



| <b>UTC Project Information</b>  |  |
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| Project Title   | Project Management Plans to Support Successful Delivery of Accelerated Bridge Construction Projects  |
| University  | University of Oklahoma   |
| Principal Investigator  | Matthew Reyes  |
| PI Contact Information  | <a href="mailto:mdreyes@ou.edu">mdreyes@ou.edu</a><br>405-325-4926   |
| Funding Source(s) and Amounts Provided (by each agency or organization) | SPTC: \$29,982<br>OU (matching): \$27,096  |
| Total Project Cost  | \$57,078   |
| Agency ID or Contract Number  | 69A3551747121  |
| Start and End Dates   | 2021/03/01 - Active  |
| Brief Description of Research Project                                   | <p>Accelerated Bridge Construction (ABC) methods are a way to fast-track the construction of bridges, significantly reducing the amount of time spent on site and minimizing traffic disruptions. These projects require a great deal of planning and collaboration among project team members due to their complex nature. The Project Management Plans (PMP) submitted define how this is carried out. While there is guidance for how to complete these PMPs for the major projects that they are required on, the specifics of developing a PMP for an ABC project are not addressed in the guidance provided by the Federal Highway Administration or in the SHRP 2 R10 report.</p> <p>Researchers on this project will analyze archival data, current practices, and existing literature to develop a framework for PMPs to be used on ABC projects. Researchers will then meet with DOT and industry professionals to validate the framework. The resulting fine-tuned framework will be a tool for project teams to develop their PMPs for ABC projects.</p> <p>There are about 600,000 bridges on public roads spread out across the US. Maintaining these assets represents a sizable investment of resources. The ABC approach is currently being utilized in some states for rapid construction of the bridges. However, not all DOTs are using the ABC approach. This can be linked to the hesitation of contractors to implement the ABC approach due to lack of training, incentives, and culture of respective DOTs to rely on traditional methods. Having a formal guidance for PMPs crafted specifically for the complexities of ABC</p> |

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|   | <p>projects will guide contractors during the life of the projects and encourage higher adoption of the approach.</p> <p>The research team will adopt an exploratory approach to develop a framework for implementation of PMP in ABC projects (similar format as provided in SHRP2 R10). The framework will be categorized by different ABC techniques such as precast bridges, slide-in bridges, etc. The framework of the PMP will address items such as incentives/disincentives, public information plans, work zone control, off-site fabrication, etc.</p> |
| <p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p> | FHWA has expressed that they would like to encourage State DOTs to implement  |
| Impacts/Benefits of Implementation (actual, not anticipated)  | California DOT has expressed interest to use the framework as a pilot   |
| <p>Web Links</p> <ul style="list-style-type: none"> <li>• Reports</li> <li>• Project website</li> </ul>   | <a href="https://abc-utc.fiu.edu/research-projects/project-management-plans-to-support-successful-delivery-of-accelerated-bridge-construction-projects/">https://abc-utc.fiu.edu/research-projects/project-management-plans-to-support-successful-delivery-of-accelerated-bridge-construction-projects/</a>   |