



**COMMISSION
AGENDA MEMORANDUM**

Item No. 9b (previously 10b on
September 28, 2021)

ACTION ITEM

Date of Meeting November 9, 2021

DATE: November 2, 2021

TO: Stephen P. Metruck, Executive Director

FROM: Laurel Dunphy, Director Airport Operations
Wayne Grotheer, Director Aviation Project Management

SUBJECT: Widen Arrivals Roadways (CIP #C800866)

Amount of this request: \$6,900,000

Total estimated project cost: \$79,300,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to (1) advertise and award a major public works contract for the early demolition of the fourth-floor bridge to the main parking garage, (2) amend existing service agreement for Airport Roadway Design Support Services with HNTB, in the amount of \$3,100,000, with a new contract total of \$8,700,000 (3) enter into a reimbursable agreement with the Federal Aviation Administration, and (4) authorize an additional \$6,900,000 for a total project authorization of \$15,500,000 for the Widen Arrivals Roadways project at Seattle-Tacoma International Airport.

EXECUTIVE SUMMARY

This authorization will allow for (1) the early demolition of the fourth-floor bridge to the main parking garage. The demolition scope was previously included in the project but is being advanced to take advantage of schedule improvements and reduced traffic volumes due to the pandemic. (2) The budget for the service agreement for Airport Roadway Design Support Services with HNTB, will be increased to cover all the design costs and as the project scope has expanded so has the need to increase this contract. This authorization will provide an additional \$3,100,000 to cover 90 percent through construction design costs. (3) While not fully defined at our current design level the project has identified a Federal Aviation Administration duct bank within the project limits. This authorization will allow the port to enter into a reimbursable agreement if needed, to cover any FAA cost resulting from that agency's project support. (4) Authorization for the additional \$6,900,000 includes the \$3,100,000 design service increase for HNTB, \$1,800,000 to fund the bridge demo construction, \$200,000 to transfer to the art pool and the remaining \$1,800,000 for port engineering and soft costs associated with the project increase.

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JUSTIFICATION

This project supports the following Century Agenda strategic goals and objectives:

- 1) Advance this region as a leading tourism destination and business gateway by meeting the region's air transportation needs by delivering vital facilities and infrastructure in a sustainable and cost-effective manner.
- 2) Be the greenest and most energy efficient Port in North America by meeting or exceeding agency requirements for storm water leaving Port-owned or operated facilities.
- 3) Be a model for equity, diversity, and inclusion by increasing utilization of Women and Minority Business Enterprise (WMBE) and Disadvantage Business Enterprise (DBE) DBE firms and eliminate disparity of access to opportunities.

The terminal roadway system was originally designed in 1968 to support an overall activity level of 25 million annual passengers (MAP). Over the years several efforts have been completed to extend the life of the terminal roadway system. These include relocating commercial ground transportation services to the third floor Ground Transportation Center and Northeast Ground Transportation Lot, extending the Arrivals curbside to the south for public transit and commercial ground transportation, and relocating rental car customers off-site to the consolidated Rental Car Facility.

Approximately 51.8 million passengers used the airport in 2019, and Arrivals experienced recurring congestion at peak travel times on a daily basis.¹ Widening of roadways accessing Arrivals and the Main Garage will improve access to parking, ground transportation center, and curbsides by alleviating congestion and reducing queuing on the main roadway entrances for airport visitors and passengers. The project will enhance roadway safety to accommodate the existing passenger activity. With no improvements, studies have indicated that the queuing on the Northern Airport Expressway will reach the I-5/I-405 South Center interchange on a regular basis during the summer months.

Diversity in Contracting

The design of this project is under an existing project specific contract to support both the Air Cargo Road Safety Improvements and Widen Arrivals Roadways projects. That contract has a Small Business Enterprise (SBE) goal of 20% (this contract was executed prior to our Diversity in Contracting program). The firm's current SBE utilization is 20.2 percent. The 20% goal assumed that the consultant would be completing all the design work. Since execution, it was decided to perform both structural and stormwater design internally. This has reduced the opportunity for the consultant to meet the original goal. Currently the contract has a participation of 17.5% for

¹ SEA has seen a dramatic reduction in passenger volumes as a result of the COVID-19 public health emergency. In 2020, passenger volumes were approximately 60 percent below 2019 levels. Based on airlines schedules, COVID-19 public health emergency travel restrictions, airline service announcements, and consultation with airline and travel industry sources, it is estimated the Airport will reach 2019 passenger volumes around 2024. While there is still uncertainty in full recovery of the impacts related to the COVID-19 public health emergency, current data is showing that recovery is beginning as airport passenger volumes increase at SEA and beyond.

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the Widen Arrivals Roadways portion of the contract, and 20.6% for the Air Cargo Road Safety Improvements portion of the contract.

The project team will work with the Diversity in Contracting Department to determine participation opportunities and will set appropriate aspirational goals for WMBE participation in both construction contracts.

DETAILS

The Widen Arrivals Roadways project includes the widening of the southbound lanes of the Northern Airport Expressway to provide an additional two lanes for a total of six lanes from South 170th Street into the Departures and Arrivals curbsides and Main Garage. This requires the relocation and expansion of the roadways to the west given the location of the columns supporting the Light Rail Transit guideway. In addition to the improvements described above, the project will relocate the north rental car bus curb further north to increase utilization of the Arrivals curbside, demolish the fourth-floor bridge from Departures to the Main Garage that was closed with the construction of the light rail transit walkway, and complete the structural improvements at the north end of the Service Tunnel. The scope of work for this project has increased to include additional utility relocations and the renewal of utility infrastructure impacted by the project.

This project will support multiple objectives in the Century Agenda by improving access and decreasing congestion entering the airport. A byproduct of reduced congestion is a decrease in emissions from vehicles in traffic.

The contract amendment will support additional design associated with the increased project scope. On July 11, 2017, Port Commission (Commission) authorized the execution of a project specific contract to support both the Air Cargo Road Safety Improvements and Widen Arrivals Roadways projects in the amount of \$3,000,000. The original contract included funding for Air Cargo Road Safety Improvements and the original single-lane widening scope for Widen Arrivals Roadways. On January 22, 2019, the Commission authorized the amendment to increase the funding for this contract by \$2,600,000, with a new contract total in the amount of \$5,600,000. This amendment and increase supported the project scope change from a single-lane widening to a double-lane widening project. With this amendment request, the funding for this contract would increase by an additional \$3,100,000, for a new contract total in the amount of \$8,700,000.

On April 24, 2018, the Commission authorized the Airport Utilities Master Plan which has resulted in a plan to build a utility corridor under the airport roadway system, and to replace or upgrade existing airport utility infrastructure. The Widen Arrivals Roadways project will relocate a number of existing utility systems in order to shift the roadways west. The utility system scope has been expanded to include the replacement of existing utility infrastructure that has reached the end of its useful life. Utility infrastructure capacity improvements associated with the SAMP near-term projects, including the planned utility corridor, are not included as part of the Widen Arrivals Roadways project.

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The project scope and budget has increased from \$50 million to \$79.3 million. The majority of the budget increase, approximately \$18 million, is associated with the shifting of the alignment further to the west to accommodate potential future projects, specifically the realignment of the southbound lanes of the Northern Airport Expressway and the utility corridor. Approximately \$3 million is associated with the replacement of existing utility infrastructure that has reached the end of its useful life. Approximately \$3 million is associated with refinements to existing scope including additional variable message signs to support operations, and passenger enhancements to the rental car bus curb. The remaining \$5.3 million is associated with other construction costs, including mobilization, traffic control, and erosion control, that also increase when the overall construction scope increases.

The project will be delivered through two design-bid-build major works contracts. The first contract will include the early demolition of the fourth-floor bridge between Departures and the Main Garage. The second contract will complete the roadway realignment, lane additions, and utility system infrastructure improvements and will utilize a project labor agreement. By completing the early demolition work the total contract time is reduced for the second contract reducing associated construction phase soft costs.

On June 14, 2021, the Port of Seattle issued a determination of non-significance for the Widen Arrivals Roadways project. A State Environmental Policy Act (SEPA) checklist was completed and was the basis for that determination.

Art is planned to be incorporated within this project. This request includes the authorization of \$200,000 to support the selection and placement of art within the project. The project's total allocation for art is estimated at \$780,000. The remaining balance will be requested with the future construction authorization.

Scope of Work

The Widen Arrivals Roadway project is a roadway improvement project. These types of projects generally include paving, sidewalks, barriers/curbs, pavement markings, illumination, storm drainage, retaining walls, signage, sign structures, safety elements (e.g., attenuators), and Intelligent Transportation Systems (ITS) improvements. Key components of the project include:

- 1) The widening of the southbound lanes of the Northern Airport Expressway to provide two additional lanes into the curbsides and Main Garage
- 2) The demolition of the existing closed bridge from Departures to the fourth floor of the Main Garage
- 3) The demolition of the remaining Bridge 5 ramp and abutment, construction of a retaining wall to support the Departures approach roadway, and the relocation of the north rental car bus curb further to the north
- 4) The completion of the seismic retrofit of the north portal of the Service Tunnel, consistent with work completed in other portions of the tunnel

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- 5) The construction of a retaining wall along the airfield north of the Service Tunnel and the relocation of communications, power, water, and natural gas utility infrastructure systems
- 6) The replacement of additional power and water utility infrastructure systems that are past their useful life
- 7) The relocation of a portion of Air Cargo Road along the new airfield retaining wall, and the Departures and Arrivals approaches further to the west to accommodate the two additional lanes

Schedule

Early Work: Bridge Demo	
Design complete	2021 Quarter 4
Construction start	2022 Quarter 2
In-use date	2022 Quarter 3
Widen Arrivals Approach	
Design complete	2022 Quarter 4
Commission construction authorization	2023 Quarter 1
Construction start	2023 Quarter 2
In-use date	2025 Quarter 4

Cost Breakdown

	This Request	Total Project
Design	\$4,900,000	\$14,400,000
Construction	\$1,800,000	\$64,120,000
Art (Transfer to Art CIP)	\$200,000	\$780,000
Total	\$6,900,000	\$79,300,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – No improvements are completed until the Sustainable Airport Master Plan (SAMP) near-term project relocates the southbound lanes to support the development of the second terminal. The Widen Arrivals Roadways improvements would be completed with the SAMP near-term projects.

Cost Implications: \$0

Pros:

- (1) No significant capital investment in the short-term

Cons:

- (1) Due to existing capacity constraints significant congestion and queueing occurs each day on the southbound lanes of the Northern Airport Expressway. Delay times are anticipated to exceed 25 minutes
- (2) Bridge remains that overloads the Service Tunnel structure, reducing the useful life of the Service Tunnel

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This is not the recommended alternative.

Alternative 2 – Widening of the southbound lanes of the Northern Airport Expressway to provide an additional lane and demolishing the bridge. The north rental car bus curb is not relocated.

Cost Implications: \$72,100,000

Pros:

- (1) Lower capital investment in the short-term
- (2) Provides congestion relief
- (3) Removes bridge and associated overload on Service Tunnel structure

Cons:

- (1) Additional improvements would be required to support Airport operations
- (2) Requires reconstruction of improvements; does not accommodate future road realignment projects.
- (3) Does not relocate the rental car bus curb to maximize the passenger load/unload space in front of the terminal

This is not the recommended alternative.

Alternative 3 – Widening of the southbound lanes of the Northern Airport Expressway to provide an additional two lanes, demolishing the bridge, and relocating the rental car bus curb.

Cost Implications: \$79,300,000

Pros:

- (1) Provides congestion relief
- (2) Minimizes reconstruction; accommodates future projects.
- (3) Maximizes the passenger load/unload space in front of the terminal
- (4) Removes bridge and associated overload on Service Tunnel structure

Cons:

- (1) Requires significant capital investment in the short-term

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary

Capital

Expense

Total

COST ESTIMATE			
Original estimate	\$15,600,000	\$0	\$15,600,000
Previous changes – net	\$33,900,000	\$300,000	\$34,200,000
Current change	\$29,500,000	\$0	\$29,500,000
Revised estimate	\$79,000,000	\$0	\$79,300,000
Art (Transfer to Art CIP)	(\$200,000)	\$0	(\$200,000)

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Revised Total	\$78,800,000	\$300,000	\$79,100,000
AUTHORIZATION			
Previous authorizations	\$8,600,000	\$0	\$8,600,000
Current request for authorization	\$6,900,000	\$0	\$6,900,000
Total authorizations, including this request	\$15,500,000	\$0	\$15,500,000
Remaining amount to be authorized	\$63,300,000	\$300,000	\$63,600,000

Annual Budget Status and Source of Funds

This project (CIP #C800866) was included in the 2021-2025 capital budget and plan of finance with a budget of \$49,700,000. A budget increase of \$29,300,000 was transferred from the Aeronautical Allowance (CIP #C800753) for a total revised capital budget of \$79,000,000. The funding source for this project will be the Airport Development Fund (ADF) and future revenue bonds. A total of \$200,000 will be transferred to the Art Pool (CIP #C102066) pending this request. The expense amount would be included in the annual operating expense budget. This project will require Airline majority-in-interest approval. This project was included in the recent ballot and results are anticipated by the end of September.

Financial Analysis and Summary

Project cost for analysis	\$79,300,000
Business Unit (BU)	Roadways
Effect on business performance (NOI after depreciation)	NOI after depreciation will increase
IRR/NPV (if relevant)	N/A
CPE Impact	\$.17 in 2026

Future Revenues and Expenses (Total cost of ownership)

This project will not have a significant impact on Aviation Maintenance annual operating and maintenance (O&M) costs. Lighting will be a low maintenance LED system; the surface area of asphalt will increase but otherwise the operating and maintenance costs would not significantly change. The installation of ITS systems, additional signage, and landscaped areas are anticipated to increase costs.

ADDITIONAL BACKGROUND

On June 8, 2021, the Commission was briefed on Ground Transportation. Several strategies were identified to be further explored that would reduce environmental impact, reduce roadway congestion, and advance transportation modes and programs to foster social equity and customer choice. The Widen Arrivals Roadway project supports these efforts since it will provide the basic roadway capacity and access necessary for private vehicles, commercial ground transportation, and public transit services to access the Main Terminal and Garage.

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SUPPLEMENTAL INFORMATION

During the staff presentation on September 28, 2021, the Commission decided to defer this action until the November 9, 2021 meeting and asked staff to respond to the questions listed below. Staff responses to these questions are included in the revised presentation slides.

1. What is the current and future roadway level of service? What does congestion look like over time?
2. How has lane flexibility (e.g., HOV lane) been integrated with the design effort?
3. Was there an environmental review? What was the result?
4. How does this project relate to the Sustainable Airport Master Plan?

This project has also received Airline majority-in-interest (MII) approval.

ATTACHMENTS TO THIS REQUEST

1. Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

January 22, 2019 – The Commission authorized design for \$8,340,000