



**CALIFORNIA POLYTECHNIC STATE UNIVERSITY,
SAN LUIS OBISPO
UPGRADE UTILITIES**

Final Report

November 2, 1999

**California State University
San Luis Obispo, California
CALIFORNIA POLYTECHNIC STATE UNIVERSITY
UPGRADE UTILITIES
SL-475**

GOAL

The goal of KPMG, LLP's review of the California Polytechnic State University - San Luis Obispo (Cal Poly) - Upgrade Utilities Project was to evaluate the following areas of project delivery:

**CHANGE ORDERS
PROJECT MANAGEMENT SERVICES
CONTRACTOR BILLINGS
CONTRACTING COMPLIANCE
LIQUIDATED DAMAGES
PROJECT ADMINISTRATION PROCESS COMPLIANCE
VERIFICATION OF MAJOR EQUIPMENT AND COMPONENTS
CLOSEOUT DOCUMENTS**

INTRODUCTION

The purpose of this review is to provide the Trustees of California State University with assurance that appropriate procedures and controls are applied to the construction process as identified in the contract documents issued for the Cal Poly Upgrade Utilities Project at the San Luis Obispo campus. Based on our 1998 work on the University's behalf, the Office of the University Auditor revised the scope of the 1999 engagement to include, among other changes, submittal compliance verification for a sampling of major equipment items and building components.

KPMG's work was conducted by reviewing project construction documents between February 26, 1999, and July 30, 1999. The review included:

- Interviews with personnel from the Office of the Chancellor, Division of Capital Planning, Design and Construction (CPD&C), in Los Alamitos and Long Beach
- Discussions with members of the Cal Poly campus facility management (CFM)
- Reviews of project files at CPD&C's office

- Interview with personnel from Owner's Project Management Consultant (Hoffman & Associates)
- Reviews of Hoffman & Associates on-campus project files
- Reviews of project files at Swinerton & Walberg Co.'s (Contractor) office in Los Angeles, California
- Sample auditing of documents for cost and process compliance

This review is based on the information contained within the project files at both the Owner's (for the purposes of this report, Owner shall mean both Cal Poly and CPD&C) and Contractor's offices. Physical inspections and field verifications were not conducted as a part of this review and were specifically excluded from KPMG's work.

CONSTRUCTION PROJECT DESCRIPTION

The project included the conversion of the existing steam heating distribution system to a heated water system, installed in a new underground utility corridor (utilidor). In addition, the project included:

- Chilled water supply and return
- Potable water
- 12KV electrical distribution system complete with transformers, switches and new cables
- New central plant
- Thermal energy storage tank
- 500,000 gallon reservoir
- Building modification to accommodate the utility changes with some demolition and asbestos/lead abatement

Administrative oversight for the project was the responsibility of CPD&C.

Plans and specifications were prepared by Goss Engineering, Inc. The pre-bid construction estimate was \$21,700,000. The Bid Proposal Form issued by California State University included requirements for a total of seven Construction Bid Alternates, two of which were defined as set allowances. The bid proposal provided \$2,000 per day for liquidated damages due to contractor delay.

The project bid date was originally scheduled for May 7, 1996. This date was revised to May 30, 1996. There were seven bidders, with Monterey Mechanical Inc. being the low bidder with a base bid of \$21,380,000. In a June 7, 1996, letter from the Contract Administrator & MWDVBE Coordinator (CPD&C) Monterey Mechanical, Inc. was notified that they had not met Title 5 requirements of the California Code of Regulations and was ineligible for award of the contract. The next lowest bidder, Swinerton & Walberg Company, was awarded the project and a Contract for Construction was executed on June 20, 1996. Notice of Completion (Construction Mgmt.

Form 702.02) was recorded on December 10, 1998, indicating a completion date of December 8, 1998.

CHANGE ORDERS

Findings:

The original agreement entered into by the Owner and Contractor was based on a lump sum amount. KPMG's review included reconciling change orders issued by the Owner to the change orders issued to subcontractors by the Contractor. The Owner had methods to track requests for, causes of, associated costs, and final dispositions of change orders. At the time of this review, the Upgrade Utilities project had approved Change Orders through Number 67 totaling \$4,386,489. This represents an additional 20.2% in project costs beyond the original construction contract amount of \$21,698,000.

CPD&C provided reports reflecting total change orders issued and approved, although this information was not recapped on the actual Change Order form. KPMG confirmed the accuracy of this report and verified that the Contractor's last submitted pay request (No. 26) accurately reflected the Owner's record of approved change orders.

In addition to the data provided by CPD&C, the Owner's project management firm, Hoffman and Associates (Hoffman), provided a detailed Change Order Report (dated December 4, 1998) that included descriptions of each Change Proposal. The report included a listing of the originating document for each Change Order, the Change Proposal/Estimate Numbers, Owner's Change Order Number and the Final Change Order Amount.

The Hoffman report reflected 576 Change Proposals incorporated into 67 Owner Change Orders. Hoffman's report reconciled to within \$50 of the Owner and Contractor's records.

Hoffman furnished documentation that categorized each change proposal by reason for the change. The following is a recap of total changes by reason:

<u>Type of Change</u>	<u>C.O. Totals</u>	<u>% of CO</u>	<u>% of Contract</u>
4.1 Errors/Omissions from the Contract Documents	\$829,702	18.9%	3.8%
4.2 Unforeseeable job site conditions	1,417,241	32.3%	6.5%
4.3 Regulatory agency, bldg. code, safety, health	10,792	.2%	0%
4.4 Originated by the University	1,061,127	24.2%	4.9%
4.5 Unavailability of specified materials	0	0%	0.0%
4.6 Other	968,576	22.1%	4.5%
Not Coded	2,239	0%	0%
Split among multiple codes	96,812	2.3%	.5%
 Total Change Orders	 \$4,386,489	 100.0%	 20.2%
Original Contract Amount	\$21,698,000		

Due to the nature of this project and the age of the campus, KPMG found the resultant changes reasonable. Asbestos abatement accounted for approximately 35% of the total change orders and is included in codes 4.2 and 4.6 above. Code 4.4 also includes \$515,000 for a Classroom that the University accepted as one of the specified bid alternates included in the original bid.

KPMG sampled approximately 54 Change Proposals (CP's) representing \$1,178,687 (27% of total change orders). In our review of the CP's sampled, we found the majority of subcontract proposals were traceable to actual subcontract change orders. We found one exception - in Owner's C.O. #4, CSU and the consulting engineer agreed to revise centrifugal chillers to rotary screw type chillers. The credit offered to the Owner was in the amount of \$12,508. The actual credit realized by the Contractor was in the amount of \$15,265, a \$2,757 credit not realized. As a result of a prior KPMG recommendation, CPD&C has since revised CSU Contract General Conditions to include provisions to recover such savings from negotiations between the Contractor and the subcontractors.

KPMG performed an overview of the final reconciliation of a \$565,000 Allowance for Asbestos Abatement established in the original bid. We further discussed this with Hoffman and Associates and although there is evidence of thorough analysis, Hoffman did not have access to the final accounting documentation we reviewed in Swinerton & Walberg's office. We have prepared the following general recap to determine if asbestos related changes were in line with costs posted to the Contractor's records:

List of All CP's included in Owner Changes for Asbestos Abatement:

<u>CP #</u>	<u>CO #</u>	<u>Amount</u>
280	22	\$ 225,000
286	36	68,777
326	28	150,000
365	39	71,000
433	51	5,465
436	51	1,149
438	51	2,577
444	49	7,235
445	48	297,222
481	66	10,780
506	57	133,010
Original Allowance		<u>565,000</u>
Total Allowance & CO's		<u>\$1,537,215</u>

Actual Cost Analysis Total Posted

Amounts included on Swinerton & Walberg's Cost Detail Report

Harding Lawson Associates - Abatement Consultant	\$ 216,859
Karcher Insulation - Abatement Contractor	<u>1,128,937</u>
Subtotal	\$1,345,796

15% Fee (\$1,345,796 - \$565,000) \$780,796 x 15% 117,119

Other Subs Identified on Hoffman's "Asbestos Allowance Tracking Report"

DJF	\$849 plus 15%	976
Helix	\$2,428 plus 15%	2,792
S & W	\$1,600 plus 15%	1,840
SWI	\$347 plus 15%	<u>399</u>

Total Costs Posted to Job Cost Records \$1,468,922

Difference in Contractor's Costs and Allowance/CO's \$68,293

Change Order 57 included a spreadsheet that listed vendors and invoice amounts for asbestos. KPMG reviewed all change orders issued on behalf of asbestos abatement that included estimates from the two main asbestos contractors - Karcher and Harding Lawson. From this review, we developed the above list of changes that included amounts for abatement and found CSU issued change orders totaling \$1,537,215. Swinerton & Walberg's cost for this work was \$1,468,922, \$68,293 less than CSU approved changes. We feel this credit should be deducted from any balances owed to Swinerton & Walberg.

The Contractor's records cross-referenced the Owner's change order on each subcontract change order. KPMG found the Contractor's records standard in the industry and adequate for Owner review purposes.

Recommendations:

1. We recommend the following:
 - a. The University require a standardized change order log or summary that includes a sequential, running total of changes issued to the construction contract. Alternatively, a running total of previously approved changes should be identified on the change order form. Both of these methods of change order tracking are standard industry practices utilized to provide information necessary to verify the accuracy of contractor's billings. Guidelines and standard forms should be developed for system-wide use wherever feasible.
 - b. Owner should develop standardized change order logs to be utilized by all project management firms wherever feasible. We have found that these essential management tools vary from project to project, depending on the consultants employed.
 - c. Owner and Project Management records should be reconciled and kept in balance throughout project construction.
 - d. CSU should obtain a credit for the abatement overcharge.

Management's Response:

- a. We agree to develop a standard form and guidelines for systemwide use. Form 703.04L, Change Order Log, was included in the Project Administrative Reference Manual, revised September, 1999.
- b. We agree. The duties of the Project Manager or Construction Administrator shall include reconciling change order logs and payment requests. These duties were added to the Project Administrative Reference Manual, revised September, 1999.
- c. We agree, as stated above in Item 1-b.
- d. We agree. We are retaining funds until the asbestos abatement cost has been reconciled. Our investigation indicates the Contractor has not fully paid one subcontractor for work performed. We will require proof of payment, prior to releasing the retained funds.

PROJECT MANAGEMENT SERVICES

Findings:

Hoffman and Associates was selected to provide project management services. A service agreement formalizing this decision was executed on June 18, 1996.

Project Management services were to be provided from July 15, 1996, through June 1, 1998. The agreement was not clear in identifying specific staffing but did include rates for staffing in the not-to-exceed agreement. Included was a Principal Project Manager (\$45/hr), Inspector of Record (\$49.92/hr), Inspector Grade I (\$46.80/hr), Inspector Grade II (\$43.68/hr), Inspector Grade III (\$40.56/hr) and Asst. Inspector/Clerk (\$23.40/hr) at a total cost of \$500,000 or \$21,739 per month over a 23-month period. Also included in the agreement was a provision for a constructability check in the amount of \$3,120. The agreement provided that office expenses were not to exceed \$1,500.

Amendment No. 1 increased the amount allowed for expenses to \$2,500, but did not increase the overall agreement amount. Amendment No. 2 added two additional months of construction management and inspection services in the amount of \$30,000. Amendment No. 3 added two additional months of construction management and inspection services in the amount of \$27,700. Amendment No. 4 extended the service period an additional 46 days for the amount of \$17,000. Amendment No. 5 added an additional 46 days for an additional cost of \$17,000. In total, services were to be provided until December 31, 1998, at a cost of \$589,200 (excluding expenses).

Hoffman and Associates invoiced a total of \$587,631.11 against the base fee (\$1,568.89 less than the not-to-exceed amount for services) and \$2,555.40 for expenses. The \$55.40 overage for expenses is insignificant.

The total project management services represent 2.3% of the original construction contract amount of \$21,698,000, and 2.26% of the final construction contract amount of \$26,084,489 (through Change Order No. 67). The fees are reasonable and within industry averages.

As noted in previous reports, CPD&C procedures include minimum desired qualifications for construction inspectors. These include certification by either ICBO (in general building, structural steel and concrete), or OSHPD, or DSA, or an equivalent level of certification. In the course of discussions with Hoffman and Associates, KPMG determined that the Inspector of Record was registered through ICBO. There was no reference in the service agreement requiring Hoffman and Associates to provide evidence of their personnel's certification.

Recommendations:

2. We recommend:

- a. Standard language be included in Project Management Service Agreements requiring Inspectors of Record to be certified by ICBO, OSHPD, DSA, or to hold an equivalent certification. Additional language should be incorporated requiring that proof of certification for key personnel be filed with CPD&C upon execution of the service agreement.

Management's Response:

- a. We agree, but we have also successfully used engineers and architects as inspectors. Therefore, we would add to the credential requirements "... architect, engineer, or equivalent qualification." This clarification was included in the Project Administration Reference Manual, revised September, 1999. Requiring proof of certification to be included in service agreements will be done by December 31, 1999, and will be included in SUAM.

CONTRACTOR BILLINGS

Findings:

The A/E Consultant is required under the Contract General Conditions (Article 8.02 and 8.05) to review and approve each "Contractor's Pay Request." We found Swinerton & Walberg's pay requests to be appropriately approved by the A/E Consultant, Project Manager, and CPD&C.

Recommendations:

None

CONTRACTING COMPLIANCE

Findings:

KPMG sampled the most significant statutory compliance requirements identified in the contract specifications. The following requirements were tested:

- Bonding: KPMG examined Contractor's Payment and Performance bonds in the amount of \$21,698,000 and found them to be in accordance with Owner's specifications.
- Bid Tabulation Procedures: KPMG found the bid process to be acceptable as outlined in the CSU Contract General Conditions (Article 2.00 Bidding). The Abstract of Bids (CSU Construction Management form 701.01) identified the seven bidders and pricing for the project. KPMG reviewed the original bids and found the Abstract of Bids was completed correctly and included the certification and signature of the person receiving and recording the bids.
- Expanded List of Subcontractors: Per Article 2.06.b of the CSU Contract General Conditions, the low bidder is required to submit an "Expanded List of Subcontractors" (CSU Construction Management form 701.04A) with detailed addresses, phone numbers and license numbers. This "Expanded List of Subcontractors" included nine subcontractors. Upon a detailed review of the Contractor's records, KPMG found that four subcontractors, whose subcontracts exceeded one-half of one percent of the Contractor's total bid, were not listed. It appeared that one of these, W.M. Klorman, was a substitution for Dyk, Inc. KPMG was able to confirm this substitution in a May 27, 1997, letter issued by CPD&C to the Contractor. The remaining three subcontractors omitted from the list were the asbestos consultant, abatement contractor and the energy management control system (EMCS) vendor.

Recommendations:

3. We recommend:
 - a. Owner should require the Contractor to confirm that contractors submitted on the "Expanded List of Subcontractors" are issued subcontracts by the Contractor for work on the project. If deviations exist, Owner shall make certain that any substitutions comply with the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100 *et seq.*).

Management's Response:

- a. We agree to modify our systemwide guidelines to include this recommendation. This will be done by December 31, 1999, and will be included in SUAM.

LIQUIDATED DAMAGES

Findings:

Liquidated damages in the amount of \$2,000 per calendar day were included in the Bid Proposal Form for the Upgrade Utilities project. KPMG reviewed a letter dated December 17, 1998, from CPD&C to the Contractor, indicating 23 days, or \$46,000, for liquidated damages would be assessed in the absence of approved time extensions. In a response from the Contractor dated January 8, 1999, a claim in the amount of \$207,190 was made for design changes relating to the reservoir and requested an additional 25 days.

The Contractor's characterization of the extra work related to the reservoir as "design changes" is erroneous. In actuality, it was not a directed change, but repair work due to leaks. This work falls under section 5.02 of the General Conditions whereby the contractor is required to proceed with work, even though they are not awarded a change order. In completing the work they may track the additional costs and have a right to claim the additional costs through the claims process in 7.01 of the General Conditions.

The leak was detected in September and at that time a letter was issued stating that the contractor was tracking costs since the leak could not be determined to be a result of either design or workmanship. The repair work began at the end of the project in November. In a November 14 letter, the contractor indicated they were directed by CSU to chip out concrete to expose pipe connections between the chamber and reservoir, which had not been a requirement on previous installations. The contractor claimed that this was a scope change. On November 17, the contractor notified the project manager that costs were being tracked for possible recovery. On November 18, the contractor notified CSU of potential owner responsibility for additional costs. The reservoir repair was completed and refilled on December 3, 1998.

Although CSU did not agree, the contractor argued that they had a legitimate claim related to this work. The final change order included the resolution of this matter, as well as a claim for campus damaged flow meters that had to be repaired. The final Change Order did not include dollar values for these items.

In light of the pending dollar value of the claims alleged by the Contractor, KPMG feels CPD&C negotiated in the best interest of CSU in relinquishing the claim for liquidated damages in lieu of the Contractor's claim of \$207,190. As a result of these negotiations, the final project change order was issued in the amount of zero dollars and a 23 day time extension allowing a final completion date of December 8, 1998.

Recommendations:

4. We recommend:
 - a. Documentation for any final settlements should clearly delineate the nature and dollar amounts of negotiated "trade-offs" between the Contractor and CSU.

Management's Response:

- a. We agree. We will add recommended procedures to the Project Administration Reference Manual and SUAM by December 31, 1999.

PROJECT ADMINISTRATION PROCESS COMPLIANCE

Findings:

KPMG selected various areas of review to determine if CPD&C provided adequate controls to assure that construction was performed in accordance with project specifications. As part of this review, KPMG examined procedures for both geotechnical and materials testing. Per Article 2.16 of the General Conditions, the Owner, rather than the contractor, is required to solicit a minimum of three proposals and arrange for outside testing laboratories through a service agreement. This practice is standard industry procedure and designed to assure that firms providing testing services remain independent of the project contractor.

Terratech, Inc. was selected to perform geotechnical and materials inspections and testing during construction. The service agreement also stipulated that services were to include written reports on the testing and inspection of excavation and backfill of the utilidor and underground utilities, cast-in-place concrete, precast concrete, reinforcing steel, structural steel fabrication and assembly, masonry, roofing, waterproofing, and fireproofing.

Terratech, Inc.'s original agreement, dated June 19, 1996, was in the amount of \$150,000 and covered services through June 1, 1998. Due to August, 1997 forecasting of testing and inspection services required to complete the project, Amendment No. 1 was issued August 4, 1997, reducing the agreement by \$60,000, and adjusted the total to \$90,000. Amendment No. 2 further reduced the scope of services by \$27,700, and adjusted the total to a final amount of \$62,300. Invoice sampling of the firm's invoices determined that both the Construction Inspector and CPD&C approved individual invoices. KPMG sampled laboratory invoices and found that tests and pricing were in accordance with the service agreement. Based on a random review of specific tests, we found that the testing specifications and requirements of Volume 2 of the Project Manual were met or exceeded.

On September 14, 1998, Terratech reported verifications and approvals for post tension concrete, field welding, high strength bolting, magnetic and ultrasonic testing of penetration groove welds

and concrete compressive strength testing. An individual certified in three ICBO areas of competence and licensed as a quality control inspector prepared this report. The report indicated that "the work observed was performed in accordance with the approved project plans, ... AWS (American Welding Society) specifications, and the relevant sections of the 1994 Uniform Building Code."

On October 12, 1998, Terratech submitted a final geotechnical report that indicated that all earthwork was "constructed in conformance with the recommendation presented in the above referenced soils reports and the project plans and specifications." This report was reviewed by and certified by a State of California Registered Professional Geotechnical Engineer.

Recommendations:

None

VERIFICATION OF MAJOR EQUIPMENT AND COMPONENTS

Findings:

As part of our evaluation to verify whether equipment and construction components were provided in accordance with project specifications, KPMG reviewed the submittal procedures outlined under the General Conditions, Article 5.04. As is standard throughout the construction industry, the Contractor was responsible for submitting data and specifications for materials and equipment, along with shop drawings if required, to the A/E Consultant. Article 3.11 of the CSU Project Administration Reference Manual states that the Project Manager/Construction Inspector shall assist in the submittal process.

KPMG found that Hoffman and Associates (Project Manager) did not specifically prepare a submittal log but reviewed hard copies of the submittals and utilized submittal logs furnished by Goss Engineering and the Contractor. According to Swinerton & Walberg's log, there were approximately 259 Submittals and Revisions. While in Swinerton & Walberg's office, we were provided all submittal detail and sampled a number of the approved submittals and found that all included appropriate evidence of conformance with CSU specifications.

We further directed our sampling toward major equipment submittals and those indicating multiple submittals. We reviewed the following in greater detail:

Submittal 020 - Chillers 15682: The Contractor offered value engineering via the substitution of York rotary screw chillers for the specified centrifugal chillers. The substitution was approved by the engineer and CPD&C and resulted in a credit from the subcontractor in the amount of \$15,265. (CSU realized only \$12,508 plus 6% credit for fee. This is discussed in the above "Change Order" section of this report.)

Submittal 033 - Heat Exchangers 15762: The original submittal was made on October 18, 1996. The Engineer returned the submittal on November 7, 1996, and requested that the submittal be amended and resubmitted. On March 12, 1997, Goss Engineering furnished a 3-page comment sheet on the heat exchangers that rejected seven pieces of equipment that did not meet specifications. Based on the records available for KPMG review, we were unable to determine whether the contractor revised and resubmitted the equipment items in question and if the items received final approval from Goss Engineering.

Submittal 055 - Underground Steam Distribution Package 15050: The original submittal from the Contractor was dated February 5, 1997. Goss Engineering advised Contractor to "Amend and Resubmit" on February 27, 1997. Upon re-submittal, Goss Engineering approved the submittal on July 30, 1997, but included minor revisions. In November 1997, submittal 055-1 revised submittal 055 to accommodate redesign. The engineer approved the submittal on December 13, 1997, without exceptions.

Submittal 056 - Steam Boiler 15520: Contractor submitted material specifications on February 6, 1997. On February 27, 1997, the submittal was rejected due to the lack of Underwriter's Laboratory, Inc. approval and labeling. The contractor revised and re-submitted in Submittal 056-1 on March 31, 1997. On April 4, 1997, Goss Engineering approved the re-submittal with no exceptions taken.

Submittal 061 - Dry Type Power Transformers 16460: The original submittal was forwarded to the engineer on February 18, 1997. On March 31, 1997, the engineer returned the submittal for the transformers and required that it be revised and re-submitted to address the steel type on the transformers. The manufacturer of the transformers furnished a letter to the distributor indicating that the specific grade of steel used in the manufacturing process complied with section 16460 specifications. The electrical subcontractor submitted 061-1 on April 3, 1997. The engineer approved the re-submittal as presented on April 17, 1997.

Submittal 085-2 - Piping Layout Drawings Bldg. 12 15050: Submittal was reviewed and approved "as noted" by the engineer on July 30, 1997, but called for coordination with the controls vendor.

Submittal 132 - Switches/Boxes/Conduits/Fittings/Support 16110: Submittal was issued to the engineer on May 20, 1998. On May 26, 1998, Goss Engineering approved the submittal with no exceptions.

Submittal 133 - Copper Wire/Wiring Devices/Safety Switch 16120, 16140, 16175: Submittal was issued to the engineer on May 20, 1998. On May 26, 1998, Goss Engineering approved the submittal with no exceptions on the wire and switch submittals. The wiring devices were approved but included minor notations to correct devices.

In addition to reviews by the A/E Consultant, Hoffman and Associates, Inspector of Record and regulatory inspectors, the CSU Construction Mgmt. Form 702.19 requires that the general contractor and subcontractors guarantee that materials/systems have been installed in accordance

with the Plans and Specifications. In a December 8, 1998, memorandum, Hoffman and Associates issued certification that the project had been completed in all respects according to plans and specifications. This document was signed by the project manager, inspector, campus architect and Goss Engineering.

As-built drawings are currently outstanding on this project. See the discussion of Closeout Documents below.

Recommendations:

5. We recommend:

- a. CPD&C follow-up on the final approval of the Heat Exchangers (Submittal No. 033).
- b. Although it is the Contractor's final responsibility to construct the project in accordance with plans and specifications, we recommend that either the A&E firms, or the Project Management firms, maintain a control log of all submittals. Furthermore, we recommend that CPD&C require either the A&E firms or the project management firms to submit a completed Submittal Log that reflects final dispositions of each project submittal.

Management's Response:

- a. We agree. We provided appropriate documentation at the exit conference to indicate the specified and approved product was installed.
- b. We agree to modify our systemwide guidelines to include this recommendation. This was included in the Project Administrative Reference Manual, revised September, 1999, and will be added to SUAM.

CLOSEOUT DOCUMENTS

Findings:

CPD&C maintains a "Stop Notice Log" that identifies all claimants and amounts claimed. The log was found to be adequately maintained. The Project Manager had completed a "Project Closeout Checklist" which indicated the dates that closeout documents were forwarded to the Owner. We found this checklist to be an excellent tool for monitoring the closeout process.

Review of this document revealed that Swinerton & Walberg had not submitted warranties or as-built drawings. Through discussions with CPD&C and Hoffman and Associates, we were informed of the dissatisfaction with the Contractor's attention with this process. We reviewed several letters issued to Swinerton & Walberg regarding their lack of response. At the time of

our May 1999, review, CSU was holding \$52,594 on the project. In addition Swinerton & Walberg had not invoiced \$1.3 Million for retainage. CPD&C have temporarily prohibited Swinerton & Walberg from bidding on any CSU work.

Recommendations:

6. We recommend:

- a. CPD&C continue to manage the project closeout process until all contractual documentation is received.

Management's Response:

- a. We agree. The as-built drawings are now complete, and warranties have been submitted.

CONCLUSION

During a post-construction meeting with campus facilities management personnel, KPMG found a high level of involvement from campus administration even though the project was not delegated. Campus facility management and the Project Management firm were both most cooperative with our efforts.

Change Orders totaling 20.2% of the contract were added to total project costs. While this amount is very high, 35% were due to asbestos abatement and 12% was for Alternate No. 1 not originally included in the base contract, but added as a Change Order. These amounts do not seem excessive - an infrastructure renovation of an aging facility inherently involves unknowns. Errors & Omissions on the part of the Engineering firm accounted for approximately 4% of project costs. KPMG found this percentage to be expected for projects of this type.

Memorandum

To: Mr. Larry Mandel
University Auditor
Office of University Auditor

Date: November 29, 1999

RECEIVED
University Auditor

NOV 29 1999

From: Richard P. West 
Executive Vice Chancellor and Chief Financial Officer
Business and Finance Division

The California State
University

Subject: Audit Report
Upgrade Utilities, Project No. SL-475
California Polytechnic State University, San Luis Obispo

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 our specific comments to the auditors' findings and recommendations follow.

Change Orders

Recommendations:

- 1-a. We agree to develop a standard form and guidelines for systemwide use. Form 703.04L, Change Order Log, was included in the Project Administrative Reference Manual, revised September, 1999.
- 1-b. We agree. The duties of the Project Manager or Construction Administrator shall include reconciling change order logs and payment requests. These duties were added to the Project Administrative Reference Manual, revised September, 1999.
- 1-c. We agree, as stated above in Item 1-b.
- 1-d. We agree. We are retaining funds until the asbestos abatement cost has been reconciled. Our investigation indicates the Contractor has not fully paid one subcontractor for work performed. We will require proof of payment, prior to releasing the retained funds.

Project Management Services

Recommendations:

- 2-a. We agree, but we have also successfully used engineers and architects as inspectors. Therefore, we would add to the credential requirements "...architect, engineer, or equivalent qualification." This clarification

Memo to Mr. Mandel
November 29, 1999
Page Two

was included in the Project Administration Reference Manual, revised September, 1999. Requiring proof of certification to be included in service agreements will be done by December 31, 1999, and will be included in SUAM.

Project Administration Process Compliance

Recommendations:

- 3-a. We agree to modify our systemwide guidelines to include this recommendation. This will be done by December 31, 1999, and will be included in SUAM.

Liquidated Damages

Recommendations:

- 4-a. We agree. We will add recommended procedures to the Project Administration Reference Manual and SUAM by December 31, 1999.

Verification of Major Equipment and Components

Recommendations:

- 5-a. We agree. We provided appropriate documentation at the exit conference to indicate the specified and approved product was installed.
- 5-b. We agree to modify our systemwide guidelines to include this recommendation. This was included in the Project Administrative Reference Manual, revised September, 1999, and will be added to SUAM.

Closeout Documents

Recommendations:

- 6-a. We agree. The as-built drawings are now complete, and warranties have been submitted.

JRC:bn

cc: Mr. J. Patrick Drohan
Mr. W. Clifford Hahn



THE CALIFORNIA STATE UNIVERSITY

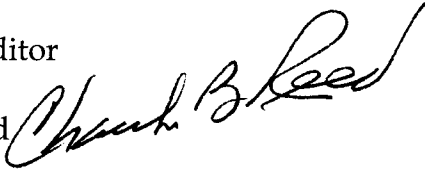
BAKERSFIELD • CHANNEL ISLANDS • CHICO • DOMINGUEZ HILLS • FRESNO • FULLERTON • HAYWARD • HUMBOLDT
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SAN BERNARDINO • SAN DIEGO • SAN FRANCISCO • SAN JOSE • SAN LUIS OBISPO • SAN MARCOS • SONOMA • STANISLAUS

CHARLES B. REED
CHANCELLOR

December 14, 1999

MEMORANDUM

TO: Larry Mandel
University Auditor

FROM: Charles B. Reed 
Chancellor

SUBJECT: KPMG Peat Marwick Draft Final Report on the *Upgrade Utilities Project* at California Polytechnic State University, San Luis Obispo

In response to your memorandum of December 13, 1999, I accept the response as submitted with the draft final report on the *Upgrade Utilities Project*, California Polytechnic State University, San Luis Obispo.

CBR/cw

Enclosure

cc: Richard P. West, Executive Vice Chancellor and Chief Financial Officer
Business and Finance