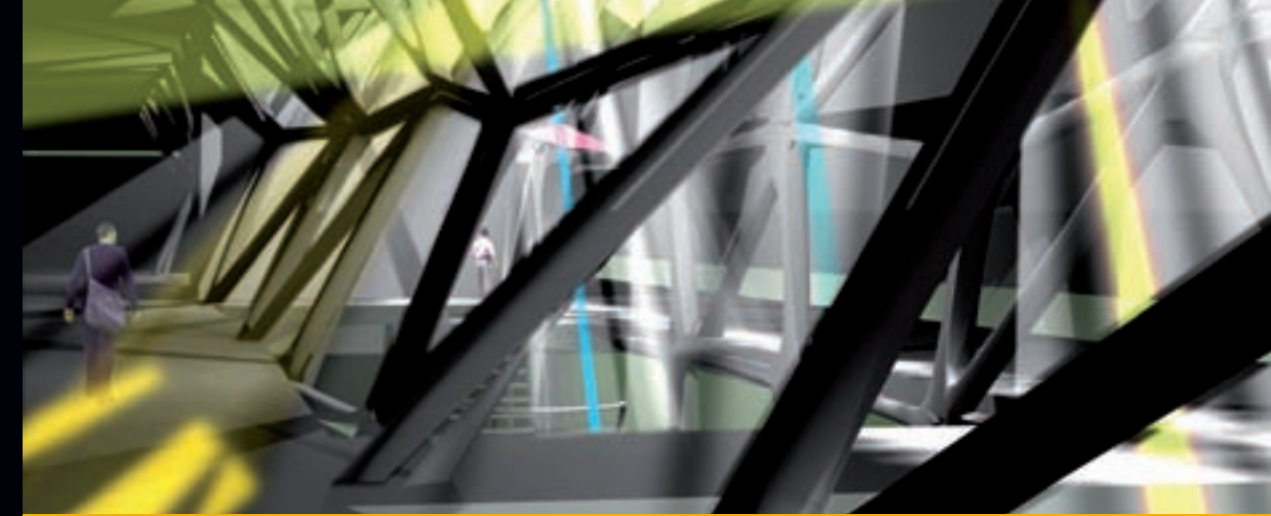




ARCHIAL

Focus on ► Transport

An Ingenium International Company



Transport

The Archial Group has a wealth of experience in the Transport Sector, specialising in Aviation, Marine & Rail. This brochure contains a sample of case studies for:

- Edinburgh Airport
- Edinburgh Airport Departure Lounge
- Consolidated Car Rental Centre, Edinburgh Airport
- Glasgow Airport
- Birmingham Airport
- Southampton Airport

- Aberdeen Marine Operations Centre
- Poole Boat Haven

- North Greenwich London Underground Station
- London DLR Stratford Station
- Toronto Finch West Subway Station
- Heron Quays DLR Station
- Surrey Canal Station
- Rotterdam Centraal Masterplan

At Archial, we believe the design process for transport systems presents one of the greatest challenges in the industry with its focus not just on customer experience, but on cost imperatives, alongside evolving best practice.

Innovation in environmental responsibility is a key factor in all we do and is frequently the driver in our designs. Our experience within the aviation sector in particular spans over 15 years. Our Aviation team draws on experience from direct operational experience with an airport authority in addition to broad technical expertise.

Our projects have frequently involved working within buildings which continue to be operational. Our reputation for collaborative client relationships and our commitment to the highest standards mean clients return to us again and again to help them meet their objectives.



Edinburgh Airport Edinburgh

Archial were appointed by Heery International in April 1995 to develop the concept through scheme design, detail design and production information.

Total project included a new check in hall of 44 desks, a new domestic arrivals concourse with three reclaim carousels and a completely remodeled and extended first floor containing new retail and catering facilities.

Other features were centralised passenger search / security facilities, new Customs, Immigration and Special Branch facilities, a new international arrivals concourse with two reclaim carousels and new combined domestic / international lounges including associated airline executive lounges. It also included four new air jetties and 1500 m² of commercial office space.





Edinburgh Airport Departure Lounge Edinburgh Airport

Constructed over 6 phases, this complex project involved the following key elements of airport design:

- New 4,250 m² departure lounge extension,
- 6 new boarding gates and new stair links to existing aircraft stands.
- The 7,300 m² reconfiguration of the first floor of the existing terminal.
- The relocation and provision of a new 10 lane security search facility.
- 3,000 m² of new airside retail and catering outlet space
- New BA CIP lounge
- WC core extensions and refurbishments

The new first floor, airside departure lounge extension was constructed adjacent to the existing departure lounge (inc. six existing boarding gates), above the existing baggage hall, over the existing head of stand road and adjacent to six live aircraft stands.

The departure lounge, the gates, the baggage hall, the head of stand road and the stands were all kept live and operational throughout the construction works.

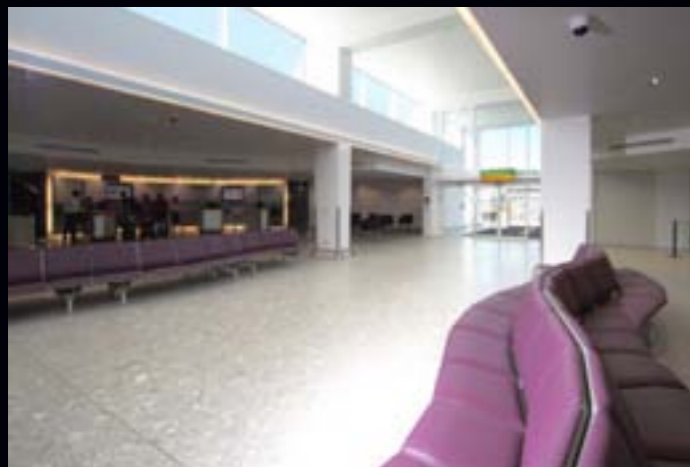


Consolidated Car Rental Centre Edinburgh Airport

The £1.75 million 1,000 m² development is part of the planned one hundred million pound investment by Edinburgh Airport over the next five years.

The project is a reception building for a consolidated car rental centre at Edinburgh Airport bringing together the disparate rental partners, currently scattered around the main terminal building, including back-up facilities for refuelling, valet and washing.

Circular in concept to allow each rental partner to be presented equally to the main, central, elevated, clerestorey spine, which in turn affords natural daylight into the heart of the building.





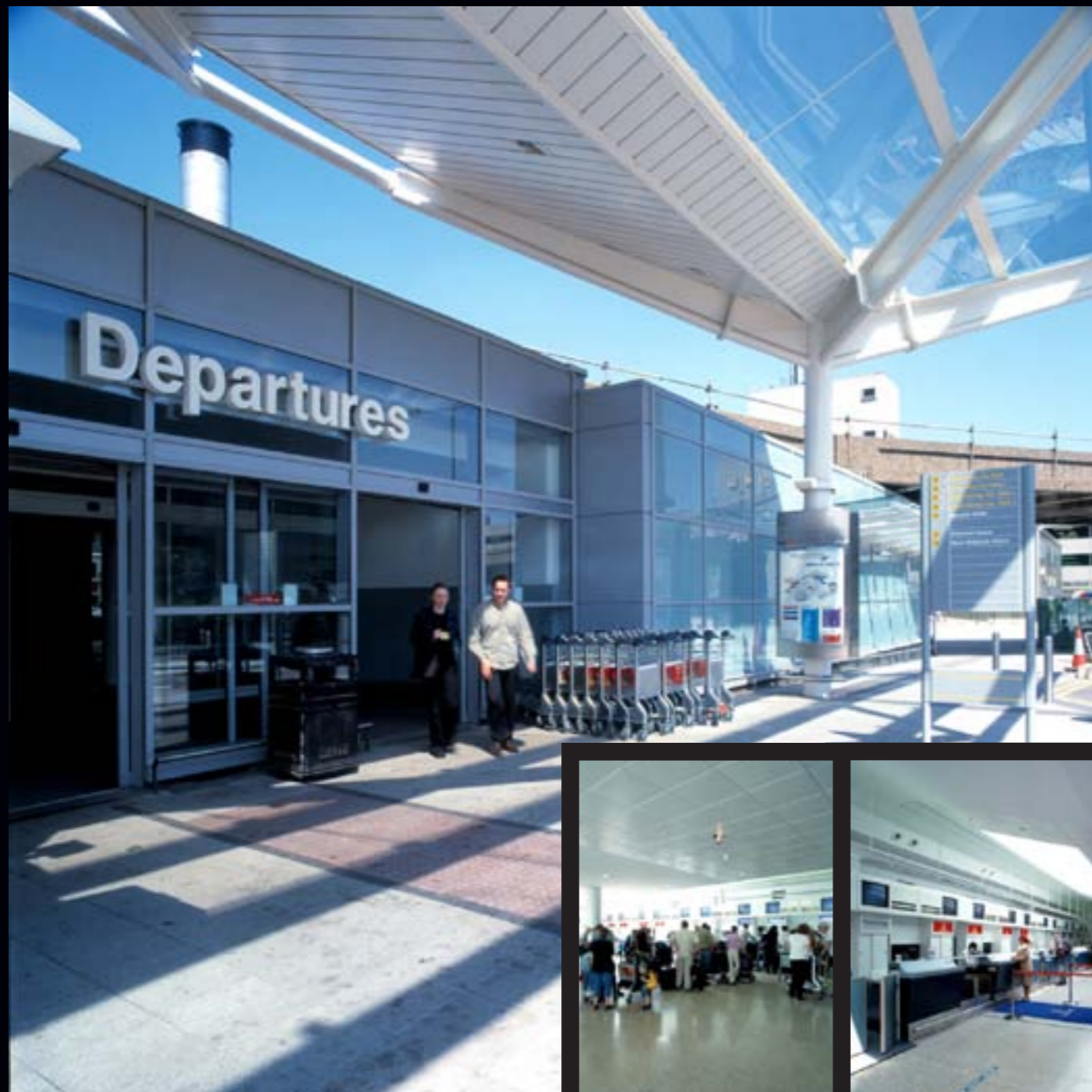
East End Connector Glasgow Airport Glasgow

Archial was commissioned by BAA Glasgow in 2003 to look at various options for covering the pedestrian link between Glasgow Airport's Main Terminal Building (T1) and Terminal 2.

As part of this project, Archial was asked to investigate alternative lightweight tent or tensile solutions for the canopy, as opposed to the previous steel and glass design.

The chosen option was a cable-stayed structure, in which a series of elliptical steel CHS frames serve to support the cables and intermediate ribs which in turn act as the deck to receive the 6m wide PVC coating which forms the roof of the connector.

This design allowed for a reduction in the number of ground penetrations required for the structure, which stretches for 85m between the terminals. At either end the canopy is met by a portal which frames the way into each terminal building.



Birmingham Airport T1 Birmingham

Archial was awarded a Design and Build Contract in September 2000 to refurbish and expand the check-in facilities at Birmingham Airport's main T1 terminal. Work was required to be completed in time for the 2001 Easter holiday traffic.

The project involved the construction of an extension to the terminal, providing 12 additional check-in desks while also extending the existing baggage handling and flight information systems. The site was extremely constricted, hemmed in on one side by a multi-storey car park which was askew both horizontally and vertically, and on another by the existing terminal.

The work was carried out while maintaining the existing T1 operations and included the provision of temporary escape measures from the terminal, while an existing first floor route was extended and a fire exit stair relocated.





Framework Agreement BAA Southampton Airport Southampton

This project was a new contract for rolling programme of alterations, upgrading, and masterplanning of future developments at Southampton International Airport. Work that has already been completed includes the formation of a new Landside retail unit. Forthcoming elements include remodeling of the Arrivals area and subsequent re-organisation of UK Border Agency accommodation.

The visual depicted shows an option for possible future remodeling of the Departures area, including increased retail area and new interior design treatments.

The framework agreement includes the ongoing task of updating and co-ordination of BAA record drawings for all buildings and facilities at Southampton.



Marine Operations Centre Aberdeen

Aberdeen Harbour Board awarded Archial the commission for the new Marine Operations Centre following a limited design competition at the end of 2003.

The new building succeeds the nearby Navigation Control Centre known as "The Roundhouse", built in 1803. Located on a prominent site at the entry to Aberdeen Harbour, the building design is based around 2 interlocking curvilinear forms, which echo coastal and maritime architecture.

The building is organised around a strict set of operational criteria in terms of security, visibility and interior comfort.



Boat Haven Poole

Floating facilities building alongside Town Quay, Poole Harbour to provide access control and shoreside services for the newly completed Boat Haven. The building was designed with a maritime aesthetic and is intended to be a landmark within the Harbour.

The form of the building was curvilinear on plan and presents itself to the quay in the manner of a ship's hull.

It is accessed via a gangway and gated entrance area adjacent to the berthing office. Once inside the building, the boat haven vista opens up with access leading to the pontoons via a canopied promenade deck from which toilets, laundry, stores and ancillaries are available.





North Greenwich Underground Station London

Archial's North Greenwich Station has been acclaimed as perhaps the most striking of the twelve stations on London Underground's £3.5 billion Jubilee Line Extension.

As the gateway to the Millennium Dome and with its associated bus link, the station has now become one of the most heavily used on the line.

It is also one of the largest and forms an integrated transport interchange serving a wide area of south-east London, serving the Millennium Village and other developments on the peninsula.





DLR Stratford Regional Station London

Archial was commissioned by Docklands Light Railway Limited in 2003 to design a completely new station in a new location to replace the existing DLR station at Stratford. This was in order to meet the client's requirements for capacity enhancement, improved train frequencies and longer platforms with a corresponding new track alignment.

The canopy to the tapering island platform, consisting of faceted triangulated metal panels with rooflights snaking over inclined oval columns, is a deliberate counterpoint to the sweeping curves of the existing Stratford Regional Station enclosure which it plugs into.

Occupying the centre of the island platform are translucent coloured glazed screens providing weather protection, as well as incorporating passenger seating, information boards, posters and signage.





Steeles West Subway Station Toronto, Canada

Archial have been appointed as part of the TSGA joint venture team to design Steeles West Station and the supporting infrastructure. As part of the original bid document, a station design approach was submitted that defined a 'station of light' to provide direct and indirect sunlight into previously dark spaces within the station, including concourse, platform and tunnel areas.

This provides a positive psychological effect on all passengers and staff using the station and provision of daylight would in turn lead to reduced energy consumption in operation.

The current concept design proposals are a development of these ideas, combining station access and daylight from two entrance canopies located at the ends of the station box that also provide for the interchange with the proposed bus stations.

A further source of daylight is provided by a light cone positioned at platform mid-length and located at grade on the south west corner of Steeles Avenue and North West Gate.





Heron Quays London

The ongoing development of Heron Quays, adjacent to Canary Wharf, necessitated the rebuilding of the small Docklands Light Rail station to integrate with the new structures. The complex brief dictated that the structure be wholly enclosed by the office development but be completely self supporting, with no structural connection to the buildings either side and above or the railway bridge itself.

The Archial solution was to create a cradle of steel supports, their position determined by the grid of basement columns beneath, which would hold the platforms and a curved shell below the tracks which acts as acoustic protection in light of the excessive noise generated at present by train movements over the steel bridge. The design also allowed for free flows at ground level where the space created acts as both station concourse and pedestrian thoroughfare.

Escalators connect to both the car parking levels beneath and the platforms above. The materials and colours were selected to emphasise the independence of the architectural elements from both the adjacent Canary Wharf office buildings adjacent and the 'Air-Rights' office tower bridging directly over the new station.



Surrey Canal Road Station London

The extension of the East London Line northward and southward from its current truncated spur will see the link of large areas of south east London with no tube connection to the main Underground network and north London. The only new station to be built on the southern section is at Surrey Canal Road, in the heart of the regeneration area around the old Royal Surrey Docks.

The Archial design continues a strong tradition by which a London Underground station contrives to become its own advertisement through striking design. Built on the road bridge the platforms are enclosed by a steel boxing punctured by apertures with polychromatic glazing. Access ramps to the station have similar rectangular enclosures of coloured glass.

Proximity to the Millwall Football Ground suggested that issues of large passenger flows and security should be paramount to the brief, and this is reflected in a robust yet attractive design.



Rotterdam Centraal Netherlands

Archial were appointed to develop a €900 million masterplan for the redevelopment of Rotterdam Central, selected from a shortlist of internationally renowned architects. The project is a Public / Private Partnership between the City of Rotterdam, Nederlandse Spoorwegen, Amvest Vastgoed and ING Vastgoed.

The 20-hectare site in the centre of Rotterdam will accommodate a new transport terminal which will be a showpiece for integrated transport policy. The plans will provide a new railway station terminal, an upgraded Metro terminal, a new tram and bus station, parking facilities for 6,000 cars and bicycle park facilities.

Regeneration of the surrounding area will be achieved with 200,000 m² of new office space, 100,000 m² of new housing (700 homes) and 100,000 m² of retail and urban entertainment.

- Creative Integrity
- Environmental Responsibility
- Economic Performance
- Social Contribution
- Personal Experience

Making Life Better Through Intelligent Architecture

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