

Request for Research Funding for FY 2019-2020

Requesting Office	State Materials Office	Priority	3 of 11
Proposed Title	Determining the extent of tack coat pick-up during construction and its impact on asphalt pavement performance		
Justification	Research is needed to identify the best way to quantify the extent of tack coat pick-up caused by construction equipment during asphalt pavement construction. The Department needs an approach to quantify the variability in tack coat application, severity of tack coat pick-up, and the respective location information along the project alignment.		
Impact	The window of observation is very short, but is critical in investigating how the severity of tack coat pick-up within the wheel path impacts the long-term performance of asphalt pavement.		
Affected Offices	<p>Research, Materials, Construction, Pavement Management</p> <p>The construction office is primarily affected. Representatives from the construction office participated in the ranking of all the research proposals collected by the Florida Center for Pavement Excellent (FCPE) in 2018.</p> <p>The research proposal to determine the extent of tack coat pick-up during asphalt pavement construction received the highest ranking by FCPE.</p>		
Existing Work	<p>There is no existing work to determine the extent of tack coat pick-up or the variability in tack coat application in Florida.</p> <p>https://rip.trb.org/Results?txtKeywords=tack+coat#/View/1339682</p>		
Keywords Used In Existing Work Search (Cannot leave blank)	Tack Coat		
Related Contracts (Give contract numbers)	N/A		
Funding Request	\$200,000	Anticipated Duration	18 months
Project Manager	Wayne Allick, Jr., P.E.	Contracting Method	RFP to all registered vendors
Urgency	Score 1-5 1= highest , most immediate need	3	
Implementability	Score 1-5 1=greatest likelihood of and proximity to implementing results	3	

It is well understood that the tack coat material within the wheel path is more susceptible to pick-up from the tires of construction equipment during asphalt pavement construction. Research is needed to identify the best way to quantify the extent of tack coat pick-up caused by the dump trucks, material transfer device, and the paver during asphalt pavement construction. This information will be useful when paired with pavement condition survey (PCS) data to determine the impact of tack coat pick-up on asphalt pavement performance.

Project Benefits (Select all that apply and explain)	Quantifiable Benefits (units, dollars, etc...if applicable)	Methodology or Data Sources Used to Determine Quantifiable Benefits. If not applicable, please give justification of project benefits
○ Materials Enhancement	Improved asphalt pavement service life	Pavement condition survey data will be used to determine the benefits.
○ Materials Savings		
○ Time Savings		
○ Lives Saved/Injuries Prevented		
○ Other (Explain)		

*Comments should explain and support urgency, financial benefit, and implementability scores