



# INTERNAL AUDIT REPORT



Source: Port of Seattle

**Operational Audit - Capital  
Concourse D Hardstand Holdroom  
April 2017 – June 2019**

**Issue Date: September 3, 2019  
Report No. 2019-15**



**INTERNAL AUDIT**

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## Executive Summary

Internal Audit (IA) completed an audit of the Concourse D Hardstand Holdroom (Holdroom) for the period April 2017 through June 2019. The audit was performed to assess the quality of the Port's monitoring of the Project to assure it met the Port's project management standards.

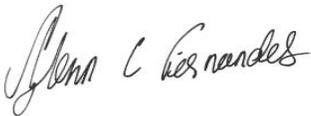
Construction began in September of 2017 and the Holdroom opened on October 31, 2018. It is approximately 32,400 square feet and includes six gate-like areas. Passengers are transported, by bus, from the Holdroom to remote hardstands. The remote hardstands are used by passengers to embark and disembark the aircraft.

The project delivery method used to build the Holdroom was a design-build with a lump sum contract. The Project team included Mackenzie Engineering (Consultant) as the Port's pre-design consultant, The Walsh Group (Contractor) as the design-builder and HOK as the lead architect. The design-build contract was \$24.3 million which included a \$350 thousand allowance for differing site condition changes. An additional \$1.7 million was incurred in change orders. Total expenses for the Project, which included both construction costs and the Port's soft costs, totaled \$35.1 million. Funding for the project came from revenue bonds and the debt service is included in airline rates and charges.

Our review noted that Port management's monitoring and documentation of change management generally aligned with industry standards. This was evident in the areas of documenting the reasons for changes, estimating change values, and complying with contractual mark-up provisions. However, we identified two opportunities for managements' consideration:

1. (Medium) - The Port's consultant did not have adequate knowledge of airport building requirements, which resulted in the design/concept drawings including a building type that was not allowed in airport terminals. The Consultant's error on the design/concept drawings resulted in additional costs to the Port of \$142,654.
2. (Medium) - The Contract restricted the Port's ability to audit all contractor and subcontractor records within the lump sum contract. The audit clause only allows audit of documents related to changes. When audit clauses are restrictive, there is an inherent risk that the Port may end up paying additional costs or not receive expected deliverables, without detection.

These issues are discussed in more detail beginning on page five of this report.



Glenn Fernandes, CPA  
Director, Internal Audit

### Responsible Management Team

Jeffrey Brown, Director AV Facilities and Capital Programs

Wayne Grotheer, Director Aviation PMG

Tina Soike, Chief Engineering Director- Engineer Services

Janice Zahn, Assistant Engineering Director- Construction Services

## **Background**

The new Concourse D Hardstand Holdroom (Holdroom) is approximately 32,400 square feet and includes six gate-like areas. Passengers are transported, by bus, from the Holdroom to remote hardstands. The remote hardstands are used by passengers to embark and disembark the aircraft.

The Port of Seattle's Concourse D Annex project is designed to relieve current congestion for travelers waiting at crowded gates and aircraft waiting on the airfield for an open gate to deplane passengers during peak periods. The new annex uses space at Sea-Tac more efficiently to provide for passengers waiting for flights, reduces the amount of time passengers spend waiting for a plane to arrive at a gate, saves greenhouse gas emissions from idling aircraft, and saves airlines fuel.

A sky-lighted curved roof structure includes a gently sloped ramp to the ground level and the departing gates. Amenities for passengers include concessions, charging stations, free WiFi and restrooms.

Total expenses for the Project, which included both construction costs and the Port's soft costs, totaled \$35.1 million including \$1.7 million in change orders. Funding for the project came from short-term revenue bonds and debt service included in airline rates and charges. Construction began in September 2017 and the Terminal opened October 31, 2018.

## **Audit Scope and Methodology**

We conducted the engagement in accordance with Generally Accepted Government Auditing Standards and the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and conduct an engagement to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our engagement objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our engagement objectives.

The period audited was April 2017 through June 2019 and included the following procedures:

### Change Orders and Port Allowance

- Verified proper approvals.
- Confirmed approved change orders and written authorizations tied to the full trend log.
- Performed a full reconciliation of allowance use.
- Reviewed documentation backup for direct costs, accurate markups, and change order/claim submissions, specifically for errors & omissions change orders.

### Key Deliverables

- Assessed the Port project team's process was adequate to assure key deliverables, and material requirements were met.
- Reviewed documentation backup, including punch list items, designs, general conditions, and key deliverable requirements.

### Project Delivery Method

- Obtained an understanding of the project team's process of determining the proper project delivery method.
- Assessed potential risks of project delivery methods through review of construction audit guidance.

### Contract Language

- Assessed the contract language for use of the allowance, and the audit clause and the change order process within the general conditions.

## Schedule of Findings and Recommendations

### 1) Rating: Medium

**The Port's consultant did not have adequate knowledge of airport building requirements, which resulted in the design/concept drawings including a building type that was not allowed in airport terminals. The Consultant's error on the design/concept drawings resulted in additional costs to the Port of \$142,654.**

The Port's consultant was tasked to prepare an investigative study and design/concept drawings up to 15% at a cost of approximately \$95 thousand. The drawings were included in the Request for Proposal (RFP) for contractors to use in their proposals. On May 11, 2017, after the contract with the Contractor was executed, and the Holdroom design package was at 60% completion, the Port notified the Contractor that the Port's Fire Protection Engineer concluded the type of building listed in the RFP was not allowed for airport terminal buildings. The Fire Protection Engineer's conclusion was based on the Port Fire Department's interpretation of the National Fire Protection Association's Standards (NFPA 415; NFPA 5000). This conclusion resulted in additional time for the Contractor's team to amend its design documents.

Ultimately, the Port authorized a change order with the Contractor for \$142,654. On December 18, 2017, the Port submitted a formal notice to the Consultant, of the error & omission (E&O), and the Port's position that the Consultant was responsible for all additional costs because of the error. On December 19, 2017, the Consultant acknowledged receipt of the notice and forwarded it to its E&O insurance carrier. After the additional work was performed, and paid by the Port, the Port did not pursue further action.

#### **Recommendations:**

Port management should follow-up with the Consultant regarding the formal notice dated December 18, 2017 requesting they absorb the cost. The timeliness of following up is critical since the statute of limitations runs through May 11, 2020. Depending on the response received, Port management should pursue collection options with consultation with the Port's Legal Department.

#### **Management Response/Action Plan:**

The Port's Project Team (Engineering and Project Management) will consult Port's Legal Department for advice and direction regarding this topic. Upon consensus with Port Legal, the Port will formally respond to Mackenzie, with cognizance for the time limitations.

**DUE DATE: 12/31/2019**

**2) Rating: Medium**

The Contract restricted the Port's ability to audit all contractor and subcontractor records within the lump sum contract. The audit clause only allows audit of documents related to changes. When audit clauses are restrictive, there is an inherent risk that the Port may end up paying additional costs or not receive expected deliverables, without detection.

**Audit Clause:**

The General Conditions of the Contract includes an Audit Clause (G-04.40) that allows the Port to inspect, audit or copy the Contractor and its subcontractors Project Records. However, the General Conditions limits these rights to, "Those financial Project Records related to Requests for Change Orders, Claims, Value Engineering Change Proposals, or other adjustment to the Contract Sum."

Lump sum contracts, such as the one used for this project, transfers more risk to the Contractor and is easier for the Port to administer than other delivery methods, such as cost-plus fee contracts with a guaranteed maximum price (GMP). However, there are still ways the Port may pay additional costs, or not receive expected deliverables. Risks associated with lump sum contracts include situations where a subcontractor bids on one scope of work and proposes several options that might involve less expensive materials and methods. If the less expensive materials or methods are accepted by the Contractor in the buy-out of the subcontract (transitional time between preconstruction and construction phase), the Port may not be credited the difference. Other exposures with lump sum contracts include subcontractors substituting lower grade material than called for in the specifications or use less material than for which the Port was billed<sup>1</sup>. Our audit noted that the Port's Project team instituted compensating controls to decrease these risks, such as daily construction inspector monitoring, pre-install meetings with the Contractor, review of Contractor daily reports and utilization a materials testing consulting firm. While these compensating controls decrease the risks noted above, thereby providing comfort that the Port received the agreed upon deliverables and materials, audit clauses should not be restrictive.

**Force Account:**

Construction Management Engineering Standard Operating Procedures (SOP 40.04) describe force accounting as a process that ensures an organized, identifiable, verifiable and accountable method of compensating a Contractor for costs and expenses including labor, material and equipment expended by the Contractor and tracked daily. Furthermore, SOP 40.04 I.A.1 states in part, "The Port needs to be proactive on defining and directing what we want the Contractor to do since it is all time and materials (T&M) work that the Port will be paying for." Article 4.2.2 of the Contract requires that the Contractor be paid pursuant to a Force Account for all work performed under a Port Allowance. However, the Article allows the Port to pay for the Scope of Work as a lump sum which contradicts SOP 40.04. Our testing determined that the Port's Project team reconciled all the approved Written Authorizations to actual costs.

**Recommendations:**

1. Audit clauses facilitate transparency and empower the Port to verify compliance with contract terms. Therefore, we recommend that future contracts do not include audit limitations. An example of a thorough audit clause is presented at Appendix B.
2. Update either future contract requirements or the SOP so that the language in both documents are congruent.

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<sup>1</sup> Rich Townsend, R.L. Townsend & Associates, LLC, *Effective Auditing of Construction Activity*; Courtenay M. Thompson, Courtenay Thompson & Associates, *The Reasons for Auditing Lump Sum Construction Contracts*

Concourse D Hardstand Holdroom

**Management Response/Action Plan:**

Response #1- Audit Clause:

Port Engineering, Project Management and Central Procurement Office (CPO) will meet to discuss modifications to the audit provisions in future contracts.

Response #2- Force Account:

Port Construction Management will review and make changes to ensure that contract requirements and SOP are congruent.

**DUE DATE: 12/31/2019**

## Appendix A: Risk Ratings

Findings identified during the audit are assigned a risk rating, as outlined in the table below. Only one of the criteria needs to be met for a finding to be rated High, Medium, or Low. Findings rated Low will be evaluated and may or may not be reflected in the final report.

Rating	Financial Stewardship	Internal Controls	Compliance	Public	Commission/ Management
<b>High</b>	Significant	Missing or not followed	Non-compliance with Laws, Port Policies, Contracts	High probability for external audit issues and / or negative public perception	Requires immediate attention
<b>Medium</b>	Moderate	Partial controls Not functioning effectively	Partial compliance with Laws, Port Policies Contracts	Potential for external audit issues and / or negative public perception	Requires attention
<b>Low</b>	Minimal	Functioning as intended but could be enhanced to improve efficiency	Mostly complies with Laws, Port Policies, Contracts	Low probability for external audit issues and/or negative public perception	Does not require immediate attention

## **Appendix B: Lump Sum Audit Clause Example**

- A. Records for all contracts, specifically including but not limited to lump sum contracts (i.e. fixed price or stipulated sum contracts), unit price, cost plus or time & material contracts with or without a guaranteed maximum (or not-to-exceed amounts) shall upon reasonable notice be open to inspection and subject to audit, scanning, and/or reproduction during normal business working hours. Such audits may be performed by any Owner's representative or any outside representative engaged by Owner for the purpose of examining such records. The Owner or its designee may conduct such audits or inspections throughout the term of this contract and for a period of three years after final payment or longer if required by law. Owner's representatives may (without limitation) conduct verifications such as counting employees at the Construction Site, witnessing the distribution of payroll, verifying information and amounts through interviews and written confirmations with Contractor employees, field and agency labor, subcontractors, and vendors.
- B. Contractor's "records" as referred to in this Exhibit shall include any and all information, materials and data of every kind and character, including without limitation, records, books, papers, documents, subscriptions, recordings, agreements, purchase orders, leases, contracts, commitments, arrangements, notes, daily diaries, e-mails, superintendent reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may in Owner's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any Contract Document. Such records shall include written policies and procedures; time sheets; payroll registers; payroll records; cancelled payroll checks; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, negotiation notes, etc.); original bid estimates; estimating work sheets; correspondence; change order files (including documentation covering negotiated settlements); back charge logs and supporting documentation; invoices and related payment documentation; general ledger, information detailing cash and trade discounts earned, insurance rebates and dividends; and any other contractor records which may have a bearing on matters of interest to the Owner in connection with the contractor's dealings with the Owner.
- C. Contractor shall require all payees receiving \$10,000 or more in connection with this contract (examples of payees include subcontractors, material suppliers, insurance carriers, etc.) to comply with the provisions of this article by including the requirements hereof in a written contract agreement between Contractor and payee. Contractor will ensure that all payees (including those entering into lump sum contracts) have the same right to audit provisions contained in this contract.
- D. Owner's authorized representative(s) shall have reasonable access to the Contractor's facilities, shall be allowed to interview all current or former employees to discuss matters pertinent to the performance of this contract and shall be provided adequate and appropriate work space, to conduct audits in compliance with this article.

If an audit inspection or examination in accordance with this article, discloses overpricing or overcharges to the Owner (of any nature) by the Contractor and/or the Contractor's Subcontractors more than \$100,000 in addition to adjusting for the overcharges, the reasonable actual cost of the Owner's audit shall be reimbursed to the Owner by the Contractor. Any adjustments and/or payments which must be made because of any such audit or inspection of the Contractor's invoices and/or records shall be made within a reasonable amount of time (not to exceed 90 days) from presentation of Owner's findings to Contractor.