

Request for Research Funding for FY 2019-2020

Requesting Office	State Materials Office	Priority 6	5 of 11
Proposed Title	High Friction Surface Treatment (HFST) Synthesis for Florida Pavements		
Justification	The Department is successfully using HFST as a safety enhancement reducing wet weather accidents 84% on tight curvature pavements. However, the current service life of this product is relatively unknown with limited field project data. Designers are reluctant to use HFST for safety treatments due to the current estimates of 7 to 10 years of life which is significantly less than a typical service life of a pavement. Also, current specifications should be investigated (on a national level) to improve quality of treatment for new binder and aggregate testing methods. In addition, there is little information for HFST rehabilitation strategies for areas past their service life. Therefore, a synthesis is necessary to determine more quantifiable information from agency, industry, and research institutions.		
Impact	If research is not conducted, service life, specification improvements (binder and aggregates), and future rehabilitation strategies may impact future construction of HFST sites.		
Affected Offices	Design, Materials, Maintenance, Construction, Traffic Operations, Safety		
Existing Work	Documentation was available for HFST but did not provide specific guidance for service life, binder test sensitive to UV testing, or aggregate evaluation with XRF identification. In addition, rehabilitation information for HFST is non-existent.		
Keywords Used In Existing Work Search (Cannot leave blank)	High Friction Surface Treatment Service Life, HFST Service Life, HFST Specifications, HFST Rehabilitation		
Related Contracts (Give contract numbers)	BDR74-977-05, Alternative Aggregates and Materials for High Friction Surface Treatments		
Funding Request	\$75,000	Anticipated Duration	12 Months
Project Manager	Charles Holzschuher	Contracting Method	RFP to all registered vendors
Urgency	2	Based on District feedback, if research is not conducted, service life, specification improvements (binder and aggregates), and future rehabilitation strategies may impact District use of HFST.	
Implementability	1	If the documented goals are achieved, the project has a high level of implementation ability. These goals should be easily achievable with the projected plan and budget.	
Project Benefits (Succinct, complete explanation)			
Document: National experience with High Friction Surface Treatment with regards to service life, provide current/relevant binder and aggregate evaluation technologies/requirements, and Guidance on rehabilitation strategies.			
Develop the following tools: (1) Updated Material Specifications and (2) Best practice guidance for rehabilitation and service life			
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	Service Life, years	National data sourced for HFST
<input type="radio"/> Materials Savings	Dollars	National data sourced for HFST
<input type="radio"/> Time Savings	Dollars	National data sourced for HFST
<input type="radio"/> Lives Saved/Injuries Prevented	Reduce Human Accidents, roadway departures	FDOT and National data sourced for HFST
<input type="radio"/> Other (Explain)		

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