**Texas A&M
Transportation
Institute**

Workshop Information

Product 0-7038-P1

Cooperative Research Program

Task Report: Workshop Information

TxDOT Project 0-7038, Develop Bridge Weigh-in-Motion Approach to Measure Live Loads on Texas Highways

DATE: July 29, 2022

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TASK REPORT:
This submission is to provide information regarding the half-day workshop that is planned for the end of September. An overview of the workshop, along with the anticipated agenda and deliverables, are provided below.

B-WIM WORKSHOP

1.1. WORKSHOP OVERVIEW

A half-day workshop will be performed as part of this project. The purpose is to introduce Bridge Weigh-in-Motion (B-WIM) to the attendees and disseminate the findings of the study. This information can be utilized by TxDOT for possible applications of B-WIM for traffic monitoring or bridge assessment and management.

The workshop will be a hybrid format combining in-person and virtual attendance. The in-person venue will be the TxDOT headquarters office. In addition, the workshop will be recorded for future viewing. A date for the workshop shall be at the end of September, with the specific date and time determined through coordination with the TxDOT panel.

1.2. WORKSHOP AGENDA

The following is the agenda of the workshop sessions. The final deliverables (further explained below) will be submitted to TxDOT after the completion of the workshop.

1.2.1. SESSION 1: B-WIM INTRODUCTION

A. <u>Presenter Introductions</u> - The presenters will introduce themselves and provide a brief background on their expertise
B. <u>Workshop Timeline</u> - Overview of the half-day workshop
C. <u>Workshop Objective</u> - Clear learning objectives
D. <u>Project Overview</u> - Brief explanation of the project tasks and deliverables
E. <u>Background of WIM</u> - Explanation of the three main WIM types (pavement WIM, portable WIM, and B-WIM) and their common objectives
F. <u>Introduction of B-WIM</u> - Address the following questions:
   o What is B-WIM? - Define
   o What is a B-WIM system? - Explain the primary steps
   o What does a B-WIM system measure?
   o What technologies are available? - Show the datalogger and sensors and explain what they measure
   o What are the advantages and disadvantages of B-WIM?

G. <u>Guidelines and Recommendations for Future Applications</u> - Address the following questions:

- o What are the selection criteria for B-WIM?
- o What is the installation process for B-WIM?
- o What is the calibration process for B-WIM?
- o What are possible algorithms for B-WIM?

H. <u>Q&A</u>

1.2.2. SESSION 2: B-WIM CASE STUDIES - TRUCK CHARACTERIZATION

A. <u>Session Overview</u> - Outline the session and provide learning objectives

B. <u>Detailed Case Study</u> - Go through the entire process for one bridge

C. <u>Validation Studies</u> - Present the comparison of results between B-WIM and portable WIM

D. <u>Summary of Results</u> - Show highlighted results from all three bridges

E. <u>Key Takeaways</u> - Provide the accuracies for the different truck information

F. <u>Q&A</u>

1.2.3. SESSION 3: B-WIM CASE STUDIES - BRIDGE EVALUATION

G. <u>Session Overview</u> - Outline the session and provide learning objectives

H. <u>Detailed Case Study</u> - Go through the entire process for one bridge

I. <u>Validation Studies</u> - Explain how the load rating code was validated

J. <u>Summary of Results</u> - Show highlighted results from all three bridges

K. <u>Key Takeaways</u> - Provide the benefits of using B-WIM for bridge evaluation

L. <u>Q&A</u>

1.2.4. WORKSHOP DISCUSSION

The intent is to reserve time at the end of the workshop for an open discussion. Some questions to be presented to the audience to seed the discussion include:

- How can the B-WIM data benefit pavement design and traffic planning?
- How can the B-WIM data benefit the bridge assessment and management?
- What are your professional thoughts on possible future applications of B-WIM?

1.3. WORKSHOP DELIVERABLES

After completion of the workshop, the following items shall be provided to TxDOT within five business days.

1. Final agenda
2. Workshop PowerPoint slides and handouts
3. Attendance list
4. Recording of the workshop