

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 5c

Date of Meeting February 14, 2012

DATE: February 6, 2012

TO: Tay Yoshitani, Chief Executive Officer

FROM: John Christianson, General Manager Aviation Maintenance

SUBJECT: Purchase of a High Pressure Rubber/Paint Removal Truck (C800482)

Amount of This Request: \$600,000

Source of Funds: Airport Development Fund

Est. State and Local Taxes: \$50,000

Est. Construction Jobs Generated: N/A

Total Project Cost: \$600,000

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to purchase one truck mounted - high pressure water - rubber and paint removal system for Seattle-Tacoma International Airport for a total authorization of \$600,000.

SYNOPSIS:

The primary purpose for purchasing this specialized piece of equipment is to enable more timely and cost effective removal of built up rubber and paint deposits on the Airport's runways, taxiways, and ramp areas. Procuring this piece of equipment and performing rubber and paint removal requirements by "in-house" maintenance department forces will enable airfield pavement maintenance to be accomplished throughout the year in a more timely and regulatory compliant manner. Using in-house equipment is also more cost-effective than using outside contractors.

BACKGROUND:

In a manner authorized by the Federal Aviation Administration (FAA) Administrator, each certificated airport must maintain and promptly repair the pavement surface of each runway, taxiway, loading ramp, and parking area on the airport that is available for air carrier use. The most persistent runway contaminant problem the Airport is required to address multiple times yearly is deposits of rubber from the tires of landing jet aircraft. Rubber deposits occur in the touchdown areas on runways and can be quite extensive. Heavy rubber deposits can completely

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

February 6, 2012

Page 2 of 5

cover the pavement surface texture thereby causing loss of aircraft braking capability and directional control when runways are wet. Regardless of pavement type or surface treatment, runway friction characteristics will change over time depending on type and frequency of aircraft activity, weather, environmental issues, and other factors. In addition to ordinary mechanical wear and tear from aircraft tires, other contaminants, such as dust particles, jet fuel, oil spillage, etc. can collect on runway pavement surfaces also causing a decrease in friction properties.

Monthly friction testing is performed on the runways using the Airport's continuous friction measuring equipment (CFME) to measure and ensure satisfactory runway coefficient of friction levels are maintained. When deficient areas are identified, expeditious corrective actions to improve low friction levels must be taken. Having in-house equipment will enable Airport staff to immediately correct pavement deficiencies rather than wait for outside contractors to be scheduled.

Having this piece of equipment also allows for paint removal and surface preparation to be performed on a year-round as-needed basis. Paint striping visibility is also vital to maintain per FAA standards and increasingly receives scrutiny during FAA inspections.

PROJECT JUSTIFICATION:

The purchase of a rubber and paint removal truck will improve the timeliness and effectiveness of required rubber and paint removal activities and enables these services to be provided at a lower cost to our airline business partners.

Project Objectives: Purchase one piece of specialized equipment to accomplish both rubber and paint removal requirements and reduce the dependence on contractor availability and the need to contract for these services in the future.

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

Purchase one truck chassis mounted high pressure water rubber and paint removal system for the Airport for a total authorization of \$600,000.

Schedule:

- Commission Authorization February 2012
- Specification Development February 2012
- Perform Acquisition Planning March 2012
- Bid Advertisement April 2012
- Receive Bids & Award Contract June 2012
- Removal Truck Delivered and in Service November 2012

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

February 6, 2012

Page 3 of 5

FINANCIAL IMPLICATIONS:

We spend approximately \$170,000 annually for contracted rubber and paint removal services at the Airport. The procurement of the requested piece of equipment will enable rubber and paint removal to be performed on a more frequent basis at a significantly lower cost. An airline rate base cost analysis identified positive savings beginning in the first year of operation after the equipment is put into service. This analysis identified savings of approximately \$900,000 in the first 10-year period of operation.

Budget/Authorization Summary

Original Budget	\$600,000
Previous Authorizations	\$0
Current request for authorization	\$600,000
Total Authorizations, including this request	\$600,000
Remaining budget to be authorized	\$0
Total Estimated Project Cost	\$600,000

Project Cost Breakdown

Equipment Purchase	\$550,000
State & Local Taxes (estimated)	\$50,000
Total	\$600,000

Budget Status and Source of Funds:

This project is included in the 2012-2016 capital budget and plan of finance as a business plan prospective project within CIP #C800482. The funding source will be the Airport Development Fund.

Financial Analysis and Summary:

CIP Category	Compliance
Project Type	Regulatory
Risk adjusted Discount rate	7.0%
Key risk factors	N/A
Project cost for analysis	\$600,000
Business Unit (BU)	Airfield
Effect on business performance	Operating costs will decrease by a net of \$150,000 per year, annual capital costs will increase by \$82,000 per year, resulting in a net decrease in annual costs and thus airfield revenues.
IRR/NPV	NPV >\$500,000
CPE Impact	Will result in annual savings of less than \$.01 per year.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

February 6, 2012

Page 4 of 5

Lifecycle Cost and Savings:

Cost savings will be realized beginning in the first year of operation with this new piece of equipment. The purchase of the requested piece of equipment would eliminate two existing maintenance contracts (rubber and paint removal) and the associated expenses required for continually establishing, advertising, bidding, and managing these contracts. Annual operation and maintenance costs are estimated at \$20,000 with a projected 3% increase each year. These O&M costs are primarily associated with additional mechanic man-hours and necessary parts/materials required for the on-going maintenance and repair of the unit.

ENVIRONMENT AND SUSTAINABILITY:

The new piece of equipment allows for more timely and effective removal operations and uses only high pressure water for removing rubber and paint deposits. The newer rubber and paint removal equipment models create less noise pollution, which is safer for the crew. The truck has the capability to recycle water that it uses in the removal process and will be equipped with a full recovery system for all waste materials that will be captured during removal operations.

Use of Alternative Fuel Powered Vehicle:

Equipment purchased will meet U.S. Environmental Protection Agency fuel efficiency standards. The new unit would be equipped with either a compressed natural gas (CNG) or Clean-Diesel power plant in support of the Port's green initiative.

STRATEGIC OBJECTIVES:

This project supports the Port-wide strategic objectives of Ensuring Airport and Seaport Vitality and Exhibit Environmental Stewardship through our Actions.

BUSINESS PLAN OBJECTIVES:

The primary Airport business plan objective supported by this request is to: Reduce airline costs (CPE) as far as possible without compromising operational and capital needs. This project also supports the Airport's strategic goal and objective to operate a world-class international airport by "ensuring safe and secure operations". The purchase of a rubber/paint removal truck will improve the timelines and cost effectiveness of regulatory required rubber and paint removal on the Airport's pavement surfaces.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

Alternative 1: Do nothing and continue to contract out work. Current annual budgeted amount for rubber and paint removal is \$170,000. This alternative is not the preferred action because:

- a) Contracted services are not as cost effective as buying the requested piece of equipment and performing the work with in-house maintenance staff.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

February 6, 2012

Page 5 of 5

- b) The limitations of contractor availability. When removal is required, scheduling is typically around the contractor's availability versus the immediate need. This is not the recommended alternative as it can leave the Airport vulnerable to unsafe conditions when runway markings are not clearly visible and contaminated by rubber build-up.
- c) Rubber and paint removal activities are limited to the budgeted contract amount which often is established prior to an annual competitive bid process. This limits flexibility in cases where more removal areas may be identified than budget or contract can absorb.

ALTERNATIVE 2: Purchase a high pressure water rubber/paint removal unit that will lower overall costs, improve effectiveness, enhance safe operations, and enable the Airport to control when and where to perform rubber and paint removal activities throughout the year. **This is the preferred alternative.**

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

None

PREVIOUS COMMISSION ACTION:

None