **Institutionalize Successful Partnering Practices**

### Stage: Develop Partnering Plan
- **Select Intensity Level**
- **Develop Partnering Plan**

### Stage: Execute the Partnering Plan
- **Execute Partnering Plan**
- **Hold Workshop**
- **Draft Escalation Ladder**
- **Draft Charter**
- **Risk Register**
- **Maintenance Plan**
- **Other Items as req’d**

### Stage: Measure Performance
- **Measure Project Performance**
- **Partnered Project Performance Data**
- **Satisfactory Performance?**
  - **Yes**
  - **Lessons Learned**
  - **Close Out Project**
  - **Program-level Performance Input Data**
  - **Project Performance Database**
  - **Program-level Performance Output**
Partnering Intensity

- **Partnering**: A structured sequence of processes initiated at the starting point of the project that is based on mutual objectives and applies specific tools and techniques as well as project characteristics.

- **Informal Partnering**: Applies institutional construction manuals, dispute escalation ladders without the presence of an outsider facilitator, and is conducted by the resident engineer.

- **Semi-Formal Partnering**: Conducted by a trained internal facilitator whose duties are not related to the given project.

- **Formal Partnering**: Utilizes an outsider facilitator, workshops, charter, and conflict resolution techniques in order to achieve the agreed performance metrics of the project.
Institutionalized Partnering

• The incorporation of the principles and values of partnering into organizational documentation that prescribes the manner in which construction contracts will be administered, transforming the construction administration “process into a cycle of fundamental activities linked by co-operative decision making activities.”
# Partnering Maturity Levels

<table>
<thead>
<tr>
<th>Maturity Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td><em>No partnering program:</em> No partnering principles are considered or applied</td>
</tr>
<tr>
<td>1</td>
<td><em>Basic:</em> There is no formal process, strategies or designated staff to lead partnering program. Partnering limited practices depend on type of projects and previous experiences. Minimal effort in reducing risks or risk taking for short term benefits. Ad-hoc strategies are applied by people with partnering experiences and the process is poorly controlled. Lack of training</td>
</tr>
<tr>
<td>2</td>
<td><em>Defined:</em> There is a written partnering policy and strategies defined. There is a ritual process, including previous strategies and designated staff (dedicated roles) to lead partnering program. The performance metrics and the control of the documentation depends on the project or the person who is leading the partnering program.</td>
</tr>
<tr>
<td>3</td>
<td><em>Managed:</em> Managed. Organization-wide standards and strategies are deployed and being applied in multiple projects. The partnering process is established and managed using metrics and can be adapted to particular projects. Include an organizational training process and incentive program.</td>
</tr>
<tr>
<td>4</td>
<td><em>Institutionalized:</em> Aligned, integrated, and structured partnering strategies, documentation, and a validated system of continuous improvement to achieve business goals. The focus is on continually improve metrics performance through change management (e.g. incremental and innovative changes). This program is a competitive asset of the agency.</td>
</tr>
</tbody>
</table>

![Maturity Levels Diagram](image-url)
Alternative Delivery and Partnering

• In order to implement partnering in alternative contracting methods (ACM), it requires a shift in institutional business culture.

• To provide a forum by which team members will have to align individual business goals to those of the project.

• With ACM meant to increase cooperation and collaboration, partnering offers a perfect platform to achieve this.
Partnering on CMGC Projects

- Preconstruction Partnering
- Preconstruction Partnering with in-house Design
- Construction Partnering
Partnersing on CMGC Projects

• Benefits are accrued in preconstruction through enhanced collaboration amongst team members and integration of the parties to the contract.
• The owner and the CMGC contractor must both be satisfied with the process to be used to establish the construction cost.
• The designer and the CMGC contractor are contractually bound to cooperate in the preconstruction services phase, using its partnering efforts as the vehicle to promote active collaboration.
• The transition between preconstruction and construction may require reestablishing or revising the partnering charter/agreement if the changeover in personnel is great with preconstruction participants effectively leaving the project during construction.
## CMGC Partnering Project Checklist

<table>
<thead>
<tr>
<th>Topic</th>
<th>Preconstruction</th>
<th>Construction</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design contract CMGC clauses</td>
<td>☑</td>
<td></td>
<td>Give CMGC contractor a copy of the design contract</td>
</tr>
<tr>
<td>Preconstruction contract clauses</td>
<td>☑</td>
<td>☑</td>
<td>Give designer contractor a copy of the pre-con services contract</td>
</tr>
<tr>
<td>Project schedule issues</td>
<td>☑</td>
<td>☑</td>
<td>Key milestones; schedule constraints;</td>
</tr>
<tr>
<td>Project budget issues</td>
<td>☑</td>
<td>☑</td>
<td>Not to exceed amounts, incentives/ disincentives, etc.</td>
</tr>
<tr>
<td>Project design issues</td>
<td>☑</td>
<td>☑</td>
<td>Aesthetic requirements, long lead time components,</td>
</tr>
<tr>
<td>Sequence of work</td>
<td>☑</td>
<td>☑</td>
<td>Contractor preferred plan</td>
</tr>
<tr>
<td>Work package development</td>
<td>☑</td>
<td>☑</td>
<td>Design packages lead directly to applicable construction packages</td>
</tr>
<tr>
<td>Design issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budget review points</td>
<td>☑</td>
<td></td>
<td>Hold points for estimates and value analysis if required.</td>
</tr>
<tr>
<td>Construction milestones</td>
<td>☑</td>
<td>☑</td>
<td>Start, complete, intermediate</td>
</tr>
<tr>
<td>List of preconstruction services</td>
<td>☑</td>
<td></td>
<td>Common understanding of what each service consists.</td>
</tr>
<tr>
<td>Design issue resolution process</td>
<td>☑</td>
<td>☑</td>
<td>Issue escalation ladder</td>
</tr>
<tr>
<td>Contractor initiated change process</td>
<td>☑</td>
<td>☑</td>
<td>Both in design and construction</td>
</tr>
<tr>
<td>Construction cost/GMP negotiating process</td>
<td>☑</td>
<td></td>
<td>Common understanding of how process will proceed. Progressive GMPs if applicable.</td>
</tr>
<tr>
<td>Contingency ownership and usage</td>
<td>☑</td>
<td>☑</td>
<td>Joint agreement on how contingency will be computed and how the contractor and designer can have access to the funds if required</td>
</tr>
<tr>
<td>Bidding subcontract and material package procedures</td>
<td>☑</td>
<td></td>
<td>Constraints on process; pre-qual if applicable; buy out process; timing</td>
</tr>
<tr>
<td>Constructability review procedures</td>
<td>☑</td>
<td></td>
<td>Owner’s intent for the process including those areas of specific concern</td>
</tr>
<tr>
<td>Joint risk register development and update</td>
<td>☑</td>
<td>☑</td>
<td>Agreement on process of preconstruction risk allocation</td>
</tr>
<tr>
<td>Early release packages (utilities, etc.)</td>
<td>☑</td>
<td>☑</td>
<td>Owner’s intent to start construction as soon as possible or wait until</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document control</td>
<td>☑</td>
<td>☑</td>
<td>Includes both design and construction</td>
</tr>
<tr>
<td>Integrated systems technology (design, schedule, cost, quality, safety, etc.)</td>
<td>☑</td>
<td>☑</td>
<td>Includes both design and construction</td>
</tr>
<tr>
<td>Design issues identified after release for construction</td>
<td>☑</td>
<td>☑</td>
<td>Mutual agreement on notification timeframes and processes</td>
</tr>
<tr>
<td>Subcontractor input to design enhancements</td>
<td>☑</td>
<td>☑</td>
<td>Post-release for construction value engineering change proposals.</td>
</tr>
</tbody>
</table>
Partnering on DB Projects

- Design Phase Partnering
- Construction Phase Partnering
Partnering on DB Projects

• Establishing open communication becomes critical during design as the owner acts as in an oversight role and to be engaged with the design, the DOT and the design-builder will need to communicate openly and clearly to one another.

• Quality management must be agreed upon by the owner and design-builder and discussed as a team in order to satisfy the quality requirements of the project.

• With the addition and changing of personnel between design and construction within the DOT and the design-builder, using a two-phase approach:
  – Design Phase Partnering
  – Construction Phase Partnering.
### DB Partnering Checklist

<table>
<thead>
<tr>
<th>Topic</th>
<th>Design</th>
<th>Construction</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work package development</td>
<td>☑</td>
<td></td>
<td>Design packages lead directly to applicable construction packages</td>
</tr>
<tr>
<td>Constructability reviews</td>
<td>☑</td>
<td></td>
<td>Owner’s intent for the process including those areas of specific concern</td>
</tr>
<tr>
<td>Over-the-shoulder reviews</td>
<td>☑</td>
<td></td>
<td>Compliance of codes and requirements</td>
</tr>
<tr>
<td>Bidding subcontract and material package procedures</td>
<td>☑</td>
<td></td>
<td>Constraints on the process; prequalification if applicable; buy out process; timing</td>
</tr>
<tr>
<td>Design milestones</td>
<td>☑</td>
<td></td>
<td>Support construction sequence of work</td>
</tr>
<tr>
<td>Release for construction design package process</td>
<td>☑</td>
<td></td>
<td>Owner’s intent to start construction as soon as possible or wait until cost is established.</td>
</tr>
<tr>
<td>Project schedule issues</td>
<td>☑ ☑</td>
<td></td>
<td>Key milestones; schedule constraints;</td>
</tr>
<tr>
<td>Project budget issues</td>
<td>☑ ☑</td>
<td></td>
<td>Not to exceed amounts, incentives/ disincentives, etc.</td>
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<tr>
<td>Project design issues</td>
<td>☑ ☑</td>
<td></td>
<td>Aesthetic requirements, long lead time components, Contractor preferred plan</td>
</tr>
<tr>
<td>Sequence of work</td>
<td>☑ ☑</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality management</td>
<td>☑ ☑</td>
<td></td>
<td>Includes both design and construction</td>
</tr>
<tr>
<td>Value engineering</td>
<td>☑ ☑</td>
<td></td>
<td>Hold points for estimates and value analysis if required</td>
</tr>
<tr>
<td>Construction milestones</td>
<td>☑ ☑</td>
<td></td>
<td>Start, complete, intermediate</td>
</tr>
</tbody>
</table>

**Joint risk register development and update ☑ ☑ Agreement on process of preconstruction risk allocation**

- Environmental, traffic control, volatile materials, etc.) ☑ ☑  preconstruction phase; agreement on pricing.
- Document control ☑ ☑  Includes both design and construction
- Integrated systems technology (design, schedule, cost, quality, safety, etc.) ☑ ☑  Includes both design and construction
- Design issues identified after release for construction ☑ ☑  Mutual agreement on notification timeframes and processes
- Construction safety management ☑  Typical exercise with emphasis on project-specific safety concerns such as pedestrian safety; transport of hazardous materials, etc.
Partnering on P3 Projects

• Similar to DB, with a few differences
• The DB contractor’s contract relationship is with the concessionaire – not the owner.
• The concessionaire, lenders, and other project sponsors have an important role
  – Vested interest in ensuring the project stays on track from both a cost and schedule standpoint due to financial implications.
Partnering on P3 Projects

- Failure to finish the project within the timeline dictated in the Project Agreement can have serious financial implications.
- Lenders employ separate technical advisors to keep them apprised of project progress and related issues.
- There is a greater focus on the long-term operations and maintenance through design and construction with continuing efforts to optimize the lifecycle options.
- Quality Control and Quality Assurance efforts tend to be shifted to a greater degree to the concessionaire which brings additional considerations on the owner’s side.
Partnersing on P3 Projects

• Benefits are accrued in preconstruction through industry input in the decision process for moving forward as a P3 as well as considerations of key concerns from a market perspective.

• Benefits in the procurement phase ensure legal, financial, commercial, and technical risks and considerations are balanced to ensure the owner will achieve the best overall value for the public.

• The Design-Build Phase similar to non-P3 DB projects with the exception that:
  – Different parties in attendance
  – Greater focus on the lifecycle elements of the project and ensuring efficiencies over the term are maximized.

• During the O & M Phase partnering remains important to ensure performance expectations are met and any project improvements are coordinated appropriately.
The Way Forward...

• Project teams must be *formed as early as possible* to ensure
  – Maximum collaboration & integration
  – Configured in a manner that makes them attractive investments to financiers, if P3.
• Early partnering is a good approach.
• Binding partnering agreements???
• Alliance contracting???
Questions???