COMMISSION
AGENDA MEMORANDUM **Item No.** 8b

ACTION ITEM **Date of Meeting** April 26, 2022

DATE: April 15, 2022

TO: Stephen P. Metruck, Executive Director

FROM: Laurel Dunphy, Airport Operations Director
Krista Sadler, Technology Delivery Director

SUBJECT: **Passenger Flow Metrics Project (CIP #C801188)**

Amount of this project request:	$630,000
Total estimated project cost:	$630,000
Service Fee Contract Value	$3,000,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to 1) proceed with the Passenger Flow Metrics project, 2) utilize Port Staff, and 3) execute contract(s) for software, equipment, vendor services, and ten years of software license and maintenance fees in the amount of $630,000 and a service fee contract value of $3,000,000.

EXECUTIVE SUMMARY

This project will procure a system(s) that will collect anonymized information from a mix of new and existing technologies and systems to determine average passenger flow measurements for 1) arriving passengers from the clock tower on the main drive through a security checkpoint and 2) internationally arriving passengers from their gate on the South Concourse to a connecting flight on the North Concourse. Timing for these two travel paths is a key Seattle-Tacoma International Airport (SEA) metric supporting Aviation Customer Experience objectives and will be used to identify and measure improvements, assess impacts from future construction projects, and alert SEA Operations on emerging issues.

The system(s) selected may utilize existing Port wireless technology, smart phone location services, or roadway cameras to determine passenger flow times. In every case, data will be anonymized so that no personally identifiable information (PII) is collected nor stored.

Information and Communication Technology, Aviation Operations, Business Intelligence, and Aviation Maintenance will partner to complete this project with a vendor selected via a competitive procurement. The capital project was included in the 2022-2026 capital budget and plan of finance in the amount of $630,000. This authorization also includes a contract for

recurring software license and maintenance fees for up to ten years, estimated at $3,000,000. Recurring costs will be budgeted in the Aviation operating budget.

JUSTIFICATION

A critical impact to SEA Customer Experience long-term goals is how smoothly passengers flow from arrival to the airport through security checkpoints or the International Arrival Facility to their gate. While flow measurements exist in certain legs of these journeys there are several unmeasured areas and no comprehensive metric to evaluate progress against the goals. In the next few years, several construction projects will disrupt normal passenger routes on the roadways and through the terminal and reliable information on passenger flow will help identify adjustments for key choke points and alert staff to issues for quicker resolution.

Diversity in Contracting

Project staff will work with the Diversity in Contracting Department to determine if a direct women-and-minority-owned business enterprise (WMBE) aspirational goal should be assigned. Typically, subcontracting opportunities under technology projects are limited.

DETAILS

Scope of Work

(1) Competitively procure a system(s) to gather and consolidate average passenger flow measurements.
(2) Install limited equipment, if needed, to support anonymized measurement tracking.
(3) Integrate with existing systems that can provide flow data in areas along the measured paths.
(4) Develop reports that integrate with Aviation Business Intelligence platform.

Schedule

Procurement Complete	2022 Quarter 4
Roadway Metrics	2023 Quarter 4
Terminal Metrics	2024 Quarter 4

Cost Breakdown	This Request	Total Project
Equipment	$30,000	$30,000
Software and Vendor Services	$200,000	$200,000
Port Labor	$400,000	$400,000
Total	**$630,000**	**$630,000**

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Procure and implement a solution(s) to provide extensive data for detailed passenger movement throughout the terminal.

Cost Implications: Capital Project - >$2,000,000; Ten Year Recurring Costs: >$5,000,000

Pros:

(1) Robust capabilities to understand passenger movement can provide additional benefits from targeted services and more comprehensive coverage.
(2) Future stakeholders could leverage technology with a smaller investment.

Cons:

(1) This alternative is significantly more expensive primarily due to the likelihood of significant construction for additional sensors or cameras and more proprietary equipment.
(2) The schedule to complete the installation would be significantly longer than the recommended alternative.

This is not the recommended alternative.

Alternative 2 – Leverage future terminal and roadway projects to install technology.

Cost Implications: $0

Pros:

(1) Resources and funding available for other projects.

Cons:

(1) There is no measurement to determine progress on key Aviation goals.
(2) The impact on passenger flow from future terminal and roadway projects is not supported by actionable data.
(3) Identification of emerging issues is a manual effort.

This is not the recommended alternative.

Alternative 3 – Procure and implement a solution that gathers and consolidates average passenger flow measurements using a mix of new and existing technologies and systems.

Cost Implications: Capital Project-$630,000; Ten-Year Recurring Costs: $3,000,000

Pros:

(1) This alternative provides passenger flow measurements to identify problem areas, understand customer experience trends, and react to emerging issues for a more modest investment than the alternative.
(2) Investment in existing technology and systems that provide supporting data is utilized.

(3) Comprehensive reports will provide progress against a key Customer Experience goal on passenger flow times.

Cons:

(1) Detailed information about passenger movement would be unavailable for other potential targeted services.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary	Capital	Expense	Total
COST ESTIMATE			
Original estimate	$630,000	$0	$630,000
AUTHORIZATION			
Previous authorizations	$0	0	$0
Current request for authorization	$630,000	0	$630,000
Total authorizations, including this request	$630,000	0	$630,000
Remaining amount to be authorized	$0	$0	$0

Annual Budget Status and Source of Funds

This project was included in the 2022-2026 capital budget and plan of finance for $630,000. The project will be funded with the Airport Development Fund and revenue bonds.

Financial Analysis and Summary

Project cost for analysis	$630,000
Business Unit (BU)	Terminal Building
Effect on business performance (NOI after depreciation)	NOI after depreciation will increase due to inclusion of capital (and operating) costs in airline rate base.
IRR/NPV (if relevant)	N/A
CPE Impact	Less than $.01 in 2024

Future Revenues and Expenses (Total cost of ownership)

Annual recurring service, license, or maintenance fees, estimated at $300,000 per year, will be budgeted in annual operating budgets beginning in 2023. The estimated total over a ten-year contract term is $3,000,000 in addition to the vendor costs for implementation.

ATTACHMENTS TO THIS REQUEST

(1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None