##### FACILITIES MANAGEMENT

##### DESIGN AND PROJECT MANAGEMENT

##### CONTRACTING AND PROJECT MANAGEMENT

AUDIT REPORT #20-602001

##### Audit & Advisory Services

##### July 2020

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# Background

In accordance with the UCLA Administration fiscal year 2019-20 audit plan, Audit & Advisory Services (A&AS) performed an audit of procedures and practices for contracting and project management conducted by the Design and Project Management (DPM) division of the Facilities Management (FM) department. DPM is responsible for project design, oversight of bidding and award processes performed by Contracts Administration staff of the UCLA Capital Programs department, 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 authority for such projects has been delegated by the Chancellor. During fiscal years 2016-17, 2017-18 and 2018-19, the DPM division closed 565 projects with total project costs of approximately $87 million.

## Purpose and Scope

The primary purpose of the review was to ensure that DPM’s organizational structure and controls, and the related systems and procedures surrounding key contracting and construction project management practices conformed to applicable University policies and requirements. The secondary purpose of the review was to evaluate the adequacy and efficiency of internal controls. Where applicable, compliance with contract award and project management requirements set forth in the University of California (UC) Facilities Manual was also reviewed.

The scope of the audit included the following activities:

* Contracting Methods
* DPM Fees
* Project Management System

The review was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing* and included interviews, tests of records, 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, DPM’s organizational structure and controls, and the related systems and procedures surrounding key contracting and construction project management practices 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:

* Management should review the drawings and plans for the group of projects identified during the audit to confirm whether they may have been split to avoid competitive bid requirements.
* Recognizing the current disruption in operations due to COVID-19, when resources are available, management should resume with its efforts to implement an integrated project management system that would help to manage projects more efficiently and provide more timely information on the status of projects.
* Management should continue with its implementation of an electronic signature system for UPJO contracts, which would reduce the amount of manual labor in the current process and save considerable time in obtaining approvals.

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

Audit Results and Recommendations

Contracting Method

The California Building Code and the UC Facilities Manual stipulate the types of construction contracting methods allowed based on the projected total construction costs. For projects between $50,000 to $1,000,000, the use of Unit Price Job Order (UPJO) contracts is an allowable contracting method. An UPJO is a contract for a fixed term or maximum dollar value, whichever occurs first. The contractor is selected based on a competitive bid to perform various separate job orders in the future, during the life of the contract. Projects with projected costs of greater than $1,000,000 are considered major capital projects and must be competitively bid. With the time constraints of construction projects, UPJOs may provide some time savings because the project does not need to be competitively bid out again; however, utilizing this method creates a potential risk that UPJOs could be used for projects that exceed the allowable dollar threshold. One method to bypass existing competitive bidding controls would be to split a construction project into multiple, smaller projects with costs below the competitive bidding threshold of $1,000,000. This practice is prohibited by the University of California. Specifically, the UC Facilities Manual Methods of Contractor Selection, Volume 5, Chapter 1, states, “the requirement for competitive bidding shall not be avoided by splitting a project into smaller units of work…”

Splitting of Projects

A&AS selected DPM projects for audit testing that were closed during fiscal years 2016-17, 2017-18, and 2018-19 to determine whether any of the reviewed projects may have been split to avoid competitive bidding requirements. To enable our analysis, projects that were requested by the same department, for the same location (building, floor), and started within a three-month timeframe were grouped and the project costs were totaled to determine whether they exceeded the competitive bidding threshold of $1,000,000. A judgmental sample of five groups of projects, consisting of 20 individual projects, was selected to verify whether the projects may have been split into smaller units of work. The original plan for audit review was to obtain and review the drawings and plans for each project group to determine whether the separate projects were planned for the same location; however, because of the disruptions and impact of COVID-19 on the department’s operations and staffing, DPM management did not have the resources and time to provide A&AS staff with the requested drawings and plans. As resource constraints were understandable given the unprecedented situation, A&AS discussed these projects and their potential implications with the DPM Director. The Director indicated that some of the projects did appear to have been split; however, he also stated that the drawings and plans needed to be reviewed further to confirm whether noncompliance with University policy occurred in these projects. Table 1 (shown on the following page) summarizes the details of the projects reviewed.

Table 1

Split Projects Review

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **JOB NUMBER** | **REQUESTING DEPT / LOCATION** | **DESCRIPTION** | **JOB DATE OPENED** | **ACTUAL COSTS** |
| E4411 | LIFE  SCIENCES  BLDG | LSB 1st Floor Library Acquisitions TI | 11/22/16 | $664,370 |
| E4412 | LSB 1st Floor Library Cataloguing TI | 11/22/16 | $873,352 |
| E4413 | LSB 2nd Floor Library Metadata TI | 11/22/16 | $634,770 |
| E4421 | E4421 / 94733.01 LSB 1st Floor ADA Improvements | 01/10/17 | $322,247 |
| E4425 | E4425 / 940664.01 LSB 1st Floor West HVAC Upgrade | 01/26/17 | $669,500 |
| E4426 | E4426 / 940669.01 LSB 2nd Floor West HVAC Upgrade | 01/26/17 | $461,010 |
|  |  | **TOTAL PROJECT COSTS** | | **$3,625,248** |
| E4369 | 3820 - FOWLER MUSEUM | Level A - Fowler Archeological DEMO | 03/02/16 | $602,517 |
| E4375 | Level A - Fowler Archeological HVAC | 04/29/16 | $748,175 |
| E4380 | Fowler Archeological Tenant Improvement | 06/28/16 | $734,421 |
|  |  | **TOTAL PROJECT COSTS** | | **$2,085,114** |
| FE942 | 1350 - DENTISTRY | 1st Floor Clinical Lobby Renovation | 06/04/15 | $650,000 |
| FE870 | Oral Surgery Renovation Analysis | 06/04/15 | $593,500 |
| FE941 | Furnish and supply power to temporary space | 06/09/15 | $4,572 |
|  |  | **TOTAL PROJECT COSTS** | | **$1,248,072** |
| FE856 | 3805 – CHANCELLOR’S OFFICE | Murphy Hall 2255/2241 | 12/03/14 | $661,230 |
| FE858 | Murphy Hall 2107 Remodel | 12/03/14 | $408,550 |
| FE855 | Murphy Hall 3149 Remodel | 01/15/15 | $312,988 |
| FE857 | Murphy Hall 3148 Remodel | 01/15/15 | $312,988 |
|  |  | **TOTAL PROJECT COSTS** | | **$1,695,755** |
| FE1195 | 3400 – FACILITIES  ADMINISTRATION | Renovation of Lab 1096 at Young Hall | 09/16/16 | $642,905 |
| FE1196 | Renovation of Lab 1111 at Young Hall | 09/16/16 | $357,095 |
|  |  | **TOTAL PROJECT COSTS** | | **$1,000,000** |

Recommendation: Management should review the drawings and plans for the group of projects identified in table 1 above to confirm whether they may have been split to avoid competitive bid requirements.

Response: The recommendation for this scope area, and specifically, the splitting up of projects to meet the criteria to be classified as a Minor Capital Improvement Project, states that DPM shall review the documentation available for the Projects included Table 1 – Split Projects Review. We have completed this for most of the projects included on the list and have found that most of the projects were legitimately considered separate projects as defined in the UCFM that was current at the time of the projects (the Manual is revised periodically and issued to all the campuses).

There are two areas of clarification that we would like to point out that seem to be inconsistent with the UCFM. First, the Unit Price Job Order (UPJO) contracting method provides that each master agreement is competitively bid and has a maximum of three one-year terms, so the outcome was never to avoid competitively bidding any project. The UPJO contracting method has been approved for use by Facilities Management at UCLA for all Minor Capital Improvement Projects.

Second, on March 15, 2018, the Board of Regents adopted Regents Policy 8013: Policy on Capital Project Matters, which included the new language that further defined that a “project cannot be divided into separate phases for independent consideration. Phased work includes, but is not limited to, using the same contractor to perform similar modifications on multiple buildings, performing multiple projects over a period of years on the same building, In such cases, separate projects or phases will be considered part of the same budget, subject to the stated budget thresholds.”

(see <https://regents.universityofcalifornia.edu/governance/policies/8103.html>)

All of the projects included in Table 1 were started between 2014 and 2017, thus not qualifying for this more restrictive interpretation of what is classified as a Capital Project by UCFM.

Moving forward, this Policy helps ensure that projects are following the terms of the current Regents’ Policy and the UCFM. Additionally, the campus is instituting a new procedure for reviewing all requests for Capital Improvement Projects (both Major and Minor Capital Improvement Projects) using a campus digital portal that all units on campus will be required to submit for review before it can be assigned to a unit having Delegation of Authority to manage projects and contracts.

We do want to clarify portions of the overview of this scope area to provide a more thorough history and understanding of the UPJO contracting method and how it complies with the UCFM in effect during the period of projects reviewed as part of audit. The Public Contract Code and UCFM defines a “project” (any work with a value of $50,000 or greater, including materials and labor), and stipulates allowable contracting methods. Using this as background, the UPJO contracting method was reviewed and approved for use on Minor Capital Improvement Projects by Facilities Management at UCLA by the Office of the President and Office of General Counsel many years ago. The specific UPJO contracts are competitively bid using a scoping document, *“Advertisement to Bidders”* published as part of the UPJO bid documents, and defines the area of use and parameters for the UPJO contracts.

The current scoping document limits the use of this delivery method to the definition of Minor Capital Improvement Projects, as defined in the UCFM. The UPJO contracting method is intended to provide the University with a faster means of executing Minor Capital Improvement Projects, saving time by eliminating the formal “Bid and Award Process”. This is relevant because of the contractual limitations of the advertised UPJO bidding scope. Additionally, during the period of this Audit, a Minor Capital Improvement Project was defined as any project with a value of between $50,000 and $750,000 (the definition was revised in 2019 to $1,000,000).

DPM Fees

DPM Labor Costs

DPM project managers, superintendents, and architects charge an hourly labor burden rate for the time they work on projects. Work order numbers are assigned to projects and DPM employees record their project-related time to work orders utilizing the Kronos timekeeping system. The time recorded in Kronos is linked to Maximo and reflected on a real-time basis, to the Job Management System daily, and to the general ledger monthly. The DPM hourly labor burden rate is calculated based on the DPM employee’s actual hourly pay rate plus a standard burden rate for benefits costs of 135%. Labor rates must be approved by UCLA Academic Planning and Budget (APB) each fiscal year.

Discussions were held with DPM management and the FM Finance Director, and budget submissions and corresponding emails were reviewed to determine whether labor burden rates were properly approved. Based on the review, A&AS confirmed that the labor burden rates for fiscal years 2016-17 through 2019-20 were properly approved by UCLA APB and have been unchanged over the past four fiscal years. In addition, a judgmental sample of six DPM projects was selected for audit testing to evaluate whether labor costs charged for the projects matched those approved by APB. In all six cases examined, it was noted that labor costs were properly charged and matched APB-approved rates.

An overall project budget, which includes a line item for project management labor costs, is prepared at the beginning of the project and shared with the client. Project management labor costs can vary depending on the complexity of the project; however, the typical target is 6% to 7% of total project costs. The overall project costs, including project management time, is monitored throughout the project – at the initial budgeting phase, during construction, and at project close out. The DPM Director and Assistant Directors review monthly job reports and the FM Dashboard, which summarizes the status of projects, total project costs expended-to-date, remaining funds, and project manager labor costs. Any significant delays or budget overages are discussed and corrective actions identified.

There were no significant control weaknesses noted in this area.

Contracts and Materials and Administrative Overhead Fees

In addition to the direct labor charges for DPM project managers, superintendents, and architects, a contracts and materials overhead fee is assessed to recover costs associated with the acquisition, ordering, and receiving of contracts and materials. Each DPM project is assessed an 8.5% overhead fee, which is capped at $15,000 per contract (e.g., UPJO). If multiple UPJOs are used for one project, the overhead fee is assessed for each UPJO individually. Lastly, an administrative management fee of 3.5%, capped at $7,000 per project, is also assessed to recover the labor costs for DPM administrative personnel, such as the DPM Director, Assistant Directors, and Administrative Officer who do not directly charge their time to DPM projects.

A&AS conducted meetings with DPM management and the FM Finance Director, and budget submissions and corresponding emails were reviewed to evaluate assessed overhead rates and fees. In addition, a judgmental sample of six DPM projects was reviewed to determine whether assessed fees matched the approved rates. Based on our review, it was noted that the contracts and materials overhead rate and administrative management fees for fiscal years 2016-17 through 2019-20 were approved by UCLA APB and were unchanged over the past four fiscal years. Additionally, A&AS noted that contract and materials, and administrative management fees that were charged to each of the projects matched the APB-approved rates.

There were no significant control weaknesses noted in this area.

Project Management System

1. Integrated Project Management System

FM’s DPM division does not utilize an integrated project management system to efficiently manage and monitor its construction projects. Currently, separate systems are used for project management, such as Maximo, Kronos, Job Management System, Microsoft Excel, and Microsoft Project. While there are some interfaces among these systems, they are not fully integrated to efficiently provide information on the current status of projects from both a construction schedule and financial perspective. This same issue was noted during the previous audit in FY 2015-16. At that time, DPM purchased a project management system from IBM called Tririga and then attempted to install it; however, it was subsequently determined that Tririga would not meet their needs.

In Fall 2019, DPM began exploring another project management system that was created and utilized by UC San Diego (UCSD). The DPM Director indicated that both he and the Facilities Management AVC agreed that it is a good system. Moreover, the FM IT Director thinks the UCSD system should be easy to integrate with DPM’s existing systems. DPM received the project management software from UCSD in March 2020. FM IT personnel started working on integrating the UCSD software with FM's existing systems. DPM was planning to meet with FM IT to discuss modifications to the software to meet UCLA's needs. The new project management software was initially planned to be implemented by June 2020; however, with the recent impacts of COVID-19, it most likely will be delayed because of the need to focus on more mission critical operations.

Recommendation: Recognizing the current disruption in operations because of COVID-19, when resources are available, management should resume with its efforts to implement an integrated project management system that would help to manage projects more efficiently and provide more timely information to management on the status of projects.

Response: The recommendations for this scope area include continuing our efforts to implement a Project Management System to help manage projects more effectively, and provide timely information about the status of projects.

DPM is currently working on implementing a project management/communication software developed by UCSD’s Facilities Management project management group (their equivalent of DPM), with the goal of having it “go live” before the start of the fall quarter.

1. Contract Routing and Approval

DPM’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.

A&AS provided a recommendation in its previous audit report (16-2001) to implement electronic signatures for UPJO contracts. FM DPM responded at the time that they would implement IBM Tririga software and integrate it with other departmental software applications, which would streamline the processes and allow for electronic signatures for UPJO contracts. DPM anticipated the integration to be complete by September 2016; however, as noted earlier in this report, it was subsequently determined that the Tririga system could not meet DPM’s needs. A different electronic signature system called DocuSign was recently purchased and is in the process of being implemented.

Recommendation: Management should continue with its implementation of an electronic signature system for UPJO contracts, which would reduce the amount of manual labor in the current process and save considerable time in obtaining approvals.

Response: The recommendations for this scope area include continuing with the implementation of an electronic signature system to save time in project processes. DPM and FM Finance will continue to expand the use of DocuSign electronic signatures where applicable. We currently use it for UPJO contracts and change orders, consultant agreements and Certificates of Occupancy. As allowable under the current UCFM and state statute, we will look for other areas to use DocuSign.

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