

# DUBAI INTERNATIONAL AIRPORT

**Dubai, United Arab Emirates** 

## Expansion & Upgrade (Priority 1 & 2A)

Dubai Airports – Engineering Projects Completion: Priority 1 – 2020, Priority 2A - 2021

Dubai International Airport is undertaking a set of upgrades and enhancements to maintain system stability as the volume of bags is forecasted to continue to increase well into 2030. This set of projects, completed in 3 phases, will increase system resilience, allow for system wide de-peaking by implementing operational flexibility and redundancy, and increase system capacity. Priority 1 Projects were aimed to improve operational flow and redundancy, while Priority 2A provided additional connectivity and capacity between terminals and concourses.

#### **Priority 1 BHS Projects List**

#### **Bag Sortation Rates - Additional Buffering**

To ensure pre-sortation loops are not blocked in case of dieback by creating a buffer before each merge and divert to control the insertion of trays in and out of the loops with more precision.

#### **Additional Re-Route Stations**

System improvement which provides an additional decision point prior to the early bag storage or the CA-CB tunnel to stop sending unnecessary non-time-critical bags to these critical areas during peak.

#### **Decentralized Tray Maintenance Stations in CA and CC**

Addition of two decentralized tray maintenance stations prior to the Concourse C-B link and the Concourse A-B tunnels to ensure damaged trays are repaired prior to traveling through these critical connections.

#### **Enhancement of Search Room in Concourse C Basement**

To provide functionality to re-insert bags into the system with one lift. This is achieved by allowing the tray lift to carry loaded bags up and down and providing a few buffering positions for the empty tray to wait until the bags are cleared.

#### **Terminal 3 Check-In Load Balancing**

To provide additional flexibility and reliability in Terminal 3 to ensure all check-in counters have at least two redundant paths to the screening machine, eliminate single point of failures, eliminate tray starvation, and minimize dieback to check-in takeaways.

#### **Priority 2A BHS Projects List**

#### Terminal 3 Car Park EBS Connections and Terminal 3 Basement 5 Unloading Laterals

To connect the existing Terminal 3 standalone Car Park Check-In area to the main Terminal 3 BHS throughout Basement 6 of Terminal 3. Additionally, provide four transfer input laterals within the Basement 5 of Terminal 3, which will de-peak transfer input during high demand.

#### ETS Improvements for Concourse A, B and C

To manage and store empty trays and to distribute via Empty Tray Lines and Loops to the loading stations in Terminal 3. This is accomplished by providing a single gap/metering conveyor downstream of each the merge.

#### **Concourses A & B Additional Baggage System Connections**

To increase the resilience and capacity of the connections between Concourse A and B, thus increasing the system stability and overall redundancy of this critical link.



ASSOCIATES, INC.

#### **BNP PROJECT TEAM**

Damien Breier, Principal Filip Stojkovic, Project Manager

### BHS CONSTRUCTION AMOUNT

TBD

#### **REFERENCE**

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#### **SCOPE OF SERVICES**

Feasibility Study
Conceptual Design
Design Development
Contract Documents
Bidding and Procurement
Construction Monitoring