



Alternative Project Delivery Overview

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Presenters

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Overview

- Intro to INDOT Alternative Delivery Methods
 - INDOT Project Delivery Methods
 - Design-Bid-Build
 - Design-Build
 - Progressive Delivery
 - Alternative Delivery Manual, RFP Template, and Agreement Templates
 - Next Steps
- Panel Discussion – Q&A (45 minutes)
- Individual Break-out Sessions (30 minutes)

INDOT Project Delivery Methods

- Design–Bid–Build (DBB)
- Design-Build Methods (DB)
 - Design-Build Low Bid (DBLB) - Implemented in 1990's
 - Design-Build Best Value (DBBV)
 - DBFOM – ORB (2012)
 - DBBV – I-69 Major Moves 2020 (2015)
- Progressive Delivery Methods – 2023
 - 5-year pilot with 2 allowed per year
 - Construction Manager General Contractor (CMGC)
 - Progressive Design-Build (PDB)

Design-Bid-Build (DBB)

INDOT's Traditional Construction Procurement Method

- The best delivery method for most projects
- 100% Design & awarded on Low Bid
- Payment by pay item based on actual quantities

Challenges of DBB

- Risk is on INDOT when there are design changes, quantity changes, unforeseen circumstances
- Constructability challenges
- Very limited opportunity for contractor innovation or input on design (Stage 2 Plans and CRI's)

Design-Build Low Bid (DBLB)

Low Bid (DBLB)

- ~30% Design @ advertisement
- Well defined scope with detailed specifications
- Low Bid via Standard Letting Process
- Lump sum bid/payment

Benefits of DBLB:

- Single point of contact for design & construction
- Proposal development requires a moderate effort
- Supports expedited delivery
- Improved constructability
- Simple contract

Challenges of DBLB:

- Incentive is to build the lowest cost facility that complies with the criteria and specifications
- Risk is transferred to the contractor, but the price will reflect the risk
- Does not factor qualifications or value-based solutions

Design-Build Best Value (DBBV)

Best Value (DBBV)

- ~30% Design @ advertisement
- Well defined scope with technical provisions
- RFP Procurement Evaluating Technical Proposal and Price Proposal
- Lump sum bid/payment

Benefits of DBBV:

- Single point of contact for design & construction
- Supports expedited delivery
- Improved constructability
- More incentive to specify materials or methods to offer quality enhancement over standard INDOT practice
- Fosters innovation and value-based solutions

Challenges of DBBV:

- Risk is transferred to the contractor, but the price will reflect the risk
- Proposal development can require a significant effort over a constrained time period to submit a compliant proposal
- Longer procurement schedule than DBLB
- Currently a complex contracting process (INDOT plans to simplify)

Progressive Delivery – CMGC and PDB

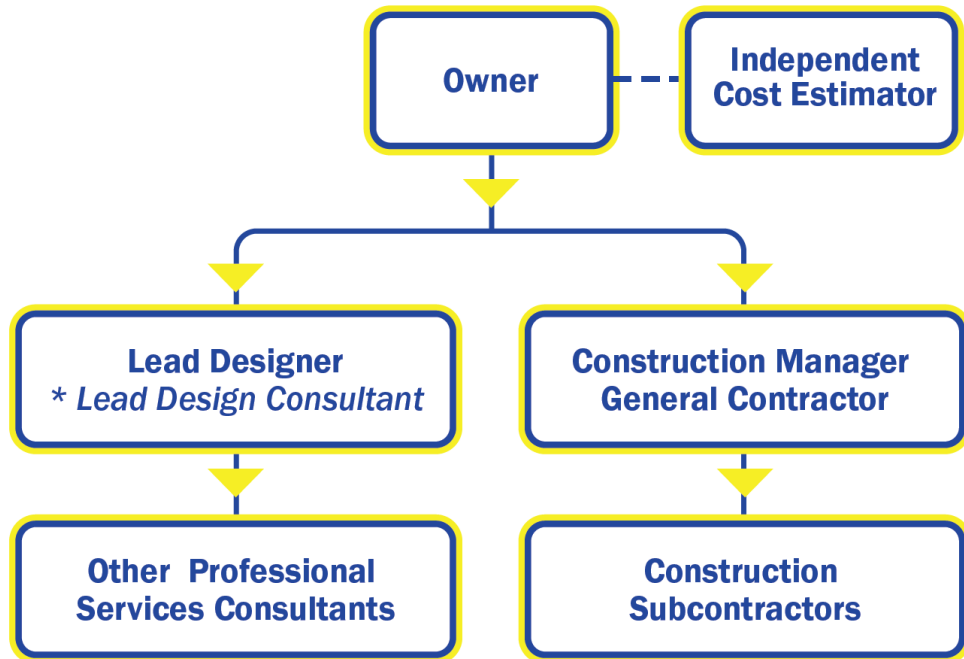
- Construction Manager/General Contractor (CMGC) and Progressive Design-Build (PDB)
- Contractor procurement is via one-step RFP using a Qualifications Based Selection (QBS)
- Contractor selection occurs early in the design phase, so the contractor works with INDOT to achieve project goals by providing input on constructability, construction cost, and schedule during design development
- For both methods, INDOT retains control of project scoping with contractor and design team involvement

Progressive Delivery – CMGC and PDB

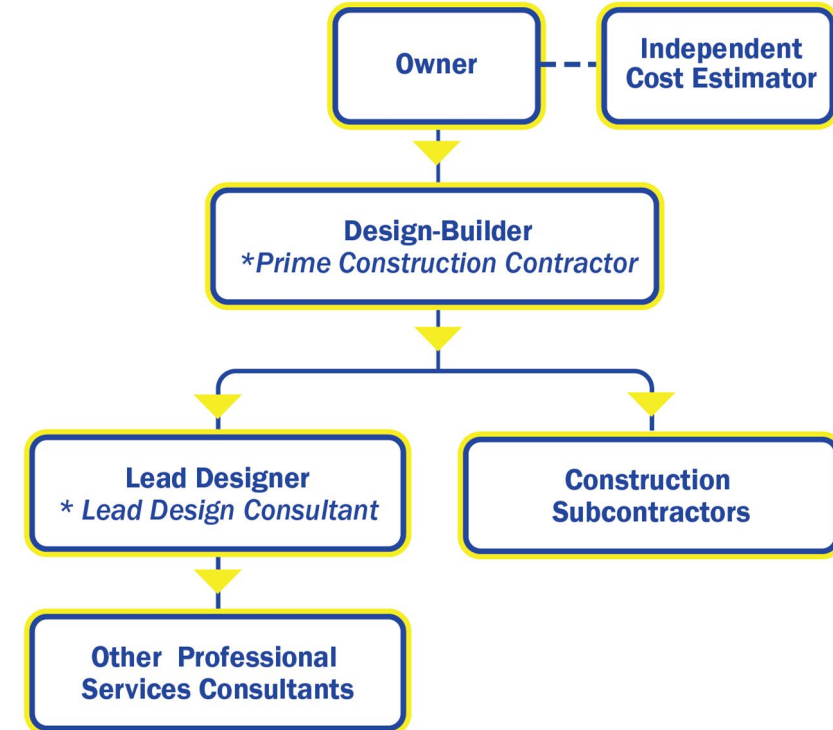
- Flexibility throughout project development to tailor the scope of the project to meet project goals and the needs of various stakeholders
- Collaborative risk allocation amongst the team members
- Payment for preconstruction activities
- Payment during construction is typically lump-sum with agreed upon risk mitigation plan
- Environment allows for enhanced partnering and greater collaboration with the Contractor.

CMGC - PDB Contractual Structure

CMGC



PDB



Progressive Delivery – Key Concepts

- Independent Cost Estimator (ICE)
 - Leads Cost Estimate Reviews and prepares production-based independent estimate, independent construction CPM schedule, identifies risk and leads risk workshops, etc
- Buildable Units and Pricing Milestone Estimates
 - The Progressive Contractor identifies and describes the Buildable Units that are anticipated to be constructed as part of one or more Pricing Packages
 - Materials acquisition and early pricing packages can begin prior to completion of final design

Progressive Delivery – Key Concepts

- Risk Register
 - Risks and mitigation are identified by the entire team during design development and incorporated into a risk register
 - Costs included in the risk register are not included in Pricing Milestone Estimates
- Open Book Estimating and Fair Pricing
 - Emphasizes collaboration, transparency, accountability and trust
 - Pre-estimating meetings to discuss and document assumptions and estimating approach
 - Reconciliation will happen via Pricing Milestone Estimates, plan reviews, quantity reconciliation meetings, etc

Progressive Delivery – Key Concepts

- **Guaranteed Maximum Price (GMP)**
 - Each Pricing Package will have a GMP which is the maximum amount of compensation due for work established
 - The Total Construction GMP is the sum of the Pricing Package GMPs that were executed
- **Off-Ramp**
 - If an agreement cannot be reached on the GMP or other contractual terms, INDOT may elect to terminate the CMGC/PDB agreement and advertise the construction agreement to the industry

Progressive Delivery - Benefits

Benefits of CMGC and PDB:

- By using **simplified, repeatable agreement templates** for CMGC and PDB, the process has been streamlined and legal review is minimal
 - Compared to DBBV's, which have extensive contractual review and revisions
- Earlier collaboration with contractor leads to shorter duration to construction
 - Working with contractor begins earlier in project development phase
 - DBB would be in preliminary design
 - DB would be in procurement development

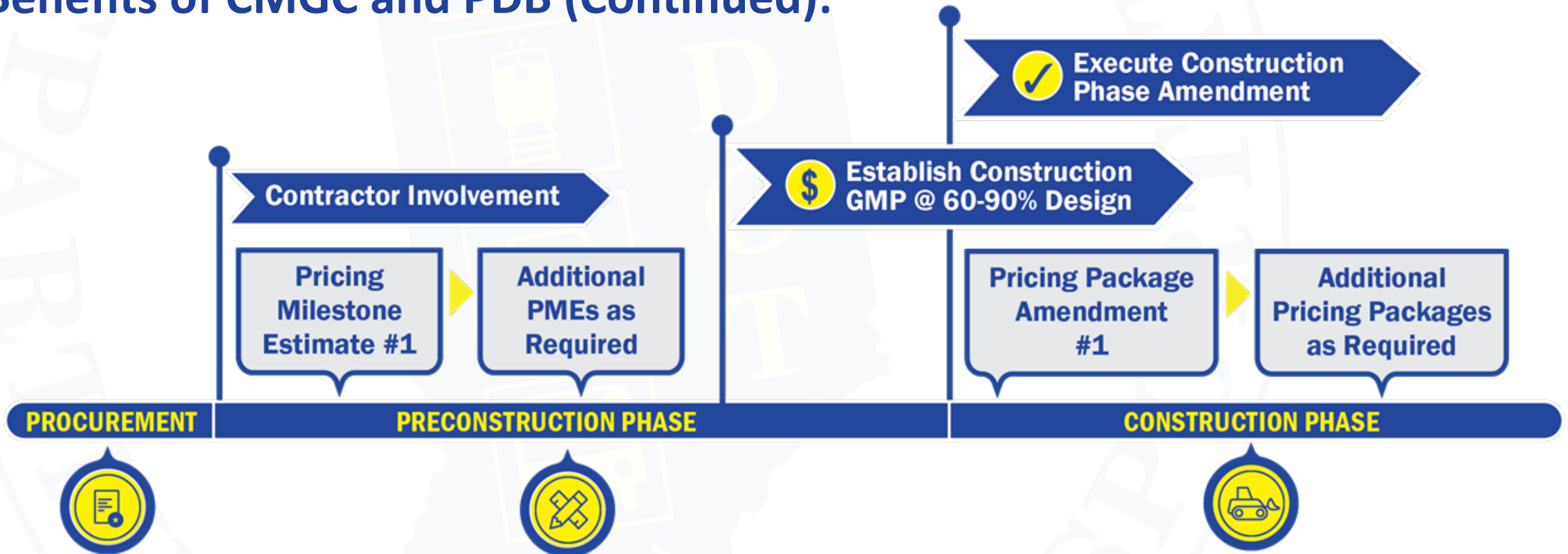
Progressive Delivery - Benefits

Benefits of CMGC and PDB:

- Earlier collaborative project development process also leads to:
 - Design concepts being evaluated for constructability and schedule with actual cost
 - Sharing innovative ideas between INDOT, the designer and the contractor
 - Flexibility to adjust scope of the project with whole project delivery team working together
 - Better cost controls, as the pricing and start construction timeline is much closer, reducing the risk related to the cost of inflation and materials availability
 - The Team working towards a GMP early for accelerated schedules

Progressive Delivery - Benefits

Benefits of CMGC and PDB (Continued):



Progressive Delivery - Challenges

Challenges of CMGC and PDB:

- New to local industry/INDOT and there will be a learning curve
- If an off-ramp is needed due to failure to agree to GMP:
 - Contractor must complete remaining work necessary to place the Project in an acceptable condition, as determined by INDOT
 - Additional time and effort required to create a biddable package for industry
- May not be beneficial for less complex projects with smaller construction budgets or limited 3rd party stakeholders

Progressive Delivery - Risk Management

Risk Management:

- Progressive Delivery provides fairer risk allocation and reduces the cost of risk
- Risks are assigned to a "champion" who can best handle them
- Risks are managed with Risk Register and mitigation
- The number of change orders greatly reduced or eliminated
- The risk process ensures the project is still profitable for the contractor

Progressive Delivery - Risk Register

Risk Register:

- The Risk Register is an essential part of the progressive delivery process that is collaboratively developed during the Preconstruction Phase
- By the end of the Preconstruction Phase, the Risk Register should:
 - Describe all known Department and Provisional Risks
 - Define unit costs or other payment mechanisms for Provisional Sum items
 - Set forth requirements for payment of the Risk Register Events
- The Risk Register becomes part of the Agreement through incorporation into a Pricing Package Amendment

Progressive Delivery – Risk

Risks Difficult to Price with Certainty Detailed Planning Creates Value

**High Confidence Department Risk |
Department Best Able to Manage**

**High Confidence Contractor Risk |
Contractor Best Able to Manage**

Department Risk

- **Documented in the Risk Register**
- Risks fully allocated to the Department
- Change Order process for payment when an event triggers the risk
- Budget to cover potential Change Orders originating from the Risk Register

Provisional Risks

- **Documented in the Risk Register**
- Provisional Risks are jointly managed by the Contractor and Department.
- Risk Register includes requirements for: verification of occurrence and costs; payment responsibility and processes; and Provisional Sums
- Provisional Sums can be Capped or Uncapped.

Contractor Risk

- **Risks may be documented in the Risk Register**
- Risks fully allocated to the Contractor and included in bid
- No direct payment for Contractor accepted risks
- All risks that are not documented in the Risk Register are also Contractor Risks.

Progressive Delivery – Department Risk

**High Confidence Department Risk |
Department Best Able to Manage**

Department Risk

- **Documented in the Risk Register**
- Risks are fully allocated to the Department
- When an event triggers the risk, the Change Order process will handle the payment
- Budget established to cover potential Change Orders originating from the Risk Register

Progressive Delivery – Contractor Risk

**High Confidence Contractor Risk |
Contractor Best Able to Manage**

Contractor Risk

- **Risks may be documented in the Risk Register**
- Risks are fully allocated to the Contractor and included in bid
- No direct payment for Contractor accepted risks
- All risks that are not documented in the Risk Register are also Contractor Risks

Progressive Delivery – Provisional Risk

**Risks Difficult to Price with Certainty |
Detailed Planning Creates Value**

Provisional Risk

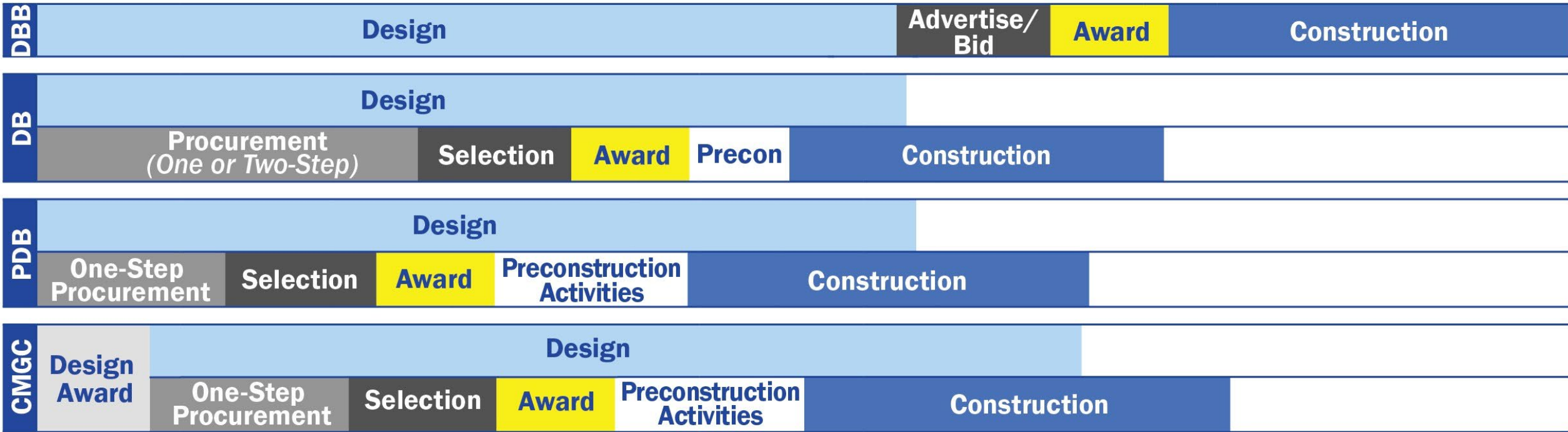
- **Documented in the Risk Register**
- Provisional Risks are **jointly managed** by the Contractor and Department
- Risk Register will include requirements for:
 - Verification of occurrence and costs
 - Payment responsibility and processes; and
 - Provisional Sums
- Provisional Sums can be Capped or Uncapped

Progressive Delivery - Provisional Sums

Provisional Sums:

- Provisional Sums documented in the Risk Register may be Capped or Uncapped
 - Capped – Contractor shall **not** be entitled to seek any additional costs or schedule relief for occurrence of the event beyond the capped Provisional Sum amount identified in Risk Register
 - Uncapped – Contractor shall be entitled to seek relief if the Provisional Sum or other relief provided in Risk Register is exhausted
- Payment for costs for uncapped event requires documentation through a Change Order
- The Department determines budget to cover payment in excess of the Provisional Sums
- Unused Provisional Sums may also be shared and the sharing allocation is established in the Risk Register

Delivery Methods Overview



INDOT Alternative Delivery

- Alternative Delivery Manual Covers:
 - Overview of Alternative Delivery Methods
 - Common Project Delivery Procedures
 - Design-Build (DBLB/DBBV)
 - Progressive Delivery (PDB/CMGC)
 - Appendices contain:
 - Templates
 - Request for Proposal
 - Agreements
 - Sample Risk Register, Innovation Log, Quantity Reconciliation Form
- The current version of the Alternative Delivery Manual does not include DBBV templates, but they will be added in the near future

Ongoing Alternative Delivery Projects and Next Steps

- Revive I-70 – DBLB
 - Begin Procurement - November 9, 2023
 - Award – February 2024
- Projects being considered/screened:
 - US-31/I-465 Interchange Reconstruction is being considered for CMGC
 - Project Types - "Small Town" Reconstruction up to Interstate Projects
 - \$10 million and greater
 - All 6 Districts and Central Office

INDOT Alternative Delivery

- Documents rolled out to public this week (currently available on webpage):
 - Draft Alternative Delivery Manual
 - Draft Progressive Contracting RFP, CMGC and PDB Agreements
- Documents were crafted to simplify the process, compliment one-another, and reduce redundancies

INDOT Alternative Delivery

- The Manual, Agreement Templates, and Additional Information can be found on the INDOT webpage: on.in.gov/INDOTAlternativeDelivery
- Send questions and comments to: alternativedelivery@indot.in.gov
- **Industry comments requested by December 15, 2023**

Panel Question & Answer

