

**NHDOT SPR2 PROGRAM
RESEARCH PROGRESS REPORT**

Project # SPR 42372E		Report Period Year 2022 <input type="checkbox"/> Q1 (Jan-Mar) <input type="checkbox"/> Q2 (Apr-Jun) <input checked="" type="checkbox"/> Q3 (Jul-Sep) <input type="checkbox"/> Q4 (Oct-Dec)	
Project Title: Crushed Gravel for Shoulder Leveling 304.32			
Project Investigator: Kevin Belanger Phone: 603-352-2303		E-mail: Kevin.J.Belanger@dot.nh.gov	
Project Start Date: 4/22/2021	Project End Date: 12/31/2022	Project schedule status: <input checked="" type="checkbox"/> On schedule <input type="checkbox"/> Ahead of schedule <input type="checkbox"/> Behind schedule	

Brief Project Description:

After the Department’s resurfacing contracts are complete and accepted, gravel is placed to level the shoulder along the newly paved roadway sections. This material tends to ravel or wash out depending on factors that include the profile grade, amount of storm water runoff, and the extent of vehicle off tracking. Shoulder gravel material on the paved roadway presents a safety hazard and creates a maintenance issue for the District workforce. Concerns that the current specification does not provide a final product that is well compacted and stay in place may be related to the material where other factors may include the site condition and/or placement method.

The Bureau of Highway Maintenance will establish test sections for the purpose of evaluating different gradations and compaction methods when placing shoulder gravel. The outcome of this project will be to recommend improvements to the Department’s specification 304.32, Crushed Gravel for Shoulder Leveling that improves performance of gravel used for shoulder leveling.

Progress this Quarter (include meetings, installations, equipment purchases, significant progress, etc.):

Paving is taking place across the state with the new Special Provision being included in all contracts. Continental paving was having issues with the new specification as they like to do shoulder gravel in the rain on days they can not pave. They proposed an alternative reclaim blend product for evaluation. District Construction Engineer Tim Chapman agreed to the idea and discussed with the research lead Kevin Belanger. Placement of this alternative has taken place is several “test” segments.

Items needed from NHDOT (i.e., Concurrence, Sub-contract, Assignments, Samples, Testing, etc...):

Continue to monitor test segments placed to evaluate performance in both D1 and D4. Evaluate reclaim blend section placed by Continental paving as an alternative to the new supplemental with the additional silt content.

Anticipated research next three (3) months:

The Special Provision was included in all 2022 paving Contracts in NH. Districts will evaluate the new shoulder gravel as it is placed to evaluate how the new gradation holds up. Initial evaluation of the reclaim blend created by Continental paving is promising, continue to evaluate and develop a specification so the product can be reproduced.

Circumstances affecting project:

None

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Tasks (from Work Plan)	Planned % Complete	Actual % Complete
Select roadway segments to place test sections	100	100
Establish gradations to be tested	100	100
Determine methods of consolidation/Compaction	100	100
Install shoulder gravel Segments	100	100
Monitor segments Document results.	90	90
Evaluate results and make recommendations for specifications.	100	75
Prepare reports.	25	25

Barriers or constraints to implementing research results

We do not currently foresee any issues with completing the project.