

# Springfield Airport Authority

PFC #8  
Effective July 1, 2021

## Description And Justification Of Proposed Projects **Part 158.30(b)(3)**

### **1. Land Acquisition for Approach Protection**

Description – The properties are identified by Springfield Airport Authority as Parcel Number 8-1-A, Parcel Number 7-2-J, Parcel Number 7-1-D, Parcel Number 9-4-G and Parcel Number 9-4-H. It was/is important for the Authority to acquire these properties for FAR Part 77 approach protection purposes, in order to prevent any future development of incompatible land uses such as outside development and, in some cases, for noise mitigation purposes.

Justification – It was/is important for the Authority to acquire the properties for FAR Part 77 approach protection purposes, in order to prevent any future development of incompatible land uses such as outside development and, in some cases, for noise mitigation purposes. The current (April 2003) FAA approved ALP anticipated acquisition of Parcels Number 7-2-J, 7-1-D, 9-4-G, and 9-4-H and they are designated as “Future Fee Simple” on the Authority’s current (July 2015) FAA approved Exhibit A. The intent is to use 100% PFC funds for the acquisition of these properties.

Schedule – The implementation date was June 17, 2013 and the estimated completion date is December 31, 2021.

### **2. Public Safety Patrol/Operations Vehicle**

Description – The Springfield Airport Authority is purchasing and replacing one Public Safety vehicle and the lighting, marking and radio equipment that are required by the TSA. This vehicle will be utilized in complying with the Certification Manual and FAR Part 139 and the TSA approved Airport Security Program as required under 49 CFR 1542.

Justification – The Springfield Airport Authority needs to replace this Public Safety Department vehicle. The vehicle is used to inspect and protect air carrier operations ramps, patrol airfield areas, monitor perimeter fencing and adjacent roadways and provide Public Safety staff with means of transportation to monitor security compliance as required in complying with the Airports TSA approved Airport Security Program. The intent is to use 100% PFC funds for the replacement cost for this vehicle.

Schedule – The implementation date was June 20, 2012 and the estimated completion date is November 30, 2018.

### **3. Runway 18/36 Surveying & Analysis**

Description – This project acquired professional surveying services to verify the FAA ATO Flight Procedures presumption that obstacles penetrated the Visual 20:1 approach surfaces for Runways 18 and 36 at Abraham Lincoln Capital Airport and confirm the clearance of any penetrations to the Visual 20:1 approach surfaces so that night operations would not be restricted.

Justification – The Springfield Airport Authority acquired professional surveying services and did confirm that obstacles penetrated the Visual 20:1 approach surfaces for Runways 18 and 36 at Abraham Lincoln Capital Airport. The identified penetrating objects were cleared from these approach surfaces and surveyed again to confirm that the previously penetrating objects had been successfully removed. The second survey confirmed that objects no longer penetrated the Visual 20:1 approach surfaces and no restrictions were needed. The intent is to use 100% PFC funds for the professional surveying services costs.

Schedule – The implementation date was January 23, 2014 and the completion date is July 29, 2014.

### **4. PSB ARFF Access Road and Perimeter Road Rehabilitation, Phases I & II**

Description – This project will reconstruct the perimeter road pavements that are failing rapidly and closed in several sections to prevent further pavement damage, vehicle damage and airfield FOD hazards.

Justification – Due to the current poor condition of the perimeter roadway system, several sections are closed to vehicular traffic which is causing vehicles to have to cross active runways to get around the airfield. The perimeter road has become an FOD tracking hazard onto aircraft operating areas and contributes to documented vehicular damage that has been expensive to repair and caused the ARFF vehicle to be out of service for extensive and lengthy repair. Overall airport safety will be improved by rehabilitating these pavements. The intent is to use PFC funds for the Authority's local share of the projects costs.

Schedule – The project implementation date was October 28, 2014 and the estimated completion date is November 30, 2018.

### **5. Upgrade Perimeter Fence, Phase IV**

Description – This project is the continuation of the phased enhancement of the airport perimeter fence raising the fence to the total height of ten feet. Phase 4 is the final phase that will entirely enclose the airport on the eastern perimeter from Hackmore Road to the corner of Wilbur and Pulliam Roads with the ten foot fence with three strands of barb wire on top and two foot of fence buried. Also this project will relocate power line utilities near the airport by burying them underground and mitigate two airfield areas that are wildlife attractants.

Justification – This project will provide improvements to the airport's perimeter fencing in an effort to increase security and minimize wildlife intrusion with the taller ten foot fence and two foot buried to prevent an animal's ability to dig or burrow under the fence. Also burying power lines on the approach to Runway 31 will reduce wildlife in the approach to a busy runway. To further mitigate wildlife hazards clearing, grubbing, draining and grading of object free areas and other Part 77 surfaces in the approach of Runway 31 will be accomplished. Wildlife mitigation in the south quadrant of the airfield will also be completed, including other grubbing and clearing within the airport's perimeter. This project will enhance the safety and security for air carrier operations and their passengers. The intent is to use PFC funds for the Authority's local share of the projects costs.

Schedule – The estimated project implementation date is May 15, 2019 and the estimated completion date is October 31, 2020.

## **6. ARFF Equipment - 1500 Gallon Truck**

Description – This project will consist of purchasing a Class 4 Aircraft Rescue and Fire Fighting (ARFF) vehicle carrying 1,500 gallons of water/AFFF system and 500 pounds of sodium-based dry chemical system required by FAR Part 139 to provide Index B emergency services and associated ancillary rescue equipment to the airport in the event of an accident or incident.

Justification - This ARFF vehicle will become the front line ARFF vehicle responding to incidents and accidents at Abraham Lincoln Capital Airport. The current ARFF vehicle is nine years old and has suffered major maintenance problems which include power divider failure and structural support member failure which required significant cost to repair on two occasions which took this vehicle out of service for four months. Because of these ongoing major maintenance issues, it is very important to replace this ARFF vehicle with a new Class 4 ARFF vehicle to maintain Index B to preserve safety at the airport by supplying rescue personnel with modern, properly functioning equipment to meet FAA standards. This enables the personnel to respond appropriately and timely to emergencies on the airfield and in the terminal. The intent is to use PFC funds for the Authority's local share of the projects costs.

Schedule - The project implementation date was September 15, 2016 and the estimated completion date is December 31, 2018.

## **7. Rehabilitate Public Safety Building Structure**

Description – This project will repair the exterior "envelope" of this building to include replacing the roof and windows, replace multiple furnace/air conditioner systems and replace the emergency generator and automatic transfer switch.

Justification – This building is over 40 years old and no longer maintains positive air pressure in the interior of the facility allowing outside air and humidity to penetrate the inside and the conditioned air to escape. The joints in the tilt wall construction contribute significantly to the seal problems this building is experiencing; all of the joints are

penetration sources and need to be repaired. The humidity infiltration causes the cooling ducts to drip condensate and cause environmental mold problems to walls and ceilings which has been remediated on reoccurring occasions. The roof and windows are beyond their useful life expectancy and leak allowing water penetration into the building contributing to mold problems. The emergency generator serving the Public Safety Building is no longer being manufactured and replacement parts are no longer made. Repair parts are "customized" or adapted from newer available engine and generator parts. A reliable generator is required to open doors to get ARFF Vehicles out in a power failure situation and to support the airport access control system and closed circuit television monitoring room and the snow desk housed in the Public Safety Building to ensure that FAR Part 139 ARFF functions and TSA approved Airport Security Program requirements under 49 CFR 1542 remain in compliance. The intent is to use PFC funds for the Authority's local share of the projects costs.

Schedule – The estimated project implementation date is July 15, 2020 and the estimated completion date is June 30, 2021.

## **8. Terminal ADA / Capacity Improvements, Phase IV - Terminal Parking Lot, Sidewalk, Access Road Rehabilitation & Modification**

Description – This project will rehabilitate and reconfigure the Terminal parking lots and sidewalks and modify the Terminal access roadways.

Justification – The Terminal in Phases 2 and 3 will have been expanded to increase passenger check-in and security screening capacity and efficiency needed as a result of ongoing airline and passenger growth with expanded ticketing queuing and security screening areas and gate holding rooms. The Terminal parking lots, which provide parking free of charge, sidewalks and roadway also need expansion and reconfiguration to better accommodate the additional vehicles that increased passenger traffic generates. They are 14 to 35 years old. The intent is to use PFC funds for the Authority's local share of the projects costs.

Schedule – The project implementation date is estimated to be May 1, 2017 and the estimated completion date is November 1, 2019.

## **9. High Speed Runway Broom and Continuous Friction Measuring Equipment**

Description – This project will acquire one runway broom vehicle that is designed for airfield snow and ice removal and acquire new friction measuring equipment to assist in monitoring and maintaining airfield pavements during periods when snow and ice are required to be removed as required in FAR Part 139 and the Airports Certification Manual.

Justification – The Springfield Airport Authority is required by the FAA to maintain the airfield in the cleanest possible condition during winter precipitation events with the least possible contaminants on runways, taxiways and ramps. This broom vehicle will be replacing an older broom that is 20 years old and operate an approximately 20' wide

broom to clear pavements which have proven very effective in properly maintaining airfield pavements during winter operations. The new friction measuring equipment will also be replacing older equipment. Acquisition of this SRE will enhance safety for the air carriers, their passengers and aircraft and all other aircraft operators and their passengers. The intent is to use PFC funds for the Authority's local share of the projects costs.

Schedule – The estimated project implementation date is March 1, 2020 and the estimated completion date is October 31, 2021.

## **10. East Quadrant and South Quadrant Ramp and Taxilane Improvements**

Description – This project will rehabilitate the aged taxilane pavements that support T-Hangars at the South Quadrant Ramp and corporate hangars in the East Quadrant. These pavements are reaching the end of their designed life expectancy and in need of rehabilitation.

Justification – This rehabilitation will reestablish the structural capacity and reduce maintenance needed to maintain these taxilanes in the safe condition necessary to support aircraft operations. The main East Quadrant pavement was constructed in 2006 and the 2017 PCI map shows the pavements in this area range from 66 to 27 to a low of 15. The South Quadrant T-Hangar Taxilanes were constructed in 1988 and 2003 and had PCI's of 54 in 2011 and 9 on one major taxilane in 2014 before these pavements were rehabilitated in 2014 as part of a State/Local project and 2017 as part of a Federal/State/Local project. It is the intent to use PFC funds to reimburse the Authority's local share of these projects costs.

Schedule – The estimated project implementation date is January 2, 2019 and the estimated completion date is September 30, 2020.

## **11. Rehabilitate Air Carrier Ramp and Taxiway C**

Description - This project will rehabilitate the south portion of the air carrier ramp that was not rehabilitated in previous ramp projects and rehabilitate a section of Taxiway Charlie between Runway 13/31 and Taxiway Bravo.

Justification – This project will rehabilitate and reconstruct the south portion of the air carrier ramp and Taxiway Charlie that are nearing the end of their design life expectancy. The Pavement Condition Index (PCI) for the south portion of the air carrier ramp is currently 37 out of 100. These pavements are showing distress that includes corner breaking, joint seal damage, D-cracking and spalling. Pavement rehabilitation/reconstruction is necessary to extend the useful life of the surface and allow aircraft movements to continue with minimized risk of Foreign Object Debris (FOD) or pavement failure. The intent is to use PFC funds for the Authority's local share of the projects costs.

Schedule – The estimated project implementation date is January 2, 2020 and the estimated completion date is November 15, 2021.

## **12. Wildlife Assessment Update**

Description – The intent of this project is to update the Wildlife Hazard Assessment that was done in 2010, and use the update information to continue to improve upon the results achieved since 2010.

Justification – Wildlife hazard management is a requirement of FAR Part 139.337 and incorporated into the Abraham Lincoln Capital Airport's Certification Manual. This update will evaluate the progress to reduce the presence of wildlife on the Airport, the reduction of attractants on or near the Airport and evaluate the measures taken to alleviate and/or eliminate wildlife hazards to aircraft and update the Wildlife Hazard Management Plan as indicated. This project will continue to enhance the safety for all aircraft operators and their passengers. The intent is to use PFC funds for the Authority's local share of the projects costs.

Schedule – The estimated project implementation date is April 1, 2020 and the estimated completion date is June 30, 2021.

## **13. ALP Update / Runway 18 / 36 RIM Study**

Description - This project will update the existing ALP and GIS database including aerial mapping and contours and inventory surface and sub-surface drainage systems.

Justification - Much of the baseline data that these documents were based on is now in excess of fifteen years old and capital development projects over those years has changed the landscape. Federally obligated airports are required as part of the grant assurances to keep up to date at all times the airport layout plan of the airport. Airport sponsors cannot make any changes or alterations in the airport or any facilities which are not in conformity with the ALP as approved by the FAA. This ALP will improve the quality of information and data for all planning projects and upcoming capital development projects. This project will enhance the safety for air carrier operations and their passengers. The intent is to use PFC funds for the Authority's 5% share of the cost and an AIP grant for 90% of the project cost with the State providing 5%.

Schedule - The estimated project implementation date is January 2, 2019 and the estimated completion date is July 31, 2020.

## **14. Rehabilitate / Replace Airfield Surface Sensors, REILs, PAPIs, RGLs, Windsocks**

Description - This project will rehabilitate and replace the Runway 13 REIL system, the Runway 13 PAPI system, the Supplemental Wind Cones, Runway Guard Lights and replace three (3) runway surface sensors.

Justification – This project will rehabilitate and reconstruct aged airfield lighting navigational aids and lighted safety equipment that is very old and in some cases no longer manufactured or supported by factory replacement parts. This equipment will be

replaced with LED equipment which will significantly reduce the electricity used by these systems, the majority of which are on 24 hours a day, and reduce the maintenance required which will enhance airfield safety as maintenance crews will not have to access the airfield as often for bulb replacement and repair because LED lighting has longer bulb life expectancies. Three runway surface sensors have failed and this project will replace those failed sensors. The intent is to use PFC funds for the Authority's 100% share of the projects costs.

Schedule – The estimated project implementation date is June 1, 2019 and the estimated completion date is November 30, 2020.

## **15. Relocate Airport Rotating Beacon**

Description – This project will relocate the airport rotating beacon to another location on the airport.

Justification – This project will locate the airport rotating beacon to another location on the airport. The beacon in its current location is an impediment to continued improvement and expansion of the Terminal parking lot and circulation roadway system. As parking continues to expand, the beacon in its current location is central in an area of much more activity than in the past. Additional parking lot and facility development will also increase the flow of traffic and personnel in the area of the beacon making this current location less favorable than in the past when there was minimal activity around the beacon. The location that the beacon will be relocated to will be more remote than the current location and will not have public parking, roadways or members of the public walking in the vicinity of the beacon at this relocated location. The intent is to use PFC funds for the Authority's projects costs.

Schedule – The project implementation date is July 14, 2017 and the estimated completion date is December 31, 2018.

## **16. Terminal ADA, Security & Passenger Service Area Improvements, Phase III**

Description – This project will complete the design and provide construction funding that will improve the Terminal ADA accessibility, security and operational flow by relocating and expanding the TSA checkpoint area to meet current TSA standards, expand the ticket counter queuing area to de-conflict the airline ticket counters and passengers from the TSA checkpoint and improve the Terminal passenger flow patterns between arrival and departure gates, the TSA checkpoint, ticket counters and baggage claim areas.

Justification – This project will expand the Terminal building in the TSA checkpoint and the airline ticket counter area creating a new exterior façade and expand the walkways within the Terminal to improve passenger safety and access to include ADA access improvements in the checkpoint/arrival departure gates, ticket counter and baggage areas. The Terminal area between the ticket counters and the checkpoint has become very congested and confusing for airline passengers and expansion in these areas will eliminate confusion and improve capacity. Additional seating will be gained to

accommodate "meeters and greeters" in the public areas. The walkway improvements will enhance passenger ADA access and safety, eliminating blind corners and improve passenger flow and capacity throughout the Terminal. Terminal roofs will be rehabilitated as needed to accommodate the expansions. The intent is to use PFC funds for the Authority's share of the projects costs.

Schedule – The project implementation date is July 1, 2017 and the estimated completion date is December 31, 2020.