



ACCELERATED BRIDGE CONSTRUCTION
UNIVERSITY TRANSPORTATION CENTER

| UTC Project Information | |
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| Project Title | Bidding of Accelerated Bridge Construction Projects: Case Studies and Consensus Building |
| University | Iowa State University |
| Principal Investigator | Katelyn Freese |
| PI Contact Information | kfreese@iastate.edu |
| Funding Source(s) and Amounts Provided (by each agency or organization) | \$30,427 from ABC-UTC \$15,214 Match funds from Kiewit |
| Total Project Cost | \$45,641 |
| Agency ID or Contract Number | Accelerated Bridge Construction University Transportation Center (ABC-UTC) 69A3551747121 |
| Start and End Dates | 01/01/2018- 12/31/2020 |
| Brief Description of Research Project | <p>Accelerated bridge construction (ABC) is the solution of choice to upgrade substandard bridges, while maintaining traffic flow and optimizing safety through work zones. However, the perception of higher construction costs for ABC versus conventional construction continues in spite of numerous ABC projects having lower construction costs relative to conventional construction. This inaccurate perception and the fear of cost overruns are causing some bridge owners to be hesitant about using ABC technologies, especially those technologies related to bridge system moves which can provide the greatest benefit for safety and traffic flow impacts. Whether to use ABC for a specific project needs to be decided at the project development stage. Research is needed to assist state DOTs in identifying how best to set up bid items and the bid process within their agencies to be able to effectively document ABC costs for prefabricated bridge element construction and also bridge system moves including lateral slides, longitudinal launches, and self-propelled modular transporter (SPMT) moves. This project will focus upon consensus building of bid items used for ABC projects to allow for cost-based decisions regarding ABC implementation to be made. The proposed research project will consist of a thorough exploration of current bidding methods for ABC projects. This will be accomplished via surveys, case studies, content analysis, interviews, documentation and observations, as outlined in the following sections. It is anticipated that this effort will coincide with a separate research project regarding</p> |

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| | contracting methods for ABC projects. This overlap in research tasks will allow for an avoidance of the duplication of work via combined information collection efforts for both bidding and contracting methods. |
| Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here | Match funds from Kiewit. |
| Impacts/Benefits of Implementation (actual, not anticipated) | The impacts will be tracked and reported once they are identified. |
| Web Links <ul style="list-style-type: none"> • Reports • Project website | https://abc-utc.fiu.edu/research-projects/isu-research-projects/bidding-of-accelerated-bridge-construction-projects-case-studies-and-consensus-building/ |