

CONSTRUCTION
CALIFORNIA STATE UNIVERSITY,
CHICO
STUDENT SERVICES CENTER

Audit Report 09-21
July 22, 2009

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ABBREVIATIONS

BOT	Board of Trustees
CCIP	Contractor Controlled Insurance Program
CM at Risk	Construction Manager at Risk
CPDC	Capital Planning, Design and Construction
CPMP	Capital Project Management Plan
CRB	Certification Review Board
CSU	California State University
EO	Executive Order
GMP	Guaranteed Maximum Price
LEED	Leadership in Energy and Environmental Design
OUA	Office of the University Auditor
SUAM	State University Administrative Manual

EXECUTIVE SUMMARY

At its January 2009 meeting, the Board of Trustees directed the Office of the University Auditor (OUA) to review construction activity. Construction auditing had been performed by KPMG since fiscal year 1997/98 with coordination from the OUA. In fiscal year 2008/09, OUA staff began performing construction audits.

We visited the California State University, Chico campus and the offices of the construction manager and selected subcontractors from January 20, 2009, through February 13, 2009, and audited the Student Services Center project focusing on the construction management policies and procedures and internal controls and processes in effect at that time.

Our study and evaluation did not reveal any significant construction management or internal control problems or weaknesses that would be considered pervasive in their effects on construction activity controls. 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 in effect for the Student Services Center project were sufficient to meet the overall audit objective stated below.

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 CONTROL ENVIRONMENT [8]

The campus did not submit its August 2007 revised Capital Project Management Plan to Capital Planning, Design and Construction for review by the Certification Review Board as required for delegation of capital management authority.

CONSTRUCTION MANAGEMENT AND ACCOUNTING [9]

Value-engineering credits, totaling \$294,000, submitted by the construction manager were not supported by sufficient documentation, and the campus had not developed a procedure to determine the actual savings from the alternative materials, goods, and/or construction methods utilized. In addition, the campus did not request hourly labor rate worksheets for the construction manager and each trade subcontractor, which prevented the verification of wage rates submitted for change order work. Further, administrative oversight of construction phase services was inadequate, and contractual material specifications for overage stock were not always met.

CHANGE ORDER ADMINISTRATION [13]

Change orders were not always approved by all required campus personnel, and hourly labor rates and the associated labor burden charged by trade subcontractors were not always appropriate and accurate. In addition, equipment rental costs, totaling \$39,700, charged by one trade subcontractor were not supported by sufficient documentation, which prevented the verification of rental costs. Further, the administration of construction manager and trade subcontractor mark-ups did not ensure that the amounts were appropriate and accurate.

PROJECT COMPLETION AND CLOSEOUT [17]

The campus did not issue a field instruction or change order to the construction manager when the State Fire Marshal granted beneficial temporary certificate of occupancy.

INTRODUCTION

BACKGROUND

In November 2003, the Board of Trustees (BOT) approved schematic plans for the California State University (CSU), Chico Student Services Center at a project cost of \$35,731,000 to be funded by California Proposition 47 general obligation bonds. In April 2004, the CSU Chico campus awarded a contract to a construction management firm for pre-construction services, which included design and bid phase services. During 2004 and 2005, the construction manager worked closely with the campus and architect on tasks including review and development of design and construction documents, constructability review, cost control management, regulatory agency approvals, development of trade contractor bid packages, and administration of the bid process. The construction manager also provided information, estimates, and schemes, and made recommendations regarding construction materials, methods, systems, phasing, and costs; and participated in design decisions to provide the highest quality building within the budget and schedule.

During the pre-construction, design, and planning phases, the construction industry witnessed a steep inflation in material and skilled labor costs, which resulted in a project cost that exceeded the previously approved budget. The 2006 Budget Act included a new appropriation for the Student Services Center of \$42,252,000. In August 2006, the CSU Chico campus issued the Notice to Proceed and executed an agreement with the construction management firm at a revised project cost of \$38,028,946. The Student Services Center opened on June 2, 2008, and the Notice of Completion was filed on February 10, 2009.

The Student Services Center is a four-story, 120,000 square foot facility located adjacent to the Bell Memorial Union and Meriam Library in the southwest corner of the campus. The Student Services Center serves prospective and current students with everything from admissions to graduation services. The building houses 26 departments and over 300 staff and student employees. The building was planned to be one of the first new state-funded construction projects in the CSU to be Leadership in Energy and Environmental Design (LEED) certified. LEED is a third-party certification program begun in 1999 by the U.S. Green Building Council and is a nationally accepted benchmark for the design, construction, and operation of high-performance green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

The CSU Chico campus managed the Student Services Center project, and the Construction Manager at Risk (CM at Risk) with Guaranteed Maximum Price (GMP) delivery method was chosen. In this method, a construction management firm chosen by a competitive bidding process provides all or significant portions of design and construction administrative services and takes part in establishing the GMP. The CM at Risk acts as the general contractor during construction, assumes the risk of subcontracting the work, and guarantees completion of the project. The liability for the success in completing the project on time and in budget lies with the construction manager, and not with the university. Further, there is a potential for cost savings should the project be completed below the GMP.

Executive Order (EO) 672, *Delegation of Capital Outlay Management Authority and Responsibility*, dated July 25, 1997, delegates the authority to directly manage state and non-state funded capital outlay projects to campus presidents. This delegated authority is issued subject to compliance with the capital outlay certification procedure, whereby a request for Delegation of Capital Outlay Management Authority is submitted by the campus for review by the Certification Review Board (CRB) and approval by the executive vice chancellor and chief financial officer in the chancellor's office. Further, the campus president is responsible for ensuring that delegated authority is exercised in compliance with applicable statutes, regulations, and policies of the BOT; the process for management of campus capital projects is consistent with the provisions of the State University Administrative Manual (SUAM); and appropriate internal controls and processes are in place to ensure that responsibilities are carried out in a manner consistent with the campus capital outlay management plan submitted with the request for delegated authority.

The certification procedure required by EO 672 includes submission of a capital outlay management plan, which defines the campus organizational and operational structure and expenditure authority, and serves as the campus policies and procedures for the administration of construction activities. Updated plans are to be submitted when campus operational structure changes are made which impact the plan. Certification is continuous unless a Capital Planning, Design and Construction (CPDC) post project performance review determines that problems existed due to campus negligence, in which case the CRB may recommend that the campus be placed on probation. The CRB may ultimately recommend that certification be withdrawn if identified operational/management deficiencies are not remedied.

For those campuses that are not certified, the chancellor's office may execute a Memorandum of Delegation for a capital outlay project, which delegates administration, including construction management, to the campus. The CPDC Construction Management unit may also perform construction administration and management.

EO 666, *Delegation of Professional Appointments Related to Capital Outlay Projects and Campus Physical Development*, dated March 7, 1997, delegates the authority to each campus president or designee to make all professional appointments relative to capital outlay projects and campus physical development. Further, the campus president or designee is responsible for ensuring compliance with all applicable statutes and regulations, BOT policies, and SUAM guidelines; and use of systemwide standardized architectural, engineering, and other professional appointment contract forms.

The SUAM, in part, contains an overview of all CPDC policies and procedures associated with the capital outlay process. SUAM §9700 through §9843, *Construction Management for Public Works Contracts*, describe the requirements for preparing and administering public works contracts under the provisions of Public Contract Code Section 10700 *et seq.* SUAM §9200 through §9212, *Professional Services for Campus Development*, describe the requirements for developing and administering professional services agreements with service providers such as architects and engineers and for testing services and project-related studies.

The CSU *Construction Management Procedures Manual* contains the CSU construction management policies and procedures that apply to a project, and each construction administrator, project manager, inspector of record, campus representative, and design professional is required to use this manual as appropriate during the construction administration of a project.

PURPOSE

The overall audit objective was to ascertain the effectiveness of construction management policies and procedures and internal controls and processes related to the administration of construction activities and, specifically, the Student Services Center project.

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

- ▶ Delegated authority to manage capital outlay projects exists and the campus capital outlay management plan is current for campus-managed projects.
- ▶ Project development is in accordance with statutory and CSU policy requirements, including required BOT and CPDC approvals.
- ▶ Administration and management of the project provide effective internal controls and processes consistent with the campus capital outlay management plan and the SUAM.
- ▶ Professional appointments are in accordance with statutory requirements, BOT policy, and the SUAM; and systemwide standardized professional appointment contract forms are used, approved by the Office of General Counsel, and fully executed prior to performance of work.
- ▶ Extra services are appropriate, authorized, and separately tracked; and an evaluation is performed for each professional service provided.
- ▶ The bidding process for the general contractor or construction manager and trade subcontractors is rigidly controlled, performed in accordance with statutory requirements and the SUAM, and incorporates the contract documents maintained on the CPDC website.
- ▶ Contract documents are complete, routed to the Office of General Counsel as appropriate, and timely executed; required contract bonds and insurance are received; and a Notice to Proceed is issued.
- ▶ Subcontractors are adequately monitored, and requests for subcontractor substitutions are handled in accordance with statutory requirements and the SUAM.
- ▶ Operational and administrative controls ensure maintenance of financial accountability and completion of the project within the approved scope, schedule, and budget.

- ▶ Contract and service agreement payments are adequately supported, appropriately approved, and timely paid; and retention is handled in accordance with statutory requirements and the SUAM.
- ▶ Equipment is procured in the most economical method; purchased materials meet specifications required by construction documents and drawings; and all required inspections and tests are timely and properly performed and adequately documented.
- ▶ Change orders are appropriately approved, supported, accurately priced, and sufficiently tracked; and construction allowances and contingency balances are adequately administered and controlled.
- ▶ Project completion is adequately administered, including completion of pre-final/final inspections, punch list items, project closeout checklist, and Notice of Completion; preservation of project files, equipment manuals/warranties, and spare parts/materials; and resolution of any liquidated damages.

SCOPE AND METHODOLOGY

The scope of audit included, but was not limited to, the review of design budgets and costs; the bid and award process; invoice processing and payment; change orders; construction management, architectural, and engineering services; use of major equipment/materials; the closeout process; administration of liquidated damages; and overall project cost accounting and reporting. This included any transactions or activity performed by the campus, construction management firm, and trade subcontractors.

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 that operational and administrative controls are in place and operative. This review emphasized, but was not limited to, compliance with state and federal laws, BOT policies, and Office of the Chancellor and campus policies, letters, and directives.

We focused primarily on the operational and administrative controls in effect for the Student Services Center project with an emphasis on compliance with the CSU *Construction Management Procedures Manual*, SUAM policies and procedures associated with the capital outlay process, the campus capital outlay management plan, and construction contract general conditions. We evaluated the effectiveness of construction management policies and procedures and adequacy of internal controls and processes, and sought opportunities for improvement to further the success of CSU's capital outlay program.

Specifically, we reviewed and tested:

- ▶ Delegation of construction management authority.
- ▶ Review and approval of project design, budget, and funding.
- ▶ Professional services agreements and any extra services changes.
- ▶ Administration of the construction manager and trade subcontractor bid and award process.
- ▶ Contract execution and required contract bonds and insurance.
- ▶ Subcontractors and subcontractor substitutions.
- ▶ Contract and service agreement payment processing.

INTRODUCTION

- ▶ Procurement of major equipment and materials.
- ▶ Performance of required inspections and tests.
- ▶ Review, approval, and tracking of change orders.
- ▶ Direct labor and associated burden charged by the construction manager and trade subcontractors.
- ▶ Construction management and overall project cost accounting and reporting.
- ▶ Construction allowances and contingency balances.
- ▶ Administration of the project closeout process and resolution of any liquidated damages.

OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS AND MANAGEMENT RESPONSES

GENERAL CONTROL ENVIRONMENT

The campus did not submit its August 2007 revised Capital Project Management Plan to Capital Planning, Design and Construction (CPDC) for review by the Certification Review Board (CRB) as required for delegation of capital management authority.

The August 2007 Capital Project Management Plan (CPMP) significantly revised the campus' original plan approved in 2003. Specifically, the revisions included guidelines for the administration of Construction Manager at Risk (CM at Risk) projects.

Executive Order (EO) 672, *Delegation of Capital Outlay Management Authority and Responsibility*, dated July 25, 1997, states, in part, that during the delegation period, the campus may modify the (capital outlay management) plan if it determines that such modification is required to improve operational efficiency. A copy of the modified plan is to be filed with the CRB.

State University Administrative Manual (SUAM) §9002 states that each campus must be certified to qualify for delegation of capital outlay management authority, which is accomplished through a CRB. This board reviews and evaluates campus capital outlay management plans that define the campus organizational and operational structure and expenditure authority. Updated plans shall be submitted every two years and/or when campus operational structure changes are made, which impact the management plan.

The interim executive dean and director of facilities planning stated that she was unaware that the 2007 revision had not been submitted. She further stated that, coincidentally, the campus did submit another revised plan in August 2008, which is currently being reviewed by the CRB.

Failure to submit updated capital outlay management plans to CPDC for review by the CRB increases the risk of misunderstandings and miscommunication regarding campus organizational and operational structure and expenditure authority.

Recommendation 1

We recommend that the campus reiterate to staff that revisions to the CPMP are to be submitted to CPDC for review by the CRB.

Campus Response

California State University (CSU), Chico concurs with the recommendation. Although the campus did not submit a CPMP in August 2007, the campus did submit one in August 2008. The August 2008 CPMP was approved by the CRB. CSU Chico is currently making changes to both the organizational structure and the specific personnel involved with capital project management and has made revisions in practice specific to management of the ongoing Student Services Center project in collaboration with CPDC at the CSU chancellor's office. These changes will require an update to the

August 2008 CPMP. The manager of planning will facilitate production and communication of the updated CPMP. CSU Chico will obtain guidance from CPDC regarding submission and format.

CONSTRUCTION MANAGEMENT AND ACCOUNTING

VALUE-ENGINEERING CREDITS

Value-engineering credits, totaling \$294,000, submitted by the construction manager were not supported by sufficient documentation, and the campus had not developed a procedure to determine the actual savings from the alternative materials, goods, and/or construction methods utilized.

EO 672, *Delegation of Capital Outlay Management Authority and Responsibility*, dated July 25, 1997, states, in part, that the campus shall carry out all construction management activities and complete the project within the approved scope, schedule, and budget.

The interim executive dean and director of facilities planning stated that the failure of the campus to require similar levels of documentation for value-engineering credits, as is required for credit change orders that increase the overall contract of the project and determine actual savings, was due to oversight.

Insufficient supporting documentation for value-engineering credits and failure to determine actual savings increases the risk that errors and irregularities will not be detected and that value-engineering opportunities will not be maximized.

Recommendation 2

We recommend that the campus develop a written procedure requiring sufficient documentation for value-engineering credits and determination of actual project savings to ensure that credits submitted are appropriate and accurate and value-engineering opportunities are maximized.

Campus Response

CSU Chico concurs with the recommendation. The manager of construction services will provide a written procedure regarding documentation to support value-engineering credits and determination of actual savings, and will communicate the procedure to construction management staff by February 1, 2010.

LABOR RATE WORKSHEETS

The campus did not request hourly labor rate worksheets for the construction manager and each trade subcontractor, which prevented the verification of wage rates submitted for change order work.

SUAM §9824.01 states that the contractor shall submit to the construction administrator the hourly labor rate worksheet for its entire payroll, as well as for all of its subcontractors. Having hourly labor rate worksheets will allow a check on wage rates submitted for change order work.

The interim executive dean and director of facilities planning stated that the campus had utilized a third-party vendor to review payroll for the project and mistakenly believed that the construction manager had maintained the hourly labor rate sheets and was verifying wage rates on change order work.

Failure to request and use hourly labor rate worksheets prevents verification of wage rates submitted for change order work that may result in the campus being charged excess labor costs.

Recommendation 3

We recommend that the campus reiterate to staff that hourly labor rate worksheets for the construction manager and each trade subcontractor should be requested and used to verify wage rates submitted for change order work.

Campus Response

CSU Chico concurs with the recommendation. The manager of construction services will issue a memorandum to staff regarding procurement of hourly rate information for the construction manager and trade subcontractors, for use when evaluating change orders by November 30, 2009.

CONSTRUCTION PHASE SERVICES

The CM at Risk contract contained conflicting language regarding construction phase services, and campus oversight of those services was inadequate.

Our review of the CM at Risk contract and subsequent payments to the construction manager for construction phase services disclosed that:

- ▶ The *Contract General Conditions for CM at Risk* §8.03.a-g state, in part, that the construction manager direct cost of work shall include labor, trade contractor cost, materials and equipment, and other miscellaneous cost incurred in the proper performance of the work. In contrast, *Contract General Conditions for CM at Risk* §8.02 allows for the partial payment requested by the construction manager to be the lesser of a percentage of total work completed including a pro-rata portion of the construction manager's fee or the actual cost of the work to the construction manager plus a pro-rata portion of the construction manager's fee. We found that the construction manager consistently billed the campus for all construction phase services

compensation and reimbursable categories on a percentage of work completed, in compliance with §8.02, although their accounting records indicated that actual cost occurred may have been less, which would require an alternative billing method under §8.03. The *Contract General Conditions for CM at Risk* did not indicate which contract provision takes precedent in this situation.

- ▶ Although the construction manager accounting records indicated that the \$843,407 of budgeted construction phase services had been expended, the campus had not received invoices, payroll reports, or receipts to support the construction manager's expenses. We reviewed five months of construction phase services billings, listed under the category general requirements on the monthly progress payment, and found that the amounts billed to the campus did not match the actual expenses incurred by the construction manager. The differences ranged from an over-billing of \$24,270 to an under-billing of \$45,334.

Government Code §13402 and §13403 require a system or systems of internal accounting and administrative controls through which reasonable assurance can be given 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. Elements of a satisfactory system of internal accounting and administrative control include a system of recordkeeping procedures adequate to provide effective accounting control over expenditures and an effective system of internal review.

EO 672, *Delegation of Capital Outlay Management Authority and Responsibility*, dated July 25, 1997, states, in part, that the campus shall carry out all construction management activities and complete the project within the approved scope, schedule, and budget.

The chancellor's office assistant vice chancellor of CPDC stated that the conflicting language in the CM at Risk contract was unintended. The interim executive dean and director of facilities planning stated that the campus was unaware of the need for such oversight since this was the campus' first CM at Risk project.

The absence of adequate contractual guidelines and poor oversight for the compensation of construction phase services increases the risk of the campus being charged excess costs and expenses by the construction manager.

Recommendation 4

We recommend that CPDC revise the *Contract General Conditions for CM at Risk* to ensure that §8.02 and §8.03 provide clear and concise language for the payment of construction manager construction phase services.

Management Response

We agree. In June 2008, CPDC formed a committee of campus representatives and CPDC staff whose charge was to review and revise the CM at Risk Model and Guidelines (this included the

Contract General Conditions). Once the proposed changes were presented to the university facilities officers and subsequently approved, the revisions were implemented in January 2009 and posted to the CPDC Website.

Recommendation 5

We recommend that the campus establish documented procedures for oversight of construction manager construction phase services to ensure that the amounts submitted on monthly progress payments are appropriate, accurate, and properly supported.

Campus Response

CSU Chico concurs with the recommendation. The manager of construction services will issue a memorandum to staff regarding the need to analyze and verify amounts submitted on pay applications for the construction manager's general requirements by November 30, 2009.

MATERIAL SPECIFICATIONS

Contractual material specifications for overage stock were not always met.

Our review of ten material specifications disclosed that the campus had not received the required amount of carpet overage stock for future repairs and replacement.

The *CM at Risk* contract states that the campus should be provided not less than three percent of each type, color, and pattern of carpeting, exclusive of material required to complete installation. This replacement material shall be from the same production run as materials installed.

The interim executive dean and director of facilities planning stated her belief that the inspector of record had verified that the flooring subcontractor had provided the required carpet overage stock.

Failure to properly account for all overage stock increases the risk that those materials may be lost or stolen and unavailable for future repairs and maintenance.

Recommendation 6

We recommend that the campus establish documented procedures to ensure that all overage stock material is properly received, secured, and reconciled to project material specification requirements.

Campus Response

CSU Chico concurs with the recommendation. The manager of construction services will provide a written procedure regarding receipt and documentation of stock materials and communicate the procedure to construction management staff by February 1, 2010.

CHANGE ORDER ADMINISTRATION

APPROVAL

Change orders were not always approved by all required campus personnel.

Our review of all project change orders disclosed that 7 of 20 change orders, with individual change proposals in excess of \$25,000, were not approved by the vice president for business and finance.

The CSU Chico *Operational Plan Outline for Delegation of Capital Outlay Management Authority*, dated February 12, 2003, states that the project managers are authorized to approve field instructions up to \$5,000. All change proposals require the approval of the executive dean and director of facilities planning; in addition, change proposals greater than \$25,000 also require the approval of the vice president for business and finance.

The interim executive dean and director of facilities planning stated that five of the change orders were not signed by the vice president for business and finance because the cost of the construction project was not increased. She further stated that the other two change orders were not signed due to oversight.

Inadequate approval of change orders increases the risk that errors and irregularities will not be detected in a timely manner and may result in excess charges and expenses.

Recommendation 7

We recommend that the campus reiterate to staff that change orders are to be approved by all required campus personnel.

Campus Response

CSU Chico concurs with the recommendation. On January 23, 2009, after the initial audit findings were received, the executive dean at the time issued an email to staff regarding the approval process for change orders. The manager of construction services will reiterate the correct process in the memo to be issued to satisfy Recommendations 3 and 4 by November 30, 2009. Changes to the current process will be incorporated into the updated CPMP.

LABOR RATES AND BURDEN

Administration of labor rates and associated labor burden needed improvement.

Our review of hourly labor rates and the associated labor burden charged by two trade subcontractors disclosed burden components that were explicitly overhead components. Specifically:

- ▶ One trade subcontractor included small tools, equipment, plant, supervision, and home office costs, as well as field subsistence in the base labor rate and as a mark-up to the hourly rate. The inclusion of these components inflated the labor cost for this trade subcontractor by \$67,511.
- ▶ Another trade subcontractor included categories for small tools and supervision, which were explicitly contractual overhead components. The inclusion of these components inflated the labor cost for this trade subcontractor by \$3,072.

The *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects* §6.01.b (4) states that the mark-ups allowed on the direct cost of changed work include all incidental overhead support costs and profit. Such incidental overhead support costs include as-built drawings and small tools.

The *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects* §6.01.b (1) states that the construction manager and trade contractors shall submit a fully detailed breakdown of the cost of every labor classification to be utilized on a proposed change on the hourly labor rate worksheet. The unit cost of labor shall be an accurate accounting of actual costs being paid.

The interim executive dean and director of facilities planning stated that the campus did not receive the hourly labor rate worksheets from the construction manager. She further stated that the construction manager should have been reviewing the labor rates submitted on change orders to the hourly labor rate worksheets before submitting the change orders to the campus.

Failure to review hourly labor rates and the associated labor burden may result in increased project costs.

Recommendation 8

We recommend that the campus:

- a. Pursue recovery of the \$70,583 of burden components that were explicitly overhead components and inflated labor costs for two subcontractors.
- b. Conduct staff training in conjunction with CPDC to ensure that hourly labor rates and the associated labor burden charged by trade subcontractors are appropriate and accurate in accordance with §6.00, Changes in Work, of the *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects*.

Campus Response

- a. CSU Chico concurs with the recommendation. The manager of construction services will direct the CSU Chico project manager for this project to pursue recovery of the burden components that are specifically overhead, along with the inflated labor costs noted. The project manager has already been notified of the campus intent to pursue recovery of these items.

- b. In addition, the manager of construction services will prepare a written procedure regarding the review of labor rates and burden and will communicate the procedure to construction management staff. Training for construction management staff will be conducted in conjunction with CPDC on or before December 20, 2009.

EQUIPMENT COSTS

Equipment rental costs, totaling \$39,700, charged by one trade subcontractor were not supported by sufficient documentation, which prevented the verification of rental costs.

Specifically, documentation was not provided with their change orders to support the length of time the equipment was used and the actual rental cost incurred.

The *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects* §6.01.b (3) states, in part, that the construction manager's costs are allowed for the actual cost of the use of equipment directly required in the performance of the changed work. Further, for equipment owned, furnished, or rented by the construction manager, no cost shall be recognized in excess of the rental rates established by distributors or equipment rental agencies in the locality where the work is performed.

The interim executive dean and director of facilities planning stated that the failure to review equipment rental costs was due to oversight.

Insufficient supporting documentation for equipment rental costs on change orders increases the risk that errors and irregularities will not be detected and may result in excessive equipment rental costs.

Recommendation 9

We recommend that the campus conduct staff training in conjunction with CPDC to ensure that rental costs charged by subcontractors are sufficiently documented and appropriately verified in accordance with §6.01.b of the *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects*.

Campus Response

CSU Chico concurs with the recommendation. The manager of construction services will issue a memorandum to construction management staff regarding evaluation of equipment charges submitted on change orders and provide training in conjunction with CPDC by November 30, 2009.

MARK-UPS

Administration of construction manager and trade subcontractor mark-ups needed improvement.

Our review of overhead and profit mark-ups added to ten project change orders by the construction manager and trade subcontractors disclosed that:

- ▶ The construction manager's calculation of its 10 percent profit and overhead mark-up inappropriately included trade subcontractor profit and overhead, as well as unallowed insurance costs. The inclusion of these items increased the construction manager's mark-up by \$25,934.
- ▶ The contractor controlled insurance program (CCIP) fee was added to the trade subcontractors' change order cost, which already included a 15 percent profit and overhead mark-up. All insurance costs on change orders are explicitly contractual overhead components. As a result, the 4.25 percent CCIP fee increased the cost of these change orders by \$12,595.
- ▶ The construction manager charged an additional 1.15 percent subcontractor performance insurance fee, prior to calculating its 10 percent profit and overhead mark-up. All insurance costs on change orders are explicitly contractual overhead components. As a result, the cost of this additional insurance that should have been included in the construction manager's profit and overhead mark-up was \$3,500.

The *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects* §6.01.b (6) states, in part, that when changed/added work is performed by a trade contractor, the construction manager may add no more than 10 percent mark-up to the trade subcontractor's total direct cost estimate (excluding the trade subcontractors' mark-up). The construction manager's 10 percent mark-up in this case is for profit, overhead, insurance, taxes, indirect supervision, bonds, and warranty.

The interim executive dean and director of facilities planning stated that failure to review the construction manager and trade subcontractor mark-ups was due to oversight.

Failure to review construction manager and trade subcontractor mark-ups increases the risk that errors and irregularities will not be detected and may result in increased project costs.

Recommendation 10

We recommend that the campus:

- a. Pursue recovery of the \$42,029 of increased mark-ups.
- b. Conduct staff training in conjunction with CPDC to ensure that construction manager and trade subcontractor mark-ups are appropriate and accurate in accordance with §6.00, Changes in Work, of the *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects*.

Campus Response

- a. CSU Chico concurs with the recommendation. The manager of construction services has directed the CSU Chico project manager for this project to pursue recovery of the mark-up on mark-ups noted. The project manager has already been notified of the campus intent to pursue recovery of these items.
- b. In addition, the manager of construction services will prepare a written procedure regarding review of mark-ups based on the contract requirements for this particular project and communicate the procedure to construction management staff. Training for construction management staff will be conducted in conjunction with CPDC on or before December 20, 2009.

PROJECT COMPLETION AND CLOSEOUT

The campus did not issue a field instruction or change order to the construction manager when the State Fire Marshal granted a temporary certificate of occupancy on June 2, 2008.

SUAM §9830.02 states that the Trustees reserve the right to occupy all or any part of a project prior to completion of the contract. In this event, the construction administrator shall issue a field instruction to the contractor, noticing the contractor that the campus will be taking beneficial occupancy of all or portions of the project on a specific date at a specific time. A change order must be executed which will document the date, liability, and start of warranty.

The interim executive dean and director of facilities planning stated that the campus was unaware of the need for this procedure since this was the campus' first CM at Risk project.

Failure to issue a field instruction and change order to the construction manager when beneficial temporary certificate of occupancy is granted increases the risk of misunderstandings and miscommunication regarding rights and responsibilities.

Recommendation 11

We recommend that the campus reiterate to staff that a field instruction and change order should be issued to the construction manager when the State Fire Marshal grants a temporary certificate of occupancy.

Campus Response

CSU Chico concurs with the recommendation. The manager of construction services will direct the CSU Chico project managers to issue a change order to document changes to contractual obligations, if any, associated with CSU Chico's occupancy of the facility by February 1, 2010.

APPENDIX A: PERSONNEL CONTACTED

Name

Title

Office of the Chancellor

Tom Kennedy

Barbara Nicholson

Elvyra San Juan

Chief of Architecture and Engineering

Principal Construction Program Manager

Assistant Vice Chancellor,

Capital Planning, Design and Construction

California State University, Chico

Paul J. Zingg

Teresa Arnold

Lorraine Hoffman

Glennnda Morse

Rob Thacker

President

Executive Assistant to the Vice President for Business and Finance

Vice President for Business and Finance

Interim Executive Dean and Director of Facilities Planning

Project Manager/Building Inspector

California State University, Chico

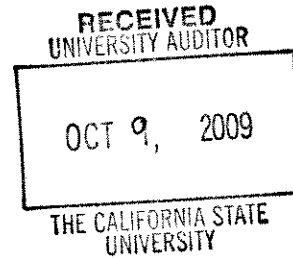
Chico, California 95929-0025

Office of the Vice President for Business and Finance

Office: 530-898-6231 Fax: 530-898-4513



October 7, 2009



Mr. Larry Mandel
University Auditor
Office of the University Auditor
401 Golden Shore, 4th Floor
Long Beach, CA 90802-4210

Dear Mr. Mandel: *LARRY*

We have received the final draft report from the audit of the Student Services Center construction project at CSU, Chico, conducted by Aaron Bolin of the Office of the University Auditor. The exit conference was held on July 22, 2009, and a supplementary finding reviewed in August.

We are encouraged by the summary finding that the audit did not reveal any "significant construction management or internal control problems or weaknesses that would be considered pervasive in their effects on construction activity controls." Attached is the final response from the campus to the recommendations in the final draft report regarding opportunities for improvement.

The memoranda referenced in the response will be issued no later than November 30, 2009. Please contact me if you have any questions.

Sincerely,

Lorraine B. Hoffman
Vice President for Business and Finance

Attachment: Preliminary CSU Chico Response dated July 20, 2009

cc: Aaron Bolin, Office of the University Auditor, CSU Chancellor's office
Elvyra San Juan, Assistant Vice Chancellor, CPDC, CSU Chancellor's Office
Barbara Nicholson, Principal Construction Program Manager, CPDC, CSU Chancellor's Office
Paul Zingg, President, CSU Chico
Sharon Millman, Manager of Planning, CSU Chico
Lynda Miracle, Manager of Construction Services, CSU Chico
Rob Thacker, Project Manager (Student Services Center), CSU Chico

**CONSTRUCTION
CALIFORNIA STATE UNIVERSITY,
CHICO**

**STUDENT SERVICES CENTER
Audit Report 09-21
October 7, 2009**

GENERAL CONTROL ENVIRONMENT

Recommendation 1

We recommend that the campus reiterate to staff that revisions to the CPMP are to be submitted to CPDC for review by the CRB.

Campus Response

CSU, Chico concurs with the recommendation. Although the campus did not submit a Capital Project Management Plan in August 2007, the campus did submit one in August 2008. The August 2008 CPMP was approved by the CRB.

CSU Chico is currently making changes to both the organizational structure and the specific personnel involved with capital project management and has made revisions in practice specific to management of the ongoing Student Services Center project in collaboration with Capital Planning, Design, and Construction at the CSU Chancellor's Office. These changes will require an update to the August 2008 CPMP. The Manager of Planning will facilitate production and communication of the updated CPMP. CSU Chico will obtain guidance from CPDC regarding submission and format.

CONSTRUCTION MANAGEMENT AND ACCOUNTING

VALUE-ENGINEERING CREDITS

Recommendation 2

We recommend that the campus develop a written procedure requiring sufficient documentation for value-engineering credits and determination of actual project savings to ensure that credits submitted are appropriate and accurate and value-engineering opportunities are maximized.

Campus Response

CSU, Chico concurs with the recommendation. The Manager of Construction Services will provide a written procedure regarding documentation to support value engineering credits and determination of actual savings, and will communicate the procedure to construction management staff by February 1, 2010.

LABOR RATE WORKSHEETS

Recommendation 3

We recommend that the campus reiterate to staff that hourly labor rate worksheets for the construction manager and each trade subcontractor should be requested and used to verify wage rates submitted for change order work.

Campus Response

CSU, Chico concurs with the recommendation. The Manager of Construction Services will issue a memorandum to staff regarding procurement of hourly rate information for the construction manager and trade subcontractors, for use when evaluating change orders by November 30, 2009.

CONSTRUCTION PHASE SERVICES

Recommendation 4

We recommend that CPDC revise the *Contract General Conditions for CM at Risk* to ensure that §8.02 and §8.03 provide clear and concise language for the payment of construction manager construction phase services.

Campus Response

CSU, Chico concurs with the recommendation. The campus will respond to revised General Conditions on future projects.

Recommendation 5

We recommend that the campus establish documented procedures for oversight of construction manager construction phase services to ensure that the amounts submitted on monthly progress payments are appropriate, accurate, and properly supported.

Campus Response

CSU, Chico concurs with the recommendation. The Manager of Construction Services will issue a memorandum to staff regarding the need to analyze and verify amounts submitted on pay applications for the construction manager's general requirements by November 30, 2009.

MATERIAL SPECIFICATIONS

Recommendation 6

We recommend that the campus establish documented procedures to ensure that all overage stock material is properly received, secured, and reconciled to project material specification requirements.

Campus Response

CSU, Chico concurs with the recommendation. The Manager of Construction Services will provide a written procedure regarding receipt and documentation of stock materials and communicate the procedure to construction management staff by February 1, 2010.

CHANGE ORDER ADMINISTRATION**APPROVAL****Recommendation 7**

We recommend that the campus reiterate to staff that change orders are to be approved by all required campus personnel.

Campus Response

CSU, Chico concurs with the recommendation. On January 23, 2009, after the initial audit findings were received, the Executive Dean at the time (Glennnda Morse) issued an email to staff regarding the approval process for change orders. The Manager of Construction Services will reiterate the correct process in the memo to be issued to satisfy Recommendations 3 & 4 by November 30, 2009. Changes to the current process will be incorporated into the updated Capital Project Management Plan.

LABOR RATES AND BURDEN**Recommendation 8**

We recommend that the campus:

- a. Pursue recovery of the \$70,583 of burden components that were explicitly overhead components and inflated labor costs for two subcontractors.
- b. Conduct staff training in conjunction with CPDC to ensure that hourly labor rates and the associated labor burden charged by trade subcontractors are appropriate and accurate in accordance with §6.00, Changes in Work, of the *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects*.

Campus Response

- a. CSU, Chico concurs with the recommendation. The Manager of Construction Services will direct the CSU, Chico Project Manager (Rob Thacker) for this project to pursue recovery of the burden components that are specifically overhead, along with the inflated labor costs noted. Turner has already been notified the campus intent to pursue recovery of these items.

- b. In addition, the Manager of Construction Services will prepare a written procedure regarding the review of labor rates and burden and will communicate the procedure to construction management staff. Training for construction management staff will be conducted in conjunction with CPDC on or before December 20, 2009.

EQUIPMENT COSTS

Recommendation 9

We recommend that the campus conduct staff training in conjunction with CPDC to ensure that rental costs charged by subcontractors are sufficiently documented and appropriately verified in accordance with §6.01.b of the *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects*.

Campus Response

CSU, Chico concurs with the recommendation. The Manager of Construction Services will issue a memorandum to construction management staff regarding evaluation of equipment charges submitted on change orders and provide training in conjunction with CPDC by November 30, 2009.

MARK-UPS

Recommendation 10

We recommend that the campus:

- a. Pursue recovery of the \$42,029 of increased mark-ups.
- b. Conduct staff training in conjunction with CPDC to ensure that construction manager and trade subcontractor mark-ups are appropriate and accurate in accordance with §6.00, Changes in Work, of the *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects*.

Campus Response

- a. CSU, Chico concurs with the recommendation. The Manager of Construction Services has directed the CSU Chico Project Manager (Rob Thacker) for this project to pursue recovery of the mark-up-on-mark-ups noted. Turner has already been notified the campus intent to pursue recovery of these items.
- b. In addition, the Manager of Construction Services will prepare a written procedure regarding review of mark-ups based on the contract requirements for this particular project and communicate the procedure to construction management staff. Training for construction management staff will be conducted in conjunction with CPDC on or before December 20, 2009.

PROJECT COMPLETION AND CLOSEOUT

Recommendation 11

We recommend that the campus reiterate to staff that a field instruction and change order should be issued to the construction manager when the State Fire Marshal grants a temporary certificate of occupancy.

Campus Response

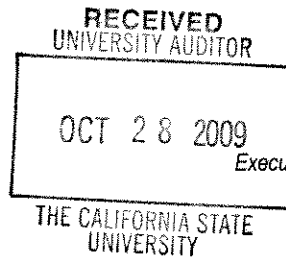
CSU, Chico concurs with the recommendation. The Manager of Construction Services will direct the CSU, Chico Project Managers to issue a Change Order to document changes to contractual obligations, if any, associated with CSU Chico's occupancy of the facility by February 1, 2010.



The California State University
OFFICE OF THE CHANCELLOR

Business and Finance
401 Golden Shore, 5th Floor
Long Beach, CA 90802-4210

www.calstate.edu



Benjamin F. Quillian
Executive Vice Chancellor and
Chief Financial Officer

562-951-4600
Fax 562-951-4971
bquillian@calstate.edu

MEMORANDUM

DATE: October 26, 2009

TO: Larry Mandel
University Auditor

FROM: Benjamin F. Quillian *B.F.*
Executive Vice Chancellor and
Chief Financial Officer

SUBJECT: Audit Report
Student Services Center
California State University, Chico

I am pleased that the overall theme of this audit report continues in a positive vein and that it finds general compliance with established procedures. I have reviewed the report's findings with my Capital Planning, Design and Construction (CPDC) staff, and have attached our response to the auditors' findings and recommendation to CPDC.

BFQ:JS:bn

Attachment

cc: Ms. Elvyra F. San Juan
Mr. Larry Piper
Mr. Thomas M. Kennedy
Mr. James Sowerbrower

CSU Campuses
Bakersfield
Channel Islands
Chico
Dominguez Hills
East Bay

Fresno
Fullerton
Humboldt
Long Beach
Los Angeles
Maritime Academy

Monterey Bay
Northridge
Pomona
Sacramento
San Bernardino
San Diego

San Francisco
San José
San Luis Obispo
San Marcos
Sonoma
Stanislaus

**CONSTRUCTION PROJECT EVALUATION
CALIFORNIA STATE UNIVERSITY, CHICO
STUDENT SERVICES CENTER PROJECT**

CONSTRUCTION PHASE SERVICES

Recommendation:

4. We recommend that CPDC revise the Contract General Conditions for CM at Risk to ensure that §8.02 and §8.03 provide clear a concise language for the payment of construction manager construction phase services.

Response:

We agree. In June 2008, CPDC formed a committee of campus representatives and CPDC staff whose charge was to review and revise the CM at Risk Model and Guidelines (this included the Contract General Conditions). Once the proposed changes were presented to the University Facilities Officers and subsequently approved, the revisions were implemented in January 2009 and posted to the CPDC web site.

THE CALIFORNIA STATE UNIVERSITY
OFFICE OF THE CHANCELLOR



BAKERSFIELD

December 9, 2009

CHANNEL ISLANDS

CHICO

MEMORANDUM

DOMINGUEZ HILLS

EAST BAY

TO: Mr. Larry Mandel
University Auditor

FRESNO

FROM: Charles B. Reed
Chancellor



FULLERTON

HUMBOLDT

SUBJECT: Draft Final Report 09-21 on the *Student Services Center*,
California State University, Chico

LONG BEACH

LOS ANGELES

In response to your memorandum of December 9, 2009, I accept the response as submitted with the draft final report on the *Student Services Center*, California State University, Chico.

MARITIME ACADEMY

MONTEREY BAY

NORTHRIDGE

CBR/amd

POMONA

SACRAMENTO

SAN BERNARDINO

SAN DIEGO

SAN FRANCISCO

SAN JOSÉ

SAN LUIS OBISPO

SAN MARCOS

SONOMA

STANISLAUS