

MODIFIED PHASED AND PHASED DESIGN-BUILD – PROCESS COMPARISON OVERVIEW

Design-Build Comparison and Benefits Summary

FDOT has entered a new era of Design-Build contracting, placing an increased emphasis on qualifications, commitment, innovation, and collaboration to expedite construction, all while providing the best value to the traveling public and the communities we serve.

Modified Phased Design-Build (MPDB) is a new iteration of the Phased Design-Build (PDB) process that FDOT has utilized on multiple projects across the state. This document highlights some of the differences (and similarities) between the Adjusted Score Design-Build (ASDB), PDB, and this new MPDB process.

In a traditional ASDB process, engineers and contractors team together to compete for projects based on a combination of their approach to the job, the timeframe they can complete it in, and the total price they can deliver it for. While this creates a competitive environment and allows for innovation to occur through the Alternative Technical Concept (ATC) process, there are some challenges:

- The ATC process is primarily a one-sided exchange of ideas, where FDOT is limited to only offering comments or requesting additional information, as opposed to offering ideas for improvement or enhancement.
- Additionally, the ATC process is bound to a narrowly defined “equal or better” threshold that can often inhibit the magnitude and impact of innovations that are proposed and ultimately approved.
- Due to procedural limitations and contracting terms, Design-Build Firms are required to price all the risk they identify into their bids.
- The overall duration of a traditional Design-Build procurement can take anywhere from 18 – 30 months before starting the design and construction phase with the selected Design-Build Firm. Long procurements, paired with long construction durations, can result in price uncertainty for contractors and increased risk placed in their bids.

In a PDB process, a single engineer and contractor Design-Build Firm is selected based on qualifications, and the owner and Design-Build Firm work together during a Planning Phase to develop the preferred design and scope of the project. PDB offers focused collaboration with a single team that is proven to be highly motivated, cost-competitive, and schedule-driven. There is an owner expectation for the team to continue to innovate and control costs post-selection, and having a team that is highly motivated and cost-competitive accomplishes just that. Additionally, it is important to have a team that is schedule-driven to expedite the Planning Phase as much as possible. Otherwise, with the more time that passes, there is no cost-certainty for FDOT, and the scope could continue to fluctuate. This can lead to instability in work program funding, which can jeopardize the delivery of transportation projects.

FDOT’s new MPDB approach takes the best practices from these other contracting methods and enhances them through the following process:

- FDOT selects multiple Design-Build Firms based on their experience, qualifications, and capability to collaboratively design an innovative and cost-effective plan.
- The selected Design-Build Firms enter into contracts with FDOT and work with them through an Accelerated Innovation and Collaboration (AIC) Phase, during which time they develop their respective approaches to the project. This collaborative approach allows for innovative ideas to freely exchange between the team and FDOT, while maintaining the confidentiality of each team’s ideas so that innovation is maximized for the project. Additionally, during the AIC Phase, risk elements are jointly identified and equitably budgeted for.
- In clearly identifying risk elements, the Design-Build Firms can better focus on the project, helping to make sure that the Project Guaranteed Maximum Price (PGMP) reflects an accurate breakout of known project costs, as well as separately identified and estimated risks that have been budgeted for.
- Engaging multiple teams in this process sustains competitive tension, as it incentivizes innovation and collaboration through a qualitative post-selection “ranking” process. The ranking, combined with the PGMP that is

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submitted by each team after the AIC Phase, will determine which team moves forward with the design and construction of the project.

- Project cost-certainty is established early with an accelerated PGMP in place, which is not only beneficial to the project, but also globally beneficial to FDOT's work program.

In summary, the MPDB process provides a “win-win” for both FDOT and its industry partners. This is accomplished by creating an environment which:

- Maintains competitive tension through the selection of multiple Design-Build Firms.
- Incentivizes innovation and collaboration through a qualitative post-selection “ranking” process.
- Identifies and equitably allocates risk elements.
- Establishes early project cost-certainty (through a highly collaborative innovation phase) which results in a global benefit to FDOT's work program.

FDOT is committed to continuously evolving its processes by partnering with industry to embrace new ideas and visions that accelerate its programs and deliver them with safety as its most important value. As such, FDOT has also enhanced its traditional PDB process to adopt several of the concepts that are found within MPDB. The newly enhanced PDB process is now the same as MPDB, with the following notable exceptions:

- One team is selected versus multiple teams selected.
- Includes a Planning Phase as opposed to an AIC Phase.
- Includes the development of an Opinion of Probable Construction Cost (OPCC) prior to PGMP submission.
- If needed, includes a negotiation process to have the Request to Continue (RtC) package and/or PGMP resubmitted.
- If negotiations are unsuccessful, includes the option for work to be readvertised or added to an adjacent contract (if available).

MPDB and PDB Key Contract Parameters

Here is a summary of the latest MPDB and enhanced PDB key contract parameters:

- RFQ includes all contract and procurement provisions and is the highest document for order of precedent in the Contract. There is no negotiation of Contract terms after selection.
- For MPDB, procurements will result in multiple teams selected to enter into contracts with FDOT.
 - For PDB, procurements will result in a single team selected to enter into a contract with FDOT.
- Selection is qualifications-based. The scoring is done by a group of Technical Review Committee (TRC) members, and a combined minimum score equivalent to 80% is required to be considered for contract selection.
- The AIC Phase and Design Phase for MPDB, and the Planning Phase and Design Phase for PDB, are compensated with a multiplier applied to certified actual hourly rates of the Designer calculated as follows:
 - [(100% plus Designer's current approved Home Audited Overhead Rate Percentage) multiplied by 1.12]
 - If the approved Home Audit Overhead Rate Percentage is above 200%, it is considered 200% for this calculation.
- The AIC Phase for MPDB and the Planning Phase for PDB is a Limiting Amount, funded at approximately 1.5% of the project value for each of the selected Design-Build Firms, with no expenses paid by the Department.
- During the AIC Phase for MPDB and the Planning Phase for PDB, each team is compensated to Innovate the Project, seek approval from the Department for the Innovations, and at the completion of the AIC Phase or Planning Phase, submit an RtC package and a PGMP to the Department for the Project. The PGMP sets an upper limit of cost for the Project. While there are no traditional claims for additional compensation on PDB and MPDB that would exceed the

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PGMP, there are methods for the Design-Build Firm to seek funds from a Risk Reserve, described below. (FDOT reserves the right to increase the PGMP for specific owner directed scope additions and/or for Force Majeure events).

- Risk Process Summary:
 - A Risk Register is provided to the Department by each team for MPDB (or team for PDB) 10-days prior to RtC submission.
 - The Department reviews the Risk Register(s) and provides back to the Design-Build Firm a Risk Reserve that lists risk categories the Department agrees may occur on the job.
 - The Department will also set a value for the Risk Reserve that shall be included in the PGMP as a non-bid item (same for all teams if MPDB).
 - The Risk Reserve will also include a category for “Other Risks,” which may not exceed 10% of the total Risk Reserve.
 - The Risk Reserve will not be apportioned to an individual Work Package GMP.
 - The team(s) will price the job accordingly based on the assigned risk pool value.
 - NOTE: The Risk Reserve is not intended to encompass all risks associated with the Work, but it is to set a baseline for each of the Design-Build Firms working on the Project and shall serve as the list of risks that may be specifically compensated for by the Department.
- For MPDB, the AIC Phase Determination calculation is as follows:
 - Ranking of team’s commitment, collaboration, innovations, and overall schedule.
 - Adjusting teams’ score relative to each other using a weighted formula for both innovation/ collaboration and price.
- For MPDB, the Department will then determine which Design-Build Firm to issue a Task Work Order (TWO) for Design to. This TWO binds the Design-Build Firm to the PGMP for that Project.
- For PDB, the Department will make a determination on whether it will move forward with the Design and Construction Phases after receiving the Design-Build Firm’s RtC package and the PGMP submission.
 - The Department may enter into negotiations with the Design-Build Firm to have the RtC package and/or the PGMP resubmitted.
 - The Department may also at its discretion, decide to end the Contract and take any action it has available, including, re-advertise the Work, or add the Work to an adjacent Contract (if available).
- For PDB, should the decision be made to move forward with the issuance of a Design TWO, that TWO binds the Design-Build Firm to the PGMP for that Project.
- The Design Phase TWO is a Limiting Amount covering design and post-design, capped at the maximum design price provided in the PGMP.
- The Design TWO will have a Design Expense line. This expense line will be 6% of the Design GMP.
 - The Design-Build Firm may charge project specific design expenses to this expense line.
 - No additional compensation for Design expenses, including post-design, will be allowed.
- MPDB and PDB projects not only offer the opportunity for certain elements of work to be incentivized, but they also offer incentives for innovation and efficiency.
 - The Department shall pay the Design-Build Firm the remainder of the Design Expense portion of the Design GMP. This compensation is earned by the Designer for being efficient in its expenses.
 - The Department shall pay the Design-Build Firm 20% of the difference between the Design Phase GMP and the final amount paid under the Design Phase Task Work Order (after paying out the above remainder of Design Expense). This compensation is earned by the Designer for being efficient in its work.
 - The Department shall then calculate the Shared Savings amount for the Project. The Shared Savings is the difference between the final accepted PGMP (as defined in the Design Task Work Order) and

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the total fees paid to the Design-Build Firm (including the amounts in this section concerning Design expenses and the Design GMP). The Design-Build Firm shall receive 14% of the Shared Savings.

- For MPDB, if a non-selected Design-Build Firm's Innovations are utilized and result in a saving to the PGMP, the non-selected firm is entitled to 14% of the savings.
- Construction Work Packages are limited to four:
 - Advanced Construction Works (less than ~25%)
 - Early Works (less than ~25%)
 - Major Works (~50%)
 - Finishing Works (~25%)
- A Whole Project Contingency (WPC) has been established for potential resolution of any Errors & Omissions (E&O).
 - Only covers E&O Claims made by the Design-Build Firm (including subcontractors) concerning its consultant designer (including subconsultants)
 - If no E&O Claims have been made, the Department pays 50% of the WPC to the Design-Build Firm (25% earned by Contractor and 25% earned by the Designer)

NOTE: Due to the qualification-based selection for construction in both MPDB and PDB, an approved Special Experimental Project No. 14 (SEP-14) from FHWA is required if the project requires federal authorization.

Key Terms and Definitions

- **AIC Phase** (for MPDB). The portion of time, services, and work prior to the authorization of the Design Phase that includes collaboration with the Department, its representatives, and its stakeholders to progress, refine, and optimize the design and to plan, schedule, and develop costs for construction of the Project. The AIC Phase includes the preparation of preliminary design plans, risk register, schedules, Phasing Plan, PGMP, and other submittals as required by the Contract Documents. This work will begin with initial contract execution.
- **Guaranteed Maximum Price (GMP)**. A fixed maximum price for the work included in a WPP to complete the requirements and responsibilities of the Work Package including all costs for self-performed work, mobilization and setup, general account/overhead, labor, materials, equipment, maintenance, office, administration, safety, salaries, expenses, permits, insurance, licenses, bonds, fees, risks, indirect costs and incidentals, engineering, and subcontractor work. A GMP shall also be provided for the Design Phase at the level of detail specified by the Department. The GMP may not be exceeded, although requests for compensation from the Risk Reserve shall not be considered when determining whether the GMP has been exceeded.
- **Phasing Plan**. A document demonstrating an overall plan, strategy, and timeline for developing plans and constructing the Project in divided components of work, in accordance with available funding, with critical activities identified for review and authorization of work.
- **Planning Phase** (for PDB). The portion of time, services, and work prior to the authorization of the Preconstruction Phase that includes collaboration with the Department, its representatives, and its stakeholders to progress, refine, and optimize the design and to plan, schedule, and develop costs for construction of the Project. The Planning Phase includes the preparation of preliminary design plans, specifications, schedules, Phasing Plan, and other submittals as required by the Contract Documents. This work will be authorized with a notice to proceed (NTP) at initial contract execution.
- **Project Guaranteed Maximum Price (PGMP)**. A fixed maximum price for the entirety of the Work included for the Project for all Work after the AIC Phase. If the PGMP is resubmitted and accepted due to Innovation inclusions at the request of the Department, for all purposes this resubmitted amount shall be considered the PGMP. This

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price serves as the maximum amount the Department is obligated to compensate the Design-Build Firm for the Project after the AIC Phase, and shall include all costs and risks associated with the Work. This price does not obligate the Department to compensate the Design-Build Firm for this amount, instead it sets the maximum amount the sum of all Task Work Orders on the Project cannot exceed. Excluding Force Majeure claims, no claim of any kind can be made for compensation greater than the amount of the PGMP. The PGMP value shall include all mark-ups referenced in the RFQ (no mark-up shall allow an increase to the PGMP).

- **Request to Continue (RtC) Package Submission.** The package submitted by the Design-Build Firm requesting that the Department issue additional Task Work Orders on the Project. The RtC package typically includes a Revised Horizontal Alignment Package, Phasing Plan, RtC Schedule, and Innovation List.
- **Risk Reserve.** The aggregate amount of funding made part of the PGMP for identified and accepted project risks. The Risk Reserve shall be the only method for additional compensation that can exceed a specific Work Package's GMP.
- **Work Package Proposal (WPP).** The complete proposal prepared by the Design-Build Firm and presented to the Department for the completion of a Work Package, comprised of technical and price proposals, including plans, specifications, special provisions, schedule, GMP, etc., that has been collaboratively developed and mutually agreed to, or pending mutual agreement subject to continued negotiations, by the Department and Design-Build Firm during the Design Phase or related to changes during the Construction Phase. The number of WPPs shall be limited to four and shall be in alignment with the Phasing Plan developed in the AIC Phase. The four WPPs shall encompass (1) Advanced Construction Works (2) Early Works, (3) Major Works, and (4) Finishing Works.