

## Paragon Anti Vandal (AV) Shelter

*Value for money for the rail industry*



The latest Paragon AV9 MKII Waiting Shelter by Macemain + Amstad delivers a high quality waiting environment for the rail passenger and provides TOCs and Network Rail with a value for money reliable anti vandal waiting shelter.

The Paragon AV9 MKII Waiting Shelter encompasses all the original design features, of the first Paragon AV Shelter, to minimise opportunities for vandalism and reduce ongoing maintenance costs.

## Valuable revenue streams for TOCs

*The 'Paragon Combined Modular Unit' provides a range of passenger services and facilities*



In response to our client's desire to continually improve facilities for the rail passenger we have taken the design concept of the fully enclosed automated waiting enclosure to the next level, to enable our client's to provide the rail passenger with a greater variety of potential services and facilities within a single unit, the 'Paragon Combined Modular Unit'.

The Paragon Combined Modular Unit can accommodate a variety of design aspects and comes in any number of configurations, with a multitude of facilities and services depending on the client's requirements. The use of standard and modular Paragon components streamlines the design and specification process reducing costs and lead times for our clients.

The Paragon AV9 MKII Shelter includes the following new options for our clients:

- 3mm galvanised mild steel mesh sheet glazing (with 4mm punched holes) in a black powder coated finish for high vandalism areas.
- Integrated electrical and data cable management including containment for CCTV, customer information display systems, passenger help points, PA speakers.
- New LED Linear Lighting (95% energy efficient) providing a bright, stable and uniform distribution light output along the length of the shelter. IP65 rated.
- Self-contained solar power unit comprising:
  - Vandal resistant flexible solar panel (4mm thick) attached to the roof.
  - Compact rechargeable batteries.
  - Innovative Energy Management System (EMS) which maintains a constant low level of illumination until a passenger entering the shelter activates the passive infrared technology, when light levels will gently increase and remain fully activated until the passenger leaves.

Macemain + Amstad's Paragon AV MKII Waiting Shelter remains the preferred platform passenger waiting shelter for many train operating companies.

These quality waiting environments deliver valuable revenue streams for our clients:

- Serviced retail units
- Integrated advertising panels

At Earlsfield Station the incorporation of a serviced retail area (approx. 3m x 3m) within the Paragon Combined Modular Unit has enabled the TOC to lease the space to a retail provider. The serviced retail area includes the following:

- Power & data services
- Water
- Comfort heating & cooling
- Waste/plumbing

In addition the incorporation of Paragon design features provide our clients with strong design continuity and opportunities for corporate branding.

Our unique bespoke design service, in combination with our modular components, enables clients to mix and match, creating a virtually limitless portfolio of configurations that can significantly enhance station developments. **Macemain + Amstad can achieve the design you need.**

## A landmark station building for Cumbernauld new town

*Central to Macemain's design philosophy is 90% prefabrication offsite enabling installation within a single possession and commissioning on site within 5 days...*

Cumbernauld new town in Scotland's North Lanarkshire region has a population of 50,000 - with thriving businesses, busy schools and a lively social scene. Cumbernauld is an essential hub station between the City of Glasgow and the industrial centre of Motherwell. Cumbernauld Station is the main gateway into Cumbernauld and its recent redevelopment has created a quality transport interchange with a strong sense of place for passengers entering the Town.

Macemain + Amstad's challenge was to design and install a top quality, attractive, versatile, fully equipped and durable station building whilst minimising disruption to the town's vital rail service. Macemain delivered a brand new bespoke station building on platform 2 and a Paragon waiting room on platform 1.



The company's dedicated design team took IDP Architect's concept design, approved by Network Rail, First Scotrail and North Lanarkshire Council, to detail design a trademark modular building. The modular building was designed in accordance with Building Regulations, Network Rail and European Standards and to exact customer specifications, to meet the needs of passengers and staff alike.

Central to the design philosophy is 90% prefabrication offsite enabling installation within a single possession and commissioning on site within 5 days. The building comprises five modules, prebuilt and assembled, to include comfort heated public waiting areas, staff ticket office, public and staff toilets, a staff mess area with kitchenette, store rooms and an 8,000 by 3,000mm roof with integrated platform canopy.

## A landmark station building for Cumbernauld new town



The modules were prefabricated at Macemain + Amstad's production plant in Corby before being transported by road to Scotland to be installed.

The installation was carried out within two consecutive four-hour weekend overnight isolations. The aim was to ensure minimum disruption to the station and local residents and cut travel interruption to zero.

The five building modules and five roof modules were craned and fixed into position. Each night the work was completed within the four-hour isolation window of availability minimising the time the station was non operational.

This system of 90% offsite design, manufacture and assembly, followed by rapid and efficient installation onsite, ensures that each vital step is carried out to the utmost quality and safety standards and maintains an operational station for passengers.

This affords staff and passengers a state-of-the art facility, within an optimum timescale, and an assurance of longevity. The build quality gives this structure a 50 year life span - which means it will last longer than the building it replaces.

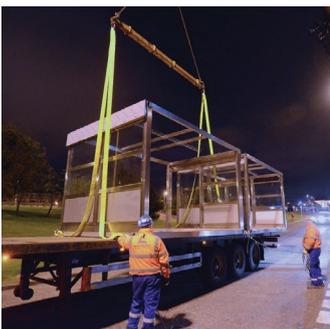
The prefabrication process - carried out within the best possible conditions for comfort, accessibility and safety - allowed 75% of the internal fit out to be done prior to delivery. It also offers Cumbernauld Station bespoke touches such as tailored heating, perfectly placed screens and monitors, a moving height counter and desk, and LED lighting with reduced running costs.

The station building has been subject to a certified BREEAM assessment which ensures best practice in sustainable building design, construction and operation for Cumbernauld.

Macemain + Amstad are proud to use core materials - aluminium, stainless steel and toughened glass - which contain up to ten percent of recycled materials, and ALL are 100% recyclable. The modules themselves can all be relocated and reused.

These design and production methods have earned Macemain + Amstad an enviable reputation throughout the country as leading designers and manufacturers of contemporary architectural structures. And THIS unique design has made Cumbernauld Station an overnight sensation!

**Please view our website for a video of the installation of this landmark station building for Cumbernauld Station.**



## Light Rail Tram Systems

*Paragon Shelter - the new passenger waiting shelter for light rail*



Macemain recently completed the platform furniture refurbishment of a light rail tram stop comprising a 4 and 8 Bay Paragon Shelter, 316L polished stainless steel structure, tab fixed glass with stainless steel pig nose fastenings, LED curtain lighting (IP65) and perch seating. New pedestrian fencing and litter bins have also been provided.

Integral electrical and data cable management including containment for CCTV and CIS is standard with the Paragon Shelter providing a seamless shelter with the optional integration of the latest passenger information systems with no visible cable, conduits and trunking.

We worked closely with the client to schedule the groundworks and shelter installations to be completed and commissioned in advance of the commencement of engineering tram line works.

The tramstop remained operational throughout the duration of Macemain's installation works. We implemented safe systems of working to ensure the safety of the public and liaison with the local community ensured that the public were fully informed.

**Please contact the Sales Team at Macemain + Amstad on 01536 401331 for further information on the Paragon Shelter range.**

## Smart Station Seating

*The Prima Seat and new pax seating range*



Macemain + Amstad's 'Prima Seat' is a range of DDA compliant quality seating. The Prima Seat is available in marine grade 316L stainless steel to withstand the most extreme environments, or a thermal plastic coated mild steel finish offering great value, with the option of timber, perforated metal or upholstered seat options.

The modular Prima seat structure comprises a fully welded mild steel or stainless steel pedestal and mounting beam that accepts seat pans and optional arms. Individual seat pans comprise either a leather upholstered seat pad (for internal use only), iroko timber slats (from sustainable sources) secured with recessed anti tamper fastenings, mild steel or stainless steel perforated seat pan. An integrated or free standing perch seat is also available affording excellent comfort for restricted locations. On HS1 the strength and durability of the stainless steel frame construction with iroko timber seat slats provides the ideal combination of materials to ensure an extremely strong, visually attractive and very comfortable seat.

Macemain have recently launched the new Pax seating range providing the rail industry with an economical seat solution that has been designed with reference to the 'Accessible train station design for disabled people: a code of practice (version 03) 2011' (Department of Transport).

**For further information on our Prima and Pax seating ranges please contact [sales@macemainamstad.com](mailto:sales@macemainamstad.com)**