Request for Research Funding for FY 2024-2025			
Project Number (Research Center Use Only): SMO-25-01			
Requesting Office	State Materials Office	**Priority**	1 of 15
Proposed Title	Synthesis of Effective Treatments to Address Settlement at Approach Slabs		
Justification	This synthesis will advance the Department's understanding of effective treatments to mitigate settlement in approach slabs. The Department has typically used polyurethane injection for addressing approach slab settlement. Approach slab replacement and "mud jacking" were also mentioned as effective mitigation techniques.		
Impact	The results of this synthesis will provide a comprehensive list of effective treatments to be used to address settlement at approach slabs. Department geotechnical engineers were recently surveyed and each indicated a need for this synthesis.		
Affected Offices/ Districts	Maintenance, Materials, Construction, Design, Districts		
Existing Work	1. "*Implementation Using Geofoam for Bridge Approach Slabs and Roadway Embankments*," Texas Department of Transportation Research Record. 2. "*Recommendations for Design, Construction, and Maintenance of Bridge Approach Slabs*," Texas Department of Transportation Research Record 3. "*Practices for Bridge Approach Systems (2021),*" NCHRP Synthesis 566		
Keywords Used In Existing Work Search **(Cannot leave blank)**	Approach slab settlement		
Related Contracts (Give contract numbers)	NA		
Funding Request	$50,000	**Anticipated Duration**	12 months
Project Manager	Howie Moseley / State Geotechnical Materials Engineer	**Contracting Method**	RFP
Equipment	N/A	N/A	
Urgency	3	The Department has a limited number of techniques to address approach slab settlement. This project would potentially extend the list and provide more flexibility.	
Implementability	1	The findings should be implementable.	

Project Benefits (Succinct, complete explanation)

The goal of this synthesis is to provide a comprehensive list of effective mitigation techniques to address approach slab settlement. The Department only uses a couple of techniques currently.

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	N/A	The goal of this synthesis is to determine a comprehensive list of potential mitigation techniques for approach settlement. The outcome of this research has the potential to provide more material options for use in mitigating approach slab settlement.

o Financial Impact	N/A	Since this is a synthesis, it is too early to quantify benefits.
o Time Savings	N/A	Since this is a synthesis, it is too early to quantify benefits.
o Lives Saved/Injuries Prevented	N/A	NA
o Other (Explain)		

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