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HNTB

Best Practices of a Design-Build Best Value (DBBV)



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Presenters

- Katie Rounds, INDOT
- Junell O'Donnell, Parsons
- Toby Randolph, Parsons
- Bradley Miller, HNTB



Topics

- DBBV Overview
- Pre-Proposal
- Procurement
- Project Start-Up
- Execution



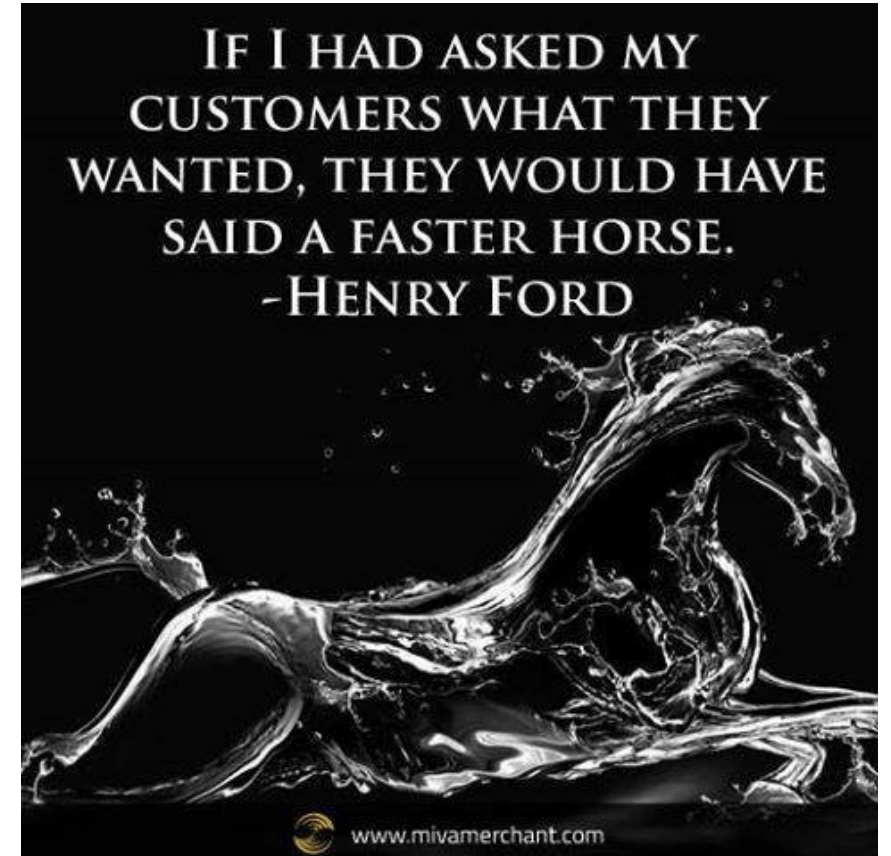
DBBV Overview



What is a Design-Build Best Value?

- Design-Build Best Value (DBBV)

- One form of P3.
- Contract between INDOT and a private contractor to design and build a project through a public-private agreement (PPA).
- Alternative to traditional “low bid” contracting strategies.
- Proposal selected based on quality of technical score and other criteria based on project priorities (i.e., scope, schedule, price).



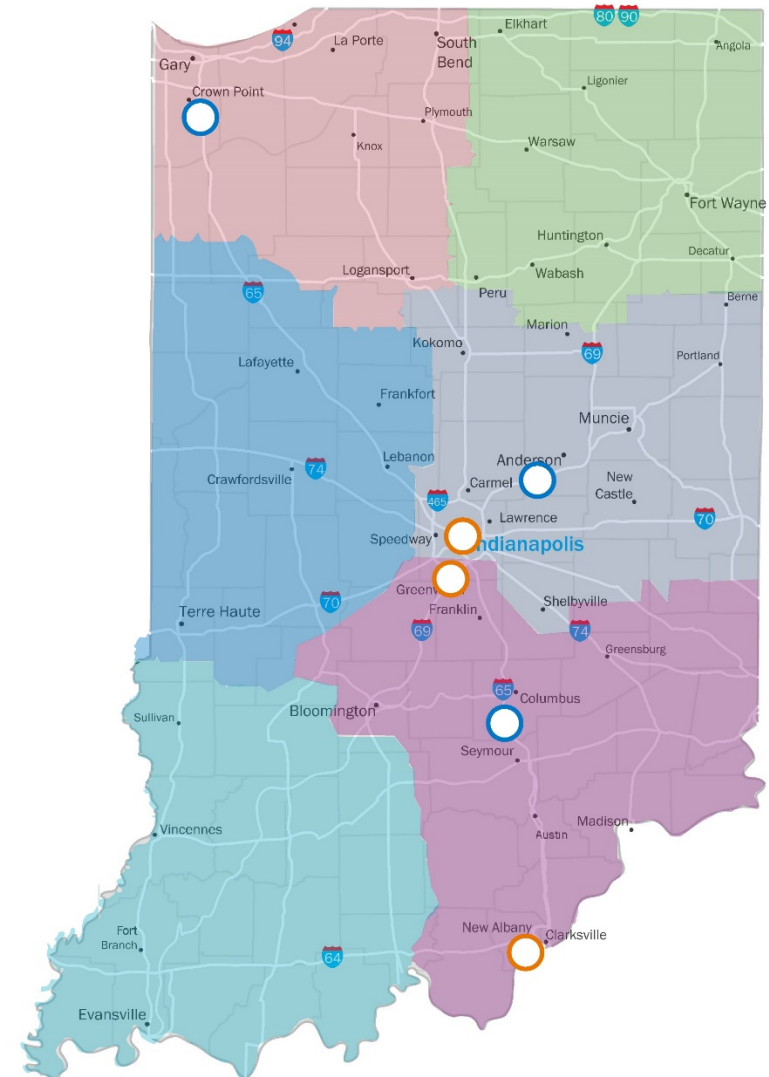
DBBV Projects

- Indiana DBBV P3s

- I-69 Major Moves 2020 Expansion Project
 - Milestone Contractors, LP / United Consulting Engineers, Inc.
- I-65 Northwest Indiana Major Moves 2020
 - Walsh Construction Company II, LLC / Parsons Transportation Group
- I-65 Southeast Indiana Project
 - E&B Paving, Inc. / United Consulting Engineers, Inc.

- COMING SOON

- I-65 / I-70 North Split Project (Spring 2019)
- I-69 Section 6, Segment 5 (Summer 2019)
- I-64 Sherman Minton Renewal Project (Fall 2019)



Questions to the Panel

- 1 Why does INDOT use DBBV?
- 2 What are key benefits of the DBBV process?
- 3 How can the industry support this method?

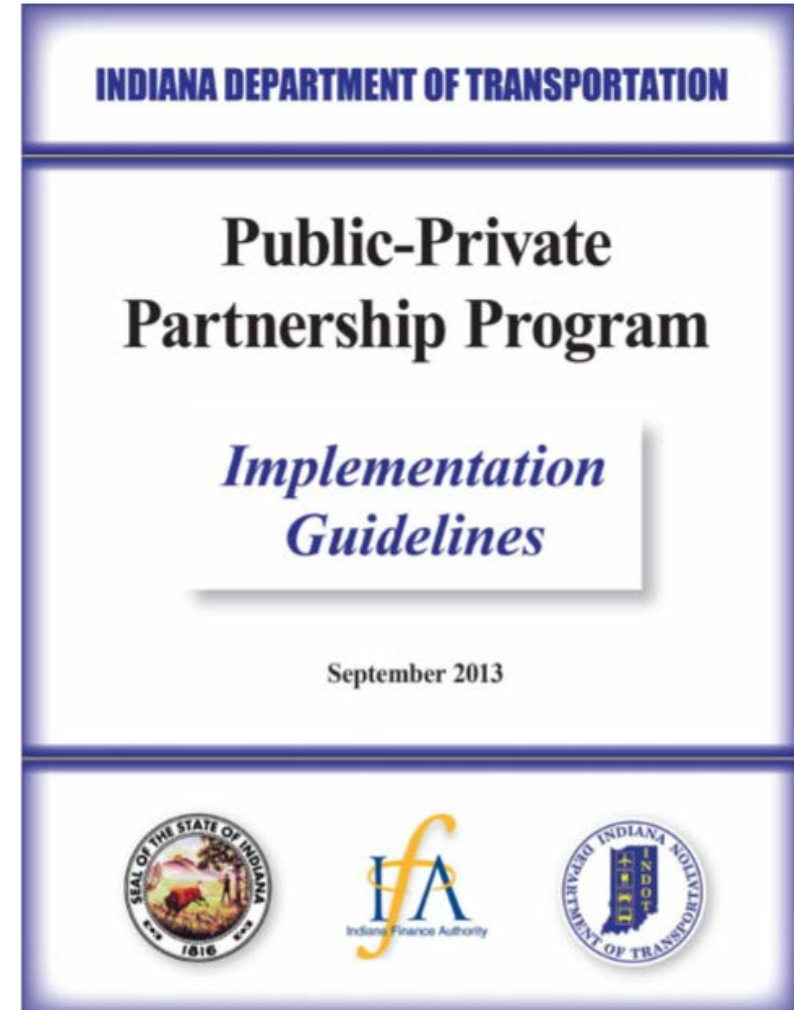


Pre-Proposal



Delivery Method Screening

- INDOT uses a screening process to assess whether a project is a good best value candidate.
- Screening Criteria Include:
 - Managing Risk and Complexity
 - Design Solutions
 - Schedule Acceleration
 - Cost Savings
 - Life Cycle Performance Costs
 - Market Considerations
 - Resources and Capabilities



Pre-Proposal Activities

- Project Goal Identification
- Preferred Alternative Determination
- Bid Document Development
- Environmental Evaluations
- Community Impacts Analysis
- Risk Identification and Mitigation/Avoidance Plan



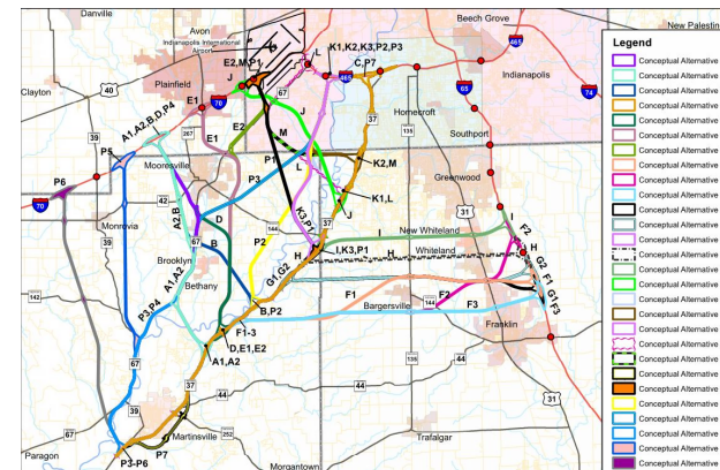
I-69 EVANSVILLE TO INDIANAPOLIS TIER 2 STUDIES Section 6— Final Environmental Impact Statement

Public information meetings were held to present the project scoping process and seek public input on February 23, 2015, at Center Grove High School, and on February 25, 2015, at Martinsville High School. INDOT sought public comment on the project study area, alternatives outside the SR 37 corridor, and other topics to be considered during the study. Members of the public were invited to draw alternative alignments for I-69 Section 6 which might warrant investigation. A comment period for written input was from February 23 to March 12, 2015.

S.4.2 Conceptual Alternatives

During the scoping process, FHWA affirmed that alternatives outside the SR 37 corridor would be reviewed along with the Tier 1 Alternative 3C (Alternative C in this FEIS) to determine whether they should be considered as reasonable alternatives. Twenty-six initial conceptual alternatives in addition to Alternative C were identified at the beginning of the alternatives development process. These initial 27 conceptual alternatives (including Alternative C) are shown in Figure S-3.

Figure S-3: Initial Conceptual Alternatives



Questions to the Panel

- 1 Who determines Project Goals and how are they used in the procurement?
- 2 What makes a strong Design Build Team?
- 3 How does INDOT determine the number of shortlisted proposers and stipend value?



Procurement



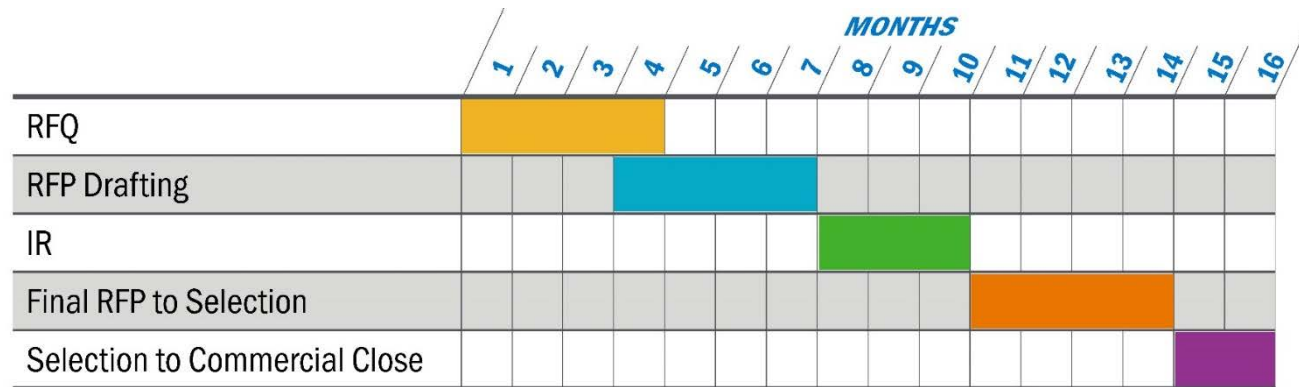
DBBV Process Overview

- Two Stage Process
 - Short list qualified teams based on responses to a Request for Qualifications (RFQ), and
 - Evaluate technical and price proposals in response to a Request for Proposals (RFP).
- Procurement process typically takes 9-12 months from project kickoff until selection of a contractor.
- Process provides opportunities for discussion with proposers (“Industry Review”) to gather feedback on procurement documents, project scope, schedule, etc.



Procurement Activities

- Request for Qualifications (RFQ) and Shortlisting
- Release of Draft Request for Proposals (RFP)
- Industry Review and One on One Meetings
- Release of Final RFP
- One on One Meetings and Alternative Technical Concepts (ATCs)
- Proposal Submittals
- Proposal Evaluation
- Announcement of Preferred Proposer
- Public Hearing
- Approval by State Budget Agency / Governor
- Commercial Close



Sample Procurement Schedule



Evaluation and Scoring

Evaluation Process

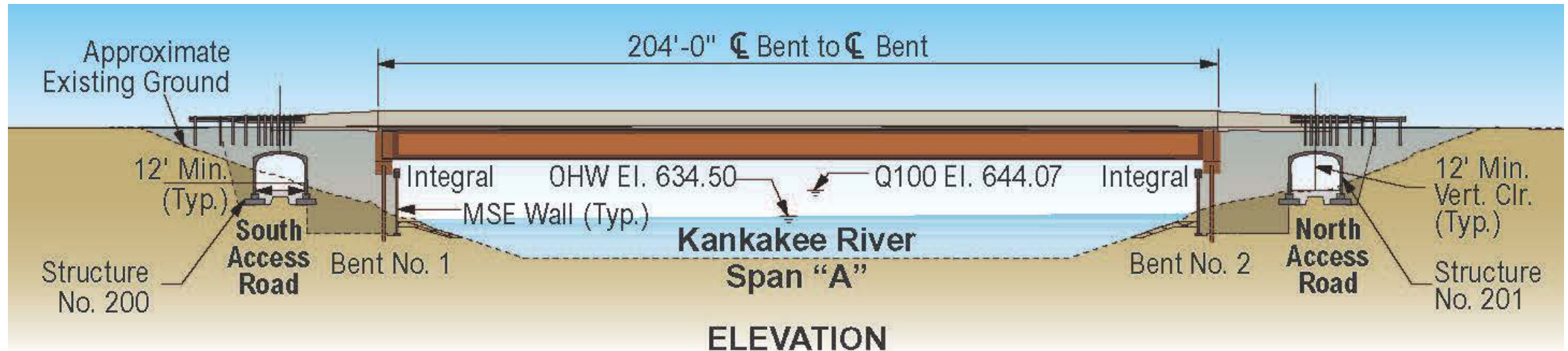
- Technical and price proposals evaluated separately, and committees do not communicate with one another until all scoring is complete.
- Evaluators may include INDOT and IFA personnel supported by INDOT/IFA staff and consultants.
 - Tiered evaluation process
 - Pass / Fail and Responsiveness Committees, Technical and Price Proposal Subcommittees, and Final Technical Proposal and Price Proposal Committees



I-65 Northwest DBBV Success

I-65 over the Kankakee River Bridge

- RID Documents included a preliminary design for a 3 span bridge
- Technical Proposal included a single span bridge with two 3-sided structures/MSE walls
 - Construction Cost Savings
 - Single Span Bridge has Less Operations & Maintenance Costs
 - Environmental Benefit by Eliminating Work in the River



Questions to the Panel

- 1 What are the most common mistakes you see with ATCs?
- 2 How does INDOT determine what will be provided as Reference Information Documents (RID)?
- 3 What is being done to encourage innovation and get the best value from the DBBV process?



Project Start-up



Successful Project Start-up



- Organize a handoff meeting
- Develop management plan and follow it
- Ensure team has Conformed Documents
- Establish lines of communication, tiers of decision making

MOST IMPORTANTLY:

Work as a team – it is key to success of a DBBV project



Schedule

- Contractual prerequisites
- Design review periods
- Permitting requirements
- ROW / Utility needs
- Proposal commitments

4.4 Conditions to Commencement of Design

Except to the extent expressly permitted in writing by INDOT, Design-Build Contractor shall not commence or permit or suffer commencement of Design Work until satisfaction of the following conditions:

(a) INDOT has received and approved all the component parts, plans and documentation of the Project Management Plan, including the Project Baseline Schedule, each as described in Section 1.3 of the Technical Provisions;

(b) INDOT has received and approved Design-Build Contractor's DBE Performance Plan and EEO/Workforce Project Plan;

4.5 Conditions to Commencement of Construction

4.5.1 Construction Work Generally

Design-Build Contractor shall not start construction (or recommence construction following any suspension) of any portion of the Project prior to occurrence of all the following events except with the prior written approval of INDOT, in its sole discretion, and Design-Build Contractor shall commence such construction promptly following occurrence of such events:

(a) INDOT shall have delivered the NTP to Design-Build Contractor;

(b) INDOT has approved the deliverables set forth in Section 2.1.2 of the Technical Provisions that are designated as requiring approval prior to commencement of Construction relating to such portion of the Project;

(c) INDOT shall have approved the Transportation Management Plan in accordance with Section 11.2 of the Technical Provisions;



Questions to the Panel

- 1 What are common mistakes in project start-up?
- 2 Are there still opportunities to innovate at this stage, after award?
- 3 What else can the Design Build Team do to quickly progress design post award?



Execution



Executing Design for the DBT



- Constructability Reviews
- Document Control
- Over-the-Shoulder Reviews
- Field Design Changes



Construction Inspection and Oversight



- INDOT specs drive majority of inspection...except for:
 - Items in technical provisions that differ from specifications
 - Betterments that DB Contractor proposed in Technical Proposal
 - Utility Coordination typically pushed to DB Contractor
- Typically use E-builder (or the like) in addition to Site Manager.



Questions to the Panel

- 1 What are common mistakes in the Execution phase and how can they be avoided?
- 2 How are lessons learned on previous projects informing those to come?
- 3 Does INDOT consider the DBBV procurement model successful?



Recent Success

I-69 Major Moves 2020

- Innovative Pavement Design included an additional 4 years of pavement life. Current and new travel lanes are on the same maintenance cycle.
- Innovative MOT plans owned by the contractor.
- 18% savings when compared to original project estimates.

I-65 Northwest Indiana

- Proposal achieved a savings more than 22% below the original engineering estimate.

I-65 Southeast Indiana

- Excellent pavement design that will add 5 years to the life of the roadway and create a smoother ride for motorists.
- Planned completion date 44 days ahead of the technical requirement.



Questions

