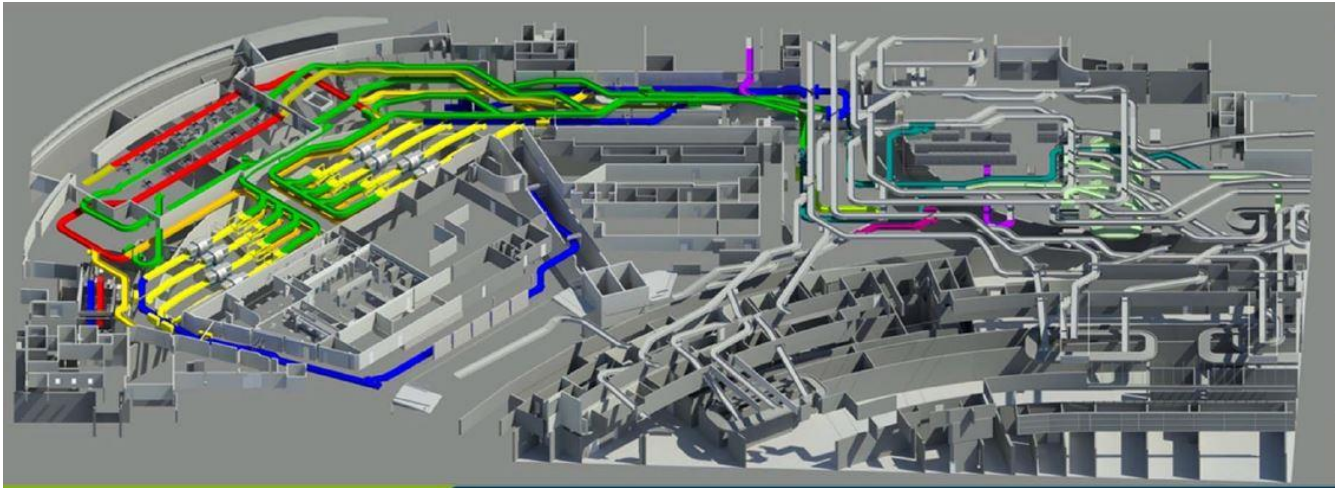




# INTERNAL AUDIT REPORT



Operational Audit - Capital  
Baggage Optimization Project Phase 2

November 2019–June 2021

Issue Date: August 23, 2021  
Report No. 2021-14

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## Executive Summary

Internal Audit (IA) completed an audit of the Baggage Optimization Phase 2 Project for the period November 2019 through June 2021. The audit was performed, to assure the Port was meeting project management standards, to better understand the reasons behind the differences with the independent estimate and the bids received, and to review a sample of change orders.

The Port hired BNP Associates, Inc. (BNP) to furnish design services for the Baggage Optimization Phase 2 project, which estimated the value of the project at \$179.16 million in May 2019. However, when the Project went to bid in November 2019, the Port received two bids, the lowest being \$293.94 million, which was approximately 64% higher than the engineer's estimate. Due to the bids coming in high, the project received a negative vote on the Majority in Interest (MII) ballot from the Managing Airline partners at Seattle International Airport (SEA). The Port had to pause the project for 180 days for feedback, which is required under a negative MII vote. After the expiration of the 180-day period, the Port moved forward with the project and awarded the contract as originally procured to the original lowest bidder, Hensel Phelps (Hensel).

We contacted Alaska, Delta, and Southwest to understand their perspective of the high bids. Concerns expressed by the airline representatives included the number of times they experience perpetual scope, schedule, and budget increases with projects at SEA, restrictions on interaction with the market, and selecting a design-bid-build lumpsum project delivery method, given the complexities involved with this project. We also interviewed the estimator at BNP; the estimator explained some of the reasons for the bid coming higher were premium labor rates for working limited hours during non-business times, a one-year extension to the project, a small pool of bidders, and additional cost for out-of-state contractors. Additionally, the airlines indicated disappointment that the Port reduced the time of the project by 6 months, by making various efficiency changes, but only received a \$2.6 million deduct change order from Hensel.

Through discussions with Port Management, IA learned that design-bid-build lumpsum contract seemed the only way to go forward with the project, one reason being federal grant requirements (grant). The grant required the design to be 100% complete before any federal funds could be given. Federal Grant Funding was approximately \$90 million which was applied to Phase I & II. Additionally, according to Port staff, a significant reason that the Project received higher bids than expected was that there were only five companies who could perform this work, which impacted competitive pricing. Additional reasons Port staff provided include competing with private companies like Amazon, FedEx, and UPS for the same type of work, did not adequately predict operating risks, work complexities, and inefficiencies that the bidders foresaw in the 24/7 operations of a growing airport. The Port determined that because they only received two bids, which were within 9% of each other, the low bid was an accurate reflection of the current construction market and Hensel, being the lowest bidder, was awarded the construction contract.

We selected this project to audit based on the cost of the project and the number of change orders (COs). Our sample for testing included the largest dollar value COs, ones that changed the scope of the project, and those that resulted in a credit back to the Port both in terms of time and amount.

We did identify the following opportunity where internal controls could be enhanced or developed. This opportunity is listed below and discussed in more detail beginning on page seven of this report.

1. **(Low)** The audit identified a discrepancy of \$29,156 which occurred because Hensel Phelps submitted a change order cost proposal to the Port, for one of its subcontractors, that differed from the agreed-upon amount between Hensel and the subcontractor. According to Hensel, they did not keep adequate supporting documentation to justify the discrepancy. Hensel addressed the discrepancy during the course of the audit by initiating a change order with the subcontractor.



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**Responsible Management Team**

Wayne Grotheer, Director, Aviation PMG

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## Background

The Baggage Optimization Project replaces six individual baggage screening systems and centralizes the operations of the checked baggage system at the Airport. The project aims to achieve the maximum outbound baggage capacity within the current airport footprint and increases flexibility by allowing bags to be checked in from any ticket counter and be conveyed to the appropriate location. It would also meet the established minimum-connect-time goal and provide greater energy efficiencies. Additional benefits include increased reliability, redundancy, and security. This project addressed growing passenger demands of the region and is scoped to accommodate 60 million annual passengers.

Phase 2 would expand on the centralized baggage screening area in the airport’s Central Terminal and replaced conveyor systems to the north portion of the bag well. Phase 2 would also construct the final baggage sortation matrix, move concession storage to their final locations, move the maintenance shop to their permanent location, add screening capacity with more Explosive Detective System (EDS) machines, increased the Checked Baggage Resolution Area (CBRA) capacity, and added more capacity to the South Satellite baggage system.

The construction phase of the Project included TSA funding, that covered approximately \$92 million of the cost of construction. The bid opening for this project was on November 19, 2019 and received only two bids. The low bidder, Hensel Construction Co. (HP), submitted a bid for \$293,937,000, 64 percent over the Engineer’s Estimate of \$179,157,000. The second bid was for \$322,216,451, 80 percent over the engineer’s estimate. The Port determined that because they only received two bids and which were within 9% of each other, the low bid was an accurate reflection of the current construction market, and also a re-bid would not guarantee any cost savings but would delay the project at least 7-8 months, that might raise prices and could cause new bids to be even higher. Hensel, being the lowest bidder, was awarded the contract.

As a result of the discrepancies between bids and the Port’s estimate on this project, the Aviation Project Management Group (AVPMG) identified and reported several lessons learned to the Commission which would be implemented for future projects. One of the more significant procedural changes, that is now part of the AVPMG’s standard process, is that a second independent cost estimate is performed for any project that exceeds \$50 million.

The project delivery method was a design-bid-build with a lump sum contract. The construction contract total is currently \$292.53 million, which includes approximately negative \$1.69 million in COs. The contract required that the contractor substantially complete the work no later than 1510 days following the contract execution date, which would have been August 26, 2024. To date, there has been a time saving of 179 approved days that has decreased the substantial completion date to February 29, 2024.

The following table details the current schedule and budget.

<b>Schedule (Per July 8, 2021 Trend Log)</b>	
Original Contract Completion Date	08/26/2024
Approved Time Extension (Calendar Days)	-179
Actual Substantial Completion Date	02/29/2024
<b>Budget (Per July 8, 2021 Trend Log)</b>	
Original Contract Sum	\$293,937,000
Executed COs (1)	(\$1,688,243)
Revised Contract Sum	\$292,248,757
Potential Risk <sup>1</sup> (2)	\$283,367
Contingency (3)	\$29,394,000
Remaining Contingency (3)+(1)-(2)	\$30,798,876

<sup>1</sup> Potential risk includes amount for unexecuted COs, and open trends for potential changes.

## **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.

We used a judgmental method to determine the samples selected for our CO test work. Our sample for testing included the largest dollar value COs, ones that changed the scope of the project, and those that resulted in a credit back to the Port both in terms of time and amount. While these appear to be the higher risk change orders, since we did not select a random sample, the results of this work cannot be projected to the entire population of change orders.

The period audited was November 2019 through June 2021 and included the following procedures:

### Project Cost Estimate

- Obtained an understanding of the Port's project cost estimate process.
- Obtained reasons from the Port for bids coming higher than the engineer's estimate for construction costs.
- Discussed the estimate with the estimators at BNP Associates, Inc.
- Interviewed Managing Airline partners to understand their reasoning for voting for or against the bids during the MII ballot. Get an understanding of their perspective of the high bids.
- Met with the CPO department to understand if there are any restrictions on having a dialogue with the potential bidders during the design and bidding phase to understand current market conditions.
- Gathered all the information and assessed the reasonableness of choosing the design-bid lumpsum method over other delivery methods.

### Change Orders

- Obtained an understanding of the Port's change order review process.
- Verified approvals by required personnel (e.g., Port, Contractor, etc.).
- Confirmed approved change order amounts tied to the Change Order Log.
- Reviewed change orders for reasonableness and allowability.
- Calculated proper markups.
- Reviewed supporting documentation, supporting change order/claim submissions, specifically error/omission, scope changes, and COVID-19 orders.
- Requested additional supporting documents from the general contractor (GC) and their subcontractors for lumpsum COVID-19 CO.
- Compared the proposal submitted by the GC to the Port with the subcontractor executed CO (this was obtained by the GC directly).
- Requested clarifications and additional support for discrepancies noted in COVID-19 CO.

### Pay Applications

- Obtained an understanding of the project management team's review and approval of pay estimates.
- Selected all the Project's pay applications and,
- verified amounts paid to the two main subcontractors tied with the amounts billed to the Port,
- verified the GC paid the subcontractors timely,
- assessed the reasonableness of the overall percent complete by pay estimate, and
- verified compliance with retainage requirements.

## Schedule of Findings and Recommendations

### 1) Rating: Low

The audit identified a discrepancy of \$29,156 which occurred because Hensel Phelps submitted a change order cost proposal to the Port, for one of its subcontractors, that differed from the documented agreed-upon amount between Hensel and the subcontractor. According to Hensel, they did not keep adequate supporting documentation to justify the discrepancy. Hensel addressed the discrepancy during the course of the audit by initiating a change order with the subcontractor.

The Port issued a lumpsum CO to reimburse the contractor, Hensel Phelps for COVID-19 related expenses. The CO was issued in line with the Port letter dated May 12, 2020, that allowed construction managers and resident engineers to initiate and conclude COVID-19 related negotiations as they deemed fit for the project. The total amount approved for this CO between the Port and Hensel was \$246,574. The discrepancy we identified accounts for 11% of the CO.

As part of our audit testing, we requested Hensel provide us with their subcontractor detail ledger report, supporting documentation which included their proposals, and the signed COs between Hensel and their subcontractors. We noted the cost proposal Hensel submitted to the Port for their subcontractor, Performance Abatement Services (PAS), was for \$49,957, which was significantly more than what Hensel paid PAS for this CO. The actual CO executed between Hensel and PAS was \$22,708 which resulted in a difference of \$27,249 (\$29,156 including markup). On June 29, 2021, we explained to the Port's Construction Management team the difference and requested them to reach out to Hensel for clarification. Additionally, we requested Hensel provide us additional supporting documents that include a summary of the negotiation for the subcontractor CO. On July 21, 2021, Hensel provided a copy of a second CO between Hensel and PAS which covered the difference in amount that we identified. The second CO was executed on July 13, 2021, which was after we reported the discrepancy. Due to the timing of the second CO, we requested Hensel to provide us with additional support for both COs, such as a summary of negotiations or, any email communications to verify that Hensel had an agreement to pay PAS the total amount included in the proposal in two separate COs. Hensel responded that neither they nor PAS maintained supporting documentation, and that the people who were involved in the negotiation of the original CO were no longer with the company<sup>2</sup>. However, a later telephone conversation with Hensel's Operations Manager indicated that the discrepancy was identified because of the audit request and had been rectified by issuing the second subcontractor CO.

The audit noted Hensel did not maintain and keep Project documents and records as required by section G-04.38 of the General Conditions section of the Contract. As a result, Internal Audit could not get sufficient audit evidence to provide reasonable assurance of the accuracy and completeness of the information provided by Hensel.

### Recommendation:

No Response necessary. During the audit, Hensel remedied the discrepancy by creating another change order with the subcontractor.

### Management Response/Action Plan:

N/A

**DUE DATE: Completed**

<sup>2</sup> Although no longer assigned to the Baggage Optimization Project, the Construction Manager, who signed the original CO, was still employed with PAS. Internal Audit made multiple attempts by telephone, email, and assistance from the Port's Resident Engineer to discuss this CO with the PAS Construction Manager but did not receive a response.

## 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