

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
STAFF BRIEFING

Item No.	<u>7a</u>
Date of Meeting	<u>June 23, 2015</u>

DATE: June 15, 2015
TO: Ted Fick, Chief Executive Officer
FROM: Dave Soike, Director, Aviation Facilities and Capital Program
Wendy Reiter, Director, Aviation Security and Emergency Preparedness
Wayne Grotheer, Director, Aviation Project Management Group
SUBJECT: Checked Baggage Optimization Project Briefing

SYNOPSIS

The objective for this briefing is to update the Commission on the Checked Baggage Optimization Project that increases 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 reduced minimum-connect-time goal, and provides energy efficiency.

This Commission briefing will cover many areas:

- The distinction between how the existing baggage system operates and how the future optimized system will operate by showing an excerpt of a design animation model.
- Original design parameters set in 2012 will be recounted and contrasted with how recent very high passenger growth has outpaced the progress of the optimization project. Sea-Tac is the fastest growing airport in the country. This creates pressure to both accelerate the optimization program where possible (as noted in the airport business plan) and to define and implement additional complementary baggage projects in cooperation with, and guided by, the sustainable airport master plan (SAMP) outcomes. Photo slides will show two such projects nearing completion, however more will be needed.
- Budget and schedule updates will be included. The project remains on budget and on schedule; however, passenger growth will drive new costs for the separate complementary projects noted above.
- While the high growth rate drives need for more master planning and resulting complementary projects, it also increases complexity to a large extent. Photographs will be used to demonstrate the complexity and how it reaches across the entire terminal complex.

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- The top three challenges for the project will be identified. One of which has been mitigated since the initial drafting of the attached presentation.
- Finally the objectives and related metrics of the project will be identified.

RECENT DESIGN PROGRESS:

The Checked Baggage Optimization project has progressed positively from the 30 percent design in late 2013, and has now submitted the 70 percent design to the Transportation Security Administration (TSA) for review. The 70 percent 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 necessity to construct a building extension for an additional 3,800 square feet. The TSA has been involved as design has progressed. 100 percent design will be submitted to TSA in Q4, 2015. The current schedule shows construction occurring in three phases, with Phase one Notice to Proceed scheduled for Q2, 2016, and Beneficial Occupancy scheduled for Q2, 2019. The project is currently scheduled for the third phase to obtain Beneficial Occupancy Q3, 2023. The Checked Baggage Optimization project is on target for the schedule and scope originally defined.

The 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.

The scope and design generally takes the airport to 45 million annual passengers (MAP) with flexibility and expandability for separate future projects to expand the system to 66 MAP. 66 MAP is the current planning horizon identified by the SAMP. The current design includes a plan for future right of ways to ease future expansion in this rapidly growing airport. New technologies have been incorporated into the current design to improve the system's performance and longevity.

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

Total Project Budget	\$320,400,000
Total TSA Contribution	\$93,220,422
Total Commission Authorization to Date	\$20,225,000
Amount Spent to Date (as of 4-17-15)	\$7,080,551
TSA Reimbursement to Date	\$5,231,891

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

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The Airport system of baggage conveyors is one of the most complex systems in the Airport. It gets high use and is aging. Portions of the system were rebuilt in rapid fashion immediately after the events of September 11, 2001.

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 modified to meet the carriers' specific operating needs. Although various baggage projects have occurred to meet operating needs over the years, the systems 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 in order to double the system's capacity to meet future growth.

Although the challenge is large, the Airport is fortunate that the 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 while keeping the TSA needs in mind. Airport and TSA staff have been working cooperatively during design.

Longer-term demands include being able to handle the 66 MAP which is the expected top-end limit of the Airport based on both airfield and landside capabilities. The design has also focused on building in easy growth capability into the current design plans. Thus inherent in the overall design is the flexibility for later projects to add capacity to reach 66 MAP with minimal changes to the TSA security scanning and search areas. 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 or south terminal, additional baggage system improvements beyond the scope of Baggage Optimization will be required. 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.

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ATTACHMENTS TO THIS BRIEFING

- Computer slide presentation.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- 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% 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.