WASHINGTON-DULLES INTERNATIONAL AIRPORT – MAIN TERMINAL SOUTH BAG BASEMENT CHECKED BAGGAGE INSPECTION SYSTEM



OWNER:

METROPOLITAN WASHINGTON AIRPORTS AUTHORITY

OWNER'S REPRESENTATIVE: RICHARD TURNER PROJECT MANAGER METROPOLITAN WASHINGTON AIRPORT AUTHORITY (MWAA)

BNP PROJECT MANAGER: NICK TRIANTAFILIDIS

LOCATION: WASHINGTON, DC

COMPLETION DATE: 2012

REFERENCE:

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SCOPE OF SERVICES:

CONCEPTUAL DESIGN
DESIGN DEVELOPMENT
CONTRACT DOCUMENTS
BIDDING AND PROCUREMENT
CONSTRUCTION MONITORING

As part of the Metropolitan Washington Airports Authority Design Team, BNP performed the Baggage Handling System design services for the new automated Checked Baggage Inspection System in the Main Terminal South Bag Basement.

A fully automated Checked Baggage Inspection System (CBIS) was provided for the Main Terminal South Bag Basement (SBB) Bagroom, which serves Ticketing Kiosks 2 and 3 (roughly 50% of the Airport's originating outbound traffic). The layout of the CBIS, which is based on a 3-Level screening process, includes four (4) medium-volume EDS machines for the combined screening of all originating outbound bags that are processed out of Ticketing Kiosks 2 and 3. The CBIS was also designed to accommodate future high-volume EDS machines when the technology becomes available and certified by the Transportation Security Administration Office of Security The entire CBIS was installed within the existing bagroom space, on top of a new structural mezzanine, which was constructed over the inbound stripping area. The overall layout included the reconfiguration of two existing main outbound transport lines, along with the automated sort system's Main Sort Lines and respective Recirculation lines to accommodate the CBIS and associated four (4) EDS machines. Both of the existing main outbound transport lines were reconfigured to direct baggage through the four (4) EDS machines; two (2) per line. The reconfiguration of the two main outbound transport lines also included two (2) Baggage Dimensioning Devices (BDDs), immediately upstream of the CBIS, to determine the size of baggage destined for screening (i.e., in or out-of-gauge) for proper sortation; out-of-gauge bags will be transported to the Checked Baggage Resolution Area. The Level-2 screening function takes place in a remote room, which is consolidated with the Checked Baggage Resolution Area (CBRA). Screened baggage that is cleared for outbound flights are processed through the existing modified automated sort system to their respective make-up device.

This is one of many projects that have been designed and constructed at Washington Dulles International Airport (IAD). BNP designed almost all the baggage handling systems at the airport.

