FACILITIES MANAGEMENT
CALIFORNIA STATE POLYTECHNIC UNIVERSITY,
POMONA

Audit Report 12-41
July 19, 2012

Members, Committee on Audit

Henry Mendoza, Chair
William Hauck    Steven M. Glazer
Glen O. Toney

Staff

University Auditor: Larry Mandel
Senior Director: Michelle Schlack
Audit Manager: Ann Hough
Senior Auditor: Alexander Khan

BOARD OF TRUSTEES
THE CALIFORNIA STATE UNIVERSITY
## CONTENTS

Executive Summary ...................................................................................................................................... 1

Introduction................................................................................................................................................... 2  
  Background ............................................................................................................................................... 2  
  Purpose ...................................................................................................................................................... 3  
  Scope and Methodology............................................................................................................................ 5

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

Maintenance Program and Computerized Maintenance Management System.............................................. 6

Utilities Management.................................................................................................................................... 6

Physical and Logical Security....................................................................................................................... 7  
  Keys Issuance ............................................................................................................................................ 7  
  Work Order System Access...................................................................................................................... 8
APPENDICES

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

ABBREVIATIONS

AIC  Administrator-in-Charge
CO   Office of the Chancellor
CPDC Capital Planning, Design and Construction
CMMS Computerized Maintenance Management System
CSU  California State University
EO   Executive Order
FPM  Facilities Planning and Management
FRRM Facilities Renewal Cost Model Project
ICSUAM Integrated California State University Administrative Manual
OUA  Office of the University Auditor
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 Polytechnic University, Pomona campus from April 16, 2012, through May 14, 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 14, 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.

MAINTENANCE PROGRAM AND COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM [6]

The campus did not properly authorize time cards before allocating hours into work orders in the computerized maintenance management system (CMMS).

UTILITIES MANAGEMENT [6]

The campus had not developed and implemented procedures to solicit and evaluate feedback from the campus community on the effects of energy conservation efforts.

PHYSICAL AND LOGICAL SECURITY [7]

The campus did not have procedures to accurately audit or certify the custody of campus keys. Also, administration of access to the CMMS needed improvement. Specifically, the campus had not established a formal authorization process for granting and removing user access to the campus CMMS or formal procedures for a routine review of access to the CMMS.
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.
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 February 28, 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.
OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES

MAINTENANCE PROGRAM AND COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM

The campus did not properly authorize time cards before allocating hours into work orders in the computerized maintenance management system (CMMS).

We reviewed 30 work orders, and we found that the corresponding time cards for 16 of the orders had not been approved.

Cal Poly Pomona, Facilities Planning and Management Procedures Manual, Daily Time Card Procedure and Time Types, dated October 6, 2004, states that all time cards must be reviewed and signed off by an appropriate level of management before they can be submitted to the service center for allocation into work orders.

Executive Order (EO) 847, Policy Statement on Facility Maintenance, dated January 10, 2003, requires each campus to maintain a CMMS that can track maintenance work and reasonably account for the total allocated resources.

The administrator-in-charge (AIC) for facilities planning and management (FPM) stated that staff time records were not signed due to oversight by supervisors.

Failure to obtain proper approval on time cards could result in misappropriation of time allocations to work orders.

Recommendation 1

We recommend that the campus properly authorize time cards before allocating them into work orders in the CMMS.

Campus Response

We concur. We will revisit practices and train our team to confirm that only proper authorized time cards be allocated into the CMMS.

Timeline: January 1, 2013

UTILITIES MANAGEMENT

The campus had not developed and implemented procedures to solicit and evaluate feedback from the campus community on the effects of energy conservation efforts.

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
energy manager shall solicit and evaluate feedback from faculty, staff, and students to monitor the effects of energy conservation efforts on instructional programs and the environment.

The AIC for FPM stated that the campus was unaware of the requirement to solicit feedback from the campus community for energy conservation initiatives.

Failure to solicit feedback on campus energy conservation efforts could result in unanticipated negative impacts on campus activities.

**Recommendation 2**

We recommend that the campus establish procedures to solicit and evaluate feedback from the campus community on the effects of energy conservation efforts.

**Campus Response**

We concur. We will establish procedures to solicit and evaluate feedback from the campus community on the effects of energy conservation efforts.

Timeline: January 1, 2013

**PHYSICAL AND LOGICAL SECURITY**

**KEYS ISSUANCE**

The campus did not have procedures to accurately audit or certify the custody of campus keys.

We reviewed the current list of key holders in the CMMS, and we found that:

- Of the 5,292 people listed, 2,252 could not be matched to the name of a current employee.
- At least 20 of the people listed were terminated employees.

State Administrative Manual §20050, *Internal Control*, 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.

Integrated California State University Manual (ICSUAM) §8080, *Information Security Policy*, dated April 19, 2010, states that each campus must identify physical areas that must be protected from unauthorized physical access while ensuring that authorized users have appropriate access.

Cal Poly Pomona *University Key Issuance and Control*, dated December 20, 2005, states that FPM has responsibility for maintenance of records for university keys, and the accompanying *Procedure for Key Issuance and Control* states that FPM shall conduct periodic audits to ensure that each department is complying with the procedures.
The AIC for FPM stated that although the policy indicates that his area is responsible for recordkeeping and audits of procedural compliance, the current policy structure does not support an efficient mechanism for accomplishing these goals. He further stated that FPM effectively issues keys based on valid authorization from accountable departments, but it cannot enforce the return of keys because the responsibility for ensuring the return is that of the original issuing authority.

Failure to track the custody of keys and/or access devices increases the risk that keys will be unaccounted for or misused.

**Recommendation 3**

We recommend that the campus develop procedures to accurately audit or certify the custody of campus keys.

**Campus Response**

We concur. We will establish procedures to accurately audit or certify the custody of campus keys.

**Timeline:** January 1, 2013

**WORK ORDER SYSTEM ACCESS**

Administration of access to the CMMS needed improvement.

We found that the campus had not established:

- A formal authorization process for granting and removing user access to the campus CMMS. We reviewed ten users, and we found that the campus could not provide sufficient proof of authorization for access for any of the ten individuals.

- Formal procedures for a routine review of access to the CMMS.

ICSUAM §8060.0 *Access Control*, dated April 19, 2010, states that campuses must have a documented process for provisioning approved additions, changes, and terminations of access rights, and for reviewing access of existing account holders. It further states that the access review must be conducted at least annually and that the review must be documented.

The AIC for FPM stated that the department was unaware of the requirement to authorize the granting and removal of user access and to routinely review access to the CMMS.

Failure to adequately control user access to systems increases campus exposure to loss from inappropriate acts.
Recommendation 4

We recommend that the campus:

a. Develop a formal authorization process for granting and removing user access to the CMMS.
b. Develop formal procedures for a routine review of access to the CMMS.

Campus Response

We concur. We will formalize a process for granting and removing user access and develop procedures for an annual review of user access to the CMMS.

Timeline: January 1, 2013
## APPENDIX A: PERSONNEL CONTACTED

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. Michael Ortiz</td>
<td>President</td>
</tr>
<tr>
<td>Edwin Barnes</td>
<td>Vice President, Administrative Affairs/Chief Financial Officer</td>
</tr>
<tr>
<td>Eric Bellman</td>
<td>Manager, System Administrator</td>
</tr>
<tr>
<td>Kathy Harper</td>
<td>Assistant to the Associate Vice President</td>
</tr>
<tr>
<td>Don Johnson</td>
<td>Manager, Building and Mechanical Services</td>
</tr>
<tr>
<td>Darwin Labordo</td>
<td>Associate Vice President/Associate Chief Financial Officer</td>
</tr>
<tr>
<td>George Lwin</td>
<td>Manager, Energy Services</td>
</tr>
<tr>
<td>Walter Marquez</td>
<td>Administrator-In-Charge, Facilities Planning and Management</td>
</tr>
<tr>
<td>Mark Miller</td>
<td>Director, Facilities Management and Capital Projects</td>
</tr>
<tr>
<td>Lorraine Rodriguez</td>
<td>Senior Buyer</td>
</tr>
<tr>
<td>Jane Self</td>
<td>Director, Payroll Services</td>
</tr>
<tr>
<td>Mooris Taylor</td>
<td>LEED AP Senior Project Manager</td>
</tr>
<tr>
<td>Joice Xiong</td>
<td>Director of Internal Audit</td>
</tr>
</tbody>
</table>
August 22, 2012

Mr. Larry Mandel, University Auditor
Office of the Auditor
The California State University
400 Golden Shore, Suite 210
Long Beach, CA 90802

Dear Mr. Mandel:

Subject: Campus Response to Recommendations of Facilities Management 12-41

Enclosed is California State Polytechnic’s campus response to the Facilities Management Audit 12-41. We appreciate the effort you and your staff have made to indicate areas where our procedures or internal controls could be strengthened. We will take the necessary actions to address the report’s recommendations.

Please direct questions concerning the response to Darwin Labordo, Associate Vice President of Finance and Administrative Services and Associate Chief Financial Officer at 909-869-2008 or dlabordo@csupomona.edu.

Sincerely,

Edwin A. Barnes III, Vice President
Administrative Affairs

Cc: J. Michael Ortiz, President
    Walter Marquez, Associate Vice President, Facilities Planning and Management
    Darwin Labordo, Associate Vice President, Finance and Administrative Services
    Joice Xiong, University Auditor

Enclosure
FACILITIES MANAGEMENT
CALIFORNIA STATE POLYTECHNIC UNIVERSITY,
POMONA
Audit Report 12-41

MAINTENANCE PROGRAM AND COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM

Recommendation 1

We recommend that the campus properly authorize time cards before allocating them into work orders in the CMMS.

Campus Response

We concur. We will revisit practices and train our team to confirm that only proper authorized time cards be allocated into the CMMS.

Timeline: January 1, 2013

UTILITIES MANAGEMENT

Recommendation 2

We recommend that the campus establish procedures to solicit and evaluate feedback from the campus community on the effects of energy conservation efforts.

Campus Response

We concur. We will establish procedures to solicit and evaluate feedback from the campus community on the effects of energy conservation efforts.

Timeline: January 1, 2013

PHYSICAL AND LOGICAL SECURITY

KEYS ISSUANCE

Recommendation 3

We recommend that the campus develop procedures to accurately audit or certify the custody of campus keys.
Campus Response

We concur. We will establish procedures to accurately audit or certify the custody of campus keys.

Timeline: January 1, 2013

WORK ORDER SYSTEM ACCESS

Recommendation 4

We recommend that the campus:

a. Develop a formal authorization process for granting and removing user access to the CMMS.
b. Develop formal procedures for a routine review of access to the CMMS.

Campus Response

We concur. We will formalize a process for granting and removing user access and develop procedures for an annual review of user access to the CMMS.

Timeline: January 1, 2013
September 6, 2012

MEMORANDUM

TO: Mr. Larry Mandel
University Auditor

FROM: Charles B. Reed
Chancellor

SUBJECT: Draft Final Report 12-41 on Facilities Management, California State Polytechnic University, Pomona

In response to your memorandum of September 6, 2012, I accept the response as submitted with the draft final report on Facilities Management, California State Polytechnic University, Pomona.

CBR/amd