

# MIAMI INTERNATIONAL AIRPORT- South Terminal Baggage Handling System – Miami, Florida



**OWNER**  
MIAMI DADE AVIATION  
DEPARTMENT

**OWNER'S REPRESENTATIVE**  
OLGA VERA  
PROJECT MANAGER

**BNP PROJECT MANAGER**  
DAVID MECARTNEY

**LOCATION**  
MIAMI, FLORIDA, USA

**COMPLETION DATE**  
IN PROCESS

**ENTIRE PROJECT AMOUNT**  
US \$400 MILLION

**BHS CONSTRUCTION AMOUNT**  
US\$40 MILLION

**REFERENCE**  
MIAMI DADE AVIATION  
DEPARTMENT  
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**SCOPE OF SERVICES**  
CONCEPTUAL DESIGN  
DESIGN DEVELOPMENT  
CONTRACT DOCUMENTS  
BIDDING AND PROCUREMENT  
CONSTRUCTION MONITORING

**RELEVANCE**  
AUTOMATED BAGGAGE HANDLING  
SYSTEM UTILIZING 10-DIGIT IATA  
BAG TAGS AND INTEGRATED  
CHECKED BAGGAGE SCREENING

The South Terminal at Miami International Airport as a part of a major master plan will provide much needed capacity to the landside facilities. The three level complex locates domestic arrivals and baggage handling systems on the ground floor, departures above and an FIS on the third floor. The latter being a somewhat unique feature but representative of the limited growth area available at MIA.

BNP Associates, Inc. was retained by the Miami Dade County Aviation Authority, part of the Borrelli and Associates team, to provide the design services for the inbound and outbound baggage handling systems. The base design configuration of the terminal was established by the Miami Aviation Department. The Baggage Handling System design has been substantially changed as a result of BNP's expertise and the introduction of the Star Alliance as the terminal's prime tenant.

The outbound baggage system design was somewhat limited by the clear height and, though the floor is depressed, civil conditions limit the overall clearance. For this reason, the sortation technology adopted is based on conveyors and high-speed pushers, and twenty-six dual level laterals will be provided. An induction matrix will allow bags to be sorted discretely to either the upper or lower lateral. Encoding is accomplished with two eight-head line scanner arrays, and handgun and keypad encoding is provided for no-reads. Three online and interline transfer load belts are provided. Additionally, there are input conveyors from lost and found and the small package system.

The domestic arrivals baggage system consists of five direct feed flat plate claim units. Passenger presentation is approximately 1000 linear feet.

The FIS consists of five B747 sized inclined plate claim units, and oversize conveyors and two re-check lines. Each claim unit is fed by a single conveyor, which provides two-sided access.

The outbound system originally provided for the capability for 100% hold baggage screening using Nine (9) EDS machines and offline image enhancing technology. Because of security mandates, BNP has since revised the design to include 100% inline certified EDS checked baggage screening.

A major group check-in area is provided within the South Terminal, which primarily serves the connections to and from the cruise ships. Check-in bags are routed to the automated system for those carriers located in the South Terminal and to a separate make-up unit for all other airlines.



PROJECT BRIEF