

Design-Build Delivery for Local Governments FAQ

Introduction

In the past decade, the Georgia Department of Transportation has greatly expanded its deployment of Design-Build (DB) delivery to address complexity and bolster efficiency in project execution. This brochure addresses frequently asked questions, and outlines some factors local governments interested in pursuing DB should consider in order to make informed decisions regarding use of DB.



I-285/Peachtree Boulevard Interchange Improvements Project, Doraville, Georgia

What is Design-Build?

According to the Design-Build Institute of America (DBIA) Manual of Practice, Design-Build is “the system of contracting under which one entity performs both architecture/engineering and construction under a single contract with the owner.” Allowing the Design-Builder to participate in the project’s design is an effort to reduce costs, improve communication, and expedite project delivery.

In Design-Bid-Build, the traditional project delivery method, the owner selects the designer and contractor under separate contracts. First the owner hires a designer to design the project, then the plans are released to the public for bid, and then the project is awarded to the contractor to construct. In Design-Build, the project is designed to roughly 30% before the request for proposals is issued and the project is awarded to the Design-Builder, who is responsible for both the final design and construction of the project under one contract.

Design-Bid-Build vs. Design-Build Delivery

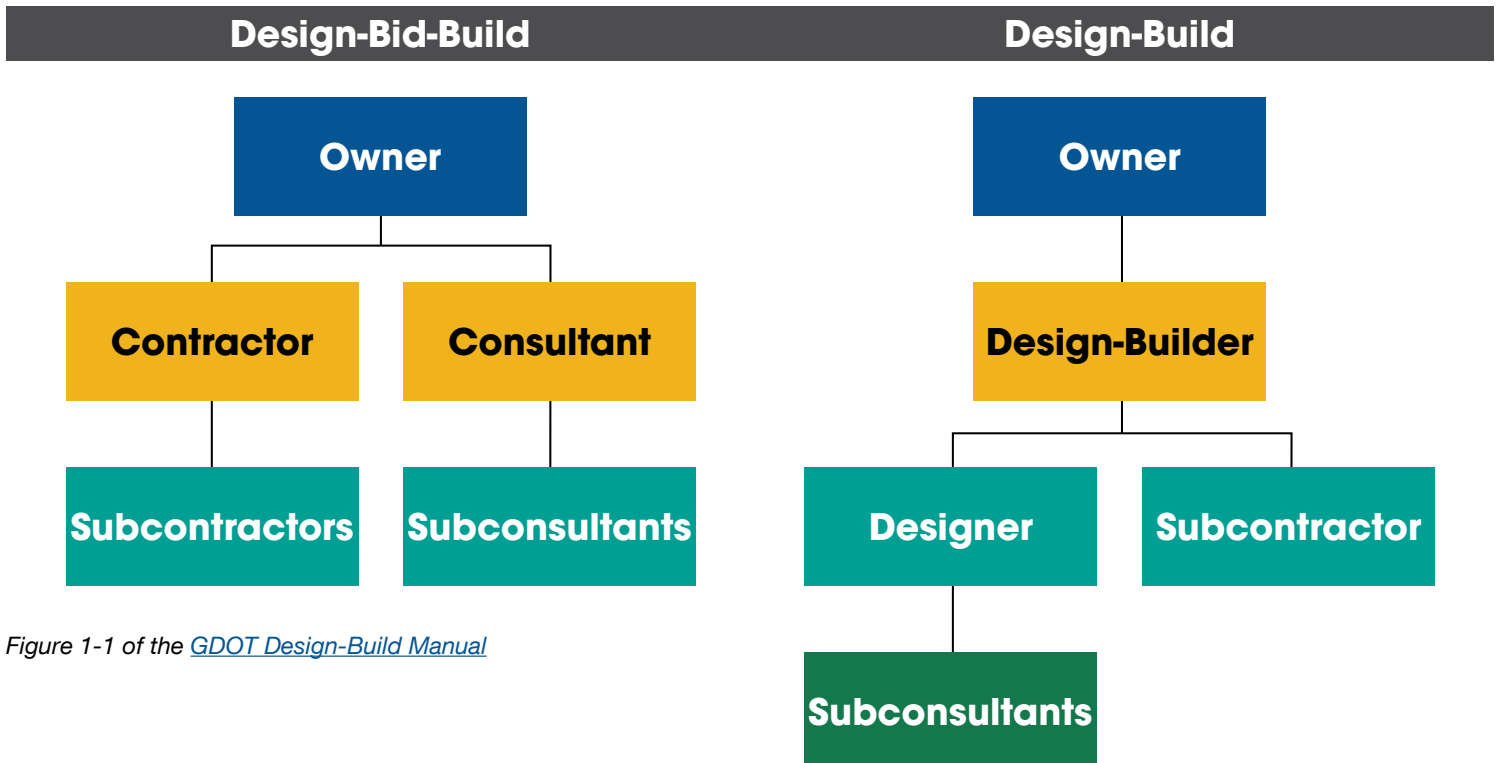


Figure 1-1 of the [GDOT Design-Build Manual](#)

What kind of projects are good candidates for DB?

Design-Build is best suited for those projects that generally require acceleration, projects that have unique opportunities to transfer some risks to the Design-Builder otherwise customarily retained by the owner, projects with opportunities for innovation, or projects that otherwise have the potential to decrease contract time, reduce costs, and/or improve the safety and quality of the facility. Good candidates for DB include:

- **Projects that are accelerated for public benefit.** DB expedites the project delivery schedule, maximizes benefits from a close relationship between the designer and contractor, and can use procurement incentives to drive compressed schedules.
- **Projects with complex constructability issues.** Since the contractor is involved earlier in the process, general constructability issues are identified early on, which can reduce the need for design changes and potential rework once construction starts. This helps reduce costs and negative impacts to schedule, especially when it involves long lead times.
- **Projects that want to maximize use of available funding** that could be lost if not used in a fiscal year; and projects that want to maximize use of available funding if more scope exists than budget, by allowing for a variable scope procurement to match the fixed project budget.
- **Projects that have up-front, contractor-engineer interaction** to stimulate value engineering analysis and reduce costs, since DB allows for Alternative Technical Concepts (ATCs) during procurement. ATCs can accelerate construction activities, encourage design innovation, and reduce costs.
- **Projects that include rapidly changing technologies** because a performance-based contract allows for language that does not specify technology which could be outdated by the time it is time to install.

Design-Bid-Build vs. Design-Build Delivery

| Impacting Factors | Design-Bid-Build | Design-Build |
|--------------------------|---|--|
| Delivery Schedule | Sequential design, procurement, and construction phases can delay project delivery schedule. | Simultaneous design and construction can accelerate project delivery schedule. |
| Collaboration | Owner and designer collaboration resolve complex design issues and qualitatively evaluate designs with consultant before construction bidding | Design and construction disciplines are required to work together allowing for greater Design-Builder feedback during the design process |
| Innovation | Innovation through design consultant expertise, value engineering (VE), and contractor bid alternatives | Incorporates innovative contractor input into the design process through: 1. Consultant-contractor collaboration 2. Best value selection 3. Incorporation of ATCs |
| Risk Share | Owner bears risk for design and construction and is potentially vulnerable to change order and schedule delays | Single point of risk - Design-Builder bears the risk for design completeness and compliance and for construction. This relieves the owner from design interpretations thereby reducing risk of change orders and schedule delays |

Table 1-1 of the [GDOT Design-Build Manual](#)

What is involved with a DB procurement?

DB projects have two phases, pre-let and post-let. During pre-let phase the project is designed to 30%, which includes as much risk mitigation as possible to reduce and manage costs. The project then enters into procurement, where the Owner and the Industry come to terms with the request for proposals through strict forms of interaction such as industry questions and Owner responses, one-on-one meetings, and ATCs where the risks, costs, and durations are further refined before entering into a DB agreement.

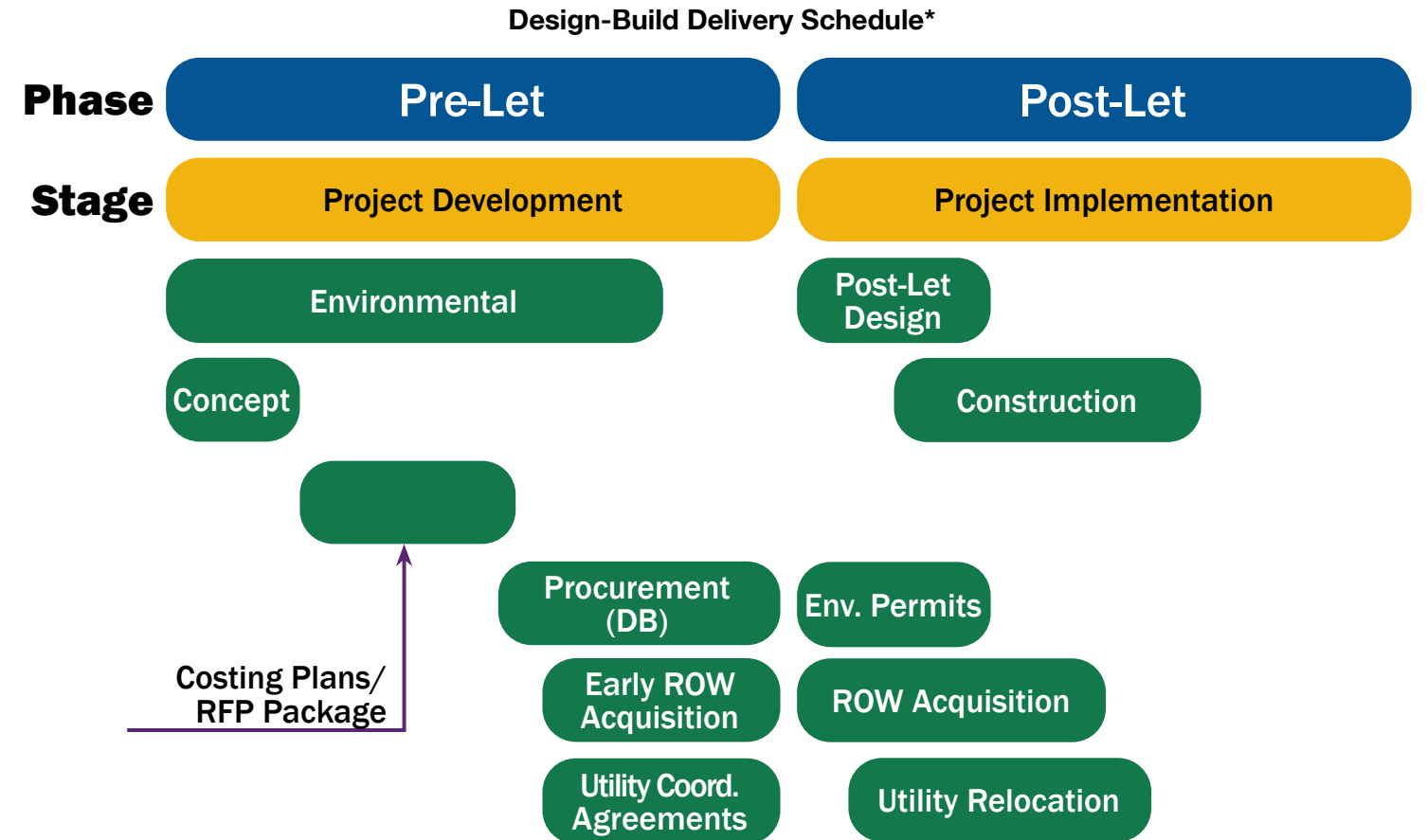


Figure 1 of the [Environmental Procedures Guidebooks - Design Build](#)

*Actual processes may vary from project to project.

What three things should I consider before pursuing DB?

1. Is my team equipped to oversee a DB project from conception to completion?

- Do I have the expertise and experience to successfully pick and manage the best DB procurement option for my project?
- Do I have the resources to develop 30% costing plans?
- Do I have the staffing and experience to manage the contract once it is awarded?
- Do I have the expertise on my staff to oversee the design phase and review?
- Do I have CEIs that can do inspections during the construction phase?

2. Do I need to procure a consultant to act as the Owner Advisor, if I decide to go this route?

- An Owner Advisor is a design and/or construction consultant who provides services for part or all of the project, from planning and procurement to oversight. The consultant needs to have experience with DB, or have the DB skill set required to successfully act as the Owner Advisor. Owners should consider the strengths of their existing teams to determine whether an Owner Advisor could provide value and fill any knowledge, technical, or functional gaps in their team during the life of a particular DB project.
- If I do use an Owner Advisor, what would be their scope of services?

3. What kind of DB procurement best suits my project?

- One-Phase Low Bid?
This method can offer a quicker procurement timeline as proposers submit their qualifications, price proposal, and technical proposal together, and the lowest priced qualified and responsive bidder is selected.
- Two-Phase Low Bid?
This method assesses proposer's qualifications before qualified proposers then submit responses to the request for proposals. The lowest priced qualified and responsive bidder is selected. Two-phase low bid is often used for larger projects, or when many proposers are expected to respond.
- Best Value?
The project is awarded based on weighing the qualifications and price and technical proposals of each proposer according to a formula outlined in the request for proposals. Though more complex to craft and evaluate, this method allows the owner to give greater weight to quality in proposal selection.

What should guide my process?

The following is a baseline checklist for any Local Government pursuing DB, which can and should be added to as necessary.

- I have the authority to procure DB contracts.
- The project in question fits the parameters of projects that benefit from DB delivery.
- My team, as-is or with informed supplementation, has the knowledge, experience, and staffing to oversee a DB delivery over the life of the project.
- I will adhere to all applicable state and federal laws and regulations.
- If applicable, I am Local Administered Project (LAP) certified by the Georgia Department of Transportation (GDOT), and will follow all applicable requirements as set forth in the LAP Manual.
- If applicable, I have read, understand, and will follow the requirements set forth in 23 Code of Federal Regulation (CFR) Part 636 (Design-Build Contracting).
- I have read, understand, and will follow the applicable requirements set forth in 23 CFR Part 635 (Construction and Maintenance).
- If applicable, I will ensure compliance with requirements set forth in 49 CFR Part 26 (Participation by Disadvantage Enterprises in Department of Transportation Finance Assistance Programs) for federal-aid projects. This includes ensuring program compliance and monitoring my contractor's DBE activities.
- I will ensure compliance with Title II of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act.
- If applicable, I will adhere to the requirements set forth in FHWA 1273 – Required Contract Provisions Federal-Aid Construction Contracts.

Where can I learn more?

This brochure was informed by GDOT's Design-Build Manual; which can be accessed through GDOT's Design-Build web page, or by clicking [here](#).

DBIA is an expansive and informative resource for more in-depth information on successfully implementing DB. Their publication Design-Build Done Right Best Practices and other tools and resources can be accessed through the [DBIA website](#).