Request for Research Funding for FY 2024-2025			
Project Number (Research Center Use Only): SMO-25-08			
Requesting Office	**SMO**	**Priority**	**8 of 15**
Proposed Title	**Identification of Alternative Coarse and Fine Aggregates and Specifications for Evaluation.**		
Justification	Florida through the years has been fortunate to have a seemingly abundant local source of virgin concrete aggregates to supply our needs. Unfortunately, future supplies of virgin concrete aggregates will become inadequate, and FDOT needs to begin developing alternative aggregate sources to insure adequate quantities of concrete-quality aggregate for the future. New and existing aggregate sources need additional review and/or scrutiny to ensure satisfactory performance when used in concrete. Currently, the Department's specifications are inadequate to fully capture the performance characteristics of all potential new aggregate sources when used in structural concrete. The intent of this research is to identify and/or develop additional testing and specifications (without affecting currently approved sources) that provides the opportunity to add new aggregate sources while maintaining the desired concrete performance characteristics. FDOT Compass: Robust Supply Chain – helps ensure a continuous supply of concrete-quality aggregates.		
Impact	Ensures continuity of SCM supplies as quantities of fly ash decrease.		
Affected Offices/ Districts	State Materials Office State Specifications Office		
Existing Work	Tia, Mang, Bekoe, Patrick and Chen, Yu (2012). "Development of Tiered Aggregate Specifications for FDOT Use." FDOT Contract BDK75 977-29		
Keywords Used In Existing Work Search **(Cannot leave blank)**	Florida, alternative aggregate, concrete pavement		
Related Contracts (Give contract numbers)	N/A		
Funding Request	$240,000	**Anticipated Duration**	24 months
Project Manager	Co-PM: David Cerlanek Co-PM: John Shoucair	**Contracting Method**	Direct contract to university
Equipment	N/A		
Urgency	2	Alternative aggregate supplies must be available before supply issues begin to develop.	
Implementability	1	No barriers to implementation are expected.	

Project Benefits (Succinct, complete explanation)		Alternative aggregate supplies need to be developed to compensate for the decrease in quality concrete aggregate supplies in the future to avoid construction delays.
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	TBD	Increases availability of concrete aggregates in the future.
o Financial Impact	TBD	Avoids future constructions delays due to concrete aggregate shortages.
o Time Savings	N/A	
o Lives Saved/Injuries Prevented	N/A	
o Other (Explain)	TBD	Reduced construction delays limits time that the driving public is inconvenienced.

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