

Royal Airwing Facilities

at Dubai International Airport



United Arab Emirates

Client

Department of Civil Aviation,
Government of Dubai

Services Provided

- Master plan review
- Concept and detailed design
- Preparation of tender and construction contract documents
- Construction supervision

Dates

- Design: 2002 - 2003
- Construction: 2003 - 2005

Project Data

- 17,000-m² Airwing terminal
- 8 aircraft hangars
- Baggage and cargo handling systems, ground facilities, aircraft passenger loading bridge
- 1,200-m² gatehouse
- Ground Service Equipment (GSE) support building
- 250,000-m² apron
- Central plant
- Electrical substation and a standby diesel generator
- Antenna farm
- Construction cost (2005): US\$ 225 million

Main Features

Dar Al-Handasah has been assigned the review and elaboration of a new master plan, design and supervision of construction for the development and relocation of the Royal Airwing facilities at Dubai International Airport. The project features:

- An Airwing terminal of 17,000 m² with a Royal Majlis, operation offices, baggage and cargo handling systems, ground facilities, aircraft passenger loading bridge, etc.
- 8 hangars with 69,658 m² of built-up area, for the accommodation and maintenance of B747, A380 and other types of narrow body aircrafts and helicopters



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- A gatehouse of 1,200 m² for VIP service with all facilities and security
- Ground Service Equipment (GSE) support building (2,300 m²) with offices, workshops and accommodation facilities for 24-hour duty
- A 250,000-m² apron including fuel hydrants, 400Hz service pits, lighting, fire fighting and drainage systems
- A central plant (3,532 m²) comprising a chillers pump room, water/irrigation pumps, ground reservoirs, an electrical substation and a standby diesel generator
- An antenna farm for telecommunication purposes

The site is served by one entrance/exit controlled through the gatehouse and directly connected to the existing airport road. The internal road network consists of a 2-lane carriageway leading to the Airwing building, a 2-lane carriageway serving the administration building and leading to the airside, and to the police road adjacent to the fence surrounding the site.

Maximum Electricity Power demand of 10 MVA, is provided through eleven 11/0.4 kV fully redundant transformer substations comprising 14x2 MVA and 6x1.6 MVA and 2x1 MVA transformers in addition to 3x2.25 MVA/11 kV standby generators.

