

**PORT OF SEATTLE**  
**MEMORANDUM**

**COMMISSION AGENDA**  
**ACTION ITEM**

**Item No.** 4i  
**Date of Meeting** August 9, 2016

**DATE:** July 28, 2016

**TO:** Ted Fick, Chief Executive Officer

**FROM:** Stuart Mathews, Director, Aviation Maintenance

**SUBJECT:** Airfield Snow Removal Equipment Procurement (CIP #C800775)

<b>Amount of This Request:</b>	\$25,000	<b>Source of</b>	Airport
<b>Est. Total Project Cost:</b>	\$3,300,000	<b>Funds:</b>	Development Fund
<b>Est. State and Local Taxes:</b>	\$330,000		

**ACTION REQUESTED**

Request Commission authorization for the Chief Executive Officer to increase funding for the purchase of airfield snow equipment from an initial authorization of \$3,275,000 to an increased authorization of \$3,300,000. This will allow the Chief Executive to execute contracts for the purchase of all planned airfield snow removal equipment previously approved and included within CIP #C800775 at Seattle-Tacoma International Airport.

**SYNOPSIS**

Following previous commission authorization on March 22, 2016, a request for proposal for all planned equipment including 5 plow/broom combination units and three chassis mounted deicing spreaders was distributed on May 12, 2016. Upon receipt of all proposals, the total cost of the equipment was determined to be \$3,330,919, approximately \$56K above the authorized budget. Through subsequent negotiations with the low bidders of the equipment, the Central Procurement Office has reduced the total cost of the equipment to \$3,291,578. This results in a final budget authorization shortfall of \$16,578. To ensure any minor oversights or miscalculations do not result in a need for another return to commission, this request has been set at \$25,000, \$8,422 above the absolute minimum necessary.

**BACKGROUND**

As noted for the previous commission action in March of 2016, this request for procurement of replacement snow removal equipment is the next step in the strategy developed following the opening of the third runway. Following the opening, the Aviation division began the phased enhancement and replacement of the snow fleet. This includes the purchase of four high efficiency, multi-functional combination plow/broom units in 2012/2013 to clear snow and ice on the two easternmost runways and associated taxiways.

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Utilizing the existing 1991 and 1984 vintage equipment required eight individual pieces of equipment with eight operators. With the plow/broom combination equipment, the eastern snow removal team can perform the same task with four operators, allowing resources to be redeployed to perform removal activities on the western surfaces of runway 16R/34L and its associated taxiways. This methodology utilizing combination equipment has proven very effective.

Utilizing existing equipment, the snow removal team deploys a second team of eight (8) machines to the western surfaces. This team of eight performs the same task as the team of four on the eastern surfaces. Following the successful completion of this procurement, the snow removal team will be able to deploy two nearly identical runway and taxiway snow removal teams, and a third larger team to perform snow removal activities on ramp surfaces.

### **PROJECT JUSTIFICATION AND DETAILS**

Following this purchase of the five new plow/broom combination units the snow removal team would have two nearly identical teams of four plow/broom combination units. One unit would be utilized as a rotating asset to provide ready backup for both teams to ensure operational capability in case one of the active units required maintenance or repair during a snow event.

The other component of this procurement, the purchase of three sander plows, will allow the replacement of equipment originally procured in 1984. This equipment will be utilized in conjunction with four existing pieces of equipment currently used on our ramp operation for snow and ice removal. This will give us seven total pieces to perform removal operations on the ramp, an increase of three pieces of equipment from the current configuration without the need for additional equipment operators.

Existing plow blades currently installed on the existing truck chassis will be removed and re-used on the new truck chassis/sander bodies as they were procured in 2009 and have significant life remaining.

Equipment will be dispositioned as surplus once the procurement is completed, resulting in no increase to the total snow fleet. Opportunities to allow other airports or similar entities to obtain the dispositioned equipment will be explored during the disposition process. Equipment will be maintained utilizing the current auto mechanic staffing.

#### ***Schedule***

Equipment delivery Q1 2017

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### **FINANCIAL IMPLICATIONS**

<i>Budget/Authorization Summary</i>	Capital	Expense	Total Project
Original Budget	\$2,500,000	\$0	\$2,500,000
Previous Authorizations	\$3,275,000	\$0	\$3,275,000
Current request for authorization	\$25,000	\$0	\$25,000
Total Authorizations, including this request	\$3,300,000	\$0	\$3,300,000
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Cost	\$3,300,000	\$0	\$3,300,000

#### ***Budget Status and Source of Funds***

This project was included in the 2016-2020 capital budget and plan of finance with a budget of \$2,500,000. The budget increase at initial commission authorization was to accommodate three small capital project requests to replace snow fleet equipment with the large capital project C800775. This budget increase was transferred from the Aeronautical Allowances CIP (C800404) resulting in no net change to the airport's capital budget. This small additional budget authorization will also be transferred from the Aeronautical Allowances CIP (C800404) resulting in no net change to the airport's capital budget. The funding sources will include the Airport Development Fund and future revenue bonds.

#### ***Financial Analysis and Summary***

<b>CIP Category</b>	Renewal/Enhancement
<b>Project Type</b>	Renewal and Replacement
<b>Risk adjusted discount rate</b>	N/A
<b>Key risk factors</b>	N/A
<b>Project cost for analysis</b>	\$3,300,000
<b>Business Unit (BU)</b>	Airfield
<b>Effect on business performance</b>	NOI after depreciation will increase
<b>IRR/NPV</b>	N/A
<b>CPE Impact</b>	\$0.01 in 2017

#### ***Lifecycle Cost and Savings***

This project is not anticipated to add costs to the Aviation Maintenance department expenditures. By dispositioning surplus equipment, the total amount of equipment maintained and operated by the snow removal team is anticipated to remain the same. Anticipated maintenance costs are expected to be similar to current maintenance costs. Significant repair costs may be avoided due to the reliability of the new equipment. Repair costs for the new equipment are expected to be less than the current equipment scheduled for disposition.

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### **STRATEGIES AND OBJECTIVES**

This project promotes the Century Agenda strategy of meeting the region's air transportation needs at Seattle-Tacoma International airport for the next 25 years. Ensuring reliable airport operations, even in times of inclement weather, is necessary to meet this need. This project also meets the Aviation Division strategy to operate a world-class international airport by ensuring safe and secure operations. One of the objectives in this strategy is to increase overall runway availability during snow events. Maintaining an effective and efficient snow removal fleet is important to meeting that objective.

### **ALTERNATIVES AND IMPLICATIONS CONSIDERED**

#### **1. Procure one less Plow/Broom combination unit than originally planned.**

Cost Estimate: \$2,900,000

Pros:

- Replace 25 to 30 year old equipment with more effective up-to-date machines. This reduces the risk of equipment failure that could impact airport operations.
- Has a lower capital expenditure than alternative number 2.

Cons:

- Due to the elimination of one Plow/Boom combination unit, this option does not provide the operational readiness and flexibility that the full procurement provides. This fifth Plow/Broom unit will function with the ramp removal team when all other Plow/Broom equipment is available. When necessary, this unit will be utilized to backfill on either of the two runway teams. Failure to procure this unit increases the risk of impact to operations during a snow event. One less piece of equipment will be available for snow removal.

This is not the recommended alternative

#### **2. Procure new snow equipment for delivery in a single season in 2017.**

Cost Estimate: \$3,300,000

Pros:

- Replace 25 to 30 year old equipment with more effective up-to-date machines. This reduces the risk of equipment failure that could impact airport operations.
- Provides a higher level of operational readiness and flexibility with all eight (8) pieces of equipment available for snow removal. This fifth Plow/Broom unit will function with the ramp removal team when all other Plow/Broom equipment is available. When necessary, this unit will be utilized to backfill on either of the two runway teams

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### Cons:

- Requires a larger capital expenditure.
- Consumes capital funds that could be utilized for other projects.

This is the recommended alternative

## **ATTACHMENTS TO THIS REQUEST**

- None.

## **PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

- March 22, 2016, Commission authorized the Chief Executive Officer to execute contracts for the purchase of airfield snow removal equipment (CIP #C800775) at Seattle-Tacoma International Airport for a total authorization of \$3,275,000.