

| UTC Project Information – Project 1.19 | |
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| Project Title | Assessing Presence and Impact of REOB (Recycled Engine Oil Bottoms) on Asphalt |
| University | University of Rhode Island |
| Principal Investigator | Michael L. Greenfield |
| PI Contact Information | greenfield@uri.edu |
| Co-PI(s) | |
| Co-PI Contact Information | |
| Funding Source(s) and Amounts Provided (by each agency or organization) | TIDC University Transportation Center, \$76745, University of Rhode Island, \$56,376, Rhode Island Dept of Transportation, \$20000 |
| Total Project Cost | \$ 153,122 |
| Agency ID or Contract Number | |
| Start and End Dates | 6/3/2022 – 6/30/2024 |
| Brief Description of Research Project | The presence of some metal atoms provide forensic evidence that an additive derived from recycled engine oil is present within asphalt. These atoms are detected by Inductively Coupled Plasma – Mass Spectroscopy and X-ray fluorescence spectroscopy. Mechanical effects of including molecules from recycled engine oil within asphalt are tested in computer simulations that consider atomic-level length and time scales. Results from the project provide information about the source of an asphalt, the additives within it, and ways to test that those additives do not induce detrimental effects. |
| Describe Implementation of Research Outcomes (or why not implemented) | To be completed after actual implementation has occurred |
| Place Any Photos Here | |

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| Impacts/Benefits of Implementation (actual, not anticipated) | To be completed after actual implementation has occurred |
| Web Links <ul style="list-style-type: none">• Reports• Project website | |