

# Internal Audit Report

## Project Prioritization Process

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June 30, 2023



# 1. Executive Summary

## Objective

Management's objective for the Project Prioritization Process is to maintain and preserve the existing transportation infrastructure by increasing the percentage of good pavements on the road network across the state. Our objective is to provide assurance that internal controls are adequately designed and operating effectively to manage risks that may hinder the achievement of Management's objectives for the Project Prioritization Process.

## Background

The Pavement Program Office operates within the South Carolina Department of Transportation's (SCDOT) Engineering Division. The Office assists the District Contract Managers who finalize the priority rankings for route selections and compile the resurfacing packages that the Office uses to generate the pavement program projects for the year.

During the 2007 legislative session, SCDOT enacted Act 114 "Prioritization Process." The Act brings greater transparency to the prioritization of projects and accountability of resource utilization by:

- formally identifying objective and quantifiable factors that the agency should consider when ranking or evaluating resurfacing projects
- requiring the Commission to approve projects based on the prioritization requirements using the legislatively prescribed criteria
- placing the approved pavement project list out for public comment prior to final project approval
- requiring the approval of the pavement project selection list prior to being included in the Statewide Transportation Improvement Program (STIP)

## Conclusion

In our opinion, controls are adequate in design and mostly effective in operation for reducing risks within the Agency's risk appetite. Risk exposure is determined to be Medium-Low.

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## 2. Forward

### Authorization

The South Carolina Office of the State Auditor established the Internal Audit Services division (IAS) pursuant to SC Code Section 57-1-360 as revised by Act 275 of the 2016 legislative session. IAS is an independent, objective assurance and consulting function designed to add value and improve the operations of the South Carolina Department of Transportation (SCDOT). IAS helps SCDOT to achieve its objectives by bringing a systematic, disciplined approach to evaluating the effectiveness of risk management, internal control, and governance processes and by advising on best practices.

### Statement of Independence

To ensure independence, IAS reports administratively and functionally to the State Auditor while working collaboratively with SCDOT leadership in developing an audit plan that appropriately aligns with SCDOT's mission and business objectives and reflects business risks and other priorities.

### Report Distribution

This report is intended for the information and use of the SCDOT Commission, SCDOT leadership, the Chairman of the Senate Transportation Committee, the Chairman of the Senate Finance Committee, the Chairman of the House of Representatives Education and Public Works Committee, and the Chairman of the House of Representatives Ways and Means Committee. However, this report is a matter of public record and its distribution is not limited.

### Acknowledgment

We wish to thank members of management and staff in the Pavement Programs Office for their cooperation in assessing risks and developing actions to improve internal controls.

#### Performed By

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#### Reviewer

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Director of Internal Audit Services



### 3. Internal Auditor's Report

June 30, 2023

Ms. Christy A. Hall, Secretary of Transportation  
and  
Members of the Commission  
South Carolina Department of Transportation  
Columbia, South Carolina

We have completed risk and control assessment of the South Carolina Department of Transportation's (SCDOT's) Project Prioritization Process. The objective of this assessment was to contribute to the improvement of risk management by evaluating SCDOT's exposure to risks and the controls designed by Management to manage those risks. Our engagement included two aspects:

- Facilitation of Management's assessment of risks associated with the Project Prioritization Process.
- Independent assessment of the design and effectiveness of internal controls to determine whether those controls effectively manage the identified risks to an acceptable level.

We planned and performed the engagement with due professional care in order to obtain sufficient, appropriate evidence to provide a reasonable basis for our observations and recommendations. Our observations, recommendations, and management's action plans were discussed with management.

George L. Kennedy, III, CPA  
State Auditor

## 4. Engagement Overview

### Background

The Pavement Program Office operates within the South Carolina Department of Transportation (SCDOT) Engineering Division. The Office assists the District Contract Managers who finalize the priority rankings for route selections and compile the resurfacing packages that the Office uses to generate the pavement program projects for the year. Within the Pavement Program Office, the Pavement Improvement Program (PIP) team oversees the project prioritization process.

During the 2007 legislative session, SCDOT restructured the agency and addressed some of the findings of the 2006 Legislative Audit Council report. As a result, Act 114 “Prioritization Process” was enacted. The Act brings greater transparency to the prioritization of projects and accountability of resource utilization by:

- formally identifying objective and quantifiable factors that the agency should consider when ranking or evaluating resurfacing projects
- requiring the Commission to approve projects based on the prioritization requirements using the legislatively prescribed criteria
- placing the approved pavement project list out for public comment prior to final project approval
- requiring the approval of the pavement project selection list prior to being included in the Statewide Transportation Improvement Program (STIP)

In 2016 the South Carolina General Assembly enacted Act 275 which eliminated some of Act 114. Additionally, several Departmental Directives were drafted to provide internal guidance in regard to the Project Prioritization Process aiding the PIP team in overseeing the Project Prioritization Process.

### Objective

Management’s objective for the Project Prioritization Process is to maintain and preserve the existing transportation infrastructure by improving the percentage of good pavements on the road network across the state.

Our objective is to provide assurance that internal controls are adequately designed and operating effectively to manage risks that may hinder the achievement of Management’s objectives for the Project Prioritization Process.

### Scope

The Project Prioritization Process is comprised of three processes involving multiple stakeholders as follows:

1. Distribution Allotment
2. Field Ranking
3. Pavement Improvement Program Letting Process

Our scope included all of the above processes for the period of October 1, 2021 – May 31, 2022.

## Methodology

For the processes included in the engagement scope, we performed the following procedures:

1. We facilitated Management's completion of a process outline that documents the steps in the process and the individuals responsible for those steps.
2. We facilitated Management's completion of a risk and control matrix used to:
  - a. identify risks which threaten process objectives,
  - b. score the risks as to their consequence and likelihood of occurrence using the risk scoring matrix in Appendix B,
  - c. determine if controls are adequately designed to manage the risks to within the Agency's risk appetite, and
  - d. propose design improvements to controls when risks are not managed to within the Agency's risk appetite.
3. We evaluated Management's assessment to determine if it was reasonable and comprehensive.
4. We tested controls intended to manage risks with inherent risk scores of 4 and above [scale of 1 (low) to 25 (high)] to determine if controls are designed adequately and operating effectively. Our testing included inquiry, observation, and inspection of documentation to determine if controls are operating effectively.
5. We developed observations for controls determined to be inadequate in design and/or ineffective in operation.
6. We collaborated with management to develop action plans to improve control design and/or operating effectiveness for the identified control deficiencies.
7. While our engagement primarily focused on risk management, we identified a matter that represents an opportunity for process improvement.
8. We collaborated with Management to develop an action plan for the identified opportunity for process improvement.

## 5. Conclusion

### Project Prioritization Process Controls

In our opinion, controls are adequate in design and mostly effective in operation for reducing risks within the Agency's risk appetite. Risk exposure is determined to be Medium-Low. Our recommendations to improve control operating effectiveness are described in the Observations section.

## Development of Management Action Plans

We facilitated Management's development of action plans for each observation to improve control operating effectiveness with practical, cost-effective solutions. These improvements, if effectively implemented, are expected to reduce the overall risk exposure to an acceptable level (i.e. within the Agency's risk appetite).

We will follow up with Management on the implementation of the proposed actions on an ongoing basis and provide SCDOT leadership with periodic reports on the status of management action plans and whether those actions are effectively and timely implemented to reduce risk exposure to an acceptable level.



## Observations

<b>Observation 5.1</b> <b>Director of Maintenance Review</b>	<b>Risk Exposure</b>
	<b>Medium-Low</b>
<b>Division:</b> Pavement Programs	
<b>Control Assessed:</b> Control 1 – Director of Maintenance Approval	
<b>Control Description:</b> Control 1 – The Director of Maintenance reviewed the project package which includes all raw data used by the districts to determine the final ranking of candidates selected from the pool.	
<b>Process Affected:</b> (See process descriptions in Appendix A) Process 3 – Pavement Project Selection	
<b>Observation:</b>  For each of the field ranking spreadsheets we inspected, we were not able to confirm that the Director of Maintenance reviewed any of the project packages that contained the final ranking of pavement project selection candidates.	
<b>Recommendation 1:</b>  We recommend that the Director of Maintenance document the review process of the project packages.	
<b>Management Action Plan (MAP) 5.1</b>	
The Pavement Improvement Program staff currently reviews the final field ranking spreadsheets for accuracy and adherence to Act 114 as well as the applicable internal Engineering Directives. In order to formally document this process, the transmittal form will be reinstated which will serve as the review and verification of the final field rankings spreadsheets for adherence to Act 114 and Engineering Directives to be signed by the State Pavement Program Engineer, Deputy Secretaries and the Secretary prior to submittal of the ranked projects to the Commission.	
MAP Owner:	State Pavement Program Engineer
Division:	Director of Maintenance Office
Scheduled Date:	May 2024

## Appendix A - Process Descriptions

### **Process 1 Distribution Allotment**

The distribution of allotment is based on the percentage of lane mileage, per county for each system type: Major Roads, Farm to Market Roads and Neighborhood streets. The percentage of lane mileage is calculated by dividing the percentage of lane mileage in the district by the total state line mileage for each category. Lane mileage is stored in the Integrated Transportation Management System (ITMS) from information gathered by Road Data Services. Lane mileage is updated annually.

Once the calculation is completed for each county, the Director of Maintenance Office sends out the Pavement Improvement and Preservation Program (PIPP) Memo for the year. Within this memo, the District Engineering Administrators (DEAs) are notified of the total value of the PIPP for the year. The memo also lists the conditions regarding the execution of the program such as how much of the funds can be used for pavement improvement and the amount that can be used towards preserving roads, how much can be spent on primary, federal aid, and non-federal aid roads, and other related program guidance. Once the memo is distributed, the District Contract Managers begin to rank roads following the applicable Engineering Directive.

### **Process 2 Final Field Ranking Spreadsheet**

After each District Contract Manager, or other denoted official, completes its district field ranking spreadsheet, the Pavement Improvement Program (PIP) team receives the field ranking spreadsheets and performs a quality control (QC) of the information. The PIP team reviews the ranking spreadsheets observing for proper criteria ranking scores, mathematical errors and for information that appears to be inaccurate. A member of the PIP team will address any inaccuracies or uncertain information with the District Contract Manager. Concurrently during this step, the PIP team coordinates with other SCDOT divisions regarding the ranked pavement project selection to ensure there are no pavement conflicts or overlaps.

### **Process 3 Pavement Improvement Program Letting Process**

The final step in the pavement project selection is the assignment of packages to letting for the selected projects by PIP team. Once selections are approved by the Commission, the team begins to assign packages to letting. Within this process, the PIP team tracks issues with letting including any budget issues and any other items that may impact the program in a negative way.

## Appendix B - Risk Scoring Matrix

Risk significance is rated on a scale of 1 (lowest) to 25 (highest) and is the product of the risk consequence score (1 to 5) multiplied by the risk likelihood score (1 to 5). The following matrix provides a color scale corresponding to risk significance scores.

<b>Likelihood</b>	Frequent or Almost Certain	3-4 Low	9-13 Medium	14-17 Med-High	18-21 High	22-25 Extreme
	Likely	3-4 Low	5-8 Med-Low	9-13 Medium	14-17 Med-High	18-21 High
	Possible	3-4 Low	5-8 Med-Low	5-8 Med-Low	9-13 Medium	14-17 Med-High
	Unlikely	1-2 Minimal	3-4 Low	5-8 Med-Low	5-8 Med-Low	9-13 Medium
	Rare	1-2 Minimal	1-2 Minimal	3-4 Low	3-4 Low	3-4 Low
		Incidental	Minor	Moderate	Major	Extreme
		<b>Consequence</b>				

## Appendix C - Risk Appetite

Risk appetite is defined as the amount of risk the Agency is willing to accept in the pursuit of its objectives. Management's goal is to manage risks to within the appetite where mitigation is cost- beneficial and practical. Management has set the Agency's risk appetite by risk type using scoring methodology consistent with the Risk Scoring Matrix shown in Appendix B. Risk appetites by risk type are as follows:

<b>RISK TYPE</b>	<b>EXAMPLES</b>	<b>RISK APPETITE SCORE</b> 1 = Minimal Risk 25 = Extreme Risk (See Scoring Matrix in Appendix B)
<b>Safety</b>	Employee and Public Well-Being	<b>2</b>
<b>Ethical</b>	Fraud, Abuse, Mismanagement, Conflict of Interest	<b>2</b>
<b>Financial</b>	Funding, Liquidity, Credit, Reporting	<b>4</b>
<b>Strategic</b>	Resources not Aligned, Unclear Objectives	<b>4</b>
<b>Reputational</b>	Unintentional Unwanted Headlines	<b>4</b>
<b>Operational</b>	Delays, Cost Overruns, Waste, Inefficiency	<b>6</b>
<b>Regulatory</b>	Non-Compliance	<b>6</b>
<b>Legal</b>	Lawsuits	<b>10</b>