##### FACILITIES MANAGEMENT

##### DESIGN, PROJECT MANAGEMENT & OPERATIONS

##### CONTRACTING AND PROJECT MANAGEMENT

AUDIT REPORT #16-2001

##### Audit & Advisory Services June 2016

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# Background

In accordance with the UCLA Administration fiscal year 2015-16 audit plan, Audit & Advisory Services (A&AS) conducted an audit of internal controls and procedures governing contract administration and project management within the Design, Project Management & Operations (DPMO) division of the Facilities Management (FM) department. DPMO is responsible for project design, oversight of bidding and award processes performed by Contracts Administration and Project Management for construction projects that are estimated to cost between $50,000 and $3 million, and for other construction projects in excess of $3 million when delegated authority by the Chancellor. DPMO also manages projects on a cost plus fee basis, with a management fee that is typically 4% to 7% of construction costs. During fiscal year 2014-15, the DPMO division closed over 398 projects with total project costs of approximately $31.3 million.

## Purpose and Scope

The primary purpose of the audit was to ensure that DPMO business practices for contracting and construction project management conform to applicable University policies and procedures. In addition, contract award and project management requirements set forth in the University of California (UC) Facilities Manual were reviewed to evaluate compliance.

The scope of the audit included the following activities:

* Bidding and Awarding of Contracts
* Project Management

The review was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing* and included such tests of records, interviews, and other procedures considered necessary to achieve the audit purpose.

#### Summary Opinion

Based on the results of the work performed within the scope of the audit, DPMO’s internal controls and related procedures are generally adequate and effective to help accomplish their business objectives. However, management could further strengthen controls and improve efficiency of operations by implementing the following:

* Ensure that all Job Order Authorizations (Notice-to-Proceed) for projects associated with Unit Price Job Order construction contracts are appropriately signed by the University Representative prior to the start of a project.
* Consider using portable document management software that utilizes digital signatures during the contract and routing process. Current business practices require project managers to manually walk documents to appropriate University employees for approval. Routing documents via email and utilizing electronic signatures could improve efficiency over operations and reduce the amount of time it takes to obtain all the required signatures.
* Ensure that all contractor payment applications and vendor invoices are verified for mathematical accuracy and appropriately approved prior to payment processing.
* Authorize applicable DPMO staff to attend the PAC Query Database (QDB) training class to efficiently and effectively generate queries on the status of outstanding contractor invoices and improve their ability to respond to contractor inquires.

The audit results and corresponding recommendations are detailed in the following sections of the report.

Audit Results and Recommendations

Bidding and Awarding of Contracts

A judgmental sample of five projects was selected from DPMO’s current project list for audit review. Project documentation was obtained from the project managers, project notebooks, or electronically from the SharePoint system (a web-based team collaboration software application from Microsoft). Each sample project’s bidding and award documentation was reviewed for adequacy and compliance with the applicable requirements set forth in the UC Facilities Manual. Project documentation reviewed by A&AS included certification of preparation of bidding documents, permission to request solicitation of contract bids, authorization to legally advertise for bids, recommendation for award, executed agreement(s), and notices to proceed.

Interviews were conducted with FM management and project managers, and the UC Facilities Manual and departmental procedures were referenced, as necessary, to assess compliance.

Awarded agreements were verified as being in the proper form and format, as required by the UC Facilities Manual, such as the “long form” or “unit price job order” (UPJO) agreements. Additionally, agreements were reviewed to verify that they were appropriately executed by both the authorized University representative and the contractor. Each Job Order Authorization (Notice-to-Proceed) tested was verified as being signed and dated by the University representative prior to the start of work.

A. Job Order Authorization (Notice-to-Proceed)

Five of six Job Order Authorization (Notice-to-Proceed) documents tested for UPJO construction contracts were not approved by the authorized University representative. The Notice-to-Proceed instructs the contractor to start work on a specified date, states the number of days available to compete the work, and the projected completion date. As indicated in the UC Facilities Manual, Volume 5, Chapter 8, section 8.9, the Division of Labor Standards Enforcement requires that a copy of the Notice-to-Proceed be included with the required agreement extract. The surety company also requires a copy of the Notice-to-Proceed.

Recommendation: Management should ensure that all Job Order Authorization (Notice-to-Proceed) documents for UPJO projects are properly executed on a timely basis. By doing so, compliance with UC Facilities Manual requirements could be improved, and the official notification to the contractor of specific start/end dates and duration of work would be better assured.

Response: Because the UPJO contracting methodology utilizes project specific authorizations, which are accompanied by project specific schedules, construction start dates and durations are already expressed. Therefore, the Notice to Proceed is not necessary. The Office of General Counsel and Office of the President recently confirmed that the Notice to Proceed is not necessary. The department is currently working with the University’s Contract Administration Office, to revise the UPJO Authorizations accordingly.

Contract Routing and Approval

Interviews were conducted with FM management and project managers to determine departmental business practices and protocols for contract approvals. The UC Facilities Manual and departmental procedures were referenced, as necessary, to assess compliance with these guidelines.

UPJO work order contract approval workflow procedures, including the physical routing of work orders during the approval process, were reviewed for efficiency and effectiveness. DPMO project managers provided walk-through demonstrations of the UPJO work order process. Flowcharts were created to assist A&AS in evaluating the time, effort, and resources required to fully execute UPJOs. Additional information for non-UPJO University construction contract types was obtained and related workflow processes were reviewed to determine their relative efficiency and effectiveness. Selected FM Information Systems personnel were also interviewed regarding the utilization of eSignatures and functionality of related software applications.

1. Portable Document Software

DPMO’s current UPJO contract approval routing process can take up to four weeks to complete, which can result in project start dates being delayed.  The existing process requires extra effort by project managers who must physically walk four printed copies of contract documents to multiple locations to obtain approvals and other required signatures.  By utilizing the current manual approval process to route and monitor contracts and other documentation, construction projects and their related tasks are not being administered as efficiently and timely as possible.

Recommendation: Management should consider using portable document management software that utilizes digital signatures and encryption technology (as described in UC Facilities Manual, Vol. 5, Ch. 8.2.6) in their contract routing and approval process. The software can be utilized to route, sign, and monitor UPJO contracts, and other documents (e.g., invoices), as applicable. This process would be a more efficient use of staff resources and could reduce the amount of time spent routing and monitoring documents. Additionally, the use of the software supports UCLA’s sustainability goals.

Response: Concur. The department’s business model is focused on efficiency. The department has long been a proponent of e-signatures as a means to reduce durations associated with document approval. The department is working with Facilities Management Information Systems to integrate the IBM Tririga software suite with other department software applications. This integration will centralize databases and streamline processes. This will allow the department to utilize electronic signatures for UPJO contracts. The department anticipates integration to be complete by September 2016. This will save considerable time in obtaining signatures and improve overall efficiency.

Project Management

Discussions with DPMO management were conducted to ascertain business practices and controls used for tracking, monitoring and approving budgets and costs from the beginning to the end of a project. The UC Facilities Manual and departmental procedures were referenced, as necessary, to assess compliance. Information from the DPMO project database “dashboard,” including “actuals to estimates” for labor, material, contract amount, costs by cost centers, etc., was reviewed and verified as being adequate for monitoring and workflow purposes. Duration and scheduling templates relating to sequencing of construction trades were reviewed to determine consistency in conjunction with the “scope of services.”

Test work indicated that project budgets, estimates, time charged to the project and work flow are tracked, monitored, and approved from the beginning to the end of the project. DPMO utilizes a project scheduling and duration template to appropriately sequence and coordinate each construction task/trade during the project. Each project is planned in “phases” to ensure consistency of the project management processes. The scheduling and duration template is used in conjunction with the “scope of services” to support the project management process. Each trade is logically sequenced within each project to maintain efficiency and effectiveness of the project construction. The dashboard job history incudes information such as actuals to estimates for labor, material and overall contract amount, costs by DPMO cost center, contracts per vendor/contractor with related purchase order numbers and order dates, etc. DPMO management also runs other dashboard job progress queries and reviews progress with the applicable project manager. In addition, time charged to a project is monitored in the same way as other costs. Ultimately, the project is monitored on an ongoing basis by the Assistant Director and discussed with the project manager as needed.

There were no significant control weaknesses identified in this area.

Project Invoices

Discussions were conducted with DPMO staff regarding departmental procedures and controls over invoice processing. DPMO’s invoice payment and tracking log was reviewed for adequacy, efficiency, and effectiveness. Campus Accounts Payable management was also interviewed to identify availability of electronic payment information for potential use by DPMO staff to track the status of payments. A judgmental sample of 10 vendor payment applications/invoices were selected from a sample of DPMO projects and reviewed to verify that they were in proper form and format, appropriate payment authorization was obtained, mathematically accurate, and processed timely. Invoices were also tested to determine if they were adequately tracked and monitored from the time of receipt to payment.

1. Contractor Payments

Test work indicated calculated amounts due on contractor-prepared payment applications (payment applications) for DPMO project #E4274, Lab School Exterior Paint, do not match amounts indicated as paid in the BruinBuy system. This mismatch results in the contractor currently having an amount still due of $2,986.30 as calculated below:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | CONTRACTOR |  |  |  |  |  |  |
|  |  | PAYMENT |  |  |  |  |  |  |
|  |  | APPLICATIONS |  | BRUINBUY PAYMENTS | | | | |
|  |  |  |  |  |  |  |  |  |
| DESCRIPTION |  | AMOUNT |  | CHECK # |  | DATE |  | AMOUNT |
|  |  |  |  |  |  |  |  |  |
| ORIGINAL JOB ORDER |  | $ 129,197.08 |  | 00010655119 |  | 6/2/2015 |  | $126,377.56 |
| CHANGE ORDER #1 |  | 3,335.68 |  | 00010677812 |  | 7/27/2015 |  | 3,168.90 |
| TOTAL |  | $ 132,532.76 |  | TOTAL |  |  |  | $129,546.46 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| DIFFERENCE: $132, 532.76 - $129,546.46 = $2,986.30 AMOUNT DUE CONTRACTOR | | | | | | | | |

Reconciliation of the amount due in-total to-date, after inspection acceptance with the release of retention, is $132,532.76. The amount paid to-date is $129,564.46. This results in an amount still due the contractor of $2,986.30, as of January 12, 2016.

Recommendation: Management should ensure that all contractor payment applications and vendor invoices are verified for mathematical accuracy and appropriately approved by the project manager prior to payment processing. Each subsequent payment application or invoice received should be reconciled to actual payment(s) in order to identify any over or under payments. By doing so, management could better ensure that University remittances to contractors and vendors are accurate and complete, as well as strengthening its control environment.

Response: Specific to the above example, there was a difference in amounts between the vendor’s payment application and actual payments due / subsequently paid. This was because the vendor submitted a payment application with a mathematical error in the 5% retention amount and the total earned less retention on lines 5 and 6 of the payment application. The mathematical error was found and corrected before payment was made to the vendor – $129,197.08 was the contract amount, $6459.85 was the 5% retention amount, and $122,737.23, was the amount paid for this invoice.

The check amount of $126,377.56, included the amount due, $122,737.23, as well as a payment of $3,640.33. The $3640.33 belongs to a different PO and is just lumped onto the same check, as is customary by our system. That amount is not visible to Facilities Management Finance. Only Corporate Accounts Payable has the ability to see the check/EFT information. Supporting documents are attached. Note the amounts paid for the retention are different. This is also a matter of a secondary payment being made at the same time.

Within DPMO FM, there are checks and balances in place for payment approval where pay applications amounts are reviewed against contract balances. After the project manager reviews and verifies the payment amount, it is forwarded to Facilities Management Accounting where the amount is verified against the balance indicated in the system. Within the current process, overpayments cannot be made unless prior written approval is given by the project manager, director and the Facilities Management accountant.

B. Contractor Payments – Tracking of Invoices

DPMO management receives periodic and ongoing inquiries from contractors requesting the status of invoices submitted for payment. The current process requires that each invoice payment inquiry be researched individually in BruinBuy. Based on this research, DPMO staff then manually updates the invoice tracking log. By not having the ability to generate a real-time paid invoice detail report using the PAC Query Database, DPMO cannot efficiently track and monitor invoice payment activity and status.

Recommendation: Management should send applicable DPMO staff to the PAC Query Database (QDB) training class to learn how to create queries with monthly invoice payment detail to assist them in responding to contractor inquiries. Additionally, utilizing QDB queries on a periodic basis would enable DPMO staff to more effectively monitor invoice activity without the extra effort needed to research invoices individually.

Response: Concur, the department recently provided training for its administrative staff.

Change Orders

The UC Facilities Manual and departmental procedures were reviewed to evaluate compliance with guidelines related to change orders, field orders, and directed change orders. Change orders from the selected sample of DPMO projects were examined to verify that they are adequately documented, and were not prepared and approved after the work was already performed. Change orders were also reviewed to determine if there was any condition that would require a field order to be prepared prior to a change order being executed.

A. Change Orders - Approvals

A judgmental sample of 10 change orders were reviewed and test work indicated change orders are not always approved in a timely manner. The following were noted:

* In four instances, change orders had one or more of the required approvals dated after the work completion date indicated on the change order (after-the-fact approvals).
* Additionally, one of the projects tested had a completion date of October 22, 2014, but had not been started as of the audit fieldwork (October 28, 2015). The contractor has not filed a change order for a time extension and DPMO management has not filed a “directed change order” as provided for in the UC Facilities Manual. A change order is the official post-award contract modification document that is used to revise, add to, or delete previous requirements of the awarded work, including adjusting the contract sum and/or contract time.

Recommendation: Management should ensure that change orders are fully executed (approved) on a timely basis when a modification to an awarded contract is necessary. By doing so, DPMO will comply with the UC Facilities Manual and ensure any contract modifications are appropriately communicated and agreed to by the University and the contractor.

Response: Regarding test samples that had required approval signatures dated after the work completion date, additional project specific information is needed to appropriately respond. It should be noted that while a change order can be issued to extend the contract completion date specifically stating it is a no cost change, General Counsel has advised that this does not need to be done for administrative work, i.e., processing of change orders to acknowledge work already performed can and often is done after the contract completion date. Processing of change orders can also be done after the work has been accepted provided they do not involve performing changes to the scope of work after the date of acceptance. In many cases, field orders are issued to acknowledge a change in the contract terms when the University and contractor do not agree on certain aspects of cost, or schedule impact cannot be determined until the work is actually executed. The corresponding change order cannot be issued until the contractor submits respective supporting documentation and the University subsequently approves. Sometimes this documentation may not be submitted until after the work is substantially complete thus, delaying the issuance of a change order.

Regarding the October 22, 2014 change order, this is in regard to the PS9 Solar installation which is a design build project. The contractor was issued a notice to proceed and began design accordingly. However, because of complications re: applicable governing codes, the design process took much longer than anticipated. During this time the project manager was communicating with the client (Parking Services) regarding the time lags being incurred and their respective options, termination of contract or extending the contract time. Parking Services elected to have the contract time extended. At the time of the audit field work, the contractors’ plans had been submitted to the University Building Official. Prior to the original contract completion date of October 22, 2014, the University had been in an ongoing negotiation with the contractor for an extension of contract time with no compensation to the contractor. That negotiation was successfully concluded and a change order was issued on November 5, 2015.

Management will work closer with project managers to facilitate more timely contractor supporting documentation submittals, as well as to facilitate agreement on cost and/or time, as necessary to decrease the lag in issuing change orders which are tied to field orders.

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