CONSTRUCTION

CALIFORNIA STATE UNIVERSITY,
LONG BEACH

STUDENT RECREATION AND WELLNESS CENTER

Audit Report 11-15
February 10, 2012

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# CONTENTS

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

Introduction................................................................................................................................................... 2
  Background.................................................................................................................................................. 2
  Purpose...................................................................................................................................................... 4
  Scope and Methodology ........................................................................................................................... 5

**OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES**

Project Development and Design ................................................................................................................. 6

Construction Management and Accounting .................................................................................................. 6

Change Order Administration.......................................................................................................................... 7
APPENDICES

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

ABBREVIATIONS

BOT  Board of Trustees
CM at Risk  Construction Manager at Risk
CPDC  Capital Planning, Design and Construction
CRB  Certification Review Board
CSU  California State University
CSULB  California State University, Long Beach
ESA  Extra Service Authorization
EO  Executive Order
GMP  Guaranteed Maximum Price
LEED  Leadership in Energy and Environmental Design
OUA  Office of the University Auditor
PP&FM  Physical Planning and Facilities Management
SUAM  State University Administrative Manual
EXECUTIVE SUMMARY

At its January 2010 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, Long Beach campus and the offices of the construction manager and selected subcontractors from October 10, 2011, through November 4, 2011, and audited the Student Recreation and Wellness 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 Recreation and Wellness 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.

PROJECT DEVELOPMENT AND DESIGN [6]

Extra service authorization letters were not always properly approved.

CONSTRUCTION MANAGEMENT AND ACCOUNTING [6]

Construction manager monthly payment applications were not always properly approved.

CHANGE ORDER ADMINISTRATION [7]

Change order overhead and profit mark-ups applied by one trade subcontractor resulted in an overcharge of $2,320. Specifically, the trade subcontractor erroneously applied a 15 percent mark-up to work performed by a second-tier subcontractor instead of a 7 percent mark-up.
INTRODUCTION

BACKGROUND

In July 2003, the Board of Trustees (BOT) approved a revised campus master plan for California State University, Long Beach (CSULB) that included a recreation center. In February 2007, CSULB students approved an increase in associated student fees to go toward the construction of the Student Recreation and Wellness Center. In March 2008, the BOT approved schematic plans for the CSULB Student Recreation and Wellness Center project at a cost of $66,243,000, with funding from California State University (CSU) revenue bonds, to be paid from student fees.

In April 2007, the campus solicited project bids and selected CW Driver, Inc., as the construction manager. The campus issued the Notice to Proceed on December 19, 2008, and executed an agreement with the construction manager at a construction cost of $46,940,080. The campus received a Certificate of Occupancy on August 6, 2010, and filed a Notice of Completion on April 6, 2011.

The Student Recreation and Wellness Center is a 109,000-square-foot facility that includes a weight and fitness area, a three-court gymnasium and two multi-activity gymnasiums, a multi-purpose activity space for dance and aerobics, an indoor track, a juice bar, a rock climbing wall, an aquatics area and spa, men’s and women’s locker rooms, meeting and lounge space, and administrative offices. The project achieved a Leadership in Energy and Environmental Design (LEED) gold rating. LEED is a third-party certification program begun in 1999 by the United States Green Building Council and is a nationally accepted benchmark for the sustainable “green” design, construction, and operation of buildings.

The CSULB campus managed the Student Recreation and Wellness Center project, and it chose the Construction Manager at Risk (CM at Risk) with Guaranteed Maximum Price (GMP) delivery method. 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 to campus presidents the authority to manage directly state and non-state funded capital outlay projects. The chancellor’s office issues this delegated authority to the campus subject to its compliance with the capital outlay certification procedure. To comply, the campus submits a request for Delegation of Capital Outlay Management Authority to the Certification Review Board (CRB) for review. Then the executive vice chancellor and chief financial officer in the chancellor’s office must approve the request. The campus president is responsible for ensuring that he or she exercises delegated authority in compliance with applicable statutes, regulations, and policies of the BOT; the campus manages capital projects via a process consistent with the provisions of the State University Administrative Manual (SUAM); and the campus has in place appropriate internal controls and processes 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 were caused by 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 the 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 §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.
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 Recreation and Wellness 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 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.
INTRODUCTION

- 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 Recreation and Wellness 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 bid and award process.
- Contract execution and required contract bonds and insurance.
- Subcontractors and subcontractor substitutions.
- Contract and service agreement payment processing.
- Procurement of major equipment and materials.
- Performance of required inspections and tests.
- Review, approval, and tracking of change orders.
- Direct labor and associated burden.
- 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 RESPONSES

PROJECT DEVELOPMENT AND DESIGN

Extra service authorization (ESA) letters were not always properly approved.

We reviewed five ESA letters and found that two were not approved by the associate vice president of physical planning and facilities management (PP&FM) as required by the campus delegation of capital outlay authority plan.

The California State University, Long Beach (CSULB) Delegation of Capital Management Authority Plan, dated July 2008, states, in part, that the campus associate vice president of PP&FM will approve expenditures from in-house construction staff, design professionals, constructability analysis, advertising, inspector of record, and contractor progress payments.

The associate vice president of PP&FM stated that the construction management staff was not completely familiar with the signing authority requirement designated by the campus delegation of authority plan for extra services because it was more stringent than State University Administrative Manual (SUAM) requirements.

The absence of properly approved ESA letters increases the risk of misunderstandings and miscommunication regarding rights and responsibilities.

Recommendation 1

We recommend that the campus reiterate to staff that ESA letters must be approved in accordance with the campus-approved capital outlay authority plan.

Campus Response

We concur with the recommendation. It has been reiterated to all PP&FM directors/managers and design/construction staff that the ESAs must be approved according to authorized dollar thresholds, as contained in CSULB memorandum, dated March 1, 2012, and the campus approved Capital Outlay Management Plan, submitted on September 9, 2011. Corrective action on this item is complete.

CONSTRUCTION MANAGEMENT AND ACCOUNTING

Construction manager monthly payment applications were not always properly approved.

We reviewed 25 monthly payment applications and found that 15 were not approved by the associate vice president of PP&FM as required by the campus delegation of capital outlay authority plan.
The CSULB Delegation of Capital Management Authority Plan, dated July 2008, states, in part, that the campus associate vice president of PP&FM will approve expenditures from in-house construction staff, design professionals, constructability analysis, advertising, inspector of record, and contractor progress payments.

The associate vice president of PP&FM stated that the construction management staff was not completely familiar with the signing authority requirement designated by the campus delegation of authority plan for monthly payment applications because it was more stringent than SUAM requirements.

Failure to approve expenditures in accordance with the campus-approved capital outlay authority plan increases the risk of misunderstandings and miscommunication regarding expenditure authority.

**Recommendation 2**

We recommend that the campus reiterate to staff that payments to construction managers must be approved in accordance with the campus-approved capital outlay authority plan.

**Campus Response**

We concur with the recommendation. It has been reiterated to all PP&FM directors/managers and design/construction staff that payments must be approved according to authorized dollar thresholds, as contained in CSULB memorandum, dated March 1, 2012, and the campus approved Capital Outlay Management Plan, submitted on September 9, 2011. Corrective action on this item is complete.

**CHANGE ORDER ADMINISTRATION**

Administration of trade subcontractor overhead and profit mark-ups needed improvement.

We reviewed overhead and profit mark-ups applied by one trade subcontractor and found an overcharge of $2,320. Specifically, the trade subcontractor erroneously applied a 15 percent mark-up to work performed by a second-tier subcontractor instead of a 7 percent mark-up.

The Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects §6.01.b (5) states that the maximum allowable mark-up of trade contractors on any subcontractor tier shall be 7 percent. In addition, the combined costs (mark-up) for the trade contractors include overhead, profit, taxes, indirect supervision, insurance, bonds, and warranty.

The associate vice president of PP&FM stated that the construction manager submitted change orders with erroneous mark-ups and did not disclose a second-tier subcontractor. He further stated that during the review of these change orders, the error was not discovered by the campus construction management staff, and therefore, the mark-up was processed incorrectly.
Failure to detect errors in trade subcontractor mark-ups increases the risk that errors and irregularities will not be detected and may result in increased project costs.

**Recommendation 3**

We recommend that the campus:

a. Pursue recovery of the $2,320 of overcharges.

b. Conduct staff training to ensure that trade subcontractor mark-ups are appropriate and accurate in accordance with §6.00, Changes in the Work, of the *Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects*.

**Campus Response**

a. The campus pursued the reimbursement for the $2,320 of overcharges. Corrective action on this item is complete.

b. Staff has been directed to review all future change orders for second tier subcontractors to mitigate erroneous subcontractor mark-ups. Corrective action on this item is complete.
**APPENDIX A:**
**PERSONNEL CONTACTED**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td><strong>Office of the Chancellor</strong></td>
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| Elvyra San Juan             | Assistant Vice Chancellor,  
                              | Capital Planning, Design and Construction                           |
| **California State University, Long Beach** |                                                          |
| F. King Alexander           | President                                                            |
| Susan Brown                 | Director, Physical Planning and Construction Management              |
| David Salazar               | Associate Vice President, Physical Planning                           |
|                             | and Facilities Management                                           |
| Lisa Salgado                | Assistant Construction Manager                                       |
| Aysu Spruill                | Director, Internal Auditing Services                                 |
| Mary Stephens               | Vice President, Administration and Finance                           |
| Enrique Robles              | Manager, Capital Construction Projects                               |
| Mark Zakhour                | Senior Construction Manager                                          |
| **Associated Students, California State University, Long Beach** |                                                          |
| Scott Christopherson-Schorn | Associate Director, Facility Operations                             |
| Dave Edwards                | Associate Executive Director                                        |
March 26, 2012

Mr. Larry Mandel
University Auditor
California State University
401 Golden Shore
Long Beach, California 90802

Re: Response to Student Recreation and Wellness Center Construction Audit#11-15

Dear Larry:

Please find enclosed California State University, Long Beach's response to the above report. The campus is committed to addressing and resolving the issues identified in the audit report.

Please let me know if we can provide you with any additional information.

Sincerely,

Mary Stephens
Vice President for Administration and Finance

Enclosure

IA-0292

c: F. King Alexander, President
    Ted Kadowaki, Associate Vice President, Budget & University Services
    David Salazar, Associate Vice President, Physical Planning & Facilities Management
    Aysu Spruill, Director, Internal Auditing Services & Information Security Officer
CONSTRUCTION
CALIFORNIA STATE UNIVERSITY,
LONG BEACH
STUDENT RECREATION AND WELLNESS CENTER
Audit Report 11-15

PROJECT DEVELOPMENT AND DESIGN

Recommendation 1

We recommend that the campus reiterate to staff that ESA letters must be approved in accordance with the campus-approved capital outlay authority plan.

Campus Response

We concur with the recommendation. It has been reiterated to all PPFM Directors/Managers and Design/Construction staff that the Extra Service Authorizations must be approved according to authorized dollar thresholds, as contained in CSULB memorandum, dated March 1, 2012, and the campus approved Capital Outlay Management Plan, submitted on September 9, 2011. Corrective action on this item is complete.

CONSTRUCTION MANAGEMENT AND ACCOUNTING

Recommendation 2

We recommend that the campus reiterate to staff that payments to construction managers must be approved in accordance with the campus-approved capital outlay authority plan.

Campus Response

We concur with the recommendation. It has been reiterated to all PPFM Directors/Managers and Design/Construction staff that payments must be approved according to authorized dollar thresholds, as contained in CSULB memorandum, dated March 1, 2012, and the campus approved Capital Outlay Management Plan, submitted on September 9, 2011. Corrective action on this item is complete.
CHANGE ORDER ADMINISTRATION

Recommendation 3

We recommend that the campus:

a. Pursue recovery of the $2,320 of overcharges.

b. Conduct staff training to ensure that trade subcontractor mark-ups are appropriate and accurate in accordance with §6.00, Changes in the Work, of the Contract General Conditions for CM at Risk with Guaranteed Maximum Price Projects.

Campus Response

a. The campus pursued the reimbursement for the $2,320 of overcharges. Corrective action on this item is complete.

b. Staff has been directed to review all future change orders for second tier subcontractors to mitigate erroneous subcontractor mark-ups. Corrective action on this item is complete.
April 5, 2012

MEMORANDUM

TO: Mr. Larry Mandel
    University Auditor

FROM: Charles B. Reed
      Chancellor

SUBJECT: Draft Final Report 11-15 on the
         Student Recreation and Wellness Center,
         California State University, Long Beach

In response to your memorandum of April 5, 2012, I accept the response as submitted with the draft final report on the Student Recreation and Wellness Center, California State University, Long Beach.

CBR/amd