Audit of Construction Costs
Submitted by DPR Construction Inc.
for the Science Classroom Complex

Report No. 13/14-03

August 8, 2013
Date: August 8, 2013

To: Kenneth Jessell, Chief Financial Officer and Senior Vice President
    John Cal, Associate Vice President, Facilities Management

From: Allen Vann, Audit Director

Subject: Audit of Construction Costs Submitted by DPR Construction Inc. for
the Science Classroom Complex, Report No. 13/14-03

We have completed an audit of costs submitted by DPR Construction Inc. serving as
the Construction Manager for the recently completed Science Classroom Complex
(Academic Health Center 4). As of March 29, 2013, the total guaranteed maximum
price was $38.1 million after deducting $5.6 million of direct purchases. The primary
objective of the audit was to determine whether construction costs billed by the
Construction Manager were appropriate, actually incurred, properly supported, accurate
and in accordance with the articles of the project agreement.

The project was satisfactorily monitored by the University’s Facilities Construction
Department. In addition to the commendable job done by the Project Manager to
oversee project costs, we identified an additional $333,212 in recommended
adjustments, which Management agreed to resolve during the project closeout including
appropriate deductions/credits.

We would like to take this opportunity to express our appreciation for the cooperation
and courtesies extended to us during this audit.

C: Sukrit Agrawal, Chair, BOT Finance and Audit Committee and Committee Member
    Mark B. Rosenberg, University President
    Javier I. Marques, Chief of Staff, Office of the President
    Kristina Raattama, General Counsel
    Sylvia Berenguer, Director of Construction, Facilities Management
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OBJECTIVES, SCOPE, AND METHODOLOGY

Pursuant to our approved annual plan, we have completed an audit of construction costs submitted by the Construction Manager, DPR Construction Inc. for the recently completed Science Classroom Complex (Academic Health Center 4). The primary objective of the audit was to determine whether construction costs billed by the Construction Manager were appropriate, actually incurred, properly supported, accurate and in accordance with the articles of the project agreement.

Our audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing, and included tests of the accounting records and such other auditing procedures as we considered necessary under the circumstances. Audit fieldwork was conducted from March to June 2013.

During the fieldwork we reviewed records maintained by Florida International University (FIU or Owner) and provided by the Construction Manager (CM). This included:

- Applicable University policies and procedures and applicable laws and regulations;
- The agreement between the Owner (FIU) and the Construction Manager;
- Project pay applications, payments support, contracts and any other documents related to the project;
- CM’s electronic project records including:
  1. Project job cost ledger;
  2. Project insurance cost assumptions and data; and
  3. Project payroll records and reconciliation.

We also:

- Interviewed key FIU and CM personnel involved in the project; and
- Reconciled project funding source amounts and usages to FIU’s financial records and Facilities’ project ledgers.

As this was the first internal audit of the construction costs submitted by the DPR Construction Inc., there were no prior internal audit recommendations related to the scope and objectives of this audit requiring follow-up. Similarly there were no other external audit reports issued during the last three years with any applicable prior recommendations related to the scope and objectives of this audit.
BACKGROUND

The Academic Health Center 4 (AHC4) consists of a new 6 floors, 136,076 gross square feet building, which provides specialized teaching science classrooms; flexible multi-disciplinary research spaces; graduate student study rooms; faculty offices and student/faculty gathering spaces. The building also houses laboratories including: Biological Safety Level 2 lab; Chem-Store; Scientific Receiving and Stock Room areas which provides regulatory compliant management for receiving and storage of scientific materials, equipment and chemicals including but not limited to flammable and hazardous chemical, biological and radiological materials.

Project Cost Allocation

As of May 31, 2013, the approved funding for the entire project totaled $57.5 million. The project was funded entirely from PECO\(^1\) funds. In addition to the construction costs billed by the construction manager, the total project cost covers for Architect/Engineer fees, furniture and fixtures, and other professional services. The chart below details the project funding allocation.

![Pie chart showing project funding allocation](image)

**Figure 1 - Approved Funding Allocation (in millions)**

- Construction Manager $45.7
- Architect Fees $3.9
- Other Professional Services $0.5
- Telecommunications $1.5
- Furnishing, Equipment and Artwork $4.7
- Construction Contingency $1.2

\(^{1}\) Florida's Public Education Capital Outlay (PECO) program funds public higher education construction and maintenance projects.
Project Delivery Methodology

This project was delivered using the Construction Manager at Risk contract. Under this method, the CM takes part in the efforts of establishing the Guaranteed Maximum Price (GMP) prior to finalizing the design. The CM acts as the general contractor during construction, assuming the risk of subcontracting the work and guaranteeing the completion of the project within the GMP.

In accordance with the CM agreement, the CM performed the pre-construction services during the design phase and subsequently submitted a GMP proposal. The CM was paid the agreed upon lump sum amount of $247,910 for pre-construction services.

In July 2011, amendment number 1 to the CM agreement established the construction phase GMP for the project. Due to funding constraints, the project construction was rolled out in two phases totaling $42,860,899, subject to change orders. Per the CM agreement, the GMP can only be increased by owner approved change orders. As of March 29, 2013, the total GMP was reduced to $38,099,514 after change orders and deducting direct purchases as detailed below:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Phase I</td>
<td>$17,472,436</td>
</tr>
<tr>
<td>Phase II</td>
<td>$25,388,463</td>
</tr>
<tr>
<td>Subtotal</td>
<td>$42,860,899</td>
</tr>
<tr>
<td>Change Orders</td>
<td>804,324^2</td>
</tr>
<tr>
<td>Direct Purchases</td>
<td>(5,565,709)^3</td>
</tr>
<tr>
<td>Net Total</td>
<td>$38,099,514</td>
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As of March 29, 2013, the construction phase of the project was 98% complete and FIU paid the CM $34,981,944 and withheld $2,257,755 as retainage. It is anticipated that the project will be closed out shortly after the completion of our audit.

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^2 The majority of the change orders resulted from owner’s request for change in project scope.

^3 FIU elected to directly purchase selected materials and supplies, which resulted in a sales tax saving of approximately $341,507 as of June 19, 2013.
FINDINGS AND RECOMMENDATIONS

The project was satisfactorily monitored by the University's Facilities Construction Department. Facilities' Project Manager did a commendable job overseeing project costs including but not limited to project insurance, subcontractor pay applications, change orders, direct purchases and the CM employees hours billed. Nevertheless, we identified further opportunities to reduce costs through the recovery of payments totaling $333,212. The following schedule summarizes our review of construction costs through March 29, 2013:

<table>
<thead>
<tr>
<th>Retainage as of March 29, 2013</th>
<th>$ 2,257,755</th>
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Potential Recoveries:

1. Payroll $ (253,533)
2. Vehicle and Fuel (8,530)
3. Computer Lease (71,149) (333,212)

Net Amount $ 1,924,543

Facilities Management staff is in the process of closing out the project, which will likely result in additional adjustments not necessarily identified above. Details of our review follow.

1. Payroll Charges - $253,533

   a) Employee Benefits Multiplier - $185,299

   Article 9.2.1 of the CM agreement states that: employee holidays, vacation and/or sick leave benefits shall not be considered reimbursable labor burden costs and will be included as part of the CM’s lump sum fee. The article also states that the percentage used for the multiplier may be examined and adjustment will be made for any overstated costs included.

   The CM, however, charged FIU its employee time-off as part of labor burden costs. Our review of the DPR Construction Inc. (DPR)'s pay applications disclosed that they charged the University a 47% employee benefits multiplier (EBE) rate, subject to audit, which includes employee time-off pay of 17%. As of March 29, 2013, DPR's billable payroll volume was $1,089,993. Applying the supportable rate of 30% reduces the amount charged by $185,299.

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4 Documents provided by the DPR Construction Inc. reflect that 17% of the 47% EBE rate includes employee time-off.
b) Holidays - $39,764

The DPR Construction, Inc. charged the University a total of $39,764 for its employees' holiday cost, although employee holidays are not considered reimbursable costs. DPR should have reduced their pay applications to account for the non-reimbursable holiday pay.

c) Part-time Employees - $28,470

The DPR Construction Inc. charged the University $28,470 for the actual cost of its part-time employees assigned to the project. Per article 3.3.5 of the CM Agreement the costs for Construction Manager’s staff at the job site that is not full-time shall be deemed included in the Construction Manager’s lump sum fee.

2. Insurance Charges

a) General Liability Insurance

Article 12.1 of the CM agreement requires the Construction Manager to provide insurance as required by the Conditions of the Contract for the joint benefit of the CM and Owner. Article 20 of the General Terms and Conditions requires the CM to procure and maintain the following insurance policies for the duration of the project:

- Commercial General Liability;
- Auto Liability;
- Workers’ Compensation;
- Professional Liability;
- Builder’s Risk; and
- Pollution, Environmental Impairment and/or Asbestos Pollution, if necessary for the project.

The article also requires that the insurance certificate/policy shall carry an endorsement which names the Florida International University Board of Trustees, Florida International University, the State of Florida, The Florida Board of Governors, and their respective trustees, directors, officers, employees and agents, as additional insured.

As of March 29, 2013, FIU paid the DPR Construction, Inc. $287,407 for General Liability Insurance. As support, the DPR Construction, Inc. provided us with a certificate of insurance and a letter from Willis, an insurance broker and as proof of the General Liability Insurance procurement reflecting $377,576 in premiums for various types of insurance. A review of the insurance certificate shows proof of procurement of the contract required insurances listed above. However, our review of the broker’s letter revealed charges to DPR for $51,853 for additional self-insurance coverage such as crime, employment practices, property and violation of
ordinances for other liabilities assumed by the DPR Construction, Inc. We were informed by FIU’s Project Manager that he has previously alerted DPR that the subject coverage(s) were not required nor would they be reimbursable.

b) Subcontractor Default Insurance

During the construction period, DPR Construction, Inc. provided FIU with Subcontractor Default Insurance (Subguard) in lieu of a surety bond at a rate of $8.90 per $1,000 with the estimated value of the enrolled subcontractor work totaling $25.4 million. Accordingly, DPR billed $225,688 for Subguard insurance through March 29, 2013. As of June 6, 2013, DPR estimated the subcontractor volume as $32.2 million compared to the schedule of values, which reflect a slightly lower amount of $32 million. Regardless, as the project closes out the actual subcontractor volume will need to be determined and will require further adjustment giving due consideration to the following audit observation.

Our examination of the project bid records reflected that insurance was included in the award total for 13 subcontractors, which may have resulted in duplicative charges, as the CM included these same subcontractors’ volume as part of the Subguard coverage. Since the cost for Subguard have not been finalized, DPR should be requested to take this into consideration when submitting its final payment request and demonstrate that there is no duplicate billing for insurance.

3. Vehicle and Fuel - $8,530

Article 9.2.14 of the CM agreement states that if the CM desires to submit a claim related to automobile costs, it must submit a claim for either (a) automobile allowance, or (b) fuel cost, but not both.

The DPR Construction, Inc. charged the University $13,611 for vehicle lease and $8,530 for fuel cost through March 29, 2013. Since the University Project Manager approved the CM’s vehicle lease charges, the fuel cost should not be charged.

4. Computer Lease - $71,149

The DPR Construction Inc. leased computers for all of its employees from a company called OES Equipment (OES). The lease cost is allocated to each project based on the assigned employees’ hours worked. The lease cost is comprised of a monthly flat rate for the laptop and a monthly charge for supplies and maintenance.

A review of the project payroll shows that the DPR Construction, Inc. had an average of seven full-time and two part-time employees assigned to the job during the project period. As of March 29, 2013, the DPR Construction, Inc. charged the University a total of $71,149 in computer related cost. This cost included a monthly computer lease, monthly software, supplies and maintenance fee. It also includes
$2,103 for the cost of a used computer sold to the University for the use of the project’s scheduling/coordination and $277 monthly software, supplies and maintenance fee for this used computer.

When a lease agreement or a purchase order for these computers was requested for our review, we were told from the DPR's Controller/Lead Auditor that neither the agreement nor the purchase order exists. A review of the OES’ corporate information shows that the OES is an equipment rental company wholly owned by the DPR Construction Inc.

A comparison was made between the computer related cost charged to the project and the total computer related costs charged to a similar volume project completed at the University. Based on information obtained from the University’s Facilities Management, it was determined that the computer related cost for the similar project was approximately $26,000.

**Recommendation:**

Prior to closeout and releasing retainage, the Facilities Management Department should take necessary steps to recover and/or otherwise resolve the potential overcharges with the DPR Construction, Inc.

**Management Responses/Action Plan:**

We concur with the recommendation. As reflected in the Audit, Facilities Management is currently in the process of closing out the project, which is anticipated to be completed by January 2014. As part of the close-out process, payroll charges, insurance, vehicle and fuel charges, and computer lease charges, as well as other contractual components, will be fully reconciled and only legally contracted and properly documented expenditures will be paid. The university has withheld $2,257,755 as a retainage amount pending final close-out of the project.