

**FACILITIES MANAGEMENT**  
**CALIFORNIA STATE UNIVERSITY,**  
**BAKERSFIELD**

**Audit Report 12-39**  
**June 26, 2012**

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## **CONTENTS**

Executive Summary .....	1
Introduction.....	3
Background .....	3
Purpose.....	5
Scope and Methodology.....	6

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## **OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES**

General Environment .....	7
Maintenance Program and CMMS .....	8
Chargebacks and Non-Maintenance Work .....	9
Utilities Management.....	10
Physical and Logical Security.....	10

## **APPENDICES**

APPENDIX A:	Personnel Contacted
APPENDIX B:	Campus Response
APPENDIX C:	Chancellor's Acceptance

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## **ABBREVIATIONS**

AVP	Assistant Vice President
CO	Office of the Chancellor
CPDC	Capital Planning, Design and Construction
CMMS	Computerized Maintenance Management System
CSU	California State University
EO	Executive Order
FPDO	Facilities Planning, Development and Operations
FRRM	Facilities Renewal Cost Model Project
GC	Government Code
ICSUAM	Integrated California State University Administrative Manual
OUA	Office of the University Auditor
SAM	State Administrative Manual

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## **EXECUTIVE SUMMARY**

As a result of a systemwide risk assessment conducted by the Office of the University Auditor (OUA) during the last quarter of 2011, the Board of Trustees at its January 2012 meeting directed that *Facilities Management* be reviewed. The OUA had previously reviewed *Operations and Maintenance of Plant* in 1999.

We visited the California State University, Bakersfield campus from April 16, 2012, through May 18, 2012, and audited the procedures in effect at that time.

Our study and evaluation did not reveal any significant internal control problems or weaknesses that would be considered pervasive in their effects on facilities management activities. However, we did identify other reportable weaknesses that are described in the executive summary and body of this report. In our opinion, the operational and administrative controls for facilities management activities in effect as of May 18, 2012, taken as a whole, were sufficient to meet the objectives stated in the “Purpose” section of this report.

As a result of changing conditions and the degree of compliance with procedures, the effectiveness of controls changes over time. Specific limitations that may hinder the effectiveness of an otherwise adequate system of controls include, but are not limited to, resource constraints, faulty judgments, unintentional errors, circumvention by collusion, and management overrides. Establishing controls that would prevent all these limitations would not be cost-effective; moreover, an audit may not always detect these limitations.

The following summary provides management with an overview of conditions requiring attention. Areas of review not mentioned in this section were found to be satisfactory. Numbers in brackets [ ] refer to page numbers in the report.

### **GENERAL ENVIRONMENT [7]**

Campus policies and procedures for the oversight of facilities management had not been fully documented.

### **MAINTENANCE PROGRAM AND CMMS [8]**

Maintenance and review of the computerized maintenance management system (CMMS) work order process needed improvement. Specifically, maintenance staff were not properly closing work orders, and the work order backlog had not been adequately reviewed and was significantly aged.

### **CHARGEBACKS AND NON-MAINTENANCE WORK [9]**

The campus had not recovered facilities services chargebacks in a timely manner.

### **UTILITIES MANAGEMENT [10]**

The campus did not have a formal campus strategic energy resource plan.

## **PHYSICAL AND LOGICAL SECURITY [10]**

The campus had not formally established policies and procedures for granting and reviewing access to the CMMS.

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## INTRODUCTION

### **BACKGROUND**

The Legislative Analyst's Report on the 1979/80 budget addressed the need to protect the substantial public investment represented by California State University (CSU) facilities, and the Legislature subsequently directed the CSU to implement a preventive maintenance program on each campus. In December 1979, a CSU Task Force on Plant Maintenance was appointed to explore preventive maintenance needs for the system. It concluded that the concept of preventive maintenance was too narrow in scope to accommodate the total maintenance needs of the CSU. Consequently, the concept of "planned/programmed maintenance," which incorporated preventive maintenance and systematic planning and programming, was proposed. The CSU Executive Council reviewed the task force report and approved the concept in March 1981. Since then, the CSU has issued a sequence of directives and executive orders to reflect the system's commitment to ensuring that facilities-related assets are adequately maintained.

In 1999, the Office of the University Auditor conducted an audit of *Operations and Maintenance of Plant* at ten campuses and issued a systemwide report. The report included exceptions related to planned/programmed maintenance, work order administration, cost recovery, and chargebacks and required facilities condition reporting to the Office of the Chancellor (CO). Several of the recommendations from the resulting systemwide report were incorporated into Executive Order (EO) 757, issued September 1, 2000, and later into EO 847, *Policy Statement on Facility Maintenance*, issued January 10, 2003. The latter is the most recent dictate on the subject.

In 2000, the CSU adopted the Facilities Renewal Cost Model Project (FRRM) with the long-term objective of securing adequate funding for deferred maintenance and renewal needs for CSU physical plants. FRRM implementation provided a standardized means for campuses to fulfill the requirement to prepare an annual five-year projection of deferred maintenance and capital renewal costs. It also provided the CO with information necessary for capital budgeting and planning.

Since the last audit and the adoption of FRRM, the CSU system has been confronted with funding appropriation challenges that have had a profound effect on facilities maintenance. The CSU support budget documentation for 2012/13 identifies a deferred maintenance need of \$470 million. However, this amount represents the highest priority projects out of an estimated \$1.6 billion in deferred maintenance and capital renewal backlog derived from the 2009/10 FRRM data. The model also concludes that absent investment of at least \$99 million per year to maintain the current backlog level, the need will grow to \$2.2 billion by 2016.

Meanwhile, appropriations for the CSU Capital Outlay budget have decreased significantly over the past several years, from \$410 million for 2007/08 to less than \$20 million in 2012/13. Between the fiscal years 2005/06 and 2008/09, the Trustees and the legislature provided for \$140 million within the budget for capital renewal projects, but that funding has since ceased. The Five-Year Capital Improvement Plan for 2012/13 reflects campus facility needs approaching \$6 billion. However, this number is artificially depressed by criteria, created to encourage campus prioritization, that limits the number of projects the campuses can request for funding. The CO's Capital Planning, Design and Construction (CPDC) office, in consultation with the Trustees, has been working on solutions for funding infrastructure renewal, seismic strengthening, and other capital priorities.

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## INTRODUCTION

The CSU codified its commitment to energy conservation and sustainability in February 1989 with the issuance of EO 538, *Policy Statement on Energy Conservation and Utilities Management for the California State University and Energy Consumption Reduction Goal for 1992/93 Compared to 1986/87*. This EO was superseded in August 2006 with EO 987, *Policy Statement on Energy Conservation, Sustainable Building Practices, and Physical Plant Management for the California State University*. This EO retained general operational provisions and sustainable building practices while adding the CSU Sustainable Measurement Checklist process. Since some of the deadlines for energy conservation goals outlined in the EO have expired, and other mandates within the EO have been deemed outdated, CPDC is considering options on how to update and issue new guidelines.

## **PURPOSE**

Our overall audit objective was to ascertain the effectiveness of existing policies and procedures related to facilities management and to determine the adequacy of controls over related processes to ensure compliance with relevant Trustee policy, Office of the Chancellor directives, and campus procedures.

Within the overall audit objective, specific goals included determining whether:

- ▶ Administration of facilities management is well defined and includes clear lines of organizational authority and responsibility and documented delegations of authority.
- ▶ Management has established policies and procedures for facilities maintenance and utilities management and has developed the means to monitor and measure compliance with applicable laws and CSU policies.
- ▶ Facilities management risks have been identified, assessed, and monitored.
- ▶ A comprehensive planned/programmed maintenance schedule that captures all preventive maintenance and repair requirements is in place.
- ▶ The campus has effectively identified facility deferred maintenance and capital renewal needs and is reporting the information to the CO annually.
- ▶ The campus has implemented an effective computerized maintenance management system (CMMS) to ensure proper administration of maintenance tasks, including scheduling, costs management reporting, and productivity tools to account for resource utilization.
- ▶ The campus is preparing and submitting biennial facilities assessments and equipment audits to the CO in an accurate and timely manner.
- ▶ The campus has implemented effective and efficient custodial and groundskeeping programs that include productivity and performance standards to ensure the work is performed in an effective and efficient manner.
- ▶ The campus has implemented controls to ensure proper capture, tracking, and collection of costs for non-maintenance and auxiliary-related work orders.
- ▶ The campus has implemented an effective utility tracking system to capture and report information pertinent to CSU goals for sustainability and energy conservation.
- ▶ Keys and other physical access devices are issued to authorized individuals, and access devices are properly secured and monitored.
- ▶ Systems and applications under facilities management administration are adequately controlled and secured, and access rights are granted on a need-to-know basis.

## **SCOPE AND METHODOLOGY**

The proposed scope of the audit as presented in Attachment A, Audit Agenda Item 2 of the January 24 and 25, 2012, meeting of the Committee on Audit stated that *Facilities Management* includes custodial services; groundskeeping; facility repairs, preventive maintenance, and renovations; and utility distribution. Proposed audit scope would include, but was not limited to, review of cost allocations; deferred maintenance; building and grounds conditions; sustainable building practices; materials and equipment inventory; and work order scheduling and control systems.

Our study and evaluation were conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing* issued by the Institute of Internal Auditors and included the audit tests we considered necessary in determining whether operational and administrative controls are in place and operative. This review emphasized, but was not limited to, compliance with Board of Trustee policies and Office of the Chancellor and campus policies, letters, and directives. The audit focused on procedures in effect from January 1, 2010, through May 18, 2012.

We focused primarily on the internal administrative and operations controls over facilities management activities. Specifically, we reviewed and tested:

- ▶ The campus framework for facilities management, including the required implementation of a CMMS and a utility tracking system.
- ▶ Methods by which the campus identifies, prioritizes, and monitors routine, preventive, and special maintenance projects.
- ▶ The capabilities and management utilization of a CMMS to capture and monitor task progress and to track resource allocations and costs.
- ▶ Methods by which the campus identifies and quantifies deferred maintenance backlog, and the escalation of the information to the proper management level, including the CO.
- ▶ Methods for capturing and recovering costs of services provided to non-state and auxiliary organizations.
- ▶ The campus strategic energy resource plan and its correlation to systemwide goals for energy conservation and sustainability.
- ▶ Compliance with specific energy conservation policies.
- ▶ Devices and technology used to control physical access to campus facilities.

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## **OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES**

### **GENERAL ENVIRONMENT**

Campus policies and procedures for the oversight of facilities management had not been fully documented.

We found that the campus had not documented policies and procedures for use of the computerized maintenance management system (CMMS), effective materials management, cost chargebacks, non-maintenance work, and preparation of required reports for the Office of the Chancellor (CO).

Executive Order (EO) 847, *Policy Statement on Facility Maintenance*, dated January 10, 2003, states that the campus shall provide policies and procedures for effective materials management with resultant written records demonstrating internal controls over the purchase, storage, and use of facilities maintenance department materials.

Government Code (GC) §13403 states that internal accounting and administrative controls are the methods through which state entity heads can give reasonable assurance that measures to safeguard assets, check the accuracy and reliability of accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies are being followed.

State Administrative Manual (SAM) §20050 states that one symptom of a deficient internal control system is policy and procedural or operational manuals that are either not currently maintained or are non-existent.

The assistant vice president (AVP) of facilities planning, development and operations (FPDO) stated that department policies and procedures were not formally documented due to oversight.

Failure to maintain current campus policies increases the risk of administrative or accounting errors that could impact management effectiveness.

#### **Recommendation 1**

We recommend that the campus fully document policies and procedures for the oversight of facilities management.

#### **Campus Response**

We concur with the recommendation. Policies and procedures documenting the oversight of facilities management will be developed.

Anticipated completion date: December 31, 2012

## MAINTENANCE PROGRAM AND CMMS

Maintenance and review of the CMMS work order process needed improvement.

We found that:

- ▶ Maintenance staff were not properly closing work orders. We reviewed 30 work orders, and we found eight instances in which work had been completed, but the order had not been closed.
- ▶ The work order backlog had not been adequately reviewed and was significantly aged. Out of a population of 1,694 open work orders, 1,636 were more than 120 days old, and 700 of the aged work orders pre-dated July 2010.

EO 847, *Policy Statement on Facility Maintenance*, dated January 10, 2003, states that the campus shall provide a CMMS to track routine, scheduled, and deferred maintenance work, and that this system should be capable of reasonably accounting for the total allocated resources.

GC §13403 states that internal accounting and administrative controls are the methods through which state entity heads can give reasonable assurance that measures to safeguard assets, check the accuracy and reliability of accounting data, promote operational efficiency, and encourage adherence to prescribe managerial policies are being followed.

SAM §20050 states that the elements of a satisfactory system of internal accounting and administrative controls shall include an established system of practices to be followed in performance of duties and a system of authorization and recordkeeping procedures adequate to provide effective accounting control.

The AVP of FPDO stated that the aged backlog was due to the fact that the maintenance staff had only recently been fully trained in the CMMS, most of them in the past year. He further stated that the backlog resulted from the staff misunderstanding the work order closure process, further compounded by the fact that management reports that would have captured the growing false backlog were not run correctly.

Inadequate controls over the maintenance and review of work orders increases the risk of inaccurate reporting and completion of routine, scheduled, and deferred maintenance work.

### Recommendation 2

We recommend that the campus ensure that:

- a. Maintenance staff properly closes work orders.
- b. The work order backlog is adequately reviewed.

### Campus Response

We concur with the recommendation.

- a. The AVP of FPDO will conduct staff training to ensure that work orders are closed properly. This training will occur by October 31, 2012.
- b. Policies and procedures will be developed and implemented ensuring the management review of the work order backlog. Policies and procedures will be developed and implemented by October 31, 2012.

## **CHARGEBACKS AND NON-MAINTENANCE WORK**

The campus had not recovered facilities services chargebacks in a timely manner.

We found that the campus maintained a backlog of 33 uncollected chargebacks, 21 of which amounted to \$15,740 and were aged past 120 days.

EO 847, *Policy Statement on Facility Maintenance*, dated January 10, 2003, states that the campus general fund operations or other appropriate funding sources shall be reimbursed the actual direct costs plus indirect costs associated with requested non-maintenance services provided by the facilities department.

Integrated California State University Administrative Manual (ICSUAM) §3552.01.400, *Cost Allocation/Reimbursement Plans for the California State University Operating Fund*, dated April 1, 2011, states that every effort should be taken to recover California State University (CSU) Operating Fund costs in a timely manner. Payment must be made as soon as practicable after the completion of activities and programs that require university resources.

The AVP of FPDO stated that although efforts to collect on chargebacks have been diligent, including monthly reminders of outstanding chargebacks, some transactions are delayed for reasons beyond his control. He further stated that the aged collectables represent less than 1.7 percent of the total chargebacks invoiced during the one-year time frame tested.

Failure to reimburse costs associated with services provided by the facilities department increases the risk that the campus operating fund will not be fully compensated for maintenance and other support provided to auxiliary enterprises and other campus areas.

### **Recommendation 3**

We recommend that the campus recover facilities services chargebacks in a timely manner.

### **Campus Response**

We concur with the recommendation. Outstanding chargebacks will be recovered and policies and procedures will be developed to ensure that future chargebacks will be recovered in a timely manner.

Anticipated completion date: November 30, 2012

## UTILITIES MANAGEMENT

The campus did not have a formal campus strategic energy resource plan.

EO 987, *Policy Statement on Energy Conservation, Sustainable Building Practices, and Physical Plant Management for the California State University*, dated August 2, 2006, states that each campus will develop and maintain a campuswide integrated strategic energy resource plan, which will include tactical recommendations in the areas of new construction, deferred maintenance, facility renewal, energy projects, water conservation, solid waste management, and a structured energy management plan.

The AVP of FPDO stated that the campus has developed and implemented many strategic energy initiatives, including participating in utility company-sponsored energy audits and upgrade projects, state-sponsored demand reduction programs, CSU-sponsored energy service infrastructure improvement investment-grade audits and resulting projects, the CSU photovoltaic project (phase II), and CSU group electrical purchase contracts, and also has constructed the last two major capital outlay projects to meet the LEED silver standard. He further stated that although a formalized campus strategic energy resource plan has not been documented due to recent staffing changes and management oversight, the campus has and will work continuously with appropriate agencies to reduce energy consumption on the campus.

Lack of a formalized campus strategic energy resource plan increases the likelihood that CSU goals to reduce energy consumption will not be met.

### **Recommendation 4**

We recommend that the campus develop and document a campus strategic energy resource plan.

### **Campus Response**

We concur with the recommendation. We will develop and document a campus strategic energy resource plan.

Anticipated completion date: December 31, 2012

## PHYSICAL AND LOGICAL SECURITY

The campus had not formally established policies and procedures for granting and reviewing access to the CMMS.

ICSUAM §8060, *Information Security Policy*, dated April 19, 2010, states that appropriate campus managers and data owners must review, at least annually, user access rights to information assets containing protected data, and the results of the review must be documented. It further states that campus information assets must be limited to only those having a need for specific access in order to accomplish an authorized task.

The AVP of FPDO stated that a review occurs each time an employee leaves or joins the department, but the review is not formally documented due to reporting limitations in the campus-adopted CMMS application.

Failure to adequately control user access to systems increases campus exposure to loss from inappropriate acts.

**Recommendation 5**

We recommend that the campus develop policies and procedures for granting and reviewing access to the CMMS.

**Campus Response**

We concur with the recommendation. Policies and procedures will be developed for granting and reviewing access to the CMMS. Policies and procedures will be developed by October 31, 2012.

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## APPENDIX A: PERSONNEL CONTACTED

<u>Name</u>	<u>Title</u>
Horace Mitchell	President
Laurie Davis	Administrative Analyst Specialist
Felix Garcera	Director, Facilities Operations
Wendy Gerhold	Administrative Support Assistant
Patrick Jacobs	Assistant Vice President, Facilities Planning Development and Operations
Michael Neal	Vice President, Business and Administrative Services
Julie Smith	Director, Safety and Risk Management
Shirley Stevens	Work Control Coordinator
Tom Velasquez	Facilities Manager
Douglas Wade	Assistant Vice President, Fiscal Services



# CSU Bakersfield

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August 2, 2012

Larry Mandel  
University Auditor  
Office of the Chancellor  
California State University  
401 Golden Shore 4<sup>th</sup> Floor  
Long Beach CA 90802-4210

Re: University Response to Recommendations Contained in Report Number 12-39  
CSU Bakersfield Facilities Management Audit

Dear Mr. Mandel:

Attached are the University's responses to recommendations contained in Report Number 12-39, CSU Bakersfield, Facilities Management Audit.

If you have any questions or concerns, please contact my office at 661-654-2287.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael A. Neal".

Michael A Neal  
Vice President  
Business and Administrative Services

c: Horace Mitchell , President, CSUB

**FACILITIES MANAGEMENT**  
**CALIFORNIA STATE UNIVERSITY,**  
**BAKERSFIELD**

**Audit Report 12-39**

**GENERAL ENVIRONMENT**

**Recommendation 1**

We recommend that the campus fully document policies and procedures for the oversight of facilities management.

**Campus Response**

We concur with the recommendation. Policies and procedures documenting the oversight of facilities management will be developed. Anticipated completion date: December 31, 2012.

**MAINTENANCE PROGRAM AND CMMS**

**Recommendation 2**

We recommend that the campus ensure that:

- a. Maintenance staff properly closes work orders.
- b. The work order backlog is adequately reviewed.

**Campus Response**

We concur with the recommendation.

- a. The assistant vice president of facilities planning, development and operations will conduct staff training to ensure that work orders are closed properly. This training will occur by October 31, 2012.
- b. Policies and procedures will be developed and implemented ensuring the management review of the work order backlog. Policies and procedures will be developed and implemented by October 31, 2012.

## CHARGEBACKS AND NON-MAINTENANCE WORK

### Recommendation 3

We recommend that the campus recover facilities services chargebacks in a timely manner.

### Campus Response

We concur with the recommendation. Outstanding chargebacks will be recovered and policies and procedures will be developed to ensure that future chargebacks will be recovered in a timely manner. Completion date: November 30, 2012.

## UTILITIES MANAGEMENT

### Recommendation 4

We recommend that the campus develop and document a campus strategic energy resource plan.

### Campus Response

We concur with the recommendation. We will develop and document a campus strategic energy resource plan. Completion date: December 31, 2012.

## PHYSICAL AND LOGICAL SECURITY

### Recommendation 5

We recommend that the campus develop policies and procedures for granting and reviewing access to the CMMS.

### Campus Response

We concur with the recommendation. Policies and procedures will be developed for granting and reviewing access to the Computerized Maintenance Management System (CMMS). Policies and procedures will be developed by October 31, 2012.

THE CALIFORNIA STATE UNIVERSITY  
OFFICE OF THE CHANCELLOR



BAKERSFIELD

CHANNEL ISLANDS

August 13, 2012

CHICO

DOMINGUEZ HILLS

**MEMORANDUM**

EAST BAY

TO: Mr. Larry Mandel  
University Auditor

FRESNO

FULLERTON

FROM: Charles B. Reed  
Chancellor

HUMBOLDT

SUBJECT: Draft Final Report 12-39 on *Facilities Management*,  
California State University, Bakersfield

LONG BEACH

LOS ANGELES

In response to your memorandum of August 13, 2012, I accept the response as submitted with the draft final report on *Facilities Management*, California State University, Bakersfield.

MARITIME ACADEMY

MONTEREY BAY

CBR/amd

NORTHRIDGE

POMONA

SACRAMENTO

SAN BERNARDINO

SAN DIEGO

SAN FRANCISCO

SAN JOSÉ

SAN LUIS OBISPO

SAN MARCOS

SONOMA

STANISLAUS