SCDOT RESEARCH & INNOVATION

ANNUAL REPORT 2025

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South Carolina Department of Transportation Research & Innovation Unit in cooperation with U.S. Department of Transportation Federal Highway Administration - Fiscal Year 2025 October 1, 2024 through September 30, 2025

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Overview

The Research & Innovation (R&I) Unit handles the day-to-day operations of the South Carolina Department of Transportation's research and innovation programs. The unit assists with fulfillment of SCDOT's mission and strategic goals by conducting applicable research, disseminating information, encouraging innovation, and promoting national research programs.

Goals established and achieved by the Research & Innovation Unit in FFY 2025 were:

- Continued Research Topic Solicitation Process for FFY 25-26
- Balloted RDEC for Approval and Prioritization of Topics for Development as Research Projects
- Continued Development of Projects Approved for FFY 23-24
- Began Development of Projects Approved for FFY 25-26
- Participated in Peer Exchange Hosted by Alabama, Georgia, & Tennessee DOTs
- Earned AASHTO High Value Research Award & Produced Marketing Video
- Expanded Innovation Challenge & Hosted Annual Showcase

This annual report provides a description of the FFY 2025 SPR Research Program that includes the period from October 1, 2024, through September 30, 2025. The report is divided into four parts.

Part I:	Provides a description of the program, project funding and a summary of all items included in the FFY 2025 Research Program.
Part II:	Highlights the Research & Innovation Unit's main accomplishments in FFY 2025.
Part III:	Provides a description of each study started during FFY 2025.
Part IV:	Summarize projects completed during FFY 2025.

Research Program / Project Funding and Research Program Summary

PART I

Program Funding

In FFY 2025, the SPR Research Program Received $4,415,102.00 in Federal funds. Figure 1 provides a general breakdown of all items funded and their amounts in FFY 2025 including appropriate matching funds and corresponding carry-over funds from previous fiscal years.

Research Projects	$1,879,262.00
NCHRP	$971,322.00
Pooled-Fund Studies	$672,000.00
Transportation Technology Transfer Service (LTAP Center)	$366,066.00
TRB Core Program	$174,178.00
AASHTO Technical Service Programs	$148,000.00

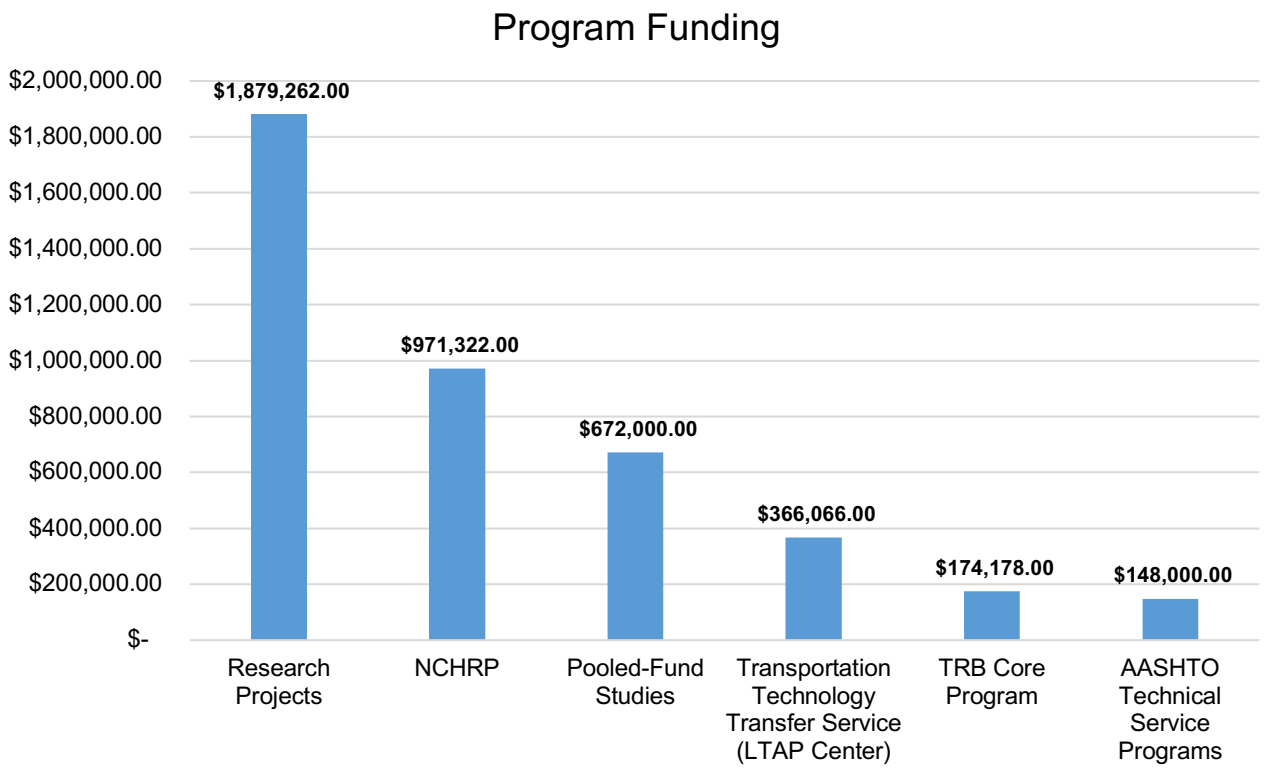


Figure 1. FFY 2025 Research Program Funding

Project Funding

A total of twenty-two (22) projects were included in the program. Four (4) research projects were initiated in FFY 2025. One ongoing project received additional funding. Four (4) projects were completed during the year. Figure 2 shows how the funds obligated for research projects were distributed by content area and amount.

Structure Materials	$904,138.00
Roadside Maintenance	$498,705.00
Preconstruction	$351,422.00
Utilities	$124,997.00

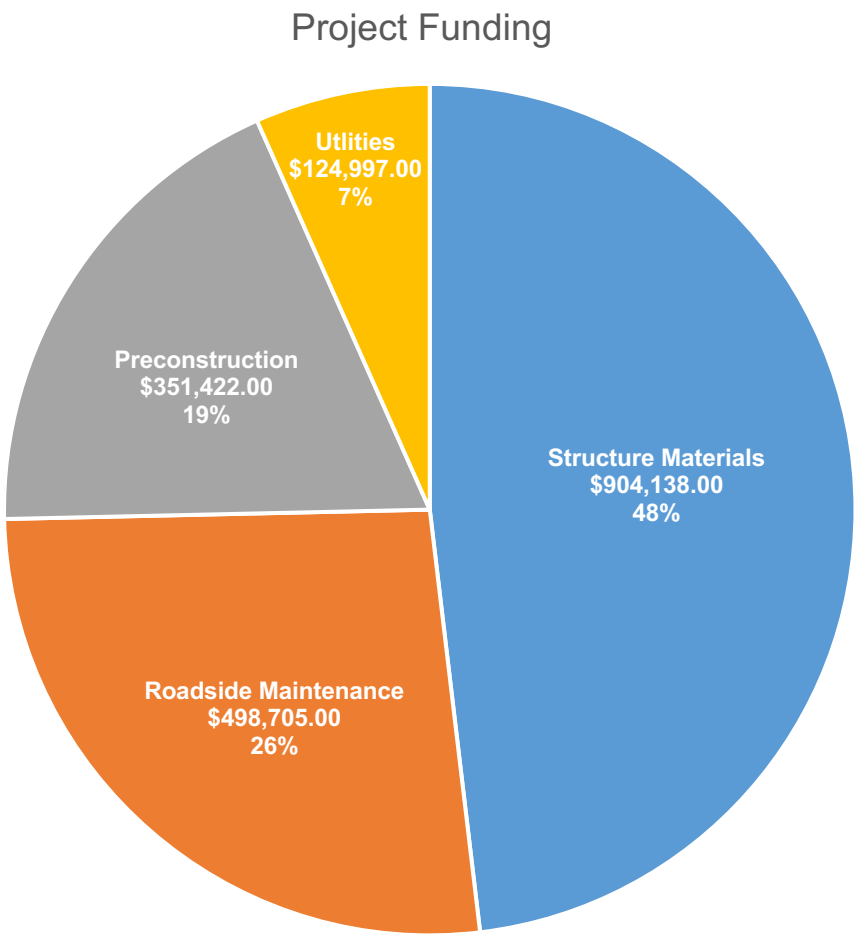


Figure 2. FFY 2025 Research Project Funding

Research Program Summary

Table 1 below lists all items included in the FFY 2025 SPR Research Program. The total funding, with the amount obligated previously and/or during this year, is given for each item. Also, the percentage split between Federal and State funds is shown.

SPR No.	Project Title	Previously Funded	FFY 2025 Funds	% Split Fed-State
745	Update to SCENARIO_PC	$1,274,033.00	$126,426.00	80-20
751	SC StreamStats Phase II: Additional Tools and Layers for Enhanced Workflow and Efficiency	$972,522.00		80-20
755	Investigation and Assessment of Effective Patching Materials for Concrete Bridge Decks	$286,493.00		80-20
758	Field Trials for Cost-Effective Strengthening of SC Load Posted Bridges	$960,000.00		80-20
761	Streamlining Permitting and Mitigation Processes to Improve SCDOT Project Delivery	$422,281.00		80-20
762	Ultra-High-Performance Concrete (UHPC) Used as a High friction Surface Treatment (HFST) on Pavements & Bridges	$299,822.00		80-20
763	Does Design-Build Always Expedite Project Delivery: Insights from SCDOT's Historical Data from the Past Decade	$300,000.00		80-20
764	Develop or Improve Construction Scheduling Methods and Models for Construction Projects	$199,470.00		80-20
765	Investigation of Scour at Piers Located with the Influence of Abutment Scour and Development of Secondary Piers Sour Envelope Curves for South Carolina	$255,800.00		80-20
766	Evaluate, Update, and Rewrite SCDOT Seismic Design Policy and Procedures	$1,561,367.00		80-20
767	Development of Rideability Specifications	$180,000.00		80-20
768	Modernizing SCDOT Pavement Design Tools	$200,000.00		80-20
769	Utilization of Traffic Speed Deflectometer for Pavement Management Phase-II	$550,000.00		80-20
770	Data Driven Decision Making for Consultant Scope of Services and Fee Development, Update, and Maintenance	$905,881.00		80-20
771	Safety Analysis of Highway Curves Where Crashes Occur in South Carolina	$295,563.00		80-20
772	Cost-Effective Screening, Assessment, and Repair of Timber Piles	$850,034.00		80-20
773	Durability and Cost-Benefit Assessment of Innovative Materials for Bridge Deck Maintenance and Construction		$904,138.00	80-20
774	Investigation of Current and New Generation Cementitious and Supplementary Cementitious Materials for SCDOT Concrete	$487,605.00		80-20
775	Updating Techniques for Estimating Magnitude and Frequency of Floods for Urban Streams in GA, SC, and NC	$304,056.00		80-20
776	Herbicide Formulations for Roadside Maintenance		$498,705.00	80-20

777	Synthesis of Feasible Scheduling Software to Support Project Development Planning		$224,996.00	80-20
778	Efficient Utility Relocation Planning		$124,997.00	80-20

Table 1. Research Project Funding

Pooled-Fund Studies Funded in FFY 2025

TPF No.	Project Title	FFY 2025 Funds	% Split Fed-State
5(447)	Traffic Control Device (TCD) Consortium	$10,000.00	100-0
5(463)	Pavement Surface Properties Consortium: Phase III – Managing the Pavement Properties for Improved Safety	$20,000.00	100-0
5(464)	Hydrologic and Hydraulic Software Enhancements	$10,000.00	100-0
5(465)	Consortium for Asphalt Pavement Research and Implementation (CAPRI)	$20,000.00	100-0
5(480)	Building Information Modeling (BIM)	$30,000.00	100-0
5(488)	Southeast Transportation Consortium – Phase II	$15,000.00	100-0
5(518)	Implementation of Structural Data from Traffic Speed Deflection Devices	$15,000.00	100-0
5(522)	National Partnership to Improve the Quality of Preventive Maintenance Treatment Construction & Data Collection Practices	$50,000.00	100-0
5(531)	NCAT Pavement Test Track 2024	$350,000.00	100-0
5(533)	Midwest Roadside Safety Pooled Fund Program	$67,000.00	100-0
5(536)	Ahead of the Curve – Migration from NCHRP to AASHTO Technical Training Solutions (TTS)	$10,000.00	100-0
5(537)	Improving the Quality of Highway Profile Measurement	$30,000.00	100-0
5(542)	Passive Force Behavior for Skewed Bridge Abutments During Combined Lateral and Rotational Loading	$20,000.00	100-0
5(544)	Technology Transfer Concrete Consortium	$12,000.00	100-0
5(548)	No Boundaries Transportation Maintenance Innovations: Part IV	$13,000.00	100-0

Other Items Funded

TPF No.	Other Items Funded	FFY 2025 Funds
5-425	NCHRP – FY25	$971,322.00
5-557	TRB Core Program	$174,178.00
	AASHTO Technical Service Programs (FY25)	$148,000.00
	Transportation Technology Transfer Service (LTAP Center) *	$366,066.00

* Additional $210,000.00 funded by FHWA Local Technical Assistance Program (LTAP)

Accomplishments

PART II

Accomplishments

1. Continued Research Topic Solicitation Process for FY 25-26

The SCDOT Research Unit hosted a Research Topic Solicitation Forum on November 13, 2024, in Columbia, SC. The SCDOT contracted with the Transportation Technology Transfer Service (T3S) at Clemson University to provide logistical and administrative support for the meeting. The purpose of this meeting was to identify a wide array of potentially beneficial research topics for consideration by the SCDOT Research and Development Executive Committee (RDEC) for funding SPR research projects. Approximately 85 people, including representatives from the SCDOT, USGS, academia, and industry participated in the meeting. FHWA was unable to attend this year.

The meeting began with a plenary session of all participants during which Research Staff provided a brief overview of the research program and discussed the purpose of the meeting. Each participant then attended one of four breakout sessions, each on a different subject area of potential research interest for the SCDOT. The four breakout groups included:

- Preconstruction/Planning/Environmental
- Construction/Materials
- Maintenance/Bridge Management
- Traffic Safety

Moderators from SCDOT's Office of Materials and Research were assigned to each breakout group. Prior to the forum, topics were solicited from all research partners, were reviewed by Research Staff, and separated by subject matter corresponding to one or more related breakout group if the subject matter clearly impacted more than one area. The topics were then forwarded to the appropriate Director or Division Head or their review and recommendation of topics to be included for further consideration in the topic selection and approval process. Review of the topics aided the Director or Division Head in identifying participants for the meeting from the units they supervise.

All participants were identified and assigned to a breakout group prior to the meeting. All attended the morning breakout session to discuss the topics included in their group. After lunch, only SCDOT attendees participated in the afternoon breakout session to determine the higher priority topics to ensure that topics most beneficial to SCDOT were advanced for consideration by the RDEC. Of the 36 topics discussed in the breakout groups during the morning session, 12 were identified as higher priority topics for further consideration. A "Champion" from SCDOT was determined during the afternoon session for each higher priority topic and was responsible for preparing a problem statement for their topic.

2. Balloted RDEC for Approval and Prioritization of Topics for Development as Research Projects.

Topics resulting from the Research Topic Solicitation Forum that were recommended for consideration for funding were balloted by the RDEC in accordance with the procedures outlined in Section 5.1 of SCDOT's Research Manual. Nine topics were approved by RDEC at its winter meeting held February 12, 2025. The approved projects in prioritized order are shown on the following page:

FY 25-26 Approved Topics for Research Funding

	No.	Title	Champion
1.	25-TS-01	Improving Worker Safety in Work Zones with Effective Proximity Sensing Technology	Joey Lucas & Cruz Wheeler
2.	25-CM-01	Contractor Performance Evaluation 2.0	Wei Johnson
3.	25-CM-02	Calibration of APA values to Hamburg values for SC Asphalt Mixes	Kimberly Lyons
4.	25-BM-01	Enhancing Structural Integrity of Aging Bridges in South Carolina Using Fiber-Reinforced Polymer (FRP)	Rodrick Tucker
5.	25-PD-01	South Carolina StreamStats Phase 3: Efficiency and Enhancements for Improved Hydrology	Thomas Knight
6.	25-CM-03	Performance Engineered Sustainable Concrete Mixtures for SCDOT Infrastructure Applications	Caleb Gunter
7.	25-PD-03	Seismic Analysis and Design Procedure for Steel Pipe Pile Connection to Concrete Bent Cap or Footings	Hongfen Li
8.	25-PD-02	Agency-Specific Calibration of LFRD Geotechnical Resistance Factors	Nicholas Harman
9.	25-BM-02	Developing a Standard Operating Procedures (SOP) template for SCDOT Drone Operations	Zach Follmer

3. Continued Development of Projects Approved for FFY 23-24

The Research Staff completed development of the ten projects from the 2022 Research Topic Solicitation Forum that were approved and prioritized by the RDEC on February 6, 2023. During FFY 2025, agreements were signed on two projects, and one project was dropped.

4. Began Development of Projects Approved for FFY 25-26

The Research Staff began development of the nine (9) topics from the 2024 Research Topic Solicitation Forum that were approved and prioritized by the RDEC on February 12, 2025. During FFY 2025, proposals were approved on three (3) projects. The remaining six (6) project proposals will be reviewed in FFY 2026.

5. Participated in Peer Exchange Hosted by Alabama, Georgia and Tennessee DOTs

Federal regulation (23 CFR 420 Subpart B) requires each State Department of Transportation (DOT) to facilitate and participate in other state's peer exchanges of its Research, Development, and Technology Transfer (RD&T^2) Program on a periodic basis. The intent is to enhance research programs through sharing ideas. The peer exchange teams are generally composed of state research managers, FHWA, university, and industry personnel.

Alabama, Georgia, and Tennessee collaboratively hosted a peer exchange from April 15-17, 2025, in conjunction with the Southeast Transportation Consortium (STC) Annual Meeting held in Auburn, AL. The focus of the exchange was "Meeting Federal Requirements for the Statewide Planning and Research (SP&R) Program as well as Innovation and Implementation." The objectives of this peer exchange were to share best

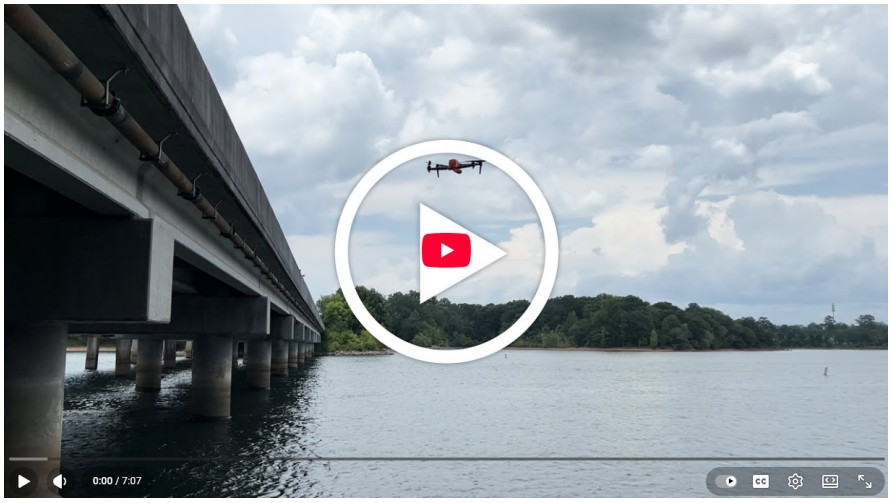
practices for meeting the federal requirements of the SP&R program as well as implementation efforts and the role of the Statewide Transportation Innovation Committee's (STIC) role within the SP&R program. The SCDOT Research Engineer and Research Program Manager attended to participate in the discussions.

6. Earned AASHTO High Value Research Award & Produced Marketing Video

Every January, AASHTO's Research Advisory Committee's (RAC) Communicating the Value of Research Task Force solicits projects for consideration as high value research projects. State DOTs may submit up to four projects and each region votes to select four winners of the High Value Research Award, totaling sixteen nationwide. For 2025, SPR 2-25, "Transfer of Unmanned Aircraft Systems technology to SCDOT for Enhanced Bridge Inspections" was selected. The Research Engineer attended the national summer RAC meeting to accept the award.

The research unit worked with the office of public engagement to produce a video to market the research results and highlight the recently approved phase II of the project. The video is linked below.

SPR 2-25 Video: https://www.youtube.com/watch?v=zmiv9jE7HVI



7. Expanded Innovation Challenge & Hosted Annual Showcase

Following the 2024 Innovation Challenge & showcase, RDEC approved an expansion for 2025 to include all field operations. The 2025 challenge kicked off in January, and submissions closed in April. Seventeen innovations were submitted from various offices and districts. The innovation council reviewed and scored the innovations on the following criteria: increased safety, improved efficiency, cost savings, and ingenuity. The council selected six winning innovations, submitted by nine innovators.

The 2nd annual innovation showcase was held at the Columbia Metropolitan Convention Center on August 25, 2025. The morning session included a brief overview of the program as well as remarks from Deputy Secretary of Engineering Rob Perry. Following the overview, attendees were able to meet the innovators and see demonstrations of each innovation. In the afternoon session, Chief Engineer of Operations Andy Leaphart and Secretary of Transportation Justin Powell shared remarks on the importance of creating a culture of innovation. Finally, the awards were presented to the winning innovators. A video was created to recap the event:

Innovation Video Link: https://www.youtube.com/watch?v=KvkNFGx6Lqo

2025 Outstanding Innovation Awards:

Cook's Car Wash - Clarence Cook

Debris Chute - John Ives, Donald Mahoney, and Marty Jones

Safety Cone Organizer - Paul Phillips

Steel H-Pile Top Repair Clamp - Buddy Bell and Richard Hunter

Technology Integration in Field Operations - Becky Owen

Winch Assist System for Herbicide Trucks - Mike Britton

Description of the Studies Initiated in FFY 2025

PART III

SPR 773

Durability and Cost-Benefit Assessment of Innovative Materials for Bridge Deck Maintenance and Construction

Organization: *University of South Carolina*
PI: *Dr. Fabio Matta*
Start Date: *October 1, 2024*

The SCDOT manages one of the largest state transportation networks in the US, including 9481 bridges according to the latest FHWA National Bridge Inventory (NBI) database (FHWA 2023). For both existing and newly built bridges, concrete decks are the primary area of concern for durability due to aging, increased load demands, and direct exposure to corrosive environments, especially throughout the coastline and the Lowcountry. As a result, excessive cracking (e.g., due to aging, shrinkage, overloads, exposure to chloride salts, insufficient cover, and combinations thereof) and corrosion-related damage (e.g., concrete spalling, loss of reinforcing material) are all-too-common conditions that hinder safety, reduce capacity, and negatively affect user satisfaction.

The goal of this project is to bridge the gap between state-of-the-art and field implementation of innovative materials, with a focus on durability and cost benefit. To maximize the return on investment, candidate bridge deck materials will be selected based on the overriding priorities highlighted by the most common issues the SCDOT encounters in the field. These issues will be identified through a survey and, to the extent needed, complemented by site visits, leading to the selection of two or three case studies that are representative of priorities for South Carolina.

In addition, pursuant to the project focus on cost benefit, the proposed work integrates research on innovative materials with research on life cycle costing analysis (LCCA) and LCCA-based decision making.

SPR 776 Herbicide Formulations for Roadside Maintenance

Organization: *Clemson University*
PI: *Dr. Michael Marshall*
Start Date: *January 1, 2025*

SCDOT has the 4th largest state-maintained transportation system in the United States with vast acres of roadside vegetation to maintain. Vegetation management expenses comprise a considerable portion of the state's maintenance budget, with costs skyrocketing over the last few years. While the agency has historically incorporated the use of herbicides in the vegetation management program, newer herbicide chemistries and applications are needed to provide a more sustainable approach to roadside vegetation management.

This research project will enhance the ability of SCDOT to effectively manage vegetation on highway rights-of-ways while reducing the overall annual costs of maintenance. For example, Georgia DOT reduced mowing frequency due to budgetary constraints in 2009 and save $11 million the next year (Trevino 2009). As stated previously, each mowing event costs SCDOT $4.2 million. Reducing the frequency using growth regulating herbicides would result in significant savings in vegetation management for the state. Grinding of roadside trees and brush does not kill the underground root system. Regrowth is a common problem after completing this practice, this project will demonstrate the utility of herbicides to manage regrowth following grinding. This would reduce the frequency and long-term cost of mechanical cutting along SC roadsides and rights-of-ways.

SPR 777

Synthesis of Feasible Scheduling Software to Support Project Development Planning

Organization: *Clemson University*
PI: *Dr. Kalyan Piratla*
Start Date: *April 15, 2025*

SCDOT currently utilizes scheduling software that agency project development staff find to be cumbersome and not user-friendly. As a result, adoption and full use of the software has lagged depriving staff of the ability to reliably predict project schedules and produce data that can be used for tracking and informing the public. Researching other state agencies and consultants' methods for creating project schedules would provide SCDOT with the information to determine if there is affordable software available that would be a better fit for the agency.

The research involves surveying state departments of transportation and engineering consultants to determine the mechanisms utilized to develop schedules and track task durations for transportation projects. The research should provide SCDOT with recommendations as to what methods would be the best fit and most cost effective for SCDOT.

Possessing a user-friendly system to build schedules and track dates would allow SCDOT to more accurately deliver projects on time. It would also provide information that would identify deficiencies that, if corrected, could improve the project development process. The results from the research will be delivered to IT, Preconstruction, and Support for further consideration of implementing new scheduling software.

SPR 778 **Efficient Utility Relocation Planning**

Organization: *Clemson University*
PI: *Dr. Kalyan Piratla*
Start Date: *April 15, 2025*

Like in any state, transportation construction projects delivered by the South Carolina Department of Transportation (SCDOT) often conflict with existing utilities, and these conflicts need to be resolved. Identifying these conflicts is a complex process because location data for existing utility facilities may not be always readily available with the required accuracy when it is needed in early design phase. Utility conflicts often lead to the need for their relocations on transportation projects. In addition, the project detailed design (including ROW) is not known upfront, which makes the conflict identification a complex and time-consuming process. Such conflicts are typically not recognized early enough during the design to avoid them. Most conflicts are resolved by relocating the utilities, which might result in additional issues, particularly during construction, if not managed properly. While identifying utility conflicts in a timely manner is a challenging task, the utility relocations are often reported to be a significant cause of delays in transportation project delivery.

Summaries of SPR Studies Completed in FFY 2025

PART IV

SPR 755

Investigation and Assessment of Effective Patching Materials for Concrete Bridge Decks

Organization: *Clemson University*
PI: *Dr.Prasad Rangaraju*
Report Date: *June 2025*

Maintaining bridge decks through periodic patching is essential for a reliable and efficient transportation network. For large-scale repairs, SCDOT mandates plant-produced ready-mix concrete, while smaller patches typically rely on pre-bagged, rapid-set materials that allow for on-site batching and mixing. However, inconsistent performance of these materials in the field has underscored the need for a more robust material selection process and improved construction practices to ensure long-lasting repairs.

This study set out to evaluate a diverse range of cementitious rapid-set patching materials for bridge deck repairs and to develop criteria for selecting appropriate products based on environmental exposure and compatibility with existing concrete. Nine representative materials with varying binder chemistries were selected, along with several set accelerators used in plant-based mixtures to assess performance.

Key findings highlight that successful repairs depend significantly on a material's sensitivity to temperature and the condition of the concrete substrate, particularly its texture and moisture saturation. As a result, this study proposes a set of practical guidelines for selecting suitable patching materials that align with site-specific environmental conditions and ensure compatibility with substrate concrete.

This study offers vital insights into the behavior of RSPMs under varying field conditions and surface preparations. By highlighting material sensitivities and compatibility issues, it provides a foundation for more informed material selection. These findings were instrumental in shaping a new set of Special Provisions for qualifying rapid set patching materials for bridge deck repair applications.

Research Summary

Final Report

SPR 761

Streamlining Permitting and Mitigation Processes to Improve SCDOT Project Delivery

Organization: *University of South Carolina*
PI: *Dr. Nathan Huynh*
Report Date: *August 2025*

SCDOT transportation projects frequently impact wetlands and streams, requiring compliance with federal and state environmental regulations. However, inconsistent permit submissions and the absence of standardized tools have led to project delays and increased staff workload. This research identified inefficiencies in the permitting process and developed streamlined digital tools to improve consistency and enable early risk detection. By standardizing submission formats and offering user-friendly solutions, the project enhances interdepartmental coordination, reduces approval timelines, and supports more efficient environmental compliance. These improvements are now being implemented to accelerate project delivery while promoting responsible stewardship of natural resources.

Phase 2 of this project focused on expanding and enhancing SCDOT's digital environmental management tools to further reduce project delivery risks and strengthen compliance processes. The previously developed tools (MFT, PST 2.0, and JD web apps; JD and ePermit smart forms) were updated based on feedback from end users. Enhancements included improvements to the user interface, functionality, and reporting capabilities. In addition, four new smart form applications were developed: Project Tracking, Pre-Letting Checklist, Commitment Log, and Inspection Report. These tools were deployed in July 2022 and are now actively used by SCDOT staff and on-call consultants. Collectively, these tools position SCDOT among leaders in the U.S. in the use of digital platforms for environmental permitting and compliance.

Research Summary

Final Report

SPR 762

Development and Use of Ultra-High-Performance Concrete (UHPC) as a High Friction Surface Treatment (HFST) on Pavements and Bridges

Organization: *Clemson University*
PI: *Dr. Prasad Rangaraju*
Report Date: *June 2025*

High Friction Surface Treatments (HFST) are proven crash reduction technology. However, their high cost necessitates exploring the use of alternative materials. This study assessed the design and application of Ultra-High-Performance Concrete (UHPC) as an alternative to traditional epoxy resin-based binder for HFST. In addition, the use of local alternative aggregates with low abrasion loss was explored as an alternative to the traditional calcined bauxite as an HFST component. Various methods for applying UHPC-based HFST were also evaluated, including the use of intermixing HFST aggregate and exposing aggregate texture with surface retarders or broadcasting HFST aggregate in a similar fashion to traditional HFST methods with and without vibration. While epoxy resin with calcined bauxite showed superior performance, UHPC-based HFST demonstrated adequate durability and friction, especially on concrete substrates. Local alternative aggregates underperformed and are not recommended. UHPC with exposed calcined bauxite, is a viable HFST alternative.

The findings from this study show that UHPC, particularly using calcined bauxite as an intermixed aggregate, can provide a feasible and economical HFST alternative to resin-based HFST on concrete substrate surfaces, such as bridge decks and concrete pavements. It is recommended that a field study be conducted to evaluate the constructability of UHPC-based HFST and develop a knowledge base to identify any durability and maintenance issues, before developing a construction specification.

Research Summary

Final Report

SPR 764

Develop or Improve Construction Scheduling Methods and Model for Construction Projects

Organization: *Clemson University*
PI: *Dr. Tuyen Le*
Report Date: *December 2024*

An analysis of schedules from over 400 design-bid-build highway construction projects in South Carolina revealed that more than 80 percent had underestimated timelines, with around 65 projects having contract estimates that were half the actual completion time. Setting an unrealistic contract completion date can increase costs, schedule delay risks and public inconvenience. This necessitates a systematic assessment of SCDOT's existing contract time determination model and the development of effective techniques to improve the agency's project schedule forecasting. To address the need, the research team developed and validated new data-driven computational models using methods such as statistical analysis and machine learning for design-bid-build highway projects. These models demonstrate high accuracy in identifying critical activities and estimating activity production rates, concurrency factors, and contract times considering project characteristics and uncertainties. The models have been used to update the existing VBA tool which is expected to significantly enhance the accuracy and reliability of contract time.

This research improves SCDOT's project scheduling and contract time estimation through data-driven models that enhance project duration forecasts. By incorporating historical production rates, concurrency factors, and project-specific variables, the models help minimize inaccurate time estimates and mitigate financial risks. The updated VBA tool integrates these models, providing SCDOT with a user-friendly system for determining contract time, aligning contract times more closely with actual project needs, delivering projects more efficiently, reducing costs and improving project planning.

Research Summary

Final Report

SCDOT

RESEARCH & INNOVATION