CONSTRUCTION

CALIFORNIA POLYTECHNIC STATE UNIVERSITY,
SAN LUIS OBISPO

POLY CANYON VILLAGE

Audit Report 10-15
November 5, 2010

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ABBREVIATIONS

BOT  Board of Trustees
CPDC Capital Planning, Design and Construction
CRB Certification Review Board
CSU California State University
EO Executive Order
FPCP Facilities Planning and Capital Projects
LEED Leadership in Energy and Environmental Design
OUA Office of the University Auditor
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 Polytechnic State University, San Luis Obispo campus and the offices of the design/builder and selected subcontractors from June 28, 2010, through August 6, 2010, and audited the Poly Canyon Village 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 Poly Canyon Village 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.

PRE-CONSTRUCTION AND BID PROCESS [7]

The campus did not ensure that all trade subcontractors required to be on the design-builder’s final expanded list of subcontractors were included on that list.

CHANGE ORDER ADMINISTRATION [8]

Change orders were not always supported by sufficient documentation. In addition, one trade subcontractor charged an inflated labor burden rate for federal unemployment contributions increasing labor costs by $31,780.
INTRODUCTION

BACKGROUND

In March 2003, the Board of Trustees (BOT) approved an educational public-private partnership with Capstone Development Corporation to develop additional student housing at California Polytechnic State University, San Luis Obispo. In July 2003, the California State University (CSU) Housing Proposal Review Committee approved the Student Housing North project, later renamed the Poly Canyon Village project. In September 2003, the BOT approved the schematic plans for the project at a cost of $270,982,000 with funding financed through the CSU Systemwide Revenue Bond Program. However, in January 2004, the project with Capstone Development Corporation was terminated due to changes to the original financing package and business plan that put the university at risk in the event of a default. The campus accepted the partial design plans from that project and proceeded with the Poly Canyon Village as a campus-managed project. In May 2005, the BOT approved the issuance of CSU systemwide revenue bonds in an amount not-to-exceed par value of $334,485,000.

In January 2005, the campus solicited project bids and selected Clark Design/Build of California, Inc., as the design-builder. The campus executed a two-phase design and construction agreement with Clark Design/Build of California, Inc., on June 24, 2005, at a cost of $239,000,000 and issued the Notice to Proceed on June 28, 2005, with a completion date of June 1, 2008, for Phase I and June 1, 2009, for Phase II. Phase I of the project included the first five buildings, one parking structure, the swimming pool, one central plant, and the Brizzolara Creek mitigation and improvements. Phase II included the remaining structures and civil and landscaping design improvements not included in the Phase I construction agreement. The campus filed Notices of Completion on June 11, 2008, for Phase I and June 2, 2009, for Phase II.

The Poly Canyon Village project, designed by MVE Institutional and Niles Bolton Associates, is located on 35 acres of gently sloping land in Poly Canyon, north of Brizzolara Creek. The project consists of nine residential buildings with 618 apartment units containing 2,676 beds. The buildings consist of four-bedroom apartments to accommodate four students, five-bedroom apartments to accommodate five students, and some five-bedroom apartments to accommodate six students (two students share one bedroom). Two parking structures provide 1,926 new parking spaces. The project also includes a swimming pool, volleyball court, basketball courts, and a retail village. In addition, numerous site improvements were made, including the addition of sidewalks, landscaping, roadways, two vehicle bridges, a pedestrian bridge, and an equestrian bridge. The project also included the abatement, demolition, relocation, and construction on other parts of campus of the Rose Bowl Parade float building and several agricultural facilities. Designed to meet the requirements of the Leadership in Energy and Environmental Design (LEED) gold rating, the project included insulated windows, roof overhang shading, high efficiency heating, ventilation, and air-conditioning systems, water-saving plumbing, and drought-tolerant landscaping. 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 design, construction, and operation of high-performance green buildings. LEED recognizes performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.
The California Polytechnic State University, San Luis Obispo campus managed the Poly Canyon Village project, and it chose the Design-Build delivery method. In this method, the design and construction aspects are contracted with a single design-builder who has full responsibility for finalizing and implementing a design that meets or exceeds CSU’s performance expectations. The design-build entity is responsible for the adequacy of design and any construction defects, which allows the CSU to avoid these types of claims and limits errors and omissions change orders. Further, the design-build approach shortens project completion by overlapping the design and construction project phases. This approach also minimizes the university’s need to schedule and coordinate the overall project, although clear specifications of CSU performance requirements and high-quality inspection of work in progress are required to fully realize the benefits of this approach.

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.

**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 Poly Canyon Village 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.

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 Poly Canyon Village 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

PRE-CONSTRUCTION AND BID PROCESS

The campus did not ensure that all trade subcontractors required to be on the design-builder’s final expanded list of subcontractors were included on that list.

We found that two trade subcontractors who were paid in excess of one-half of one percent of the base contract were not included on the final expanded list of subcontractors provided to the campus, as required by the Public Contract Code and the Contract General Conditions. The total value of the two trade subcontracts was $6,834,414.

Public Contract Code §4104 and §4110 state that the specifications prepared for the work or the general conditions under which bids will be received shall set forth that the prime contractor will provide the name and location of each subcontractor who will perform work or labor or render services to the prime contractor in an amount in excess of one-half of one percent of the prime contractor’s total bid. A prime contractor violating any of the provisions of this chapter (the Subletting and Subcontracting Fair Practices Act, Public Contract Code §4100 et seq.) violates his or her contract, and the awarding authority may exercise options, including cancelling the contract or assessing the prime contractor a penalty in an amount of not more than ten percent of the amount of the subcontract involved.

The Contract General Conditions for Design Build Projects §32.05.b states that as soon as each subcontractor is selected, the proposer shall submit the selection to the Trustees by adding it to and resubmitting the expanded list of subcontractors form, which contains the name, address, and the portion of work to be done by each trade subcontractor performing in excess of one-half of one percent of the work.

The associate director of facilities planning and capital projects (FPCP) stated that the campus was unaware that the design-builder had paid two trade subcontractors not listed on the expanded list of subcontractors.

Failure to ensure that the design-builder provides the campus with a complete expanded list of subcontractors results in non-compliance with the Subletting and Subcontracting Fair Practices Act and increases the risk that violations of the act will not be detected.

Recommendation 1

We recommend that the campus:

a. Reiterate to staff and future design-builders that the expanded list of subcontractors must include all subcontractors who will be paid in excess of one-half of one percent of the base contract.

b. Consider assessing a penalty of not more than $683,441 to the design-builder for violation of the Public Contract Code.
Campus Response

We concur.

a. The campus will reiterate to staff and future design-builders that the expanded list of subcontractors includes all subcontractors whose contracts are in excess of one-half of one percent. We will complete this training before the end of February 2011.

b. We do not believe it would be appropriate to assess a penalty in this case, as the campus feels it was a paperwork error and not an intentional omission.

CHANGE ORDER ADMINISTRATION

DOCUMENTATION

Change orders were not always supported by sufficient documentation.

We reviewed 66 project change orders and found one change order in which the design-builder’s submitted costs did not reconcile with the amount paid by the campus. Specifically, the design-builder submitted costs totaling $243,748, but the campus negotiated and paid a lesser amount of $121,782. However, the supporting documentation did not indicate the agreed-upon scope differences between the submitted costs and the reduced costs.

The Contract General Conditions for Design Build Projects §37.01 states, in part, that the design-builder must keep and submit time and materials records verified by the construction inspector to substantiate its costs and to furnish such proof.

The FPCP associate director stated that the campus and design-builder agreed to a price for the change order work requested by the campus; however, the original supporting cost documentation was not revised to reconcile to the negotiated amount paid by the campus to the design-builder.

The lack of sufficient supporting documentation for change orders increases the risk that errors and irregularities will not be detected and excess charges and expenses will be incurred; further, it limits the ability of the Office of the University Auditor to verify these transactions for accuracy.

Recommendation 2

We recommend that the campus reiterate procedures to staff and conduct training to ensure that change orders are supported by sufficient documentation in accordance with §37.00, Changes in the Work, of the Contract General Conditions for Design-Build Projects.
Campus Response

We concur. The campus will reiterate to staff and conduct training to assure the procedures are in accordance with §37.00, Changes in the Work, of the Contract General Conditions for Design-Build Projects. We will complete this training before the end of February 2011.

LABOR RATES AND BURDEN

Administration of trade subcontractor labor rates and associated labor burden needed improvement.

We reviewed hourly labor rates and the associated labor burden charged by two trade subcontractors for change order work and found that one subcontractor charged an inflated labor burden rate for federal unemployment contributions. This increased labor costs by $31,780.

The Contract General Conditions for Design Build Projects §37.01b (1) states that costs are allowed for the actual payroll costs to the builder for labor, field supervision of changed work, and engineering or technical services directly required for the performance of the changed work. Costs include payments, assessments, or benefits required by lawful labor union collective bargaining agreements, compensation insurance payments, liability insurance premiums on labor only, contributions made to the state pursuant to the Unemployment Insurance Code, and for taxes paid to the federal government required by the Social Security Act.

The FPCP associate director stated that the failure to identify the inflated labor burden rate was due to oversight.

Failure to ensure hourly labor rates and associated labor burden are correct may result in increased project costs.

Recommendation 3

We recommend that the campus:

a. Pursue recovery of the $31,780 in inflated labor costs charged by the trade subcontractor and determine, as appropriate, if other change order work performed by the subcontractor was cost-inflated in a similar manner.

b. Conduct staff training to ensure that labor rates and the associated labor burden charged by trade subcontractors are appropriate and accurate in accordance with §37.00, Changes in the Work, of the Contract General Conditions for Design-Build Projects.
Campus Response

We concur.

a. The amount calculated for this overcharge is $37,365, and the campus is in the process of recovering the funds from the design-builder.

b. The campus will conduct staff training to ensure that labor rates and the associated labor burden charged by trade subcontractors are appropriate and accurate in accordance with §37.00, Changes in the Work, of the *Contract General Conditions for Design-Build Projects*. We will complete this training before the end of January 2011.
# APPENDIX A:
## PERSONNEL CONTACTED

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Office of the Chancellor</td>
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<tr>
<td>Elvyra San Juan</td>
<td>Assistant Vice Chancellor, Capital Planning, Design and Construction</td>
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<td></td>
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<tr>
<td>California Polytechnic State University, San Luis Obispo</td>
<td></td>
</tr>
<tr>
<td>Warren J. Baker</td>
<td>President</td>
</tr>
<tr>
<td>Scott Bloom</td>
<td>Project Manager (at the time of review)</td>
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<tr>
<td>Lawrence Kelley</td>
<td>Vice President of Administration and Finance</td>
</tr>
<tr>
<td>Robert Kitamura</td>
<td>Director of Facilities Planning and Capital Projects</td>
</tr>
<tr>
<td>Lorlie Leetham</td>
<td>Director of Fiscal Services</td>
</tr>
<tr>
<td>Joel Neel</td>
<td>Associate Director of Facilities Planning and Capital Projects</td>
</tr>
<tr>
<td>Rick Ramirez</td>
<td>Associate Vice President of Finance</td>
</tr>
</tbody>
</table>
07 December 2009

Mr. Larry Mandel
University Auditor
Office of the University Auditor
The California State University
401 Golden Shore
Long Beach, CA 90802-4275

Subject: Campus Responses to Recommendations of Audit Report Number 10-15, Poly Canyon Village at California Polytechnic State University, San Luis Obispo

Dear Larry:

Enclosed in reply to the 19 November 2010 email from your office, are the Cal Poly responses to the Poly Canyon Village construction project audit report (Audit Report No. 10-15). The responses are submitted to you for review and for acceptance by the Chancellor. The responses include a corrective action plan and time frame for completion.

Please direct questions to Rick Ramirez, Associate Vice President for Finance, at 805-756-2091 (rramirez@calpoly.edu).

Sincerely,

[Signature]

Lawrence Kelley
Vice President for Administration & Finance

cc: R. Glidden, R. Ramirez
CONSTRUCTION
CALIFORNIA POLYTECHNIC STATE UNIVERSITY,
SAN LUIS OBISPO
POLY CANYON VILLAGE
Audit Report 10-15

PRE-CONSTRUCTION AND BID PROCESS

Recommendation 1

We recommend that the campus:

a. Reiterate to staff and future design-builders that the expanded list of subcontractors must include all subcontractors who will be paid in excess of one-half of one percent of the base contract.

b. Consider assessing a penalty of not more than $683,441 to the design-builder for violation of the Public Contract Code.

Campus Response

We concur.

The campus will reiterate to staff and future design-builders that the expanded list of subcontractors includes all subcontractors whose contract is in excess of one-half of one percent. We will complete this training before the end of February 2011.

We do not believe it would be appropriate to assess a penalty in this case as the campus feels it was a paper work error and not an intentional omission.

CHANGE ORDER ADMINISTRATION

DOCUMENTATION

Recommendation 2

We recommend that the campus reiterate procedures to staff and conduct training to ensure that change orders are supported by sufficient documentation in accordance with §37.00, Changes in the Work, of the Contract General Conditions for Design-Build Projects.
Campus Response

We concur. The campus will reiterate to staff and conduct training to assure the procedures are in accordance with §37.00, Changes in the Work, of the Contract General Conditions for Design-Build Projects. We will complete this training before the end of February 2011.

LABOR RATES AND BURDEN

Recommendation 3

We recommend that the campus:

a. Pursue recovery of the $31,780 in inflated labor costs charged by the trade subcontractor and determine, as appropriate, if other change order work performed by the subcontractor was cost-inflated in a similar manner.

b. Conduct staff training to ensure that labor rates and the associated labor burden charged by trade subcontractors are appropriate and accurate in accordance with §37.00, Changes in the Work, of the Contract General Conditions for Design-Build Projects.

Campus Response

We concur.

The amount calculated for this overcharge is $37,365.00 and the campus is in the process of recovering the funds from the Design Builder.

The campus will conduct staff training to ensure that labor rates and the associated labor burden charged by trade subcontractors are appropriate and accurate in accordance with §37.00, Changes in the Work, of the Contract General Conditions for Design-Build Projects. We will complete this training before the end of January 2011.
January 4, 2011

MEMORANDUM

TO: Mr. Larry Mandel
   University Auditor

FROM: Charles B. Reed
       Chancellor

SUBJECT: Draft Final Report 10-15 on the Poly Canyon Village,
         California Polytechnic State University, San Luis Obispo

In response to your memorandum of January 4, 2011, I accept the response as
submitted with the draft final report on the Poly Canyon Village, California
Polytechnic State University, San Luis Obispo.

CBR/amd