



CHARLESTON INTERNATIONAL AIRPORT

Charleston, South Carolina

Checked Baggage Inspection System Project

Charleston County Aviation Authority (CCAA)
2015 – 2019

Charleston International Airport (CHS) is classified as a small hub by the Federal Aviation Administration. The CHS passenger terminal building opened in April 1985 and has three levels totaling approximately 330,000 square feet of enclosed and covered unenclosed space.

ADC Engineering, in coordination with the CCAA, obtained BNP's services to design and develop a complete replacement of the outbound baggage handling system. The scope of this project condensed the existing eight stand-alone screening devices in the ticketing lobby into a centralized inline checked baggage inspection system (CBIS) consisting of two Leidos (L3 Harris at the time) 6700 EDS machines. The new screening system transfers cleared bags to the existing sortation area consisting of four make-up devices. The design included various high-value operational improvements that benefit CHS, the airlines, tenants, occupants, and passengers by enhancing operational efficiency, regulatory compliance, and passenger processing. To accomplish this, the existing stand-alone screening was demolished entirely and an automated, more efficient inline method for loading, transporting, and screening all checked baggage was installed.

The design team identified multiple alternatives for review and consideration by the airport, the TSA and other project stakeholders during the integrated local design team review meetings. The preferred alternatives were refined throughout the design stages for TSA submission and approval. Final issue for bid drawing and design specifications were provided including multi-disciplinary phasing coordination and document review. All designs provided were developed in accordance with the latest industry guidelines and the Planning Guidelines and Design Standards v5.0 issued by TSA.

BNP was responsible for the design, bid support, construction administration and commissioning phases of the Inline Checked Baggage Inspection System Project at Charleston International Airport. The overall baggage system scope included the installation of a temporary CBIS to facilitate the complete replacement of the existing bag screening system so an all new inline CBIS could be installed. The project also included conveyor modifications to the existing outbound sort system and a complete lower-level controls replacement to optimize system throughput and efficiency. The upper-level control, monitoring and reporting system in the BHS maintenance control room was also replaced.



ASSOCIATES, INC.

BNP PROJECT TEAM

Steve LaPorta, Principal
Cal Trudeau, Project Director
Casey Smith, Project Manager

TOTAL CONSTRUCTION AMOUNT

US \$15 Million

BHS CONSTRUCTION AMOUNT

US \$10 Million

REFERENCE

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SCOPE OF SERVICES

Analysis Study
Conceptual Design
Design Development
Ergonomic Improvements
Bid Documentation
Construction Administration
Testing & Commissioning