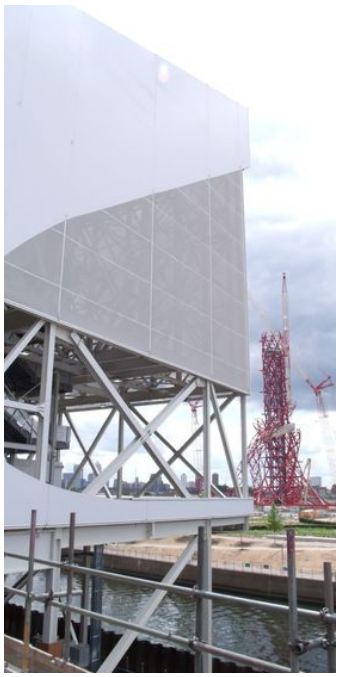

London 2012 Aquatic Centre

Client: Olympic Delivery Authority Year of Completion: 2011
Architect/Designer: Zaha Hadid Associates Main Contractor/Customer: Balfour Beatty

Since London first won the opportunity to host the Olympic Games in 2012, the Aquatic Centre, designed by architect Zaha Hadid, has been one of the most iconic designs and widely anticipated construction projects of recent years.

As such a key venue in the Games it was essential that the maximum number of people could be accommodated within it but with a large emphasis on the legacy of the Olympic Park and future use of such a large venue the design needed to be both temporary and permanent. From this brief the tensile fabric clad temporary stands were born.

Reaching 50m above ground level, the two temporary stands form angular wings to the curved central body and are wrapped in a complete fabric cladding jacket to expand the venues seating capacity from 2,500 to 17,500. As specified by the architect, the cladding uses a combination of solid materials and mesh to form flat panels covering the 22,000 square metres surface area of the structure.

Over a two year lead in period, members of the Architen Landrell design team worked solidly on this project, liaising closely with Zaha Hadid and engineers Arup Associates to ensure that every component met structural and aesthetic requirements. With such a focus on the sustainability of the London 2012 Olympic Games it was essential that the origin, manufacturing process and recycling opportunities for each material was carefully investigated. Whilst not traditionally considered environmentally friendly, specially coated PVC polyester was developed without the use of phthalates (lead based chemicals) to minimise the environmental impact of the fabric and maximise the future uses of the material post-Olympic Games. This fabric has also been used on a number of the other Olympic venues, including the Water Polo Venue and International Broadcast Centre.

With design efficiency in mind, we developed a special multi-purpose tracking to cope with the tight tolerances, extremely high loading stipulations and engineering restrictions this project posed. With such large flat panels, the tracking required the rigidity to span greater distances than any other previously developed fabric support extrusion. Like the fabric, the extrusion was designed to be reusable on other cladding and tensile fabric projects.
...see http://www.architen.com for more information.

Location:
London, UK

Category:
Exterior

Market Sector:
Sports and Leisure

Scope Of Works:
Design
Engineering
Research and Development
Manufacture
Project Management
Install

Fabric Type:
PVC - Fabric
PVC - Mesh

Design Style:
Cladding

Function:
Screening
Roof