



Flooded Pavement Assessment App – Phase II

Kick-off Meeting



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January 20, 2022



Outline



1. Introduction

2. Tasks

3. Task 1 Details

4. Task 2 Details

5. Discussions

1. Introduction

□ Objectives:

- ✓ Enhance and amplify the recently developed post-flooding roadway assessment

- ✓ Improving the user-interface:
 - ✓ Adaptive functionality such as interacting with pavement analysis software
 - ✓ More diverse material and load options
 - ✓ Computational efficiency improvements

- ✓ Validate this mechanistically programmed application using:
 - ✓ Scaled physical modeling
 - ✓ Advance numerical simulation
 - ✓ In-situ field data

2. Project Research Tasks



□ Tasks:

1. NRRRA State Member Survey -Agency Specific Inputs for App
2. Development of Verification and Validation Plans
3. Small-scale and Large-scale Physical Modeling
4. Advanced Numerical Modeling
5. Validation of App with Instrumented Road Sections
6. Miscellaneous Improvements to App

2. Project Schedule

Month of Contract	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Calender Month	2022												2023												2024							
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
Task 1: NRRRA Member Survey	X	X	R	R																												
Task 2: Development of Valid./Verif. Plan			X	X	R	R																										
Task 3: Small-scale & Large-scale Physical Modelling					X	X	X	X	X	X	X	X	R	R																		
Task 4: Advanced Numerical Modelling										X	X	X	X	X	X	X	X	R	R													
Task-5: Verification with Instru. Road Sections																X	X	X	X	X	X	R	R									
Task-6: Misc. Improvements to App																				X	X	X	X	X	R	R						
Task-7 Out of State Conf. Travel																									X							
Task-8: Draft Final Report																										X	X	X	R	R		
Task-9: Final Report																															X	X

3. Task 1 Details

❑ **NRRA State Member Survey -Agency Specific Inputs for App**

- ✓ Step 1: Prepare a recorded video instruction for app users.

Target: Feb 4th

- ✓ Step 2: Prepare a user survey that seeks feedback on functionality and performance. Target: Feb 4th

- ✓ Step 3: Share the video and survey with the NRRA member agency.

Target: Feb 7th

- ✓ Step 4: Ask them to try the app within a month and fill the survey.

Target: March 7th

- ✓ Step 5: Summarize the survey data and submit the report for the TAP review.

Target: March 21st

4. Task 2 Details



□ Development of Verification and Validation Plans

- ✓ Step 1: Review the feedback from Task 1.
- ✓ Step 2: Take into consideration the TAP input.
- ✓ Step 3: Provide a detailed validation plan including the testing procedures and number of tests for each of (1) physical models; (2) numerical simulations; and (3) field data.
- ✓ Step 4: Provide a detailed road map on the changes expected to the app based on the community/TAP input (potentially hold a TAP meeting)
- ✓ Step 5: Submit the task deliverable report with material developed in Step 3 and 4. (tentatively May 2022)

5. Open Discussion



Thank you!

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