**The California State University**
OFFICE OF THE CHANCELLOR

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August 30, 2021

Dr. Cathy A. Sandeen, President
California State University, East Bay
25800 Carlos Bee Boulevard
Hayward, CA 94542

Dear Dr. Sandeen:

**Subject:  Audit Report 20-25, *Facilities Management*, California State University, East Bay**

We have completed an audit of *Facilities Management* as part of our 2020-2021 Audit Plan, and the final report is attached for your reference.  The audit was conducted in accordance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

I have reviewed the management response and have concluded that it appropriately addresses our recommendations.  The management response has been incorporated into the final audit report, which will be posted to Audit and Advisory Services' website.  We will follow-up on the implementation of corrective actions outlined in the response and determine whether additional action is required.

Any observations not included in this report were discussed with your staff at the informal exit conference and may be subject to follow-up.

I wish to express my appreciation for the cooperation extended by the campus personnel over the course of this review.

Sincerely,

Vlad Marinescu
Vice Chancellor and Chief Audit Officer

c:  Joseph I. Castro, Chancellor
    Adam Day, Chair, Committee on Audit
    Jane W. Carney, Vice Chair, Committee on Audit

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# FACILITIES MANAGEMENT

## California State University,
## East Bay

Audit Report 20-25
August 30, 2021

# EXECUTIVE SUMMARY

## OBJECTIVE

The objectives of the audit were to ascertain the effectiveness of operational, administrative, and financial controls related to facilities management operations and to ensure compliance with relevant federal and state regulations; Trustee policy; Office of the Chancellor (CO) directives; and campus procedures.

## CONCLUSION

Based upon the results of the work performed within the scope of the audit, except for the weaknesses described below, the operational, administrative, and financial controls for facilities management as of June 11, 2021, taken as a whole, provided reasonable assurance that risks were being managed and objectives were met.

We found that administration of building access controls needed improvement related to deactivating key card access for separated employees, authorizing proper access credentials based on job responsibilities, maintaining necessary records, and completing an annual key inventory.  Also, the campus did not periodically monitor aged work orders (WO), timely complete and close WOs, or consistently document relevant information when completing or closing WOs.  Additionally, management of user access to WebTMA needed improvement, including the establishment of a formal process for granting, removing, and annually reviewing user access.  Further, planned maintenance and inspections were not monitored regularly or timely completed, and duplicate scheduled maintenance tasks were set up for certain housing annual inspections.

Specific observations, recommendations, and management responses are detailed in the remainder of this report.

# OBSERVATIONS, RECOMMENDATIONS, AND RESPONSES

## 1. PHYSICAL ACCESS CONTROLS

### OBSERVATION

Administration of building access controls needed improvement related to deactivating key card access for separated employees, authorizing proper access credentials based on job responsibilities, maintaining necessary records, and completing an annual key inventory.

According to campus policy, all access requests (physical key or access card) must be submitted through the facilities development and operations (FD&O) online request system and must include an academic program need or business need justification and approval from the respective dean or department associate vice president (AVP) and the director of facilities operations (FO). Also, all employees who separate from the university must complete a Separating Employee Clearance Form (SEC form) in part to ensure keys are collected and building access is deactivated. When keys are not returned within five business days of the employee separation, the director of FO must evaluate the security exposure caused by the missing keys and the employee's department must reimburse FO for the cost of the evaluation and rekeying effort. We noted that in some instances, the employee is not required to return the key if it is not a master key and an authorized waiver is obtained and documented on the SEC form.

We reviewed 30 employees who separated from the university to verify that their access card credentials were timely deactivated, and we found that:

- In seven instances, the separated employees' access card was not deactivated, and in two instances, the access card was not deactivated timely. For the latter, the access cards were deactivated one month and 10 months after the employee's separation date. We confirmed that none of the access cards were used after the employee's separation date. FD&O staff indicated that deactivation did not occur or was not timely for various reasons, including a lack of notification from human resources or campus department staff when an employee separated from the campus and no longer required access, and a backlog that occurred in December 2020 when several employees separated at once as part of the Early Retirement Program offered due to the COVID-19 health pandemic.

- In 18 instances, the required SEC form was not maintained or provided to us by the campus.

We also reviewed 22 separated employees to verify that their physical keys were returned to the campus and that the list of current keyholders was properly updated. We found that:

- In 17 instances, the SEC form was not maintained or provided to us by the campus, and as such, compliance could not be verified. Nine of these keyholders were issued one or more grand master, submaster, or department master key. The areas that a master key can access include, but are not limited to, the health center (except the pharmacy), provost's office, science building, chemistry lab, and certain housing complexes.

- In two instances, the SEC form indicated that a key was returned to the director of FO, but the list of current keyholders had not been updated and continued to show that the separated employees had keys with access to several areas. One employee who separated in January 2018 was shown on the list to have access to, among other places, the health center, custodial areas, and some student housing. The other employee separated in May 2020 and was shown to have access to, among other places, the basketball backboard switches, stadium restrooms, and specific rooms in the bookstore.

- In one instance, the SEC form was incomplete and did not indicate whether a key was returned or a waiver was granted.

We reviewed 25 employees to verify whether their access card credentials were authorized and appropriate based on the employee's job responsibilities, and we found that:

- In three instances, the employee's access card credentials did not match what was authorized on the request form. In another instance, the expiration date of access card credentials for a specified area did not match what was authorized on the request form. FD&O staff explained that this can happen when custodians are assigned to a job in an area where they do not normally work and that additional credentials are often verbally granted to accommodate these temporary assignments. In addition, certain employees with business need, such as an energy manager, are sometimes incorrectly given limited credentials, instead of access to all buildings.

We reviewed 30 employees to verify whether their physical key credentials were authorized and appropriate based on the employee's job responsibilities, and we found that:

- In six instances, the required documentation explaining how the employee will secure the master key on campus was not consistently maintained or provided to us by the campus. FD&O indicated that this documentation is typically purged after one year and that FD&O only required the documentation for grand master and building master keys, not for department master keys. We noted that the policy requires the documentation for all master keys and did not distinguish between the different types of master keys.

- In two instances, an employee was issued a department master key but did not have job responsibilities that required a master key. In one instance, an employee from the ethics department was issued a master key for the political science department. In the other instance, an employee who changed work responsibilities and moved from accessibility services to the payroll department maintained possession of a department master key for their prior position. FD&O indicated that the vice president, dean, or respective authorizing department head is responsible for ensuring that keys are returned when an employee transfers to a different department on campus.

The *CSU East Bay Key and Access Control Policy*, effective in fiscal year (FY) 2019/20, required FO to work with all campus departments to conduct an annual inventory of physical keys and building access. This inventory is performed at the end of each FY and requires each department to verify the names of authorized key and access holders, reaffirm their academic or business need, and report all discrepancies to FO. However, we noted that the annual inventory for FY 2020 was not completed, in part because of the COVID-19 health pandemic's operational impact to the campus.

Proper administration of building access controls, including deactivating key card access for separated employees, authorizing proper access credentials based on job responsibilities, maintaining necessary records, and completing an annual key inventory, helps to increase security and reduces the potential risk associated with unauthorized access.

**RECOMMENDATION**

We recommend that the campus:

a.  Review and update the current process to improve compliance with and administration of physical access controls, including timely deactivating key card access for separated employees, authorizing proper access credentials based on job responsibilities, managing the return of all keys or granted waivers, performing an evaluation of the security exposure of unreturned keys by separated employees, and maintaining the list of current keyholders.

b.  Complete the required annual inventory of all physical keys and building access.

c.  Maintain all required supporting records.

d.  Communicate the updated building access controls processes to all appropriate campus personnel and provide training if necessary.

**MANAGEMENT RESPONSE**

We concur.  Facilities management will complete the following by February 18, 2022:

a.  We will review and update the current process to improve compliance with and administration of physical access controls, including ensuring proper access authorization based on job responsibilities, managing the return of all keys or granted waivers, timely deactivation of key card access for employees separating from the university, performing an evaluation of the security exposure of unreturned keys, and maintaining the list of current keyholders.

b.  We will complete the annual inventory of all physical keys and building access as outlined in the *CSU East Bay Key and Access Control Policy*.

c.  We will review and update existing processes to ensure that all required supporting records are maintained.

d.  We will communicate updated processes to all appropriate campus personnel and provide training if necessary.

## 2. WORK ORDER ADMINISTRATION

**OBSERVATION**

The campus did not periodically monitor aged WOs, complete or close WOs timely, or consistently document necessary information when completing or closing WOs, and management of user access to WebTMA needed improvement.

The campus uses WebTMA as its computerized maintenance management system (CMMS) to capture, assign, monitor, and analyze the status and completion of WOs. In addition, WebTMA executive dashboards were established to allow FD&O managers to monitor the status of current WOs and review aged WOs.

As of May 3, 2021, the executive dashboard showed 893 open WOs and the aging of each, which included 108 (12 percent) open from 30 to 60 days, 209 (23 percent) open from 61 to 120 days, and 329 (37 percent) open for more than 120 days. Of the 329 WOs open for more than 120 days, we noted that:

- 53 (16 percent) were open from 120 to 180 days.
- 118 (36 percent) were open from 181 to 366 days.
- 121 (37 percent) were open from one to two years.
- 37 (11 percent) were open for two years or longer.

Work requests are submitted through the WebTMA iService Desk, as well as by phone, radio, email, and walk-in request. Requests are validated by the workflow team, assigned a priority, and sent to the appropriate trade (electrician, plumbing, engineering, etc.). Next, a WO request number is created and the trade supervisor assigns the WO to a technician, who completes the work and records the time and resources used for the job, if applicable. The trade supervisor is responsible for verifying the work and adding a completion date to the WO in WebTMA.

We reviewed 30 of the 329 WOs that were aged for more than 120 days and found that:

- In 20 instances, FD&O staff determined that the WO was in fact completed; however, the work performed (including labor hours and cost, if necessary) was not recorded and the trade supervisor did not add a WO completion date in WebTMA.

- In three instances, FD&O staff elected to keep the WO open; however, there was no record in WebTMA to support FD&O staff's periodic review and decisions.

In addition, we reviewed 30 closed WOs from a list of approximately 13,000 closed WOs and found that:

- In four instances, WOs were not completed timely. They were completed an average of 40 days from the requested date, with one WO completed 203 days after the requested date.

- In three instances, WOs were not closed timely. The completion date was added to the WOs from one to eight months after the work was completed.

- In two instances, WOs were not completed and FD&O indicated they were closed as backlog. The completion dates were added to the WOs seven and 14 months from the requested date.

- In one instance, a WO was closed without indication that the work had been completed, and no labor hours were entered for the WO into WebTMA.

Also, we found that the campus had not established a formal authorization process for granting, removing, and annually reviewing user access to WebTMA. Currently, user access accounts remain active until an employee separates from the campus, a change in position duties occur, or a request to modify the user's access is made.

Proper administration of WOs, including monitoring, timely completing and closing, and consistently documenting relevant information related to the work, can help to ensure that building and assets are adequately maintained and allows management to accurately report on state facilities, as well as the resources necessary to perform the work.

**RECOMMENDATION**

We recommend that the campus:

a. Review and update the current process to improve management of WOs, including the issues noted above related to aged WOs, timely completing and closing of WOs, and consistently documenting labor hours and other necessary information before closing WOs.

b. Establish and document a formal authorization process for the granting, removing, and at a minimum, annually reviewing user access to WebTMA.

c. Communicate the updated processes to all appropriate campus personnel and provide training if necessary.

**MANAGEMENT RESPONSE**

We concur. Facilities management will complete the following by February 18, 2022:

a. We will review and update the current process to improve management of WOs, including the issues noted above related to aged WOs, timely completing and closing of WOs, and consistently documenting labor hours and other necessary information before closing WOs.

b. We will establish and document a formal authorization process for the granting and removing of user access to WebTMA, including an annual review.

c. We will communicate the updated processes to all appropriate campus personnel and provide training if necessary.

## 3. PREVENTIVE AND SCHEDULED MAINTENANCE

**OBSERVATION**

Administration of scheduled maintenance and inspections needed improvement.

FD&O staff uses WebTMA to manage identifying information and required preventive or scheduled maintenance for campus assets and fixed equipment, including warranty information; the specific task, maintenance, or inspection to be performed; and the interval or frequency.  WebTMA auto-generates a WO when the work is due.

We noted that FD&O staff had established 1,116 scheduled activities, of which 118 were for preventive maintenance (PM) and 998 were for scheduled maintenance (SM).  Generally, a PM schedule is set up for various tasks such as inspecting equipment (eyewash/shower flusher) or building elements (HVAC), while a SM schedule is primarily set up for various required annual inspections of student housing units.

However, we noted that the PM and SM schedules were not monitored regularly to ensure accuracy.  We found that 133 (12 percent) of the 1,116 PM and SM schedules were set up twice in the system, and as a result, WebTMA auto-generated duplicate WOs.  These duplicate WOs were for a number of SM activities, including annual inspections or maintenance (HVAC, appliance, and plumbing) for 51 housing residential units.  We reviewed 30 of 285 duplicate WOs for SM for five housing residential units and found that:

- In five instances for an annual plumbing room inspection, FD&O staff had not cancelled the WOs.  The technician indicated that each WO was completed and entered labor hours in WebTMA.

- In eight instances for an annual room inspection and maintenance, the WOs were completed but labor hours were not entered into WebTMA.

We reviewed recurring PM and SM tasks in WebTMA, including dates that indicated when the last task was performed and the next task was due, and we found that they were not consistently completed.  Specifically, for the same 1,116 scheduled activities, we found that 59 PM and 470 SM had not been performed.  FD&O staff indicated that safety measures implemented by the campus in response to the COVID-19 pandemic, as well as the associated regional stay-at-home orders, significantly impacted FD&O staff's ability to complete the work.  Also, during the pandemic, only a limited number of staff were allowed on campus.  As a result, FD&O staff completed only the maintenance and repairs that were deemed to be vital or urgent.

We selected 30 recurring PM WOs marked as complete and found that:

- In eight instances, the work was not performed, and the WO was closed as backlog.  For four of these, the work was not assigned to a technician.

- In five instances, the work was not completed within the required PM interval.

We also found that WOs were not closed consistently, which contributed in part to an incomplete and inaccurate record of aged open WOs.  For example, the WO status field was often left blank or sometimes populated with a status (i.e., completed, closed-backlog, cancelled-per requestor, duplicate, assigned, or pending).  These closed WOs lacked sufficient information to allow FD&O staff to identify those WOs that were closed specifically due to backlog and manage their workload effectively.

Proper administration of scheduled maintenance and inspections, including monitoring duplicate, aged, or backlogged WOs, documenting labor hours, and timely performing and closing WOs, can improve service levels, provide greater assurance that assets will be adequately maintained, and allow management to accurately report on state facilities and the resources necessary to maintain them.

**RECOMMENDATION**

We recommend that the campus:

a. Review and update current processes to improve monitoring of and compliance with established PM and SM schedules and to address the issues noted above.  These include annually reviewing all PM and SM schedules in WebTMA and deleting any duplicates, entering labor hours in WebTMA for all completed work, timely performing planned maintenance and inspections, and periodically monitoring aged and backlogged WOs.

b. Communicate the updated processes to all appropriate campus personnel and provide training if necessary.

**MANAGEMENT RESPONSE**

We concur.  Facilities management will complete the following by February 18, 2022:

a. We will review and improve existing processes for monitoring of and compliance with established preventive and scheduled maintenance timelines to address issues noted.  Improved processes will include annually reviewing all PM and SM schedules in WebTMA and deleting any duplicates, entering labor hours in WebTMA for all completed work, timely performing planned maintenance and inspections, and periodically monitoring aged and backlogged WOs.

b. We will communicate the improved processes to all parties and provide training to all employees if necessary.

# GENERAL INFORMATION

## BACKGROUND

The need to protect the substantial public investment represented by California State University (CSU) facilities and grounds was brought to the forefront in the Legislative Analyst's Report on the 1979/80 state budget. Subsequently, the Legislature directed the CSU to implement a preventive maintenance program. As a result, the CSU has adopted directives, executive orders, and technological tools to ensure that facilities-related assets are adequately maintained.

Executive Order (EO) 847, *Facility Maintenance*, refines the standards in which campuses maintain CSU facilities. It provides clear definition of operations and maintenance, deferred maintenance, and capital renewal requirements to assure efficient and effective use of available maintenance funding. It also requires the university president to ensure that appropriate resources are directed toward meeting the requirement of proper operations and maintenance of the campus physical plant.

The Capital Planning, Design and Construction (CPDC) department at the CO maintains a space and facilities database (SFDB), a centralized system that provides information about capacity and facilities at each of the 23 campuses. It also provides details regarding custodial space and farm acreage on the campuses and contains information on each facility, including the condition, construction type, gross square footage, and master plan status. CPDC requires each campus to annually update its facility file in the SFDB; this information provides the basis for the capital outlay program, including funding for any required deferred maintenance, for the immediate and subsequent years.

In 2016, CPDC launched a multiyear plan to improve the quality of facilities data in multiple areas of development and operations. The plan included a new energy information system, which streamlined and improved campus monthly utility reporting; refinements in the reporting categories for self-support facilities such as recreation centers, public/private partnerships, and faculty/staff housing; and detailed facility condition assessments (FCA) to update, in a consistent manner, the estimated backlog of renewal needs. Information from the FCA reports will make campus reporting of facility conditions more uniform and allow CPDC to more accurately determine annual funding priorities to reduce the capital renewal backlog.

In recent years, funding appropriation challenges in the CSU system have affected facilities maintenance. Each year, CPDC must not only determine how much funding is necessary to maintain the 89 million square feet of facilities systemwide, but also identify, prioritize, and find funds for the backlog of deferred renewal projects, which the system has reported for 2021/22 to represent $4 billion in potential costs. According to the 2018 FCA for California State University, East Bay (CSUEB), the total 10-year facility renewal needs is estimated to be over $335 million.

CSUEB consists of two campuses, one in the East Bay foothills of the San Francisco Bay Area, approximately two miles from downtown Hayward, and the other in the city of Concord. These two campuses are located on approximately 727 acres of land. The campuses include 42 buildings encompassing almost 2 million square feet of lab, general education, administrative, student services, theater, dining, housing, and support space, and the average

age of the buildings is about 38 years.  CSUEB facilities management is within the FD&O department in the division of Administration and Finance.  FD&O is responsible for planning, design, construction, maintenance, and operations of campus facilities, and employees include skilled trades, grounds, custodial staff, and administrative support.  The campus has implemented a cost allocation plan that recovers the cost for all services performed by the FD&O department to the campus state facilities, including campus self-support units (such as housing, the health center, and parking), as well as campus auxiliaries.  A unit's occupied square footage and the service level provided by FD&O are assessed to calculate the appropriate recovery rate.

## SCOPE

Due to temporary operating procedures and limitations resulting from the COVID-19 public health emergency, we performed fieldwork remotely from May 3, 2021, through June 11, 2021.  Our audit and evaluation included the audit tests we considered necessary in determining whether operational, administrative, and financial controls are in place and operative.  The audit focused on procedures in effect from January 1, 2019, to June 11, 2021.

Specifically, we reviewed and tested:

- Facilities management administration and organization, to determine whether it includes clear lines of organizational authority and responsibility, and current and comprehensive policies and procedures.

- The comprehensive planned/programmed maintenance schedule, to ensure that it captures all categories of maintenance, including routine, preventive, and deferred.

- The process by which the campus identified facility conditions, including deferred maintenance and capital renewal needs, and annually reported the information to the CO.

- Campus implementation of an effective computerized maintenance management system (CMMS) to ensure proper administration of maintenance tasks, including scheduling, cost management reporting, and productivity tools to account for resource utilization.

- Campus implementation of 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 process to establish, approve, and periodically review a cost allocation plan that recovers the cost for all services performed/provided by FD&O to the campus state facilities, including campus self-support units, as well as campus auxiliaries.

- The campus process to ensure authorized physical access to keys to facilities and adequate safeguard of the inventory of keys.

- Campus procedures to control access to work order and electronic key access systems.

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.

Our testing and methodology, which was designed to provide a review of key operational, administrative, and financial controls, included interviews, walkthroughs, and detailed testing on certain aspects of the facilities management operation.  Our review was limited to gaining reasonable assurance that essential elements of the facilities management operation were in place and did not examine all aspects of the program.

## CRITERIA

Our audit was based upon standards as set forth in federal and state regulations and guidance; Trustee policy; Office of the Chancellor directives; and campus (and auxiliary, if applicable) procedures; as well as sound administrative practices and consideration of the potential impact of significant risks.  This audit was conducted in conformance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

This review emphasized, but was not limited to, compliance with:

- EO 649, *Safeguarding State Property*
- EO 847, *Policy Statement on Facility Maintenance*
- EO 1000, *Delegation of Fiscal Authority and Responsibility*
- Government Code (GC) §13402 and §13403
- Integrated California State University Administrative Manual (ICSUAM) §3552.01, *Cost Allocation/Reimbursement Plans for the CSU Operating Fund*
- ICSUAM §8060.00, *Access Control*
- ICSUAM §8080.00, *Physical Security*
- ICSUAM §9047.01, *Space Facilities Database*
- CSUEB *Facilities Management – Work Order Procedures*
- CSUEB *Key and Access Control Policy*

## AUDIT TEAM

Senior Audit Manager:  Joanna McDonald
Senior Auditors:  Marcos Chagollan and Alexandra Gonzalez