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ABBREVIATIONS

BOT  Board of Trustees
Cal Poly  California Polytechnic State University
CM  Construction Manager
CM at Risk  Construction Manager at Risk
COC  Certificate of Completion
CPDC  Capital Planning, Design and Construction
CRB  Certification Review Board
CSU  California State University
EO  Executive Order
FPCP  Facilities Planning and Capital Projects
GMP  Guaranteed Maximum Price
ICSUAM  Integrated California State University Administrative Manual
IOR  Inspector of Record
NOC  Notice of Completion
OAAS  Office of Audit and Advisory Services
Science  Center for Science
EXECUTIVE SUMMARY

At its January 2014 meeting, the Board of Trustees directed the Office of Audit and Advisory Services (OAAS) to review construction activity. Construction auditing had been performed by KPMG since fiscal year 1997/98 with coordination from the OAAS. In fiscal year 2008/09, OAAS staff began performing construction audits.

We visited the California Polytechnic State University, San Luis Obispo campus and the offices of the construction manager and selected subcontractors from February 10, 2014, through March 14, 2014, and audited the Center for Science (Science) project focusing on the construction management policies and procedures and internal controls and processes in effect at that time.

In our opinion, the fiscal, operational, and administrative controls in effect for the Center for Science project were sufficient to meet the objectives stated in the “Purpose” section of this report.

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

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

CONSTRUCTION MANAGEMENT AND ACCOUNTING [6]

The campus did not obtain and maintain all inspector of record daily diary reports.

PROJECT COMPLETION AND CLOSEOUT [6]

The campus filed the Notice of Completion for the Science project one day prior to completing the certification of completion.
INTRODUCTION

BACKGROUND

In September 2007, the Board of Trustees (BOT) approved schematic plans for the California Polytechnic State University, San Luis Obispo (Cal Poly) Center for Science (Science) project at a cost of $124,560,000, with funding from a combination of state and non-state sources, including 2006 Higher Education Capital Outlay Bond Fund proceeds, State Public Works Board lease revenue bonds, and donations.

In June 2007, the campus executed an agreement with the architectural firm Zimmer Gunsul Frasca Architects, LLP for services related and incidental to the design and construction of the Science project. It also executed an agreement with the construction manager (CM), Gilbane Building Company, Inc., for pre-construction services, including design and bid phase services. In October 2010, the campus executed a guaranteed maximum price (GMP) agreement with the CM for construction phase services, at a construction cost of $80,597,228. It issued a Notice to Proceed on October 10, 2010, with a projected completion date of May 16, 2013. The State Fire Marshal granted a Certificate of Occupancy on October 10, 2013, and the campus filed the Notice of Completion on January 27, 2014. As of the last date of audit fieldwork, a final reconciliation of expenses and global lump sum settlement were pending.

The Science project is a modern 186,700-square-foot science facility with a multistory steel brace frame structure that adapts to its sloping site. Because of the site’s dramatic grade change, the building is three to six stories in height, depending on the specific location. Utilizing the sloped site, the building has the benefit of three ground floor entrances, maximizing accessibility along the main surrounding pedestrian paths. The building includes large student spaces, department offices, specific lab requirement functions, and program support facilities. The laboratory/classroom sections of the building are clad in brick masonry, and metal panel systems are integrated into the facades to break down the scale of the structure. The central entry with offices and student-oriented uses are clad in a curtain wall system composed of spandrel glass and glazing. The building includes sustainability measures, such as high-energy efficiency, green building materials, daylighting for occupant-oriented areas, indoor air quality enhancements, and low-emitting materials.

The Cal Poly campus managed the Science project, and it chose the Construction Manager at Risk (CM at Risk) with 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 Integrated California State University Administrative Manual (ICSUAM); 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 that 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 ICSUAM guidelines; and the use of systemwide standardized architectural, engineering, and other professional appointment contract forms.

The ICSUAM, in part, contains an overview of all CPDC policies and procedures associated with the capital outlay process. ICSUAM §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. ICSUAM §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 California State University (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.
INTRODUCTION

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 Science 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 ICSUAM.

- Professional appointments are in accordance with statutory requirements, BOT policy, and the ICSUAM; 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 ICSUAM, 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 ICSUAM.

- 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 ICSUAM.

- Group II equipment is properly managed and accounted for, 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 whether fiscal, 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 Science project with an emphasis on compliance with the CSU Construction Management Procedures Manual, ICSUAM 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

CONSTRUCTION MANAGEMENT AND ACCOUNTING

The campus did not obtain and maintain on file all inspector of record (IOR) daily diary reports.

Specifically, we found that IOR daily diary files were only obtained and maintained on file up to April 2013, though the project was not officially completed until January 2014.

Integrated California State University Administrative Manual (ICSUAM) §9792.04, Project Manager’s Responsibility During Construction Phase, states in part that the project manager’s responsibility during the construction phase is to review the construction inspector’s daily diary each day and to develop procedures to initiate and maintain files.

The assistant director of major projects, facilities planning and capital projects (FPCP) stated that the IOR who assumed the position in April 2013 had the missing daily diary files. He further stated that the campus would contact the IOR to retrieve the files.

Incomplete IOR daily diary report files increase the risk of undocumented IOR observations and inspections, which could provide valuable evidence during claims or disputes concerning contractor work performance.

Recommendation 1

We recommend that the campus obtain and maintain on file all IOR daily diary reports.

Campus Response

We concur. The campus will provide training to the appropriate staff for obtaining and maintaining on file all IOR daily diary reports.

Anticipated implementation date: September 30, 2014

PROJECT COMPLETION AND CLOSEOUT

The campus filed the Notice of Completion (NOC) for the Center for Science project one day prior to completing the certification of completion (COC).

ICSUAM §9830, Contract Completion and Acceptance of Construction, states that the process for inspection and acceptance of completed contract work includes a pre-final inspection of construction, which may include preparation of a punch list for any deviations or delinquencies in the work, and a final inspection, which includes completion of the project closeout checklist and certification of completion by the designer/architect, project manager/construction inspector, and construction
administrator. Upon completion, the construction administrator files a Notice of Completion with the county recorder of the county where the project is located.

The FPCP assistant director of major projects stated that the NOC was filed before the completion of the COC due to oversight and a slight misinterpretation of a prior audit report’s recommendation.

Filing the NOC before completing the COC increases the risk of misunderstandings and miscommunication regarding rights and responsibilities.

**Recommendation 2**

We recommend that the campus complete the COC prior to filing the NOC.

**Campus Response**

We concur. The campus will provide training to the appropriate staff for completion of the COC prior to filing the NOC.

Anticipated implementation date: September 30, 2014
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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</tr>
<tr>
<td>Jim Hoffman</td>
<td>Chief of Construction Management</td>
</tr>
<tr>
<td>Elvyra San Juan</td>
<td>Assistant Vice Chancellor, Capital Planning, Design and Construction</td>
</tr>
<tr>
<td><strong>California Polytechnic State University, San Luis Obispo</strong></td>
<td></td>
</tr>
<tr>
<td>Jeffrey D. Armstrong</td>
<td>President</td>
</tr>
<tr>
<td>Ken Delmese</td>
<td>Administrative Analyst, Fiscal Services/Property</td>
</tr>
<tr>
<td>Mark Hunter</td>
<td>Associate Vice President, Facilities</td>
</tr>
<tr>
<td>Perry Judd</td>
<td>Assistant Director of Major Projects, Facilities Planning and Capital Projects (FPCP)</td>
</tr>
<tr>
<td>Lorlie Leetham</td>
<td>Assistant Vice President, Fiscal Services and Auxiliary Reporting</td>
</tr>
<tr>
<td>Dave Marshall</td>
<td>Assistant Director, Internal Control and GAAP</td>
</tr>
<tr>
<td>Joel Neel</td>
<td>Director, FPCP</td>
</tr>
<tr>
<td>Stan Nosek</td>
<td>Interim Vice President, Administration and Finance</td>
</tr>
</tbody>
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May 28, 2014

Mr. Larry Mandel
Vice Chancellor and Chief Audit Officer
Office of Audit and Advisory Services
The California State University
401 Golden Shore Road
Long Beach, CA  90805-4275

Subject: Campus Responses to Recommendations of Incomplete Draft Audit Report Number 14-09,
Center for Science, California Polytechnic State University, San Luis Obispo

Dear Larry:

Enclosed are responses to the recommendations in the incomplete draft of the Center for Science audit report
(Audit Report 14-09). The responses are submitted to you for review and acceptance by the Chancellor. The
responses include a corrective action plan and time frame for completion.

Please direct questions to Brett Holman, Interim Director of Fiscal Services/ University Controller, at
(805)756-7417 (bholman@calpoly.edu).

Sincerely,

Stan Nosek
Interim Vice President for Administration and Finance

cc: J. Armstrong, B. Holman
CONSTRUCTION

CALIFORNIA POLYTECHNIC STATE UNIVERSITY,
SAN LUIS OBISPO

CENTER FOR SCIENCE

Audit Report 14-09

CONSTRUCTION MANAGEMENT AND ACCOUNTING

Recommendation 1

We recommend that the campus obtain and maintain on file all IOR daily diary reports.

Campus Response

We concur. The campus will provide training to the appropriate staff for obtaining and maintaining on file all IOR daily diary reports.

Anticipated implementation date: 9/30/14

PROJECT COMPLETION AND CLOSEOUT

Recommendation 2

We recommend that the campus complete the COC prior to filing the NOC.

Campus Response

We concur. The campus will provide training to the appropriate staff for completion of the COC prior to filing the NOC.

Anticipated implementation date: 9/30/14
June 11, 2014

MEMORANDUM

TO: Mr. Larry Mandel
    Vice Chancellor and Chief Audit Officer

FROM: Timothy P. White
      Chancellor

SUBJECT: Draft Final Report 14-09 on the Center for Science,
         California Polytechnic State University, San Luis Obispo

In response to your memorandum of June 11, 2014, I accept the response as submitted with the draft final report on the Center for Science, California Polytechnic State University, San Luis Obispo.

TPW/amd