

D H L AVIATION (UK) LTD, BUILDING 559, SHOREHAM ROAD WEST, LONDON HEATHROW AIRPORT, HOUNSLOW, TW6 3SJ

Design Statement.

Introduction

The Existing Facility at Heathrow Airport is based on the Airport Complex on what is considered as the Air Side which is within the secure area of the Airport with no public access and overlooks the main runways and service roads.

The existing buildings are in the main warehouses for sorting goods arriving and departing the facility from around the world before entering the distribution network of the Company. The facility is controlled to strict security standards overseen by HM Customs.

On the Air Side of the facility is the existing service yard that houses the current storage area for the storage of empty ULD's that have been processed and are awaiting consignment of a new cargo.

A Unit Load Device (known as ULDs) are specially designed cargo pallets and containers that are used to load freight, luggage, and mail onto aircraft. These devices allow large quantities of cargo to be bundled and strapped together securely onto 1 mobile unit, so they can safely and securely transported.



Typical ULD's

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The Existing Site

The existing storage area consists of a reinforced concrete yard falling to a system of drainage channels and gullies located within its footprint that connect to the main internal Airport drainage system that serves the complex. Located on the service yard are a series of conveyer rollerball platforms to move the ULD's in and out of the warehouse or to the existing storage area in the yard.

The is limited to the height of any structure erected on it because of its location to the main runways to prevent blind spots from the Airport Controller on Instrument flight rules (IFR) which is one of two sets of regulations governing all aspects of civil aviation aircraft operations; the other is visual flight rules (VFR).

The Proposal

The proposal is to erect an open storage racking system with a canopy roof over to store up to 4-levels of empty containers the racking would be provided with two open hoists to lift the containers to the required level one at each end and two open gantry access stairways for personnel to manoeuvre the containers on the roller ball bases into their storage location.

The canopy is to minimise the exposure of the (ULD's) hold containers to the weather's elements. The plan area of the racking system is 714m², to sit on top of the existing reinforced service yard. To provide a safer working environment and to easily identify locations of suitable cargo containers to minimise handling.

The sides of the structure are open on all levels apart from safety guard rails to prevent falls from heights, the floors consist of roller decks to allow the ULD's to be Easley manoeuvred into the bays operatives pushing by hand the containers, the requirement for the canopy is to reduce the exposure to the elements.

The materials

Walls – Sides open lattices steel galvanised finish grey finish

Stairs and Hoists – Galvanised steel grey finish

Canopy – Light grey metal profile sheeting to match existing surrounding buildings

Drainage – Surface water only discharging to existing yard and gullies.

Lighting – Controlled by Airports Requirements and safety standards.

Access to the racking is via authorized personnel only during the times of operation.