

Request for Research Funding for FY 2019-2020

Requesting Office	State Materials Office	Priority 10	9 of 11 (projects may not have the same ranking – no ties)
Proposed Title	Green Bike Lane Evaluation for Florida Pavements		
Justification	<p>Green bike lanes are a thin overlay epoxy or thermoplastic material placed on top of an existing roadway to improve bicycle safety. These colored pavements serve as traffic control devices to designate locations where bicyclists are expected to operate and areas where bicyclists and other roadway traffic might have potential conflicts. Available data reviewed by FHWA indicated that, although no statistical increase in safety or decrease in crashes has been associated with the use of green bike lanes, positive operational effects such as bicyclists positioning themselves more accurately as they travel through intersections and through conflict areas have been observed.</p> <p>Green bike lanes have been in service in Florida since 2015 and initial effectiveness has been positive with bicyclists and motorists. However, there is limited guidance on material specifications, best practice applications, and service life of material. As a result, Florida projects have experienced premature failures in the form of cracking observed at the pavement/green bike lane interface and delamination of material from roadway surface. In addition, the detailed mechanism behind the premature failure of this treatment needs further evaluation and current service life is unknown.</p>		
Impact	If the best practices to reduce premature green bike lane material failures are not identified, the use of this type of product is limited and may increase the safety risk of motorist and bicycle interaction.		
Affected Offices	Design, Materials, Maintenance, Construction, Traffic Operations, Safety		
Existing Work	After literature search, no information relating to green bike lanes with respect to material specifications, best practice applications and service life was found		
Keywords Used In Existing Work Search (Cannot leave blank)	Green Bike Lanes		
Related Contracts (Give contract numbers)	N/A		
Funding Request	\$150,000	Anticipated Duration	18 months
Project Manager	Charles Holzschuher	Contracting Method	RFP to all registered vendors
Urgency	2	Many Districts want to implement Green Bike Lanes but lack of material guidance may impact use of product.	
Implementability	2	The Project Manager estimates a high percent of success for implementation of research.	
Project Benefits			
Document: Florida's experience with green bike lanes (current practice with both successful and areas of premature failure)			
Develop the following tools: (1) Updated Material Specifications and (2) Best practice guidance and service life document			
Project Benefits	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	

(Select all that apply and explain)		
<input type="radio"/> Materials Enhancement	Longer Material Life	Fewer field install failures
<input type="radio"/> Materials Savings	More prevalent use may lower material costs	Lower bid price may allow more use of product
<input type="radio"/> Time Savings	Project Guidance	Best practices for design selection
<input type="radio"/> Lives Saved/Injuries Prevented	Reduced bike/vehicle interaction	Although subjective, the presence of green bike lanes appears to have benefited safety between interaction with motorists and bicyclist.
<input type="radio"/> Other (Explain)		

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