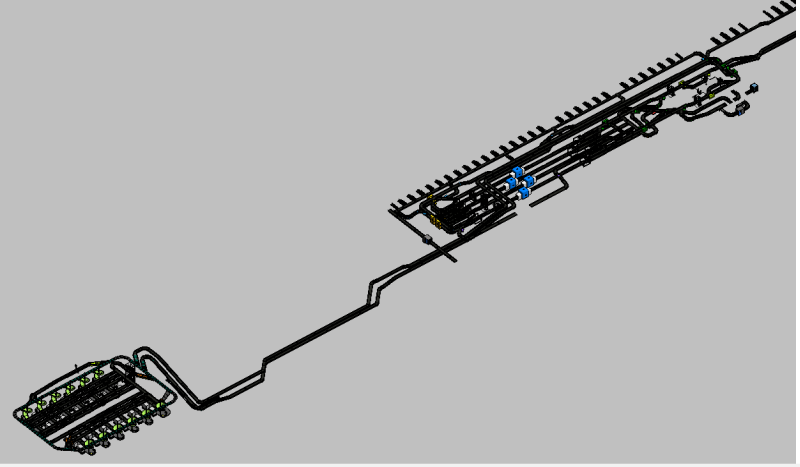

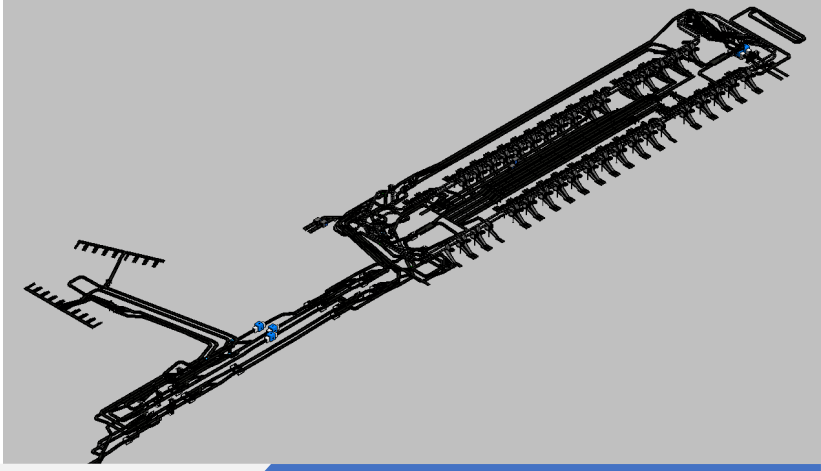

COPENHAGEN AIRPORT

Copenhagen, Denmark

HBS Standard 3 Upgrade Project

Copenhagen Airport | 2017

In anticipation of increasing air traffic and requirements for implementation of ECAC Standard 3 screening requirements, Copenhagen International Airport planned to redesign the existing Baggage Handling System (BHS) with a goal to implement the screening requirements and increase capacity. BNP studied and verified the BHS requirements for a Standard 3 Hold Baggage System operation and evaluated the 2040 development stage for the airport's future growth. BNP proposed to convert the existing BHS screening and sortation system in Terminal 2 as well as the existing screening system in Terminal 3 to common use facilities at the same time as implementing the screening requirements in a phased approach. The airport will achieve benefits both in the required quantity of screening machines and achieve more efficient usage of the existing baggage make-up areas. BNP also proposed to implement a new make-up facility to the west which will increase the overall system capacity for the future make-up requirements. Existing screening machines in Terminal 3 used for transfer bags were also considered for replacement, which will allow the airport to meet Non-Schengen transfer capacity.

The baggage handling system has been designed to meet the airport's demand requirements in phases. Consideration to the future equipment layout such as the integration of future screening machines and associated conveyor right-of-way's in Terminal 3 has to be made at a conceptual stage to ensure smooth implementation as the airport traffic gradually grows to the 2040 development stage.

The baggage handling system is made up primarily of nine fully automated inline Standard 3 hold baggage screening machines, three tilt tray sorters, early bag storage conveyor lanes, and 146 make-up chutes. The future right-of-way's that have been designed to reserve the space in the existing building consist of two Standard 3 hold baggage screening machines with connections from the new screening facility in Terminal 2 and connections to the sort loops in Terminal 3.

There are two main check-in islands in Terminal 3 and four reversible check-in islands in Terminal 2. Each check-in island in Terminal 3 is connected to three new Standard 3 screening machines where the security screening is performed in-line. After screening, cleared baggage enters the two tilt tray loops and is then sorted one of the make-up chutes. The Terminal 2 check-in islands are reversible for redundancy and connect to two new ticketing lines that divert to four screening lines to the new Standard 3 screening machines. The cleared baggage for make-up at Terminal 2 travel to the new make-up facility in the west, while the cleared baggage for Terminal 3 travel on the existing tunnel conveyors to the existing make-up chutes.

In this project BNP had to work closely with the Copenhagen International Airport to coordinate the requirements of the BHS within the existing terminal building. The project was fully executed and coordinated using BIM.

BNP ASSOCIATES, INC.

BNP PROJECT TEAM

Damien Breier, Vice President
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BHS CONSTRUCTION AMOUNT

Approx. US $13 Million

REFERENCE

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SCOPE OF SERVICES

Design Development
BIM Model Coordination
Prep of Tender Documents