



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 8d

**ACTION ITEM**

**Date of Meeting** July 27, 2021

**DATE :** July 12, 2021

**TO:** Stephen P. Metruck, Executive Director

**FROM:** Jinah Kim, Senior Manager, Aviation Maintenance  
Matt Breed, Chief Information Officer, Information and Communication Technology

**SUBJECT: Seattle-Tacoma International Airport Smart Restrooms (CIP #C801184)**

**Amount of this request:** \$2,630,000  
**Total estimated project cost:** \$1,300,000  
**Estimated 10-year contract fees:** \$1,380,000

**ACTION REQUESTED**

Request Commission authorization for the Executive Director to (1) proceed with the Smart Restrooms plan to procure software and vendor services to implement a comprehensive, airport specific custodial and analytics platform; (2) execute contract(s) for software, equipment, and vendor implementation services in a minimum of four Airport public-facing restrooms; (3) prepare design and construction bid documents for the related infrastructure work required in the same number of restrooms; (4) use Port staff for implementation, (5) advertise and execute small and major works contracts and utilize Port crews to perform the construction work; (6) authorize contracting authority for a contract for up to ten years for software license, service, and/or maintenance fees estimated at \$1,380,000. The amount requested for project implementation is \$1,300,000. Funding for the service contract will be incorporated into the Aviation Maintenance annual expense budget.

**EXECUTIVE SUMMARY**

This project will competitively procure, implement, and evaluate a technology platform that will serve as the airport standard for future customer-facing restroom remodels across Seattle-Tacoma International Airport (Airport) terminals and public spaces. Once in place, the system will be evaluated for suitability and gauged for customer acceptance with the intent that this technology standard will become available for broader implementation as the Airport's public-facing restrooms are remodeled in coming years. The new platform will be used by Aviation to meet customers' ever-increasing expectations for consistent restroom cleanliness, availability, and readiness. The Aviation Custodial Service team will rely on accurate and timely data produced

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by the system to anticipate and proactively manage restroom demand while minimizing the cost and environmental waste associated with premature replacement of restroom supplies.

In recent years, small scale efforts to test partial technology solutions in the Airport's public-facing restrooms has given Custodial Services confidence that restroom users are looking for increased visibility to latest cleaning times, clearly identified nearby restroom alternatives, reduced likelihood of encountering empty dispensers, and a simpler way to identify an open stall in busy restrooms.

Information and Communication Technology and Aviation Maintenance will complete this project with a vendor selected through a request for proposal (RFP) process. The capital project is included in the 2021-2025 capital budget and plan of finance for \$1,300,000. Recurring costs estimated at \$138,000 per year for up to ten years (\$1,380,000 total) will be budgeted in the Aviation operating budget beginning in 2022. Authorization for expansion of the technology standard will be included with future restroom renovation project requests.

### **JUSTIFICATION**

The Airport's restroom quality has been clearly identified as a leading customer satisfaction indicator when passengers rate their airport experience, making significant improvements required in order for the Airport to achieve its 5-Star Skytrax rating goals.

To improve service to a 5-Star level while remaining cost and labor-efficient, Aviation Maintenance has expressed strong support for a Smart Restrooms technology solution that can be rolled out across the Airport's public-facing restrooms. Key components of such a system include:

- (1) Sensors to monitor product usage (paper towels, soap, etc.)
- (2) Visual indicators for easy identification of open stalls
- (3) Automated and unobtrusive people-counting/occupancy monitoring
- (4) Digital signage to clearly inform customers of the most recent cleaning time while appropriately redirecting customers to nearby, available restrooms when the location is at a high level of use or is currently out of service.

### ***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 and implement a new Smart Restrooms technology platform.

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- (2) Implement the required infrastructure improvements needed, in a limited number of restrooms, to allow for successful installation and evaluation of the new technology platform.
- (3) Evaluate results for suitability and manageability with Aviation Custodial Services. Evaluate customer response for overall satisfaction levels.

**Schedule**

Commission authorization	2021 Quarter 3
Procurement complete	2022 Quarter 1
In-use date	2023 Quarter 2

**Cost Breakdown**

	This Request	Total Project
Software, Hardware and Vendor Services	\$120,000	\$120,000
Construction	\$710,000	\$760,000
Port Labor	\$420,000	\$420,000
Total	\$1,250,000	\$1,300,000

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Purchase a Smart Restrooms technology platform and install in 4-6 Airport customer-facing restrooms. Leverage this new technology standard in future restrooms remodels at the Airport.

Cost Implications: \$1,300,000 Capital/\$138,000 Annual support costs.

Pros:

- (1) Meets Airport Custodial Services and AV Customer Service teams’ business requirements for a best practice technology toolkit for restrooms.
- (2) Proactively directs customers to available stalls and alternative restrooms, better spreading peak demand across the Airport.
- (3) Improves the Airport customer experience in pursuit of an elevated Skytrax rating.
- (4) Improves efficiency and effectiveness of Custodial staff who routinely leverage the system’s data to better tailor custodial services to each restroom’s needs.

Cons:

- (1) Capital funds are not available to other projects.
- (2) Adds approximately \$138,000 in annual support costs to the Aviation budget.
- (3) Requires infrastructure investment and construction resources at each restroom to support a Smart Restroom’s additional electrical and data connectivity needs (wi-fi & blue tooth).

***This is the recommended alternative.***

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**Alternative 2** – Delay or eliminate plans for a Smart Restrooms procurement.

Cost Implications: \$0

Pros:

- (1) Capital funds are available for other projects.
- (2) No maintenance/support cost increase to the Aviation annual operating budget.

Cons:

- (1) Aviation Custodial Services staff will continue to rely on their current processes, leading to continued product waste and a suboptimal schedule-based approach to timing restroom service.
- (2) Delays/eliminates opportunities for elevating the customer experience in the Airport’s customer-facing restrooms.

This is not the recommended alternative.

**FINANCIAL IMPLICATIONS**

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
<b>COST ESTIMATE</b>			
Original estimate	\$1,300,000	\$0	\$1,300,000
<b>AUTHORIZATION</b>			
Previous authorizations	\$50,000	0	\$50,000
Current request for authorization	\$1,250,000	\$0	\$1,250,000
Total authorizations, including this request	\$1,300,000	\$0	\$1,300,000
Remaining amount to be authorized	\$0	\$0	\$0

***Annual Budget Status and Source of Funds***

This project was included in the 2021-2025 capital budget and plan of finance estimated at \$1,300,000. The project will be funded with the Airport Development Fund.

***Financial Analysis and Summary***

Project cost for analysis	\$1,300,000
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)	NA
CPE Impact	\$.01 in 2023

***Future Revenues and Expenses (Total cost of ownership)***

Annual recurring service, license, or maintenance fees, estimated at \$138,000 per year, will be budgeted in annual operating budgets beginning in 2022. The estimated total over a ten-year

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contract term is \$1,380,000. Authorization for this funding will be received through the annual Aviation Division expense budgeting process.

**ATTACHMENTS TO THIS REQUEST**

None

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

None