PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA **Item No.** 6a

ACTION ITEM **Date of Meeting** September 25, 2012

DATE: September 18, 2012

TO: Tay Yoshitani, Chief Executive Officer

FROM: Mike Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management Group

SUBJECT: Cargo 2-West Hardstand Expansion at Seattle-Tacoma International Airport (CIP #C800247)

Amount of This Request: $2,410,000 **Source of Funds:** Airport Development Fund (and future revenue bonds)

Est. State and Local Taxes: N/A **Est. Jobs Created:** TBD

Est. Total Project Cost: $12,130,000

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to (1) design and prepare construction documents for the demolition of a cargo building (Building 2) and for the enlargement of the hardstand in the Cargo 2-West area in the amount of $830,000; and (2) terminate the lease, containing two cargo buildings in the Cargo 1 and Cargo 2 areas currently owned by ProLogis (formerly AMB) at Seattle-Tacoma International Airport, at a cost not to exceed $1,580,000.

SYNOPSIS:

This project will promote air freight and regional economic vitality by allowing large freighter aircraft, such as the new 747-8F aircraft, to operate efficiently at the Cargo 2-West hardstand. The project is consistent and necessary for the implementation of the Commission's Century Agenda goals as they relate to tripling air cargo volume within 25 years.

The cargo industry is gravitating towards the use of more and larger wide-body aircraft. This trend is being reflected at the Airport. However, there are no hardstand positions at the Airport that can singularly accommodate the new Boeing 747-8 freighter (B747-8F). The project will enlarge the western cargo hardstand in the Cargo 2 area toward the north, which will allow for two simultaneous straight-in wide body freighter nose-load operations by aircraft like the B747-400F and the B747-8F.

Users of the overall Cargo 2 area have increased their frequency of operation by more than 50% in the last 5 years. The Airport saw a record number of B747F aircraft in July 2012 during the summer cherry export season, with a total of 133 of this type of large aircraft. A lack of freighter parking capacity led to operational disruption and displacement of customer aircraft to other locations on one occasion and resulted in all positions being used simultaneously with no capacity for additional operations on several other occasions during the summer. Similar maximum capacity conditions are forecast for future winter holiday peak seasons.

Several current carriers have indicated potential interest in increasing frequency at Sea-Tac. Other cargo carriers have expressed possible interest in starting service here. All of them, however, are concerned about the ability and willingness of the Airport to ensure that there will be sufficient capacity to meet their needs. Sea-Tac is unable today to ensure that it can meet the simultaneous needs of scheduled cargo carriers, charter operators, seasonal expanded Fed-Ex service, overnight or disabled aircraft parking needs, or diversion requests. In addition, as we seek to attract new or expanded service, we cannot now demonstrate sufficient future capacity to accommodate that potential demand.

The terms of the lease with ProLogis for the two buildings in the Cargo 1 and Cargo 2 areas require that the Port provide one year advance notice prior to termination.

The Cargo 2 project was objected to by the airlines in the Majority-in-Interest (MII) vote dated February 24, 2012, triggering a 180-day waiting period that concluded on August 22, 2012. Because staff believes that this project is necessary to meet the long-term goals of the Century Agenda as well as the very near-term needs of existing tenants, we recommend that the Port proceed with implementation.

There are potential cost savings associated with two additional hardstand projects (the Cargo 5 Hardstand project, approved for design on March 27, 2012; and the Cargo 6 Enhancements project, for which design authorization is currently being requested) that have the potential to be combined with this project into a single bid to be completed in a single construction season (2014). Staff has estimated potential savings of up to $10 million with a single, combined contract as compared to the cost of using separate contracts for each project. This savings represents 16% of the combined project costs, or 54% of the total costs of the Cargo 2 and Cargo 6 projects.

There is a time sensitivity associated with the authorization of design for both the Cargo 2 West Hardstand and Cargo 6 Enhancements in order to realize the estimated savings of up to $10 million. Authorization for these projects is needed now in order to combine Cargo 2, Cargo 5, and Cargo 6 projects into a single contract to be constructed in 2014. The lease for Cargo 2 requires a one-year notice to the building tenants and sufficient time for their relocation. Cargo 2 also affects a Federal Aviation Administration (FAA) ASDE-X antenna. The FAA will need adequate time to relocate their antenna in advance of the demolition of a building. The building demolition is one of the first orders of work in the combined contract to be followed by work that

is weather dependent and needs to fully utilize the normal construction season. Another constraint is that Cargo 2 and Cargo 6 cannot both be out of service at the same time as it would severely impact air cargo operations. It is envisioned that Cargo 2 will be completed first. Authorization for both the design of Cargo 5 and Cargo 6 now will allow for the timely relocation of a tenant and the FAA antenna, for the preparation of contract documents, and for Cargo 2, Cargo 5, and Cargo 6 to be constructed in one contract that is completed in a single construction season. Should authorization for the design for Cargo 2 and Cargo 6 not occur now, the opportunity to combine those projects with Cargo 5 into a single contract would be lost and result in higher cost and operational impact. Alternatively, a deferral in the authorization for Cargo 2 and Cargo 6 while combining the projects into a single contract would result in the construction occuring over two construction seasons at a higher cost and environmental risk. .

This project was included in the 2012-2016 capital budget and plan of finance as a business plan prospective project.

BACKGROUND:

The industry forecasts overall cargo growth between 5% and 6.5% annually over the next 10 years while international growth will be stronger, with growth of 6% to 7% in the Asia-Pacific market. Air cargo represents approximately 30% of the value of goods exported from the United States and is an essential part of regional economic vitality and the efforts to increase overall exports.

The existing Cargo 2 hardstand is too short to accommodate straight-in parking for certain types of cargo loading operations. The current nose-load parking position line has to be angled, and the 747-8F line must be configured east to west across two hardstands. This results in an inefficient use of the ramp by taking up two parking positions for a single operation and reducing overall capacity.

All existing hardstands have limited space in front of parked aircraft to allow for cargo/ground service equipment (GSE) staging. Consequently, cargo and GSE end up staged on either side of the aircraft, impinging on adjacent hardstands.

This project will provide additional concrete apron space to enlarge the western cargo hardstand toward the north, which will provide enough room for two simultaneous straight-in wide body freighter nose-load operations by aircraft including the 747-8F. The larger ramp area will allow the taxilane to be moved to the north and provide better maneuverability and increased operational room for users of both Cargo 2 and Cargo 3 ramps. Gate E-185 will be relocated so that vehicular traffic is not directed towards the hardstand.

Cargo 2 has no ground power connections, requiring the need for air carriers to run their auxiliary power units (APUs) to power the aircraft while on the ground. This project installs in-ground power, reducing the emission of greenhouse gasses and other pollutants by approximately 325 tons annually and creating significant fuel savings for the airlines. With the

addition of in-ground power, the Airport is providing modern "green" servicing options, providing a financial benefit to the airlines and an environmental benefit to the Airport.

ProLogis has a ground lease in the Cargo 2 area and owns two buildings there, one of which will require demolition. The lease requires a one-year notice prior to termination and compensation for the unamortized value of the buildings. The building that is to be demolished is occupied by a tenant, Cargo Airport Services. The Port will coordinate with ProLogis and/or the tenant as appropriate for the tenant's relocation prior to the start of construction. There is no Port cost associated with the relocation.

PROJECT JUSTIFICATION:

The existing Cargo 2-West hardstand is the only existing hardstand position at the Airport that can efficiently and safely accommodate the cargo operation of the new 747-8F aircraft, and other aircraft design group (ADG) VI very large freighter aircraft. Because Cargo 2-West lacks adequate depth, the current -8F nose-load parking position is required to be perpendicular to existing parking lines, which results in the aircraft having to be positioned across a number of hardstand lines. This results in an inefficient use of the ramp by taking up two parking positions for a single operation. Effective alternatives do not exist.

Project Objectives:

- Improve the Cargo 2-West hardstand in order to accommodate the increased size and frequency of wide body cargo aircraft at the Airport
- Improve overall air cargo efficiency
- Support cargo volume growth

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

- Lease buyout from ProLogis
- Demolition of one cargo building currently owned by ProLogis
- Grade the building site and adjacent parking lot to the north
- Install concrete hardstand between Cargo 2 and Cargo 1 to the north
- Asphalt paving adjacent to concrete around hardstand area for cargo and GSE staging
- Relocate security gate E-185, related fencing and new guard shack
- Install in-ground 400 Hz power for the two wide body positions
- Replace affected or aged utilities
- Relocation of FAA radar antenna – EXPENSE ITEM

Schedule:

Commission Authorization to Terminate Lease and 100% Design	September	2012
Lease Termination	September	2012
Building Acquisition	September	2013
Tenant Relocation	December	2013
Commission Authorization to Advertise	August	2013

Advertise	September	2013
Notice to Proceed	January	2014
Construction Complete	October	2014

FINANCIAL IMPLICATIONS:

Budget/Authorization Summary:	Capital	Expense	Total Project
Original Budget	$13,300,000	$300,000	$13,600,000
Budget Decrease	(1,470,000)		(1,470,000)
Revised Budget	$11,830,000	$300,000	$12,130,000
Previous Authorizations	$0	$0	$0
Current request for authorization	$2,410,000	$0	$2,410,000
Total Authorizations, including this request	$2,410,000	$0	$2,410,000
Remaining budget to be authorized	$9,420,000	$300,000	$9,720,000
Total Estimated Project Cost	$11,830,000	$300,000	$12,130,000

Project Cost Breakdown:	This Request	Total Project
Construction	$0	$7,600,000
Administrative Costs	$830,000	$1,920,000
Lease Buy-out	$1,580,000	$1,580,000
State & Local Taxes (estimated)	$0	$730,000
Total	$2,410,000	$11,830,000

Budget Status and Source of Funds:

Cargo 2–West Hardstand Expansion CIP #C800247 is included in the 2012-2016 capital budget and plan of finance as a business plan prospective project with a budget of $13,300,000. The budget reduction of $1,470,000 has been transferred to the Aeronautical New Projects CIP #C102165, a business plan prospective project, resulting in no net change to the Aviation capital budget. Operating expense funds will not be utilized until 2013-2014. The source of funds for this project will be the Airport Development Fund and future revenue bonds. Consistent with the Port's plan of finance, the Airport has a number of projects that will require a revenue bond issue in 2013.

Financial Analysis and Summary:

CIP Category	Revenue/Capacity Growth
Project Type	Business Expansion
Risk adjusted Discount rate	N/A
Key risk factors	N/A
Project cost for analysis	$11,830,000

Business Unit (BU)	Airfield
Effect on business performance	NOI after depreciation will increase since capital and operating costs will be recovered through landing fees
IRR/NPV	N/A
CPE Impact	$0.06 in 2015; however, no change from business plan forecast as this project was included.

The revenues as well as the operating and capital costs associated with the cargo business unit are included in the airfield cost center. The net impact of the cargo business unit, including this investment, reduces the landing fee charged to all airlines.

Lifecycle Cost and Savings:

The estimated life expectancy for this project is 20 years for pavements, 15-20 years for the security guard shack, 40 years for utilities, 20 years for 400 Hz power system and 30 years for electrical panels and transformers.

The estimated operating and maintenance cost is $28,000 for the first year, $20,500 per year second year, with an increase of 3% per year thereafter.

STRATEGIC OBJECTIVES:

This project is consistent and necessary for the implementation of the Commission's Century Agenda goals that call for tripling air cargo volume over 25 years.

ENVIRONMENTAL SUSTAINABILITY:

- Energy conservation lighting may be used to reduce energy use and reduce off-airport glare and light pollution.

- 400Hz In-Ground Power:

  Utilizing 400 Hz power, versus auxiliary power units (APUs) or ground power units, supports the Port's Century Agenda Goal to *Reduce carbon emissions from all Port operations by 50% from 2005 levels and reduce aircraft-related carbon emissions at Sea-Tac by 25%.* Using 400 Hz power at freighter parking and remain-over-night (RON) positions is consistent with previous decisions to reduce noise and emissions.

  The estimated annual emission savings of utilizing 400 Hz power versus APUs for a cumulative 360 hours of 747 or MD11 freighter aircraft operations is:

Hydrocarbon	0.1 tons/yr.
Carbon Monoxide	2.0 tons/yr.
Nitrous Oxides	0.5 tons/yr.

Carbon Dioxide 325 tons/yr.

- Alternative materials may be used in concrete, such as fly ash and slag.
- Portions of the existing building may be recycled.

BUSINESS PLAN OBJECTIVES:

This project is included in the 2012-2016 Aviation Business Plan to support the goal of operating a world-class airport by anticipating and meeting the needs of our tenants, passengers, and the region's economy by expanding and modernizing existing on-airport cargo facilities.

TRIPLE BOTTOM LINE SUMMARY:

This project will improve two hardstands in Cargo 2 area to accommodate the increased size and frequency of wide-body cargo aircraft to increase the Airport's ability to retain and attract key cargo customers, who want to operate the larger and more efficient newly available freighters. The project will also reduce airfield carbon and other gas emissions by providing electrical power as an alternative to fuel-powered generator operations.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

- Alternative 1 - Do Nothing: This alternative would perpetuate existing capacity constraints and neglect customer requirements for the accommodation of increasingly larger aircraft. Congested hardstand conditions would persist along with the inefficient use of ramp space. This would not promote air cargo growth and the associated economic development, and does not align with Commission Century Agenda goals. This alternative is not recommended.

- Alternative 2 - Enlarge Cargo 2-West Hardstand: This alternative is consistent with the goals of the Century Agenda for promoting growth in air cargo by alleviating capacity constraints, and is consistent with the Airport's Comprehensive Development Plan (CDP). **This is the recommended alternative.**

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

Attachment A – Overview of Cargo Planning

Attachment B – Cargo 2 Hardstand Expansion

Attachment C - Cargo 2 Buildings

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:

None**.**