



ONE-PAGE BRIEF

ASSESSMENT OF FEDERAL HIGHWAY ADMINISTRATION (FHWA) HIGHWAY PROJECT COST ESTIMATION TOOLS

Objective

The primary objective for this task order was to identify what, when, why, and how FHWA and the Office of Federal Lands Highway (FLH) oversee and/or develop cost estimates for transportation construction projects. FHWA will use this information to provide more consistent oversight of project cost estimates by State transportation agencies (STAs). For the purpose of this publication, FLH includes projects on Federal lands that are managed by the U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. National Park Service, and the U.S. Forest Service.

Methodology

This project used a qualitative research method in which the two major components were an extensive literature review and subject matter expert interviews. The results of the literature review were instrumental in developing the questionnaires used in the interviews. A research panel selected the subject matter experts, who the researchers then contacted. The project was limited to FHWA Federal-aid division offices (DOs), STAs, and FLH.

Results

The researchers used the literature review and data collected from the interviews to create a list of best practices, process diagrams, and oversight checklists to assist agencies in overseeing cost estimates. The best practices are as follows: applying the Pareto principle, comparing historical projects, identifying factors that influence project costs, monitoring and updating cost estimates, and analyzing cost estimate procedures.

Additionally, the research team created three flowcharts on how to oversee cost estimates at a project level for STAs, DOs, and FLH, respectively, as well as a program-level cost estimate oversight diagram for DOs and STAs. The research team created these diagrams to be used with a checklist and the list of best practices, both of which can be found in the full report.

Conclusion

The overall intention of the research was to analyze the benefits, complexities, similarities, and differences in the roles FHWA provides for cost estimate reviews. The researchers successfully identified and ranked a series of five best practices used to oversee the cost estimation process. The researchers developed and validated a set of tools, including an oversight checklist and multiple process diagrams. These tools are useful for providing oversight for a single project cost estimate. However, the researchers went further and used the research project to show how to integrate the tools into a comprehensive cost estimation oversight program to maximize their benefits.

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