

# INTERNAL AUDIT REPORT

# 2022

## SCDOT Automated Invoice Process

An Assessment of:

- ✓ Risks
- ✓ Control Design Adequacy
- ✓ Control Operating Effectiveness



SOUTH CAROLINA OFFICE OF THE STATE AUDITOR

INTERNAL AUDIT  
SERVICES

March 17, 2022

# 1 EXECUTIVE SUMMARY

## SCDOT Automated Invoice Process

### **OBJECTIVE:**

- Management's objectives with the invoice processing activity are to ensure that invoices are reviewed and approved efficiently and effectively while complying with applicable laws, regulations and internal policies.
- 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

### **BACKGROUND:**

- In March of 2020, SCDOT's workforce began working remotely due to the COVID-19 pandemic, thus causing a necessary shift for the agency staff to begin processing invoices electronically. Since that time, SCDOT staff have returned to the office and continue to utilize the procedures for electronically processing invoices.
- In May of 2021, a report from an SCDOT South Carolina Enterprise Information System (SCEIS) Federal Billing Feasibility Study was published with suggested solutions that would lead to a full automation of invoice processing along with other functions.

### **CONCLUSION:**

- In our opinion, existing internal controls are operating effectively. Those controls by themselves are mostly sufficient to reducing risk to within the Agency's risk appetite. Risk exposure is determined to be Medium-Low. No observations Medium or greater were observed.

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## 2 FOREWORD

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### **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.

### **PERFORMED BY**

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### **ACKNOWLEDGEMENT**

We wish to thank members of management and staff in the Office of Finance and Administration for their cooperation in sharing their knowledge and experience and developing actions to improve internal controls.

## 3 INTERNAL AUDITOR'S REPORT

March 3, 2022

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

We have completed a risk and control assessment of the South Carolina Department of Transportation's (SCDOT's) Automated Invoice Process. The objective of this assessment was to facilitate management's assessment of risks that threaten the achievement of its objectives and to assess the effectiveness of controls designed to manage those risks to an acceptable level. Our engagement included two aspects:

- Facilitation of Management's assessment of risks associated with automation of the review and approval aspects of the invoicing 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.

The engagement was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing* in order to obtain sufficient, appropriate evidence to provide a reasonable basis for our observations and conclusions. Observations are described in Section 5 beginning on page 10 of this report.

A handwritten signature in blue ink that reads 'George L. Kennedy, III'.

George L. Kennedy, III, CPA  
State Auditor

# 4 ENGAGEMENT OVERVIEW

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## 4.1 BACKGROUND

In March of 2020, SCDOT's workforce began working remotely due to the COVID-19 pandemic, thus causing a necessary shift for the Agency staff to begin processing invoices electronically. As part of that process, staff redesigned key forms to allow for the digital signatures of approvers; staff set up departmental email addresses for the receipt of electronic invoices; and staff created a process for file sharing on the network for the transmission of files between Accounts Payable (AP), Project Fund Management (PFM), and Professional Services (PS). These changes allowed approvers access to documents while working remotely through SCDOT's virtual private network.

Invoice processing affects the entire agency as invoices are submitted by business users throughout the Agency for various types of expenditures. All invoices must go through AP for payment with a large volume also passing through PFM for approval of project funding, as applicable. Since the initiation of the updated process, SCDOT staff have returned to the office and continue to utilize the procedures for electronically processing invoices.

SCDOT has developed a feasibility study for implementing SCDOT's General Accounting and Federal Billing solution in the State of South Carolina's SAP-based South Carolina Enterprise Information System (SCEIS). SCDOT is currently in the process of drafting a solicitation for the project that also includes a program and project management solution within its scope. The goal for this project is to modernize the Agency's financial and federal billing processes along with its transportation program and project management.

## 4.2 OBJECTIVES

Management's objectives with the invoice processing activity are to ensure that invoices are reviewed and approved efficiently and effectively while complying with applicable laws, regulations and internal policies.

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.

### 4.3 SCOPE

The invoice processing activity is comprised of five processes involving multiple stakeholders as follows:

- Vendor Invoice Submission
- Program Area/Field Office Review and Approval
- Program Fund Management (PFM) Review and Approval
- Professional Services Review and Approval
- Accounts Payable (AP) Review and Approval

This engagement was originally identified as an efficiency engagement on the IAS audit plan. As such, IAS began an examination into the newly automated invoice process and its related controls to evaluate the process's efficiency developed in rapid response to restrictions due to COVID-19. Our scope included the PFM Review & Approval and the AP Review & Approval with their activities and transactions for the period January 1, 2021 through June 30, 2021.

In consultation with the Office of Finance and Administration, IAS identified the need to redefine the agreed-upon scope of the efficiency engagement to that of an assurance engagement with IAS providing reasonable assurance on the control environment in the SCDOT's current automated invoice process. In addition, IAS would evaluate whether the change to automation created any new or increased risks and advise on emerging risks that should be considered. All previously gathered information through interviews, business process models, and risk and control worksheets was considered and used appropriately in the planning and fieldwork stages of the revised audit engagement.

In addition, our scope includes the presence of general information technology controls for the security of information transmitted, stored, and accessed through IT systems used by AP and PFM for processing invoices.

### 4.4 METHODOLOGY

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

1. We discussed with Management their processes and the respective individuals responsible.

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.

As shown on the Risk Scoring Matrix in Appendix B, 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). Risk appetite is the amount of risk exposure Management is willing to accept in pursuit of its objectives. Executive Management has set various risk appetites by risk type as shown in Appendix C. Risks scoring below Management's risk appetite require no further risk management. Controls determined to be inadequate in design result in risk exposure to the Agency if risk scores exceed risk appetite.

3. We observed the discussion by key process owners and other subject matter experts performing the steps in procedure two above.
4. We evaluated Management's assessment to determine if it was reasonable and comprehensive.
5. We tested key controls intended to manage risks with inherent risk scores of 9 and above [scale of 1 (low) to 25 (high)] to determine if controls are designed adequately and operating effectively. Our testing included inquiry, observation, inspection of documentation, and re-performance of process steps to determine if key controls are operating effectively. We tested controls for risks with inherent scores of 9 and above.
6. We developed an observation for controls determined to be inadequate in design and/or ineffective in operation.
7. We collaborated with management to develop action plans to improve control design and/or operating effectiveness.
8. While our engagement was primarily focused on risk management, we have identified other matters that represent opportunities for process improvement.
9. We collaborated with Management to develop action plans for improving performance.

## 4.5 CONCLUSION

In our opinion, existing internal controls are operating effectively. Those controls by themselves are mostly sufficient to reducing risk to within the Agency's risk appetite with exception to the observation outlined in Section 5. Risk exposure is determined to be Medium-Low.

While our engagement was primarily focused on risk management, we have identified an additional matter that represents an opportunity for process improvement. This matter is detailed in the Performance Opportunity section in Section 6.

## 4.6 DEVELOPMENT OF MANAGEMENT ACTION PLANS

We facilitated Management's development of action plans for each observation to improve control design 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.

# 5 OBSERVATION

<b>Observation 5.1</b> <b>Conflicting SCEIS Roles</b>	<b>Risk Exposure</b>
<p><b>Control Assessed:</b>            Control 1 – Separation of Duties</p> <ul style="list-style-type: none"> <li>A. Agency has defined roles and duties which are to be separated</li> <li>B. Duties of individuals (with elevated privileges) are documented</li> <li>C. System access roles/groups are defined and documented in a manner to support segregation of duties.</li> </ul>	
<p><b>Control Description:</b></p> <ul style="list-style-type: none"> <li>A. The agency follows the SCEIS Segregation of Duties Policy which denotes which SCEIS process roles and duties are to be separated.</li> <li>B. Duties of individuals are documented on the FI (Finance) – SCEIS User Access Request form and changes to individual SCEIS roles are documented and tracked in SCEIS.</li> <li>C. Individuals are assigned SCEIS roles based on the position number. As a part of the onboarding process, job duties and roles are discussed and assessed by the hiring department. Upon hiring and after a SCEIS User ID has been assigned, the FI (Finance) – SCEIS User Access Request form is prepared and signed by the Department Lead.</li> </ul>	
<p><b>Process Affected:</b> (See process description in Appendix A)            Process 1 – Invoice Processing</p>	
<p><b>Observation:</b> One of the eight (12.5%) AP employees tested had conflicting SCEIS roles. The employee had AP Accounting Lead, AP Reconciler, and AR Invoicing SCEIS roles. Per the SCEIS Segregation of Duties Policy, all AP SCEIS roles conflict with AR SCEIS roles.</p> <p>The risks posed by such access are mitigated to an extent at SCDOT in that all AR transactions are reviewed by the AR Manager. Thus, a receivable from an AP employee should raise a red flag during the AR Manager review. SCEIS, an independent third party, verified to IAS that the employee had not used any of the conflicting AR SCEIS roles during the testing period. The employee’s conflicting AR roles were effectively terminated after IAS informed management of the conflicting role.</p> <p>In our judgment, the employee’s SCEIS role assigned by a prior agency was not appropriately updated by the prior agency in SCEIS upon termination with the prior agency. While SCDOT is not tasked with the responsibility of actively removing roles from prior agencies, the risk to SCDOT does exist that an employee transferring from another Agency could have conflicting SCEIS roles.</p>	

**Recommendation:** Management should add an additional control to review SCEIS roles of users annually to ensure that roles have the appropriate segregation of duties. This would serve to provide monitoring of the SCEIS roles.

**Management Action Plan (MAP) 5.1**

The Finance Office will review Finance roles for SCEIS users annually to ensure that SCDOT adheres to the SCEIS Segregation of Duties Policy and that the user has the roles assigned by SCDOT. Additionally, the SCEIS Finance roles for new employees will be reviewed to ensure that they only have the roles assigned by SCDOT and none from any other agency they may have worked for prior to coming to SCDOT. All conflicts or roles issued will be documented and addressed promptly.

MAP Owner:	Chief Financial Officer
Division:	Finance and Administration
Scheduled Date:	09/30/2022

## 6 PERFORMANCE OPPORTUNITY

While our engagement was primarily focused on risk management, we have identified a matter that represents an opportunity for cost savings, revenue enhancement, process improvement, strengthened control environment, or more effective performance.

### Performance Opportunity 6.1 Uniform Receipting of Invoices

**Process Affected:** Accounts Payable Review & Approval, Project Fund Management Review & Approval

Currently, there is not a consistent manner in which invoices are received from either vendors to business units or from business units to AP/ PFM.

- Vendors submit invoices in electronic and hardcopy paper form before the respective business unit scans the invoice and submits it to PFM or AP for processing.
- Invoices are received through various methods: to a general PFM account, electronically dropped into a shared folder, uploaded to ProjectWise or through either Agency or postal mail. Invoices received into AP and PFM generally come from SCDOT personnel after the invoice has been approved for payment by the requesting business unit.

Improving consistency within the process should improve the efficiency of the invoicing process.

**Recommendation:** IAS acknowledges that management has leveraged its expanding technological capabilities to improve the effectiveness and efficiency of the invoicing review process. We recommend that management move towards a uniform receipting of invoices.

Consultants, contractors and vendors should be strongly encouraged to participate in the submission of invoices electronically.

Likewise, business units should also be strongly encouraged to submit invoices electronically.

**Management Action Plan (MAP) 6.1**

SCDOT is in the process of initiating a request for proposal to assist in migrating the financial accounting system functions from a legacy application to SCEIS. Phase 2 of the project includes the evaluation of improved procure to pay functionality which will discuss and consider the uniformity of the receipt of invoices.

MAP Owner:	Deputy Secretary for Finance and Administration
Division:	Finance and Administration
Scheduled Date:	12/31/2025

# APPENDIX A PROCESS DESCRIPTIONS

## Process 1 Invoice Processing

Invoice processing effects the entire agency as it is comprised of numerous sub-processes and multiple stakeholders. The following were identified during discussions with Accounts Payable and Project Fund Management staff:

### **Vendor Invoice Submission**

Invoices are received from vendors for services performed or goods provided to the differing business units. Invoices may be submitted directly to Accounts Payable or to the respective business unit and are received in varying ways dependent on the capabilities of the vendor.

### **Program Area/Field Office Review & Approval**

Departments are responsible for ensuring that goods and services are physically or electronically received to ensure timely payment.

### **Project Fund Management Review & Approval**

A segment of Financial Planning that exists to bridge the gap between the Engineering and Accounting divisions by monitoring and reporting on the financial health of engineering projects.

### **Professional Services Review & Approval**

Professional Services is responsible for the procurement of architectural and engineering (A&E) and other professional services in support of the construction, maintenance, and repair of bridges, highways and roads.

### **Accounts Payable Review & Approval**

The Accounts Payable staff is responsible for providing timely and accurate payment of business transactions for the Department of Transportation. The staff is responsible for reviewing expenditure documentation for accuracy and validity, and giving final approval for disbursing funds in payment of goods and services. Business transactions include employee reimbursements, Purchasing Card transactions, Right of Way payments, construction agreements, consultant agreements, damage claims, fuel cards, purchase orders, railroad agreements, contractor estimates, utilities and utility agreements.

## 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:

RISK TYPE	EXAMPLES	RISK APPETITE SCORE 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>