**MoDOT/MTI Structures Research Program**

**Progress Report – 3/31/2021**

**Title: Developing Implementation Strategies for Risk Based Inspection**

**Project Number: TR201910**

**Principal Investigator (PI): Glenn Washer**

**Co-PI(s): Henry Brown**

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| **Award date:** | 11/01/2018 | | |
| **Scheduled completion date:** | 12/31/2021 | **% of project completed to date:** | 70.0% |
| **Total budget:** | $400,000.00 | **% of budget expended to date:** | 90.2% |
| **Draft report due:** | 09/30/2021 | **Final report due:** | 11/30/2021 | |

Provide a short description of the **work currently underway**.

*Use* [*additional notes section*](#notes) *if you need to provide more information.*

Work in this quarter has focused on three tasks. The initial risk models consisting of the input from the RAP meetings in each of the initial states have been completed into a spreadsheet file that can be used to score individual bridges as part of the risk analysis. These initial models need to be finalized with collaboration with the participating states and with back-casting tasks to compare the results from the risk models with actual bridges in each state. Second, the interim report, which has been significantly delayed due to the pandemic that has limited the PIs ability to get the report completed, is almost complete and should be available in the coming quarter. A setback in completing this report occurred in this quarter due to data quality issues from the NBI data collected and analyzed as part of the report. The research team is working with the FHWA and the participating states to resolve this issue and update data in the report accordingly. Third, back-casting plans for selecting bridge in each state has been underway. This task has also been affected by the data issue in the NBI files, and this issue is being resolved.

For the upcoming quarter: There are two states that have joined the study since the original round of RAP meetings were held in 2019. Planning for training and initial project meeting with these states will be initiated in the next quarter, based on the assumption that in-person meetings would again be possible near the end of this quarter or in the next quarter.  The interim report on the RAP meeting results from the first phase of the study, which is late as noted above, will be completed in the coming quarter. Review by participating states is expected.  The back-casting  tasks with those states that have completed their reliability assessment panel meetings in 2019 will be initiated in the coming quarter with some data collection from these states for analysis by the research team.

Provide a short description of the **noteworthy activities/accomplishments** during this reporting period.

*Use* [*additional notes section*](#notes) *if you need to provide more information.*

A risk model spreadsheet was updated for six states.

Identify **issues or problems** that need to be addressed.

*Use* [*additional notes section*](#notes) *if you need to provide more information.*

The project progress has been affected by the pandemic, and is significantly behind schedule. This includes the first interim report, which is being completed as noted above. The project schedule and funding need to be updated in the upcoming quarter to reflect the additional states that have joined the study since the original schedule and funding were established, and to reflect the challenges the research team has had in completing certain tasks (Interim report I) due to the pandemic. The unavailability of the PI to be focused on the report, which is quite lengthy, has delayed the completion of the report. Data quality issues noted above have delayed the project also; this issue is actively being resolved and is expected to be resolved very soon.

Provides dates for when the **next progress report or presentation** due:

* May 31, 2020 (Mid-project presentation)
* June 30, 2021 (Quarterly report)

**Additional notes**:

A contract amendment needs to be processed since the total commitment amount is $850,000 while the original budget was $400,000. This is due to the participation of additional states in the study. Connecticut has recently committed to joining the study.