Research Summary

Design-Build Evaluation for General Aviation Hangars in Missouri

The State of Missouri Department of Transportation (MoDOT) launched this research project to review and determine how the design-build procurement model can be effectively utilized by general aviation operators in the State of Missouri for the construction of hangars using Federal Aviation Administration (FAA) grant funding.

Design-build project delivery has been embraced across several states and local agencies for large and small public transportation projects. The delivery method is used extensively in the construction of privately owned and operated hangars at airports. The research included literature reviews of current aviation design-build practices at airports in Block and Non-Block grant states. Interviews were conducted with Department of Transportation staff, airport Sponsors, consultants, contractors, and the FAA in Missouri and throughout the United States to garner feedback on project concerns and lessons learned from past design-build hangar projects.

Two prevalent design-build methods found for hangar construction included the standard design-build model and progressive design-build model (Figure 1).



RFQ ---- Step 1

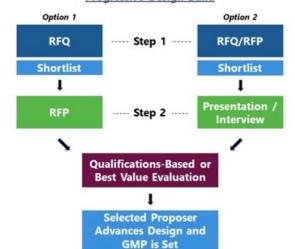
Design-Build

1

RFP ---- Step 2

Low Bid or Best Value Evaluation

Progressive Design-Build





The interviews demonstrated a desire by the general aviation airport operators to utilize design-build project delivery methods as a tool to maximize funding and benefits when using FAA grant funding.

"Both design-build and progressive design-build methods are used at airports around the United States."

The literature review and interviews also demonstrated a need for additional resources and guidance that could be utilized by the State of Missouri general aviation airports in the designbuild delivery methods. Based on these results, a design-build manual, templated documents, and checklists are available for use by Sponsors and MoDOT to procure and deliver hangar projects at Missouri's general aviation airports using design-build.

The templated documents include Request for Qualifications (RFQ) and Request for Proposals (RFP) for both standard design-build and progressive design-build, sample contract documents and standardized forms, and example Construction Safety and Phasing Plan (CSPP) modified for design-build hangar projects for airports.

Project Information

PROJECT NAME: TR202105—Airport Design-Build Bid Documents and

Agency Guidance

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PROJECT COST: \$243,000

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PRINCIPAL INVESTIGATOR: Glenn Goldstein and Richard Hoffman

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Project Manager



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