

**PORT OF SEATTLE**  
**MEMORANDUM**

**COMMISSION AGENDA**  
**STAFF BRIEFING**

**Item No.** 7c  
**Date of Meeting** May 17, 2016

**DATE:** May 10, 2016  
**TO:** Ted Fick, Chief Executive Officer  
**FROM:** Dave Soike, Director AV Facilities and Capital Program  
Wendy Reiter, Director, Aviation Security and Emergency Preparedness  
Wayne Grotheer, Director, Aviation Project Management Group  
**SUBJECT:** Baggage Quarter 1 2016 Briefing

**SYNOPSIS**

The objective for this briefing is to update the Commission on the Checked Baggage Optimization Project that increases screening capacity for greater baggage volumes, increases flexibility to allow travelers to check in bags anywhere in ticketing and be able to convey the bag to any airline, meet a minimum-connect-time goal, and provides energy efficiency.

This Commission briefing will cover the following areas:

- Project background
- Schedule and budget updates
- Quarter 1, 2016 accomplishments
- Project top critical issues
- Project top risks
- Upcoming milestones
- Future Commission actions

**BACKGROUND:**

The Airport baggage conveyor system is one of the most complex systems in the Airport. It gets high use and is aging. All baggage screening systems were modified in rapid fashion immediately after the events of September 11, 2001. Still, there are portions of the systems that are over 25 year old.

In its current state, the Airport system is not a single system, but rather many separate systems that bags must transfer between. Modifying the separate systems was the best way to rapidly increase security after September 11 and those separate systems were designed to include a nominal amount of passenger growth. In addition, as specific airline needs emerged over the ensuing years or as airlines were relocated, the separate systems have been updated to meet the carriers' specific operating needs. Although various baggage projects have occurred to meet operating needs over the years, the systems

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continue to have limited capacity to meet both near and long-term growth needs of the Airport overall.

The Airport is faced with three problems: 1) the existing separate systems have major subsystems, such as controls, that are aging and must be replaced; 2) there is limited ability for the current systems to be expanded in their current configuration to adequately meet growing passenger demands; and 3) separate systems lack interconnectivity between ticket counters and all of the aircraft gates. Passenger growth is expected to increase. This is a major and near-term challenge for the Airport due to both the complexity to keep operations on-going during construction, and due to major space constraints on expanding the systems' capacity to meet future growth.

Although the challenge is large, the Airport is fortunate that the Transportation Security Administration (TSA) invested to improve their operations in Sea-Tac. The TSA has higher operating costs because of the multiple screening systems in six locations versus what they will have with a consolidated baggage system. Therefore the Baggage Optimization project is designing the new system to accommodate Port of Seattle needs for operational flexibility while meeting the TSA needs for modern baggage screening equipment and reduced operating costs for baggage screening. Airport and TSA staff have been working cooperatively during design and the TSA has approved the 100% design of the optimized system.

Longer-term demands on the airport's baggage system include the ability to handle 66 million annual passengers (MAP) which is the expected top-end limit of the Airport based on the Sustainable Airport Master Plan (SAMP). The results of the SAMP are not yet available, however the baggage design team is engaged and working with the SAMP team. Should the SAMP result in a recommendation for a new north terminal, additional baggage system improvements beyond the current scope of this Baggage Optimization project will be required. If there is a new north terminal, we would expect that new terminal would have its own baggage screening system, with interconnections between the new one and the current one for transfer baggage, since the baggage transport distances from another terminal to/from the central baggage screening location are too great to have central baggage screening for the entire airport and meet airline operational needs. The design has therefore focused on capability to readily enable adding to the current design target of supporting 45 MAP. Thus inherent in the overall design is the flexibility for later projects to add capacity to reach 66 MAP for the airport with minimal changes to the centralized TSA security screening and search areas. SAMP may also provide relief by providing additional new space for baggage facilities in future remote concourses, thereby relieving pressure within the constrained footprint of the existing terminal baggage area.

The 100% design incorporates a single centralized screening area that is located in the middle of the existing terminal. The central screening area will occupy 21,000 square feet of the existing basement level and 28,000 square feet of the existing apron level, with the

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necessity to construct a building extension for an additional 3,800 square feet. The optimized design is based upon a common use outbound system where any bag can be inserted anywhere in the system, screened, sorted, and sent to any destination. This provides Aviation Planning and Operations flexibility since any airline can be relocated anywhere within in the ticketing lobby and among aircraft gates without requiring baggage system changes.

### **SCHEDULE AND BUDGET:**

The current schedule shows construction occurring in four phases, with Phase one advertising the major contract in Q4, 2016, and Beneficial Occupancy scheduled for Q2, 2019. The project is currently scheduled for the fourth and final phase to obtain Beneficial Occupancy Q4, 2023. The Checked Baggage Optimization project is on target for the schedule and scope originally defined.

The budget summary for the project to date is as follows:

Total Project Budget	\$320,550,000
Total TSA Contribution	\$93,220,422
Total Commission Authorization to Date	\$20,375,000
Amount Spent to Date (as of 3-22-16)	\$15,092,361
TSA Design Reimbursement to Date (as of 3-22-16)	\$5,671,476

The Checked Baggage Optimization project is on budget as originally scoped.

### **QUARTER 1, 2016 ACCOMPLISHMENTS:**

The comprehensive 100% design package was submitted to TSA in January, 2016 and was approved with minimal comments. The design was reviewed by Airport Building Department, Airline Technical Representatives (ATRs), Airlines, and a full internal review by required departments within the Port. Comments from these reviews have been received and are currently being evaluated and incorporated into the final design where appropriate.

### **CRITICAL ISSUES:**

The original design parameters set in 2012 were adequate at that time; however growth experienced since then has exceeded expectations. The current scope and design generally takes the airport to 45 MAP with flexibility and expandability for separate future projects to expand the system up to 66 MAP pending capacity requirement determinations by SAMP. The current design includes a plan for future right of ways to ease future expansion in this rapidly growing airport. The scope of work included in Phase 1 is core and does not change based on exceeding growth forecasts. Subsequent phases beginning with Phase 2 will need to incorporate additional work beyond current scope and budget to ensure the new system matches growth demands. Preliminary cost estimates are currently being developed for this additional scope, with the SAMP

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defining the future capacity requirements to be put on the system which will allow the estimate to be refined.

### **RISKS:**

The events of September 11<sup>th</sup> required simultaneous baggage security responses from airports across the nation and world. There is a need for simultaneous replacement of those same systems which are coming to the end of their useful lives all at approximately the same time. The Airport is aware of 13 major baggage projects scheduled to be put out for bid in 2016 or 2017 in the United States to a limited pool of baggage system contractors that operate worldwide. This creates a risk of low contractor interest and inflated pricing as contractors have many other projects to pursue. The baggage team has attempted to mitigate this risk by holding a contractor information session in summer of 2015, and will hold another in May 2016 to generate contractor interest and hear feedback on what would make the project more attractive to them for bidding. Despite these efforts, the surplus of baggage system work across the nation is a risk that may affect pricing in Phase one and potentially later phases.

Another risk that is being monitored is the local labor pool that baggage system contractors would potentially draw from to complete the Optimization Project. Currently there is a labor shortage in the Seattle area due to the strong local economy and number of construction projects underway. Should this trend continue, contractors will be required to bring labor from other areas, passing on the costs of travel, per diem, housing and relocation costs along to the project. This risk is being monitored by the project team.

### **UPCOMING MILESTONES:**

- Phase one 100% Construction Document Package submittal for final review from TSA, ATR's, Airlines, and internal Port review: June 2016.
- Advertise for Phase one bid: Q4, 2016 (CEO Goal)
- Phase one Notice to Proceed: Q2, 2017

### **FUTURE COMMISSION ACTIONS/NEXT STEPS:**

- Request for Commission Construction Authorization: July 2016

### **ATTACHMENTS TO THIS BRIEFING**

- Computer slide presentation.

### **PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

- March 8, 2016 Commission authorization for the Chief Executive Officer to amend the Baggage Optimization Design Services contract.
- June 23, 2015 – Checked Baggage Optimization Project Briefing.
- September 10, 2013 – The Commission authorized the execution of an Other Transaction Agreement (OTA) with TSA for reimbursable costs for design; construction, and to authorize \$15 million to continue from 30% to 100%

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design; and execute a consultant service agreement for program management support services.

- August 20, 2013 – Response to questions from Commissioners asked during August 6, 2013 Commission Meeting.
- August 6, 2013 – The Commission was briefed on the near-term and long-term challenges related to handling checked baggage at the Airport.
- January 22, 2013 – The Commission authorized \$5 million for staff to begin design through 30%, and to enter into an agreement to allow reimbursement from the federal government to the Port for eligible elements of the 30% design effort.
- January 8, 2013 – Baggage Systems Briefing.
- August 14, 2012 – Baggage system recapitalization/optimization was noted in the 2013 business plan and capital briefing as a significant capital project not included in 2013-17 capital program.
- August 7, 2012 – Baggage system recapitalization/optimization was referenced as one of the drivers for the need to develop an Airport Sustainability Master Plan.
- June 26, 2012 – The Airport's baggage systems were discussed during a briefing on terminal development challenges.
- May 10, 2012 – TSA's interest in a national recapitalization/optimization plan for all baggage screening operations was referenced in a design authorization request for the C60-C61 Baggage Handling System Modifications Project.