

NCHRP 19-10: AASHTO Partnering Handbook, 2nd Edition

Doug Gransberg, PhD, PE

dgran@iastate.edu

New email:

dgransberg@gransberg.com

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.

Never used partnering	Used to partnering in 2012 but stopped	Did not use partnering in 2012 but now do		Continuing use of partnering since 2012	
New Mexico Oklahoma Wisconsin	North Dakota Oregon* *only if requested	Alaska Delaware Idaho Iowa	Massachusetts Minnesota Vermont	California Colorado Florida Indiana Ohio	Pennsylvania South Carolina Texas Virginia

Key Findings

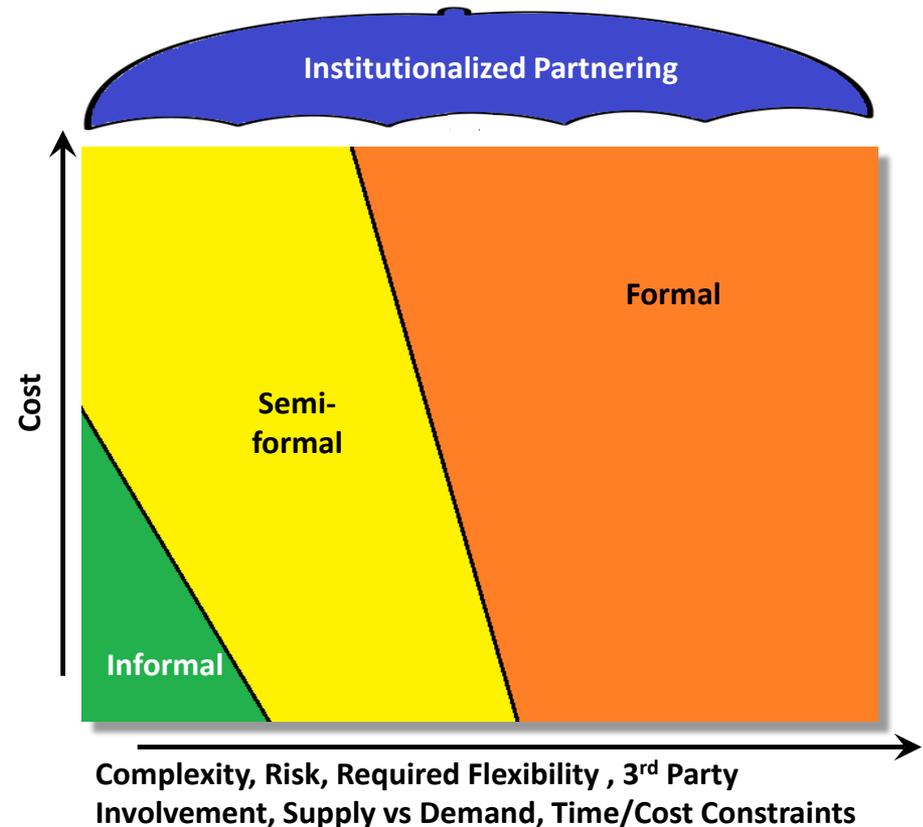
- Some DOTs that stopped using formal partnering have actually institutionalized the principles of partnering as routine business practices.
 - Compared 5-year claims history of Ohio and Utah that partner most projects to Montana and Vermont that stopped formal partnering.
 - No statistically significant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

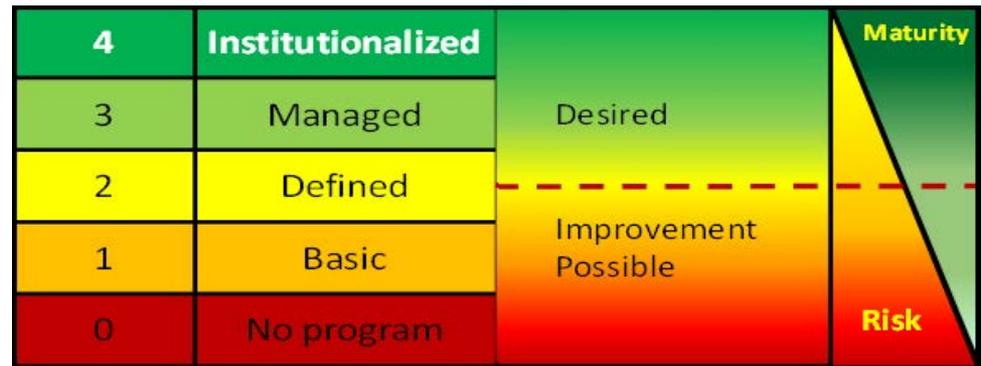
Key Findings

- 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

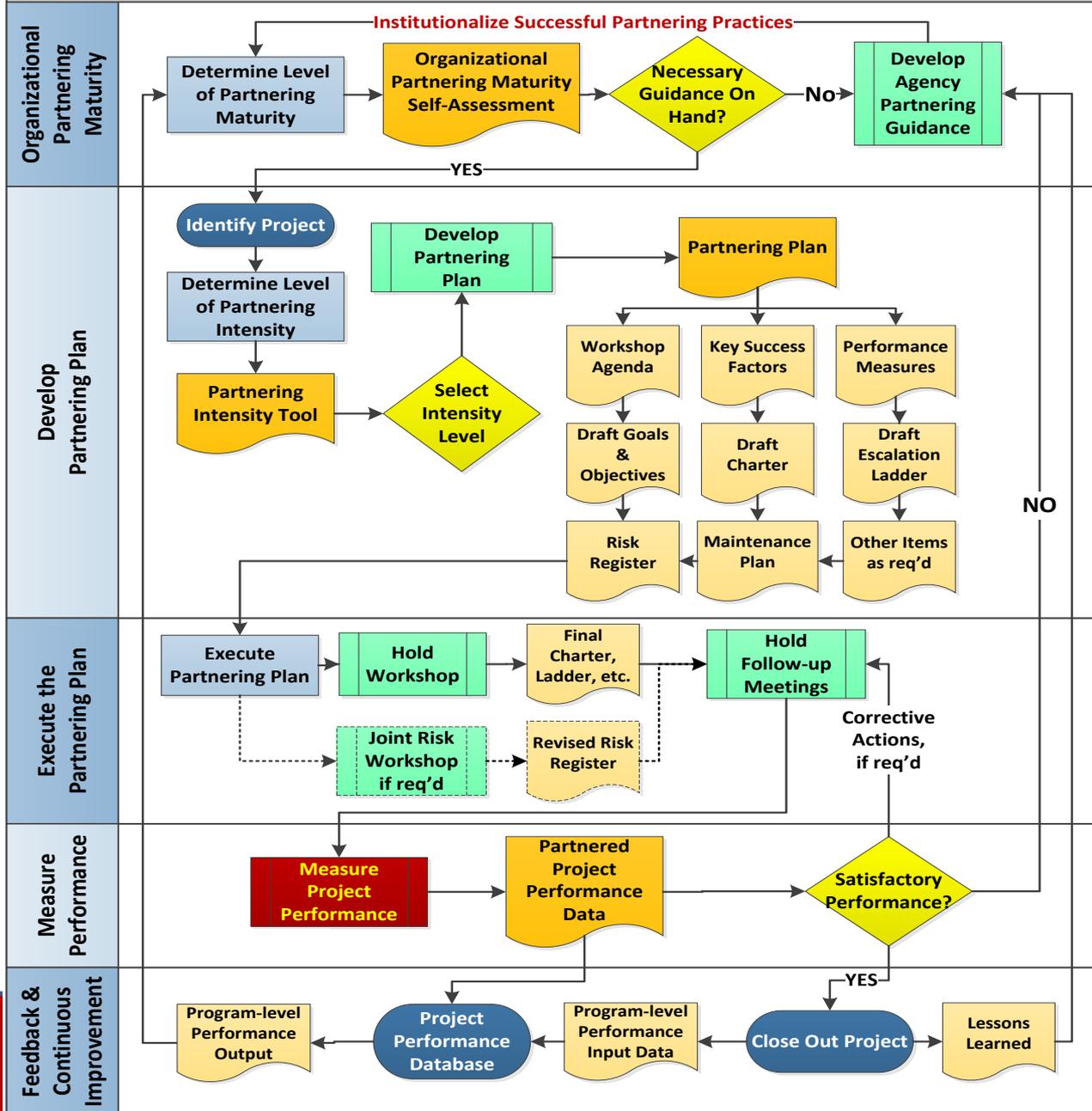
- The business case for partnering includes both tangible and intangible benefits and is highly dependent on a given agency's organizational partnering maturity.
- A less mature DOT will need to depend more on the tangible benefits found in other states to make the value for money case because its upper 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

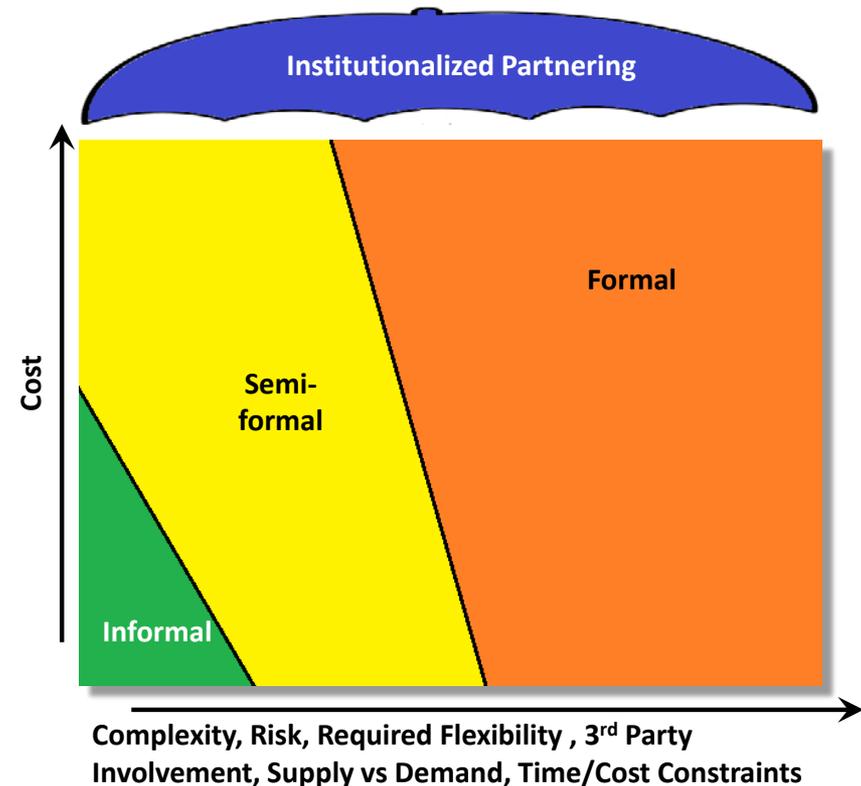
Partnering Process Model

Stage



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.

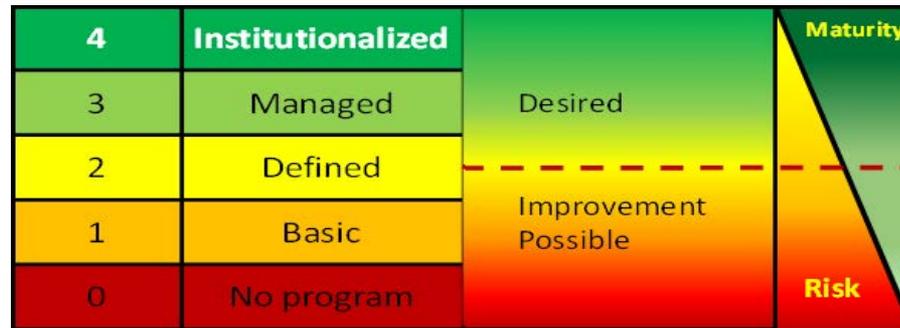


Institutionalized Partnering

- 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

Maturity Level	Description
0	No partnering program: No partnering principles are considered or applied
1	Basic: 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
2	Defined: 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.
3	Managed: 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.
4	Institutionalized: 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.

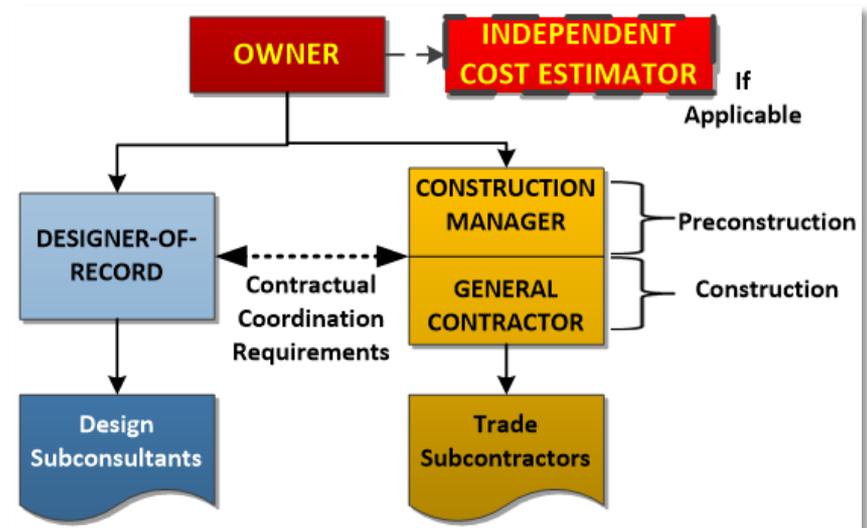


Alternative Delivery and Partnering

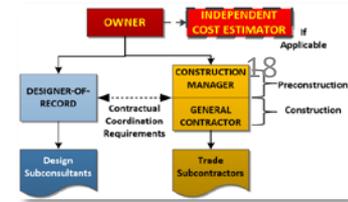
- In order to implement partnering in alternative contracting methods (ACM), it requires a shift in institutional business culture.
- To provide a forum by which team members will have to align individual business goals to those of the project.
- With ACM meant to increase cooperation and collaboration, partnering offers a perfect platform to achieve this.

Partnering on CMGC Projects

- Preconstruction Partnering
- Preconstruction Partnering with in-house Design
- Construction Partnering



Partnering on CMGC Projects



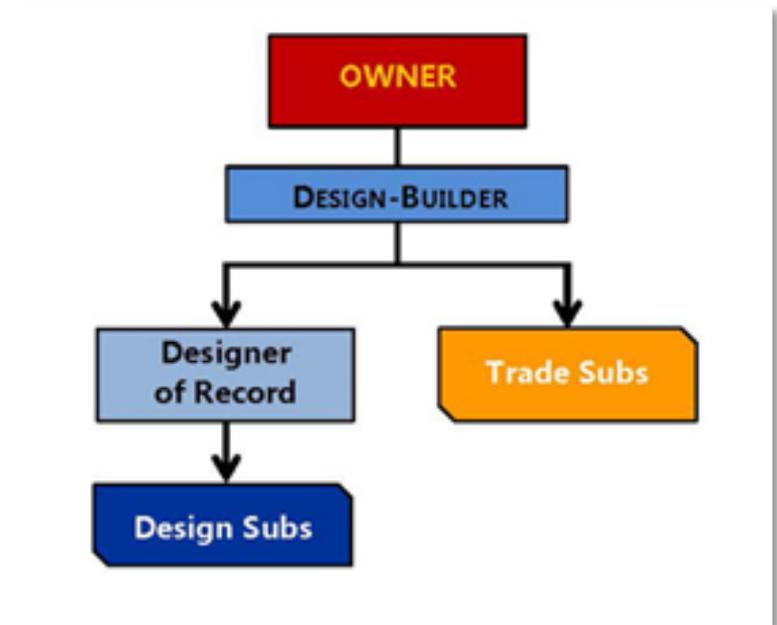
- Benefits are accrued in preconstruction through enhanced collaboration amongst team members and integration of the parties to the contract.
- The owner and the CMGC contractor must both be satisfied with the process to be used to establish the construction cost.
- The designer and the CMGC contractor 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

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

Partnering on DB Projects

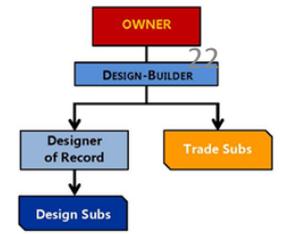
- Design Phase Partnering
- Construction Phase Partnering



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



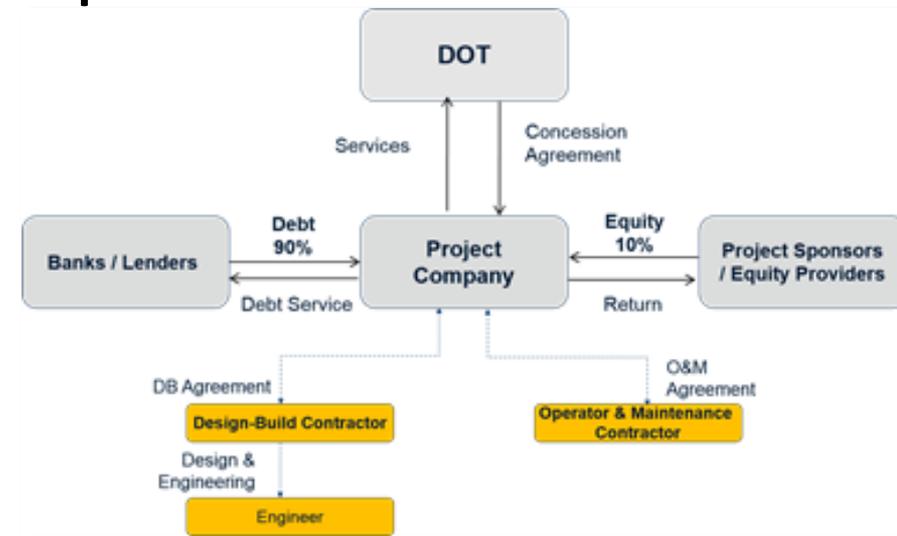
Topic	Design	Construction	Remarks
Work package development	<input checked="" type="checkbox"/>		Design packages lead directly to applicable construction packages
Constructability reviews	<input checked="" type="checkbox"/>		Owner's intent for the process including those areas of specific concern
Over-the-shoulder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

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

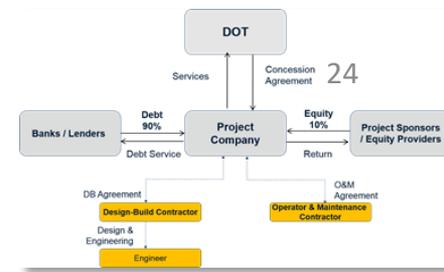
environmental, traffic control, volatile materials, etc.)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	preconstruction phase; agreement on pricing.
Document control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Includes both design and construction
Integrated systems technology (design, schedule, cost, quality, safety, etc.)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Includes both design and construction
Design issues identified after release for construction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Mutual agreement on notification timeframes and processes
Construction safety management		<input checked="" type="checkbox"/>	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.

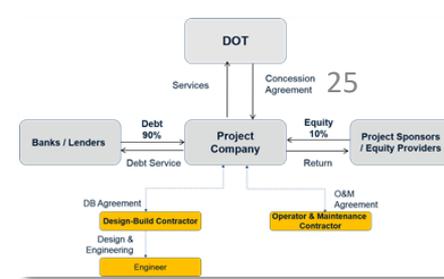


Partnering on P3 Projects



- 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.

Partnering 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???

