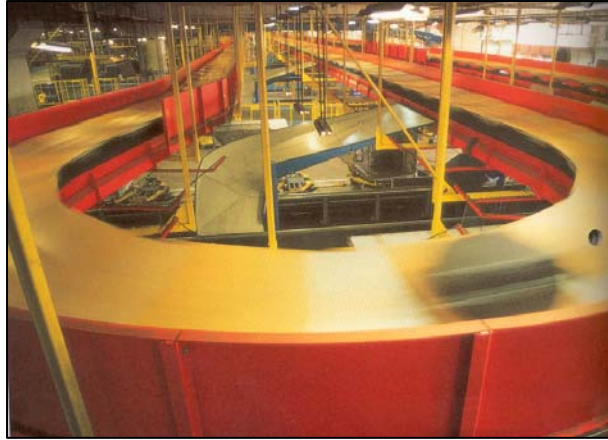


SINGAPORE CHANGI AIRPORT – TERMINAL TWO

Automated Baggage Handling System



OWNER

CIVIL AIRPORTS AUTHORITY OF
SINGAPORE—CAAS

OWNER'S REPRESENTATIVE

BENEDICT OON LIM, CAAS

BNP PROJECT MANAGER

DAMIEN BREIER

LOCATION

SINGAPORE CHANGI AIRPORT
SINGAPORE

COMPLETION DATE

1999 (ORIGINAL SYSTEM)
2004 (CBS SYSTEM)

ENTIRE PROJECT AMOUNT

US \$60 MILLION

BHS COSTRUCTION AMOUNT

US \$30 MILLION

REFERENCE

MR BENEDICT OON LIM
SPECIALTY SYSTEMS ENGINEER
PO BOX 1
9181
SINGAPORE
EMAIL:
BENEDICT_OON@CAAS.GOV.SG
PHONE: 65-541-2165

SCOPE OF SERVICES

CONCEPTUAL DESIGN
DESIGN DEVELOPMENT
CONTRACT DOCUMENTS
BIDDING AND PROCUREMENT
CONSTRUCTION MONITORING

RELEVANCE

AUTOMATED BAGGAGE HANDLING
SYSTEM INTEGRATING CHECKED
BAGGAGE SCREENING

The Singapore Terminal 2 redevelopment program includes:

- Replacement of the existing outbound baggage handling systems
- Modification of the existing multi-bag DCV system
- Provision of a new baggage transfer system
- Provision of a new controls system with IATA tag capabilities

An existing T2 outbound baggage system had been plagued by a myriad of problems since its inception. BNP was retained in 1995 to audit the existing system and make recommendations for the future. The study concluded it was not economically feasible to continue with, or improve upon, the current system and a new system redevelopment program was recommended to carry this facility into the future.

The configuration of the new baggage system includes two new tilt-tray sorters. Both sorters are dedicated to handling originating and transfer baggage. The check-in provides both direct feeds to make-up devices and universal check-in (to any make-up device in T2 via the two tilt tray sorters) for the entire Terminal 2 complex.

The transfer system consists of a pre-sort for manual encode and rush bags and provides for universal sortation to the two tilt tray sorters and make-ups. These bags can be sorted to any of the make-up carousels. The make-up system consists of twelve (12) slope plate carousels, each displaying approximately 20 cart/container positions. The departures hall includes a modification to provide two segment check-in feeder conveyors. The existing check-in feeder conveyors were only one segment. This change facilitated the plan to track bags from the check-in location.

The new baggage system also includes the capability to provide a future 100 percent hold baggage screening system. This feature can be added incrementally to the system or in total as the need develops. The screening systems proposed are based on the three step security screening process being deployed in Europe.

A separate baggage transfer system was provided at a centralized airside location to reduce the processing demand on the system and to minimize the transfer processing time. This system consists of automatic tag readers and pusher diverters.

BNP's scope of work included concept design through construction monitoring including full time site supervision