

Project Delivery: An Introduction



PROJECT DELIVERY

Quick Facts

- Major Projects are defined as projects with a total cost exceeding \$500 million, projects with high visibility, or projects receiving Transportation Infrastructure Finance Innovation Act (TIFIA) credit assistance.
- The Project Delivery Team provides expertise and guidance on cost estimation, financial planning, and project management.
- Through its Critical Project Reviews, the team works across FHWA to coordinate and resolve bottlenecks where possible.
- The team also assists FHWA Divisions with statutory requirements for major projects, including cost estimate reviews, financial plans, and project management plans.
- For more information on the Project Delivery Process, see the Web site: http://www.fhwa.dot.gov/ipd/project_delivery/index.htm

Contact

Jim Sinnette
202-366-1561
james.sinnette@dot.gov



U.S. Department of Transportation
Federal Highway Administration

MAJOR PROJECTS are defined as projects with a total cost exceeding \$500 million, projects with high visibility, or projects receiving Transportation Infrastructure Finance Innovation Act (TIFIA) credit assistance. To deliver projects, transportation agencies must estimate and control costs, fulfill environmental and other Federal requirements, obtain adequate financing, and manage the project to successful completion. The Federal Highway Administration's (FHWA's) Project Delivery team, part of the Office of Innovative Program Delivery (IPD), provides expertise in all these areas. In addition, IPD helps States integrate financial and procurement planning into their project delivery process, facilitating earlier consideration of revenue options and financial tools, as well as long-term maintenance and operating costs. IPD also identifies bottlenecks that lead to delays or impediments and shares best practices for project and program delivery.

Improved Decisionmaking Through More Reliable Cost Estimation

In order to decide which transportation projects to support, all stakeholders need to know the estimated costs. Changes to a project's scope, schedule, or material and labor prices can cause significant cost changes. Sometimes these changes can be so significant that they would have changed the initial decision to advance the project.

Although early cost estimation is desirable, tradeoffs exist between developing earlier cost estimates, which are less reliable, or having more accurate information later on in the process, potentially too late for critical decision points. Recognizing these tradeoffs, IPD recommends developing estimates at two critical points in project de-



An aerial view of the Texas Turnpike

velopment. First, when the most likely alternative is known (typically shortly before approval of the environmental document), sponsors can make a cost estimate to facilitate decisions on whether to advance the project. When the design is near complete, sponsors can make a more refined estimate that allows them to adjust their revenue, finance, and cash flow plans to address any changes.

Carrying out a Federally legislated mandate, FHWA's Project Delivery Team uses a risk-based probabilistic approach to ensure that State-developed cost estimates are reasonable and supportable. The team provides guidance and educational materials supporting this approach, resulting in a quantified list of project risks and opportunities. The overall cost estimate is expressed as a range, based on the probability that the costs will not exceed a certain dollar amount. A range, rather than a single number, is particularly appropriate early in the project development process when key variables have not been completely defined.

Delivering a Project Through Sound Financial Planning

Identification of revenue sources and financial tools must occur in concert with development of cost estimates early in the devel-

opment process. With this information in hand, policymakers can determine whether to reduce the scope of the major project to match the amount that can be financed or whether to advance the project at all.

When cost estimates are developed or updated, the source(s) of funding for the total project costs, as well as any increases, needs to be identified and steps need to be taken to ensure that the funds are available within a fiscally constrained State Transportation Improvement Program and/or the State-wide Long Range Transportation Plan.

FHWA requires that finance plans (including annual updates) determine the reasonableness of the cost estimate. The plan must also identify a reasonably available source of funds to pay for the costs. Finally, the plan must show that the timing of the funds will match the timing of the cash flow needed to reimburse the contractor for work completed.

Project Management Plans

A Project Management Plan outlines the roles and responsibilities that will be assumed by the public and private sectors in day-to-day management, approvals, and dispute resolutions, as well as resources that will be required to carry out these roles. The Project Management Plan is updated whenever major milestones are reached on the project. The recommended submission date of the draft Project Management Plan is 60 days prior to final NEPA approval. The final Project Management Plan is due 90 days after NEPA approval.

U.S. Department of Transportation's Role in Project Delivery

The Project Delivery Team helps State and local transportation officials consider innovation in cost estimating, revenue sources, financing, and procurement. In addition, the team helps States integrate financial planning into their project delivery process. The team's major responsibility is to carry out the statutory requirements associated with oversight of major projects that receive Federal financial assistance.



The Woodrow Wilson Bridge is a major project in the Washington, DC, metropolitan area.

The team is responsible for the Critical Project Review (CPR) process, which helps major project sponsors identify innovations to accelerate development at every stage of a project. For projects in the planning process, the team helps to identify appropriate innovations for consideration. For projects already underway, the team looks for cross-cutting ways to resolve issues that may be causing delay on the delivery of major projects. Teams from various disciplines are assembled on an ad hoc basis to provide expert assistance to project sponsors, particularly when they are dealing with new requirements related to innovative project delivery strategies. Lessons learned from CPR activities and other financial activities are captured and distributed to the broader community. ■

Major Project Deadlines

- ▶ **Cost Estimate Review:** First review 30 days before National Environmental Policy Act (NEPA); 2nd review before construction approval
- ▶ **Financial Plans:** Initial, prior to construction approval; annual updates thereafter
- ▶ **Project Management Plans:** Initial due 60 days prior to final NEPA; final is due 90 after NEPA approvals; updates before new phase or significant change



The FHWA Office of Innovative Program Delivery helps State and local transportation officials consider innovation in revenue sources, financial tools, and procurement.

For more information, see the Web site:
www.fhwa.dot.gov/ipd



PROGRAM AREAS OF THE OFFICE OF INNOVATIVE PROGRAM DELIVERY

IPD provides a one-stop source for expertise, guidance, research, decision tools, and publications on program delivery innovations. Our Web page, workshops, and other resources help build the capacity of transportation professionals to deliver innovation.

PROJECT DELIVERY

IPD's project delivery team covers cost estimate reviews, financial planning, and project management and assists FHWA Divisions with statutory requirements for major projects (e.g., cost estimate reviews, financial plans, and project management plans).

PROJECT FINANCE

IPD's project finance program focuses on alternative financing, including State Infrastructure Banks (SIBs), Grant Anticipation Revenue Vehicles (GARVEEs), and Build America Bonds (BABs).

PUBLIC-PRIVATE PARTNERSHIPS

IPD's P3 program covers alternative procurement and payment models (e.g., toll and availability payments), which can reduce cost, improve project quality, and provide additional financing options.

REVENUE

IPD's revenue program focuses on how governments can use innovation to generate revenue from transportation projects (e.g., value capture, developer mitigation fees, air rights, and road pricing).

TIFIA

The Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides credit assistance for significant projects. Many surface transportation projects—highway, transit, railroad, intermodal freight, and port access—are eligible to apply for assistance.



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