



SOUTH CAROLINA GENERAL ASSEMBLY

# Legislative Audit Council

November 2006

## A MANAGEMENT REVIEW OF THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION



# LEGISLATIVE AUDIT COUNCIL

1331 Elmwood Ave., Suite 315  
Columbia, SC 29201  
(803) 253-7612 VOICE  
(803) 253-7639 FAX

## **Public Members**

Dill B. Blackwell, Chairman  
Philip F. Laughridge, CPA, Vice Chairman  
Susan B. Hoag  
S. Jahue (Jake) Moore, Esq.  
Henry M. Swink

## **Members Who Serve Ex Officio**

Kevin L. Bryant  
*Senate Judiciary Committee*  
Michael L. Fair  
*Senate Finance Committee*  
Rex F. Rice  
*House Ways & Means Committee*  
James H. Harrison  
*House Judiciary Committee*

## **Director**

George L. Schroeder

Authorized by §2-15-10 *et seq.* of the South Carolina Code of Laws, the Legislative Audit Council, created in 1975, reviews the operations of state agencies, investigates fiscal matters as required, and provides information to assist the General Assembly. Some audits are conducted at the request of groups of legislators who have questions about potential problems in state agencies or programs; other audits are performed as a result of statutory mandate.

The Legislative Audit Council is composed of five public members, one of whom must be a practicing certified or licensed public accountant and one of whom must be an attorney. In addition, four members of the General Assembly serve ex officio.

Audits by the Legislative Audit Council are conducted in accordance with generally accepted government auditing standards as set forth by the Comptroller General of the United States.

Copies of all LAC audits are available at no charge. We encourage you to visit our website to view and print copies of LAC reports.

LAC.SC.GOV

*A Management Review of the South Carolina Department of Transportation*  
was conducted by the following audit team.

*Deputy Director*  
Jane I. Thesing

*Auditors*  
Benjamin J. Bryan  
Jantzen N. Blackmon

*Senior Auditors*  
Lynn U. Ballentine, CPA  
Marcia Ashford Lindsay  
Andrea Derrick Truitt

*Typography*  
Candice H. Pou  
Maribeth R. Werts

*Legal Counsel*  
Andrea Derrick Truitt

---

# Legislative Audit Council

---

## A MANAGEMENT REVIEW OF THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION



---

# **Contents**

---

---

## **Synopsis**

---

---

## **Chapter 1 Introduction and SCDOT's Funding**

---

.....	v
Audit Objectives .....	1
Audit Scope and Methodology .....	1
Background .....	3
SCDOT's Funding .....	4

---

## **Chapter 2 Contract Management**

---

Contracts for Construction and Resource Management (CRM) .....	9
Preconstruction Contracts .....	17
Audits of Preconstruction Contracts .....	23
SCDOT's Contracts With an Engineering Consulting Firm .....	27
Construction Contracts .....	33
Contract With CPA Firm .....	36

---

## **Chapter 3 Program Management**

---

Federal Billings Held .....	39
Environmental Issues .....	43
SCDOT Planning .....	47
Performance Measures .....	49

---

## **Chapter 4 Administrative Management**

---

Building Renovations .....	53
Conferences and Travel .....	55
Fleet Management .....	58
Concerns About Favoritism .....	61
Long-Term Temporary Employees .....	65
Internal Audit .....	66
Administrative Cost Savings .....	67

---

---

## Appendix

Agency Comments .....	69
-----------------------	----

---

# Synopsis

---

Members of the General Assembly asked the Legislative Audit Council to conduct an audit of the South Carolina Department of Transportation (SCDOT). Our audit focused on how SCDOT has managed its resources. Because the department has limited resources to construct and maintain the state's roads and bridges, it is important for SCDOT management to carefully control agency expenditures to minimize waste and maximize cost-effectiveness.

We found that SCDOT did not always control expenditures in the areas we reviewed, particularly consultant contracts. Also, management did not always maximize available resources. However, SCDOT has taken appropriate action to control costs in construction contracts and some administrative areas. Our findings are summarized below.

---

## Contract Management

---

We reviewed two ongoing SCDOT contracts with private firms for construction and resource management (CRM). As of April 2006, SCDOT had spent approximately \$253 million for these contracts to manage construction projects. We found that the CRM contracts did not adequately protect the state's interest and resulted in wasted funds.

- The contracts provided for fixed payments prior to work being completed. Having fixed fees for program and financial management resulted in the contractors being paid approximately \$8.7 million for projects that were eliminated from the contracts.
- The contracts' program and financial management fees were set too high. If the contracts had provided for program/financial management fees of 2%, as proposed by one of the contractors, instead of 4.5%, SCDOT and the state would have saved approximately \$32 million that could have been used for other projects.
- Although the CRM contractors were to manage their assigned projects, SCDOT incurred substantial internal charges in overseeing the contractors' work. This increased the cost of 39 of the 84 projects they were responsible for managing by approximately \$15 million.
- The CRM performance in managing construction contracts was no better than that of SCDOT managers. The projects managed by the CRM contractors were 7% more over budget than those managed by SCDOT.

SCDOT frequently contracts with consultants for preconstruction activities, including road and bridge design, environmental assessments, and obtaining right-of-way. We identified several problems with cost controls over the preconstruction process.

- SCDOT's procurements of preconstruction contracts do not always ensure the most qualified contractor receives the job. In half of the selections we reviewed, SCDOT selected firms that did not receive the highest scores based on the written criteria.
- SCDOT has not implemented adequate controls to ensure that preconstruction contracts are obtained at a reasonable price. Once a qualified firm has been selected, SCDOT is required by federal regulations to negotiate the price. We found no evidence documenting how SCDOT negotiated the price of the contract in 25% of the consultant contracts we reviewed.
- Federal regulations require agencies to prepare an independent cost estimate to evaluate the price proposed by the consultant. For half of the contracts we reviewed, there was no evidence of an independent estimate prepared by SCDOT. For contracts where SCDOT prepared an estimate, the costs were reduced an additional three percentage points from those where there was no evidence of an SCDOT estimate.
- SCDOT's audit program for preconstruction contracts is inadequate, ineffective, and not in compliance with federal law. SCDOT does not comply with federal law in verifying contractors' overhead rates.

We identified several problems with SCDOT's consulting contracts with one firm that was paid \$2.6 million in FY 04-05 and FY 05-06 for four contracts that we reviewed. There were problems with the noncompetitive selection of the firm, the vague terms and scope of services in the contracts, and billings and payment for services. SCDOT paid approximately twice as much as necessary to hire temporary employees, mostly former SCDOT employees, through this firm. Also, SCDOT paid more than \$121,000 to another firm for business advisory services without competitively procuring these services as required by the state procurement code.

In 2004 and 2005, SCDOT awarded approximately \$1.4 billion in construction contracts by a competitive bidding process. We reviewed SCDOT's management of construction contracts and did not identify significant problems.

- SCDOT had implemented recommendations from our 2001 audit of road paving contracts. For example, the agency uses bid analysis software to improve its capacity to identify problems with bids.
  - SCDOT's use of partnering, a formal collaboration between the contractor and SCDOT, has improved its ability to complete projects within budget and on time. SCDOT calculated a cumulative \$17 million in savings for partnering as of March 2006.
- 

## Program Management

We reviewed SCDOT's management of its programs to construct and maintain the state's roads and bridges and identified problems relating to resource management.

- We found evidence to support allegations that SCDOT attempted to lower its cash balances during the legislative session by delaying billings for reimbursements from the Federal Highway Administration (FHWA). Deferred billings in FY 03-04 and FY 04-05 may have cost the agency more than \$1.5 million in lost interest.
- SCDOT spent over \$3 million to address several environmental violations. From 1992 to 2005, SCDOT paid penalties totaling \$163,880. Also, in 2002, the federal Environmental Protection Agency required SCDOT to undertake a \$2.9 million supplemental environmental project as part of sanctions stemming from six actions against the agency.
- We examined SCDOT planning procedures for building and maintaining roads to determine if the process adequately prioritized projects. We found that SCDOT complies with federal regulations and generally has appropriate processes in place for planning construction and maintenance projects statewide.
- We found that SCDOT has an ongoing strategic plan and has regularly measured many of its actions. However, SCDOT has reported comparative data that is not valid and the agency has not adequately published the extent to which it is achieving its goals.

## Administrative Management

During the period FY 02-03 through FY 04-05, we found that SCDOT took steps to reduce its administrative costs. However, we also identified areas of noncompliance with state law and suggestions for further reductions.

- We reviewed SCDOT's headquarters renovations and found that the agency had not complied with requirements for oversight of capital improvements by the Joint Bond Review Committee (JBRC). Five projects were not initially submitted to the JBRC as required.
- Our review of SCDOT's expenditures for conferences identified issues relating to conference finances. SCDOT's report of expenditures for a 2004 conference did not fully disclose event costs. In violation of state law, SCDOT used private checking accounts from a credit union to handle registration fees and sponsor contributions for two conferences. Also, SCDOT has solicited contributions from its contractors to support conference activities. This creates a conflict of interest.
- In 2005, SCDOT initiated new procedures for planning agency conferences and events that have resulted in lower costs. However, additional cost savings could be realized from having conferences at a central location.
- Our review of SCDOT's management of its passenger vehicle fleet did not reveal significant problems. In 2005, SCDOT made changes to improve compliance with legal requirements for commuting reimbursements and increase efficiency. The agency reduced the number of permanently assigned vehicles.
- Some aspects of SCDOT's management of temporary employees and the executive director's interns have created the appearance that SCDOT management showed favoritism in dealing with employees. SCDOT could take steps to ensure that its employment decisions are well justified and documented. Also, by employing long-term temporary employees, SCDOT has not complied with state law.
- SCDOT's internal audit department does not report to the appropriate officials to provide adequate independence for the audit function. The activities of the internal audit department are not reported to the commission on a regular basis, and the commission does not have a standing audit committee.
- SCDOT could save by implementing the recommendations of a 2005 internal committee report. The agency could achieve savings by deactivating unnecessary pagers and eliminating the practice of issuing more than one computer to individual employees.

# Introduction and SCDOT's Funding

---

## Audit Objectives

Members of the General Assembly asked the Legislative Audit Council to conduct an audit of the South Carolina Department of Transportation (SCDOT). The requesters' concerns focused on how SCDOT has managed its resources. Our objectives listed below primarily relate to the efficiency and accountability of expenditures for the roads and bridges that comprise the state's highway system.

- Review SCDOT's sources and uses of funds to determine whether it has maximized its resources and planned adequately for future needs.
- Review SCDOT's management of its contracts for designing, building, and maintaining roads and bridges to determine whether cost and accountability controls are adequate.
- Review SCDOT's planning for building and maintaining roads and bridges to determine whether the process is adequate to ensure appropriate priorities.
- Review SCDOT's methods for measuring and reporting on its performance to determine whether measures are appropriate and data is reliable.
- Review SCDOT's administrative expenditures to determine whether there are opportunities for cost savings or more efficient use of resources.
- Review SCDOT's human resources management to determine compliance, efficiency, and effectiveness.

## Audit Scope and Methodology

We reviewed the operations of the South Carolina Department of Transportation with primary emphasis on SCDOT's contracting and other issues relating to SCDOT's mission of building and maintaining roads and bridges. We also reviewed agencywide administrative issues. We focused on specific issues related to our objectives; for example, we did not review SCDOT's mass transit responsibilities. The period of our review was generally FY 02-03 through FY 04-05, with earlier periods where relevant, such as contracts from earlier periods that are still ongoing, environmental issues, and issues related to the agency's planning.

To conduct the audit, we used a variety of sources of evidence including those listed below.

- SCDOT accounting and personnel records.
- SCDOT contract records.
- SCDOT vehicle records.
- SCDOT management policies and procedures.
- Federal law and criteria for procuring highway contractors and funding highway projects.
- Records from the State Infrastructure Bank.
- Interviews with SCDOT employees, employees of other state, local, and federal agencies, and private individuals.
- Prior audits and consultant reports concerning SCDOT.
- Reports and manuals published by SCDOT.
- Reports and information concerning transportation agencies in other states.

Criteria used to measure performance included state and federal laws and regulations, agency policy, the practice of other states, and principles of good business practice and financial management. We used several nonstatistical samples, which are described in the audit report. We reviewed internal controls in several areas including SCDOT's accounting records, procurement, capital improvements, contract management, and human resources management. Our findings are detailed in the report.

This audit was conducted in accordance with generally accepted government auditing standards.

---

## Use of Automated Information

SCDOT has multiple automated information systems. In addition to its accounting system (including billing and budgeting), the agency has computer information systems that include those for construction contract management, bidding and estimating, maintenance management, pavement management, fleet management, and right-of-way acquisition. It also has small systems designed for particular purposes such as preconstruction contract management or tracking basic information on construction contracts. Some of the information systems are standard systems such as those developed under the auspices of the American Association of State Highway and Transportation Officials (AASHTO), while others are in-house, including those developed and maintained by a few employees. Throughout SCDOT, individual employees manually input information and produce reports for particular purposes.

Based on our survey work, we did not have major concerns about a lack of internal controls over SCDOT's financial transactions. However, during the course of our work, we did use information from several of the information systems discussed above. We could not audit or verify all of the information obtained from these multiple systems, and we acknowledge that it may be unreliable. However, we critically analyzed the information we received, and compared it with other sources and known evidence. In one case, where we could not obtain reliable information, we did not use the information for audit conclusions (see p. 16). With the exception of information from SCDOT's financial audit, readers of the report should assume that amounts and numbers used in this report describing SCDOT's activities are attributed to SCDOT and are not audited figures. Overall, the use of unverified data was not central to our audit objectives, and we believe that the findings and conclusions in this report are valid.

---

## **Background**

The South Carolina Department of Transportation (SCDOT) is responsible for planning, constructing, maintaining, and operating the state highway system and providing mass transit services. Its mission is to provide a safe and efficient transportation system for the state.

SCDOT is one of the largest state agencies with a staff of approximately 5,000 employees. The central headquarters for the agency is in Columbia. SCDOT also has 7 district offices and its employees work in each of the state's 46 counties.

The seven-member South Carolina Department of Transportation Commission governs the agency. The chair of the commission is appointed by the Governor with the advice and consent of the Senate. The other six members are elected by the legislative delegation in each of the state's congressional districts. The commissioners serve four-year terms. The commission appoints the executive director, who carries out the daily operations of the agency.

South Carolina currently has approximately 42,000 miles of road in the state system, the fourth-largest system in the United States. This includes about 17,000 miles of primary roads including interstates, and 25,000 miles of two-lane secondary roads. The state has approximately 8,300 state-owned bridges.

## SCDOT's Funding

### Revenues and Expenditures

We were asked to provide an explanation of SCDOT's revenues and expenditures for the past three fiscal years. This section discusses the federal and state sources of funding for SCDOT and the amounts spent on building and maintaining roads. We also discuss the agency's concerns over its cash resources and its financial forecast.

SCDOT's revenues for FY 04-05 were more than \$1.39 billion. The primary source of revenue is reimbursements from the federal-aid highway program of the Federal Highway Administration (FHWA) for construction of roads and bridges. SCDOT also receives revenues from the state motor fuel user fee (gas tax). SCDOT expends the majority of its revenues for building and maintaining the state's highway system. SCDOT spent over \$1.2 billion during FY 04-05 on building roads and bridges, highway maintenance, paying debt service, and general administration of the agency. Table 1.1 shows SCDOT's revenues and expenditures for FY 02-03 through FY 04-05.

**Table 1.1: SCDOT Revenues and Expenditures**

	<b>FY 02-03</b>	<b>FY 03-04</b>	<b>FY 04-05</b>
<b>REVENUES</b>			
Federal-aid Highway Program Funds	\$431,886,481	\$ 568,364,624	\$ 718,989,191
Taxes, Fees (primarily gasoline taxes)	458,768,249	488,582,384	497,392,253
Proceeds from Issuing Bonds	409,284	2,205,512	140,042,340
Participation Agreements, Other	42,649,592	28,043,344	29,044,964
Interest, Investment Income	8,200,916	777,669	8,384,827
State Appropriations	444,268	990	100,990
<b>TOTAL Revenues</b>	<b>\$942,358,790</b>	<b>\$1,087,974,523</b>	<b>\$1,393,954,565</b>
<b>EXPENDITURES</b>			
<i>Current:</i> Highway Maintenance	\$ 383,258,698	\$ 417,056,262	\$ 468,336,402
General Admin., Engineering, Mass Transit, Toll Facilities	80,348,484	91,758,651	102,817,742
<i>Capital Outlay:</i> Infrastructure - Road and Bridge Network	355,461,405	390,230,651	484,539,893
Land (including Right-of-Way), Equip. & Furniture, Vehicles	87,881,778	73,090,558	45,774,608
<i>Debt Service:</i> Principal	43,514,024	46,618,886	48,348,162
Interest, Other	36,106,382	33,082,654	32,847,337
<i>Allocations to other Entities:</i> State Infrastructure Bank*	22,984,451	24,372,008	24,356,765
Agency Fund - County Transportation Program	70,237,459	75,327,735	73,390,424
Remitted to Gen. Fund for Statewide Cost Allocation Plan	4,940,198	4,940,634	4,940,205
<b>TOTAL Expenditures</b>	<b>\$1,084,732,879</b>	<b>\$1,156,478,039</b>	<b>\$1,285,351,538</b>
<b>Excess of Revenues Over (Under) Expenditures</b>	<b>(\$142,374,089)</b>	<b>(\$68,503,516)</b>	<b>\$108,603,027</b>

\* SCDOT is required by law to remit 1¢ of the gasoline tax to the State Infrastructure Bank (SIB), a sister state agency established to finance major transportation projects.

Source: SCDOT audited financial statements.

## Federal Funding for Highway Construction

The federal funding that South Carolina receives from the FHWA federal-aid highway program is generated from a fuel tax (18¢ per gallon) imposed by the federal government. These funds are collected in each state and are annually redistributed to each state by Congressional appropriation. South Carolina is a donor state, meaning that it contributes more federal taxes than it receives. Federal dollars are primarily used for construction and generally cannot be used for maintenance. South Carolina relies on federal money to fund its construction program since it does not receive general fund appropriations for construction. Of 12 states in the southeast, only 3, including South Carolina, use no general fund revenues to fund highways.

SCDOT received appropriations of federal funds as shown in Table 1.2. Congressional earmarks are funds that must be set aside for specific projects mandated by Congress. SCDOT officials noted that federal earmarks have increased significantly, leaving fewer resources for projects resulting from the state's highway planning process. As shown in the table, these earmarks have grown from \$27 million in 2004 to over \$81 million in 2006.

---

**Table 1.2: S.C. Appropriations from FHWA for FFY 2004 Through FFY 2006**

FEDERAL FISCAL YEAR	TOTAL APPROPRIATED	CONGRESSIONAL EARMARKS	AVAILABLE FUNDING FOR SCDOT PROJECTS
			(IN MILLIONS)
2004	\$482.0	\$27.0	\$455.0
2005	\$540.7	\$65.3	\$475.4
2006	\$520.6	\$81.4	\$439.2

Source: SCDOT

Under the federal-aid highway program, each state is required to match federal highway funds with state or local funds. The match ratio is usually 80% federal funds and 20% state funds. Under this program, SCDOT pays the entire cost and is reimbursed 80%. According to SCDOT, only about 40% of the state's highway system is eligible for federal highway funds. Therefore, the remaining 60% of the state's roads must be maintained and improved solely with state funds.

As federal dollars have grown in recent years, so has the state's required match of these funds. As more state funds, primarily for maintenance, are used to match construction projects in the federal programs, SCDOT has been forced to reduce maintenance activities.

---

## **State Funding for Highway Maintenance**

Funding for highway maintenance has been an area of concern. SCDOT receives revenues from the state motor fuel user fee of 16¢ per gallon. However, SCDOT does not receive the entire amount collected since portions of this fee are earmarked for county transportation funding, economic development, and watercraft funding through the Department of Natural Resources. The motor fuel user fee has not been increased or adjusted for inflation since 1987 and is among the lowest in the nation. Since this is a fee per gallon, it does not increase as the price of fuel increases. In order to increase revenues from the gas tax, more cars must use more gallons of fuel. Increases in the number of cars and miles driven put a greater strain on the road system, requiring more maintenance and construction. According to the SCDOT's annual accountability report for FY 04-05, the shortfall of funds for necessary highway maintenance is \$567 million per year.

When state funds are used to match federal construction funds, the amount available for maintenance decreases. During the 2005 legislative session, the General Assembly passed Act 176 aimed at increasing funding to SCDOT for road maintenance. This bill did not raise or lower any current user fees or taxes, but instead reallocated revenue to SCDOT. This revenue is generated from driver's license fees and other fees that were previously dedicated to the general fund or other state agencies. SCDOT estimates that it will receive \$11.5 million from this reallocation during FY 05-06 and \$26.6 million during FY 06-07.

---

## **Expenditures for Road and Bridge Construction**

We were requested to provide information about the amount of funds spent on building primary and secondary roads and associated maintenance budgets. SCDOT provided this information as shown in Table 1.3.

**Table 1.3: Construction and Maintenance Expenditures**

	<b>FY 02-03</b>	<b>FY 03-04</b>	<b>FY 04-05</b>
<b>CONSTRUCTION</b>			
Highway Construction	\$658,119,275	\$681,283,177	\$755,727,441
Other	<u>11,717</u>	<u>149,152</u>	<u>1,005</u>
<b>TOTAL Construction</b>	<b><u>\$658,130,992</u></b>	<b><u>\$681,432,329</u></b>	<b><u>\$755,728,446</u></b>
<b>MAINTENANCE</b>			
Highway Maintenance	\$186,111,307	\$193,496,524	\$222,156,810
Pavement Preservation and Special Projects	58,341	19,607,569	53,325,732
County Transportation Program	<u>38,441,666</u>	<u>31,693,944</u>	<u>42,064,730</u>
<b>TOTAL Maintenance</b>	<b><u>\$224,611,314</u></b>	<b><u>\$244,798,037</u></b>	<b><u>\$317,547,272</u></b>

Due to adjustments made during the annual audit process by independent financial auditors, the figures shown in the table above do not correspond to figures shown in Table 1.1 under similar headings.

Source: SCDOT

---

## Concerns Over Cash on Hand

In April 2006 the finance and administration committee of the SCDOT commission met and discussed concerns over SCDOT's current and future cash balances. Revenues coming into the department were flat while expenditures were rising. According to a department official, this could result in future cash shortfalls as early as the first quarter of FY 06-07. Lower federal funding for FY 05-06 (see Table 1.2), higher costs of construction, and flat fuel tax revenues were all cited as reasons for the department's cash troubles. In response, the SCDOT commission asked staff to prepare a monthly cash flow forecast so that appropriate decisions could be made concerning the expenditure of funds. Agency officials indicate they need between \$50 and \$100 million cash on hand in order to make on-going payroll, construction, and debt service payments. A May 2006 cash forecast indicates that SCDOT's cash balance may dip below \$50 million during the last quarter of FY 06-07. Cash management concerns may impose limits on future highway construction and maintenance. The agency's funding issues mandate the prudent expenditure of all available resources.

---

**Chapter 1**  
**Introduction and SCDOT's Funding**

---

# Contract Management

---

## Contracts for Construction and Resource Management (CRM)

In 1999 SCDOT contracted with two private firms to manage a significant number of construction projects. The agency was able to undertake additional projects because funding available for road and bridge construction had increased.

- The 1997 creation of the State Infrastructure Bank to provide financial assistance for major transportation projects gave SCDOT new authority to issue bonds against future revenues.
- Federal highway funds coming into South Carolina had increased significantly.

SCDOT decided to attempt to complete several years' work in fewer years to avoid inflation in construction costs and to complete needed projects. This program is often referred to as the 27-in-7 program (27 years worth of work to be completed in 7 years). Because SCDOT did not have the staff capacity to do the extra work, it decided in 1998 to advertise for one or more construction and resource manager (CRM) firms to serve as overall project manager for multiple, simultaneous SCDOT transportation projects.

In July 1999, SCDOT contracted with two CRM firms to assist the agency with approximately 95 projects. SCDOT divided the state in half (East and West), and assigned each firm approximately half of the projects. As of April 2006, SCDOT had spent approximately \$253 million for the contracts, which are still active. Several CRM projects are ongoing with completion projected for 2006 or 2007.

It was not our objective to evaluate the results of the 27-in-7 program or to review SCDOT's decision to contract out the management of the additional projects instead of hiring additional staff to handle the work internally. To meet our objective of reviewing SCDOT's contract management, we reviewed the procurement of the CRM firms, the contract provisions, and SCDOT's management of the CRM contracts. We concluded that the CRM contracts did not adequately protect the state's interest and resulted in unnecessary expenditure of funds.

---

## Negotiation of Contract Costs

We reviewed the procurement process for the contracts and found that evidence was insufficient to determine why SCDOT accepted the contracts' compensation terms. The contracts were procured using the consultant procurement process described on page 17. In this case, however, the SCDOT Commission itself selected the two contractors from three recommended by a staff committee (there were originally seven proposals). As discussed on page 18, federal regulations require competitive negotiation,

and SCDOT policy requires documentation of the negotiations in the contract file. Since cost cannot be used as a factor in selecting a contractor for a consultant contract, negotiation with the selected contractor is the only way that SCDOT can ensure a reasonable price.

While SCDOT has maintained adequate documentation showing how the CRM contractors were selected, the agency did not furnish adequate documentation of the negotiation of contract costs. There was no documentation showing the amount of compensation initially proposed by the contractors, how much SCDOT initially proposed to pay, how these amounts changed during contract negotiation, and why SCDOT agreed to the terms that it did. This omission is particularly important because the terms of the contracts were not favorable to the state and resulted in unnecessary expenditure of funds. Evidence from the selection process indicates that SCDOT negotiators failed to protect the state's interest in ensuring a cost-effective contract.

---

## **Contract Provisions Unfavorable to the State**

---

The contracts provided for fixed payments prior to the work being completed.

---

Several compensation provisions in the CRM contracts are not in accord with SCDOT's usual practices, which are designed to control costs and ensure positive results. After reviewing evidence from the selection process, we could not determine why the final contract provisions did not contain safeguards to ensure the projects' cost-effectiveness.

### **Fixed Payments**

The contracts provided for \$62 million in program and financial management fees to be paid on a fixed basis, not related to progress of the work. An additional \$50 million in construction management fees and \$2 million in fees for overseeing preliminary engineering were to be paid on a fixed basis, not based on the progress of the work. Paying a fixed price in advance does not provide adequate accountability for the contractors' performance. With the exception of limited start-up costs, SCDOT's other consultant and construction contracts provide payment only for work that has been completed. Also, the National State Auditors Association *Best Practices in Contracting for Construction Services* states that payments should be tied to the acceptance of deliverables or the final product.

Prior to contract negotiation, SCDOT and the CRM contractors proposed that payments should be based on progress. SCDOT's requests for proposals (RFPs) stated that the successful firm should propose a means of

compensation through which “compensation is minimized until program milestones are met.” The compensation plan proposed by one of the contractors provided for payment of all project-related compensation at performance milestones. The other contractor proposed that its compensation be based on reimbursement of costs and profit, which is the norm for SCDOT’s consultant contracts. We found no reason why SCDOT officials agreed to fixed payments after the proposals contained terms corresponding to good business practice. Paying for services prior to their being received does not provide good control and results in loss of interest revenue. Also, without evidence of the contractor’s costs, there is no way to know whether the compensation is appropriate.

---

**Having fixed fees for program and financial management resulted in the contractors being paid approximately \$8.7 million for projects that were eliminated from the contracts.**

---

Although the contracts listed fixed projects for which the contractors would provide services, SCDOT could change the projects assigned to the contractors. The contracts provided that \$62 million in program and financial management fees would be paid unless the total number of assigned projects was increased or decreased by 20%. The contractors were not assigned program management responsibility for any additional projects, but they did not manage nine projects on the original list, and their program management responsibilities were cut back for other projects. Because of the fixed payment provision, they still received the entire program and financial management fees for the projects that were eliminated from their responsibility. We estimated this overpayment at \$8.7 million, based on the budgets of these projects. The contracts did not provide the necessary controls to prevent the contractors from being paid for work they did not perform.

### **Program and Financial Management Fees**

---

Evidence indicates that the program and financial management fees were set too high, costing SCDOT millions.

---

As shown in Table 2.1, the CRM contracts provided specific compensation for different activities carried out by the contractors. The fixed payments for overall program and financial management of \$62 million were approximately 4.5% of the total budget for the projects managed. We could determine no reason for the percentage allocated to the program and financial management payments. Prior to the contracts being signed, a letter from one of the contractors describing its proposed program management fee stated that the fee would include financial management and would be capped at 2% of the assigned program budget. The other contractor explained its compensation plan with an illustration showing program management at 2%. If the contracts had provided for program/ financial management fees of 2% instead of 4.5%, SCDOT and the state would have saved approximately \$32 million that could have been used to fund other projects.

**Table 2.1: Compensation in CRM Contracts**

TYPE OF COMPENSATION	AMOUNT
Engineering Design	\$ 29,044,000
Overseeing Engineering Design	2,000,000
Services in Acquiring Right-of-Way	*18,323,744
Construction Management	146,499,000
Overall Program Management	54,363,043
Overall Financial Management	7,786,076
Information Technology	**9,870,895
<b>TOTAL</b>	<b>\$267,886,758</b>

\* Amount paid as of April 2006, determined by rate for individual services.

\*\* Amount authorized as of April 2006.

Source: SCDOT

### Little Incentive for Performance

---

Despite SCDOT's desire for incentive-based proposals and the willingness of the contractors to risk 20% of their program/financial management fee based on performance, the contracts provided a maximum risk of 7.7%.

---

SCDOT's requests for proposals stated that it was interested in "incentive-based proposals rather than traditional methods of compensation." Both contractors in their presentations to SCDOT said they would place 20% of their project management fees at risk, based on either timely completion of projects or cost underruns. However, the final contracts placed a maximum of 7.7% of the program management fees at risk, based on SCDOT's semi-annual general evaluations of contractor performance. Also, although there would have been some risk involved for the contractors in undertaking, at a fixed price, projects for which the plans were not final, these risks were in fact minimal. According to SCDOT, the project budgets were adjusted for inflation prior to contracting. Also, if the scope or cost of the project increased, the contractors were given additional compensation for the projects (see p. 14).

### Payment Schedule

---

The CRM contracts provided for payments to the contractors every two weeks, resulting in loss of funds to SCDOT.

---

A draft version of the CRM contracts provided for monthly payments to the CRM contractors. However, the final contracts provided for payments every two weeks. SCDOT's standard contracts for paying consultant and construction contractors provide for monthly payments. We estimated that, as of April 2006, the CRM payment schedule has cost SCDOT approximately \$237,000 in lost interest.

## **SCDOT's Contract Management**

We also reviewed SCDOT's management of the CRM contracts. While SCDOT made some appropriate efforts to control contract costs, we also identified areas where controls could have been improved. The CRM contractors had different levels of responsibility for the projects in the contract.

- For 20 projects, the contractors were responsible for handling all project activities from start to finish.
- For 64 projects, for which SCDOT already had a contract to design the project, the firms were to provide oversight of the design work and, for most of these projects, supervise the right-of-way acquisition and construction activities.
- For 11 projects, SCDOT was responsible for handling all project activities with the CRM contractors to assist only in managing the construction process.

### **Efforts to Control Costs**

As discussed, the provisions of the CRM contracts were unfavorable to the state and resulted in excessive expenditures. We found that SCDOT took some steps to control the costs of the contracts.

- The CRM contracts provided that the program and financial management fees be paid over five years with a fixed price for a two-year extension that totaled \$16.6 million “if the agreement is... extended.” SCDOT did not extend the program and financial management fees beyond the five-year period, thus avoiding an additional \$16.6 million in these high-cost fees.
- As discussed below, SCDOT had to spend its resources to oversee the projects that the CRM contractors were supposed to be managing. In 2001, SCDOT negotiated contract reductions in the total amount of \$1.1 million to provide some reimbursement for its management. However, this amount was far less than the amount SCDOT spent to oversee the projects (see p. 14).
- When SCDOT removed projects or portions of projects from the responsibility of the CRM contractors, it reduced their payments for the specific services they were to perform, such as designing the project or construction management. These reductions, made through engineering directives and contract modifications, totaled \$16.3 million. As

discussed above, the contracts did not allow for the program and financial management fees to be recouped. Also, additions to the contracts for increases in the scope of the work were greater than these reductions (see below).

However, we also identified other areas where the SCDOT may not have done all that it could to keep costs down.

- When the scope of a project the contractors were managing had increased, SCDOT modified the contracts to increase the compensation due to the contractors. These increases totaled \$18.1 million. In some cases, it appeared that the increases should have been included in the fees already allocated. For example, although SCDOT paid an estimated \$8.7 million in program management fees for projects that the contractors did not perform (see p. 11), they increased the program management fee by \$142,000 for one project that had not been completed when the program management fees were not extended beyond the five-year period.
- As discussed (see p. 18), as required by federal regulations and SCDOT policy, SCDOT should negotiate the cost of services provided by consultants. We reviewed the documentation for the amounts that the CRM contractors received in increased payments, and found that in most cases there was no evidence that SCDOT negotiated the price it paid for these services. We requested documentation of negotiation for seven contract increases — SCDOT furnished evidence that the contractors' proposed costs were negotiated for just one of these cases.

### **CRM Contractor Performance**

The CRM contractors generally performed the tasks they were assigned. As of May 2006, approximately 62 of the 95 projects they were involved with had been completed. However, evidence indicates that CRM performance in managing construction projects was no better than that of SCDOT managers. In fact, although the CRM contractors were to manage their assigned projects, SCDOT also spent substantial time and effort overseeing these projects. This increased overall project cost.

- Approximately 20 projects were originally designated "turnkey," which meant that the contractors were to manage all phases of the projects with no involvement from SCDOT. The CRM contractors' responsibility was cancelled or cut back for eight of these projects (see p. 11). Although the contractors were assigned responsibility for totally managing the projects, we found that SCDOT incurred \$3.3 million in internal charges for oversight of these projects.

- SCDOT also incurred substantial internal project management costs for many of the 64 projects for which the contractors were to oversee project design contracts which had already been signed by SCDOT, and oversee right-of-way and construction. For just 19 of these projects which the State Infrastructure Bank funded, SCDOT incurred \$11.5 million in internal project management charges.

We also compared the results of 41 construction projects completed by November 2005 that were managed by the CRM contractors with the results of 1,263 construction projects managed by SCDOT and completed in the same period. We found that the projects managed by the CRM firms were 7% more over budget than those managed by SCDOT. There was an insignificant difference (1%) in the on-time performance of the projects in the two groups. We found that the CRM contractors generally received moderately positive performance evaluations from SCDOT managers, averaging 2.3 and 2.4 on a 4-point scale. One of the contractors received two overall negative evaluations. The CRM contractors received a total of \$538,717 in incentive payments for their contract performance.

---

## **Information Technology Expenditures**

As of April 2006, SCDOT spent approximately \$8 million through the CRM contracts for information technology. In addition, the contractors received \$7.8 million in financial management fees for tasks which included developing a comprehensive financial information system for SCDOT's funding programs and projects. Both of the CRM contracts included provisions for SCDOT to pay up to \$2.6 million (\$5.2 million total) for IT services. In 2005 SCDOT modified one of the CRM contracts to increase the limit on IT services from \$2.6 million to \$7 million. As of April 2006, SCDOT had paid one of the contractors \$5.7 million and the other \$2.3 million for IT services. We identified issues that question the cost-effectiveness of these expenditures.

### **Procurement**

---

The procurement of information technology services through the CRM contracts may have resulted in higher costs.

---

SCDOT normally procures information technology services through a competitive process. The IT projects authorized through the CRM contracts did not go through a competitive process. We reviewed the documentation authorizing the CRM contractors to provide specific IT projects and found no evidence that the prices the contractors proposed were negotiated. For items that are procured through the consultant procurement process, SCDOT is to negotiate the price with the selected contractor (see p. 18). This is the only way that SCDOT can ensure that the price is reasonable. Also, for some of

the IT services procured from a subcontractor through CRM, SCDOT paid an extra fee (5%) to the CRM contractors for administrative services, specifically invoicing and payment processing. As of April 2006, SCDOT had paid this contractor 13 payments totaling \$2.85 million, including approximately \$136,000 for the administrative services. SCDOT could have processed the 13 payments to the contractor for less than \$136,000.

### **Systems Quality**

---

The quality of the systems developed by the contractors may be questioned.

---

The CRM contracts stated that the contractors were to modernize SCDOT's current program and financial management system and to assist in the development of an integrated transportation management system (ITMS). According to an SCDOT official, the ITMS, a system that all of SCDOT's systems will be connected to, has not yet been completed. We reviewed allegations and SCDOT employee criticism of the CRM's IT work. It was not in the scope of our work to audit SCDOT's information systems. However, we did have experience with the Financial Management and Strategic Planning system (FMSP) developed by the CRM contractors. When we requested data on the cost and expenditures for the projects assigned to the CRM contractors, the information from FMSP was not readily available, and when received was unreliable. Throughout SCDOT, staff still rely heavily on manual processes to compile information (see p. 2).

---

### **CRM Claims of Cost Savings**

Based on self-reported information from the CRM contractors, SCDOT has claimed that the contractors have saved \$120 million. Approximately \$92 million (76%) of the savings claimed by the contractors are termed "avoidance cost savings," which means that they were potential costs beyond the contract budgets that were not incurred. These CRM claims are not possible to validate. Evidence indicates that construction projects managed by SCDOT were actually closer to their target budgets than those managed by the CRM contractors, and we could not obtain reliable information about total project costs (see above) from SCDOT. Also, SCDOT's internal costs incurred in managing the CRM projects (see p. 14) should be offset against any savings claims.

## Conclusion

Contracting with the CRM firms for project management allowed SCDOT to complete more projects. We did not conclude that this approach was flawed — there would have been advantages and disadvantages to other approaches, such as hiring additional staff for a temporary period. However, by failing to appropriately safeguard the interests of the state in the terms of the contracts' compensation, funds were wasted that could have been used to complete needed construction projects.

---

## Recommendations

1. As required by federal regulation and SCDOT policy, SCDOT should negotiate the terms and retain documentation of negotiation for all of its consultant contracts.
2. In contracting with consultants, SCDOT should follow accepted practices to provide accountability for contractor performance and minimize costs. These include:
  - Never accepting contract provisions which would allow the contractor to be paid for services that it did not provide.
  - Paying contractors only when deliverables have been received.
  - Managing the frequency of its payments to contractors to maximize funds available for the benefit of the state.

---

## Preconstruction Contracts

Preconstruction activities occur before construction on a bridge or road begins. SCDOT must design the road or bridge project, obtain the necessary environmental permits and purchase the property needed for the project (obtain the right-of-way). SCDOT may perform this work in-house or contract it to consultants. As of March 2006, SCDOT had 436 ongoing preconstruction contracts with a total value of \$241 million, of which \$130 million had been paid. We reviewed the procurement of these contracts including selecting the contractors, estimating the costs of the contracts, and negotiating the contract price. In some cases, we found evidence that SCDOT has not ensured that the process is fair and the contracts are cost-effective.

Because most of SCDOT's projects are funded in part with federal funds, the procurement of preconstruction contracts is governed by federal law. In contrast to construction contracts (see p. 33), preconstruction contracts are not awarded to the lowest bidder. The procurement process seeks to identify

the most qualified contractor and negotiate a fair price for the job. Federal regulation 23 CFR §172.5(a)(1) requires that agencies use competitive negotiation for the procurement of engineering and design-related services; however, “price shall not be used as a factor in the analysis and selection phase.” SCDOT’s departmental directive for obtaining professional consultant services states that the objective for these procedures is to:

[e]nsure that, through negotiation and contract administration, public funds are utilized in a manner consistent with appropriate state and federal rules and regulations by ensuring competition between consultant firms is part of the process to reduce cost.

There are two types of contracts which are procured by SCDOT’s office of contract services — consultant and on-call consultant contracts. Consultant contracts are generally for a specific project and could include road or bridge design or planning safety improvements for intersections. SCDOT selects on-call consultants on an “as-needed basis.” A maximum dollar amount is set for these services which are to be performed during a specific time period, not to exceed three years. SCDOT maintains a list of the firms which are qualified and available and contracts with these firms as their services are needed. These contracts are for services which are needed routinely but do not generally cost more than \$100,000. Examples include archaeology, environmental, and hydrology, which encompasses analyzing water flow and designing drainage.

In order to evaluate how SCDOT handles the contract process, we reviewed a sample of consultant contracts and on-call contracts. This review included the selection of consultants, SCDOT’s cost estimates, and price negotiation.

---

## Procurement of Contracts

Evidence indicated that SCDOT’s procurements of preconstruction contracts do not always ensure the most qualified contractor receives the job. The SCDOT commission approves requests for preconstruction contracts. The project is then advertised in the Budget and Control Board’s *South Carolina Business Opportunities*. A technical advisory group (TAG) made up of SCDOT staff scores all the proposals based on the selection criteria and submits an alphabetical list of the most qualified firms to a selection board. The selection board, a three-person group of SCDOT staff appointed by the executive director, selects the firm(s) to be negotiated with for the project. SCDOT often advertises several projects in one solicitation, so more than one firm may be selected. From our nonstatistical sample of 20 consultant contracts for a specific project, we reviewed 10 selections involving 14 firms. The contracts in the sample had a total value of \$39 million. We found that:

- Firms which did not receive the highest rankings have been selected for projects.
- Time between the advertising and signing of contracts was lengthy.
- Cost estimates for projects were sometimes much less than the contract price.

### **Selection of Contractor**

In five of the ten selections reviewed, SCDOT selected firms which did not receive the highest scores based on the written criteria. For most of these selections, the technical advisory group, which had scored all of the firms according to the selection criteria, did not submit the highest ranking firms to the selection board. For example, in one case, the TAG was to submit the three most qualified firms to the selection board. The firms submitted to the board were ranked second, fifth, and sixth out of the nine proposals received by SCDOT. The firm that ranked fifth received the contract. According to a SCDOT official, the TAG may consider factors other than the ones included in the selection criteria when making recommendations to the selection board.

Just as the technical advisory group did not recommend the highest ranked firms, the selection board also chose firms that did not receive the highest ranking. Although the board does not consider the scores of the TAG, it does use the strengths and weaknesses of the firms as evaluated by the TAG. Some examples of selections made by the selection board include:

- For one project, a firm ranked 18 out of 23 firms was selected. The technical advisory group had not submitted this firm to the selection board for consideration.
- For another project, a firm ranked 11 out of 23 firms was selected. Five firms were selected from this solicitation. The 11<sup>th</sup> ranked firm was one of two for which the technical advisory group submitted negative comments to the selection board.

The objective of the procurement process, according to SCDOT procedures, is to ensure an “independent, objective evaluation of all firms” and the “selection of the firm most qualified to perform the work specified in each contract.” SCDOT has developed criteria for the technical advisory groups to use in evaluating the proposals. However, both the TAG and the selection board can consider factors not included in the criteria or in the firm’s

proposals. According to an SCDOT official, this is to ensure that SCDOT considers all the factors when making a selection.

The selection criteria should include all the relevant factors relating to a firm's qualifications for a project. This would help to ensure that the process is independent and objective. SCDOT could change the selection criteria to include all relevant factors and the TAG could use just the criteria to evaluate the proposals. The selection board could then consider any unique conditions when choosing the firm(s) for the projects. Without objective, inclusive criteria, SCDOT cannot ensure that the most qualified firm has been selected for a project.

### **Other Procurement Issues**

We identified other issues related to the procurement of consultants for preconstruction.

- In our sample, the time between the advertising of a project and the signing of the contract averaged 237 days. A 2004 audit of the Colorado Department of Transportation's management of contracts found that:

... [l]engthy contracting timelines unnecessarily delay the start and completion of projects. In addition, lengthy contracting timelines adversely affect the department's ability to effectively manage project resources and promote fiscal accountability.

- The cost estimates prepared by SCDOT when requesting a consultant were much less than the contract price (see p. 22). In our sample, contract price was an average of 46% higher than the cost estimate. For construction contracts, federal guidelines state that for at least 50% of projects, the low bid should be within 10% of the engineer's estimate for the process to be effective (see p. 34). Without accurate cost estimates, it is difficult to predict the cost of a project and evaluate the price proposed by a consultant.
- SCDOT does not properly document the commission's approval of a project. Prior to advertising for consultants for a project, the SCDOT commission must approve the solicitation. The only documentation included in the selection file of this approval is a copy of the request to the commission with a handwritten date of the commission meeting. Without a copy of the minutes indicating approval of a project, the commission's approval cannot be determined.

In order to ensure that SCDOT receives needed services from the best contractor for the job, it is important that the procurement process accurately identifies the most qualified firm. Also, SCDOT should more closely estimate the projected cost of the contract and complete the contracting process in a timely manner.

---

## **Recommendations**

3. SCDOT's technical advisory groups should submit the highest-scored firms to the selection board.
  4. If the criteria used for rating contractors does not include all the factors to be considered, SCDOT should change its ranking criteria to more accurately reflect the evaluation of the firms.
  5. SCDOT should shorten the time between advertising a project and signing a contract.
  6. SCDOT should improve its cost-estimating process to more accurately determine the projected cost of contracts.
  7. SCDOT should include documentation of commission approval in the selection files.
- 

---

### **Selection of On-Call Consultants**

When awarding an on-call contract (see p. 18), SCDOT staff select from a list of all the firms that were qualified through the selection process. The selection of contractors from the on-call list is made by the SCDOT division responsible for that type of work and then reviewed by management. We reviewed the distribution of contracts awarded to firms who were on the list of on-call consultants in each of the 21 areas where on-call services may be required. We found that, for 9 (43%) of the 21 areas of on-call services, contracts were awarded to one or more firms in significantly greater amounts than to other firms. For example, the environmental area had seven firms available for on-call services and only two firms had been awarded contracts.

In March 2006, SCDOT began including memos to the state highway engineer with the on-call contracts that are submitted for his approval. These memos include a list of all the firms on the on-call list for that area, the amount of contracts awarded to each firm, and the amount of contracts pending for each firm. Most of the memos we reviewed did not include an explanation of why that firm was selected for the contract. To clarify the

reasons for the selection, SCDOT should include in the selection files documentation describing the reasons for the selection.

---

## **Recommendation**

---

### **Obtaining a Reasonable Price for Services**

Evidence indicated that SCDOT has not implemented adequate controls to ensure that preconstruction contracts are obtained at a reasonable price. Once a firm has been selected as the most qualified for a project, SCDOT negotiates the price and the scope of services to be provided by the consultant. The negotiation process is the only control SCDOT has to ensure a reasonable price. As part of this process, SCDOT prepares its own estimate of the cost of the contract and the firm submits its cost proposal. We reviewed a sample of consultant contracts to determine if SCDOT had prepared cost estimates. We also examined the negotiation documentation to determine if the price was negotiated and the effect that SCDOT cost estimates may have on the contract price.

In our nonstatistical sample of 20 consultant contracts for a specific project, we found that, for 5 (25%) of the 20 contracts in the sample, there was no evidence in the file documenting how SCDOT negotiated the price of the contract. These five contracts totaled over \$6 million. Federal regulations require competitive negotiation and SCDOT policy requires documentation of the negotiations in the contract file. Since cost cannot be used as a factor in the initial selection of a contractor, negotiation is the only way that SCDOT can ensure a reasonable price.

Federal regulation 49 CFR §18.36(f)(1) requires agencies to prepare an independent cost estimate before bids are received “to determine the reasonableness of the proposed contract price.” In our sample of 20 contracts, we found the following:

- For 10 (50%) of the 20 contracts, there was no evidence of an independent estimate prepared by SCDOT. For two of these contracts, the negotiation documentation noted that instead of preparing an in-house estimate, SCDOT reviewed hours and scope submitted by the consultant and recommended reductions.

- For 10 of the contracts, there were estimates from SCDOT and the consultant. Evidence indicates that SCDOT may have paid more for contracts without estimates. For those contracts where SCDOT prepared an estimate, the costs were reduced an additional 3 percentage points from those where there was no evidence of an SCDOT estimate. For contracts with an estimate, the final price was an average of \$338,647 lower than the firm's original proposal. For those contracts without an estimate, there was an average reduction of \$177,627.

Audits of the state departments of transportation done by the Oregon Secretary of State and the Montana Legislative Audit Division found that cost estimates could strengthen the negotiation position of the department. By preparing an independent cost estimate prior to contract negotiations, SCDOT can use that estimate in negotiations to reduce the cost of the contract.

---

## **Recommendations**

9. SCDOT should document contract negotiations as required by SCDOT policy.
10. SCDOT should prepare an independent cost estimate for each proposed contract as required by federal law.

---

## **Audits of Preconstruction Contracts**

SCDOT's audit program for preconstruction contracts is inadequate, ineffective, and not in compliance with federal law. Because preconstruction contracts are not competitively bid, negotiation of the contract price (see p. 22) and a system of audits are needed to ensure that SCDOT gets a reasonable price for the services provided. We identified the following problems with the audits conducted by SCDOT's external audit office:

- SCDOT does not comply with federal law in verifying overhead rates.
- SCDOT does not have risk-based policies to determine which contracts to audit.
- SCDOT's audits are insufficient, not adequately documented, and not timely.

## **External Audit Office**

The external audit office conducts audits of consultants who have been selected for preconstruction contracts with SCDOT. The office does three types of audits:

**PRE-AWARD AUDITS** — Performed after a consultant is selected for a contract. The review is to determine if the contractor is financially capable of doing the project.

**FINAL AUDITS** — Conducted after a contract has been completed. The review verifies that the contractor's costs are accurate and supported by documentation.

**PROGRESS AUDITS** — Same as final audits except they are conducted for large projects prior to completion of the contract.

All audit reports are sent to the director of the office of contract services. We reviewed the 19 pre-award audits done for the contracts in our consultant contracts' sample (see p. 18) and 4 final audits of consulting firms selected from the final audits done in 2005.

---

## **Overhead Rates Not Verified**

Preconstruction contractors are paid based on a reimbursement of costs plus a profit percentage. Overhead costs are a large percentage of the fee paid by SCDOT for these contracts. These costs are general expenses, such as administrative costs, including rent and utilities, and fringe benefits. Overhead costs are expressed as a percentage of the direct payroll costs. For the consultant contracts we reviewed, the average overhead rate was 159%. In order to ensure that these rates are calculated correctly, SCDOT is required to verify these costs as part of the audit process.

Federal law requires that the overhead rate used by consultants be determined by a state or federal agency. The American Association of State Highway and Transportation Officials (AASHTO) has published an audit guide for state DOTs to follow in auditing overhead rates. If the state does not audit the rate, the guide includes procedures to be followed when reviewing an overhead rate established by a CPA firm. Once these steps have been followed, a state agency may issue a letter of concurrence with the CPA audit. According to an SCDOT official, SCDOT follows the AASHTO guide in its audits. However, we found that SCDOT does not audit overhead rates in compliance with federal law or AASHTO guidelines.

- SCDOT did not audit the overhead rate in the pre-award audits we reviewed. Instead, the audit reports stated that the proposed overhead rate was approved for estimating purposes. SCDOT's pre-award audit program only requires verification that the rate is applied and calculated correctly.
- SCDOT's final audit review program requires that an overhead audit be obtained or an audit of the overhead rate be done by the auditor. For the four final audits we reviewed, SCDOT obtained an audit of the overhead rate from the consultant. There was no evidence that SCDOT reviewed the working papers of the CPA firms which performed the audit, as required by AASHTO guidelines, or verified the costs with the contractor's financial statements.
- We also reviewed the financial documentation maintained by SCDOT for 15 contractors in our sample. Only 4 (27%) of these contractors had an audit of overhead conducted by another state DOT or a letter of concurrence in a CPA firm's audit from another state DOT. One contractor had only a statement of overhead prepared by the consultant rather than an audit prepared by a CPA.

Because overhead costs make up a large part of the cost of consultant contracts, it is important that these rates are verified. Audits are needed to detect inappropriate rates, such as those inflated by including large CEO salaries as part of the overhead. SCDOT should audit the overhead rates as required by the AASHTO guidelines and develop audit programs which include verifying financial information and documenting the review.

---

## No Criteria for Requesting Audits

SCDOT has no procedures to determine when a pre-award audit of a consultant should be conducted. All of the audits are done at the request of the director of the office of contract services. According to the director, he requests pre-award audits for almost all contracts. However, when we looked for pre-award audits done for the contracts in preconstruction contract samples (see pp. 18, 21), we found that only 9 (45%) of the 20 consultant contracts and 10 (31%) of the 32 contracts with on-call consultants had pre-award audits.

Procedures for audit selection should be risk-based. SCDOT should implement policies requiring pre-award audits to be done for all contracts over a certain dollar amount and for any new contractor. If SCDOT does not complete a pre-award audit, a memo should be included in the selection file stating why an audit was not done. Having objective criteria for pre-award

audits prevents the appearance of favoritism in the selection of consultants for audits.

---

## Audit Program Insufficient

When conducting pre-award audits, auditors follow a standard pre-award review program. Most of the audits are desk audits, reviews of documents submitted by the consultant. Auditors rarely travel to the consultant's office. In our review of pre-award audits, we found the following deficiencies:

- Audits were issued after the contract price had been negotiated. For 4 (44%) of 9 pre-award audits done for the consultant contracts, we found that the reviews were published after the contract price had been negotiated.
- Financial audits used for the reviews were often several years old. For example, a pre-award audit done in 2005 relied on an overhead audit from 2002. Also, some of the financial statements SCDOT relied upon were not audits, but compilations of self-reported financial information.
- SCDOT did not properly document the work completed for the audit. Auditor's initials on the standard audit program indicated that the steps were done, but no workpapers were included in the file.

Pre-award audits are one way that SCDOT has to control costs when price cannot be used in the selection of a consultant. When these audits are incomplete and not timely, they are not effective in controlling contract costs.

---

## Conclusion

The external audit process is an important component of management's ability to control costs in preconstruction contracts when price cannot be used in selecting the consultant. When the process is not adequate to evaluate the costs, SCDOT may not be paying a reasonable price for services. By reviewing appropriate financial information and documenting the audit process, SCDOT would have greater assurance that the costs paid are fair and reasonable.

## Recommendations

11. SCDOT should audit indirect costs rates as required by federal law and American Association of State Highway and Transportation Officials guidelines.
  12. SCDOT should develop written, risk-based criteria for determining which contracts will have pre-award and final audits done. SCDOT should also require documentation of why an audit was not requested.
  13. SCDOT should develop audit procedures for pre-award audits that require audit completion prior to the completion of contract negotiations, current information, and documentation of work performed.
- 

## SCDOT's Contracts With an Engineering Consulting Firm

During the course of our review of SCDOT's consulting contracts, several contracts with one firm raised issues about SCDOT's selection and management of contractors. We reviewed the contracts between SCDOT and an engineering consulting firm shown in Table 2.2 and identified several issues. SCDOT paid this firm a total of \$2.6 million in FY 04-05 and FY 05-06 for the four contracts we reviewed.

We found that there were problems with the selection of this firm for contracts, the terms and scope of services in the contracts, and the billings and payments for the services.

---

**Table 2.2: Selected Contracts:  
FY 04-05 and FY 05-06**

CONTRACT	DATES OF SERVICE	AMOUNT PAID
Management Services	05/11/05 – 05/10/06	\$1,800,000
Management Services (CRM)	01/07/05 – 05/06/05	\$476,000
Highway Improvement Project	01/09/04 – 10/27/05	\$284,000
Hydrology	04/04/05 – present	\$53,000

Source: SCDOT

## Selection

The lack of competition for the management services contract and the involvement of SCDOT and Federal Highway Administration (FHWA) management in the contract negotiations could give the appearance of favoritism in the selection of this firm.

- SCDOT advertised on January 10, 2005, in *South Carolina Business Opportunities* a request for qualifications for transportation project management, project scheduling, and engineering services.
- Thirty-eight firms requested copies of the detailed description of the services sought by SCDOT. However, only this consulting firm submitted a proposal for this project. In other selections we reviewed (see p. 19), we found that, when a large number of firms requested the scope of services, an average of 81% of the firms submitted a proposal.
- The SCDOT commission normally approves the use of an outside consultant to provide services to the department. However, for this contract, the executive director acted on behalf of the commission to approve the project so it could be advertised. The commission was then informed at its January 27, 2005, meeting that the project had been advertised.
- Correspondence in the selection file indicated that SCDOT and FHWA executive management were involved in the negotiation process and writing this contract. No other selection files we reviewed included the involvement of SCDOT or FHWA executive management.

We also found there was no written justification for the need for these services or documentation of price negotiation. The contract with this firm for management services has been handled differently by SCDOT than other consultant contracts. When we asked for a list of all consultant contracts, this contract was not provided. Staff did not include it on a database of consultant contracts, but rather kept records for this contract on a separate spreadsheet.

---

## Terms and Scope of Services in Contracts

The scope of services to be provided by this firm for the two management services contracts was very broad and vague. On January 7, 2005, SCDOT requested through the CRM contract (see p. 9) assistance with their project tracking/letting reporting system. This project was assigned to this engineering firm for a four-month period. Because these services were acquired as IT services provided through the CRM contracts, SCDOT did not go through a competitive procurement process to select the firm. The services

provided through the CRM contract ended on May 6, 2005. On May 11, 2005, SCDOT signed a contract with the same firm procured through the process described on page 17. This contract continued the services provided through the CRM contract and added additional tasks. Some of the tasks to be provided were vague, such as “assistance with future department programs” and “staff augmentation.”

The contract specifies very few items to be delivered by the company. This makes it difficult to determine the adequacy of the services provided and the need for those services, since there was no justification for them in the selection file. The firm did begin submitting monthly progress reports in October 2005 which described its activities for each task. However, as of June 2006, the last progress report submitted was for March 2006 and only included information relating to one part of one task.

---

## **Temporary Employees Hired by the Contractor**

SCDOT has paid approximately twice as much as necessary to hire temporary employees through the management services contract. According to the contract, the consultant “will assist [SCDOT] with staffing needs for engineering and other divisions.” Many of the firm’s employees providing services under this contract were former SCDOT employees. The company emphasized in its proposal that it has a “staff of key former SCDOT employees with over 230 years of experience” at SCDOT.

- The consultant billed for human resource services from SCDOT’s former director of human resources. She was listed as a senior engineer and was paid \$43 per hour. With overhead and profit (see p. 24), SCDOT paid \$120.07 per hour. The number of hours she worked cannot be determined as the invoices did not consistently list the number of hours worked by each employee. It is also unclear how human resource services related to the services to be provided under the contract.
- In March 2006, SCDOT requested two additional staff to assist in the C-projects development office. These two employees had just retired from this office and were hired through the management services contract to train less experienced staff and develop a process guide for the C-program. SCDOT paid \$120.07 per hour for these employees including profit and overhead. When they left SCDOT, they were earning \$55 per hour, including fringe benefits.
- For three months, the firm provided secretarial staff while an SCDOT employee was on medical leave. SCDOT paid an average of \$35.95 per

hour for this employee, including overhead and profit. Administrative assistants employed by SCDOT are paid an average of \$17.82 per hour.

Many of the temporary employees hired by the consultant for this contract worked at SCDOT headquarters. Since these employees were not working at the company's office and did not receive office support for their day-to-day activities from the company, the consultant should not receive the full overhead rate for these employees. However, on its invoices, the company did not reduce its overhead rate for any employee.

Hiring these employees through a consultant contract is questionable especially when these former employees could have been hired as temporary employees without paying the overhead cost of 155% and profit of 9.5% charged by the firm. The consultant's annual progress report noted that staff augmentation services were necessary because of "the loss of experienced personnel due to retirements, particularly through the TERI program; vacancies created by promotions; and the need for additional manpower to implement a number of initiatives in a timely manner." SCDOT could address these issues in a more cost-effective manner. We could not determine any reason that SCDOT would choose to hire employees in this manner.

---

## **Billings and Payment**

The invoices submitted by the consultant did not give adequate information on the services provided. In addition, the payments to the firm have not always been based on reimbursing actual costs which is how consultants are usually paid.

We identified several issues in the payments for services to this firm through the management services contracts.

- The consultant received \$36,678 for the period ending 12/31/04 before the services were requested. There was no documentation in the invoice of the services provided. No one from SCDOT with responsibility for the services provided approved this invoice for payment.
- The firm's project director reported directly to the executive director and the deputy state highway engineer. He also received a pay rate of \$53.42 per hour which exceeds the maximum rate of \$43 per hour SCDOT allows for preconstruction consultants acquired through the procurement process.
- The terms of the contract require the consultant to be paid \$250,000 per month with adjustments to reflect actual costs in the next month's invoice. As stated in the contract, this was "to assist with cash flow."

The invoices submitted by the consultant did not relate the amounts billed to tasks in the contract but provided only a general description of the services provided by the firm's employees. Only the invoices submitted for October and November 2005 included information relating the labor costs to specific tasks. If SCDOT does not have adequate information on the work performed by its contractors, especially without specific items to be produced, it cannot determine if the services have been provided and evaluate the quality of those services.

SCDOT signed a contract with this firm after the services had been provided.

- The company was given, on September 30, 2003, a limited notice to proceed with services for a highway improvement project at a cost not to exceed \$50,000.
- The company signed a contract with SCDOT on November 2, 2005, to work on this project at a maximum cost of \$554,000.
- On December 13, 2005, the office of contract services approved payment on 22 invoices totaling \$284,000 dating from January 9, 2004, through October 27, 2005, for services related to this contract. A memo from the program manager to the office of contract services recommended that these invoices be paid because the scope of the project was continuously modified and the contractor worked in good faith at the request of SCDOT.

By signing a contract after all the services have been provided, there is little assurance that the services were provided as needed. There was no authority for the contractor to provide these services.

---

## **SCDOT Audits of Contracts With Consultant**

In a pre-award audit, SCDOT auditors recommended against contracting with this firm. On January 24, 2005, SCDOT issued a pre-award review of a proposed agreement with the consultant to provide hydrology services. SCDOT's office of external audit reviewed information provided by the company to determine if the firm was financially capable of performing this contract. The auditor could not recommend that the company be approved for contracting because the firm's liabilities greatly exceeded its assets and it might not be capable of meeting current payments. However, SCDOT did sign a \$58,000 contract on April 4, 2005, with the firm for hydrology services and has paid them \$53,000 for these services. Although SCDOT determined that the consultant should not be approved for contracting,

SCDOT continued to contract with this company for multi-million dollar contracts.

SCDOT's office of agency audits identified several issues with the contract for management services. They conducted a progress review of the contract which was completed in June 2006. The auditors identified several areas of concern for SCDOT to consider before renewing the contract:

- The company does not have an audited overhead rate (see p. 24). This rate should be audited and approved.
- The contract lacks a definite scope and is not task oriented. Deliverables need to be specifically defined.
- Costs are charged to multiple projects equally. There is no legitimate basis for the breakdown of amounts charged to individual projects.
- The auditors found some of the firm's costs to be unallowable. These items were still under review as of September 2006.

The auditors brought these issues to the attention of the appropriate SCDOT staff so that they could be addressed in the contract renewal process. The contract was renewed for one year in July 2006 at a maximum cost of \$2.3 million. There are performance measures and deliverables associated with most of the tasks. However, the overhead rate has not changed, and the billing of costs is not addressed in the contract.

---

## Conclusion

SCDOT's contractual history with this firm raises questions of favoritism and ineffective management of resources. Without definite services to be provided and lack of information in invoices to evaluate the services, SCDOT cannot determine if the services have been provided and have been effective. SCDOT may also have been able to obtain these services more cost-effectively by using temporary employees or obtaining more competition for this project. Because there was no justification for the need for these services in the selection or contract files, the need for the supplemental management services could not be determined.

---

## Recommendations

14. SCDOT should include specific scope of services when contracting with consultants.
15. SCDOT should require that invoices relate all charges to specific contract tasks.

16. SCDOT should hire temporary employees by the most cost-effective means, and avoid paying overhead costs.
  17. SCDOT should not pay consultants a full overhead rate when its employees are based at SCDOT.
  18. SCDOT should not contract with consultants who are found to be not financially capable of performing the contract.
- 

## **Construction Contracts**

In 2004 and 2005, SCDOT awarded approximately \$1.4 billion in construction contracts. These contracts were awarded by a competitive procurement process. Prospective contractors bid on the projects and contracts were awarded to the lowest bidder. We reviewed SCDOT's management of construction contracts and considered its performance in two primary areas of construction contract management:

- Managing a procurement process that ensures adequate competition and quality contractors.
- Minimizing cost overruns and delays in the completion of construction projects.

We found that SCDOT had ongoing efforts to improve results in each of these areas.

---

### **Oversight of the Procurement Process**

A competitive procurement process is necessary to minimize project costs. In many cases, SCDOT does not get the level of competition that would be desirable to control construction costs. SCDOT received only one or two bids for 23% of 242 construction contracts that were closed in FY 04-05. The LAC's 2001 review of SCDOT's road paving contracts cited lack of competition as an issue of concern. SCDOT implemented several changes in its construction procurement process in response to the 2001 audit. These changes included:

- Lessening the opportunities for collusion by no longer holding bid openings at a Columbia hotel and requiring that all bids be submitted electronically.
- Implementing written policies that follow federal guidelines to specify when a bid is to be reviewed for possible rejection. The guidelines include consideration of the level of competition in the bidding process.
- Improving its capacity to identify problems with bids by using bid analysis software.

## **Estimating Project Costs**

SCDOT has also improved its ability to estimate the costs of projects prior to reviewing bids. Our 2001 audit found that SCDOT was not meeting federal guidelines regarding the accuracy of its engineers' estimates of project costs. According to the Federal Highway Administration guidelines, "the estimate must have credibility if the bid review process is to be effective." The guideline states that for at least 50% of projects, the low bid should be within 10% of the engineer's estimate. In FY 00-01, just 43% of the bids were within 10% of SCDOT's estimate. We reviewed SCDOT's current performance in the accuracy of its project cost estimates and found that for contracts awarded in FY 04-05, SCDOT's estimates met the 50% guideline.

## **Analyzing Bidding Patterns**

SCDOT needs to take further action to analyze bidding patterns. Its bid analysis software compares the bids to each other and to the SCDOT estimate, and can help officials identify unbalancing in the bids. Such practices include "frontloading" the bid so that the bidder would get more money up front, or manipulating the prices of different materials to inflate the cost of the project. However, according to officials, in order to do more sophisticated analysis and detect possible collusion in bidding, SCDOT needs to add more contractor information, such as ownership and affiliation information, geographic information, and "work type" information to its database. SCDOT should proceed with this process, which is necessary to ensure the integrity of the bidding process.

## **Contractor Qualifications**

Because SCDOT must award highway construction contracts to the lowest bidder, ensuring that the low bidder is qualified to do the work is important. SCDOT's construction contractors must be pre-qualified in order to bid on projects. The pre-qualification process determines whether the contractor has the personnel, experience, and equipment to do the work. In addition, SCDOT is currently implementing a process whereby evaluations of contractor performance on previous contracts may be considered in the procurement process.

Beginning in January 2005, SCDOT implemented a new performance evaluation system for its construction contractors. The evaluation has four parts, with 70% of the score based on objective criteria, including the project's on-budget and on-time performance. In April 2006, SCDOT officials sent warning letters to low-scoring contractors and placed 11 contractors on probation. If the contractors do not meet the terms of the

probation and improve their performance scores, they may be disqualified from bidding on future contracts with SCDOT. Obtaining and using performance information in the bidding process should help to ensure that contractors meet performance standards and are capable of completing a high-quality project.

---

## **Recommendations**

19. SCDOT should implement more comprehensive bid analysis techniques to allow it to detect collusion or other improper bidding practices.
  20. SCDOT should continue to implement its plan to use the results of contractor performance evaluations in determining which contractors are eligible to bid on projects.
- 

### **Minimizing Cost Overruns and Delays**

#### **Partnering**

Evidence indicates that SCDOT's use of partnering, a formal collaboration between the contractor and SCDOT, has improved its ability to complete projects within budget and on time. Partnering has proven to be a successful project management technique in a variety of settings, including other departments of transportation. Beginning in October 2003, SCDOT required its construction projects to be managed using a partnering process. The partnering process involves an initial facilitator-led workshop for SCDOT and contractor employees involved in the project. The participants develop a team charter for the project and also agree on an issue escalation process. The object of this process is to ensure that issues and problems are resolved at the lowest level possible and in a timely manner. Depending on the size of the project, additional follow-up workshops are held, and participants conduct evaluations of the partnering process. SCDOT and the contractor share the costs of partnering, primarily nominal facilitator and workshop costs.

Evidence indicates that partnering has improved construction project performance. SCDOT has regularly monitored the on-time and on-budget performance of its construction projects and compared the results for partnered and non-partnered projects. Results have consistently shown that the amount actually paid on completed contracts compared to the amount originally bid has been lower for partnered projects. SCDOT calculated a cumulative \$17 million in savings for partnering as of March 2006. We reviewed the methodology for SCDOT's measures comparing partnered and non-partnered projects and found it to be sound. Partnered projects have also been more timely than non-partnered projects. While the non-partnered

projects have consistently averaged about 5% – 6% behind their target dates for completion, partnered projects have performed in a range from meeting the target date (0% behind) to being 3% – 4% early.

Contract modifications or change orders are a key factor in driving up the costs of construction contracts. SCDOT has found that partnered projects have generally had a lower percentage of change order increases than non-partnered projects (excluding changes to projects that were initiated by SCDOT). They estimated the cumulative savings in change orders at \$10.3 million as of March 2006.

### **Change Order Item Prices**

We also reviewed the prices that SCDOT has paid for construction contract items in original bids compared to the prices they paid in change orders. This is an area where costs can be difficult to control, as there is no bidding process for changes to an ongoing contract. An audit of the Colorado Department of Transportation found that the department paid significantly higher prices for the same items in change orders. We compared original bid prices with change order prices for 85 of SCDOT's most significant items. These items comprised more than 60% of the amount awarded in construction contracts for calendar years 2004 and 2005. We found that SCDOT's change order prices did not differ significantly from the original bid prices.

---

## **Contract With CPA Firm**

SCDOT paid over \$121,000 to a CPA firm for business advisory services without competitively procuring these services as required by the state procurement code. Agency officials could provide no documentation of the procurement process used for hiring this firm.

Between November 2003 and December 2004, SCDOT paid a local CPA firm \$121,432 to perform tasks such as:

- Structuring the fiscal year operating budget in a format acceptable to senior management and reviewing alternative financing for projects already under construction, primarily the Cooper River Bridge Project.
- Assessing the strengths and weaknesses of the SCDOT finance department's organizational structure and evaluating personnel needs.
- Assisting management with budgets and the review of monthly financial management reports.

- Creating a 10-year planning model to estimate the financial effect of alternate operational and strategic decisions.

According to an agency official, this contract was “a direct negotiation” since the firm had a local presence with the expertise and available staff to accomplish the tasks in the required time frame.

However, the state’s consolidated procurement code requires that contracts be competitively procured. These laws ensure that procurements are the most advantageous to the state, are handled ethically, and will promote increased public confidence in the procedures followed in public procurement.

In cases where there is only one source that can provide the services needed, state law provides that the decision to use this source be documented with an explanation as to why no other source would be suitable. SCDOT did not provide any documentation regarding the procurement of the accounting firm. We could not determine any reason that the services provided by the CPA firm could not have been provided by other firms.

Without sufficient documentation of the selection process, there is no evidence that the firm hired by SCDOT was the most qualified since its qualifications and experience were not evaluated against similar firms. By circumventing procurement procedures, SCDOT did not ensure that the state received the best value for its money. We reviewed billings and other documents which showed that the firm appeared to fulfill the terms of the contract. However, there is no evidence that the financial services were cost-effective. The CPA firm billed SCDOT per hour, at rates ranging from \$175 to \$300 per hour.

---

## **Recommendation**

21. SCDOT should ensure that all procurements comply with applicable procurement laws and regulations and that appropriate documentation of each procurement is maintained.

---

**Chapter 2**  
**Contract Management**

---

# Program Management

---

## Federal Billings Held

We were asked to determine if SCDOT billed the Federal Highway Administration (FHWA) in a timely manner. We found evidence to support allegations that officials attempted to lower SCDOT cash balances during the legislative session by delaying billings for reimbursements from the FHWA. Deferred billings in FY 03-04 and FY 04-05 may have cost the agency more than \$1.5 million in lost interest.

Although SCDOT did not lose federal funds for the projects, the reimbursements from the FHWA for these projects were delayed and SCDOT lost interest income. We could not determine any valid reason that SCDOT deferred federal reimbursement of its expenditures.

---

### Advance Construction Category Used Extensively

Following a process outlined in an agreement SCDOT and the FHWA signed in 2004, SCDOT expends money for construction projects which is reimbursed by the FHWA usually at 80% with a 20% state match (see p. 5). SCDOT generally tries to bill the FHWA twice a month for all expenditures that have been incurred to date. However, in December 2003 SCDOT management and staff met to formulate a plan to “manage federal funds” coming into SCDOT. Under the plan, federal reimbursements were delayed by reclassifying projects to a category called “advance construction.” This category essentially means that FHWA has approved the project, but is not obligating federal funds to it. Therefore, all expenditures made by SCDOT for these projects are not reimbursed until the project is converted to a regular federal-aid project.

While it is normal for SCDOT to classify certain projects as advance construction, during these months, according to staff, this category was used extensively instead of an authorized category that would have allowed for timely reimbursement. In addition, SCDOT staff established procedures to discontinue its normal process of adjusting funds for current projects experiencing cost overruns. Therefore, when SCDOT expenditures exceeded the amount of authorized federal funds, no adjustments were made to increase the authorized amount so that SCDOT could be reimbursed. This process further increased the balance that could have been billed to the FHWA but was not.

Table 3.1 shows the total unclaimed amount on the federal billings for periods in FY 03-04 and FY 04-05. The table shows these amounts escalating significantly during December of both years and continuing to rise during January and February. The deferred billings were the expected outcome of the procedures discussed by management in December 2003 which were to

have revenues coming into SCDOT only when needed to meet current payment obligations.

The total of unreimbursed overruns and the projects classified unnecessarily in the advance construction category reached a high of over \$181 million in March 2004 and over \$165 million in February 2005 as shown in Table 3.1.

---

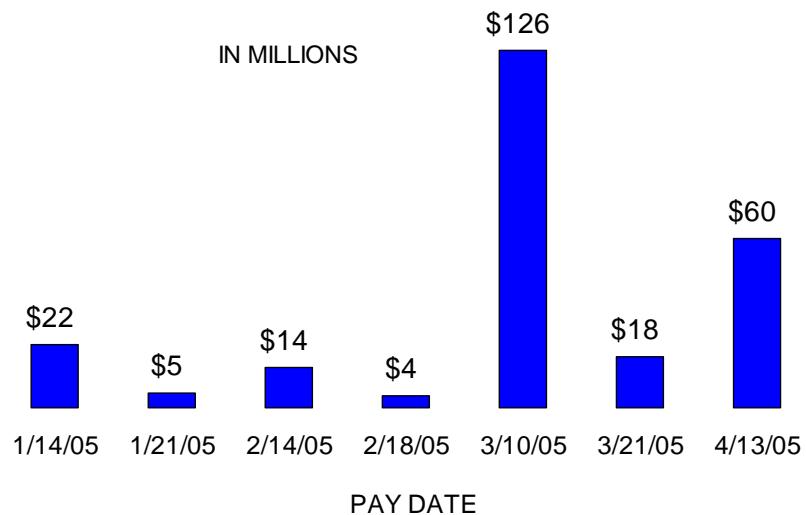
**Table 3.1: Unclaimed Amount on SCDOT's Billing to FHWA**

BILLING DATE	UNCLAIMED AMOUNT
<b>FY 03-04</b>	
11/30/03	\$67,398,489
12/31/03	\$100,411,847
01/31/04	\$128,635,628
02/29/04	\$148,296,203
<b>03/31/04</b>	<b>\$181,676,516</b>
04/12/04	\$139,631,349
<b>FY 04-05</b>	
11/30/04	\$66,850,017
12/31/04	\$133,162,366
<b>01/11/05</b>	<b>\$145,845,870</b>
01/31/05	\$156,945,316
<b>02/15/05</b>	<b>\$165,333,708</b>
02/28/05	\$60,612,186

Source: SCDOT

Beginning in March 2005, newspapers in South Carolina began reporting that “the agency hadn’t claimed more than \$145 million in federal funding.” As shown in Table 3.1, this was the total of the unclaimed federal billings during January 2005. Also, an SCDOT commissioner inquired about the process of billing the FHWA. At this time, SCDOT staff stopped procedures to “manage federal funds” and projects were converted from advance construction status back to authorized status. This allowed the expenditures relating to these projects to be billed to FHWA and reimbursed to SCDOT. These conversions resulted in an unusually large federal billing for the February 2005 month-end bill. Graph 3.2 shows SCDOT’s billings to FHWA for January through April 2005. The amount billed for pay date March 10, 2005, of over \$125 million is significantly higher than other billings.

**Graph 3.2: FHWA Billings by SCDOT**



Source: SCDOT

---

### Interest Income Lost

SCDOT's cash is invested with the State Treasurer's office in the state's internal cash management pool. SCDOT receives interest income generated from its cash balances on deposit in this account. While it is difficult to calculate the exact amount of interest income SCDOT did not collect due to delaying reimbursements from the FHWA, it is clear that interest income was lost during that time. We estimated the interest lost to be over \$1.5 million for the months involved as shown in Table 3.3. SCDOT stated that it actually earned more interest during the periods of December through March of FY 03-04 and FY 04-05 than during the same period in the previous two years. While we do not dispute that fact, SCDOT could have earned significantly more if it had not delayed claiming reimbursements from the FHWA.

**Table 3.3: Estimate of Interest Income Lost Due to Delayed FHWA Reimbursements**

FHWA BILLING DATE	UNCLAIMED AMOUNT ON FEDERAL BILLING	INTEREST CALCULATED ON DAYS IN BILLING CYCLE*
12/31/03	\$100,411,847	\$ 175,708
01/31/04	\$128,635,628	263,264
02/29/04	\$148,296,203	355,058
03/31/04	\$181,676,516	185,839
12/31/04	\$133,162,366	85,468
01/11/05	\$145,845,870	180,138
01/31/05	\$156,945,316	151,342
02/15/05	\$165,333,708	141,799
02/28/05	\$60,612,186	9,712
TOTAL		\$1,548,328

\* We calculated this amount using an average monthly interest rate (4.41% for FY 03-04 and 3.56% for FY 04-05) obtained from the State Treasurer's office. The lost interest was based on the unclaimed amount reduced by \$53.5 million, the amount normally carried in unclaimed billing.

Source: SCDOT

---

## Undermining the Fiscal Integrity of SCDOT's Billing System

The agreement between SCDOT and FHWA outlining the billing program between the two agencies states "the joint program relies on the SCDOT's systems and procedures to assure the fiscal integrity of costs incurred in the highway program." SCDOT has an obligation to bill FHWA "under adequate management controls" to assure that the costs incurred are complete, accurate and valid. In addition, as part of this agreement, SCDOT agrees to "submit billings on a current basis." By employing tactics to unnecessarily delay the reimbursement of funds, SCDOT undermines the reliability and fiscal integrity of its accounting records. In light of SCDOT's continual need for cash to pay its employees and contractors as well as debt service (see p. 7), the collection of reimbursements in a timely manner should be of utmost importance.

---

## Recommendation

22. SCDOT should follow the procedures outlined in the Memorandum of Understanding between SCDOT and the Federal Highway Administration (FHWA) to ensure that billings submitted to FHWA are accurate and timely and to assure the fiscal integrity of costs incurred in the federal-aid reimbursement program.

## Environmental Issues

### EPA's Involvement in Settlement of Environmental Violations

SCDOT spent over \$3 million to address several environmental violations. From 1992 to 2005, SCDOT paid penalties to the Department of Health and Environmental Control (DHEC) and the federal Environmental Protection Agency (EPA) totaling \$163,880. Also, in 2002, the EPA required SCDOT to undertake a \$2.9 million supplemental environmental project (SEP) as part of sanctions stemming from six actions against the agency.

In July 2002 the EPA and SCDOT signed an agreement to settle six actions against SCDOT that had been initiated by DHEC. Four of these actions were for violations at SCDOT facilities, while two violations involved construction activities. These actions are discussed below:

- During construction of the southern connector in Greenville county, stormwater management and sediment controls had not been properly installed (for 19 months) resulting in seven separate discharges of sediment into six streams or rivers.
- SCDOT's Fairplay welcome center's sewage lagoon failed to meet the required effluent limitations 64 times between 1996 and 2001. EPA required SCDOT to construct additional wastewater treatment units to upgrade the facility.
- SCDOT's Gaffney maintenance facility was cited for improperly documenting a shipment of chemically-treated timbers to a landfill and discharging used oil onto asphalt and soil. In addition, emergency information at the site did not comply with requirements and included personnel no longer employed at the site.
- SCDOT's Lancaster maintenance facility was cited for spills of used oil, storing hazardous waste in leaking containers, and failing to appropriately label containers of hazardous waste. Employees at this facility handled and stored containers of hazardous waste in a manner that caused them to rupture and leak.
- SCDOT's Spartanburg maintenance facility was cited for several instances where officials failed to submit proper reports relating to hazardous waste. In addition, emergency information and a required contingency plan were not available at the site. Areas with stained soils, and waste discharges of oil, salt and other materials were noted throughout the site.

- DHEC inspected eight SCDOT bridge maintenance locations in 2000. As a result of these inspections, DHEC documented numerous violations at these sites, including failure to clean up hazardous waste discharges and failing to properly manage hazardous waste storage containers.

SCDOT and DHEC could not agree on an appropriate settlement of these issues. Subsequently, the federal EPA initiated its own enforcement action. In order to settle these six matters with the EPA, in 2002 SCDOT paid a civil penalty of \$150,000. In 2003, SCDOT was reimbursed \$80,000 by its construction contractor in connection with the southern connector violation. In addition to the civil penalty, the EPA required SCDOT to perform a supplemental environmental project (SEP). A SEP is a project that will yield environmental benefits partly offsetting the harmful effects of the violations. The funds spent for a SEP must be in addition to funds that would normally be spent for construction projects. According to the consent agreement and final order signed by SCDOT and the EPA, the SEP costs must be "...in excess of normal costs incurred by the SCDOT for using established construction procedures . . ." SCDOT was required to spend at least \$2 million on the project, an erosion control project using tree limbs, stumps and other vegetation removed from construction sites. These items were ground into mulch and spread back over the disturbed areas. Although SCDOT estimated that it would spend \$2.1 million to implement the SEP, it actually spent over \$2.9 million.

During 2000 and 2001, negotiations were held between officials from SCDOT and DHEC to attempt to settle the six cases discussed above. Evidence suggests that, based on advice from outside legal counsel, SCDOT officials were adamant that no fines should be paid by one state agency to another. Evidence obtained from SCDOT files indicates that DHEC was willing to settle the six cases for a civil penalty of \$125,000 as well as an agreement from SCDOT to bring the affected facilities into compliance with environmental laws and regulations.

When these six cases were taken over by EPA, the civil penalties sought by EPA prior to negotiations with SCDOT were \$655,728. As discussed above, the six cases were finally settled with SCDOT paying a fine of \$150,000 (\$80,000 reimbursed by its contractor) and undertaking the \$2.9 million SEP. SCDOT officials stated that the SEP had beneficial results because its procedures are being used in some current construction projects. However, when violations dictate spending decisions, the agency's ability to prioritize its use of resources is impeded.

## **Other Environmental Penalties Paid**

Between 1992 and 2005, SCDOT paid penalties to DHEC totaling \$93,880 for seven additional environmental violations as listed in Table 3.4. Most of these violations were for environmental violations at SCDOT's own facilities.

---

**Table 3.4: Penalties Paid by SCDOT to DHEC for Environmental Violations Between 1992 and 2005**

<b>DATE</b>	<b>FACILITY / PROJECT</b>	<b>VIOLATION</b>	<b>AMOUNT</b>
April 1992	Beaufort Maintenance Shop & Lee County Shed	Failure to comply with laws governing razing building containing asbestos; underground storage tank contamination.	\$20,000
December 1993	Cherokee Maintenance Facility	Violation of hazardous waste management laws.	32,000
December 1993	Union Maintenance Facility	Violation of hazardous waste management laws.	9,000
November 1997	Chester Maintenance Facility	Violation of hazardous waste management laws in disposal of paint drums.	3,000
April 1998	Route 60 Construction Project	Violations of water pollution control permit.	9,880
March 1999	Chester Soil Pit	Violations of hazardous waste management laws.	10,000
November 2005	U.S. I-85 Greenville County	Violations of water pollution control permit.	10,000
<b>TOTAL Penalties Paid</b>			<b>\$93,880</b>

Source: SCDOT.

In these cases, state funds that should have been used for roads and bridges were remitted to the general fund as civil penalties. In order to prevent penalties in the future, SCDOT should ensure that all of its facilities are in compliance with environmental laws. In addition, employees of SCDOT should be properly trained concerning compliance with environmental laws.

---

## **Violations During Construction**

Changes to permitting requirements scheduled to be made in 2006 should strengthen measures SCDOT already has in place to hold contractors and subcontractors legally responsible for violations of environmental laws. SCDOT and its contractors share responsibility for complying with environmental laws during construction. Violations during construction activities usually involve failure to comply with conditions of a DHEC permit which regulates stormwater runoff from construction sites. During

construction, the vegetation on lands is disturbed causing increased stormwater runoff which deposits sediment into rivers and streams. Under the overall DHEC permit, SCDOT prior to construction must develop and implement stormwater pollution prevention plans to reduce the flow of sediment into the state's waters.

SCDOT's construction contracts contain language that requires the contractor to become a co-permittee with SCDOT in complying with the DHEC permit. Therefore, the contractors become legally accountable to DHEC to ensure compliance with the terms and conditions of the stormwater pollution prevention plans. SCDOT and its contractors are responsible for ensuring that environmental permit requirements are fulfilled. For recent violations, SCDOT and the construction contractor have been named by DHEC as responsible parties. In the majority of these cases, the contractor has been responsible for paying all or part of the penalty levied by DHEC.

Changes to requirements in the DHEC permit held by SCDOT are scheduled to be implemented in 2006. According to an SCDOT official, these changes will require SCDOT to hold erosion control conferences with all contractors, subcontractors, and utility representatives to discuss erosion control plans prior to starting work. In addition, subcontractors will also become co-permittees with SCDOT and will be held legally accountable to DHEC for compliance with stormwater pollution prevention plans.

---

## **Recommendations**

23. SCDOT should ensure that it complies with environmental laws and regulations at all of its facilities.
24. The General Assembly may wish to consider legislation concerning fines between state agencies.
25. SCDOT should continue to implement procedures to ensure that construction contractors comply with contract terms regarding compliance with environmental laws and regulations.

## **SCDOT Planning**

We examined SCDOT's planning procedures for building and maintaining roads to determine if the process adequately prioritized projects. We found that SCDOT complies with federal regulations and generally has appropriate processes in place for planning construction and maintenance projects statewide.

---

### **Construction Projects**

SCDOT's process for planning federally-funded construction projects appears appropriate and in compliance with federal guidelines. In 1997, SCDOT began producing a State Transportation Improvement Plan (STIP), which is a five-year estimated funding plan for construction projects for the department. The document, which is required by the federal highway funding bill, lists all federally-obligated funds and state match requirements, program summaries for all categories, and projects for all local planning entities. SCDOT issues a new STIP report typically every two years, though the most recent one was delayed until the newest federal highway bill passed in 2005. SCDOT officials expect the new STIP, which will cover 2007 through 2012, to be available around October 2006. SCDOT officials may add 12-15 amendments each year to update status and funding for projects.

With assistance from SCDOT staff, the SCDOT Commission decides how each year's available federal funds will be allocated among the various categories such as interstate maintenance, bridge replacement, and the urban and rural system program. Although many categories like safety, planning, and enhancements require federally-mandated minimum funding levels, the commission has the authority to increase these levels.

SCDOT collaborates with local officials on specific project selection in the urban and rural system program. These local entities, including Metropolitan Planning Organizations (MPOs) and Councils of Governments (COGs), consist of mayors, city council members, city and county administrators, and area legislators. These local organizations are responsible for conducting studies to assess local needs and make recommendations to SCDOT on project priorities. To determine these priorities, officials evaluate factors such as the local population, labor force, school enrollment, and vehicle registration. SCDOT and local officials also examine present and future traffic volume, how the project supports freight movement and economic development, and how a particular project fits into the state's comprehensive plan. The local entities each submit their own transportation improvement plan (TIP) to SCDOT for inclusion in the STIP report.

---

## **Recent Changes to the Planning Process**

Local entities have become more involved in the planning process. SCDOT has increased the role of COGs, which address traffic needs in rural areas of the state. SCDOT hopes to eventually bring the COGs to a level of responsibility comparable to their urban counterparts, the MPOs.

Officials have also put a priority on identifying environmental concerns in the planning stages of project development. This practice avoids potential complications that can arise once the project enters the preconstruction phase. SCDOT officials state that in 2004 they began submitting long-range plans to federal and state resource agencies in an attempt to partner with them during the planning process.

---

## **Maintenance Projects**

SCDOT can only use federal funds on highways, interstates, and some secondary roads that are on the federal highway system. Federal funds cannot be used on routine maintenance, such as mowing or patching pavement. There are approximately 24,500 miles of secondary roads that must be maintained only through state funds. Individual district offices establish priorities for maintenance projects. Officials have stated that they prefer a preventive approach to maintenance, though much of their work is complaint-driven. This is especially true in urban areas. Funding for maintenance has increased significantly between FY 02-03 and FY 04-05 (see p. 6).

---

## **SHIMS Projects**

Audit requesters expressed concern over the Strategic Highway Plan for Improving Mobility and Safety (SHIMS) legislation that the S.C. General Assembly passed in 1987. In particular, there are questions surrounding what happened to the projects that the SHIMS legislation originally intended to address.

The SHIMS legislation directed a 3¢-per-gallon increase in the motor fuel tax to fund several statewide programs, including a number of statewide transportation projects. The law required the ranking of project priority based on a formula that includes socioeconomic as well as transportation factors. In February 1991, the State Highway Commission adopted a policy of establishing a statewide ten-year improvement plan. This improvement program utilizes all available federal and state funding sources, including SHIMS. Later SHIMS documents, which SCDOT submitted to the General Assembly, include projects on a 10-year plan as well as a 20-year plan.

The SHIMS program faced several challenges after its inception. Federal legislation in 1992 increased appropriations to South Carolina, thereby requiring additional state matching funds. SHIMS legislation was amended by the General Assembly in 1992 to:

- Divert funds from the SHIMS program to match federal highway funds when necessary.
- Contribute \$25 million to pay for Hurricane Hugo damages.
- Segregate \$25 million annually for economic development plus an additional \$10 million in FY 92-93 for a special economic development project.

The General Assembly repealed the SHIMS program in 1993. Taxes previously remitted to the SHIMS fund were then directed to the State Highway Fund. We requested a comprehensive update from SCDOT on the current status of all SHIMS projects from the most recent list (1993). As of July 2006, we had not received these updates and could not determine the status of these projects.

---

## Performance Measures

---

We reviewed SCDOT's methods for measuring and reporting on its performance. SCDOT has an ongoing strategic plan and has regularly measured many of its actions. Our review concluded that the measures SCDOT has selected are generally appropriate, although some, such as highway fatalities, are measures over which the agency has limited control, and others are not directly related to agency performance. We identified some areas where SCDOT could improve its performance reporting.

---

### Comparative Data

SCDOT has reported comparative performance data that is not valid. SCDOT and other state agencies report their performance to the Governor and members of the General Assembly in an annual accountability report. In each of its last three annual accountability reports, SCDOT reported its national ranking in an annual study that assesses the performance of state highway systems. In FY 04-05, SCDOT reported its ranking for overall cost effectiveness as third in the nation, but this comparative data should not be used for ranking purposes.

The annual *Highway Statistics* published by the Federal Highway Administration, the source of the data in the report used by SCDOT, explicitly warns that, due to data inconsistencies and state-to-state differences, it should not be used for comparative purposes. Data of this sort

must be used only to compare transportation systems with like transportation systems. Also, some of the measures used in the report do not have a standard national definition:

**ROAD QUALITY** — Three of the twelve measures the report uses to compute a state's ranking are based on this measure. According to an SCDOT official, there is no national standard in measuring road quality. What S.C. considers a high-quality road may be considered lower quality in other states.

**URBAN INTERSTATE CONGESTION** — This measure is determined on a relative basis and would vary from state to state.

Due to these and other comparability concerns, SCDOT should not report its ranking as a conclusive assessment, as it could be misleading and misunderstood by the public.

We also reviewed the data used to compute the following SCDOT performance measures:

- Percentage of maintenance requests completed within 60 days.
- On-time and on-budget percentage of construction contracts.
- Right-of-way condemnation rate.
- Hits to cable median barriers.
- Work zone crashes and fatalities.

The data for these measures is regularly tracked and based on appropriate sources. However, we noticed some discrepancies between data sources and the results reported in the annual accountability reports. These conditions indicated a need for more careful compilation and controls over SCDOT's performance data.

---

## **Communication of Performance Results**

SCDOT has not adequately published the extent to which it is achieving its goals. Some of the measures featured in the agency's strategic plan are not reported in its accountability report. For example, SCDOT has a strategic plan goal to improve the on-time and on-budget performance of its construction contracts. However, SCDOT did not report its progress on this measure. We reviewed the data for construction projects completed over the past three years. The results are shown in Table 3.5. This measure would also be appropriate to feature as a dashboard measure since it is an important part of how the public views the agency's performance.

**Table 3.5: On-Time and  
On-Budget Performance of  
Completed Construction Projects**

	<b>FY02-03</b>	<b>FY03-04</b>	<b>FY04-05</b>
Number of Projects	230	292	280
On-Time	67%	73%	65%
On-Budget	82%	78%	76%
On-Time and On-Budget	53%	53%	49%

Source: SCDOT

For performance information to be effective, it must be provided in a timely manner and in terms that people can understand. In trying to become more effective, Virginia's DOT has developed a "dashboard", a few select measures that give a quick overview of how the agency is performing at any moment. SCDOT currently has no dashboard or readily accessible performance measures on its website. Virginia's DOT is recognized as having a dashboard that is the standard for providing up-to-date performance information. The measures and their current status are featured on VADOT's website. One of SCDOT's goals is to complete 90% of maintenance requests within 60 days of receipt. SCDOT tracks this measure consistently, and reports it in the annual accountability report. SCDOT could develop a dashboard for this and other measures that are easily understood by and of concern to the general public.

---

## Use of Measures to Manage

We also reviewed the use of performance measures in the SCDOT's strategic planning and management. Timely performance information is vital to managing performance. SCDOT has provided monthly updates on selected indicators to the executive director. In its FY 02-03 through FY 04-05 annual accountability reports, SCDOT reported that monthly indicators were provided to the executive director to help her determine how the agency is performing. SCDOT refers to these indicators as "dashboards." However, these indicators are not performance measures, but rather mostly resource indicators such as toll road dollars, construction contracts awarded, and cable rail costs.

We also found that SCDOT formerly reported performance data on a quarterly basis to senior leadership. In its annual accountability reports through FY 04-05, SCDOT stated that these quarterly reports were used by management in their decision-making. However, these reports were last produced in October 2003. SCDOT should ensure that its accountability reports reflect an accurate picture of the agency's process. According to an SCDOT official, they are currently working to develop an effective reporting format to provide regular performance information to agency management.

---

## **Recommendations**

26. SCDOT should regularly publish data that shows the current status of its performance measures.
27. SCDOT should implement appropriate controls to ensure that its accountability report is accurate.
28. SCDOT should not publish comparative data that is unreliable or misleading.
29. SCDOT should develop a “dashboard,” accessible to the public, which includes measures that would give the General Assembly, the general public, and other interested parties accurate information regarding the overall effectiveness of the agency at any time.
30. SCDOT should continue to develop and implement a process by which performance data is regularly reviewed and used by top management in its decision-making process.

# Administrative Management

---

---

## Building Renovations

---

### Headquarters Renovations

We reviewed SCDOT's headquarters renovations for compliance with state law and cost-effectiveness. We found that the agency had not complied with requirements for oversight of capital improvements by the Joint Bond Review Committee (JBRC). We discovered five projects that were not initially submitted to the JBRC as required.

---

SCDOT formerly shared its headquarters office building on Park Street in Columbia with the Department of Motor Vehicles (DMV). SCDOT officials estimate that DMV occupied approximately 70,000 square feet within SCDOT headquarters. When the DMV moved out in 2004, SCDOT planned to renovate the space to more effectively house its employees. SCDOT officials estimate that, on average, there are between 845 and 870 employees in the building.

We reviewed concerns about the cost of the headquarters renovation project and whether SCDOT obtained all necessary approvals. SCDOT officials stated that they divided the project into approximately 19 separate phases. However, the overall purpose related to renovating the area vacated by DMV. Records show that planned renovations were presented to the SCDOT Commission and that commissioners received updates on the progress of these renovations. We found no evidence that the overall plan was approved by the commission. According to SCDOT officials, there was never an overall cost estimate of the headquarters renovation project.

We requested information on the headquarters renovation project and received records of expenditures for 14 phases (of the 19 originally planned) that totaled approximately \$100,000. Agencies must seek approval from the Budget and Control Board (B&CB) and the JBRC prior to initiating capital improvement projects that cost \$100,000 or more. SCDOT did not submit this headquarters renovation project for approval by either of these agencies. Officials gave us varying responses when we asked about the status of the project and whether they had obtained approval for the renovation project:

- In January 2006, SCDOT officials stated that they had stopped work on the projects in June 2005 when expenditures neared \$100,000 because to continue they would need to seek B&CB approval.

- SCDOT officials said that around the time the renovation progress was halted, they determined the agency is exempt from the requirements for B&CB oversight. In early February 2006, they stated that SCDOT would nevertheless voluntarily submit approval forms to the B&CB.
- Later in February 2006, SCDOT said that it had decided that it would “fully comply with the exemption” and would no longer seek approval from the B&CB for capital improvements. SCDOT officials stated that they would use an internal process to review capital improvement projects instead of going through the B&CB process. The SCDOT “Process for Capital Improvements” drafted in July 2005 outlines basic duties of a capital improvements committee that approves SCDOT projects.

In its April 2006 commission meeting, the SCDOT Commission approved four capital improvement projects with a total budget of \$4.7 million that were not initially submitted to the JBRC. These included roof repair on the Greenville district office, rebuilding the Pickens county engineering office that was destroyed by fire, replacing the fire alarm system in SCDOT headquarters, and construction of the state traffic management center within SCDOT headquarters. These four projects had been approved by the SCDOT capital improvements committee.

SCDOT officials stated that as of July 2006, the headquarters building renovation project remains on hold pending approval of funds from the budget by the capital improvements committee.

---

## Legal Requirements for Oversight

State law provides for oversight of agencies’ capital improvements by the B&CB and JBRC. Official policy also appears in the *Manual for Planning and Execution of State Permanent Improvements*. All agencies are required to submit five-year comprehensive permanent improvement plans and obtain approval each year for projects exceeding \$100,000 prior to the start of the project.

SCDOT stated that it was exempt from having to seek B&CB approval for permanent improvement projects. The agency cited S.C. Code §10-1-180, enacted in 1995, which states, “The expenditure of funds by any state agency, except the Department of Transportation for permanent improvements as defined in the state budget, is subject to approval and regulation of the State Budget and Control Board.” Beginning in 2005, SCDOT interpreted this provision as exempting the agency’s permanent improvement projects from the board’s approval process. The meaning of the

phrase “permanent improvements as defined in the state budget” is unclear. We asked the Attorney General’s office for its opinion of this section.

In a May 25, 2006 opinion, the Attorney General’s office stated that the language of S.C. Code §10-1-180 indicates that SCDOT is not subject to B&CB approval for capital improvement projects. However, the opinion also stated that SCDOT remains subject to all other requirements, including project approval by the JBRC as dictated in S.C. Code §2-47-10 *et seq.* According to an official from the B&CB, the reporting requirements are nearly identical for the B&CB and the JBRC. Therefore, SCDOT still must submit all the same approval forms. The four projects approved at the April commission meeting were submitted to the JBRC by June 2006. However, the headquarters renovation project had not yet been submitted for approval by the JBRC.

We could not determine any reason why SCDOT should be subject to different oversight than other state agencies in regard to capital improvements. We can see no clear benefit to either the state or SCDOT by exempting SCDOT projects from approval by the Budget and Control Board.

---

## **Recommendations**

31. The General Assembly should amend S.C. Code §10-1-180 to delete the phrase “except the Department of Transportation as for permanent improvements as defined in the state budget.”
32. SCDOT should comply with regulations for capital improvement project approval and submit the headquarters renovation project for review by the Joint Bond Review Committee as outlined in S.C. Code §2-47-10 *et seq.*
33. The SCDOT Commission should approve cost estimates for all capital improvement projects.

---

## **Conferences and Travel**

We examined SCDOT’s expenditures for conferences to determine whether there are opportunities for cost savings. Questions had been raised about the bike and pedestrian (BikePed) conference SCDOT held in Myrtle Beach in October 2004. The conference focused on issues relating to promoting non-motorized transportation throughout South Carolina. We reviewed expenditures for this and other SCDOT conferences in 2004 and 2005. Our examination identified issues relating to conference finances. In 2005, SCDOT instituted new controls over conference planning.

## 2004 Bike and Pedestrian Conference

SCDOT's report of expenditures for the 2004 "BikePed" conference did not fully disclose conference costs. The report (see Table 4.1) omitted expenditures for banquets and some costs related to conference materials. These expenses were paid from a separate, private checking account maintained by SCDOT. State law does not authorize agencies to use private checking accounts (see below). We determined that the actual cost of the conference was \$141,129 before reimbursements and registration, as shown in Table 4.1. Also, 263 of the 366 attendees (72%) at the Myrtle Beach event were SCDOT employees. Although most conference expenditures were reimbursed by the Federal Highway Administration (FHWA), cost savings could have been realized by having the conference at a central location. The federal funds that would have been saved could have been used for other activities related to transportation planning.

---

**Table 4.1: Conference Operating Costs**

	REPORTED BY SCDOT	DETERMINED BY LAC
<b>EXPENSES</b>		
Hotel	\$58,405	\$58,405
Registration	24,795	24,795
Travel	3,549	3,549
Speakers	10,303	10,303
Supplies and Materials	<u>2,936</u>	2,936
<i>Banquet Payments*</i>		<u>32,447</u>
<i>"Other" materials*</i>		<u>8,694</u>
TOTAL Expenses	<u>\$99,988</u>	<u>\$141,129</u>
<b>REIMBURSEMENTS</b>		
Federal Reimbursements	\$ 78,471	\$ 78,471
<i>SCDOT employee registration*</i>		<u>24,795</u>
Private Contributions*	<u>**18,360</u>	10,300
Non-DOT registration*		<u>8,060</u>
TOTAL Reimbursements	<u>(\$96,831)</u>	<u>(\$121,626)</u>
<b>NET Cost to SCDOT</b>	\$3,157	\$19,503

\* Payments from and deposits into private checking account.

\*\* Private contributions and non-DOT registration were combined in their financial summary.

---

## Checking Accounts

SCDOT has not complied with state law by using private checking accounts from a credit union to handle registration fees and sponsor contributions for two conferences. In addition to the account SCDOT maintains for the BikePed (now winter) conference, agency officials reported that a similar account is used for the American Association of State Highway and Transportation Officials (AASHTO) conference, which SCDOT hosted in July 2006. According to agency officials, state DOTs hosting the AASHTO Conference receive leftover funds from previous hosts, then forward remaining funds after the conference to the next host state.

S.C. Code §11-13-45 states that all contributions must be deposited in the State Treasury so that the State Treasurer's office may provide control over agency funds. Section 72.1 in the 2005-2006 appropriations act states, “[A]ll general state revenues derived from taxation, licenses, fees, or from any other source whatsoever...must be remitted to the State Treasurer at least once each week. . . .” A representative from the State Treasurer’s office stated that only exceptions provided by specific provisions in the law allow agencies to keep funds that should otherwise be remitted to the state. We could not identify any provision allowing SCDOT to have a private checking account. When funds are maintained elsewhere, there is no way to assure accountability for their use. Also, as shown in the expense report for the 2004 BikePed conference, some expenditures of public funds may be hidden and not open to public scrutiny.

---

## Conference Sponsorship

SCDOT solicits funds from its contractors to support conference activities. Prior to its 2005 winter conference, SCDOT mailed letters to 342 organizations seeking financial sponsorship for the conference and offering the chance to display exhibits for those organizations that participated. Nearly all of the 28 organizations that chose to make contributions have contracts with SCDOT for consulting work. SCDOT’s consultants are chosen by a process that involves judgments about the qualifications of the contractor (see p. 17) rather than through competitive bidding. These organizations contributed a total of \$22,000 to the conference. Soliciting contributions from these contractors creates a conflict of interest. There is the perception that contributions to SCDOT may affect selection of contracts in the future.

---

## Event Planning Process

In January of 2005, SCDOT initiated new procedures for planning agency conferences and events. Prior to 2005, there was no central control over large agency events. All SCDOT sponsored or hosted events must be approved by a conferences committee. The committee reviews budgets, provides planning help for event coordinators, and seeks to ensure that cost-saving options are not overlooked.

SCDOT reduced costs on its bike and pedestrian conference and the partnering conference between 2004 and 2005. In 2004, these conferences were two separate events. In 2005, they were combined into one (now called the winter conference) and held concurrently. Costs per attendee per night were significantly lower for the 2005 winter conference event than for the 2004 BikePed conference.

---

## Recommendations

34. To minimize conference costs, SCDOT should consider central locations for conferences to maximize the use of federal funds.
35. SCDOT should discontinue its use of private checking accounts to manage funds for agency-sponsored events or conferences and deposit all received funds in the state treasury.
36. SCDOT should refrain from soliciting donations from organizations that may pursue contracts with the agency.

---

## Fleet Management

We reviewed SCDOT's management of its passenger vehicle fleet and did not identify significant problems. In 2005, SCDOT made changes to improve compliance with legal requirements for commuting reimbursements and increase efficiency. SCDOT manages a large fleet which, as of December 2005, included 1,776 passenger vehicles and 6,761 pieces of heavy equipment, including construction and maintenance vehicles.

---

## Permanent Vehicle Assignments

SCDOT reduced the number of permanently-assigned vehicles from 264 in February 2005 to 195 in November 2005, a reduction of 26%. The agency has also established an annual review of all assignments. Employees must reapply for permanent vehicle assignment each December. Immediate supervisors, as well as management, review each employee's job responsibilities to determine whether permanent assignment is warranted and

whether the employee should be authorized to commute from home. Agency policy allows assignments to employees whose job requires use of a vehicle to an extent that makes requesting a pool vehicle impractical.

As of fall 2005, SCDOT's records of vehicle assignments were not updated to reflect the current passenger fleet. Permanent assignment request forms were missing for some employees with assigned vehicles, and the database of permanently assigned vehicles and assigned drivers was not current. SCDOT staff addressed these cases of missing permanent assignment forms. The new procedures for annual review of assignments are designed to prevent similar inconsistencies.

---

## **Commuting Reimbursements**

Formerly, SCDOT allowed many employees to commute to work in their assigned vehicles without requiring them to reimburse the state. Federal IRS regulations state that any use of a vehicle for personal reasons (including commuting) is a taxable fringe benefit and must be recorded as income or else reimbursed to the institution. S.C. Code §1-11-270(B) does allow exemptions from reimbursement for statewide elected officials, law enforcement, and employees who serve in an emergency response capacity after normal work hours.

SCDOT instituted a new mileage reimbursement system in April 2005. Prior to the new system, the agency collected reimbursements from few employees because the department considered many more employees to be exempt from reimbursement under the "response after normal work hours" criteria. Under the new mileage reimbursement system, employees must reimburse \$3.00 for every round-trip commute and \$1.50 for each one-way trip, regardless of distance. Employees who work from home or serve in emergency-response capacities may be exempt from having to pay reimbursements. Since implementation of the new system, monthly reimbursements have averaged significantly more than monthly reimbursements for FY 02-03 and FY 03-04 (see Graph 4.2). According to agency officials, the new reimbursement requirements motivated many employees to relinquish their commuting privileges and subsequently turn in assigned vehicles. This new criteria has resulted in increased revenue for commuting reimbursements and improved compliance with IRS regulations and S.C. Code §1-11-270(B).

**Graph 4.2: Average Monthly Commuting Reimbursements to SCDOT**



\* Commuter valuation system began in April 2005.

\*\* Through December 2005.

Source: SCDOT

---

## Fleet Size

SCDOT generally has appropriate controls to ensure that its fleet is the right size and has established utilization criteria for passenger vehicles in the maintenance division. They plan to expand these criteria to all divisions. Staff from the supply and equipment division periodically review vehicle usage to ensure that underutilized vehicles are redeployed.

The agency has taken steps to relinquish passenger fleet vehicles as recommended in a December 2004 statewide fleet study by Mercury Associates. However, overall fleet size is highly variable and has not significantly decreased. SCDOT has agreed to dispose of 17 vehicles as recommended by the Mercury study, though as of December 2005, only 2 of these had been relinquished. According to staff, this process has been delayed because several vehicles in question did not have sufficient mileage to meet State Fleet Management (SFM) requirements for disposal. SFM policy sets minimum usage standards that vehicles must meet before disposal. However, there are exceptions if vehicles are deemed "... excess to the needs of the State."

---

## **Non-Government License Plates**

As of December 2005, two vehicles in SCDOT's passenger fleet had non-government license plates. These vehicles are permanently assigned to the executive director and the state highway engineer. Except for necessary cases in law enforcement, Budget and Control Board policy restricts the use of non-government tags to instances where a government tag "would substantially hinder the agency's ability to fulfill its mission." In their written justification to the Budget and Control Board, SCDOT officials cited the need for non-government tags to ensure confidentiality while investigating economic development sites. Additionally, officials stated that their after-hours work responsibilities could mistakenly result in public perception of misusing state vehicles if they displayed a government tag. Though some responsibilities of SCDOT officials may require confidentiality, the use of a standard government tag should not compromise this confidence or otherwise hinder the agency's ability to fulfill its mission. Likewise, SCDOT officials are no different from those of other agencies who have legitimate need for use of state vehicles during non-traditional hours. Non-government tags do not appear necessary in this case.

---

## **Recommendation**

37. SCDOT should replace all non-government license plates with standard state government plates.
- 

---

## **Concerns About Favoritism**

During our audit, we received allegations that SCDOT management showed favoritism in dealing with employees. There were concerns over temporary employees being hired with high salaries, friends and relatives of commissioners being hired, special assignments given to certain employees, and inappropriate promotions. While it is difficult to obtain documentation to support or refute these types of allegations, we found some cases where the appearance of favoritism existed. SCDOT could take steps to ensure that its employment decisions are well justified and documented.

---

## **Employee Opinion Survey**

SCDOT employees identified favoritism as an area of concern. SCDOT paid a consultant to conduct an employee opinion survey which was completed in November 2003. The survey asked employees if they agreed or disagreed with various statements about the agency. With 90% of the employees responding, the results revealed that employees were concerned about favoritism:

“Favoritism determines who gets ahead at the SCDOT.”

[66% agreed]

“Employees are treated fairly at SCDOT.”

[45% disagreed]

“Pay and promotion policies are applied fairly within the agency.”

[67% disagreed]

According to SCDOT staff, one way they have addressed these concerns is through the implementation of a career path system for employees. Officials hope that this reform, implemented in May 2006, will educate employees on career paths, inform them about what training is required, and explain how they can move up within the organization. Another way SCDOT staff stated that these concerns have been addressed is by improving communications through *Crossroads*, a monthly videotaped presentation shown to all employees covering various agency topics. When we began the audit, we were told that a follow-up employee survey would be completed in 2005; however, now it is projected to occur in 2006.

We identified other areas where SCDOT could take action to lessen the appearance of favoritism.

---

## **Temporary Employee Management**

---

### **Salaries of Temporary Employees**

Although there are no state laws or regulations addressing salaries of temporary employees, we found that SCDOT employed 18 temporary employees during the years 2003 through 2005 whose annualized salaries were \$50,000 or more. Some of these employees were alleged to be relatives or friends of commissioners or of management at SCDOT. We found that most of the temporary employees who were paid at high rates did not work full-time.

However, we found some exceptions:

- An engineering assistant was paid over \$60,000 in FY 03-04 and \$25,000 in FY 04-05.
- A legislative liaison was paid almost \$104,000 in FY 03-04 and \$69,000 in FY 04-05.
- A clerical assistant was paid \$43,000 in FY 03-04 and \$50,000 in FY 04-05.

In reviewing personnel files, we found that very few included a written justification why the employee should be paid a salary that appeared higher than would be expected for the position and responsibilities. According to an agency official, while a deputy director or designee is supposed to approve all hirings of temporary employees in their divisions, there is no formal process for determining what salary should be paid.

One temporary employee, alleged to be the friend of a commissioner, was employed at the annual rate of \$72,800 to perform customer service liaison duties in a SCDOT district office. According to an SCDOT official, none of the other district offices had a similar position. One ex-SCDOT commissioner was paid \$26 per hour to perform special projects for the executive director. When temporary employees are hired with annualized salaries of \$50,000 or more, and, in some cases more than \$100,000, the relationship of the duties to the salary may not be clear. Particularly, if the temporary employee is alleged to be a friend/relative of a commissioner or of SCDOT management, it may give the appearance of favoritism to other employees.

### **Classification and Minimum Qualifications**

According to SCDOT human resources officials, the agency tries to relate a temporary job to a state classification and minimum qualifications. We found many examples of individuals classified as “clerical assistants” whose annualized salaries were over \$40,000. According to the state office of human resources, a clerical specialist is in pay band “1,” which has a maximum salary of \$24,558. There are no minimum qualifications for a clerical specialist and the nature of work is described as “performs routine administrative support or clerical duties” and “employees in this class usually follow detailed instructions and procedures to perform routine or repetitive duties of limited complexity.”

Of temporary employees whose job title was “clerical assistant,” we found 11 whose annualized salaries ranged from \$41,000 to \$166,400. According to SCDOT staff, the job title of “clerical assistant” may not be an accurate

reflection of these employees' positions. However, since there are no written position descriptions, there is no way to make that determination.

### **Position Descriptions**

SCDOT does not maintain position descriptions for all temporary employees. While not required by state law or regulation, indicating what is expected of a temporary employee in writing is good business practice. This is especially important in cases of temporary employees hired at higher pay rates than the average temporary employee.

Of the 18 personnel files for temporary employees we reviewed, only 1 had a standard position description outlining specific duties and responsibilities. While most of the files contained a memo or notation that the employee would be working on a specific project or working in a particular office, the duties and responsibilities were not always indicated. In six of the files, we found no indication of what the employee would be doing. When a highly-paid temporary employee does not have a written outline of job duties and responsibilities, it may make the need for their employment suspect. According to state human resources regulations, a position description serves as a record of specific duties and responsibilities assigned to an individual position. Although not required for temporary positions, having position descriptions on file for temporary employees, especially those paid high salaries, may enable the agency to better defend the hiring of such employees.

---

## **Interns**

Since 2001, the SCDOT executive director has chosen four different employees to serve as her intern or special assistant. SCDOT has no policy regarding the selection of these employees nor is there a position description for the position. According to officials, the intern continues to be paid through his/her former division; however, the intern works directly for the executive director for 9 to 11 months. Also, when the intern is working for the executive director, that employee's job responsibilities must be completed by others in his/her division.

According to personnel files, the first three interns received pay raises for their intern duties. One of the intern's files did not have a written justification regarding a raise in pay for additional duties, as required by state human resources regulations. According to an SCDOT official, the executive director instructed human resources to increase the intern's pay due to the additional duties of serving as her intern.

Since there is no policy or information about how the executive director's interns are chosen and they receive pay raises for these duties, this may be viewed by other employees as favoritism.

---

## **Recommendations**

38. SCDOT should have written documentation explaining the relationship of the job duties and responsibilities to the salary for highly-paid temporary employees.
39. SCDOT should develop a job description for the intern or special assistant to the executive director position.

---

## **Long-Term Temporary Employees**

SCDOT has not complied with state law by employing long-term temporary employees. South Carolina human resources regulation 19-700 defines a temporary employee as, "A full-time or part-time employee who does not occupy an FTE position, whose employment is not to exceed one year, and who is not a covered employee." While temporary employment is a cost-effective manner to augment agency staffing, because the agency does not pay any fringe benefits (see p. 29), we found that SCDOT has not managed temporary employees in compliance with the law.

SCDOT furnished a list of temporary employees who worked for the agency in FY 02-03 through FY 04-05. Of the 53 employees on the list still working for the agency at the time of our review, we identified 41 employees who worked longer than one year. We reviewed the personnel files of a nonstatistical sample of eight of these employees and found that SCDOT allowed all of them to work with no break in service for periods exceeding one year. Seven of these temporary employees had worked, without any break in service, for over three years, with two of them working over six years.

According to SCDOT officials, the agency does not have a system in place to identify when temporary employees should have a break in service. Officials acknowledged that the agency has employed some long-term temporary employees.

The purpose of temporary employment is to allow agencies to fill a need that is only for a limited period of time. If individuals are employed continually as temporaries, it may be an abuse of the system and of the employees, since they are not receiving benefits.

## Recommendation

- 
40. SCDOT should comply with human resources regulation 19-700 and not allow temporary employees to work more than one year without a break in service.
- 

## Internal Audit

The SCDOT's internal audit department does not report to the appropriate officials to provide adequate independence for the audit function. Internal audit reports to the executive director instead of the commission. In addition, the activities of the internal audit department are not reported to the commission on a regular basis, and the commission does not have a standing audit committee. It is important for commissioners to have substantive information about the SCDOT's performance in order to make informed decisions while governing the agency.

In previous reviews of other agencies, we have identified problems with the resources devoted to internal audit and the independence of the internal audit function. Internal audits are an important control that agencies can use to ensure that resources are being used appropriately. For example, SCDOT's internal audit department has performed audits in the following areas:

- *Controls over its computer systems.* The audit found that the IT department had no written procedures covering backup and recovery of headquarters and district systems and data.
- *Overruns and delays on highway construction projects.* The audit recommended that a benchmark for change order percentages be established and monitored, and that improved reporting of delays in construction would assist management in understanding the reasons for delays.
- *Automated purchase order system.* This audit revealed that personal data collected by this system was not being protected in accordance with state law, that user identification numbers were not being properly removed for inactive or terminated employees, and that proper training on system capabilities was not done.

SCDOT's internal audit department conducts follow-up reviews to document that its recommendations have been implemented.

Government auditing standards require internal auditors to be accountable to the head of the government entity and be located organizationally outside the

staff or line management function of the unit under audit. The governing boards of other state agencies, such as the Department of Mental Health (DMH) and the Department of Health and Environmental Control (DHEC), have standing audit committees. These committees review final internal audit reports, meet with the internal auditors and staff to discuss findings and recommendations, and receive communications regarding annual audit schedules, and the status of unresolved audit recommendations. The internal audit division of DMH reports directly to the mental health commission, which has an audit committee consisting of the state commissioner of mental health and the members of the mental health commission. DHEC's office of internal audits reports to the administrative/audit committee of the DHEC board.

Therefore, ideally, SCDOT's internal audit department should report directly to the SCDOT Commission in addition to the executive director. The commission could appoint a standing audit committee to review audit findings and recommendations, to assist in the development of an annual audit schedule, and to appropriately monitor all material audit issues.

---

## **Recommendation**

41. The SCDOT's internal audit department should report directly to the SCDOT Commission in addition to the executive director. The commission should appoint a standing audit committee to oversee the activities of the agency's internal audit department.

---

## **Administrative Cost Savings**

SCDOT could save administrative costs by implementing the recommendations of an internal committee report issued in January 2005. The agency could achieve savings by deactivating unnecessary pagers and eliminating the practice of issuing more than one computer to individual employees.

We examined available records of copiers, printers, and laptop computers to determine which of the committee's significant recommendations SCDOT had implemented as of February 2006. One recommendation stated that SCDOT should deactivate all pagers not being used or being used by employees who have also been issued cell phones. According to staff, the agency has not acted on this recommendation. In FY 04-05, SCDOT spent \$53,580 on pagers.

SCDOT has made efforts to implement other recommendations to reduce costs on technology inventory. These include recommendations to limit the number of printers by using print stations and all-in-one technology devices. Records show SCDOT reduced the number of printers from 2004 to 2006 by 17% while using more multifunction (all-in-one) copier/printers over that same period. The report also recommended eliminating the practice of issuing two computers to the same employee. As of February 2006, 203 of the 348 employees at SCDOT headquarters with assigned laptop computers were also assigned desktop computers. SCDOT staff reported they are phasing out this practice by requiring employees to relinquish their desktop computers when they turn in their laptops for regular upgrades. According to agency officials, this process should be complete within three years.

The administrative cost savings report focused on identifying opportunities for savings at SCDOT headquarters in Columbia. SCDOT staff stated that there has not been a concerted effort to share the findings with district offices or other locations. Applying similar efforts for cost savings to district offices and other satellite locations could offer additional benefits.

---

## **Recommendations**

42. SCDOT should identify and deactivate unnecessary pagers, especially those assigned to employees who already have a cellular phone.
43. SCDOT should consolidate personal computers and avoid issuing multiple computers to the same employee.
44. SCDOT should share the findings from the cost savings study with satellite offices and ensure that they evaluate their own operations to identify possible areas of additional cost savings.

# **Agency Comments**

---

---

**Appendix**

---



**South Carolina  
Department of Transportation**

November 6, 2006

Mr. George Schroeder  
Director, Legislative Audit Council  
1331 Elmwood Avenue, Suite 315  
Columbia, South Carolina 29201

RE: Legislative Audit Council Report "A Management Review of SCDOT"

Dear Mr. Schroeder:

Thank you for the opportunity to respond to the above referenced report. In addition to the attached detailed response, I offer the following summary remarks regarding some items contained in the report:

**CONTRACT MANAGEMENT**

The report states it is a "Management Review" and uses the Construction Resource Management (CRM) contracts as its leading example of "management" not *always* controlling expenditures.

Official transcripts of SCDOT Commission meetings show that it was a Commission policy decision to use CRM's. The Commission heard the proposers' presentations, selected two CRM firms, and instructed staff to negotiate contracts. The contracts required Commission approval before being accepted. Negotiations took place over several months. Progress reports were made to the Commission. The Commission reviewed the proposed contracts and approved execution. Staff managed the contracts as approved and was successful in delivering the program.

The need for CRM's arose from the Commission policy decision to embark on the "27 in 7" Program, which used highway bonds to accelerate projects, including interstate improvements. Sixteen Councils of Governments and Metropolitan Planning Organizations elected to participate in "27 in 7" and selected the projects to be constructed in their areas. SCDOT built in only 7 years what would have taken 27 years using traditional financing methods. The Federal Highway Administration (FHWA) approved the program. The state Joint Bond Review Committee and the Budget and Control Board approved issuing bonds for "27 in 7."

The Commission set a policy not to hire additional staff, which would later have to be laid off, to handle "27 in 7." The Commission was satisfied with contract negotiations and unanimously approved execution of the contracts. The issues questioned by the report are Commission decisions. SCDOT's response contains substantial information showing that the decision to embark on "27 in 7" and enter into the CRM contracts was beneficial to taxpayers. However, if SCDOT elects to embark on another program of this magnitude, the report conclusions will be considered during policy discussions and contract negotiations.

As to the use of a consultant to provide management services, SCDOT's response provides ample documentation to dispel the implication of favoritism and to show that selection was made under the established competitive process, and that the scope and services were adequately stated and negotiated and were advantageous to the agency and the staff.

The report states that SCDOT auditors recommended against contracting with this firm because its liabilities exceeded its assets and it might not be capable of meeting current payments. However, the report failed to show that prior to execution of the contract, the firm obtained a letter of credit to address these concerns.

*The report's positive findings under Contract Management are:*

1. There were no major concerns about a lack of internal controls over SCDOT financial transactions.
2. Review of SCDOT management of \$1.4 billion in construction contracts did not identify significant problems. In regard to contract change orders, which the report states is an area where costs can be difficult to control, the report finds that SCDOT change order prices did not differ significantly from the original bid prices. SCDOT uses bid analysis software to improve its capability to identify problems with bids.



3. SCDOT's use of partnering has improved its ability to complete projects within budget and on time. A cumulative \$17 million in savings is calculated for partnering as of March 2006.
4. SCDOT has ongoing efforts to improve results in managing construction contract procurement processes that ensure adequate competition and quality contractors, and SCDOT is minimizing cost overruns and delays in the completion of construction projects.
5. Since 2001, SCDOT has improved its ability to estimate project costs prior to reviewing bids.

## **PROGRAM MANAGEMENT**

- The report claims that evidence was found to support allegations that SCDOT attempted to lower cash balances during legislative sessions by delaying billings for FHWA reimbursement. The report states that deferred billings "MAY" have cost the agency more than \$1.5 million in lost interest. This is an "implication," not a "finding." The report falsely states that SCDOT employed tactics to unnecessarily delay the reimbursement of funds, and undermined the reliability and fiscal integrity of its accounting records. The LAC staff intentionally ignored overwhelming evidence of valid and compelling reasons why invoices were unbilled. This intentional disregard of evidence, and the false statement that the staff "could not find a valid reason" for unbilled invoices is not fair or responsible reporting.
- The LAC staff appeared to have searched for any possible indication, no matter how tenuous, to support an allegation by an individual who was unfamiliar with federal transportation funding complexities. The LAC staff's yearlong search yielded one internal memo stating that SCDOT staff was to "manage federal funds." The letter is accurate. It is SCDOT's responsibility to manage federal funds. The report states that SCDOT later stopped "managing federal funds." This is not accurate. Federal funds continue to be managed on a daily basis. Information regarding the federal billing issue is included in SCDOT's response. The basics are:
  - Many of the invoices which make up the \$145 million total, which the individual and the report allege were withheld, could not be billed because they were bonded projects.
  - During the time period covered in the report, federal funding authority was limited. Congress had not passed the transportation bill and funds were being made available for states on an incremental periodic basis rather than the full amount at the beginning of the federal fiscal year. During the time that SCDOT did not submit all invoices for reimbursement, there was insufficient federal authority to reimburse all the invoices. As soon as federal funds were made available, SCDOT billed larger amounts of invoices.

It is important to note that the LAC staff did not discuss this issue with the FHWA, which is the appropriate entity to determine whether or not SCDOT has met FHWA requirements. FHWA, which has oversight over federal transportation funding, and a true understanding of financial rules and complexities, has stated that SCDOT has not failed to timely bill and that SCDOT is in compliance with systems and procedures to assure the fiscal integrity of highway program costs.

The report claims that SCDOT uses comparative data that is not valid. The data referenced is from official FHWA publications, which is the best data available for information on Departments of Transportation. It is the data used for apportionment of transportation funding and is the basis for the independent study that rates SCDOT as the second most cost effective DOT in the nation. Even though the South Carolina LAC staff does not consider the official FHWA Highway Statistics as reliable data, other states, independent research groups and federal agencies do consider it valid and use it on a regular basis. SCDOT is proud to be recognized as the second most cost effective DOT in the nation.

***LAC's positive finding under Program Management is:***

**In its review of SCDOT planning procedures for building and maintaining roads to determine if the process adequately prioritized projects, the report found that SCDOT complies with federal regulations and generally has appropriate processes in place for planning construction and maintenance projects statewide.**

## **ADMINISTRATIVE MANAGEMENT**

SCDOT was concerned because fatality rates involving bicyclists and pedestrians are extremely high in South Carolina. In the past, SCDOT had been predominantly "car and truck" traffic focused. SCDOT desires to educate employees about the importance of planning, constructing and maintaining bicycle and pedestrian facilities. The Bicycle and Pedestrian Conferences are beneficial to employees and to the other attendees, which include federal, state and local agency employees, representatives from private bicycling and pedestrian groups, safety advocates, higher education institutions, health interest representatives, representatives from air quality interest groups, and individuals from the private sector.

Employees attending the Conference learned about the concerns, issues and importance of these accommodations from other Conference attendees who are non-motorized transportation experts, and people who ride bicycles or walk regularly. Conference costs were covered almost entirely from donors and from federal funds which must be expended on planning. The federal funds could not be used for construction and maintenance of highways.

The locations where this annual conference has been held are Charleston, Greenville, Myrtle Beach, and Hilton Head. SCDOT plans to hold the 2007 conference in Spartanburg. The locations are chosen because of their excellent bicycle and pedestrian programs, which are highlighted at the Conferences. SCDOT's response and website ([www.scdot.org](http://www.scdot.org)) include information about the Conferences and letters from individuals expressing the benefits of the locations, and value in representation of a good cross section of SCDOT employees.

SCDOT appreciates the comments regarding the use of private checking accounts in handling conference costs. Staff checked SC Ethics Commission opinions on the appropriate method of administering conference funds and followed these guidelines. SCDOT established a separate account as recommended; however, SCDOT should have established the account with the State Treasurer's Office. SCDOT will follow the report recommendation regarding checking accounts for all future conferences.

**LAC's positive findings under Administrative Management are:**

- 1. A review of SCDOT management of its passenger vehicle fleet did not identify significant problems. SCDOT has made changes to improve compliance with legal requirements for commuting reimbursements and increased efficiency in use of its passenger fleet.**
  - 2. SCDOT reduced the number of permanently assigned vehicles from 264 to 195 and established an annual review of all assignments.**
  - 3. SCDOT generally has appropriate controls to ensure that its fleet is the right size and has established utilization criteria for passenger vehicle in the maintenance division to ensure that underutilized vehicles are redeployed.**
  - 4. SCDOT did not lose federal funds for the projects.**
- SCDOT management has no objections to Internal Audit reporting directly to the Commission and has previously advised the Commission that management completely supports this arrangement on an *unofficial* basis. SCDOT management recommended to the Commission that the SCDOT Human Resources Office be asked to research whether or not this could be accomplished on an *official* basis under current law and, if so, the appropriate organizational chart and process will be established. If the reporting structure cannot be officially accomplished under current law, legislation would be required in order to comply with this report recommendation.

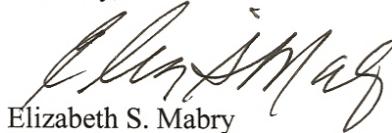
SCDOT appreciates the comments regarding administrative management areas where improvements may be made. The processes for building renovations and other capital improvements will be reviewed and management will continue to discuss these types of projects with the Commission.

SCDOT will continue to review compliance with procedures and practices regarding employment of full time employees and temporary employees. The results of SCDOT's recent employee survey will be compiled in Spring 2007. SCDOT will address any issues that may be identified. These issues will be discussed with the Commission to determine if additional personnel employment policies should be established.

SCDOT appreciates comments regarding cost savings. One of SCDOT's four major emphasis areas is "Effective and Efficient Use of Resources." SCDOT staff will continue to pursue opportunities for cost savings, including any new areas included in the report recommendations.

In closing, I want to take this opportunity to thank you and the Legislative Audit Council Board members for the courtesy you extended to me and to SCDOT staff. We look forward to discussing the report items with you in the future follow up.

Sincerely,



Elizabeth S. Mabry  
Executive Director



# **SCDOT Response to Legislative Audit Council's Report Entitled: A Management Review of the South Carolina Department of Transportation**



**OVERVIEW OF SCDOT RESPONSE:** SCDOT appreciates the opportunity to respond to the Legislative Audit Council (LAC) report dated October 2006, and welcomes valid recommendations for continuous improvement of management operations.

After an extensive review of SCDOT's operations, LAC found no significant problems with SCDOT programs amounting to 99% of its annual expenditures, including SCDOT's \$1.4 billion construction and \$416 million maintenance programs. LAC gave favorable comments on SCDOT's transportation planning, cost control strategies, process improvements, partnering success, and cost-saving initiatives. However in other areas reviewed, the LAC report contains many inaccuracies and misleading conclusions that misinform the Legislature and the public about SCDOT. Most of these LAC conclusions are not supported by thorough review and analysis. It is unfortunate LAC did not use this opportunity to offer more constructive suggestions for meaningful improvement.

- ◆ LAC incorrectly states that SCDOT did not comply with several state or federal regulations regarding transportation and financial matters when, in fact, LAC did not fully understand the processes and programs under review.
- ◆ LAC omitted many SCDOT initiatives, awards and accomplishments supporting sound management practices and successes.
- ◆ LAC uses the inconclusive phrases "no evidence found" or "it may" or "no documentation" in several areas, but then follows those phrases with broad conclusions. Generalizations were often derived from nonrepresentative samples and are, therefore, invalid and misleading. This method of inductive reasoning is not appropriate for a management review.
- ◆ LAC neglected to contact consultants, Federal Highway Administration officials, former employees and appropriate SCDOT staff to verify its statements. In most instances, pertinent evidence was on file but LAC did not ask for it or interview the person responsible for that particular area.
- ◆ SCDOT was recently rated #2 in cost effectiveness by the only independent and objective analysis that compares state transportation agencies. LAC tried to discredit this nationally recognized study prepared by two PhD's and published by a respected foundation.
- ◆ As SCDOT prepared its responses to the preliminary and final reports, LAC would not provide the agency with requested documents and "evidence" needed to complete a thorough response to its conclusions.

**LAC found no significant problems with SCDOT programs amounting to 99% of its annual expenditures.**

**LAC failed to report that the "27 in 7 Advanced Construction Program" has saved South Carolina taxpayers, conservatively, more than \$3 billion.**

## **LAC's broad conclusions in the following areas are incorrect:**

- CRM Contracts
- Preconstruction Audits
- Consultant Contracts
- Federal Billings
- Performance Measures

**SCDOT had been taking appropriate action to control costs in nearly all program areas evaluated during the one-year audit and, overall, has acted as good stewards in its management of resources. These programs account for 99% of SCDOT's annual expenditures. While SCDOT recognizes areas for improvement, the report should have expounded upon the many successes of the agency and programs. Some of those successes are listed below...**

## **EXCELLENCE IN FINANCIAL REPORTING**

The Government Finance Officers Association of the United States and Canada has awarded the Certificate of Achievement to SCDOT for Excellence in Financial Reporting for its comprehensive annual financial report. SCDOT is one of six state DOTs to receive this national award. The Certificate of Achievement is the highest form of recognition in the area of governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a governmental agency and its management.

## **SUCCESS OF THE “27 IN 7 ACCELERATED CONSTRUCTION” PROGRAM**

SCDOT utilized creative and innovative financing and management techniques to accelerate and deliver projects on schedule and budget. Under the “27 in 7 Accelerated Construction Program,” SCDOT built in only 7 years what would have taken 27 years under the traditional “pay as you go” method. More than 200 projects were delivered years ahead of schedule, which saved taxpayers in South Carolina, conservatively, well over \$3 billion in net costs that would be incurred in future dollars due to inflation. “27 in 7” was responsible for creating thousands of jobs for South Carolinians and for generating a large economic benefit to the state.



## **SCDOT RANKED #2 IN COST-EFFECTIVENESS**

The only independent comparative report on state Departments of Transportation, *More to Do: Performance of State Highway Systems, 1984-2004*, ranks SCDOT as the second most cost-effective DOT in the nation. LAC discredits SCDOT’s ranking based on disclaimers from the Federal Highway Administration about data quality. However, the U. S. Congress uses this same data as a basis of federal funding apportionments to the states. While no large database is perfect, the cost-effectiveness ranking is based on the best available national data using an average of 12 different performance indicators (road condition and financial). SCDOT’s #2 ranking provides significant evidence of SCDOT efficiency and cost-effectiveness using limited resources.

The chart below shows that SCDOT receives the least revenue per mile yet is very effective in managing its limited resources. SCDOT has the fewest number of employees per mile. This significant evidence of efficiency and cost-effectiveness using limited resources was omitted from LAC report.

* Ranking of States Largest Number of Miles in System			* State's Ranking in Revenue Receipts (#1 is least per mile)		* State's Ranking in Administrative Costs (#1 is least per mile)		** Number of DOT Highway Employees	
Rank	State	Miles	Rank	Amount Per Mile	Rank	Amount Per Mile	Per 100 Miles	Total
#1	TX	79,624	#14	\$78,350	#7	\$3,040	20	15,751
#2	NC	78,871	#4	\$43,463	#19	\$5,347	15	11,793
#3	VA	57,515	#5	\$48,185	#9	\$3,293	18	10,128
<b>#4</b>	<b>SC</b>	<b>41,532</b>	<b>#1</b>	<b>\$27,017</b>	<b>#3</b>	<b>\$2,128</b>	<b>12</b>	<b>4,797</b>
#5	PA	39,890	#27	\$112,138	#25	\$6,509	30	12,823

Sources: \* *More to Do: Performance of State Highway Systems, 1984-2004* by Dr. David T. Hartgen

\*\* Data collected by SCDOT from US government sources

## ACCOMPLISHMENTS

SCDOT is responsible for much of the funding, oversight and delivery of major projects such as the Carolina Bays, Conway Bypass, Southern Connector, and Arthur J. Ravenel, Jr. Bridge. SCDOT's innovative project delivery approach, and efficient and effective management resulted in these projects coming in on budget and often ahead of schedule. Efficiency in delivery of major projects is an extraordinary accomplishment as compared to other state DOTs. SCDOT's innovative project delivery and prudent project management provides tremendous economic and safety benefits.

## AWARDS

SCDOT is proud of the recent completion of the Arthur J. Ravenel, Jr. Bridge over the Cooper River in Charleston. It is the longest cable-stayed structure in the Western hemisphere and the first major design-build bridge project in the United States. This project has received 16 national and international awards to date, including:



**Arthur J. Ravenel, Jr. Bridge**  
Charleston Co.

- American Council of Engineering Companies of South Carolina "**2006 Palmetto Award for Engineering Excellence**"
- 2006 FHWA "**Excellence in Highway Design Award**"
- 2005 American Road and Transportation Builders Association "**PRIDE Award**" for Community Relations
- 2005 American Road and Transportation Builders Association "**Globe Award**" for Environmental Excellence

In addition to this outstanding project, SCDOT continues to be recognized with awards for various initiatives and innovative programs. A few examples are:

- **National Roadway Safety Award** for the Median Cable Barrier Program
- **Pioneer Award** for the Summer Transportation Institute
- SCDOT named **Outstanding State Agency** by DHEC for Waste Reduction & Recycling



*SCDOT's response follows the order of the topics as they appear in the LAC report, beginning with Chapter 2...*

## Chapter 2 - Contract Management

### Contracts for Construction and Resource Management (CRM)

#### Synopsis

The evidence does not support the conclusion that the CRM contracts did not adequately protect the state's interest and resulted in unnecessary expenditures. Factual errors, lack of diligence, false assumptions and subjective statements in the report clearly demonstrate that LAC did not fully comprehend the unique nature of the CRM program, the associated risks and the **well documented 3-month long negotiation process** that led to contracts that served as a national model and that are now used by other state DOTs. LAC failed to recognize that the CRM program was not SCDOT's "usual" consultant contract, and failed to analyze available information.

This pioneering CRM initiative was integral to the delivery of SCDOT's \$5.3 billion "**27 in 7 Accelerated Program**" that saved the taxpayers, conservatively, over \$3 billion. The CRMs served as an extension of SCDOT's staff. The resulting CRM management and design fees were within 1% of SCDOT's historical costs for the same activities. Many of tomorrow's highways now open to traffic could not be afforded at today's higher prices. Lessons learned by SCDOT during the CRM and 27 in 7 programs are extremely valuable for application to future major transportation investment Programs.

## SCDOT Responses to LAC

- The following examples of factual errors demonstrate LAC's failure to comprehend basic items critical to negotiations of CRM contract compensation:
  - Accommodating over 400 professional staff required substantial CRM start-up costs, not "limited" costs as reported for "usual" consultant contracts.
  - None of the CRM projects were "turnkey" as reported—all required SCDOT oversight.
  - The CRM contracts clearly contain safeguards and risk assignment to ensure projects' cost-effectiveness, yet LAC reported that this could not be determined after its extensive review.
  - Fixed payments were made on a negotiated schedule and as work progressed satisfactorily - not before work began as reported.
  - SCDOT did not receive additional bonding authority in 1997 as stated in the report.
- The audit *incorrectly* concludes that there is inadequate documentation of how contracts were negotiated related to compensation, even though the auditors were provided the former State Highway Engineer's CRM files that contained over 100 pages of documentation on CRM negotiations, including compensation. These pages were also mailed to LAC; however, auditors failed to ask SCDOT staff to clarify any questions they may have had regarding these records. Also, the final CRM contract itself is undeniable evidence of negotiation because it contains compensation provisions that are unlike either of the original two proposals.
- SCDOT follow-up inquiries, now documented, reveal that **LAC failed to contact the CRM firms, FHWA, or former SCDOT employees to inquire about negotiations for compensation.**
- LAC *failed to review* Commission Meeting records related to CRM contract negotiations.
- The report *misrepresents* that the fixed payment schedule allowed \$8.7 million to be spent on deleted projects. The report *omitted* the fact that the contract prohibited upward fee adjustment for the increased project value that was actually managed by CRMs even though this substantially offset the value of projects deleted.
- LAC concluded that SCDOT could have saved \$32 million because one CRM original proposal contained a 2% management fee and SCDOT ultimately negotiated a higher fee. The auditors *neglected to report* that the proposal with a 2% fee assumed very little risk (only project delivery *time*) and was based on skeletal staffing. The other proposal requested an open-ended fee based on hours worked and expenses for seven years. Neither approach was acceptable to SCDOT from a cost control or risk management perspective. The actual negotiated program management fee of 4.5% assigned risk to the CRM firms for not only *on-time* project delivery schedule, but added other deliverables such as on-budget program cost control, safety, minority business participation and SCDOT satisfaction with performance.
- LAC alleges lost interest as a result of the biweekly CRM payments, but neglects to consider that monthly CRM payments would have resulted in a higher negotiated fee to compensate the CRMs for the cost to borrow more money. On larger projects, SCDOT's standards provide for construction contractors to be paid biweekly to reduce bid prices. Because CRM inspection payments are tied to actual work progress, it was deemed fair and reasonable during negotiations to reimburse CRMs biweekly for work performed. This negotiated provision was deemed fair and reasonable in recognition of the CRM's fixed up-front mobilization and staffing costs, and their interest cost to borrow money to meet biweekly obligations.
- The audit reports that SCDOT increased costs by almost \$15 million on CRM project oversight, as if this was an unexpected or unjustified expenditure. In fact, *state and federal law requires SCDOT to provide independent oversight*, and these costs were anticipated from program inception. The original Request for Proposals clearly states that the CRM would serve as an extension of SCDOT, and that SCDOT would retain decision-making authority. This requires staff time for reviews and approvals. The \$15 million cited represents about 1% of the total cost of all the projects designed and constructed under this program. **The resulting CRM management and design fees including SCDOT oversight were within 1% of SCDOT's historical costs for the same activities.**
- LAC *acknowledges \$120 million in cost savings* self-reported by the CRMs. SCDOT concurs in the actual and cost avoidance savings including such items as value engineering, reduced condemnation and reduced utility relocation costs. *Cost avoidance was a guiding principle* of the CRM program to stay within budget constraints and enabled an additional \$92 million of work on projects to be completed that would have otherwise been deleted.

**LAC failed to acknowledge over 100 pages of documentation on CRM negotiations.**

**LAC failed to provide analysis that would show CRM management and design fees, including SCDOT oversight, were within 1% of SCDOT's historical costs for the same activities.**

## Discussion

SCDOT has utilized creative and innovative financing and management techniques to accelerate and deliver projects on schedule and budget. Under the “27 in 7 Accelerated Construction Program,” SCDOT built in only 7 years what would have taken 27 years under the traditional “pay as you go” method. More than 200 projects were delivered years ahead of schedule, which conservatively saved taxpayers well over \$3 billion in future dollars adjusted for inflation. This effective use of resources should have been included as a major part of LAC’s full-scope examination. This is an *obvious omission* from the review.

The *report wrongly concludes* that the CRM contracts did not protect the state’s interest and resulted in unnecessary expenditure of funds. The basis for this conclusion was the alleged lack of documentation of negotiations; however, there are published official transcripts of presentations to the Commission regarding CRM contract negotiations. In 1999, a former Deputy Director for Finance and Administration and the former State Highway Engineer made these presentations. The Commission Meeting transcripts clearly show that there were lengthy negotiations, the Commission was constantly briefed on the negotiations, and the Commission approved the contracts as negotiated. There is also considerable documentation in SCDOT files regarding negotiations. These records were presented to LAC personally and also mailed, but the LAC report does not reference these records and suggests they do not exist. The very obvious evidence of negotiation is that a single contractual format was developed out of two very different original proposals. FHWA provided technical assistance during negotiations and found the negotiated contracts to be in compliance with all federal requirements.

***The CRM contracts were unique, innovative and served as a temporary management arm of SCDOT, providing far more than the traditional planning and engineering services provided by consultants.***

The report implies that SCDOT could have hired additional staff to perform the duties performed by the CRMs. The Commission and SCDOT staff determined that it would not have been feasible or cost-effective to hire, train and equip 400 experienced, professional employees to accomplish this short-term program. It would not have been in the best interest of South Carolina taxpayers to grow government for this purpose. This decision is also well documented in SCDOT files and Commission transcripts.

With the assistance of the CRMs, SCDOT prudently and effectively used public funds in connection with the “27 in 7” Accelerated Program:

- **The public is riding on 1500 lane-miles of new and improved highways years in advance of the original planned completion dates and enjoying the many safety and congestion relief benefits that could not have been funded at today's prices.**
- SCDOT has locked in favorably low, long-term bond interest rates ranging from 4.0 to 4.8%, instead of paying much higher rates of inflation on construction costs.
- These projects went to contract before construction costs skyrocketed as a result of recent large increases in the cost of petroleum-related products, and the construction boom in Asia that has contributed to a worldwide steel and cement shortage. Construction costs for SCDOT projects have increased 42% in just the past two years, underscoring the wisdom of “27 in 7.”
- **“27 in 7” was responsible for creating thousands of jobs for South Carolinians and for generating a large economic benefit to the state.**

The CRM contracts cannot be compared to traditional consultant contracts as LAC attempted to do. ***The CRM contracts were unique, innovative and served as a temporary management arm of SCDOT, providing far more than the traditional planning and engineering services provided by consultants.*** Nationally, SCDOT’s CRM approach is considered a huge success and is now the model for other DOTs and local governments. LAC apparently failed to seek the input of national specialists in the field of construction management.

## Preconstruction Contracts

LAC reaches for broad conclusions by targeting specific contracts using selective sampling, and demonstrates a failure to fully understand SCDOT's approved consultant selection procedures.

### Procurement of Contracts

- *Using selective sampling*, LAC identified 3 out of 436 ongoing consulting contracts whereby the top ranked firm appears not to have been selected. LAC would not identify the contracts when requested. It is highly probable that LAC, failing to understand SCDOT's procedures, considered only the Technical Advisory Group's partial ranking of technical criteria and not the Selection Board's complete ranking using all published Selection Criteria.
- SCDOT uses consultant selection procedures approved by FHWA that have a proven history of success. LAC incorrectly assumes that the selection criteria do not include all relevant factors. The published Selection Criteria typically includes past performance, project approach, staff availability, disadvantaged business opportunities, timeliness, key personnel, value and volume of work, geographic location, and any additional factors appropriate for the specific project. SCDOT evaluates and ranks proposals based on the published criteria and weighting as stated in the advertisement; then begins negotiations with the top ranked firm(s).
- A cost estimate for services needed on each proposed contract is prepared during the initial phase of the project. The vast majority of services provided are cost plus fixed fee contracts. This method ensures the consultant is only paid for services required, and not for work that is not needed or performed. SCDOT's own review of contracts identified numerous occasions where the services were completed for less than the contract amount. LAC omitted this fact. LAC erroneously compared qualification-based selection of consultant contracts to federal guidelines for low bid construction contracts. *This comparison is invalid and misleading, and further demonstrates LAC's misunderstanding of SCDOT's contracting processes.*
- The claim that SCDOT does not properly document the Commission's approval of a project is incorrect. This documentation is in the Commission minutes and available for review.

### Obtaining a Reasonable Price for Services

**LAC's use of "selective sampling" leads to broad generalizations which are invalid and misleading.**

*Using selective sampling*, LAC states "no evidence in the file documenting negotiation" in 25% of the consultant selections and "no evidence of an independent estimate" in 50% of this targeted sample. Ample evidence is readily available documenting that all contracts were negotiated. LAC either overlooked or simply did not request the documents. When LAC refused to disclose the specific contracts in question, SCDOT conducted a random sample of 20 contracts and found that 100% of the contracts had documented negotiations and independent cost estimates prepared by SCDOT.

### Audits of Preconstruction Contracts

- **Contrary to the report, SCDOT complies with federal law and American Association of State Highway and Transportation Officials (AASHTO) guidelines.** Congress and the USDOT have changed the auditing rules over the last few years, prompting the AASHTO to develop guidelines in September 2005 to assist states in adopting the new procedures. SCDOT complies with federal law requiring SCDOT to accept indirect cost rates established in accordance with Federal Acquisition Regulations by a cognizant federal or state governmental agency. See 23 USC 112(D). Federal Acquisition Regulations (FAR) allow the establishment of a provisional or billing rate for overhead costs on the basis of information resulting from "recent review, previous audits or experience, or similar reliable data." See 48 CFR 42.704(b). 23 CFR 172.7 allows the consultant to submit a lower indirect cost rate. Most firms provide independent audits of overhead rates that are generally acceptable by industry and are acceptable within AASHTO guidelines. In some cases, SCDOT relies on audits performed by other states, which operate under the same guidelines. The final overhead rate is established in accordance with FAR.

- SCDOT's pre-award audits met all requirements of AASHTO guidelines and safeguards are in place to protect the state's interest if contract execution precedes pre-award audit results. The actual number of contract price negotiations prior to audit is significantly less than the 44% rate that LAC reported using selective samples.

### **SCDOT's Contracts With an Engineering Consulting Firm**

- The LAC *in gross error* claims a lack of competition for a particular consulting firm and that the involvement of SCDOT and Federal Highway Administration (FHWA) executive management in the contract negotiations could give the appearance of favoritism.
  - The contract was awarded to the *only firm that responded* to SCDOT's competitive solicitation. The solicitation was publicly available to the entire consultant community.
  - This firm was well qualified to perform the proposed scope of work.
  - **The former Deputy Director of Finance and Administration and the Contracts Manager negotiated the terms of this contract, not the FHWA and SCDOT executive management as reported.** The LAC failed to contact the consultant or FHWA to verify its assumption.
  - On contracts that will have a significant impact on operations at SCDOT, it is usual and appropriate for SCDOT and FHWA executive management to be informed and involved in the discussions leading up to advertisement.
  - The implication that this particular contract was treated differently is false. Upon LAC's request, SCDOT provided a spreadsheet of all road and bridge consultant contracts and management contracts. LAC was provided information on all these contracts, including the referenced contract and CRM.
  - LAC *misleads the reader* by stating that the financial capability of this consultant was questioned during SCDOT's pre-award audit but *neglected to report* that SCDOT's concern was resolved when the consultant obtained a line of credit from a financial institution.
  - LAC *failed to report* that proposals from this firm have not been selected on many occasions. This contradicts LAC's favoritism theory.
- SCDOT's "27 in 7 Accelerated Program" added 1,500 lane-miles of much needed road improvements to South Carolina. Along with the program came the realization that preconstruction activities needed to be better coordinated using computer-based programs to support and improve the accuracy of the project letting schedule publicly posted on SCDOT's web page. Because SCDOT staff was already fully engaged in handling the double- and triple-workload brought about by the accelerated program, services to include management support were critical to becoming more efficient. A scope of services to include management, staff augmentation, and program coordination was developed to allow SCDOT management the flexibility to direct these supplemental services to the most critical areas for program delivery and process improvement. **The process followed to obtain the services of this consultant was in full compliance with regulations and procedures.**
- While LAC was critical of the scope of services for this particular contract, the many significant accomplishments actually completed were *omitted*. The completed tasks included improvements that streamlined processes and significantly increased the reliability of the 12-month letting list, and a computer-based tracking system to ensure continued success and accountability.
- LAC criticizes using a consultant who employed former SCDOT employees for services. LAC suggests these former employees could have been hired as temporary employees, which was not the case.
- It is common practice in the consultant industry to hire former, particularly retired, SCDOT employees due to their special knowledge, skills and experience in the transportation industry. Including profit and overhead in contracts is a normal business practice for consultants.

**Contrary to the LAC's assertions, the process followed to obtain the services of this consultant was in full compliance with regulations and procedures.**

### Federal Billings Held

#### Synopsis

SCDOT emphatically denies audit implications that federal billings were delayed to attempt to lower cash balances during legislative sessions and that the state lost interest income as a result.

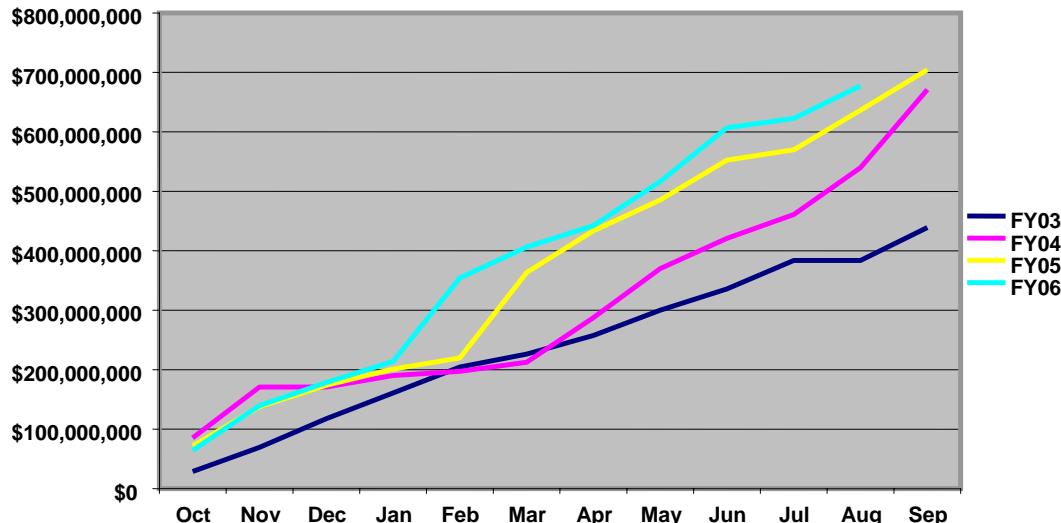
#### SCDOT Response to LAC

- According to the Comptroller General, during the time LAC claims the agency lost \$1.5 million in interest, the agency actually earned approximately \$725,000 more interest than was earned during the same period in the previous two years.
- SCDOT did not delay federal billings to lower cash balances at any time. SCDOT submits bills on a current basis when federal funding is available and remains in full compliance with the agreement with the FHWA.
- LAC failed to contact the FHWA. The FHWA Division Administrator for South Carolina confirms that SCDOT is in compliance with the referenced agreement.
- The audit correctly points out that *SCDOT did not lose any federal funds* for projects; therefore the department's fiduciary responsibilities were never compromised.
- **The federal fiscal year and release of federal funding (not the state's legislative session) has a direct impact on when SCDOT can bill FHWA.**
- LAC failed to understand that SCDOT billing is constrained by federal funding limitations. Available federal funding was not sufficient to allow billing and reimbursement during the months in question for the "Unclaimed Amounts" listed.
- LAC emphasis on "Advance Construction Category Used Extensively" misleads the reader to believe this is undesirable. **Advance Construction has been an effective tool in SCDOT's cash flow management.**
- LAC should have reported other significant cost control and innovative financial management activities such as:
  - Delivering the \$5.3 billion "27 in 7" Program that saved SC taxpayers, conservatively, over \$3 billion;
  - Optimizing the use of \$750 million in federal funding to accelerate projects and enable more federal billings and any associated state interest; and
  - Developing a cash flow model to more effectively manage all funds.

#### Discussion

For 2004 and 2005, SCDOT received only incremental federal funding under an unprecedented series of 12 Congressional Continuing Resolutions leading up to the enactment of permanent legislation. There were numerous times during this period that available federal funding levels approached zero dollars. An analogy is that one cannot draw from a checking account that is empty. In late January 2005, SCDOT received a \$200 million increment, and promptly submitted a large bill involving hundreds of transactions to FHWA for payment on March 10, 2005, which is a reasonable timeframe (see FFY 05, Chart 1).

**Chart 1 - SCDOT Federal Billings**



**LAC does not comment on a similar event involving a large billing that occurred in February 2006 following the federal release of more than \$300 million in late December 2005 (see FFY 06, Chart 1).** The evidence actually shows a three-year pattern of large billings - all, coincidentally, during legislative sessions - following large releases of federal funds. The facts show no intentional delay of billing. **This important relationship between the timing of incremental federal funding and billing was omitted from the audit.** Federal billings have increased significantly from FY 2003 through 2006 (Chart 1). This important fact was also omitted from the audit. (The billing data to support Chart 1 is on file at SCDOT and the FHWA, and was made available to LAC).

Chart 1 clearly illustrates SCDOT's annual progress to increase federal billings (along with associated interest accrual) through innovative financial management strategies that were omitted from the audit. For example, during the same two years under review, SCDOT accelerated the release of more than \$100 million in federal funds from projects on the books (a total of \$183.4 million has now been made available in the four years since 2002). This initiative resulted in the financial ability to accomplish more work and to bill for more federal reimbursement and receive accrued interest.

LAC reported that SCDOT shifted projects into the "Advance Construction" category to avoid billing the federal government. The purpose of the "Advance Construction" category was to allow SCDOT to implement a cash flow approach that allowed construction to move forward based on *scheduled* federal authorizations rather than obligating *current* authorizations for projects that may take up to three years to complete. We continue to use this cash flow tool today.

The cash flow model now in place (the base model framework was obtained free of charge from the Florida DOT because of our excellent partnering relationship) has been instrumental in SCDOT's ability to optimize the use of all funding resources, to advance and accelerate construction, and to enable federal billings of an additional \$567 million and receive accrued interest.

SCDOT receives and pays invoices daily and can only then bill FHWA. Each billing to FHWA requires seven to fourteen days in bill preparation and is comprised of hundreds of transactions that must be verified on dozens of projects. As a result, on any given day of the month there will be an unclaimed federal amount and, theoretically, "lost interest." SCDOT management initiated accounting changes that increased the number of times SCDOT bills for expenditures each month. This began long before any billing questions were raised. Instead of the previous once-a-month billing, SCDOT now routinely bills twice a month for available federal funds, progressively increasing the frequency and dollar amount of federal billings each year. The evidence of SCDOT's improved billing process innovation was also omitted from the audit.

Total annual interest accounts for about one-half percent of SCDOT's revenues. By narrowly focusing on interest, LAC omitted many cost-effective business strategies used by SCDOT that yield far greater returns than interest. If earning interest were the prevailing public policy for fiscal planning, SCDOT could delay paying contractors and increase interest earnings but at the cost of higher bid prices. It is the agency's practice to pay contractors as quickly as possible in order to support the state's economy, create jobs and provide the best transportation products possible at the lowest cost possible.

### **Environmental Issues**

LAC failed to recognize SCDOT's concerted efforts to improve maintenance facilities and, thus, reduce fines. As a result, only one SCDOT maintenance facility has been fined in the last 9 years.

LAC *also incorrectly cites* the history leading up to EPA's involvement in the Special Environmental Project (SEP). In fact, SCDOT was able to arrange a beneficial outcome from what could have resulted in a considerable loss.

**SCDOT is a recognized leader among state DOTs in conservation.**

- Because of the nature of its work, SCDOT must be environmentally sensitive. **SCDOT is a recognized leader among state DOTs in conservation.** For example, the agency received national awards from FHWA for the preservation of the Sandy Island and the Lewis Ocean Bay ecosystems. In addition, SCDOT received the Governor's historic preservation award for preserving the Revolutionary War battle site at Fish Dam Ford, and received the 2006 AASHTO President's Award for Environment by ensuring sea turtle nesting and wild bird migration was not disrupted by the lighting system on the new Arthur J. Ravenel, Jr. Bridge in Charleston.

- SCDOT initiated a major initiative to improve its maintenance facilities in 2001 by hiring a professional geologist to oversee related environmental programs, providing training to all maintenance employees, developing an environmental training manual, and implementing a web-based environmental management system for maintenance units.
- Regarding the incidents cited in the audit, SCDOT requested to have the SC Administrative Law Judge (ALJ) Division rule on DHEC's decision to impose a fine on the agency. SCDOT believed the fine was excessive. This appeal procedure is provided by state regulations for every party DHEC has fined. SCDOT stated that had the ALJ determined a fine was appropriate, SCDOT would promptly pay.
- Rather than allowing the matter to go before the fair and impartial ALJ, DHEC turned the matter over to the U. S. Environmental Protection Agency (EPA). As a result, the potential fine was increased, and the recipient of the potential fine revenues became the federal government rather than the State General Fund. Despite this turn of events, SCDOT worked with EPA and avoided paying most of the punitive federal fine by applying and obtaining approval from EPA to undertake a much-needed state environmental initiative.
- SCDOT turned a potential fine into a state benefit through the development of a project that better addresses erosion and debris removal without burning, and which also improves air and water quality. The project developed and tested environmentally sensitive techniques that are now used statewide on SCDOT projects. SCDOT actually saved the taxpayers \$575,729 in federal fines by applying them toward a project that needed to be done anyway, and which was environmentally beneficial to the public.

### **SCDOT Planning**

**LAC reports:** “We examined SCDOT’s planning procedures for building and maintaining roads to determine if the process adequately prioritized projects. We found that SCDOT complies with federal regulations and generally has appropriate processes in place for planning construction and maintenance projects statewide.”

This significant finding should have been given far greater emphasis because it represents:

- The involvement of all of SCDOT’s staff to varying degrees in maintenance, planning and executing projects;
- Excellent public involvement: LAC reports: “SCDOT collaborates with local officials;” and
- Conscientious environmental stewardship: LAC reports: “Officials have put a priority on identifying environmental concerns in the planning stages of project development.”

**LAC reports:** “We examined SCDOT’s planning procedures for building and maintaining roads to determine if the process adequately prioritized projects. We found that SCDOT complies with federal regulations and generally has appropriate processes in place for planning construction and maintenance projects statewide.”

### **Performance Measures**

LAC concluded that SCDOT’s performance measures are generally appropriate but SCDOT has not adequately published the extent to which it is achieving its goals. In 1998, Strategic planning and reporting were institutionalized as important management tools used by SCDOT. SCDOT’s strategic plan can be found at the following link: [http://www.scdot.org/inside/strategic\\_plan05.shtml](http://www.scdot.org/inside/strategic_plan05.shtml). LAC failed to identify most of the information SCDOT has made available to inform both the general public and SCDOT management of its progress and accomplishments.

Examples of the information available include:

- Project status - <http://www.scdot.org/doing/acceleratedselect.shtml>
- Resurfacing contracts - [http://www.scdot.org/doing/resurface\\_net.shtml](http://www.scdot.org/doing/resurface_net.shtml)
- Best Management Practices - <http://www.scdot.org/inside/bestpractices.shtml>
- Public Forum - <http://www.scdot.org/public/default.asp>
- Strategic Plan - [http://www.scdot.org/inside/strategic\\_plan05.shtml](http://www.scdot.org/inside/strategic_plan05.shtml)
- Upcoming Lettings - <http://www.scdot.org/doing/currentletting.asp>

Other methods of performance reporting to SCDOT senior management include:

- Executive management monthly meetings with topics relative to performance, projects and financial goals;
- Leadership and educational meetings to review programs, issues and concerns;
- Bulletin boards displaying performance to employees and visitors;
- Monthly reports and presentations to the Commission;
- The annual accountability report;
- Annual 10-year highway construction reports provided to the Legislature;
- Internet and intranet information on programs and accomplishments;
- Business plans developed for offices in the field supporting the strategic plan;
- Regularly scheduled meetings and reports with management; and
- Employee performance evaluations.

This readily available information is evidence of how performance information is reported to top management but was omitted from the audit.

## Chapter 4 – Administrative Management

LAC acknowledges that during the period reviewed, SCDOT has continued to take steps to reduce administrative costs. In a recent reliable independent analysis, SCDOT has the third lowest administrative cost per mile and is the second most cost-effective DOT in the nation.

### Building Renovations

LAC implies that SCDOT failed to comply with requirements for Budget and Control Board and Joint Bond Review Committee (JBRC) approval for recent renovations to the headquarters building.

- As noted in the LAC report, SCDOT implemented a renovation project for the headquarters building in order to more effectively utilize the space vacated by the SC Department of Motor Vehicles.
- SCDOT is not required to submit permanent capital improvement projects to the Budget and Control Board (See S.C. Code Section 10-1-180).
- The headquarters renovation project has not exceeded \$100,000 and therefore is not required to be submitted to the JBRC.
- SCDOT has submitted other capital improvement projects that have exceeded the \$100,000 threshold to the JBRC.
- The SCDOT Commission was fully briefed on plans for the headquarters renovation.

### Conferences and Travel

SCDOT disagrees with LAC's statement that funds for the Bicycle-Pedestrian Conference could have been better used. LAC also criticizes SCDOT's solicitation of funds for the annual transportation conference, even though the agency followed guidelines from the SC Ethics Commission.

- Bicycle and pedestrian use has increased significantly in recent years. Crash data figures have consistently indicated that bicycle and pedestrian fatalities have been similar to the number of fatalities on the interstate facilities in South Carolina.
- **In 2003, the Commission adopted a policy to institutionalize bicycle and pedestrian accommodations on all projects. The purpose of the conference was to educate and train SCDOT employees and local planners.**
- Federal funding was used to partially fund the conference. Private funding provided the rest.
- Locations were chosen by invitation from local areas interested in showcasing their existing bicycle and pedestrian facilities. In previous years the conference was held in Charleston and Greenville.
- SCDOT agrees that a separate checking account should have been used to handle registration fees.

*In 2003, the Commission adopted a policy to institutionalize bicycle and pedestrian accommodations on all projects. The purpose of the conference was to educate and train SCDOT employees and local planners.*

- In 2005, SCDOT initiated new procedures for planning agency conferences and events that have resulted in lower costs.

### **Concerns about Favoritism**

LAC's allegations about the appearance of favoritism are *unsubstantiated and false*. SCDOT initiated an employee survey in 2003 as a performance measure to identify potential areas of employee concerns. Since the survey SCDOT has made significant improvements including training, improved communications through the monthly *Crossroads* video hosted by Executive Leadership, and compensation reviews to address perceived inequities. ***LAC's use of speculative language alluding to favoritism is irresponsible and does not credit SCDOT with many initiatives to promote equality.***

- As with most employee surveys, the SCDOT survey identified employees' concerns about favoritism. The survey also showed the following:
  - Fifty-five percent of employees believe they are treated fairly at SCDOT.
  - Two out of three employees are satisfied with their jobs and working at SCDOT.
  - Eight out of 10 *strongly indicate they would like to stay with the organization.*
- As indicated in the LAC report, SCDOT has initiated Career Paths in response to the need for training and promotional opportunities.
- *Crossroads* is an innovative video program developed to keep employees informed.
- When SCDOT hires temporary employees, a highly qualified applicant is selected to fill the position.
- SCDOT utilizes the State classification system to determine a job title for temporary employees. SCDOT agrees that it has not always used the most appropriate job title for temporary employees. SCDOT is reviewing temporary job titles to ensure accurate job classifications for temporary employees.
- LAC cited annualized salaries of some temporary clerical assistants over \$40,000. Most of the temporary employees hired to complete special projects work part-time. Therefore, when comparing their actual earnings to their annualized salary, the employees are earning significantly less than their annualized salary.
- SCDOT is not required by state law or regulation to maintain position descriptions for all temporary employees.

***LAC's use of speculative language alluding to favoritism is irresponsible and does not credit SCDOT with many initiatives to promote equality.***

### **Internal Audit**

SCDOT will consider the legal mechanism for having the Office of Internal Audit report to the SCDOT Commission.

### **Summary**

After a yearlong review of SCDOT management, operations, planning, administration, and construction programs, LAC found no significant problems in areas encompassing over 99% of the agency's annual expenditures, including a \$1.4 billion construction program and a \$416 million maintenance program. LAC's statements on the remainder are overstated and misleading and based on incomplete information resulting in an overall unbalanced review of SCDOT.

SCDOT's executive leadership and employees strive to be innovative to find creative solutions and become even more efficient with limited available resources. The successes of SCDOT are reflected in the numerous awards received for engineering, environmental conservation, finance and safety. SCDOT has always recognized that "process improvement" and "streamlining" are vital to meeting the ever-changing demands of transportation in South Carolina. SCDOT will continue to make improvements and incorporate change as SCDOT strives to be the best in the nation (currently 2<sup>nd</sup>) in cost-effectiveness among state DOTs. The SCDOT Commission and management are committed to reviewing the results of the report and implementing changes as appropriate.

---

---

This report was published for a total cost of \$522.30; 115 bound copies were printed at a cost of \$4.54 per unit.

LAC/05-3

