



Illinois Department of Transportation

# Innovative Project Delivery Manual and Guidelines

## Appendix 3 - Progressive Design-Build Guidelines

July 2023





## Table of Contents

- 1 PDB Delivery Overview ..... 4
  - 1.1 Contractual Arrangement for PDB Delivery ..... 4
  - 1.2 Sequencing of Activities ..... 6
  - 1.3 IDOT Management Team..... 6
    - 1.3.1 Pre-Procurement and Procurement Phase Organizational Structure ..... 7
    - 1.3.2 Preconstruction and Implementation Phase Organizational Structure ..... 9
- 2 Pre-Procurement Phase ..... 11
  - 2.1 Pre-Procurement Phase Activities..... 11
    - 2.1.1 Appointing or Procuring an Owner’s Representative (PCE) ..... 11
    - 2.1.2 Project Definition ..... 11
    - 2.1.3 Preconstruction Phase Scope of Services Development ..... 12
    - 2.1.4 IDOT Approvals ..... 13
  - 2.2 PDB Project Development Schedule ..... 14
- 3 Procurement Phase ..... 16
  - 3.1 Procurement Phase Activities..... 16
    - 3.1.1 PCE Activities During PDB Procurement..... 16
    - 3.1.2 PDB Procurement Overview..... 16
    - 3.1.3 Industry Meeting (Optional)..... 17
    - 3.1.4 Develop RFQ ..... 17
    - 3.1.5 Issuance of the NOI ..... 17
    - 3.1.6 Issuance of the RFQ..... 18
    - 3.1.7 Pre-Evaluation Activities ..... 18
    - 3.1.8 Evaluation and Shortlisting ..... 18
    - 3.1.9 Request for Proposals (RFP) ..... 19
    - 3.1.10 Issuance of the RFP ..... 20
    - 3.1.11 Pre-Proposal Meeting (Optional) ..... 20
    - 3.1.12 Issuance of Final RFP ..... 20
    - 3.1.13 RFP Addenda ..... 21
    - 3.1.14 Proposals ..... 21
    - 3.1.15 Receipt of Proposals ..... 21
    - 3.1.16 Evaluation ..... 21
    - 3.1.17 Interviews (Optional) ..... 21
  - 3.2 Project Records, Confidentiality, Public Disclosure ..... 23
  - 3.3 PDB Contract ..... 23
  - 3.4 Appointing or Procuring an Independent Cost Estimator (ICE)..... 24
- 4 Preconstruction Phase ..... 25
  - 4.1 Preconstruction Phase Workflow ..... 25
  - 4.2 Project Scoping Workshop..... 27



- 4.3 Partnering Workshops ..... 27
- 4.4 Communications Plan ..... 27
- 4.5 Collaborative Design Development..... 28
  - 4.5.1 Design Review and Comment Process ..... 28
  - 4.5.2 Design Progress Meetings..... 28
  - 4.5.3 Over-the-Shoulder Meetings ..... 28
- 4.6 Risk Management ..... 28
  - 4.6.1 Collaborative Process ..... 28
  - 4.6.2 Internal IDOT Risk Workshop..... 29
  - 4.6.3 Interim Risk Meetings ..... 29
  - 4.6.4 Risk Register ..... 29
  - 4.6.5 Risk Allocation ..... 30
  - 4.6.6 Risk Updates ..... 30
- 4.7 Cost Estimating ..... 31
  - 4.7.1 Cost Estimating Process ..... 31
  - 4.7.2 Open-Book Cost Estimating ..... 31
  - 4.7.3 Cost Model..... 31
  - 4.7.4 Cost Model Review Meetings..... 32
  - 4.7.5 Cost Model Updates ..... 32
  - 4.7.6 Independent Cost Review ..... 32
- 4.8 Lump Sum or GMP Proposal ..... 32
- 4.9 PDB Contracting Process..... 33
- 5 Implementation Phase ..... 34
  - 5.1 Appointing or Procuring a Construction Oversight Team ..... 34
  - 5.2 Implementation Kick-off Meeting ..... 34
  - 5.3 Partnering Workshop ..... 35
  - 5.4 Early Contract Submittals ..... 35
  - 5.5 Design Oversight ..... 35
    - 5.5.1 Over-the-Shoulder Meetings ..... 35
    - 5.5.2 Design Review and Comment Process ..... 35
    - 5.5.3 Design Submittal Reviews..... 36
    - 5.5.4 RFC Documents ..... 36
    - 5.5.5 Early Release for Construction ..... 36
    - 5.5.6 Quality Assurance and Quality Control (QA/QC)..... 36
  - 5.6 Construction Oversight..... 37
    - 5.6.1 Partnering Meetings..... 37
    - 5.6.2 Risk Management..... 38
  - 5.7 Change Orders ..... 38
  - 5.8 Project Acceptance and Close-Out..... 38



## List of Figures

Figure 1-1 Contractual Arrangement for PDB Delivery .....	5
Figure 1-2 Pre-Procurement and Procurement Phase Organizational Structure .....	7
Figure 1-3 Preconstruction and Implementation Phase Organizational Structure .....	9
Figure 4-1 Preconstruction Phase Services Activities Workflow .....	26



# 1 PDB Delivery Overview

The Progressive Design-Build (PDB) project delivery method employs a “progressive” approach to design-build in which IDOT and the selected progressive design-build team collaborate to “progress” the design and refine the Project scope to meet Project objectives with the goal of negotiating a mutually agreeable Lump Sum or Guaranteed Maximum Price (GMP), for the design and construction work.

Prior to advancing a project to PDB delivery, the IPD Bureau and the District Project Manager (PM) will have completed the determination as to whether a project is a suitable candidate for innovative project delivery, as described in the Innovative Project Delivery Manual and Guidelines, Chapter 2. In addition, the decision will have been made that PDB is the preferred delivery method, as described in the Innovative Project Delivery Manual and Guidelines, Chapter 3.

PDB projects are implemented in four phases:

- » Pre-Procurement Phase (Preliminary Design / Project Readiness)
- » Procurement Phase (Advertisement / Evaluation / Selection)
- » Preconstruction Phase (Design Advancement / Contract Price)
- » Implementation Phase (Final Design / Construction)

## 1.1 Contractual Arrangement for PDB Delivery

For PDB delivery, IDOT procures a PDB Contractor to design and construct the project. IDOT appoints or procures an Independent Cost Estimator (ICE) to provide an analysis of the project cost. In addition, if IDOT staff do not provide the construction oversight, IDOT procures a Construction Oversight Team (COT) to oversee the construction of the project.

At IDOT’s discretion, an Owner’s Representative (PCE) may be retained to assist in developing the procurement documents and other duties as needed to augment IDOT’s staff during the procurement process. Should IDOT elect to utilize the services of a PCE, any engineer retained by IDOT to prepare the scope and assist in the evaluation of a proposal’s technical submissions are prohibited from participating in the procurement of the facility at issue.

**Figure 1-1** below shows the general contractual arrangement for PDB delivery.

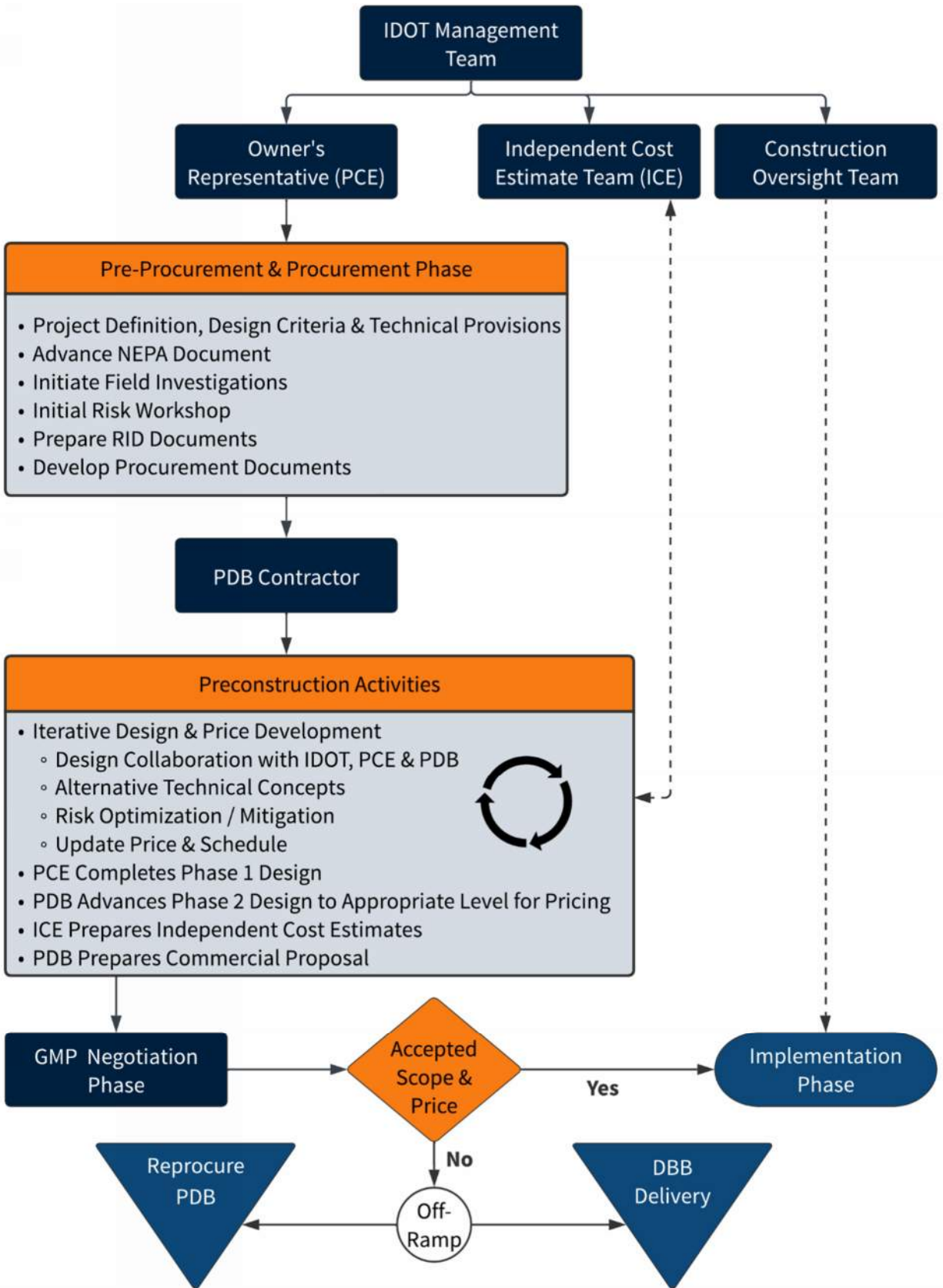


FIGURE 1-1 CONTRACTUAL ARRANGEMENT FOR PDB DELIVERY



## 1.2 Sequencing of Activities

- » IDOT will appoint or procure an Owner’s Representative (PCE) to serve as the procurement engineer responsible for supporting IDOT in procuring a progressive design-builder (PDB Contractor). IDOT is required by the Act to procure an Owner’s Representative if the estimated cost of the project exceeds \$30 million
- » During the pre-procurement phase, the PCE in coordination with IDOT will be responsible for performing pre-procurement activities to prepare the project for procurement
- » Once the project is ready for procurement, IDOT will then procure the PDB Contractor through a best-value selection that relies heavily on qualifications to enter a PDB Contract to design and construct the project
- » The PDB Contract will cover two phases:
  - Preconstruction phase activities to finalize the contract terms for the implementation phase
  - Implementation phase services for a Lump Sum or GMP to design and construct the project
- » Upon execution of the PDB Contract, the PDB Contractor will take over the design and perform the preconstruction phase activities
- » IDOT and the PDB Contractor will work collaboratively to iteratively advance the design to a level of completion necessary to define the project scope and reach a mutually agreeable Lump Sum or GMP for the final design and construction work
- » IDOT may appoint or procure an ICE to support IDOT in the development of an independent project cost estimate
- » If IDOT and the PDB Contractor agree on a Lump Sum or GMP, the parties will amend and execute the amended PDB Contract to complete the implementation phase and deliver the final design and construction of the project
- » In advance of the implementation phase, IDOT will appoint or procure an Owner’s Representative to serve as the Construction Oversight Team responsible for overseeing the implementation phase in accordance with the PDB Contract

## 1.3 IDOT Management Team

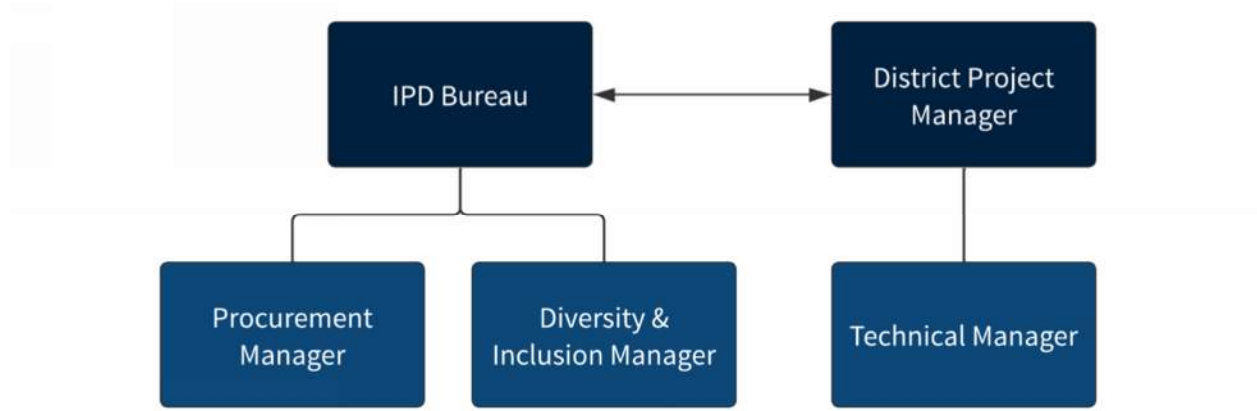
The best suited staff and organization of a PDB project delivery team is tailored specifically to the unique characteristics of the project under consideration. The high-level organizational structures described below for each of the delivery phases provide a starting point to develop a project specific IDOT Management Team.

As the projects progress from inception to completion, the IDOT Management Team organizational structure will transition from a coordinated District and the IPD Bureau team during the pre-procurement and procurement phases to a District-led effort during the preconstruction and final design and implementation phases.



### 1.3.1 Pre-Procurement and Procurement Phase Organizational Structure

Pre-procurement phase and procurement phase activities will involve both the IPD Bureau and the District PM working collaboratively to develop the project documents. The high-level organizational structure for the pre-procurement and procurement phases is shown in **Figure 1-2** below:



**FIGURE 1-2 PRE-PROCUREMENT AND PROCUREMENT PHASE ORGANIZATIONAL STRUCTURE**

#### 1.3.1.1 Pre-Procurement Phase Activities

The IPD Bureau will focus on the following activities:

- » In concert with the District PM, develop scope of service documents defining the preconstruction phase services to be provided by the PDB Contractor and ICE during the preconstruction phase
- » Coordinate with IDOT Central Office and the District to ensure funding is established for the project
- » Collaborate with FHWA Illinois Division office for procurement document and template contract reviews and updates
- » Prepare a written determination to demonstrate and document that PDB project delivery method is in the best interest of the State in accordance with the Chapter 3 of the IPD Manual and Guidelines
- » Coordinate with the IDOT Office of Business and Workforce Diversity (OBWD) to establish DBE utilization requirements for the preconstruction phase and the implementation phase
- » Conduct the initial risk workshop in coordination with the District PM
- » Develop template PDB Contract with supporting documents





The District PM will focus on the following activities:

- » Project definition
- » Design criteria and technical provisions
- » Engineer’s estimate
- » Progress the NEPA process to ensure an environmental decision is in place in accordance with the preliminary schedule and document any environmental commitments required under the decision
- » Initiate field investigations and third-party coordination activities
- » Identify major project risks and participate in an initial risk workshop

### ***1.3.1.2 Procurement Phase Activities***

During the procurement phase, the IPD Bureau and the District PM continue to work together to manage all project activities.

The IPD Bureau focuses on the following activities:

- » Develop procurement documents in coordination with the District PM
- » Continue development of the template PDB Contract
- » Identify evaluation committee members
- » Coordinate with the IDOT Office of Chief Counsel (OCC) on legal issues that require amendments to the procurement documents or process
- » Finalize DBE utilization requirements for the preconstruction phase and the implementation phase with FHWA input, as necessary

The District PM will focus on the following activities:

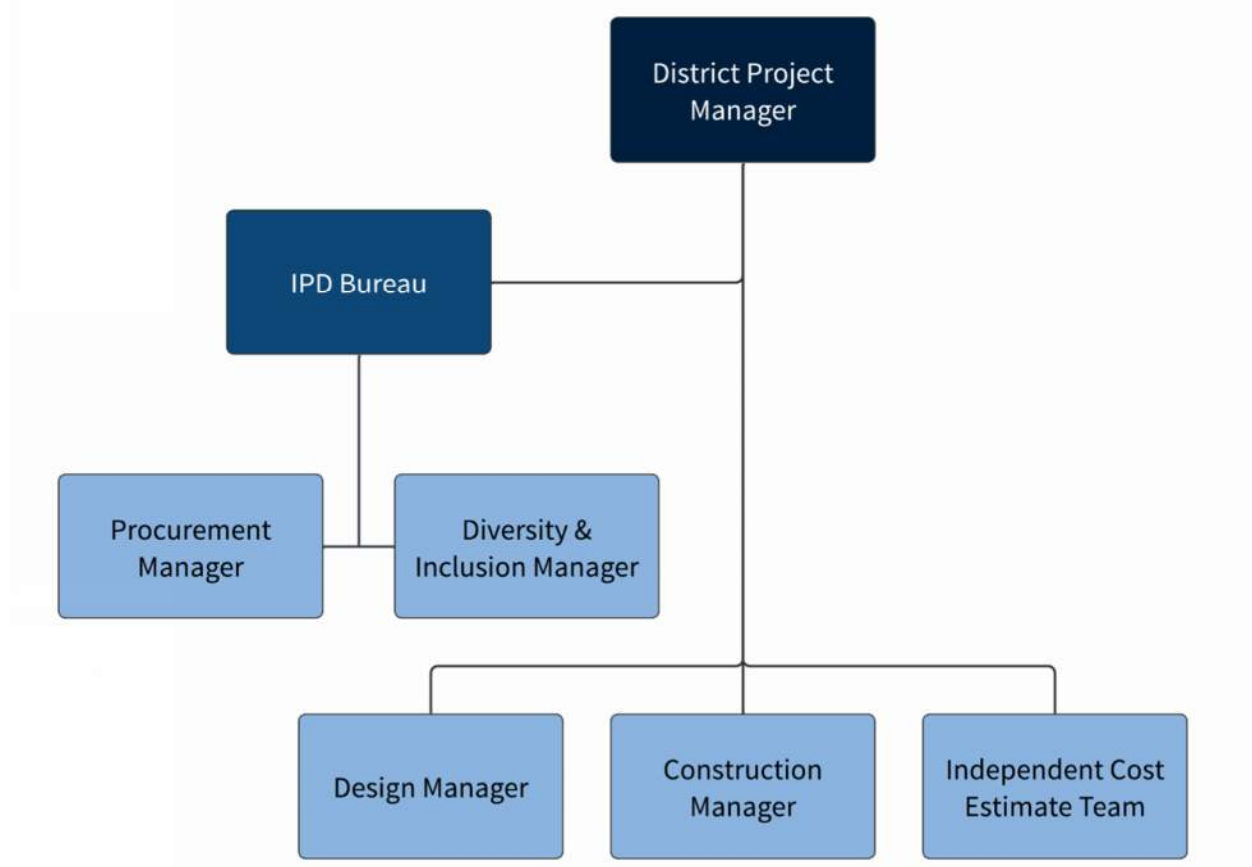
- » Oversee consultant resources to facilitate procurement activities, documents coordination, industry review meetings, due diligence evaluations, etc.
- » Continue to develop technical provisions
- » Develop procurement documents for procuring the PDB Contractor
- » Prepare reference information documents
- » Develop evaluation and scoring criteria
- » Participate in meetings with proposers and prospective proposers
- » Participate on the evaluation committee
- » Coordinate with the IPD Bureau on contract language, risk allocations and transition activities to the preconstruction phase



### 1.3.2 Preconstruction and Implementation Phase Organizational Structure

The preconstruction phase and implementation phase activities will involve both the IPD Bureau and the District PM and the selected PDB Contractor.

The high-level organizational structure for the preconstruction phase and implementation phase is shown in **Figure 1-3** below:



**FIGURE 1-3 PRECONSTRUCTION AND IMPLEMENTATION PHASE ORGANIZATIONAL STRUCTURE**

#### 1.3.2.1 Preconstruction Phase Activities

The IPD Bureau will focus on the following activities:

- » Resolution of any issues, concerns, or interpretations of the preconstruction phase services and the PDB Contract identified by the PDB Contractor or the District PM followed by execution of the PDB Contract.

The District PM will focus on the following activities:

- » Administration of the PDB Contract
- » Conduct partnering workshop(s), project scoping workshop(s), project team meetings, design review meetings, and cost model review meetings



- » Oversee of the PDB Contractor activities which may include specific early work activities to reduce risk and develop a more defined Lump Sum price or GMP
- » Review PDB Contractor submittals
- » Guide design decisions
- » Oversee ICE estimates
- » Lead construction pricing negotiations
- » Conduct early work activities during the preconstruction phase that may include design exceptions, right of way acquisition activities, utility relocation coordination, geotechnical site investigations, rail and transit coordination, and where possible secure memoranda of understanding with affected third parties and jurisdictions.
- » Coordinate with environmental personnel to complete the environmental process to the extent possible based on the preliminary design and in accordance with the preliminary schedule and document any environmental commitments required under the decision.

### ***1.3.2.2 Implementation Phase Activities***

The IPD Bureau will focus on the following activities:

- » Resolution of any issues, concerns, or interpretations of the PDB Contract

The District PM will focus on the following activities:

- » Design and construction oversight
- » Compliance with the terms and conditions of the PDB Contract
- » Field inspection and materials testing
- » Progress and payment
- » Schedule compliance
- » DBE utilization, environmental, and safety compliance
- » Coordination and communications with local public officials, travelling public, and IDOT and District leadership
- » Project closeout and as-built plans



## 2 Pre-Procurement Phase

### 2.1 Pre-Procurement Phase Activities

The pre-procurement phase is utilized to ensure all the information, resources and decisions are in place for advancing the project to procurement. The initial steps, which are described in greater detail in Sections 2.1.2 and 2.1.3 below, is to collect and review all available project information necessary to define the project and develop a comprehensive scope, preliminary budget, and schedule for the facility. Based on that scope, the IPD Bureau, in consultation with the District PM, develops the resource requirements and scope of services for the PCE, PDB Contractor, and ICE.

#### 2.1.1 Appointing or Procuring an Owner's Representative (PCE)

IDOT may continue using existing resources to advance the project during the pre-procurement phase or may procure an Owner's Representative to serve as the PCE. The Department may secure a PCE through an on-call services contract for a particular project (on a project-by-project basis) or for multiple projects.

##### PCE Pre-Procurement Scope of Services

The PCE will provide design services throughout the pre-procurement and procurement phases under the direction of the District PM including Phase I design, procurement document development, and general engineering services in support of the PDB procurement.

During the pre-procurement phase the PCE will be focused on Phase I design services and providing technical support to the District PM in developing the draft PDB procurement documents.

#### 2.1.2 Project Definition

The District PM, with technical support from the PCE, develops a scoping document that provides the physical description of the facility. A comprehensive project definition typically includes project limits, lane arrangements, bridge and culvert locations, interchange locations, known utility conflicts, right of way requirements, environmental commitments, and major project constraints.

In addition, the District PM defines the desired design criteria for the project. Design criteria typically includes parameters for design speed(s), level of service, geometric design, pavement design, foundation design, drainage design, structural design, and traffic control/lane closures.

##### Early Works Activities

In parallel with the project definition, the District PM initiates early work activities to include right of way acquisition activities, utility relocation coordination, geotechnical site investigations and lab results, rail and transit coordination, and where possible, secure memoranda of understanding with affected jurisdictions.



## Phase I Design Development

IDOT will advance the typical project development activities associated with Phase I of IDOT's project development process before procuring a PDB Contractor to a level of completion to adequately define the project while limiting the level of detail to allow the PDB Contractor latitude to incorporate innovation into the design. These activities include preliminary engineering, engineering studies, environmental, and permitting activities.

### Risk-Based Cost and Schedule Estimate

Based on the project definition, the District PM will work with the PCE to develop the initial engineer's opinion of probable construction cost to be utilized to develop a risk-based project cost and schedule estimate. Using standard estimating methods, a base estimate is developed using estimated quantities and unit prices. The base estimate is then adjusted to account for risks and contingencies.

A risk workshop is conducted to update the initial risk worksheet developed previously in Section 2.2.3 of the IPD Manual and Guidelines, Project Readiness and Selection Process, of the IPD Manual and Guidelines. The risk worksheet is updated with current information to provide an updated risk-based estimate of project cost and schedule.

### 2.1.3 Preconstruction Phase Scope of Services Development

During the pre-procurement phase the IPD Bureau, in coordination with the District PM, develops scope of services documents for preconstruction phase activities required for the PDB Contractor and ICE.

#### 2.1.3.1 PCE Preconstruction Phase Scope of Services

The PCE preconstruction phase scope of services includes the standard activities for Phase I design services with the addition of requirements to review the design and price submittals by the PDB Contractor.

Typically, the PCE will advance the Phase I design and advance the NEPA document to a Record of Decision prior to issuance of the RFP.

A typical PCE scope of services includes an initial partnering/project scoping workshop where the PCE reviews the preliminary design, schedule and design status report provided by the PDB Contractor. Following the initial workshop, the PCE oversees the iterative design process reviewing the incremental design and price submittals provided by the PDB Contractor. The PCE will also participate in risk workshops conducted by the IPD Bureau providing input to evaluating risks. This iterative process continues until the PDB Contractor has sufficient information to submit a Lump Sum or GMP proposal.

During the preconstruction phase, the PCE completes the Phase I design and issues the corresponding Phase I documents. The PCE may be retained beyond preconstruction phase for implementation phase services at the discretion of IDOT.

Should IDOT elect to utilize consultant services to provide PCE services, the PCE scope of services will be utilized in the PCE procurement. Otherwise, the PCE scope of services will be utilized as the guiding document for IDOT in-house personnel.



### **2.1.3.2 PDB Preconstruction Phase Scope of Services**

The PDB preconstruction phase scope of services includes all the standard activities a contractor would perform in developing a project bid, with the addition of the requirement to collaborate with IDOT and the PCE.

A typical PDB preconstruction phase scope of services includes an initial partnering/project scoping workshop where the PDB Contractor furnishes the preliminary project estimate, preliminary project schedule, risk register, and a project development plan that includes a communications plan, a document control plan and other project specific elements to participate in the preconstruction process.

Following the initial workshop, the PDB Contractor engages in an iterative design process in collaboration with IDOT and the PCE to develop incremental submittals to include constructability reviews, materials, construction phasing, price, schedule, and updated risk register. The PDB Contractor will also participate in risk workshops providing input for evaluating risks. This iterative process continues until the PDB Contractor has sufficient information to submit a Lump Sum or GMP proposal.

### **2.1.3.3 ICE Scope of Services**

The ICE scope of services includes providing independent cost estimates based on any given submittal received from the PDB Contractor. An ICE typically develops an independent cost estimate by considering costs associated with the staging, maintaining traffic, time, materials, labor, equipment, local market conditions, and other factors unique to the PDB project. To the maximum extent possible, the ICE should not utilize average unit price information. Instead, the ICE should perform a bottom-up resource-based cost estimate similar to the approach a contractor takes to estimating/pricing a project.

To maintain independence, the ICE is firewalled from most project activities but may attend some project meetings that are limited to discussions or clarifications of any given submittal and as noted in [Section 4.7](#). The ICE should not participate in contract price negotiations. The ICE scope should clearly state that all materials reviewed, and work product produced are confidential, and participation on the project conflicts out the ICE and their subcontractors from bidding on the project should the PDB Contractor be unsuccessful in reaching a contract price with IDOT.

Should IDOT elect to utilize consultant services to provide ICE services, the ICE scope of services will be utilized in the ICE procurement. Otherwise, the ICE scope of services will be utilized as the guiding document for IDOT in-house personnel.

### **2.1.4 IDOT Approvals**

During the pre-procurement phase, activities are completed to ensure the project is ready to advance to the procurement phase, such as:

- » The scope of the project has been agreed to by the IPD Bureau and District leadership and funding has been programmed with the corresponding engineer's estimate furnished by the District PM



- » The preconstruction phase services scope for the PDB Contractor, PCE, and ICE has been approved by IDOT and funding has been programmed for each
- » Resources have been identified for the PCE and ICE, whether in-house or consultant resources
- » In accordance with Chapter 3 of the IPD Manual and Guidelines, an analysis and written determination has been conducted to demonstrate and document that PDB delivery method is in the best interest of the state. Such written determination will be retained in the project records and available for inspection upon request
- » OBWD has made a determination of DBE utilization or other communities' participation in the preconstruction phase and implementation phase

## 2.2 PDB Project Development Schedule

The final step in the pre-procurement phase is to develop a comprehensive PDB project development schedule. The IPD Bureau and the District PM work collaboratively to develop the PDB project development schedule. The schedule should be tailored to the project under consideration and used as a guiding document throughout the pre-procurement and procurement phases. The typical activities for a two-phase PDB project development are shown in the following table. For single-phase procurements, the schedule template below must be modified to omit the RFQ phase and combine those activities into the RFP phase.



PDB Project Development Schedule	
Activity	Completion Date
<b>Pre-Procurement Phase Activities</b>	
- Project Definition	
- IDOT approvals (pending or complete)	
- Establish DBE Utilization Requirements	
- Preliminary investigations status (utilities, geotechnical, ROW, etc.)	
- PDB Project Development Schedule	
<b>Procurement Phase Activities</b>	
- Industry Meeting (Optional)	
- Develop RFQ	
- Issue NOI, if necessary	
- Issue RFQ	
- Pre-Evaluation Activities	
- Evaluation and Shortlisting	
- RFP	
- Issue NOI	
- Issue RFP	
- Pre-Proposal Meeting (Optional)	
- Issue Final RFP	
- RFP Addenda, if necessary	
- Proposals Due	
- Evaluation	
- Interviews (Optional)	
- Selection and Award	
- Preconstruction Phase Services Proposal	
- ICE Onboarding	
<b>Preconstruction Phase Services</b>	
- Iterative design and price development	
- Collaboration with PCE to advance Phase I design	
- Risk Optimization/Mitigation Workshop	
- Agreed Lump Sum or GMP	
- Execute Amendment to PDB Contract	
- Advance to Implementation Phase	





## 3 Procurement Phase

### 3.1 Procurement Phase Activities

When the IPD Bureau and the District PM deem the project is ready for procurement, IDOT will employ the procurement process described below to select a PDB Contractor. IDOT may procure a PDB Contractor by using either a single-phase (only for projects under \$5 million cost, with approval) or a two-phase procurement.

Under a single-phase procurement, IDOT will issue only a Request for Proposals (RFP) to procure the PDB Contractor. A single-phase procurement may be utilized for smaller projects under \$5 million, or with written approval of the IDOT Secretary.

Under a two-phase procurement, IDOT will first issue a Request for Qualifications (RFQ) and then an RFP. The two-phase procurement process is described in this section.

For projects not already designated for IPD delivery in the MYP, IDOT will issue a Notice of Intent (NOI) a minimum of 28 days prior to commencing the procurement. The NOI will include a description of the proposed procurement and project to be procured.

#### 3.1.1 PCE Activities During PDB Procurement

During the procurement phase the PCE will continue to focus on Phase I design services and providing technical support to the District PM in developing the PDB procurement documents. It is desirable to hold design development to a preliminary or concept level of completion until the PDB Contractor has been selected. This allows for greater opportunities for IDOT to benefit from potential innovations by the interactive design process between IDOT, the PCE and the PDB Contractor during the preconstruction phase.

#### 3.1.2 PDB Procurement Overview

In a PDB procurement, interested proposers respond to the RFQ with a Statement of Qualifications (SOQ) by demonstrating the proposer's experience and qualifications in accordance with the RFQ requirements. IDOT will evaluate the responses based on evaluation criteria in the RFQ and will shortlist the most highly qualified proposers.

IDOT will then issue an RFP to the shortlisted proposers. After issuance of the RFP, IDOT may meet with proposers in confidential one-on-one meetings to discuss any questions from proposers about the RFP and provide any project updates.

IDOT may provide updates to the RFP based on project development activities and in response to proposer questions. Once proposals are submitted, IDOT will evaluate the proposals received for responsiveness to the RFP requirements and evaluation criteria. IDOT will select the best-value proposer based on proposal responsiveness and the evaluation criteria described in the RFP.

The selected proposer will be invited to submit a final negotiated Preconstruction Phase Services Proposal. Once the PDB Contractor and IDOT have reached a mutually agreeable fee



and scope, the PDB Contract will be executed and IDOT will issue Notice to Proceed (NTP) for the preconstruction phase services.

### 3.1.3 Industry Meeting (Optional)

Prior to commencing a PDB procurement, the Department may elect to conduct a pre-procurement meeting with potential proposers to assess and garner industry interest in the project. In lieu of, or in addition to an industry meeting, IDOT may issue a Request for Information (RFI) to industry to garner and assess interest in the project.

### 3.1.4 Develop RFQ

Each PDB RFQ may include but not limited to the following items:

- » Scope of work
- » Key staff and firms experience and qualifications along with the conditions under which key staff personnel and firms can be replaced
  - A provision stating that after a proposer submits a Statement of Qualifications (SOQ), the proposer may not replace, remove, or otherwise modify any firm identified as a member of the proposer team unless authorized by IDOT
  - Qualification and experience requirements should include specific experience related to projects of similar size, scope, and complexity
- » Evaluation criteria - proposer's technical and financial qualifications, such as:
  - Specialized experience, technical competence, capability to perform, financial capacity, the proposer's workload, local office presence, past performance including the proposer's safety record and record of utilization of business enterprises owned by minorities, women, and individuals with disabilities, including DBEs
- » Requirement for prequalification, licensing and registration of the contractor and proposed subcontractors in the State of Illinois
- » Past performance references or contact information for persons who can attest to the past performance of the proposer with respect to: successful project delivery, subcontracting, labor relations, diverse business utilization, workforce diversity, and compliance with contract requirements
- » Summary of the PDB Contract framework in the form of a term sheet highlighting the proposed Contract terms

### 3.1.5 Issuance of the NOI

For projects not already identified in the MYP for IPD delivery, the Department must issue an NOI a minimum of 28 days in advance of issuance of the RFQ. Otherwise, the Department may issue the RFQ to initiate the PDB procurement. The NOI, if issued, will be posted on the IDOT website.



### 3.1.6 Issuance of the RFQ

Upon approval by the IPD Bureau Chief, IDOT issues the RFQ. In accordance with the RFQ, proposers may submit questions to IDOT. The questions are submitted and responded to in accordance with the RFQ. Based on these questions and answers, any clarifications to questions or formal changes to the RFQ may be made in the form of addendums. The RFQ will be posted on the IDOT website.

### 3.1.7 Pre-Evaluation Activities

Prior to receipt of SOQs, the IPD Bureau and the Chief Procurement Office (CPO) will complete the following tasks:

- » Identify individuals participating on the Evaluation Committee
- » Confirm all signed confidentiality agreements are obtained and conflict of interest disclosures are assessed, and responsive action taken, if needed
- » Conduct evaluator training
- » Prepare secure rooms to receive evaluation materials and proposer submittals

### 3.1.8 Evaluation and Shortlisting

Prior to receipt of the SOQs, the Evaluation Committee will establish weighting for the evaluation criteria based on the relative importance of the project specific criteria deemed as key selection criteria for the project.

The Evaluation Committee will utilize consensus scoring to evaluate the SOQs. In the consensus scoring approach, individual Evaluation Committee members read the SOQs prior to evaluation work sessions and make notes of proposed scoring, observations of strengths and weaknesses, and questions regarding the SOQ. Once all SOQs have been scored individually, the Evaluation Committee will meet to develop consensus scores for each proposer.

The Evaluation Committee will rank the SOQs and develop a shortlist to advance to the RFP stage. A minimum of two and potentially up to five proposers will be shortlisted (unless the IDOT Secretary makes a finding that an emergency justifies shortlisting fewer than two proposers).

IDOT will conduct evaluations in a secure facility. The RFQ specifies the evaluation process, which includes:

- » Each SOQ is reviewed for satisfaction of the prequalification criteria identified in the RFQ and responsiveness to RFQ requirements
- » Any SOQ that does not pass and/or is not responsive may not be considered
- » Evaluation Committee members should be capable of assessing the proposer's technical and financial qualifications



- » The Evaluation Committee provides a recommendation to the IPD Bureau and the District PM, who will determine a recommended shortlisting of proposers

### 3.1.9 Request for Proposals (RFP)

The RFP is developed by the IPD Bureau in collaboration with the District PM and requires approval by the IPD Bureau Chief prior to issuance to prospective proposers.

The RFP should be tailored to the individual project and may contain any terms deemed appropriate by IDOT, including the following:

- » Evaluation criteria - technical and financial requirements and the relevant importance of those criteria, such as:
  - Specialized experience, technical competence, capability to perform, financial capacity, the proposer's workload, local office presence, and past performance including the proposer's safety record and record of utilization of business enterprises owned by minorities, women and individuals with disabilities including DBEs
- » If interviews are anticipated, the maximum number of proposers IDOT will shortlist to participate in interviews
- » The form of the PDB Contract such as:
  - Scope and performance requirements, schedule or completion date requirements, subcontractor requirements, payment and performance security requirements, and insurance requirements
- » The requirements for the technical component of the proposal, including a description of the level of design, scope and type of renderings, drawings, and specifications to be provided in the proposals
- » The requirements for the price component of the proposal, which includes a requirement for the proposer to submit a price for the costs to perform the required preconstruction phase services
- » Requirements regarding a utilization and workforce diversity plans and certifications to be provided in the proposals for both the preconstruction and implementation phases
- » Procurement schedule showing key dates for the RFP issuance, pre-proposal meeting (optional), question-and-answer period, proposal submittal, shortlisting, interviews (optional), and preferred proposer selection
- » Available project reference information documents such as:
  - Preliminary plans, environmental documents, memoranda of understanding, utility data, geotechnical data, and traffic data

The RFP will require proposals to contain the following information in addition to other requirements:



- » A description of the proposers approach demonstrating their contract understanding and approach to communications, coordination, risk management and partnering
- » The proposer’s understanding of the project’s scope and complexity, level of design and the identification of project risks and potential mitigation strategies and solutions
- » The proposer’s preconstruction phase services cost proposal
- » Other requirements necessary to submit a compliant and responsive proposal

### **3.1.10 Issuance of the RFP**

Upon approval by the IPD Bureau Chief and the District PM, the RFP is advertised together with any relevant documents and information. The RFP advertising period will be designated in the project development schedule. The RFP will be posted on the IDOT website.

### **3.1.11 Pre-Proposal Meeting (Optional)**

The Department may conduct a pre-proposal meeting during the procurement process to introduce all prospective proposers to the PDB delivery method, provide an overall introduction to the project as scoped, and allow for questions about the project, the procurement documents, and process.

The pre-proposal meeting generally consists of a presentation by the Department followed by a question-and-answer session. It should be clearly stated that any information provided during the pre-proposal meeting is non-binding and for informational purposes only. Questions may be submitted in writing to the Department after the pre-proposal meeting for formal response during the designated question-and-answer period as shown in the RFP.

### **3.1.12 Issuance of Final RFP**

At the sole discretion of the Department, the Final RFP will incorporate additional information and clarifications to the RFP based on feedback received from prospective proposers and other information gained during the advertisement period. The Final RFP will highlight sections of the RFP that have been modified. The Final RFP shall be available to proposers a minimum of 28 calendar days in advance of the proposal due date. The advertisement period may be extended if necessary for the project. The Final RFP will be posted on the IDOT website.



### **3.1.13 RFP Addenda**

The Department may issue addenda to the RFP during the advertisement period in response to prospective proposer questions or as needed to clarify the requirements of the RFP. The addenda should highlight sections of the RFP that have been modified. The addenda will be posted on the IDOT website.

### **3.1.14 Proposals**

Proposers will provide proposals on or before the proposal due date. The IPD Bureau performs an initial review of the proposals to determine if all the information required in the RFP is included. IDOT reserves the right to waive or resolve minor imperfections with the proposers in the submitted proposals prior to distribution to the Evaluation Committee.

After the RFP has been submitted, proposer may not replace, remove, or otherwise modify any firm identified as a member of the proposer team unless authorized by the Department.

### **3.1.15 Receipt of Proposals**

Proposers submit proposals in response to the RFP on or before the proposal due date specified in the RFP. An initial pass/fail and a responsiveness review will be performed by the CPO of the submittals to determine if each submittal is incomplete or appears non-compliant. A request to proposers may be made to address any items that are missing or provide clarification prior to distribution to the evaluation team. Any proposal that does not pass and/or is not responsive may be disqualified from further consideration.

### **3.1.16 Evaluation**

The Evaluation Committee will establish evaluation criteria based on what is contained in the RFP and the relative importance of the project specific technical requirements, innovative solutions, delivery schedule and other criteria deemed as key selection criteria for the project. The Evaluation Committee will rank the proposals and either select the best ranked proposer or, if deemed in the best interest of IDOT, conduct interviews with the shortlisted proposers for further evaluation.

### **3.1.17 Interviews (Optional)**

IDOT may conduct interviews with shortlisted proposers. The RFP will identify a process for the proposer and Evaluation Committee to follow if interviews are identified as in the best interest of the state by the Evaluation Committee. The IPD Bureau and District PM will develop a list of potential interview questions. Interview questions can include general questions that are asked of all teams interviewed as well as questions specific to an individual RFP proposal.

The interview not only provides an opportunity for the proposer to present its qualifications and ideas but also allows the Evaluation Committee (and other observers at IDOT's discretion) to observe the project team and see how the team members work together. The notice of an interview will identify those members of the proposer's team that will be allowed to participate in the interview.



### **3.1.17.1 Evaluation Committee and Procedures**

Evaluation Committee members should be comprised of individuals who have specific project knowledge, an understanding of the project goals, and a specialty or expertise relevant to the project. Evaluation Committee requirements are as follows:

- » At least half of the committee must be licensed professional engineers
- » An Evaluation Committee typically serves for the procurement of a particular project but may serve for multiple projects over a set term
- » Evaluation Committee members must certify that no conflict of interest exists between the members and Proposers

Evaluation Committee membership is confidential to maintain objectivity, prevent contact during procurement, and ensure that all Proposer communication goes through the point of contact as defined in the RFP. IDOT will develop a Non-Disclosure Agreement (NDA) to be executed by each member and consultant assisting in the procurement in advance of reviewing the procurement documents.

### **3.1.17.2 Selection and Award**

The Evaluation Committee will utilize consensus scoring to evaluate the proposals. In the consensus scoring approach, individual Evaluation Committee members read the proposals prior to evaluation work sessions and make notes of proposed scoring, observations of strengths and weaknesses, and questions regarding the proposal. Once all proposals have been scored individually, the Evaluation Committee will meet to develop consensus scores for each proposer.

All Evaluation Committee members will participate in the interviews and make notes of proposed scoring, observations of strengths and weaknesses, and questions regarding the interview. Once all interviews have been scored individually, the Evaluation Committee will meet to confirm or update the consensus scores for each proposer.

The proposer with the highest total score is selected to serve as the PDB Contractor.

The IPD Bureau, CPO and District PM will present the selection results and recommendation to the IPD Bureau Chief and District leadership, who shall review the recommendation and associated evaluation documentation.

Once IDOT has approved the selection, the proposers can be notified of the selection results. IDOT should notify each proposer within five days of the selection. Once the PDB Contract is executed with the successful proposer IDOT may offer a debrief meeting with unsuccessful proposers.

The IPD Bureau posts the general results of the selection on the IDOT website. Once the PDB Contractor is selected a kick-off meeting should be held to verify the scope and answer any questions the PDB Contractor may have on the project and Preconstruction Phase Services. After the kick-off meeting is held the PDB Contractor is to provide a final negotiated Preconstruction Phase Services Cost Proposal.



If the PDB Contractor is unable or unwilling to execute the PDB Contract, IDOT may award the project to the proposer with the next best score.

### **3.1.17.3 Final Preconstruction Phase Services Proposal**

At the conclusion of the selection process, the PDB Contractor will prepare a final negotiated Preconstruction Phase Services Proposal inclusive of a detailed project scope and price for providing the necessary preconstruction phase services to reach an agreed Lump Sum or GMP.

Once the scope and price for the preconstruction services are negotiated and agreed, the PDB Contract, with the final negotiated Preconstruction Phase Services Cost Proposal attached, will be executed and IDOT will issue NTP for the preconstruction phase services.

If the PDB Contractor is unable or unwilling to execute the PDB Contract, IDOT may award the contract to the Proposer with the next best score.

## **3.2 Project Records, Confidentiality, Public Disclosure**

IDOT will maintain all written decisions, qualifications, and proposal evaluations, scoring documents, selection evaluations, proposals, and procurement documents.

Proposers may identify portions of submissions the proposer considers a trade secret or confidential, commercial, or proprietary information in accordance with Illinois state law. Confidential and propriety information shall be exempt from disclosure only if the proposer:

- » Requests exclusion
- » Identifies the data or other materials for which protection is sought
- » States the statutory or regulatory basis for the protection
- » Complies with Freedom of Information Act (FOIA) and any other applicable provisions of State law
- » Proposer submits a secondary/additional version of their submissions with any information Proposer considers confidential or proprietary redacted

IDOT will make a final determination related to any request to maintain the confidentiality of any information and will notify the proposer of its determination.

## **3.3 PDB Contract**

The PDB Contract shall cover two phases:

- » Preconstruction services phase to collaborate on preliminary design elements, risk mitigation measures and finalize the contract terms for the implementation phase
- » Implementation phase services for a Lump Sum or GMP to design and construct the project

The PDB Contract will be executed with the provision that the final fixed schedule and GMP will be negotiated during the preconstruction phase and amended into the final PDB Contract.





The PDB Contract may include any provisions IDOT determines are necessary, including but not limited to, the following:

- » The preconstruction phase services scope of work
- » Compensation for preconstruction phase services
- » Requirements for the PDB Contractor to procure competitively bid subcontracts for at least the minimum percentage of construction work specified in the RFP, provided that:
  - The estimated cost and scope are approved by IDOT in advance of the competitive bidding
  - Subcontracts are with firms not affiliated with the PDB Contractor
- » The process to determine construction price including an independent cost estimate by IDOT
- » Termination events
- » Liability for damages and nonperformance
- » Default events, rights, and remedies available to both parties
- » Technical specifications
- » Required performance and payment security, indemnities, and insurance

If terminated per the terms of the PDB Contract, IDOT may readvertise and use any work product developed by the PDB Contractor under the terms of the PDB Contract and paid for by IDOT in accordance with the terms of the PDB Contract.

Upon reaching a Lump Sum or GMP, the PDB Contract will be amended and the IDOT will issue Notice to Proceed for the implementation phase.

### **3.4 Appointing or Procuring an Independent Cost Estimator (ICE)**

The Department may appoint internal transportation staff or procure an Owner's Representative to serve as the ICE.

The IPD Bureau may opt to secure an ICE through an on-call services contract and utilize the same ICE for multiple projects or have a project-by-project ICE procurement. When selecting an ICE, it is important to clearly state that all materials reviewed, and work product produced are confidential, and participation on the project conflicts the ICE and their subcontractors from bidding on the project should the proposer be unsuccessful in reaching a Lump Sum or GMP with IDOT.



## 4 Preconstruction Phase

The preconstruction phase begins upon execution of the PDB Contract and issuance of NTP for preconstruction phase services or, if IDOT is unable to agree on terms with the PDB Contractor, IDOT will exercise the “off-ramp” option.

### 4.1 Preconstruction Phase Workflow

During the preconstruction phase, IDOT and the PCE will work collaboratively with the PDB Contractor to complete the Phase I activities, including preliminary design and engineering, engineering studies, and environmental and permitting activities to finalize the Phase I study and receive Phase I design approval from the Region/District Engineer. IDOT and the PCE will remain responsible for obtaining Phase I approval.

The PDB Contractor will perform Phase II design and prepare design submittal packages for IDOT and PCE review. IDOT and the PDB Contractor work closely to develop the submittal packages and prepare the cost packages for the submittals.

The preconstruction phase ends when the project development has progressed to a point where both IDOT and the PDB Contractor can mutually agree on a Lump Sum or GMP, and applicable PDB Contract amendments.

The preconstruction phase activities workflow is shown in [Figure 4-1](#).

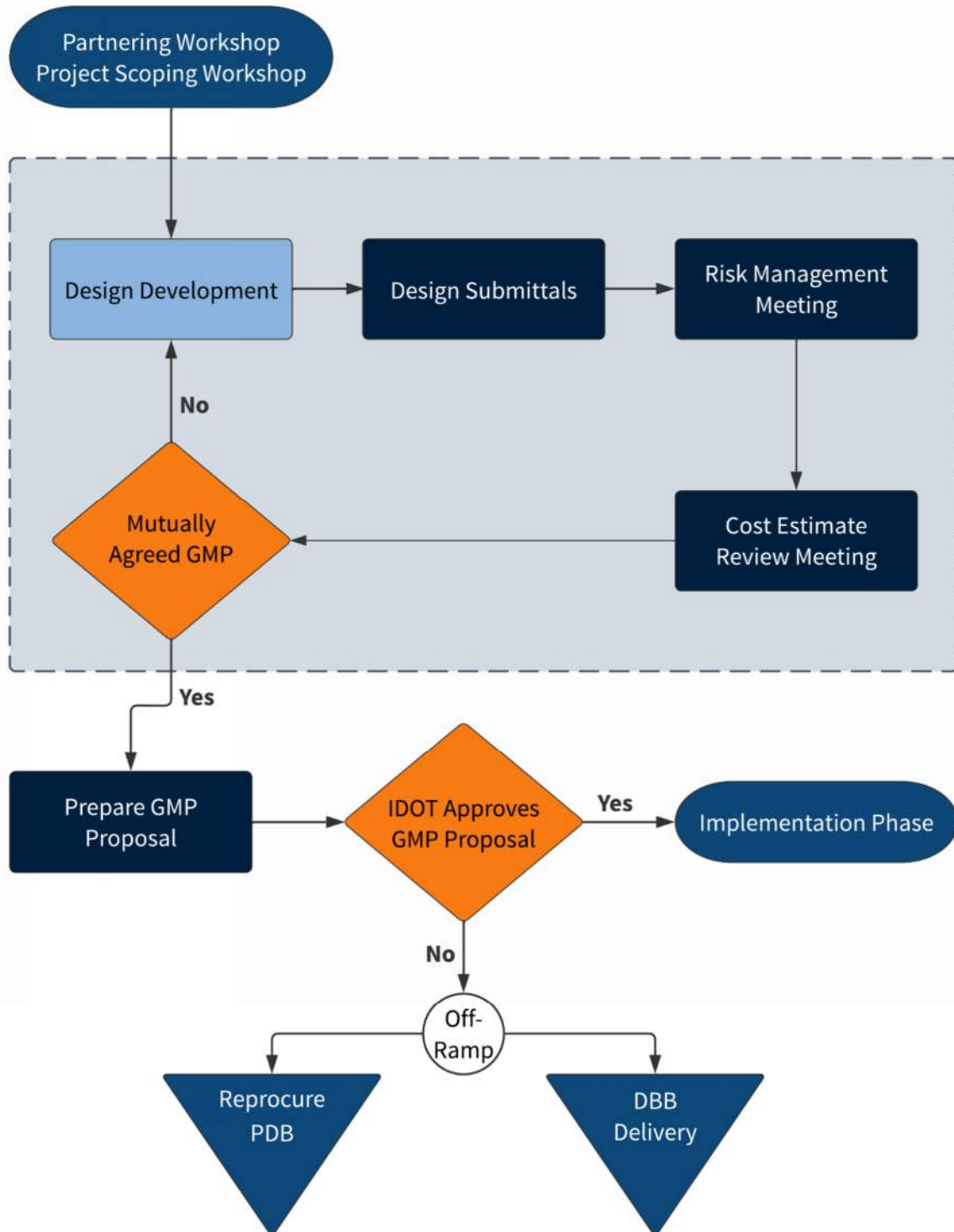


FIGURE 4-1 PRECONSTRUCTION PHASE SERVICES ACTIVITIES WORKFLOW



## 4.2 Project Scoping Workshop

After the PDB Contractor is selected, the IPD Bureau and the District PM will conduct a project scoping workshop with the PDB Contractor to validate the scope and schedule for the preconstruction activities and answer any questions the PDB Contractor may have on the preconstruction phase service process.

During the preconstruction phase, the PDB Contractor's scope is focused on design development and working with IDOT to develop the design submittal and specification packages with cost estimates for IDOT review.

IDOT may request the PDB Contractor to assist in utility relocation planning, development of permit applications, public outreach, procuring long lead time items, engage subcontractors to review the specialty and/or unique work on the project, and other services agreed to in the preconstruction phase of the PDB Contract.

IDOT provides the PDB Contractor with any updates to the preliminary design, schedule, and a design status report at the project scoping workshop.

## 4.3 Partnering Workshops

IDOT will conduct an initial partnering workshop at the beginning of the preconstruction phase where both IDOT and the PDB Contractor discuss and document how both parties intend to work together for the successful delivery of the project. Multiple partnering meetings may be required and if so, will be designated in the preconstruction phase of the PDB Contract.

The partnering process discussion focuses on developing a spirit of teamwork and cooperation through shared goals, defining issue resolution procedures, clear action plans, and the monitoring of team performance to ensure that goals are achieved.

Depending on the complexity of the project, the partnering workshop may last from a half day up to two full days. IDOT may appoint a moderator or engage with an independent third-party consultant to facilitate the workshop. The facilitator can also be a resource to help resolve project level issues and disputes during the term of the PDB Contract.

Key personnel from IDOT, the PCE, and the PDB Contractor are required to attend the workshop. Participation is generally limited to decision makers and project personnel who regularly interact with each other, but other specialists may be invited to address specific topics of importance to the project.

## 4.4 Communications Plan

A well-thought out and inclusive communication plan is a key component to success during the preconstruction phase. A key feature of the progressive design-build delivery method is to have active engagement between the District PM (or its designee) and the PDB Contractor throughout the process. IDOT and the PDB Contractor collaboratively develop a communication plan at the beginning of the preconstruction phase to ensure goals and expectations of the Department are communicated and known by all members of the project team.



## 4.5 Collaborative Design Development

Following the initial collaboration during the workshops, the PDB Contractor begins to develop the preliminary design submittal packages for IDOT’s review. The PDB Contractor uses the information provided in the RFP and develops the proposed design, which forms the basis of the preliminary design submittal. The first submittal package includes a preliminary set of design documents, engineering reports that the PDB Contractor generates, standards and specifications, and general notes in addition to a preliminary development schedule.

### 4.5.1 Design Review and Comment Process

IDOT and the PCE will review and comment on each submittal package from the PDB Contractor. The PDB Contractor establishes a review and comment process for IDOT’s approval to respond to IDOT comments and provide IDOT with a comments log with responses. All IDOT comments should be addressed and closed-out in the subsequent submittal.

### 4.5.2 Design Progress Meetings

After receiving the comments log with responses from the PDB Contractor, IDOT and the PDB Contractor both participate in a design submittal review meeting, where both IDOT and the progressive design builder discuss the design standards and criteria, review traffic management concepts, and discuss any challenges to progress the design. IDOT and the PDB Contractor assess the applicability of the noted specifications, any constructability limitations, and develop innovative approaches to address identified challenges during design process through a collaborative constructability review and value engineering process.

### 4.5.3 Over-the-Shoulder Meetings

IDOT and the PDB Contractor conduct over-the-shoulder design review meetings where they perform interactive reviews of the design prior to reviewing the submittal packages. IDOT provides guidance on design development and decisions on a continuous basis throughout the design development process. This iterative process of review submittals and meetings continues until the PDB Contractor has sufficient information and alignment on assumptions with IDOT to develop and agree on a Lump Sum or GMP.

## 4.6 Risk Management

The risk management process is another essential component to the successful delivery of a progressive design-build project. IDOT and the PDB Contractor engage in an iterative, collaborative, process to identify, assess, mitigate, and allocate project risks on a continuous basis throughout the project including during the preconstruction phase.

### 4.6.1 Collaborative Process

The goal of the risk management process is for both IDOT and the PDB Contractor to agree on the cost and schedule impacts of the risks for the final design and construction, and collaboratively agree on the appropriate quantification and allocation of risk in the PDB Contract.



The engagement of both parties in the process is essential for establishing mutually agreeable risk contingency dollars which results in a fair and transparent PDB Contract and overall lower project cost.

#### **4.6.2 Internal IDOT Risk Workshop**

At the beginning of the preconstruction phase, IDOT will review the risk documentation produced during the pre-procurement phase and facilitate a risk assessment and allocation workshop with its project team, key stakeholders, and staff from specialty areas within IDOT, the PCE, and FHWA.

The purpose of the workshop is to update the documentation from the pre-procurement phase, identify any new risks to the project, perform an initial impact assessment, developing preliminary strategies for minimizing the impacts of the risk to the project, and assign the risks to the party best able to manage the risk.

The workshop is an opportunity for the project team to discuss project risk and the potential cost and schedule impacts before receiving the first design submittal package from the PDB Contractor.

#### **4.6.3 Interim Risk Meetings**

IDOT will conduct interim risk meetings with its project team and the PDB Contractor after the PDB Contractor submits each of its interim design packages.

IDOT will perform its review of each of the design packages and then participates in a risk meeting with the PDB Contractor. The meetings are an opportunity to openly discuss the risks and potential solutions to the challenges the PDB Contractor is encountering in progressing the design.

The PDB Contractor will facilitate the meeting. The PDB Contractor is the party responsible for identifying, assessing, and mitigating the risks while progressing the design and takes the lead in tracking the risks, preparing the associated cost and schedule impacts, and monitoring and controlling the risks.

The meetings between IDOT and the PDB Contractor discuss only the design and construction project risks. IDOT and the PDB Contractor's internal organization and business risks are understood to be accepted risks by both parties and not included in the risk register. Risks that typically have the potential to have cost and schedule impacts are discussed at such meetings and may lead to discussions of alternative designs and risk costs to address technical issues such as soils or structures, environmental issues such as permitting, railroad approvals, required ROW acquisitions, political issues such as public impacts, municipal agreements, or interagency government approvals.

#### **4.6.4 Risk Register**

The PDB Contractor prepares a risk register with the risks, impacts and current actions to mitigate the identified risks, and reviews the register items with IDOT. The risk register documents the outcomes of the discussions between IDOT and the PDB Contractor at the meetings that defines the risk profile for the Released for Construction (RFC) packages. Both



parties review the current risk costs and the allocations and make recommendations regarding any adjustments.

#### 4.6.5 Risk Allocation

The risk allocations are an essential part of the risk management process because they are used to develop the risk profile of the PDB Contract and appropriate risk sharing provisions between IDOT and the PDB Contractor. Depending on the risk item, IDOT may choose to own the contractual responsibility of the risk or transfer all or part of it to the PDB Contractor and have it included in the Lump Sum or GMP proposal.

While IDOT is ultimately responsible for deciding which party owns and controls the risk, both parties discuss which risks should be controlled by IDOT and which risks can and are best shared with or allocated to the PDB Contractor. If IDOT and the PDB Contractor agree that it is mutually beneficial to share the risk, then the cost risk impacts are estimated and included in the register as a shared risk and provisions drafted in the PDB Contract to document the shared-risk decision.

For shared risks and risks owned by the Department, IDOT can manage the risk by creating a risk pool as a contingency fund to be used should the risk materialize. Risks that IDOT might typically own are the design and construction risk that IDOT is better equipped to manage, and the PDB Contractor has little control over, such as railroad and environmental permitting risks, or that IDOT ranks as a lower probability of occurrence of impact than the PDB Contractor.

For shared risks and risks owned by the PDB Contractor, the PDB Contractor manages the risk in its fixed price bid or GMP proposal submission.

IDOT could also establish a shared risk pool for certain risks identified by the PDB Contractor as potentially high-cost risk exposure. IDOT and the PDB Contractor negotiate a cost risk exposure for the contingency pool and if the risk occurs during construction, then the PDB Contractor gets paid by Force Account from the pool. If the risk does not occur and the pool is not used or only a portion of the pool amount for a certain risk, then any unused amounts are shared in accordance with the PDB Contract by IDOT and the PDB Contractor.

#### 4.6.6 Risk Updates

After the risk meeting, the PDB Contractor provides the IDOT project team with the updated risk documentation from the meeting. IDOT uses the documentation from the PDB Contractor to update the project team risk register and the ICE updates the risk costs and the risk contingency cost allocations for each party. The PDB Contractor incorporates the decisions from the risk meeting into the cost model, updates the estimate, then meets with IDOT and the ICE to review the cost model.



## 4.7 Cost Estimating

One of the most important processes in the preconstruction phase is the collaborative and transparent development, and iterative update, of a cost model using the open book estimating approach.

### 4.7.1 Cost Estimating Process

The PDB Contractor prepares an initial cost model that is reviewed by the IDOT project team at the project scoping meeting. The PDB Contractor updates the model for each interim design submittal package.

After the cost model is updated with the risk costs from the risk meeting for the submittal review package, IDOT and the PDB Contractor meet to review the cost model.

### 4.7.2 Open-Book Cost Estimating

The iterative development of the cost model allows IDOT and the PDB Contractor to agree on the design and construction costs and cost assumptions as the design progresses and is one of the key factors that leads toward successfully establishing an acceptable Lump Sum or GMP. The goal of this iterative and open process is to continually review pricing, cost assumptions, and risks to create a Lump Sum or GMP proposal that is reasonable and mutually agreeable by both parties.

### 4.7.3 Cost Model

The success of the open-book approach relies on open communication to thoroughly document the assumptions used by the PDB Contractor to price the work. The cost model review is an open and transparent process that the PDB Contractor develops and uses through the preconstruction phase so that estimates and assumptions are communicated to IDOT at the cost model review meetings. The cost model is used to communicate and document the history and pricing assumptions made throughout the design development.

The PDB Contractor will prepare an initial cost model that is reviewed by IDOT and the ICE to agree the form and content of the cost model. The cost model should include a basis of estimate with detailed assumptions for how the PDB Contractor arrived at the costs in the model. Cost assumptions typically include, but are not limited to, labor hours and rates, materials, equipment, subcontractor, and supplier quotes, means and methods, production rates, risks, direct costs, and mobilization.

The format of the cost model varies depending on the PDB Contractor, but it must clearly communicate how each item's costs were derived.





#### 4.7.4 Cost Model Review Meetings

In an open-book process, the PDB Contractor refines the cost model following completion of the preliminary, intermediate, and pre-final design submittals. The cost model is thoroughly reviewed by IDOT at a cost model review meeting following the risk management meeting after each of the design submittals. IDOT will review the cost model at the meetings and both parties aim to reconcile any differences in costs and assumptions. As the design progresses, IDOT, the PDB Contractor, and ICE continue to reconcile quantities for major items, and perform independent takeoffs for materials, labor, and equipment.

#### 4.7.5 Cost Model Updates

The PDB Contractor submits an updated cost model with each design submittal. When updating the cost model, the PDB Contractor reviews risks, market conditions, and potential challenges in the current design that could impact schedule or cost. The PDB Contractor may propose innovations or alternative designs that minimize risk or add value to the project as discussed at the previous risk management meetings.

#### 4.7.6 Independent Cost Review

The ICE develops independent cost estimates for each of the PDB Contractor's preliminary design packages. The ICE will develop independent cost estimates for comparison with the estimate submitted with each of the PDB Contractor's submittal packages. The ICE estimate is a production-based estimate that uses the same assumptions agreed to and documented in the PDB Contractor's cost model. This estimate serves as IDOT's engineer's estimate for the project.

An ICE typically develops an independent cost estimate by considering the production costs associated with the staging, maintaining traffic, time, materials, labor, equipment, local market conditions, and other project-specific factors.

To the maximum extent possible, the ICE does not utilize average unit price information.

### 4.8 Lump Sum or GMP Proposal

When IDOT and the PDB Contractor mutually agree on the project scope, risk allocations, cost assumptions, and the commercial terms of the PDB Contract, then the PDB Contractor will submit a Lump Sum or GMP proposal for the final design and construction work.

The ICE will review the proposal for reasonableness and conformity with its independent estimate and the decisions from the risk and cost review meetings.

If the proposal does not conform with the ICE estimate and the previous cost assumptions, then IDOT and PDB Contractor negotiate to resolve pricing differences, which may involve revisiting risk allocations or commercial terms in the PDB Contract.

If the proposal does conform with the ICE estimate and IDOT and the PDB Contractor mutually agree on the necessary commercial terms needed to amend the PDB Contract, then the price is incorporated into the PDB Contract through an amendment and IDOT begins the contract execution process.



## 4.9 PDB Contracting Process

Throughout the preconstruction phase, IDOT will work with the PDB Contractor to agree on the commercial terms of the PDB Contract. The contracting process begins once IDOT and the PDB Contractor reach agreement on the Lump Sum or GMP and the final terms and conditions of the PDB Contract, including the form and amount of required bid security.

If IDOT and the PDB Contractor agree on the Lump Sum or GMP and the terms of the PDB Contract, then the parties amend and execute an amendment to the PDB Contract and issue Implementation NTP.

If IDOT and the PDB Contractor are not able to negotiate a mutually agreeable Lump Sum or GMP and commercial terms for the work, then IDOT reserves the right to utilize the “off-ramp” option to terminate the PDB Contract.



## 5 Implementation Phase

After IDOT issues Implementation NTP, the PDB Contractor will begin planning activities for the implementation phase, such as preparation of the project and Quality Management Plans, project baseline schedule and will begin design development activities.

### 5.1 Appointing or Procuring a Construction Oversight Team

The Department may appoint internal transportation staff or procure an Owner's Representative to serve as the Construction Oversight Team (COT). The Department a construction oversight firm through an on-call services contract.

For projects over \$30 million in estimated cost, IDOT must procure an Owner's Representative to serve as the COT.

### 5.2 Implementation Kick-off Meeting

After PDB Contract execution, IDOT and the PDB Contractor meet at an initial implementation kick-off meeting to plan out activities for design and construction.

The meeting is an opportunity for IDOT and the PDB Contractor to:

- » Establish lines of authority and communication
- » Determine the responsibilities and duties of the PDB Contractor's personnel and subcontractors
- » Clarify potential sources of misunderstanding
- » Work out the detailed arrangements necessary for the successful completion of the project contemplated under the PDB Contract

Topics typically discussed at the meeting include:

- » Transition activities from the preconstruction phase to implementation phase
- » Early work activities
- » DBE utilization, small business enterprise (SBE), veteran small business (VSB), and on-the-job training (OJT) tracking requirements, and other metrics as specified in the RFP
- » Construction procedures
- » Reporting requirements and other project controls
- » Document management
- » Risk register requirements
- » Quality requirements
- » Payment and invoicing procedures



### 5.3 Partnering Workshop

IDOT and the PDB Contractor will continue to partner during the implementation phase in a similar manner as during the preconstruction phase to resolve any issues at the project level before they become disputes.

### 5.4 Early Contract Submittals

Prior to proceeding with final design, the PDB Contractor will prepare the project and Quality Management Plans for final design and construction. The project and Quality Management Plans include:

- » Contract Administration Plan
- » DBE Utilization Plan
- » Safety Plan
- » Environmental Compliance Plan
- » Communications Plan
- » Risk Management Plan
- » Design Quality Management Plan
- » Construction Quality Management Plan

The PDB Contractor will provide IDOT copies of the plans and the project baseline schedule discussed at the kick-off meeting for IDOT approval. IDOT approval of the early contract deliverables is a condition precedent for the PDB Contractor to commencing final design.

### 5.5 Design Oversight

After PDB Contract execution, IDOT will conduct design reviews with the PDB Contractor through over-the-shoulder reviews and comment resolution meetings. IDOT will perform formal reviews of milestone design submittals from preliminary design submittals to the Release for Construction (RFC) design submittals.

#### 5.5.1 Over-the-Shoulder Meetings

IDOT and the PDB Contractor will conduct over-the-shoulder design review meetings where they perform interactive reviews of the design prior to IDOT's receipt and review of the milestone design submittal package.

#### 5.5.2 Design Review and Comment Process

IDOT will review and comment on each submittal package. The PDB Contractor will establish a review and comment process to respond to IDOT comments and provides IDOT with a comments log with responses to all IDOT comments. All IDOT comments should be addressed and closed-out in the subsequent submittal.



### 5.5.3 Design Submittal Reviews

The intent of the design submittal review process is to provide a formal opportunity for IDOT, the PDB Contractor, various design team disciplines, and other approved project stakeholders to review the design documents to ensure that:

- » The design is progressing appropriately and proceeding in accordance with PDB Contract requirements
- » The plans reflect the PDB Contractor's requirements for construction
- » The design features are coordinated
- » There are no fatal flaws within a given discipline or between disciplines
- » The PDB Contractor has received all permits and approvals before beginning construction

### 5.5.4 RFC Documents

The Release for Construction (RFC) documents are the primary documents that define the proposed project construction. The PDB Contractor prepares the RFC documents after the PDB Contractor addresses all IDOT's comments to IDOT's satisfaction. The PDB Contractor then prepares the RFC documents for IDOT's acceptance.

### 5.5.5 Early Release for Construction

The PDB Contractor may elect to release early construction packages. These early packages have completed and final supporting designs, but they are not accepted by IDOT, and are released for construction at the PDB Contractor's sole risk because the constructed elements have not been incorporated into the final RFC design package.

### 5.5.6 Quality Assurance and Quality Control (QA/QC)

The PDB Contractor will develop comprehensive QA and QC procedures for each type of design document and RFC document in the QMP. The QMP will contain quality plans for both design and construction. IDOT may require in the PDB Contract for the PDB Contractor to contract with an independent design QA firm to perform independent quality assurance reviews and audits of the design quality management process.



## 5.6 Construction Oversight

The Construction Oversight Team will develop a project specific oversight plan to ensure compliance with the PDB Contract for IDOT approval. The plan will include oversight of all requirements set out in the PDB Contract and conformance with the plans and specifications. The Construction Oversight Team’s responsibilities may include, but may not be limited to, the following:

- » Oversight of construction activities
- » Permit compliance
- » Stakeholder coordination
- » Public involvement management
- » Risk mitigation
- » Review of design changes
- » Independent quality assurance surveys
- » Independent material testing
- » Oversight of utility relocations
- » Construction acceptance
- » Documentation of construction
- » Measurement and payment
- » Risk pools and force accounts
- » Change orders
- » Monitoring environmental commitments
- » Monitoring subcontractor and DBE utilization
- » Disputes and resolutions

### 5.6.1 Partnering Meetings

IDOT and the PDB Contractor will continue to hold regular partnering meetings during the implementation phase to resolve any issues at the project level before they become disputes.



### 5.6.2 Risk Management

IDOT will continue to monitor and update the risk register on a continuous basis throughout the implementation phase.

Risk management activities will include:

- » Review the register for risks that are new, require modification based on current information, or have been retired
- » Re-evaluate the risks that are above the threshold for re-assessment
- » Re-rank for level of effort in the responses
- » Update risk response plans and risk owners, as needed

Risk owners will take appropriate actions to manage their assigned risks and report status updates.

### 5.7 Change Orders

The change order process on progressive design-build projects is different to the process used on DBB delivery. Instead of relying on contractually agreed unit pricing, change order costs must be negotiated. A change order can be described as a written amendment to the PDB Contract and approved change orders become a legal part of the PDB Contract.

### 5.8 Project Acceptance and Close-Out

The PDB Contractor submits final records (including all RFC documents and as-built drawings) prior to project completion or termination of the contract. IDOT reviews and comments on the final records and either accepts the records or provides comments detailing issues to be resolved before acceptance.