



COMMISSION
AGENDA MEMORANDUM

Item No. 8a

BRIEFING ITEM

Date of Meeting July 23, 2019

DATE: June 16, 2019

TO: Stephen P. Metruck, Executive Director

FROM: Jeffrey Brown, Director of Facilities and Capital Program
Mandy Xiggores, Capital Programs Development Manager
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SUBJECT: Briefing on the Main Terminal Optimization Plan for Seattle-Tacoma International Airport (Sea-Tac)

EXECUTIVE SUMMARY

The purpose of this briefing is to present and review the Main Terminal Optimization Plan (MTOP) at the Seattle-Tacoma International Airport (Sea-Tac). Certain functions in the Main Terminal at Sea-Tac are approaching and occasionally exceeding capacity.

On August 8, 2016, the Port of Seattle Commission authorized the execution of four indefinite delivery, indefinite quantity (IDIQ) contracts for Aviation Advanced Planning support. Ricondo and Associates were awarded one of the IDIQ contracts and provided consultant support for the Main Terminal Optimization Planning effort.

Airport Staff initiated the MTOP to provide a strategic plan for the optimization of the existing footprint and infrastructure of the Main Terminal at Sea-Tac to accommodate growing demand during the period between present-day and potential implementation of enhancement initiatives; and to create a balanced, flexible paradigm for Main Terminal campus facilities.

BACKGROUND

Airport Staff first recognized the need to perform a planning study on Main Terminal functions, while developing the implementation plan for the Sustainable Airport Master Plan (SAMP) Near Term Projects, in 2017. At that time, recognizing that the level of service (LOS) degradation within the Main Terminal would be extreme while waiting for potential future facilities to come on line. A study conducted late in 2017 included a gap analysis of the major functions and passenger processes, in the Main Terminal as well as Concourses, utilizing existing demand and a forecasted 2029 demand level (the year 2029 is equivalent to Planning Activity Level 3 in the SAMP documentation).

The study provided a data driven analysis of the functional areas. As anticipated, two of the current problem areas (Passenger Screening and Check-in) showed significant concern with LOS

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degradation over the forecasted timeline. An optimized plan was created from the study to gain efficiency and LOS, while staying within the existing footprint. The result is an overall Main Terminal roadmap for increasing the LOS for the key processes in a phased approach that aims to limit impacts to on-going operations in the Main Terminal.

The improvements proposed by the MTOP balance cost and opportunity while optimizing the efficiency of the existing Main Terminal footprint in advance of any future expansion opportunities. MTOP and individual project solutions were based on industry trends, government agency initiatives, predefined LOS goals, and stakeholder objectives.

KEY HIGHLIGHTS OF THE PLAN

Main Terminal Requirements

The findings of this study were used to identify and prioritize critical facility needs, and to inform concept development of early solutions and a long-range strategic vision for Main Terminal optimization. In coordination with Airport staff, the consultant team from Ricondo and Associates developed a series of high-level concept solutions to address existing and projected facility deficiencies.

Each concept considered opportunities to increase area processing through low-impact modifications and reconfigurations; ongoing projects and initiatives to improve the passenger experience; overall connectivity strategies for the existing Main Terminal and other planned projects; balancing, allocation, and adjacency of processing components; and prioritization of competing interests within a constrained environment.

A gap analysis of Main Terminal functional areas over time

Functional areas are the areas in the Main Terminal that make up each process the passenger travels through in their journey through Sea-Tac, such as the ticket counters, checkpoints, restrooms, baggage claims, or retail spaces. Each functional area was assessed based on its current operational efficiency, and ability to handle current and future passenger activity, as defined by industry-accepted standards for wait time goals and functional area requirements. The analysis of each area considered distinct characteristics of our current operators and existing configurations. The gap analysis compared the future requirements to the current airport facilities, analyzing processing efficiencies and passenger throughput for each functional area.

The gap analysis identified passenger screening and check-in as the most critical functional areas of deficiency and found that both areas would ultimately limit the overall LOS and functionality of the Main Terminal.

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Phasing strategies for the preferred solution

The MTOP defined an approach and provided a road map for the reorganization of Main Terminal elements and process flows. This approach comprised a series of incremental improvement projects. The plan is intended to provide a framework for future Airport development, based on:

1. Leveraging existing areas and infrastructure
2. Developing intuitive connectivity within the Main Terminal
3. Anticipating evolving constraints by providing flexible, adaptable configurations
4. Accelerating implementation of operational improvements and passenger LOS
5. Lessening impacts to existing capacities and facilities
6. Isolating construction areas to minimize impacts to the passenger experience

Implementation of the MTOP

Each individual project area will require additional study and refinement to fully understand impacts, schedule, cost, and other considerations. The proposed implementation sequence is intended for planning purposes only, to provide rough order-of-magnitude, level of impact, and cost considerations.

The first project of the MTOP to be implemented is the relocation of Checkpoint 1 to the baggage claim level. This will provide early relief to a constrained facility prior to the implementation of the other optimization improvements. Without this additional checkpoint capacity, other checkpoint expansion and reconfiguration projects outlined in the MTOP cannot be implemented. This capacity is needed not only to provide additional screening lanes for our current passenger volume, but also to provide relief while other checkpoints see partial closures due to expansion construction.

Next Steps

Staff will be bringing that project to Commission for funding authorization to further develop and design that project.

ATTACHMENTS TO THIS BRIEFING

- (1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

July 7, 2016 – The Commission authorized Planning Services Indefinite Delivery, Indefinite Quantity (IDIQ) Professional Service Agreements