



City of San Antonio

Agenda Memorandum

File Number:

Agenda Item Number: 24

Agenda Date: May 18, 2023

In Control: City Council A Session

DEPARTMENT: Aviation Department

DEPARTMENT HEAD: Jesus H. Saenz Jr.

COUNCIL DISTRICTS IMPACTED: Citywide

SUBJECT:

Funding Agreement for the Outbound Baggage Handling System Lower Level Controls project at the San Antonio International Airport

SUMMARY:

An ordinance authorizing a two-year funding agreement and payment in the amount not to exceed \$21,479,035.00 to the San Antonio Airline Consortium (Consortium) for the design and build-out of the Outbound Baggage Handling System (BHS) Lower Level Controls (LLC) at the San Antonio International Airport. Funding in the amount \$4,595,998.25 for FY 2023 is available from Interim Airport Financing within the Baggage Handling System Expansion project and included in the FY 2023 – FY 2028 Capital Improvement Program. Funding for future years is contingent upon City Council approval of the annual budget.

The Consortium has initiated a BHS improvement program to update the system that serves both Terminals A and B. This project will modernize the existing aging BHS Lower Level Controls, which operate 24 hours a day and seven days a week in order to meet performance demands. As part of the Funding Agreement, the Consortium will be responsible for all service and activities required to design, build-out and complete the project by November 30, 2025.

The new terminal, scheduled to open at the end of the second quarter of 2028, will have its own

BHS system that will connect to the existing BHS. These improvements are needed as airlines will continue to utilize Terminals A and B for years past 2028.

BACKGROUND INFORMATION:

The BHS System is a conveyor system that transports checked luggage from the ticketing counters of terminals through the Transportation Security Administration (TSA) Checked Bag Inspection System to the airplane, and from the airplane to the baggage claim areas for passengers to collect. The BHS will count and weigh bags, screen the suitcases for security purposes and read encoded airline flight tag information so the luggage reaches the correct airplane. The BHS Controls are made up of two sub-systems, the Upper-Level Controls and Lower-Level Controls, which are responsible for the following functions:

- Upper-Level Controls – Consist of the software, networks, and computer system components that integrate with airline system baggage information, combined with flight schedule data to provide real-time sortation decisions and data collection and reporting for the entire BHS.
- Lower-Level Controls – Consist of the software, networks, and electrical components that directly control the mechanical equipment that sorts and transfers the bags.

In 2011, the airlines at the San Antonio International Airport formed the Consortium as a result of the Airline Operating Agreement and Terminal Building Lease to perform services such as the maintenance and operation of the BHS and the passenger loading bridges. The 2020 Airline Operating Agreement and Terminal Building Lease, approved through Ordinance 2020-09-03-0604, allows the Consortium to perform capital improvements on behalf of the airlines and the City. The amendment to the agreement, approved by City Council on December 15, 2022 through Ordinance 2022-12-15-0972 includes this language.

In August 2021, City Council approved a funding agreement with the Consortium in the amount of \$2,378,775.00 for the BHS Upper Level Controls project to address critical improvements, while determining the next step for the BHS Lower Level Controls improvements and the expansion of the BHS system. The Consortium completed its work before the date of October 31, 2022, as required by the funding agreement.

As part of the BHS Upper Levels Controls project, the Consortium's contractor designed and integrated a new communication protocol to replace the obsolete system that was no longer supported by its vendor. The Consortium will utilize the same contractor for the BHS LLC project that it used for the BHS Upper Level Controls project to ensure that the mechanical and explosive detection systems operate in a safe, reliable, and secure manner. Although the BHS controls are typically a small percentage of the overall BHS implementation costs, treating them as specialty IT systems mitigates operational risks, reduces long-term costs, and ultimately supports the airline operation and overall passenger experience. The contractor has installed or retrofitted BHS at San Francisco International Airport, JFK International Airport, Toronto Pearson International Airport, Dublin International Airport and Sydney International Airport.

ISSUE:

As part of the Funding Agreement, the Consortium will be responsible for all service and activities required to design, build-out and complete the project by November 30, 2025.

The project will replace the existing ControlNet/DeviceNet architecture with new components using a modern, Ethernet/IP architecture. This work will:

- Provide the mechanical work to replace 19 High-Capacity Diverters with all new materials and appurtenances. These diverters are used to separate baggage into different routes and destinations.
- Perform the electrical field wiring for all materials and appurtenances required for electrical work.
- Replace five existing outbound programmable logic controllers (PLCs) with new Hot Stand-by ControlLogix 1756-L83 Central Processing Units.
- Replace 53 Relay Control Panels (RCP) with 53 Remote Input/Output (I/O) panels
- Update obsolete communication and Input/Output modules in existing equipment, including ticket counter drives, make-up units and L3 Interface Panels.
- Replace existing obsolete Inbound PLCs with new PLCs and I/O Racks
- Replace existing displays for the baggage inspection tables and baggage removal points
- Replace existing PLC with new Brock-standard PLC logic for all conveyors.
- Perform Transportation Security Administration re-certification testing
- Provide commissioning and operator training
- Offer standby support

A separate project to expand the BHS is being developed and anticipated to be released for advertisement in the fall.

ALTERNATIVES:

City Council could choose not to approve this agreement. However, the project will provide critical improvements to the BHS system which is needed to continue to operate efficiently to support air travel and serve our passengers. The Consortium is responsible for the maintenance of the BHS System and, through its airline members, have been responsible for similar projects at other airports. Given the critical nature of this project to the hourly operations of the airlines, the Funding Agreement allows the project to be managed by the Consortium and delivers the project timelier than if it was designed and delivered through the City.

FISCAL IMPACT:

This ordinance authorizes a two-year funding agreement and authorizing payment in the amount not to exceed \$21,479,035.00 to the San Antonio Airline Consortium for modernization upgrades to the outbound baggage handling system lower level controls at the San Antonio International Airport. Funding in the amount \$4,595,998.25 for FY 2023 is available from Interim Airport Financing within the Baggage Handling System Expansion project and included in the FY 2023 – FY 2028 Capital Improvement Program. Funding for future years is contingent upon City Council approval of the annual budget.

RECOMMENDATION:

Staff recommends the authorization of the Funding Agreement with the San Antonio Airline Consortium for the Outbound Baggage Handling System Lower Level Controls project at the San Antonio International Airport.