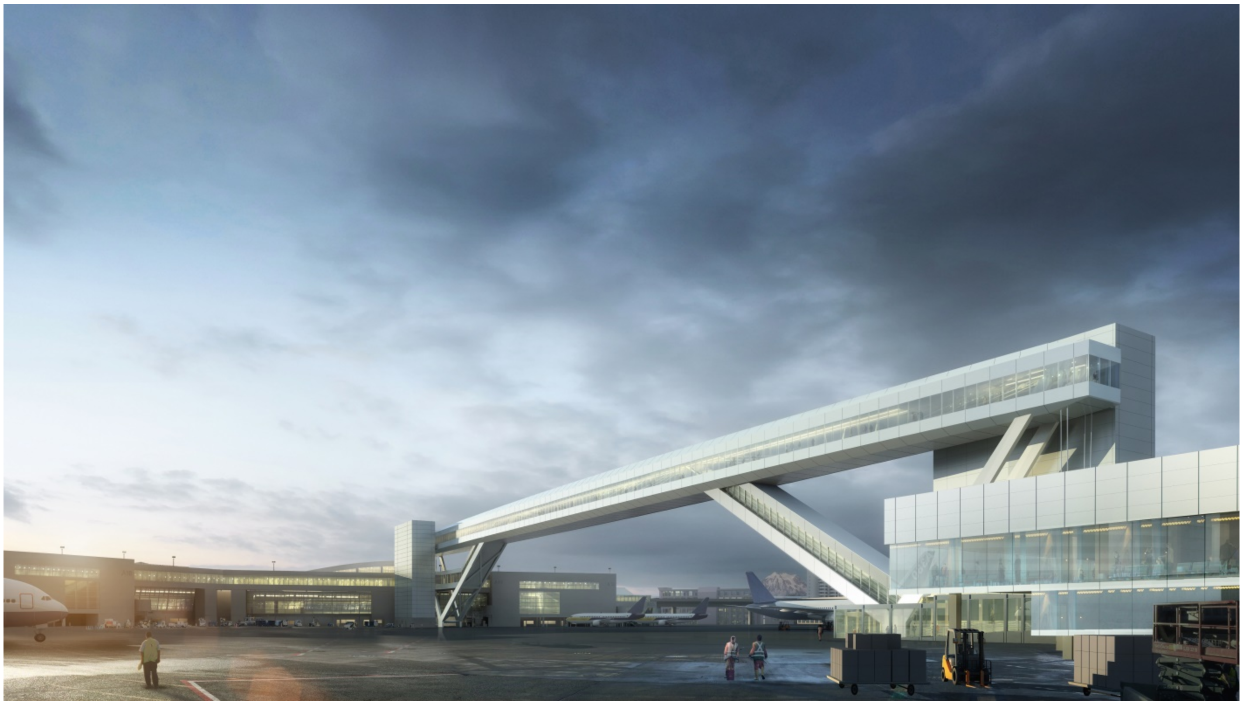
INTERNAL AUDIT REPORT

OPERATIONAL AUDIT
INTERNATIONAL ARRIVALS FACILITY



JULY 2015 – OCTOBER 2018

ISSUE DATE: DECEMBER 07, 2018

MANAGEMENT ACTION PLANS ADDED ON DECEMBER 31, 2018

REPORT NO. 2018-14

INTERNAL AUDIT

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EXECTIVE SUMMARY

Internal Audit (IA) completed an audit of the International Arrivals Facility (IAF) for the period July 2015 through October 2018. The objectives of the audit were to assure compliance with key terms of the contract, to identify potential risks that might impede timely completion of the project, and to identify opportunities for cost savings on future projects. We noted that the pay application process, that governs the review and payment of funds due to Clark Construction, is well established, thorough, and poses a minimal risk to the Port.

In 2014 project costs for Phase 1, which included construction of the IAF facility and a bridge connector between the South Satellite and Concourse A, were estimated at $316 million and scheduled for completion at the end of the 2nd Quarter of 2018. Due to a variety of reasons including an increase in scope, total project costs increased to $968 million. Clarke Construction and the Port agreed to the Guaranteed Maximum Price (GMP) of $774 million with an anticipated completion date of December 2020. Port related costs are expected to be an additional $194 million.

Our audit was conducted shortly after Commission approved the GMP. Many contractual elements were negotiated with a “not subject to audit” clause, accordingly our findings focus on future capital projects. In order to increase awareness and to improve how the Port executes major construction projects, we offer the following:

1. The Port has an opportunity to reduce future contract costs by requiring a labor multiplier rate that is in line with industry standards and the Seattle Area. The labor multiplier rate for the GMP increased from 35.7% to 88.7%. If a labor multiplier rate, in line with the Seattle Region, of between 30% and 45% is utilized, the resulting payroll related cost savings would be between $11 and $8.2 million.

2. The Port has an opportunity to reduce future contract costs by setting a maximum amount of insurance coverage for which the Port will reimburse contractors. The rate that the Port is reimbursing Clark for insurance coverage is $7.49 per $1,000 of contract value. If coverage required by the Port’s Risk Management Group was adhered to, the Port would incur a rate of $3.95 per $1,000; resulting in cost savings of approximately $2.8 million.

3. The Port has an opportunity to reduce costs in future capital projects by strengthening the language in its contract agreements by requiring contactors to utilize “not-to-exceed” terms in their contracts with subcontactors.

These findings are discussed in more detail beginning on page seven. We extend our appreciation to Port Management for their assistance and cooperation during the audit.

Glenn Fernandes, CPA
Director, Internal Audit

RESPONSIBLE MANAGEMENT TEAM
Dave Soike, Chief Operating Officer

BACKGROUND

The Port contracted a Design-Build team, Clark/SOM, to design and construct a new International Arrivals Facility (IAF) at Seattle-Tacoma International Airport (the Airport) using a Progressive Design Build (PDB) project delivery model. In a PDB, construction of the project begins during preliminary design and continues while the design progresses. During this period, the project is guided by a target budget and target schedule. When the design is sufficiently complete to identify and allocate cost and schedule risk, the owner and the design-builder negotiate a guaranteed maximum price (GMP) for the work along with a final schedule.

On the IAF project, the scope of the project increased and the project was negatively affected by other factors, which increased the project cost, lengthened the schedule and delayed the agreement on the GMP Amendment.

In May 2018, the Commission retained an independent Executive Review Panel (ERP) to review the execution and supervision of the project's progressive design-build delivery method, project cost escalation, the process used to negotiate a guaranteed maximum price (GMP), and make recommendations on the project going forward.

The project encountered time delays and cost increases in both design and in construction. The dynamics of the growing airport increased needs that necessitated significant design and construction scope additions to the project. As a result necessary changes have contributed to lengthening the construction portion of the schedule for the main part of the facility by 8 months from September 2019 to May 2020. Two additional international capable gates will reach construction completion in November 2020.

In September 2018, the GMP amendment was approved with Clark Construction at a total cost of $774 million. The overall IAF program cost will be approximately $968 million, as shown in the following table:

Description	**Cost**
International Arrivals Facility	$931,445,000
International Arrivals Facility - Expense	$13,000,000
SSAT Narrow Body Gates	$5,500,000
Outbound Baggage	$18,500,000
Total	**$968,445,000**

AUDIT SCOPE AND METHODOLOGY

We conducted this performance audit 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 perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The period audited was July 2015 through October 2018. We utilized a risk-based approach from the planning phase to the testing phase of our audit. We gathered information through document requests, research, interviews, observations, and analytical procedures. We assessed significant risks and identified controls to mitigate those risks. Our audit included the following procedures:

General Liability Insurance

- Obtained the Financial Summary and Details section of the final GMP.
- Reviewed the Summary of Matrix Cost Allocation from the GMP.
- Identified components of insurance coverage deemed unnecessary by the Port's Risk Management.

Not to Exceed Subcontracts

- Obtained prime subcontracts to identify which ones were based on a not to exceed.
- Obtained an understanding of the Port's monitoring of the Design Builder's compliance with prime subcontracts.
- Reviewed pay applications for adequate subcontractor supporting documentation.

Business Equipment, IT Equipment & Tools

- Obtained an understanding of the Port's inventorying of equipment that may be salvageable at the conclusion of the project.
- Reviewed pay applications for purchased equipment.

Timely Payments to Subcontractors

- Obtained the Design-Builder's detail transaction report.
- Traced dates of payment from the Port to the Design Builder and payments from Design Builder to prime subcontractors.

Change Management

- Obtained an understanding of the written authorization and approvals procedures.
- Reviewed policies and procedures.
- Reviewed the IAF signatory approval matrix.

Reimbursements

- Inquiry of the IAF Program staffs' review of pay applications and their understanding of allowable, reimbursable expenses.
- Obtained pay applications.
- Reviewed cover sheets and supporting invoices.

- Compared expenses to allowable costs per the Summary Matrix of Cost Allocation.

<u>Labor Multiplier</u>

- Obtained an understanding of Program managements' review of multiplier components prior to approval of the GMP.
- Obtained worksheet of multiplier components.
- Reviewed components for reasonableness.
- Compared the approved multiplier to industry standard percentages.

SCHEDULE OF FINDINGS AND RECOMMENDATIONS

1) RATING: MEDIUM

The Port has an opportunity to reduce future contract costs by requiring a labor multiplier rate that is in line with industry standards and the Seattle Area. The labor multiplier rate for the GMP increased from 35.7% to 88.7%. If a labor multiplier rate, in line with the Seattle Region, of between 30% and 45% is utilized, the resulting payroll related cost savings would be between $11 and $8.2 million.

Labor multipliers are a combination of a contractor's fringe benefits and statutory payroll costs. According to the contract, the labor multiplier includes "fringe benefits, burdens, bonuses, deferred compensation, profit sharing, health care, sick leave/vacation, et al."

The burden rate in the initial 2015 contract with Clarke was 35.7%. However, the new labor multiplier in the final GMP increased to 88.7%.

Our research reflects that labor multiplier rates in the construction industry range between 30 and 45%. According to the U.S. Labor and Statistics, the average labor rate for the Seattle Region is 30%. Applying the industry standard rate of between 30% and 45%, results in labor related cost savings of $11 million to $8.2 million.

Furthermore, the new contract includes a "not subject to audit clause." As a result, we were unable to assess the reasonableness of the new rate.

Recommendations:

1. Port management should obtain a general understanding of the components of the labor burden and assess the reasonableness prior to entering into contractual agreements.

2. 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.

3. Contract language should be explicit as to what payroll costs or benefits comprise labor burden and what percentage will be allowed. Furthermore, contract documents should state that once state and/or federal maximums are reached for payroll taxes (FICA, FUTA…etc.), these costs will no longer be billed to the Port.

Management Response/Action Plan:

1. I concur.
2. I concur.
3. I concur, and I concur with the suggestion related to payroll step functions (FICA, etc.). However, it should be noted that there may be an administrative burden for the contractor or Port to identify, track, total, and invoice when each individual's state and federal maximums end versus a simpler multiplier calculation covering all employees. Also, to the extent a future contractor's actual and verifiable labor multiplier exceeds state and federal maximums, then contractually requiring a lower multiplier costs would result in the contractor not recovering its actual costs, which would endanger the project's success form the outset and encourage the contractor to try to recover those costs in other ways.

I will work with port construction management, legal, and procurement in the next 150 days to determine if contract language terms can be identified and developed that would have potential use in future similar or applicable contracts.

Background:

Audit Finding #1 (and Findings # 2 and #3, below) address future project costs, and as stated in response to each, I generally concur with the findings and recommendations. With regard to comments relating to the IAF in the three findings, I note that at the time of the GMP Amendment, the IAF project was facing significant cost, schedule, and performance challenges and many disputed legal issues. The GMP Amendment was a collaboratively (but also competitively) negotiated document that was premised on a full project reset waiver that resolved significant disputed issues, and major negotiation points were the allocation of future schedule and cost risk associated with upcoming construction challenges and an aggressive schedule.

DUE DATE: 5/31/2019

2) RATING: MEDIUM

The Port has an opportunity to reduce future contract costs by setting a maximum amount of insurance coverage for which the Port will reimburse contractors. The rate that the Port is reimbursing Clark for insurance coverage is $7.49 per $1,000 of contract value. If coverage required by the Port's Risk Management Group was adhered to, the Port would incur a rate of $3.95 per $1,000; resulting in cost savings of approximately $2.8 million.

In late 2017 the AECOM engaged HPM, a construction audit firm, to review costs and processes for reasonableness based on experience. HPM's report, dated August 2018, identified that the .749% general liability insurance rate was above comparable rates being charged within the Seattle market. HPM calculated the average actual GLI rate as a percentage of project revenue for construction managers with $1 billion or more in revenue, as .385%.

The Port's Risk Management Group reviewed the GLI rate that Clark proposed for the GMP and identified several items that were unnecessary. For example, Clark charged GLI coverage of $300 million when Risk Management only required GLI coverage of $25 million. After adjustments were made to Clark's GLI rate, based on the Port's Risk Management Group's required GLI coverage, the GLI rate is reduced to .395%, which is extremely close to the rate independently calculated by HPM.

The Port's Legal Counsel, IAF Program Management, and Risk Management team discussed the insurance coverage limits the Port was willing to reimburse Clark. Risk Management, which possesses subject matter insurance knowledge, provided input and suggestions which were not incorporated into the final contract. We understand the pressure that Management was under to agree to a GMP, accordingly we offer this for future contracts.

The final contract language (Assumptions & Clarifications) states "Premiums associated with provided rates for insurance and bonds are fully recoverable at the rate of $7.49 / $1,000 of contract value." The contract also states "Rates and coverage structures are proprietary and not subject to further review and audit."

Recommendations:

1. Contract language should specify the maximum insurance coverage the Port will reimburse. For example, the language could read "The Port will pay actual insurance costs up to the amounts listed in this article. Insurance costs incurred by the contractor for additional coverage are not reimbursable."

2. Establish an internal control process so that Risk Management's review and approval is obtained to assure that recommendations are embedded into contract language.

4. 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.

Management Response/Action Plan:

Response to Finding:
I concur with finding #2 regarding General Liability /Insurance related to future project costs.

Response to Recommendations:

1. I concur.

2. I concur.
3. I concur.

I will work with port legal, risk management, and procurement in the next 90 days to determine if contract language terms can be identified and developed that would have potential use in upcoming applicable contracts.

Background:

The Port sets liability insurance requirements for capital and small works construction that include different types of coverage with different upper limits (of insurance required) depending on the job scope, location, duration, if on water/off water, value of job and if hazardous materials are potentially involved. Thus there are many drivers that will have an impact on the cost of liability insurance coverage to the contractor, not the least of which is the Contractor's own risk profile, which may be unique to each contractor. The Port sets requirements on a project-by-project basis. Contractors should be charging the Port an overall insurance rate (per $1000 of construction value) based on the Port's contract insurance requirements and not on what the contractor thinks they need for coverage.

The Port is proposing to establish contractual limits for an acceptable range of liability insurance cost (per $1000) based on the requirements the Port puts in the contract specifications. The midpoint of this range would be approximately $3.75 (plus or minus $.50) for projects that are valued at $50 Million or less; and $3.50 (plus or minus $.50) for projects over $50 Million. This bracketing would enable a maximum payment level (as suggested by the auditor) beyond the typical port insurance coverage level of $25,000 per year for a construction value of $50 million projects and $50,000 per year for a construction value of $100 million. However, an unintended consequence may be that to the extent a contractor's actual insurance costs exceed the permitted amount for the specified insurance levels, it may compromise future cost negotiations or create negative contractor performance incentives that the Port will need to manage.

DUE DATE: 3/31/2019

3) RATING: MEDIUM

The Port has an opportunity to reduce costs in future capital projects by strengthening the language in its contract agreements to require contactors to utilize "not-to-exceed" terms in their contracts with subcontactors.

The IAF Project management team instructed Clark Construction to issue its subcontracts on a Not-To-Exceed (NTE) method. NTE contracts are administered on an actual cost basis, plus a percentage for overhead and profit. Of seven main subcontractors reviewed, whose contracts totaled approximately $206 million, all contained the term, "not-to-exceed". However, Clark Construction was administering these subcontracts as lump-sum agreements. Under the lump-sum method, the subcontractor will be paid 100% of the contract value, regardless of actual costs.

It is easier to administer contracts on a lump-sum basis because costs can be billed on a percentage of completion basis with minimal documentation. However, any savings that may occur due to process efficiencies or decrease in costs, such as credits, will go to the subcontractor and not to the Port. Furthermore, a lump sum contract does not provide the Port the ability to review actual costs in an open book environment. Given the time constraints and pressure to complete the IAF, this method might be appropriate at the current time with the IAF.

Recommendation:

1. Future contract language should be explicit, to allow enforcement of preferred reimbursement methods. For example; when management determines that subcontracts should be administered on a cost reimbursement basis, such as a NTE contracts, the contract language should specifically say so.

Management Response/Action Plan:

Response to Finding:

With regard to project delivery methods where a substantial portion of the subcontracted work is priced through competitive negotiations, I generally concur with finding #3 regarding "Not-to-Exceed" (NTE) terms versus "lump Sum" (or other contract terms).

Response to Recommendations:

I concur. I will work with port legal, procurement, and capital teams in the next 120 days to determine if contract language terms can be identified and developed that would have potential use in upcoming applicable contracts. Part of this will depend on the local subcontracting community's acceptance of a transition from lump-sum to NTE subcontracts and the weighing of the related benefits and challenges associated with each subcontracting method.

DUE DATE: 4/30/2019

APPENDIX A: RISK RATINGS

Findings identified during the course of the audit are assigned a risk rating, as outlined in the table below. The risk rating is based on the financial, operational, compliance or reputational impact the issue identified has on the Port. Items deemed "Low Risk" will be considered "Exit Items" and will not be brought to the final report.

Rating	Financial	Internal Controls	Compliance	Public	Port Commission/ Management
HIGH	Large financial impact Remiss in responsibilities of being a custodian of public trust	Missing, or inadequate key internal controls	Noncompliance with applicable Federal, State, and Local Laws, or Port Policies	High probability for external audit issues and/or negative public perception	Important Requires immediate attention
MEDIUM	Moderate financial impact	Partial controls Not adequate to identify noncompliance or misappropriation timely	Inconsistent compliance with Federal, State, and Local Laws, or Port Policies	Potential for external audit issues and/or negative public perception	Relatively important May or may not require immediate attention
LOW/ Exit Items	Low financial impact	Internal controls in place but not consistently efficient or effective Implementing/enhancing controls could prevent future problems	Generally complies with Federal, State and Local Laws or Port Policies, but some minor discrepancies exist	Low probability for external audit issues and/or negative public perception	Lower significance May not require immediate attention
Efficiency Opportunity	An efficiency opportunity is where controls are functioning as intended; however, a modification would make the process more efficient				