July 17, 2020

Re: Louisville Regional Airport Authority's notice for public comment prior to submitting PFC Application number 20-15-C-00-SDF at the Louisville Muhammad Ali International Airport to the Federal Aviation Administration.

The Louisville Regional Airport Authority (Authority) is posting this public notice as part of the passenger facility charge (PFC) application process under 14 CFR § 158.24 for the Louisville Muhammad Ali International Airport (Airport).   As part of this procedure, the Authority is providing the following information:

PFC LEVEL, ESTIMATED TOTAL PFC REVENUE, PROPOSED CHARGE EFFECTIVE DATE, AND ESTIMATED CHARGE EXPIRATION DATE

The Authority will seek a PFC with the following characteristics:

- PFC level: The Authority will be submitting an application to impose and use a PFC of $4.50 at the Airport to fund the projects described below at the Airport.

- Estimated Total PFC Revenue (Impose and Use) under this application: $10,018,596.

- Proposed charge effective date: April 1, 2023, (the estimated authorized charge expiration date for approved PFC applications, as amended) or upon expiration of collection of PFCs for currently approved applications, whichever comes first.

- Estimated charge expiration date: February 1, 2024, (or until collected revenues plus interest thereon equal the allowable costs of the approved projects, as permitted by regulation).

   These dates are estimated based on PFC collections and expenditures as of December 31, 2019; estimated enplanements for Calendar Year (CY) 2020 at the Airport; projections of future enplanements assuming two percent annual enplaned passenger growth and 91 percent collectability on enplaned passengers.

AUTHORITY POINT OF CONTACT

As required under 14 CFR § 158.24, the Authority will be accepting public comments on the proposed PFC Application for thirty days after the July 17, 2020, date of posting this public notice on our Internet Web site. Any comments should be sent to Mr. Dan Mann, Executive Director, Louisville Regional Airport Authority, 700 Administration Drive, Louisville, KY 40209-0129. If there are any questions regarding this proposed PFC application, Mr. Mann can also be reached at (502) 368-6524.

PROJECT INFORMATION

1. Security Modernization & Integration Project

Description: This project involves the design, program management, and construction costs related to the Security Modernization & Integration Project at the Louisville Muhammad Ali International Airport ("Airport"). This project consists of replacing the Airport's Physical Access Control System (PACS) which includes door access, perimeter control, camera functionality, alarm conditions, employee credentialing, and badging protocol. It increases the number of security cameras located throughout the Airport and improves the functionality of the CCTV system. The project also provides a central location from which the Airport can facilitate and monitor the entire security program.

This project cohesively integrates all aspects of the security program at the Airport including access control, video monitoring, employee credentialing and badging through a single-user interface which will allow for a comprehensive view of the entire security operation at the Airport. Operation Specialists will be able to acknowledge all alarms and physical access control features through one interface, they will have better video surveillance capabilities, instant access to the badging database, and can issue mass notifications for emergency response purposes. The status of the airfield, terminal building, and other tenant spaces will be constantly monitored, and the Operations Specialists can respond if needed or provide assistance of any kind when an issue arises in one of these areas.

The modification of existing terminal space will allow for the consolidation and modernization of the Badging & Credentialing Office, Operations Command Center, and Emergency Operations Center (EOC). The project will also create a data center to support the security program.

Physical Access Control System and CCTV

The existing Access Control System was originally installed in 1999. An updated ACS was approved for PFC funding in Application 17-11-C-00-SDF, however due to scope changes and project cost increases, the Authority is seeking to remove that project from the PFC program and apply for funding in this new application.

The PACS includes access control proximity card readers, an intrusion detection and alarming system (alarm system), and perimeter control. The PACS will protect secured areas by restricting access, via electronic locking mechanisms, to all but badged tenants, airport staff, and other authorized employees. Credential reading devices and door controllers will integrate with existing elevators to limit access to un-authorized riders. Perimeter gate hardware will be replaced including new card readers, new arm mechanism, ground loop, and photo eye.

Costs associated with this system include:

- Field devices (i.e., credential reading devices, door contacts/status switches and emergency release switches, arm mechanisms, and photo eye)

- Alarm integration with various systems
  - video management system (VMS)
  - identity management system
  - intrusion alarm management system
  - fire alarm systems
  - vertical transportation system (elevators)
- Associated infrastructure including wiring, cabling, and door hardware

The credential reading devices will be located in both airside and landside areas of the Airport, however the Authority is not seeking PFC funding for PACS elements located in revenue producing areas or other ineligible areas (see Table 1 below).

The PACS will integrate with a new closed-circuit television (CCTV) surveillance system. The existing CCTV system is dated technology with a mix of different makes, types and capabilities of video cameras. It is a hybrid system consisting of mostly analog cameras with some newer IP cameras. This system will be replaced with superior field view and high-resolution cameras. The new CCTV system will include a computer backup system allowing larger data storage for longer periods of time, consistent with the Airport's Part 1542 Security Plan.

Costs associated with this system include:

- Recording devices and network equipment
- 558 CCTV cameras and associated camera power supplies

The CCTV cameras will be located in both airside and landside areas of the Airport. The specific locations of the CCTV cameras are not listed because it is security sensitive information, however it will be provided to the FAA in a separate transmission.

The airfield electrical vault will receive new credential reading devices. There are no cameras to be located at the electrical vault.

As part of this project, the Authority is installing four electrical duct banks to protect the new electric and data cabling that will link the terminal and airfield access gates to provide access control on and off the airfield. Duct banks are groups of conduits designed to protect and consolidate cabling to and from buildings. In a duct bank, data and electrical cables are laid out within PVC conduits that are bundled together; these groupings of conduit are protected by concrete and metal casings.

Consolidated Operations Center

A robust and efficient multi-use center, combining operations, badging, and communications, is needed to support security operations and access control. Construction of this 5,843 sq. ft. operations center includes an area for badging and credentialing, access control workstations, break rooms, restrooms,

offices, mechanical rooms, storage rooms, and a conference room. (The design drawing of this area is shown on Exhibit A-1.1.)

Badging & Credentialing

The badging & credentialing area (824 sq. ft.) includes three (3) workstations and ten (10) cubicles for training and testing. Each workstation has a computer, fingerprint machine, printer, credit card machine, document scanner, and a digital signature pad. This new area will replace the existing badging office which is located behind the west ticket counters. The Airport currently has and is required by 49 CFR part 1542 to have, a badging system (fingerprinting equipment) that requires background checks.

The Authority is seeking to use PFC funding only for the cost to construct the portion of the Badging & Credentialing area needed to house and operate badging and fingerprinting (63 sq. ft.).

Operations Command Center

The operations command center will be approximately 5,019 sq. ft. and will replace the existing Communication Center located in the firehouse. It will include five (5) workstations which will monitor the access control system, the intrusion detection and alarming system, the CCTV system, and the existing intercom system (the physical components of which are not being replaced as part of this project). Through these workstations, Operations Specialists will be able to disseminate mass notifications quickly via the terminal PA system and FIDS monitors.

The Authority is seeking to use PFC funding only for the cost to <u>construct</u> 500 sq. ft. of space in the Operations Command Center to provide a console for airfield security. It is not requesting funding to purchase equipment or furniture that is not fixed or mounted.

Emergency Operations Center and Other Rooms

The Emergency Operations Center (EOC) will act as a conference room during normal operations but can flex to an Emergency Operations Center where key Airport, tenant, and emergency response leadership would gather to stay abreast of an emergency situation at the Airport and make key decisions regarding the operation of the airport while the emergency is ongoing. The Airport is required to identify an EOC location as part of its Airport Emergency Plan (AEP) and under the NIMS emergency response structure. Also included in the space are break rooms, restrooms, offices, mechanical rooms, and storage rooms.

The Authority is not seeking to use PFC funding for the construction of the EOC and other rooms.

Data Center

The 840 sq. ft. data center will be constructed directly below the Consolidated Operations Center next to the baggage make-up area. It will house the information technology (IT) infrastructure necessary to run the airport-wide access control system, badging and credentialing, and Operations Command Center technology. (See project location map as Exhibit A-1.2.)

The Authority is seeking to use PFC funding only for the construction of the space needed to house the servers for the CCTV cameras and PACS (100 sq. ft.).

Design for the Security Modernization & Integration Project is at 75%. Construction has not yet occurred for this project.

Proposed Eligibility

This is an airport-wide project that encompasses areas that are generally not eligible for PFC funding and as such, the Authority will not include costs associated with those areas in the PFC funding request. Table 1 below lists the areas with components of the project and whether they are proposed to be "eligible", "ineligible" or "partially" eligible and subject to proration based on square footage. Construction cost details are based on the most recent 75% cost estimate and design cost is estimated based on an agreement and ongoing task orders with Aviation Security Consulting, Inc.

The Authority is seeking to use PFC funding for Access Control, related infrastructure, and general construction costs in areas that are listed as "eligible" or "partial" in Table 1 below.

CCTV cameras will be located in both airside and landside areas of the Airport. Of the 558 cameras being replaced as part of this project, the Authority estimates that 340 are in eligible areas and 218 are not. The cost of the CCTV replacement has been prorated based on the number of cameras in eligible areas (60.9%). Cameras located in ineligible areas (see Table 1) are not included in the estimated PFC eligible portion of the project.

PFC funding is requested to construct 563 sq. ft. of space (9.6% of total space) in the Badging & Credentialing / Operations Command Center (noted as "Area F -Badging / Operations" in the table below), therefore a 9.6% eligibility factor was applied to the cost of construction. The Authority will use local funds to pay for ineligible portions (approximately 5,280 sq. ft.) of the Consolidated Operations Center including the additional badging cubicles, operations consoles, a training room break rooms, restrooms, offices, mechanical rooms, storage rooms, and the EOC.

PFC funding is requested to construct 100 sq. ft. of space (11.9% of total space) in the Data Center (shown as "Area D -Data Center" in the table below), therefore an 11.9% eligibility factor was applied to the cost of construction.

PFC funding is <u>not</u> being requested for costs relating to revenue-generating areas that are considered ineligible (rental car lot, parking areas, tunnels to the terminal, the maintenance, administration, firehouse, and cargo buildings, and tenant spaces). Construction contingency and allowances are excluded from this PFC funding request as well.

As shown in Table 1 below, 62.5% of construction costs are proposed to be eligible for PFC funding. Construction soft costs and design costs were prorated based on the proposed eligibility of the construction costs.

The following supporting documents can be found following this Attachment:

A-1.1   Design drawing of Consolidated Operations Center
A-1.2   Project location map of Data Center

Estimated Eligibility of Security

Areas	Estimated eligibility	Total			
Rental car lot	Ineligible	78,343			
Parking garage / Main parking / Toll plaza	Ineligible	771,270			
Tunnels to terminal	Ineligible	150,089			
Landside & Airside Terminal (excl Areas F and D)	Eligible	4,887,452			
Maintenance building	Ineligible	96,338			
Administration building	Ineligible	247,410			
Airside firehouse	Ineligible	253,408			
Cargo building	Ineligible	171,027			
Electrical vault	Eligible	31,436			
Enabling - fit out of tenant spaces	Ineligible	506,150			
Area F - Badging / Operations	Partial	2,576,005			
Area D - Data Center	Partial	1,155,966			
Electrical ductbanks around airfield	Eligible	667,973			
Total cost (based on 75% estimate)		11,592,867			
Total, less allowances		10,417,717			
		Amount	**Pct. Eligible**	**Proposed PFC**	
Access control (a)		5,777,607		4,975,572	
CCTV (b)		2,094,700	60.9%	1,276,341	
Subtotal		7,872,307	79.4%	6,251,913	
Construction of Area F (c)		2,081,949	9.6%	200,605	
Construction of Area D (c)		463,461	11.9%	55,174	
Subtotal		10,417,717	62.5%	6,507,692	
Design & Soft cost		5,524,316	62.5%	3,450,904	
Allowances (d)		1,175,150	0.0%	-	
Construction contingency		1,382,817	0.0%	-	
Total projected cost		18,500,000		9,958,596	

(a) Includes access control devices, associated infrastructure, and direct costs.
(b) Includes cost of cameras and related IT infrastructure.
(c) Construction cost only. Excludes any cost of equipment or furniture.
(d) Includes allowances for equipment, supplies, tenant fit-out, etc.

Justification: **Physical Access Control System and CCTV**

The access control system at SDF includes door access, perimeter control, camera functionality, alarm conditions, employee credentialing, and badging protocol. The existing access control system was installed in 1999 and is beyond its useful life. It often loses connection with servers which leads to the loss of sensitive data and creates a threat to security. The system is experiencing slow operation, storage deficiencies, and compatibility challenges with other existing equipment. Replacement of the system is critical to the continued safe and secure operation of the Airport.

Since the original installation, there have been a number of software upgrades completed, most recently in 2011. Most of the original system panels and servers were not replaced. These system components were at the end of their useful lives in 2011 and as these parts continue to fail, the ability to purchase new replacements has become even more difficult. Some of the components required are only available for purchase in the secondary market and are always refurbished parts. As one of these system panels fail, the Airport risks the loss of the safe and secure functionality of large sections of the property, control of secure doors, access to the airfield and other critical areas on the Airport until a new panel is located, shipped, and replaced.

Also, the current ACS server does not have an automatic failover feature, which means if the server fails, it would take approximately 1-3 hours to have the backup server in place. The PACS will be installed with this automatic failover feature which is critical to having as close to a zero second downtime as possible – and thereby contributing to the safety and security of the Airport.

The existing CCTV equipment is aging and in need of replacement to maintain security at

the Airport. The CCTV technology will be replaced with equipment that allows for

superior field view and resolution cameras, as well as computer backup allowing larger data storage for longer periods of time, which will result in a higher level of security. Current video coverage is insufficient in certain areas and non-operational in others. The current video storage solution is old, unreliable, and difficult to expand, video recorders are failing and need to be replaced, and the system is not compatible with the PACS. Design specifications to address these shortfalls are considered sensitive security information but include new cameras, recording devices, network equipment, and appurtenances for a fully functional system, and the latest versions of all firmware and software products.

The age of the existing Analog equipment rendered it obsolete with replacement parts becoming increasingly difficult to source. Due to the age and inherent limitations of the CCTV system the Airport is not able to interface with the new PACS not able to capitalize on new video analytics to aid in the security of the Airport.

The Authority is seeking PFC funding to replace the existing ACS and CCTV in non-revenue generating areas of the Airport. Access control is a 49 CFR part 1542 requirement. Terminal access control projects

are eligible for AIP funding, and therefore PFC funding, per Table L-2(t) of FAA Order 5100.38D, Change 1.

Consolidated Operations Center

The Authority is constructing a centrally-located, multi-use center to support security operations and access control. The Consolidated Operations Center will incorporate badging and credentialing operations, the Operations Command Center, and the Emergency Operations Center.

Operations, Badging, and EOC spaces are not currently co-located causing significant inefficiencies in staffing, communications, and stakeholder services. Operations Specialists are required to serve in all areas. The Consolidated Operations Center will improve service and reduce operational costs and integrating all aspects of the security program to be monitored from one location will enhance security at the Airport.

This project encompasses the entire Airport property, however the Authority is requesting to use PFC funds only for areas that are estimated to be PFC-eligible. The funding request excludes revenue-generating areas such as the rental car lot, parking areas, tunnels to the terminal, the maintenance, administration, firehouse, and cargo buildings, and tenant spaces. The Authority is also not seeking PFC funding for a portion of the Operations Command Center or the entirety of the EOC and other rooms.

Badging & Credentialing

The Airport is required by 49 CFR part 1542 to have a badging system (fingerprinting equipment) that requires background checks. Security enhancements (fingerprinting equipment for background checks) is eligible for AIP funding and therefore PFC funding per Table L-2(s),(v) of FAA Order 5100.38D, Change 1. As explained in Section 8 of this Attachment, the Authority is requesting to use PFC funding to construct one cubicle (63 sq. ft.) and will use local funds to pay for ineligible portions (761 sq. ft.) of the Badging & Credentialing office.

Operations Command Center

The Operations Command Center will replace existing communications center located in the firehouse. It will include workstations which allow operators to acknowledge all alarms and monitor access control airport-wide – including events on the airfield. From these workstations operators will be able to disseminate mass notifications quickly via the terminal PA system and FIDS monitors.

From the Operations Command Center workstations, the Airport can identify and respond to security breaches or other threats in real-time without worry of dropped connections or the loss of critical data. The new PACS will be integrated with not only the video surveillance (CCTV) system, but the intercom system as well. As currently installed, the Airport's intercom system doesn't tie into the emergency response system, nor does it allow Authority staff to disseminate vital passenger safety information. Integrating the intercom system with the other security systems and providing enhanced methods for reaching the public directly contributes to the safety of passengers and the security of the Airport.

A portion (500 sq. ft.) of a building dedicated to airfield security (a command and control center) is eligible for AIP funding and therefore PFC funding, per Tables L-2(r) and O-3(g) of FAA Order 5100.38D, Change 1. As explained in Section 8 of this Attachment, the Authority is prorating the eligible construction costs per Table O-3(g)(4) of FAA Order 5100.38D, Change 1. The Authority will use local funds to pay for ineligible portions (approximately 4,519 sq. ft.) of the Operations Command Center.

Data Center

The Data Center will house all of the security network infrastructure (servers and related information technology components) necessary to run the entire security operation at the Airport. It will be the data hub for the IT infrastructure required to run the access control system, internet network, communications system, and operations center technology. As such, the data center is necessary for the security of the airport and the safe movement of passengers and baggage. The Authority is requesting to use PFC funding to construct 100 sq. ft of the Data Center – the space needed to house the servers running the access control program. The Authority will use local funds to pay for ineligible portions (740 sq. ft.) of the Data Center.

New equipment with more advance software capabilities will overcome technology shortfalls and eliminate the need for costly, hard-to-find replacement parts for the existing system hardware and software that has reached the end of its useful life. The new PACS and updated CCTV system will include all new technology (including field devices, cameras, servers, panels, and electrical work) that will extend the life of the security system by at least 10 years.

Any failure of the comprehensive security system (most importantly, access control will jeopardize security and safety, and violate TSA Regulations. The PACS will replace the existing ACS with a system that meets the requirements of 49 CFR Part 1542.

Total Project Cost: $18,500,000
FAA AIP Grant: None
LRAA Funding: $8,541,404
PFC Funding: $9,958,596
PFC Amount: $4.50
Start Date: November 2018
Completion Date: October 2021

2. PFC Implementation and Administrative Costs

Description: Includes professional fees for services provided by the Louisville Regional Airport Authority's consultant in developing, implementing, and coordinating the PFC program at the airport.

Justification: Allowable PFC Cost.

Project Cost: $60,000
PFC Funding: $60,000
PFC Amount: $4.50
Start Date: March 1, 2019
Completion Date: December 2020