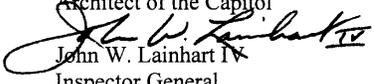


John W. Lainhart IV
Inspector General

Office of Inspector General
U.S. House of Representatives
Washington, DC 20515-9990

MEMORANDUM

TO: Alan M. Hantman, AIA
Architect of the Capitol

FROM: 
John W. Lainhart IV
Inspector General

DATE: September 1, 1998

SUBJECT: Audit Report - Improvements Are Needed In The Architect Of The Capitol's
Cost And Work Order Management Processes For House Office Buildings
(Report No. 98-AOC-10)

This is our final report on the review of the Office of the Architect of the Capitol's (AoC) cost and work order management processes within the U.S. House of Representatives (House). The objective of this audit was to assess the efficiency and effectiveness of the AoC cost and work order management activities related to the maintenance, repair, and construction/renovation of the House buildings. In this report, we identified problems associated with day-to-day cost accounting and management controls over maintenance, repair, and construction/renovation activities related to House Office Buildings. The report discusses the need to acquire and implement an effective work management system for capturing and reporting direct and indirect cost information. It further discusses an opportunity for using purchase cards to realize savings, improve cash management, reduce lead times, and decrease procurement workload. Lastly, in the "Other Matter" section of this report, we identified the need to fully compete professional service contracts or formally document justifications for sole source procurements. Accordingly, we made specific recommendations for corrective action with respect to each identified problem.

In response to our June 8, 1998 draft report, your office generally concurred with our findings and recommendations. The July 16, 1998 management response is incorporated in this final report and included in its entirety as an appendix. The corrective actions planned and taken by your office are appropriate and satisfy the intent of our recommendations.

Lastly, the target completion dates provided for implementing corrective actions appear reasonable. However, we ask that you provide us target completion dates for several pending actions indicated in this report associated with recommendations in Findings A and B.

We appreciate the courtesy and cooperation extended to us by your staff. If you have any questions or require additional information regarding this report, please call me or Robert B. Frey III at (202) 226-1250.

Attachment

cc: Speaker of the House
Majority Leader of the House
Minority Leader of the House
Chairman, Committee on House Oversight
Ranking Minority Member, Committee on House Oversight
Members, Committee on House Oversight

Improvements Are Needed In The Architect Of The Capitol's Cost And Work Order Management Processes For House Office Buildings

*Report No. 98-AOC-10
September 1, 1998*

RESULTS IN BRIEF

CONCLUSIONS

The Architect of the Capitol (AoC), appointed in January 1997, is initiating major changes to improve the aging, heavily paper-driven AoC management systems that were designed years ago to address government fund accounting requirements. The AoC's planned actions can lead to significant management improvements. However, to be successful the AoC needs to establish direction and control over cost accounting by implementing the policies and procedures necessary to provide a full accounting of the costs related to maintenance, repair, and construction/renovation of House buildings. By instituting effective cost accounting procedures, the AoC can obtain a more accurate accounting of the costs incurred in the maintenance, repair, and construction/renovation of House buildings. As a result, the AoC will be able to (1) more effectively monitor the use of resources and control costs, (2) obtain more accurate estimates for future construction activities, (3) improve planning and prioritization for all activities, (4) make more informed decisions regarding the use of in-house resources versus contractors for maintenance, repair, and construction/renovation activities, (5) establish the necessary linkage between cost and performance information to provide managers with the information they need to better allocate their resources and achieve measurable results, and (6) provide the House Office Building Commission and House committees overseeing AoC operations with the necessary information to make informed decisions regarding maintenance, repair, and construction/renovation activities.

In addition, House Office Buildings staff do not consistently record labor hours for work orders and indirect hours spent on other activities and do not measure personnel performance against organizational or industry standards. As a result, the Superintendent, House Office Buildings cannot readily determine whether (1) the work force is being utilized effectively and efficiently, (2) personnel performance is acceptable, and (3) labor hours spent by personnel on other than direct activities are properly controlled. In addition, recording labor hours is needed to provide the foundation for accurate and effective cost accounting, which is critical to management decision-making. Further, measuring personnel performance is needed to facilitate improvements in the efficiency and cost-effectiveness of the AoC maintenance and repair services to the House buildings through better allocation of resources. House Office Buildings also has limited data available that could be used to assess the utilization of the workforce. As a result, the Superintendent does not have the information necessary to determine that his staff is being used cost-effectively. For example, our review of the limited data available showed that

high-paid, skilled personnel are used extensively to respond to service calls such as changing light bulbs and fluorescent lamps, and hanging pictures and plaques.

In deciding to seek further funding for a new system (the CAFM work management system) to replace the current House Office Buildings work order system, the AoC has relied extensively on a needs analysis performed for Senate office buildings to justify the system, which will be used initially in a pilot program in the Capitol Building. While this analysis may provide a good starting point, the AoC needs to perform more rigorous analyses focusing on specific House requirements, including how it will meet the needs of the House Office Buildings workforce; extent of reengineering of current business activities associated with House Office Buildings necessary to effectively implement the CAFM work management system; lifecycle costs of the system; and lifecycle benefits to the House. These analyses are critical to providing the House Office Building Commission and House committees overseeing the AoC the necessary information to be able to make informed decisions regarding needs and cost-effectiveness.

The AoC spends about \$1.5 million a year for over 1,000 purchases under \$2,500 for House buildings. The AoC can save up to \$54,000 a year for these type of purchases, improve cash management, reduce lead times, and decrease the procurement workload by using the purchase card services that have been adopted by other Federal agencies. AoC officials have been reluctant to adopt these services because they do not feel internal controls are adequate to safeguard the program. While their concerns about internal controls may have some merit, long-term experience with other Federal agencies shows that adequate controls can and have been easily implemented.

Lastly, during the course of our review of CAFM, we noted that the AoC approved a \$73,500 contract with a subsequent extension of \$9,019 for a total of \$82,519, in November 1996, for professional services to perform a needs analysis for the CAFM system components and their inter-relationships. Subsequently, in December 1997, the AoC approved an additional contract in the amount of \$160,670 to the same firm to provide consulting and project management services associated with the implementation of the entire CAFM system. Both of these contracts were let without benefit of a formal competitive procurement, or a written justification for sole source procurement. Without competition or justification for sole source, the AoC cannot be assured that a proposal representing the best value to the Government has been selected.

RECOMMENDATIONS

We recommend that, for the House buildings, the AoC (1) establish a policy requiring timely and complete accounting for maintenance, repair, and construction/renovation activities; (2) develop procedures and internal controls to capture, analyze, and report cost information needed to properly account for maintenance, repair, and construction/renovation activities; (3) develop and enforce clear written policies and procedures to identify and establish performance measures, record all direct and indirect labor hours, and periodically review the adequacy of workforce utilization; (4) implement a work management system that fully captures and reports direct and indirect time spent on maintenance and repair activities; (5) conduct the additional analyses of specific House requirements, business process reengineering, and lifecycle costs and benefits; (6) contract for purchase card services; (7) establish a policy to promote competition to the

maximum extend possible for professional services contracts, and require full justification in those instances where the AoC deems it necessary to deviate from this policy; and (8) use multi-year competitive procurements for future contractor services to support the implementation of CAFM.

MANAGEMENT RESPONSE

In the Office of the AoC's July 16, 1998 response to our draft report, the AoC generally concurred with our findings and all eight recommendations (see Appendix). According to the response, several actions are either completed, underway, or planned to significantly improve the AoC's cost and work order management processes related to maintenance, repair, and construction/renovation of the House buildings. Examples of corrective actions completed and underway include: (1) developing the Computer Assisted Facility Management (CAFM) program and the Financial Management Improvement Program (FMIP); (2) developing an integrated approach for implementing an effective CAFM technology on a Hill-wide basis; (3) adopting the Legislative Branch Financial Managers Council Vision Statement in 1997; (4) initiating a strategic planning process in 1997 to produce a purposeful and efficient operational environment AoC-wide; (5) completing a *Facility Maintenance And Repair Work Management Requirements Analysis* for the House Office Buildings; and (6) initiating contact with the General Service Administration and the Department of Veterans Affairs to determine the viability of using the agency's master contract for Fleet Management, Travel, and/or Purchase Cards.

In furtherance of the AoC's commitment, other initiatives planned include: (1) acquiring and implementing the CAFM work management system for capturing and reporting direct and indirect labor cost information Hill-wide; (2) developing policies and procedures to establish performance measures for all direct and indirect labor hours; and (3) implementing an overall program for using purchase cards agency-wide.

Lastly, the AoC agreed with the issue and associated recommendations we identified in the "Other Matter" section of this report. According to the response, the AoC plans to explore whether future contracts for services, such as in the GSI contract(s), should be treated as "Service Contracts" to be fully advertised and competed or whether a sole-source approach would be appropriate. The AoC also committed to performing an independent determination on whether the use of a multi-year contract format would be in the best interest of the government.

OFFICE OF INSPECTOR GENERAL COMMENTS

The AoC's current and planned actions are responsive to the issues we identified and, when fully implemented, should satisfy the intent of our recommendations. In addition, the target completion dates provided for implementing corrective actions appear reasonable. However, we have requested that target completion dates for the actions underway and planned in Findings A and B be provided.

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I. INTRODUCTION

Background

With a Fiscal Year (FY) 1998 budget of \$179.25 million and 2,034 full time employees, the Architect of the Capitol (AoC) is responsible for the structural, mechanical, domestic care, and maintenance of Senate and House buildings, Capitol Building, Capitol Power Plant, Library of Congress, Supreme Court, Botanic Garden, the underground garages of the buildings and parking lots on the Capitol grounds. The AoC is also responsible for the upkeep of the Capitol grounds and the U.S. Capitol Police Buildings and facilities.

The FY 1998 appropriation for the House buildings is \$36.6 million. These funds are for the care and maintenance of the five House buildings (Rayburn, Longworth, Cannon, O'Neill, and Ford Buildings), the underground garages in those buildings, the 501 First Street building, and for related construction and renovation activities (12 construction/renovation projects totaling \$8.1 million were funded for FY 1998). Within the House, AoC activities are subject to the approval and direction of the House Office Building Commission, Committee on House Oversight, and House Appropriations Committee.

Responsibilities for maintenance, repair, and custodial care of House buildings are handled primarily by the Superintendent, House Office Buildings. Construction and renovation projects for House buildings are handled by the Superintendent, Construction Management Division and/or the Superintendent, House Office Buildings. House Office Buildings activities are also supported by other AoC administrative offices and divisions such as Budgeting, Accounting, Procurement, Architecture, and Engineering.

House Office Buildings

With a staff of about 548, House Office Buildings provides day-to-day maintenance, repair, alterations, improvements, and operations of the buildings—including custodial care. House Office Buildings activities are conducted by specialized shops located throughout the House buildings: Carpentry, Electrical, Elevator, Industrial Equipment, Labor, Masonry, Night Cleaning, Painting, Pipefitting-Plumbing, Refrigeration and Air Conditioning, and Sheet Metal. In conducting these activities, House Office Buildings uses a work order process to schedule and track the status of service calls for maintenance, repair, and other activities related to the care of House buildings. When service calls are received, the time of call, date, and the problem are entered into a work order system. In most cases, the foremen in each of the shops make the scheduling decisions. Subsequently, when the service call is completed, the time, date, assigned staff, and resolution (i.e., what was done) is entered into the system. The system, however, only records the initiation and resolution of work orders, it does not perform any analysis, scheduling, or summarizing.

Construction Management Division

With a staff of about 90, the Construction Management Division is responsible for major construction/renovation projects within the areas under the jurisdiction of the AoC – including the House buildings. As part of its responsibilities, the Construction Management Division manages, inspects, and administers major construction/renovation projects built by private contractors. Also, selected projects that the AoC determines can be more suitably executed in-house are performed by Construction Management Division personnel. At times, the Construction Management Division may use some of the House Office Buildings workforce to help complete in-house construction projects.

The Construction Management Division operations are organized to provide services in a manner typical of the construction industry. For example, the Construction Management Division has four teams responsible for project management and uses a number of project management tools (such as Primavera Project Planner). The Construction Management Division has also developed a Construction Management Division Manager system to track day-to-day project labor and materials.

Compliance with legislative financial and performance mandates

For more than five years, the Federal government has implemented major financial and performance management reform initiatives in response to the Chief Financial Officers Act of 1990 and a series of related Acts of Congress. Inherent in these acts is cost management and accountability over the utilization of resources. Compliance in the Legislative Branch is being championed through the efforts of the Legislative Branch Financial Managers Council. As a member of the Council, the AoC has adopted the Council's vision.

The Council envisions a financial management environment that supports the mission of the Legislative Branch of the U.S. Government by operating integrated, customer-driven/output-oriented financial management systems and using modern management techniques that provide effective and efficient accounting, budgeting, disbursing, and travel services to facilitate program activities, to effect strategic and timely management decisions, and to ensure accountability.

To achieve this vision, the Legislative Branch Financial Managers Council encourages compliance with legislative mandates designed to improve accountability in the Executive Branch. These mandates include compliance with accounting requirements of the Joint Financial Management Improvement Program (JFMIP) and the Federal Accounting Standards Advisory Board (FASAB). They also include the following legislation designed to improve both financial and performance management.

- Federal Manager's Financial Integrity Act (FMFIA) of 1982
- Chief Financial Officers' Act (CFO) of 1990
- Government Performance and Results Act (GPRA) of 1993
- Government Management Reform Act (GMRA) of 1994
- Federal Financial Management Improvement Act (FFMIA) of 1996

To meet its goals, the Council intends to adopt strategies that promote Legislative Branch standards, eliminate duplication, adopt a lead-agency concept, support outsourcing, support reengineering, and move from traditional budgetary accounting to managerial accounting.

Objective, Scope, And Methodology

The objective of this review was to assess the efficiency and effectiveness of the AoC cost and work order management processes related to the maintenance, repair, and construction/renovation of the House buildings. Our review was conducted within offices of the AoC. In addition, we queried staff members of the Committee on House Oversight about their views on AoC operations as they related to House buildings.

We conducted our review in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States. Our review covered only those AoC activities within the scope of the review as they related to House buildings. Within that scope we reviewed pertinent documentation and interviewed AoC staff as well as contractors involved in developing new management systems for the AoC. We reviewed policies and procedures, observed AoC operations, analyzed management reports, and evaluated the flow of transactions, especially the work order system and the construction/renovation projects estimating and monitoring systems. The audit covered the period from October 1996 through April 1998.

Internal Controls

During this review, we evaluated internal controls over the cost and work order management of maintenance, repair, and construction/renovation activities associated with the House buildings. The internal control weaknesses we identified are described in the "Findings and Recommendations" section of this report.

Prior Audit Coverage

The OIG previously issued an audit report - *Audit Survey of the Joint Entities of the Architect of the Capitol* (Report No. 95-AoC-27, dated December 29, 1995) - which identified major AoC offices and activities as a basis to determine future audit priorities and resource allocations. While the report did not result in recommendations, it raised questions about the quality and cost-effectiveness of certain AoC operations and financial management systems. This review was undertaken in response to the results of that audit survey.

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II. FINDINGS AND RECOMMENDATIONS

Finding A: Better Accounting Of Costs Related To Maintenance, Repair, And Construction/Renovation Projects For House Buildings Activities Is Needed

The current AoC systems and procedures do not provide an adequate accounting of the costs incurred in the maintenance, repair, and construction/renovation of House buildings. By instituting effective cost accounting procedures, the AoC can obtain a more accurate accounting of the costs incurred in the maintenance, repair, and construction/renovation of House buildings. As a result, the AoC will be able to (1) more effectively monitor the use of resources and control costs, (2) obtain more accurate estimates for future construction activities, (3) improve planning and prioritization for all activities, (4) make more informed decisions regarding the use of in-house resources versus contractors for maintenance, repair, and construction/renovation activities, (5) establish the necessary linkage between cost and performance information to provide managers with the information they need to better allocate their resources and achieve measurable results, and (6) provide the House Office Building Commission and House committees overseeing AoC operations with the necessary information to make informed decisions regarding maintenance, repair, and construction/renovation activities.

Criteria for cost accounting standards are well established

As part of its vision to adopt Federal Government accounting standards, the Legislative Branch Financial Management Council encourages legislative agencies to move from traditional budgetary accounting to managerial accounting. Budgetary accounting focuses on accounting by appropriated funds or other forms of budget authority. Managerial accounting focuses on cost accounting (e.g., activity-based accounting) and links accounting information with performance information. This linkage provides managers with the information they need to better allocate their resources and achieve measurable results.

Managerial or activity-based cost accounting has been at the core of the standards set forth under the Joint Federal Management Improvement Program (JFMIP), the Federal Accounting Standards Advisory Board's Statement of Financial Accounting Standard (SFAS) Number 4 of 1995, and the Financial Management Improvement Act of 1996. While these standards are not mandatory for the Legislative Branch, they represent the best practices in the Federal government today. These standards recognize that good cost accounting is the foundation on which financial management systems are built. JFMIP considers a managerial cost accounting system to be an essential part of an integrated financial management system. SFAS Number 4 stresses that:

“In managing Federal government programs, cost information is essential in the following five areas: (1) budgeting and cost control, (2) performance measurement, (3) determining reimbursements and setting fees and prices, (4) program evaluations, and (5) making economic choices.”

Implementation of cost accounting standards by the Executive Branch has been difficult. The Federal Financial Management Improvement Act of 1996 warns that: “Federal financial management continues to be seriously deficient, and Federal financial management and fiscal

practices have failed to identify costs fully.” To help meet the vision expressed by the Legislative Branch Financial Managers Council, the AoC prepared a Financial Management Improvement Plan dated April 29, 1997, to outline improvements that could be made to improve accounting for finances and performance. The plan recognizes the need to track and control direct costs of labor and material consumed in performing AoC functions and activities, and indirect costs incurred in supporting them. It also recognizes the need to tie cost management to performance.

Accurate cost information related to House buildings is not readily available

The current AoC systems and procedures do not provide the House Office Buildings and Construction Management Division the necessary cost information to consistently monitor the use of AoC resources for maintenance, repair, and construction/renovation activities related to House buildings. As a result, AoC managers can only make limited decisions about the management and utilization of personnel, material, and other resources. For example, some direct and indirect costs are not charged to the activities they support, and cost information is not provided on a timely basis or in a usable format to line managers.

Direct and indirect costs. House Office Buildings does not receive cost reports AoC Accounting that provide information regarding (1) cost of direct labor by function or activity, (2) cost of indirect labor hours, (3) cost of labor spent on activities for other AoC Divisions, and (4) cost of materials by activity. Also, the accounting system does not allocate the cost of AoC services that support House Office Buildings operations. With regard to the Construction Management Division, the AoC accounting system captures most of the direct costs and all of the Division’s overhead costs attributable to a construction/renovation project. However, the system captures almost none of the indirect costs (i.e., cost of labor from other AoC divisions) that support Construction Management Division operations. Some illustrations follow.

Refurbishing Committee Rooms

In 1997, Superintendent, House Office Buildings refurbished two House Committee rooms to accommodate changes in committee assignments. The AoC Cost Estimating Division projected total costs of \$221,329 (\$107,479 for material and \$113,850 for labor). This projection included a 15 percent contingency. The project was completed in October 1997.

We tried to identify the actual costs charged to this project. We found only an entry under the House Office Buildings Miscellaneous Improvement Statement of Obligations and Disbursement for \$81,601.33 as of January 21, 1998. The entry was for cost of materials. No House Office Buildings labor costs were charged to the project. Instead, House Office Buildings labor costs were absorbed by the House Office Buildings appropriation for maintenance, repair, and custodial care activities of all House buildings.

As a result, for the total estimated cost of \$221,329 for this project (these costs only cover direct labor/materials and the contingency), the accounting system only recorded about \$81,000 or only 36 percent of the costs to the project.

Cannon Building B-106 Project

In 1996, the Construction Management Division started a project to convert a storage area to useable office space in the Cannon Building. The AoC Cost Estimating Division projected the cost of the project as identified in the following table.

PROJECT RESPONSIBILITY	CONTRACT	MATERIALS	LABOR	TOTAL COSTS
HOUSE OFFICE BUILDINGS	-	\$27,350	\$78,154	\$105,504
CONSTRUCTION MANAGEMENT DIVISION	-	\$71,400	\$7,436	\$78,836
CONSTRUCTION BRANCH	-	\$267,540	\$282,586	\$550,126
OUTSOURCE – ENGINEERING	\$40,000	-	-	\$40,000
CONSTRUCTION MANAGEMENT DIVISION MANAGEMENT FEE	-	-	\$59,013	\$59,013
TOTALS	\$40,000	\$366,290	\$427,189	\$833,479

However, not all of the costs of this project were identified to the project through the AoC accounting system. For example, the \$105,504 of House Office Buildings expenditures for labor and materials attributable to this project was absorbed by the House Office Buildings appropriation. Therefore, these costs were not reflected in the AoC accounting records as costs to the project. In addition, the accounting system does not allocate indirect or overhead AoC costs to individual projects. Therefore, no costs were charged to this project for such AoC services as accounting and payroll, estimating, architecture, and procurement.

Usefulness of cost information. AoC Accounting provides the Construction Management Division the monthly *Financial Report Appropriation Allotment Balance Statement*. The purpose of this report is to give the Construction Management Division a running account of funds expended. The Construction Management Division recognizes that the type of information in the report is useful in providing a general guide by which to track the monthly expenditure of funds against appropriations. However, it is of little value in managing day-to-day business.

The Construction Management Division also has access to the AoC accounting system. This system provides detailed information about project costs. Again, this information is of little value in managing construction projects on a day-to-day basis. This is because it is usually entered into the accounting records several days to several weeks after expenditures have been incurred. Timely information about fund expenditures is essential as a project nears completion to ensure that funds are not overspent.

To obtain more timely information, the Construction Management Division implemented a Construction Management Division Manager system in 1996 to track daily project expenditures and labor hours. This system provides real time data such as labor/payroll costs by project and by category of employee, materials purchased for each project, and full detail project summaries on a daily basis. While this system appears to meet the needs of CMD, it is a stand-alone system, which is not interfaced with the AoC accounting system. Therefore, it has to be periodically reconciled to AoC accounting records.

Without sufficient cost information, House Office Buildings and CMD cannot effectively monitor the use of personnel, material, and other resources for House buildings or make informed decisions about whether to use in-house support or outsource for construction projects. Furthermore, the AoC does not have an adequate basis to control costs and link these costs with performance goals. Also, because the AoC accounting system did not meet CMD project management needs, CMD, as discussed earlier, established its own system to monitor project costs. While the action taken by the Construction Management Division showed management initiative and met the needs of the Construction Management Division, it further increased the administrative burdens and costs of the AoC by utilizing personnel to maintain a supplemental accounting and reporting system.

Another aspect of the effect of not having sufficient cost information is that it diminishes the accuracy of the information House Office Buildings and the Construction Management Division provide to the AoC on the cost of operations for the House buildings. In turn, this reflects on the accuracy of the information the AoC provides to the House Office Building Commission and House Committees overseeing House-related AoC operations.

Sufficient cost information is not available because the AoC has not: (1) established a policy requiring timely and complete accounting for maintenance, repair, and construction/renovation activities, (2) identified the cost accounting information needed, and (3) developed procedures to capture, analyze, and report cost information in a useable, detailed, and project related format.

Conclusion

By instituting effective cost accounting procedures, the AoC can obtain a more accurate accounting of the costs incurred in the maintenance, repair, and construction/renovation of House buildings. Thus, as it relates to House buildings, the AoC can (1) more effectively monitor the use of resources and control costs, (2) obtain more accurate estimates for future construction activities, (3) improve planning and prioritization for all activities, (4) make more informed decisions regarding the use of in-house versus contractors for all activities, (5) establish the necessary linkage between accounting and performance information to provide managers with the information they need to better allocate their resources and achieve measurable results, and (6) provide the House Office Building Commission and House committees overseeing AoC's operations with accurate and necessary information to make informed decisions regarding maintenance, repair, and construction/renovation activities.

Recommendations

We recommend that, for the House buildings, the Architect of the Capitol:

1. Establish a policy requiring timely and complete accounting for maintenance, repair, and construction/renovation activities.
2. Develop procedures to capture, analyze, and report the cost information needed to properly account for maintenance, repair, and construction/renovation activities.

Management Response

On July 16, 1998, the Office of the AoC generally concurred with this finding and recommendations (see Appendix). According to the response, the AoC agreed that policies and procedures should be established requiring timely and complete accounting as well as to capture, analyze, and report cost information for House buildings maintenance, repair and construction activities. Furthermore, the AoC intends to establish policies and procedures that would be seamless, reflecting AoC-wide fully integrated and compliant management and operating systems and solutions.

The AoC indicated that several actions have been completed or are underway. Examples of such actions include: (1) developing the Computer Assisted Facility Management (CAFM) program and the Financial Management Improvement Program (FMIP) based on prior study results; (2) developing an integrated approach for implementing effective CAFM technology on a Hill-wide basis; (3) adopting the Legislative Branch Financial Managers Council Vision Statement in 1997; and (4) initiating a strategic planning process in 1997 to produce a purposeful and efficient operational environment AoC-wide.

In furtherance of the AoC's intent, other initiatives planned include: (1) acquiring and implementing the CAFM work management system for capturing and reporting direct and indirect labor cost information at the shop-level Hill-wide; and (2) developing policies and procedures during the implementation phase for the House Office Buildings.

Office of Inspector General Comments

The AoC's completed and planned actions are responsive to the issues we identified. The planned actions, when fully implemented, should satisfy the intent of our recommendations. However, we have requested that target completion dates for the actions underway and planned be provided.

Finding B: Better Work Order Tracking Of Labor Hours And Performance For House Buildings Activities Is Needed

House Office Buildings staff do not consistently record labor hours for work orders and indirect hours spent on other activities or measure personnel performance against organizational or industry standards. As a result, the Superintendent, House Office Buildings cannot readily determine whether (1) the work force is being utilized effectively and efficiently, (2) personnel performance is acceptable, and (3) labor hours spent by personnel on other than direct activities are properly controlled. In addition, recording labor hours is needed to provide the foundation for accurate and effective cost accounting, which is critical to management decision-making. Further, measuring personnel performance is needed to facilitate improvements in the efficiency and cost-effectiveness of the AoC maintenance and repair services to the House buildings through better allocation of resources. House Office Buildings also has limited data available that could be used to assess the utilization of the workforce. As a result, the Superintendent cannot readily determine that his staff is being used cost-effectively. For example, our review of the limited data available showed that high-paid, skilled personnel are used extensively to respond to service calls such changing light bulbs and fluorescent lamps, and hanging pictures and plaques.

Best industry practices dictate organizations to track labor hours against some standard of performance and fully identify all labor that contributes to achieving a particular outcome. Furthermore, accurate monitoring of work force activities and measurement of performance provide an excellent basis upon which to control the cost of government operations. This type of information allows decision-makers to better understand the activities of the work force and facilitates decisions related to allocating resources, evaluating program performance, and communicating results. These practices are in line with the objectives of the Government Performance and Results Act of 1993. The Act requires Executive Branch agencies to more fully account for their performance. While compliance with this Act is not mandatory for the Legislative Branch, its objectives represent the best practices in the Federal government today.

Direct and indirect labor information is not adequately captured

House Office Buildings staff do not consistently (1) record labor hours for work orders, (2) measure performance against organizational or industry standards, and (3) record labor hours for other than work order activities (i.e., indirect labor hours and hours spent on construction projects¹). This is evident from the limited information produced by the current work order system. We found that time spent on service calls is not entered in a consistent fashion and is not entered at all for about one half of the approximately 93,000 work orders processed by House Office Buildings for repairs and maintenance each year. Also, there is no centralized recording to account for time spent on activities other than service calls (i.e., indirect time).

Time spent on service calls. Our review of a statistical sample of 227 work orders out of a universe of approximately 93,000 work orders processed in FY 1997 by House Office Buildings

¹ When House Office Buildings staff works with the Construction Management Division on the same construction/renovation project the estimated time and cost is captured in the estimating process, but is not recorded on a work order and is not recorded in the Construction Management Division's project cost records, as discussed in Finding A.

showed that there was no consistent method of entering time spent completing service calls. Some personnel entered actual time spent on site, others entered time on site plus time to and from the site, others entered the day they started on the call and the day they ended, regardless of how much time was devoted to the service call. In addition, we found that no time was entered for about 54 percent of the 227 work orders sampled. Within the same shops, time was entered by some employees and not by others.

We discussed these findings with the Superintendent, House Office Buildings. He indicated that entering time spent on service was voluntary and that he did not rely on the current system to track personnel time. In fact, he stated that the current work order system was not developed with the intent to track labor hours. It was only intended to record time and date of initiation and completion of service calls, staff assigned, and resolution of service calls. The system doesn't allow for the computation of time. The Superintendent stated that the new work management system, which is a module of the Computer Aided Facilities Management System (CAFM), is intended to provide consistent recording of time against specific activity codes, as well as provide analysis, scheduling, and summarization capabilities.

Recording indirect time. A manager's control over direct time and indirect time spent by personnel is fundamental to an effective work management system. This control provides an accounting of all personnel time and a variety of measurements of how well the work force is utilized. For an organization like House Office Buildings, indirect time may include time waiting between service calls, time spent to support other AoC divisions, time spent on administrative matters, or idle time. In addition, indirect time includes recording of routine entries to account for annual leave, sick leave and holidays. Idle time is expected within any organization. Recognition of excessive idle time can help managers reallocate resources in a work force so that an organization can accomplish its tasks in a more efficient manner.

While the AoC payroll system tracks personnel time, there is no centralized reporting on how this time was spent, except for annual leave, sick leave, and holidays. Also, time spent by House Office Buildings personnel working on construction projects is not recorded centrally.

Even though there is no centralized data on indirect time, some of the shop foremen have found the need to track time for their shops. Due to the weaknesses in the current work order system there are a variety of separate time record-keeping systems that the foremen use to meet their needs.

Personnel may not be utilized in the most cost-effective manner

A review of work orders shows that high-paid skilled personnel are used extensively to respond to service calls such as changing lights bulbs and fluorescent lamps, and hanging pictures and plaques. Of necessity, we recognize that the staffing of skilled personnel to answer critical service calls will lead to some downtime and performance of tasks that may be well below the skills of the employees. However, when these tasks become a significant part of the workload, we believe there is a need to reassess whether this is the best and least costly use of personnel, and whether opportunities for contracting out at a lesser costs may exist.

Limited data was available that could be used to assess the utilization of the workforce based upon the information provided in work orders or in yearly reports provided to the Superintendent by the nine shops in House Office Buildings. However, one shop, the Electric Division had more detailed records. Our analysis of Electric Division records showed that of 22,961 service calls for FY 1997, 9,320 calls (about 40 percent) were to replace light bulbs or fluorescent tubes (we could not determine how many labor hours these work orders represented because of the limited information available). The table below identifies examples of work orders for these activities compared to employee's pay.

Work Order ²	Work Order Activity	Completed By ³	Annual Salary/ Costs ⁴
3	Relamp	A	\$44,706.96
9	Relamp	B	\$48,458.62
		C	\$57,027.64
13	Relamp Prevent. Maintenance (PM)	D	\$41,168.65
41	Replace Light Bulbs Garage	E	\$46,907.00
		F	\$45,118.15
47	PM Relamp	G	\$49,525.52
58	PM Relamp	B	\$48,458.62
75	Relamp	G	\$49,525.52
76	Relamp	A	\$44,706.96
		C	\$57,027.64
97	Relamp	D	\$41,168.65
		H	\$41,456.64
107	Relamp	F Laborer ⁵	\$45,118.15 Labor Pool
111	PM Relamp	G	\$49,525.52
113	Relamp	G	\$49,525.52
119	PM Relamp	D	\$41,168.65
		H	\$41,456.64
138	Relamp	H	\$41,456.64
		G	\$49,525.52
145	PM Relamp	G	\$49,525.52
164	Relamp	B	\$48,458.62
		C	\$57,027.64
170	Relamp	G	\$49,525.52
188	Relamp	I	\$45,604.39
193	Replace Light Bulbs	J	\$46,941.00
203	Relamp	D	\$41,168.65
216		G	\$49,525.52

²This column represents the work order number from our statistical sample of 227 for the examples provided.

³We assigned a letter to each employee. Since some employees worked on several work orders, the letter assigned to them may appear several times in the schedule.

⁴The AoC includes salaries plus employer contributions of 18 percent. Normally, a rate of 29.55 percent is used, as prescribed by the Office of Management and Budget Circular A-76 for the Executive Branch cost-benefit calculations. However, we used the AoC's more conservative rate of 18 percent, since it used by the AoC in its estimating process.

⁵A laborer from the Day Labor Division of HOB was shown on the work order as having worked on the relamp.

	Relamp	H	\$41,456.64
221	Replace Light Bulbs	G	\$49,525.52
		H	\$41,456.64

The employees used for these activities are highly qualified electricians. Yet, Electric Division staff has indicated that relamp activities are simple and usually can be performed by Electrical Helpers. Electrical helpers are paid about half as much as Electricians.

As discussed earlier, we recognize that a highly paid and skilled employee may need to be used at times to perform a task well below the employee's expertise. However, in this case these tasks represent about 40 percent of the service calls processed by the Electrical Division. While no data is available on how many labor hours are spent on these tasks, they could represent a substantial part of the labor hour workload for the Division. Considering that the average salary costs for the 28 full time employees in this division was about \$52,000 per employee (including 18 percent for personnel benefits) for FY 1997, we believe that further analysis of the Electrical Division workload and use of personnel may well show that more economical alternatives are feasible in activities such as relamp.

While limited data is available for other shops, our review of the FY 1997 report for the Carpenter Shop and our sample of work orders shows a large percentage (we estimate that as high as 50 percent of the yearly recorded shop work orders⁶) may be spent to frame and hang pictures and plaques and to make signs. Again, we believe that further analysis of this workload may show more economical alternatives are feasible in a shop where the average cost of an employee to the AoC in FY 1997 was about \$50,000 (including 18 percent for personnel benefits).

We believe the Superintendent, House Office Buildings should periodically review his workload for these and other House Office Buildings shops to determine whether (1) lesser paid employees could be used, (2) more efficient ways to perform tasks can be found (such as changing all light bulbs and fluorescent tubes periodically), and (3) some of the tasks might be contracted out at lower costs.

We have discussed these issues with the Superintendent, House Office Buildings. He was concerned about personnel utilization in one of the larger shops. To remedy this, he was opening a new position that would be tasked with improving workforce utilization. Also, he had been inquiring about the cost effectiveness of outsourcing such activities as changing light bulbs and fluorescent tubes. We discussed our observations on the high percentage of work orders for changing bulbs and tubes versus the average cost of employees. He agreed that these observations further pointed the need to look at the potential for savings in this area.

Policies and procedures for tracking and analyzing labor hours and performance are needed

⁶ According to the Superintendent, House Office Buildings, there is a substantial amount of work completed but not recorded on work orders.

Lack of monitoring of House Office Buildings maintenance and repair activities continues because the AoC has not provided policies and procedures to hold personnel accountable for their work performance and require periodic analysis of the adequacy of the workforce utilization. Also, effective monitoring has not occurred because the Superintendent does not have a work management system that fully captures and reports all labor activities, including indirect time. Without complete and accurate labor and performance information, the Superintendent cannot effectively monitor whether (1) the work force is being utilized effectively and efficiently, (2) personnel performance is acceptable, and (3) labor hours spent by personnel on other than direct activities are justified. Lack of monitoring capabilities impairs the Superintendent's ability to adequately allocate personnel resources, evaluate the performance of his organization or program, and communicate the results to the AoC.

Personnel can be held accountable when a system is in place to measure the time they spend on work order and other activities against organizational or industry standards. This system requires that all hours worked be accurately accounted for, so that the Superintendent can control both direct and indirect hours. In addition, periodic analysis of work force utilization provides a check about how well the work force is operating. By conducting periodic analyses of such items as pay and skills versus activities, the Superintendent can better assess costs versus results and ensure that personnel are working in the most efficient fashion.

Fundamental to personnel accountability and analyzing work force utilization is a work management system that fully captures and reports all labor activities, including direct time. To accommodate this need, the AoC is implementing the CAFM work management system. Based on a needs analysis completed for Senate office buildings, partial funding for CAFM has been provided, which will be used initially in a pilot program in the Capitol Building. We recognize the benefit of using a joint system for all AoC activities. However, as discussed in Finding C, further analysis should be conducted to justify further funding of the system for the House.

Conclusion

Tracking and recording of labor hours (direct and indirect) for work orders will enable the AoC to measure House Office Buildings personnel performance against organizational or industry standards in order to better determine if (1) the work force is being utilized effectively and efficiently, (2) personnel performance is acceptable, (3) labor hours spent by personnel on other than direct activities are properly controlled and (4) opportunities exist for cost savings through outsourcing. As a result, this should facilitate improvements in the efficiency and cost-effectiveness of the AoC maintenance and repair services to the House buildings through better allocation of resources. Ultimately, recording of labor hours is needed to provide the foundation for accurate and effective cost accounting which will enable the House Office Building Commission and House committees overseeing AoC's operations related to House buildings to obtain the necessary information to make informed decisions regarding maintenance and repair activities.

Recommendations

We recommend that, for activities related to House buildings, the Architect of the Capitol:

1. Develop and enforce clear written policies and procedures to identify and establish performance measures, record all direct and indirect labor hours, and periodically review workforce utilization.
2. Implement a work management system that fully captures and reports direct and indirect time spent on all maintenance and repair activities.

Management Response

On July 16, 1998, the Office of the AoC generally concurred with this finding and recommendations (see Appendix). The AoC agreed to develop policies and procedures to establish performance measures for all direct and indirect labor hours and implement a work management system that fully captures and reports direct and indirect labor on all maintenance and construction activities. According to the response, a credible work management system is essential to effectively implement the recommendations. It further acknowledged the limitations of the existing work order system and stated that CAFM would produce data that would enable management to assess the efficiency and productivity of the workforce.

Office of Inspector General Comments

The AoC's planned actions are responsive to the issues we identified and, when fully implemented, should satisfy the intent of our recommendations. However, we have requested that target completion dates for the actions planned be provided.

Finding C: More Analysis Is Needed To Justify Further Funding Of The CAFM Work Management System For House Buildings

In deciding to seek further funding for a CAFM work management system to replace the current House Office Buildings work order system, the AoC has relied extensively on a needs analysis performed for Senate office buildings to justify the system. While this analysis may provide a good starting point, the AoC needs to perform more rigorous analyses focusing on specific House requirements, including: (1) how the CAFM work management system will meet the needs of the House Office Buildings workforce; (2) the extent of reengineering of current business activities associated with House Office Buildings necessary to effectively implement the CAFM work management system; and (3) the lifecycle costs and benefits of the system to the House. These analyses are critical to providing the House Office Building Commission and House committees overseeing the AoC the necessary information to be able to make informed decisions regarding needs and cost-effectiveness.

Initially, in his FY 1998 Capitol Building Projects request submitted to the Committee on Appropriations in December 1997, the AoC asked for \$600,000 to cover the FY 1998 portion of the total estimated cost of \$1,040,000 for CAFM. CAFM is defined as the application of information technology to the broad field of facility management. The most elemental goal of the system is to replace the existing work order system. The work order system in place today was written in-house a number of years ago and is not Year 2000 compliant. Furthermore, the system does not perform any analyses, scheduling, or summarizing. CAFM will perform all these functions. The AoC's current focus is the replacement of the existing work order system with the CAFM work management system.

CAFM, however, is more than just a new work management system. The CAFM product includes some analytical tools that use the historical records of maintenance within the system to enable facilities managers to perform trend analyses. In addition, the standardization that the system will enforce will improve AoC business processes. In conjunction with the maintenance-oriented aspects of CAFM, the system includes a space management sub-system. This sub-system will maintain a complete and homogeneous space inventory, as well as a comprehensive set of tools for describing, categorizing, planning, and reporting space use, condition, suitability for use, and organizational owners. An inventory sub-system is also included as part of CAFM, although its specific purpose has not yet been documented.

Sound Information Technology (IT) planning principles dictate that the selection of new computer software and hardware to replace or augment existing systems with an enterprise-wide impact should be subjected to a rigorous analysis to ensure that the new system supports the functional requirements of the organization and has undergone a full cost/benefit analysis to validate the lifecycle costs and justify the investment.

Further analysis is needed for implementing the CAFM work management system in the House buildings

In January 1998, the AoC completed a 5-year plan (FY 1998-FY 2002) for the development and implementation of CAFM. The plan updated the original estimated total costs (i.e., \$1,040,000) and identified a phased-in approach with associated costs for developing and implementing the system. Initially, the AoC will purchase a CAFM server and database server software and pilot the CAFM work management system in the Capitol Building. Subsequently, the CAFM work management system is scheduled to be implemented in the Senate, Library of Congress, Supreme Court, Botanic Gardens, Capitol Grounds, and House. The total CAFM hardware, software, and miscellaneous costs for the 5-year period are now estimated to be \$1,645,450. The total incremental cost for implementing CAFM in the House is estimated to be \$182,161.

Needs analysis for the CAFM work management system

The AoC needs to better analyze the specific information needs of the House Office Buildings workforce. Such an analysis should identify the information needs related to the full range of workforce activities, including repair, maintenance, and construction/renovation. It should also analyze the needs related to preventative maintenance activities and indirect time.

In addition, the AoC will need to analyze the impact of the system in the current environment in order to determine the extent of reengineering of the current business activities associated with House Office Buildings operations that will be needed to effectively implement and maintain the CAFM work management system. Some analysis of the cultural and governance impact of the new system on the House Office Buildings workforce is also warranted. In some cases, changing procedures carries the risk of losing some of the workforce. But mostly, such an analysis is useful to establish training requirements. The key is to ensure a smooth transition to the new system with a minimum of workforce disruption.

Our discussions with AoC officials about the CAFM work management system show that they are aware of the need to further analyze the needs for House buildings and develop baseline performance data. They are also aware of the need to establish training requirements.

Lifecycle cost/benefit analysis for the CAFM work management system

Identifying the total lifecycle costs is important to determine if the system is economical, cost justified, and in line with the costs of similar systems. Lifecycle costing captures all costs associated with a system over its life time and includes costs for:

- Procuring hardware, software, and logistics support from contractors;
- Developing custom interfaces;
- Implementing quality assurance procedures, including testing and accrediting of systems;
- Having the personnel needed to operate the new system;
- Training the workforce; and

- Maintaining and operating the new system, including the software, hardware, and network infrastructure.

The AoC has not fully identified all of the lifecycle costs associated with implementing the CAFM work management system in the House. For example, the costs to be incurred for developing and implementing interfaces has not been included. Custom programming also will be required to interface the work management system with the AoC's financial management system and other management information systems. However, these costs have not been identified and they could be significant. In addition, costs related to quality assurance procedures for the House's work management system, including system testing, load and stress testing, tuning and performance testing, user acceptance testing, and pilot testing have not been identified. Detailed testing procedures are necessary to avoid any unexpected system failures and the costs could be substantial.

Furthermore, the AoC has not documented or quantified the total lifecycle benefits-- e.g., improved efficiency, cost savings through improved operations, reduced maintenance costs, reduced staffing, and increased management decision-making information--associated with the implementation of the CAFM work management system. These benefits are absolutely critical to decision-makers in order to justify the costs.

Further CAFM analysis will help justify further funding for the CAFM work management system

Based on our review of the analysis used to justify the CAFM work management system, we determined that it was based primarily on the needs of the Senate office buildings. This analysis covered critical areas, such as: (1) functional requirements, (2) data requirements, (3) assumptions about interfaces with existing and future systems, (4) peer group needs analyses, and (5) vendor analysis and selection. This analysis and the pilot program to be implemented in the Capitol Building may provide a good starting point for building the case to adopt the work management system for the House Office Buildings. However, the AoC needs to perform more rigorous analyses focusing on specific House requirements, including how it will meet the needs of the House Office Buildings workforce; the extent of reengineering of current business activities associated with House Office Buildings necessary to effectively implement the CAFM work management system; and the lifecycle costs and benefits of the system to the House. Rigorous analyses of the requirements, business process reengineering, costs, and benefits as they relate to House buildings are critical to providing the House Office Building Commission and House committees overseeing the AoC the necessary information to be able to make informed decisions regarding needs and cost-effectiveness.

Recommendation

We recommend that for House Office Buildings, the Architect of the Capitol conduct further analyses related to funding of the CAFM work management system, which include (a) identifying the specific needs of House Office Buildings, (b) determining the extent of reengineering of the current business activities associated with House Office Buildings operations that will be needed to effectively implement the CAFM work management system, (c) updating the lifecycle costs to include the costs of development, implementation, and maintenance of CAFM work management system interfaces and quality assurance procedures, and (d) identifying and quantifying the lifecycle benefits, including cost savings, of implementing the CAFM work management system in the House.

Management Response

On July 16, 1998, the Office of the AoC generally concurred with this finding and recommendation (see Appendix). The AoC developed and completed a work management requirements analysis for the House Office Buildings and provided it to the OIG in a separate report entitled *Facility Maintenance And Repair Work Management Requirements Analysis* (Requirements Analysis Report). That report identified the cost of replacing the present work order system in the House for the first year (\$201,000), the operating and implementation costs for the second year (\$143,697), and annual recurring costs in the following years (\$45,000).

With respect to our recommendation regarding identifying and quantifying the lifecycle benefits, including cost savings, of implementing the CAFM work management system, the AoC's response cited that lifecycle benefits could not be quantified given the current data available and the lack of consistent historical work performance data. The response further stated that only order of magnitude savings can be estimated based on benchmark data derived from the experience of others, and identified the following examples of potential savings in the report separately provided to the OIG:

- More productive use of maintenance workforce assets--which, for House Office Buildings, should result in 12 percent more staff hours being available to address currently sub-optimum levels of preventive maintenance;
- Lower overall costs by implementing more productive work force allocation-- which, for House Office Buildings, should result in approximately a \$500,000 reduction in workforce costs following a workforce reallocation from unanticipated, repair-type maintenance to planned, preventive-type maintenance; and
- Reduced rework resulting in improved efficiency--which, for House Office Buildings, would result in cost-savings in the same manner as those described in the previous item.

Furthermore, in the Requirements Analysis Report, the AoC cited intangible benefits including:

- Standardized methods of requesting, fulfilling, recording, and reporting work;
- Cost avoidance through improved management decisions; and
- Improved quality and customer satisfaction.

Office of Inspector General Comments

The AoC's completed actions with respect to this recommendation are generally responsive to the issues we identified and therefore we consider this recommendation closed.

Finding D: Costs Can Be Reduced By Using Government Purchase Card Services

The AoC spends about \$1.5 million a year for over 1,000 purchases under \$2,500 for House buildings. The AoC can save up to \$54,000 a year for these type of purchases, improve cash management, reduce lead times, and decrease the procurement workload by using the purchase card services that have been adopted by other Federal agencies. AoC officials have been reluctant to adopt these services because they do not feel internal controls are adequate to safeguard the program. While their concerns about internal controls may have some merit, long term experience with other Federal agencies shows that adequate controls can and have been easily implemented.

The U.S. Government Purchase Card Program (a credit card program) achieves Government-wide savings by reducing as much as 14 percent, the administrative costs associated with official small purchases of commercially available goods and services. The General Services Administration (GSA) estimates \$700 million in savings since the program's inception seven years ago. In addition to savings over traditional paper-based procurement methods, the use of purchase cards offers the added benefits of (1) improved cash management and streamlined payment processes, (2) reduced procurement lead times, and (3) reduced workload in procurement offices. Many Federal agencies have fully implemented the program. Others, concerned about controls over the program and its acceptance by agency personnel, have initiated pilot programs before moving forward.

The AoC centrally purchases commercial goods and services using a traditional paper-based system with several layers of approvals. Under this system, the AoC pays each vendor separately through the U.S. Treasury. Yet, of about 1,200 requisitions processed each year by the AoC for the House buildings, 84 percent (over 1,000 requisitions totaling about \$1.5 million) are below the \$2,500 threshold commonly used by Federal agencies for using purchase card services.

If the AoC were to adopt the purchase card program with a \$2,500 threshold, it could realize estimated savings of up to \$54,000 for small purchases processed each year to support the House Office Building activities. These savings are in addition to the benefits of (1) improved cash management, (2) reduced lead-times, and (3) reduced procurement workload.

The AoC Procurement Division has been reluctant to use purchase card services. Division personnel indicated that, until an integrated accounting system is in place for the AoC, they do not believe internal controls (e.g., to prevent credit card abuse) are adequate to ensure the system will work. Also, they believe AoC personnel will need training before purchase card services can be implemented. On the surface, these concerns may have some merit. A review of the experience of Federal agencies shows they have had similar concerns. However, experience at numerous Federal agencies shows that effective controls over their programs, including those designed to mitigate purchase card abuse, were easily and successfully implemented at those agencies. The controls include safeguards such as automatic enforcement of limits on types of purchases, dollar thresholds, and monthly reviews and approvals of detailed transactions. In 1993, the Purchase Card Council (an interagency work group for eight Federal agencies including GSA) reported that agencies concerns about misuse and fraud had not been realized. They found the risks to be low. Furthermore, they concluded that monthly reviews of card

transactions and the purchase limits set by the procurement offices seemed adequate. One of the agencies on the Purchase Card Council described its experiences with the program, as follows: "Once a purchase is made the card holder gets a monthly statement. They review it, certify that the material was received and add account information. They send it to the 'approving official' who reviews it to certify the purchase was for government use. There is periodic oversight by the procurement office. We do monthly checks by Bureau. For example, we look at the kind of business where purchases are being made to see if they are appropriate. We have found no or very little fraud by employees or business."

With regard to training of personnel empowered with the authority to use purchase cards, we found that this is an integral part of the programs that have been provided by Federal agencies. Purchase card service users are trained so that they are aware of card requirements. The cardholder also gets a delegation letter from procurement with the card limits spelled out.

Recommendation

We recommend that, for House Office Buildings and the Construction Management Division, the Architect of the Capitol contract for purchase card services. Initially, the AoC may want to undertake this as a pilot program to make sure that all concerns are addressed before expanding its use.

Management Response

On July 16, 1998, the Office of the AoC concurred with this finding and indicated that it has initiated actions to implement this recommendation (see Appendix). In early June 1998, the AoC initiated correspondence with the General Service Administration to determine the viability of using the Administration's master contract for Fleet Management, Travel, and Purchase Cards. A similar inquiry is also underway with the Department of Veterans Affairs. The AoC's response indicated its intent to implement this program agency-wide. Plans for completing the first phase of action--negotiation of services--is scheduled for October 1, 1998.

Office of Inspector General Comments

The AoC's completed and planned actions are responsive to the issue we identified. The planned actions, when fully implemented, should satisfy the intent of our recommendations. Further, the target date for completing the negotiation of services appears reasonable.

III. OTHER MATTER

Policies Are Needed To Document The Procurement Of Professional Services

During our review of CAFM, we noted that the AoC approved a \$73,500 contract with a subsequent extension of \$9,019 for a total of \$82,519, in November 1996, for professional services to perform a needs analysis for the CAFM system components and their inter-relationships. Subsequently, in December 1997, the AoC approved an additional contract in the amount of \$160,670 to the same firm to provide consulting and project management services associated with the implementation of the entire CAFM system. Both of these contracts were let without benefit of a formal competitive procurement, or a written justification for sole source procurement. Without competition or justification for sole source, the AoC cannot be assured that a proposal representing the best value to the Government has been selected. This occurred because the AoC does not have written policies that govern the procurement process for professional services, and AoC officials may have concluded that procurement of professional services, exempt from normal advertised procurement practices under 41 USC 5, need not be procured competitively.

Criteria is well established for competing contracts for services

Although the AoC is subject to 41 USC 5, it is exempted from having to follow Federal Acquisition Regulations (FAR) that govern procurement for Federal Executive Branch agencies. However, for procurements over \$25,000, AoC procurement officials have indicated that they voluntarily comply with the provisions of FAR that promote competition. They advertise, get bidders quotes, and select the best price/product/services. For procurements of less than \$25,000, the AoC issued an Order of the Architect of the Capitol dated August 1, 1990, adopting an Open Market Purchases policy (small purchases) based on Public Law 98-191, *Office of Federal Procurement Policy Act Amendments of 1983*, enacted December 1, 1983. This policy allows AoC personnel to obtain price quotes orally, and/or buy directly from known suppliers without resorting to full and open competition.

The Federal government promotes full and open competition for Executive Branch agencies' acquisitions over \$100,000. Competition ensures that all responsible offerors are allowed to compete, and that the services, which offer the best value to the Government are selected. FAR permits agencies to contract without providing for full and open competition when:

- services required are available from only one responsible source, or a source has demonstrated a unique or innovative concept;
- substantial duplication of costs to the Government is not expected to be recovered; or
- unusual and compelling urgency precludes full competition, and delay in award of a contract would result in serious injury, financial or other, to the Government.

The justification for sole source procurement is a rigorous process that requires the contracting officer to justify the use of such action in writing, certify in writing the accuracy and completeness of the justification, and obtain necessary approvals.

When supplies or services may have to be provided over a span of several years FAR allows agencies to use multi-year contracting for up to five years to acquire known requirements in quantities and total costs. Multi-year contracting is allowed even though the total funds ultimately to be obligated may not be available at the time of contract award. The use of multi-year contracts can result in substantial savings to the government, and can reduce the administrative burden in the placement and administration of contracts.

Professional services contracts for CAFM needs analysis and implementation were not executed in accordance with best practices

In June 1996, the AoC issued a purchase order for \$6,000 to Graphic Systems, Inc. (GSI) to: “Please provide analysis (oral and written), to determine and review technology plans associated with the IFS/CAFM monitoring system and related spatial reporting needs within the AoC. GSI provided this analysis in July 1996, concluding in part that additional analysis was needed. GSI recommended that its company be the General consultant for the additional analysis. HNTB, another contractor participating in the analysis, also recommended its staff as evaluators/consultants for the additional analysis.

CAFM Work Management System needs analysis (Contract Acbr-97026)

After discussions with AoC officials, GSI submitted a proposal on October 18, 1996 for a CAFM needs analysis consisting of nine subtasks at an estimated cost of \$73,500 with a completion date of mid-January 1997. The objective was to perform a needs analysis for the CAFM system components and their inter-relationships. The final product would be a report of the results of this analysis. GSI proposed its staff members, and one staff member from HNTB under a subcontract, to work on the contract.

AoC prepared a Request for Professional Services Contract requesting funding not to exceed \$73,500 and indicated that only one source had been considered for the proposed contract based on expertise. No sole source justification was documented. On November 8, 1996, the contract (Contract Acbr-97026) was let. The contract incorporated the GSI October 18, 1996 proposal as its statement of work.

This contract culminated in a Work Management System Recommendation Report dated April 1, 1997 and a Peer Group Benchmark Study Report dated April 4, 1997. The contract was extended to October 1997, with about \$9,019 additional funding for a total contract cost of \$82,519. The extension was to expand the analysis to include integration of CAFM system capabilities into the accounting and inventory systems, or alternatively, to be able to access data in those areas for CAFM use. The extension resulted in the report “Recommendations for CIMS, the Capitol Infrastructure Management System” dated October 9, 1997.

Implementation of CAFM (Contract AoC-9801085)

After further discussions with AoC officials, GSI submitted a new proposal on October 23, 1997 to “provide consulting and project management services associated with the replacement of an existing work order system, addition of new functionality for space inventory, and integration of

existing Computer-Aided Drawings (CAD)". This contract was to cover the period of November 1997 to November 1998, at a cost of \$160,670. Contract personnel were to include two of the personnel from the November 1996 contract (Contract Acbr-97026).

AoC prepared a Request for Professional Services Contract requesting funding not to exceed \$160,670 and showed that only one source had been considered for the proposed contract based on expertise. No sole source justification was documented. On December 10, 1996, the contract (Contract AoC-9801085) was let. The contract incorporated the GSI October 23, 1997 proposal as its statement of work.

The AoC may not be getting the best value for its CAFM contracts

Without formal competition or written justification for sole source, the AoC cannot be assured that a proposal representing the best value to the Government has been selected. Also, by incorporating the contractor proposal as the contract "Statement of Work", the AoC may give the appearance that the contractor unduly controls the contract terms.

In addition, CAFM is expected to spend about \$160,000 each year for professional services over the next three years. Therefore, with GSI now responsible for assisting the AoC in project management, there is potential for follow-on contracts without full and open competition amounting to as much as \$640,000 over a 4-year period (January 1998 through August 2001).

There is no clear AoC policy to determine how the professional services contracts should be handled

Absent the AoC voluntary policy that governs procurements in excess of \$25,000, there is no written AoC criteria to conclude how these contracts should have been handled. AoC officials state that for contracts in excess of \$25,000, they advertise, get bidders quotes, and select the best price/product/service. However, there is no written policy with regard to how contracts for professional services are to be handled. Since professional services are exempt from advertising under 41 USC 5, AoC officials may have concluded that they need not be procured competitively.

We asked AoC officials to explain why they had not followed their stated policy of competitive procurement with regard to the GSI contracts. They explained that they consider professional services contracts exempt from FAR. They stated that the continued selection of GSI for the CAFM project was based on a long association with the AoC, demonstrated ability to perform, and the trust and respect with which GSI is held by AoC officials. In addition, the President of GSI, who worked on all the CAFM-related contracts, is a leader in the field of Facilities Management.

We found no evidence that contracts for professional services are exempt from FAR. We did find that professional services are exempt from 41 USC 5 with regard to advertising for proposals. However, 41 USC 5 does not preclude these procurements from being competitive. Had the AoC followed its stated policy for competitive procurement, it either should have let the CAFM contracts on a competitive basis, or should have justified the sole source procurement. The justification for sole source would have had to demonstrate that (1) the contractor was the

only responsible source, (2) a substantial duplication of costs to the Government was not expected to be recovered, or (3) there was unusual and compelling urgency.

The sole source contracts to GSI did not meet any of the justification criteria. While GSI and its subcontractor may be highly qualified, there are a number of other contractors that provide technology to the Government and private industry in the area of facility management. In addition, GSI, in its Peer Group Benchmark Study for the AoC, identified ten major Federal agencies/or installations that provide "best practices" approach in the area of standard work processes for maintenance operations. The Study also identified four vendors at 15 Federal and private installations that have facilities management systems. Furthermore, in our review, there was no evidence to show that selection of GSI after the first contract would have resulted in substantial duplication of costs to the Government that could not be recovered. Our review also disclosed that dire and compelling emergency was not a factor since CAFM has been in the planning stage for several years and the AoC was considering a 5-year implementation time frame.

The need for contractor services to support CAFM over the next three years offers the AoC an excellent opportunity for multi-year contracting in Fiscal Year (FY) 1999, which would include option years in FY 2000 and 2001, because the need for services is reasonably firm and continuing. However, a multi-year contract should be executed with full and open competition. Such a contract may result in substantial savings to the Government, as compared to three additional sole source procurements.

Conclusions

The issuance of contracts without clear contracting policies puts the AoC at risk whenever there is a doubt as to what policy should be followed. For the contracts discussed above, the AoC has no written justification to support a decision to contract without providing for full and open competition. Available facts lead us to conclude that the first contract, and clearly the second contract should have benefited from full and open competition. Furthermore, the expressed needs of the AoC for future services over the next three fiscal years offer an opportunity for multi-year contracting.

While we did not find that the AoC violated any specific procurement laws, we believe it is crucial for the AoC to avoid any appearance that procurement decisions may not be proper. The AoC must have clear procurement policies that promote competition to the maximum extent possible and provide rigorous justifications when the AoC deems it necessary to deviate from this policy.

Recommendations

We recommend that, for the House Buildings, the Architect of the Capitol:

1. Establish a policy to promote competition to the maximum extent possible for professional services contracts, and require full justification in those instances where the AoC deems it necessary to deviate from this policy.
2. Use multi-year competitive procurements for future contractor services to support the implementation of CAFM.

Management Response

On July 16, 1998, the Office of the AoC agreed with this issue and the associated recommendations (see Appendix). The response acknowledged the fact that the Architect did not have specific written agency-wide policies and procedures for the procurement of professional services, and provided an explanation of informal policies and procedures practiced. With respect to the GSI contract(s), the AoC plans to explore whether future contracts for such service should be treated as "Service Contracts" to be fully advertised and competed or whether a sole-source approach would be appropriate. The AoC also committed to performing an independent determination on whether the use of a multi-year contract format would be in the best interest of the government. These actions are expected to be completed during Fiscal Year 1999.

Office of Inspector General Comments

The AoC's planned actions are responsive to the issue we identified and, when fully implemented, should satisfy the intent of our recommendations. Further, the target date for completing the planned actions appears reasonable.

UNITED STATES GOVERNMENT
MEMORANDUMARCHITECT OF THE CAPITOL
WASHINGTON, D. C. 20515ADMINISTRATIVE ASSISTANT
SB-13 CAPITOL 8-1205

DATE: July 16, 1998

TO: Mr. Robert B. Frey, III
Deputy Inspector General
U. S. House of Representatives

FROM: Herbert M. Franklin 
Administrative Assistant

SUBJECT: Draft Audit Report - Review of the Office of the Architect of the
Capitol's Cost and Work Order Management with the U. S. House of
Representatives

This is in response to your memorandum of June 8, 1998, requesting our comments on the subject report. The following is submitted regarding the findings and recommendations contained in the draft report.

FINDING A

Recommendation — Concur in Principle

We agree in general that policies and procedures should be established requiring timely and complete accounting as well as to capture, analyze and report cost information for House buildings maintenance, repair and construction activities. In our opinion, however, these policies and procedures should be seamless, reflecting AOC-wide fully integrated and compliant management and operating systems and solutions.

To that end the following actions were initiated and completed or are in process. In early 1996, Arthur Andersen successfully competed for a contract with the Acting Architect, as part of the AOC's initiative to become more cost-efficient, to conduct a Hill-wide study of AOC operations and develop a methodology that would enable the AOC to calculate in-house costs. The outgrowth of that study was the development of our Computer Assisted Facility Management (CAFM) program and our Financial Management Improvement Program (FMIP). Our FMIP was fully explained to the audit staff. Also in 1996, Graphic Systems, Inc., was retained to develop an integrated approach to the implementation of effective CAFM technology on a Hill-wide basis. Our first initiative will implement a work management system throughout the campus. Furthermore, adoption of the Legislative Branch Financial Managers Council Vision Statement in 1997 reinforced and validated

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the direction of our FMIP; while each jurisdiction's needs must be taken into account, our FMIP is premised on the need for agency-wide standards. In addition, a strategic planning process was initiated in 1997 to produce a purposeful and efficient operational environment AOC-wide. The CAFM work management system is the cornerstone to begin to address one of the fundamental deficiencies in present data capturing systems. The CAFM work management system is the planned system for capturing and reporting direct and indirect labor cost information at the shop level Hill-wide. Policies and/or procedures will be fully developed during the implementation phase for the House Office Buildings once a suitable work management system is acquired.

FINDING B

Recommendation — Concur in Principle

We agree generally with the recommendation to develop policies and procedures to establish performance measures for all direct and indirect labor hours and implement a work management system that fully captures and reports direct and indirect labor on all maintenance and construction activities. A credible work management system must be in place, however, to effectively implement the recommendation.

The current work order system collects quantities of work in only summary form, and the database is severely limited as an aid in establishing reasonable and appropriate performance metrics. These limitations compromise the ability to empirically measure performance, monitor actual performance against goals, and maintain appropriate historical values.

The example cited in the draft audit report regarding the apparent use of skilled labor for relamping work orders is itself a demonstration of how the absence of a work management component of CAFM can lead to erroneous or misleading inferences from existing data. Relamping is a perfunctory and rapidly performed task that may be reflected in numerous work orders under current data but accounts for a very small amount of time for the technicians involved, whose major responsibilities are devoted to performing more difficult and time-consuming tasks. The current management conclusion that the skilled technicians involved spend most of their time on more complex tasks is based on reports by supervisors and the Superintendent but would be tested by CAFM work management data. Data produced by CAFM will not only permit the Architect and Superintendents to assess the efficiency and productivity of the workforce but will also permit more accurate evaluations by others.

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FINDING C

Recommendation — Concur in Principle

The CAFM work management requirements were developed and conducted in concert with all seven jurisdictions because our goal was to implement a standardized system AOC-wide. As recommended, we have already developed and completed a Work Management Requirements Analysis for the House Office Buildings which is provided under separate cover. This analysis in our judgment satisfies the intent of the recommendation. As set forth in the report, the cost of replacing the present work order system in the House for the first year is approximately \$201,000 with operations and implementation costs for the second year of \$143,697. The recurring annual cost thereafter is estimated to be approximately \$45,000. The potential savings identified in the report are based on private sector benchmarking data. As data from our operations are collected through this system further analysis to identify realizable savings would become possible.

This audit recommendation also suggests that a study of life cycle benefits, including cost savings, of implementing the CAFM work management system in the House should be accomplished before including the House in a system intended for campus-wide application, a system that in our judgment reflects the best practice in facility management. We believe that such benefits cannot be quantifiable with currently available data because the Architect of the Capitol does not have available for analysis consistent historical work performance data. Only order of magnitude savings can be estimated based upon benchmark data derived from the experience of others, and this is set out in the report provided under separate cover.

The House Office Buildings currently have an annual budget of \$30M. Assuming a level appropriation for 10 years means that our estimate of initial implementation costs for CAFM, a tool that reflects best practice in the professional field of facility management, on the House side amounts to approximately 1/10th of 1% of funds to be managed over the likely life of the system. Even if our initial estimate were off by a factor of 2, the cost of installing and implementing this critical management tool would still be less than 1% of the anticipated expenditures under management for the period. Improvements to the work order system will yield standards, management tools and data which can lead to savings that are not clearly ascertainable in the absence of the data to be captured and analyzed.

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FINDING D

Recommendation — Concur

This recommendation is already being carried out. At the beginning of June 1998, as previously scheduled, the AOC initiated correspondence with the General Services Administration to determine the viability of associating with their master contract for Fleet Management, Travel and Purchase Cards. Similar arrangements are also proceeding with the Department of Veterans Affairs. This program will be agency-wide, not exclusive to the House or any other jurisdiction. The target date for phase 1 - negotiation of services completion is October 1, 1998.

SECTION III FINDING

Recommendation — Concur in Principle

There are several references in the draft report to the "Advertising Statute" (41 U.S.C. 5), to the Federal Acquisition Regulations (FAR), and to Executive Branch policies under FAR and other statutes, such as the Federal Acquisition Streamlining Act (FASA) for the purpose of comparing the Architect's policies and procedures to those of other agencies. The Architect is required to follow 41 U.S.C. 5, and does so. That statute specifically exempts the professional services contracts that are the subject of the audit finding. The FAR is applicable to Executive Branch agencies, but the Architect and activities under his jurisdiction (as well as the House and the Senate) are specifically excluded from coverage.

The fact that the Architect does not have specific written agency-wide policies and procedures does not mean policies and procedures do not exist for the procurement of professional services. They do. The policy has always been to compete requirements for professional service contracts to the maximum extent practicable. In our case, "to the maximum extent practicable" has meant to compete these requirements among firms having a demonstrated record of expertise and experience in the particular requirement being procured. This is required in our judgment because of the unique historic and monumental treasures entrusted to our care and special requirements of the Congress. A large number of professional architectural and engineering contracts are being competed using Brooks Act procedures at the direction of the current Architect of the Capitol.

The policy regarding competition is reflected in our "Request for Professional Services Contract" form. Item 3 on the form, "Source Selection" requires the requestor to list the number of sources considered, to name such sources, and to provide the basis for the selection (Expertise or Price). Only a very small number of the Architect's top staff have the authority to request a professional services contract, and they are fully aware of the requirements for competition.

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With respect to the GSI contract(s), as a result of the audit we have determined to explore whether future contracts for such services will be treated as "Service Contracts" that are fully advertised and competed. The Architect will nevertheless have to make a determination whether time, learning curve, and a cost/benefit analysis would suggest that future requirements for CAFM be sole-sourced. Similarly, based on time and appropriations, the Architect must make an independent determination as to whether a multi-year contract format would be in the best interest of the government.

The audit is correct that there is no separate and detailed certification under the third statutory exception for professional services contracts. Although execution of the contract could arguably itself constitute such certification, we agree with the audit finding and intend to implement a requirement for a separate, detailed finding and determination for an exception to the advertising statute. In the GSI case, based on prior experience with this office, professional reputation and expertise, availability and time, and because this requirement is inextricably tied to solution of the Year 2000 problem, a sole source award to GSI was determined to be in the best interest of the project and the government.

The management action described will be completed during Fiscal Year 1999.