



Date: January 27, 2022

To: Peter Dourlein, Assistant Vice President, University Architect
Ralph Banks, Executive Director, Engineering, Design & Construction
Lorna Gray, Director, Construction

From: *Sara J Click*
Sara J. Click, Chief Auditor

Subject: Internal Audit Report (FY20 - #04)

RE: Hillenbrand Aquatic Center Improvements Construction Contract

In accordance with the approved FY 2020 Audit Plan, we conducted an audit of the Hillenbrand Aquatic Center Improvements construction contract to determine whether financial transactions complied with the terms of the contract. There were no recommendations for improvement to which management was required to provide a plan for corrective action.

In accordance with ABOR policy, a copy of the report will be submitted to the Internal Audit Review Board for review. Should the review board comment on the audit report, I will advise you. Additionally, a copy of the report will be provided to the ABOR Audit Committee. Should the committee comment on the report, I will advise you.

Thank you for your cooperation during the audit process.

Attachment

c: Barry T. Brummund
Jon Dudas
Liesl Folks
Ryan H. Goodell
Laura Todd Johnson
Stacey Lemos
Robert C. Robbins
Lisa N. Rulney
Mary Beth Tucker



Hillenbrand Aquatic Center Improvements Construction Contract

**Report FY20 - #04
January 27, 2022**

Submitted to:

Peter Dourlein, Assistant Vice President, University Architect
Ralph Banks, Executive Director, Engineering, Design and Construction
Lorna Gray, Director, Construction

Copies to:

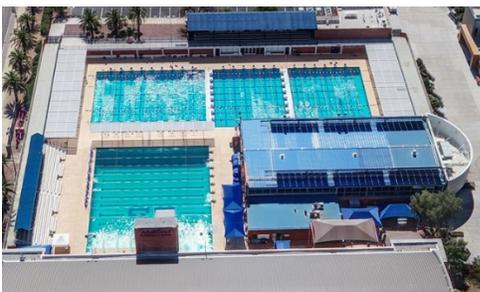
Institutional Internal Audit Review Board
Audit Committee, Arizona Board of Regents
Robert C. Robbins, President
Jon Dudas, Senior Vice President, Senior Associate to the President and
Secretary of the University
Liesl Folks, Senior Vice President for Academic Affairs and Provost
Laura Todd Johnson, Senior Vice President, Legal Affairs and General Counsel
Lisa N. Rulney, Senior Vice President and Chief Financial Officer, Business Affairs
Barry T. Brummund, Chief Information Officer
Ryan H. Goodell, Vice President, Facilities, Operations and Campus Planning
Mary Beth Tucker, Interim Chief Compliance Officer
Stacey Lemos, Assistant Vice President/Comptroller, Financial Management

Hillenbrand Aquatic Center Improvements Construction Contract

Summary

Our audit of the Hillenbrand Aquatic Center Improvements (HACI) construction contract was included in our approved Fiscal Year 2020 Audit Plan. The University of Arizona (University) contracted for construction of the HACI with a construction phase Guaranteed Maximum Price (GMP) of \$10 million. This construction project was part of the approved Campus Master Plan initiative within the Strategic Plan's Institutional Excellence Pillar.

Construction projects have been identified as strategic, high-risk areas for the universities. Charges to the project may not comply with the negotiated contract, resulting in overcharges and cost overruns. Construction administration and project monitoring is provided by Planning, Design & Construction (PD&C). Since 2009, we have completed 20 audits of construction contracts administered by PD&C.



Background: The Hillenbrand Aquatic Center Swimming Pool, Pump/Filtration Room, and Chemical Room underwent a life-cycle replacement due to the pool's structural integrity being severely degraded and the mechanical filtration system corroded and unsafe. The Old Dive Pool was demolished to create space for

a new, longer 70M pool that accommodates multiple bulkheads and provides eight lanes with state-of-the-art technology for practicing and competition. A conditioned electronic control room for scoreboard control was also added. In addition to the new pool, the Kasser Dive Pool received upgrades such as revised access to the dive tower, new railings on either side of the stands, and a new control system for heating the pool.

The contractor was selected through the capital project selection committee process prescribed by the Arizona Board of Regents (ABOR) Procurement Code. CORE Construction, Inc. (CORE) was awarded the Design-Build (D-B) contract that included pre-construction phase services as well as construction phase management.

At its November 2017 meeting, ABOR granted Project Approval for the University's request of \$66 million for four Intercollegiate Athletics projects. The approval included the HACI project with a budget of \$15 million that was funded with System Revenue Bonds.

Notice to Proceed was issued April 2, 2018, for initial construction work. The contract called for substantial completion by December 31, 2018, for all work except the Kasser Pool Upgrades, for which a substantial completion date was initially established as August 1, 2019, and revised by change order to September 6, 2019. PD&C was

Hillenbrand Aquatic Center Improvements Construction Contract

satisfied with the quality of the work and issued a *Certificate of Substantial Completion* on December 31, 2018, for the HACI construction work and September 6, 2019, for the Kasser Pool Upgrades.

The HACI project had an initial construction phase GMP of \$6,554,581 plus one amendment totaling \$2,935,381 and five change orders totaling \$597,460, bringing the total construction phase final GMP to \$10,087,422. See the chart below for details:

| GMP Description | Amount |
|--|---------------------|
| Initial Pre-Construction Phase Fee | \$854,341 |
| <i>Amendments 1 and 2</i> | 427,261 |
| Final Pre-Construction Phase Fee | \$1,281,602 |
| Initial Construction Phase GMP | \$6,554,581 |
| <i>Amendment 2</i> | 2,935,381 |
| <i>Change Orders 1 through 5</i> | 597,460 |
| Final Construction Phase GMP | \$10,087,422 |
| Total Pre-Construction and Construction GMP | \$11,369,024 |

Audit Objectives: Our audit objective was to determine whether financial transactions relating to construction activity complied with the terms of the contract. Based on prior audit results and our risk assessment of this contract, our audit objectives included whether:

- the GMP was paid in full and did not exceed the agreed upon GMP amount;
- contractor billings agreed with actual costs incurred;
- General Conditions and General Requirements (GC&GR) expenses, such as direct labor, equipment rental, and job-owned equipment costs, were adequately supported and charged to the project in accordance with contract provisions;
- change orders were priced according to the contract terms and represented an actual change in scope;
- contingency funds were managed in accordance with contract requirements;
- project close out documents were complete, and overhead, profit, and fees were applied as specified by the construction contract; and
- opportunities for process improvements exist.

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Scope: Our audit of the HACI project included all construction phase expenses paid to the D-B contractor from the start of the construction phase in April 2018 through the final payment application processed in November 2019.

We relied on PD&C's expertise for the construction technical aspects and, therefore, our scope of work did not include any on-site inspections to assess construction methods, materials, or compliance with design specifications. We also did not include any costs associated with the project that were not part of the D-B construction phase contract, including architectural fees or PD&C internal costs.

Methodology: Based on the audit risk assessment, selected sections of the Arizona University System Standard Construction Audit Program were utilized to achieve our stated audit objectives and included:

- preparing a control schedule of the initial and final GMP amounts, including all budget adjustments and total amounts paid, to ensure payments to the D-B contractor did not exceed the approved total GMP;
- reconciling the job cost ledger against the final pay application line item amounts;
- comparing direct labor time reported to contractually established labor rates;
- examining equipment rental costs and the rent vs. buy analysis;
- reviewing job-owned equipment logs for completeness;
- recalculating all five change orders with a total value of \$597,460 to ensure accuracy;
- examining supporting documentation for all five change orders to ensure the amounts agreed to subcontractor quotes, changes were reasonable, and indirect costs were accurately calculated;
- reviewing D-B contractor contingency fund expenditures to ensure that all uses of the contingency fund were made in accordance with the contract;
- examining project close-out documents for completeness; and
- discussing the project with representatives from PD&C and CORE.

Hillenbrand Aquatic Center Improvements Construction Contract

Conclusions: Based on our audit work, we found that the financial transactions relating to construction activity generally complied with the terms of the contract. The agreed upon GMP was paid in full; however, per the contractor's job cost records, actual total construction costs exceeded the GMP. The excess costs were absorbed by the contractor and not charged to the project. Contractor pay applications agreed with actual costs incurred, and GC&GR expenses, such as direct labor, rental equipment, and job-owned equipment, were adequately supported and charged to the project in accordance with contract provisions. Change orders represented actual changes in scope and were generally priced accurately. Additionally, contingency funds were sufficiently managed, and required project closeout documents were complete. The audit identified minor issues in change order pricing and indirect construction cost billings that were discussed verbally with management during the audit.

According to the Institute of Internal Auditors International Professional Practices Framework, an organization is expected to establish and maintain effective risk management and control processes. These control processes are expected to ensure, among other things, that:

- the organization's strategic objectives are achieved;
- financial and operational information is reliable and possesses integrity;
- operations are performed efficiently and achieve established objectives;
- assets are safeguarded; and
- actions and decisions of the organization are in compliance with laws, regulations, and contracts.

Our assessment of these control objectives as they relate to the HACI construction contract is on the following page.

Hillenbrand Aquatic Center Improvements Construction Contract

| General Control Objectives | Control Environment | Audit Result | |
|--|--|--------------|------|
| | | No. | Page |
| Achievement of the Organization's Strategic Objectives | | | |
| <ul style="list-style-type: none"> Strategic objectives were met by supporting the Campus Master Plan initiative within the Strategic Plan's Institutional Excellence Pillar. | Reasonable to Strong Controls in Place | | |
| Reliability and Integrity of Financial and Operational Information | | | |
| <ul style="list-style-type: none"> The GMP was paid in full and did not exceed the agreed upon GMP amount. | Reasonable to Strong Controls in Place | | |
| <ul style="list-style-type: none"> Contractor billings agreed with actual costs incurred. | Reasonable to Strong Controls in Place | | |
| <ul style="list-style-type: none"> GC&GR expenses were adequately supported, accounted for, and charged in accordance with contract provisions. | Reasonable to Strong Controls in Place | | |
| <ul style="list-style-type: none"> Change orders represented actual changes in scope and were priced and approved according to contract requirements. | Reasonable to Strong Controls in Place | | |
| Effectiveness and Efficiency of Operations | | | |
| <ul style="list-style-type: none"> Contingency funds were sufficiently managed in accordance with contract requirements. | Reasonable to Strong Controls in Place | | |
| Safeguarding of Assets | Not Applicable | | |
| Compliance with Laws and Regulations | | | |
| <ul style="list-style-type: none"> Project close-out documents were complete and complied with ABOR policy. | Reasonable to Strong Controls in Place | | |

We appreciate the assistance of both PD&C and CORE representatives during the audit.

Deborah S Corcoran

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