

Awarding a single contract for several preservation, rehabilitation, or replacement projects helps agencies reduce costs and achieve program goals.



A bridge repair and paving project were two of nine projects successfully bundled by the Pueblo of Acoma Tribe in New Mexico.

Project bundling offers a comprehensive and accelerated delivery solution for addressing strategic program goals. It streamlines design, contracting, and construction; allows agencies to capitalize on economies of scale to increase efficiency; and supports greater collaboration during project delivery and construction.

BUNDLING PROJECTS SAVES TIME AND COST

The U.S. transportation system is aging, with many transportation agencies seeing an ever-increasing number of highways and bridges that need more immediate attention. As a result, system performance is reduced, leading to potentially adverse impacts to quality of life, mobility, travel time, freight movements, and emergency response times. Often the most pressing needs are on the local systems, as evidenced by bridges that are being posted for reduced loads.

Project bundling is a proven practice that draws upon efficiencies found through project delivery streamlining, as well as benefits from alternative and traditional contracting methods. A bundled contract could cover a single county, district, or State, and it may be tiered to allow a combination of work types (design, preservation, rehabilitation, or complete replacement). Bundling design and construction contracts saves procurement time, leverages design expertise, and builds momentum toward keeping critical assets in a state of good repair.

BENEFITS

- ▶ **Expedited Project Delivery.** Project bundling delivers strategic program solutions by streamlining various project delivery requirements such as environmental agreements and standardized designs.
- ▶ **Reduced Cost.** Bundling projects with shared features leverages design expertise and achieves economies of scale.
- ▶ **Contracting Efficiency.** Using a single contract award for several similar projects streamlines design and construction and saves procurement time.

STATE OF THE PRACTICE

Project bundling efforts by State departments of transportation (DOTs), local agencies, and tribal governments have reduced costs and streamlined design and construction. Bundling allowed them to take advantage of funding opportunities and quickly address critical bridge and road projects.

Examples of successful project bundling include:

- ▶ Delaware DOT uses a series of bundling contracts to address preservation issues on bridges and culverts. The Bridge Management Section prioritizes the work and the Maintenance Districts administer the contracts. Scopes include deck sealing, bridge painting, deck patching, joint repair, and culvert replacement.



Photo Sources: Accessible Curb Ramp, U.S. Access Board; Culverts, Delaware DOT

Bundling similar projects can produce cost savings due to economies of scale. Repeatable details and similar designs can save both design and construction time, and bundling multiple projects can lower the unit cost for materials.

- ▶ Pennsylvania DOT (PennDOT) conducted a three-county pilot project that rebuilt, replaced, or removed 41 county-owned structures for \$25 million, resulting in a 25–50 percent savings on design and a 5–15 percent savings on construction. PennDOT followed up on this success by pursuing a statewide, 558-bridge bundling contract.
- ▶ Ohio DOT's Bridge Partnership Program is replacing or rehabilitating 220 county bridges over 3 years funded through \$120 million in Grant Anticipation Revenue Vehicles (GARVEE bonds).
- ▶ Georgia DOT's Design-Build Bridge Replacement Program, which began in 2016, will replace 25 local bridges over 1,095 calendar days through new revenue available under the State's Transportation Funding Act of 2015.
- ▶ Oregon DOT's \$1.3 billion State Bridge Delivery Program replaced or repaired 271 bridges using 87 project bundles.

- ▶ Missouri DOT's \$685 million Safe & Sound Bridge Improvement Program replaced or rehabilitated 802 State bridges over 3.5 years, including 554 bridges replaced through a single design-build contract.
- ▶ FHWA's Central Federal Lands Division used bundling on a \$49 million emergency contract to repair and replace 10 miles of roadway and 12 bridges. The procurement used a design-bid-build best value, single award task order contract.
- ▶ The Pueblo of Acoma Tribe bundled nine projects in a construction manager/general contractor contract. The projects ranged from a retaining wall repair to full-depth roadway reconstruction.

RESOURCES

FHWA EDC-5 Project Bundling

https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/project_bundling.cfm

FHWA Bundled Facilities Overview

https://www.fhwa.dot.gov/ipd/alternative_project_delivery/defined/bundled_facilities/default.aspx

FHWA TechBrief: Alternative Contracting Method Performance in U.S. Highway Construction

<https://www.fhwa.dot.gov/publications/research/infrastructure/17100/17100.pdf>

Signing Updates
ADA Programs
Smoother Pavements

Traffic Bottlenecks **Bridge Deficiencies**
Alternative Contracting
Reduced Staff Time **Safety Hot Spots**
High Risk Rural Roads
Funding Strategies **Innovation**

Project bundling offers strategic program solutions to rapidly improve system performance measures.



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