Request for Research Funding for FY 2024-2025			
Project Number (Research Center Use Only): SMO-25-15			
Requesting Office	State Materials Office	**Priority**	15 of 15
Proposed Title	The Estimation of Service Life for Pavement Markings		
Justification	Pavement markings are an important aspect of a safe transportation system, conveying vital roadway warnings and guidance information to the traveling public. It is therefore beneficial to maintain acceptable visibility levels on pavement markings in all weather and lighting conditions. To ensure that these levels are maintained adequately, the retroreflectivity must be periodically monitored and quantified accordingly. Since 2013, The Florida Department of Transportation (FDOT) focuses on noncontact, sensor-based technology capable of assessing pavement markings continuously at highway speeds with improved safety and efficiency. The use of mobile technology for measuring retroreflectivity has allowed FDOT to develop and implement a pavement marking management system (PMMS) to improve the safety and nighttime visibility of its roadways. This approach offers FDOT an efficient, less-subjective methodology to identify conditions that are detrimental to roadway safety and to strategize ways to mitigate solutions, including the selection of appropriate materials and application techniques. All the monitoring data must be managed effectively and systematically, and because of this, it is essential to design and implement a comprehensive system for pavement marking management. However, estimating pavement marking life is still challenging for the District Maintenance Facilities. There is a lack of information about the service life of stripe material applied on its roadways, and it is difficult to link pavement marking performance with material type for both new construction and maintenance overlays. There is a need to identify gaps with data sourcing and provide solutions to link performance with material types considering cross-sharing data systems. Once implemented, such a system would provide useful and objective information for more consistent, cost-effective, and data driven decision making.		
Impact	This research will develop recommendations for a comprehensive Pavement Marking Management System by connecting information from Construction, Maintenance, Materials, and Traffic engineering to determine service life of pavement marking materials.		
Affected Offices/ Districts	State Materials Office District Maintenance District Construction Transportation Data Analytics		
Existing Work	Extensive FDOT infrastructure has been built to document pavement marking performance. The focus of this research will be to develop recommendations to enhance the existing infrastructure to include material type, traffic, and reporting.		
Keywords Used In Existing Work Search **(Cannot leave blank)**	Mobile Retroreflectivity Pavement Marking Management System Maintenance Restriping Pavement Striping		
Related Contracts (Give contract numbers)	NA		
Funding Request	$50,000	**Anticipated Duration**	12 months
Project Manager	Charles Holzschuher	**Contracting Method**	Direct to ARA
Equipment	NA	Equipment leases and/or purchases will not be needed.	
Urgency	2	This research will directly advance pavement marking management assessments.	
Implementability	2	If successful, future policy and technology proposals can be submitted for approval. Funding for any recommended infrastructures changes will require approval to implement.	

Project Benefits (Succinct, complete explanation)

The primary benefit of this research project is to advance pavement marking assessment by providing insight for pavement marking future policy, data warehousing, and material tracking at the FDOT level.

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**
o Materials Enhancement	$ To be determined during research	Pavement marking performance, data linking, and determining material life will ensure a robust maintenance pavement marking selection information tool.
o Financial Impact	$ To be determined during research	Financial benefits will assist statewide restriping target goals with objective and more consistent, cost-effective, and data driven decision making.
o Time Savings	NA	NA
o Lives Saved/Injuries Prevented	NA	NA
o Other (Explain)	NA	NA

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