fabric architecture Itd case study: gateshead international stadium



@ a Glance

Since 1982, Fabric Architecture Ltd has been an industry leader specialising in the design, engineering, manufacture and installation of internal and external tensile fabric structures throughout the world.

Having now completed several canopies at international stadiums (The Isle of Man 'Bowl', Manchester City Football Club, The National Baseball Stadium, Aintree Racecourse), Fabric Architecture has become an industry expert in the area of tensile fabric structures at sporting venues.

Core Capabilities Include:

- Finite Element Analysis
- Structural Engineering
- Project Management
- Form Finding

Manufacture

- Design Consultancy
- Canopy Patterning
- Installation

Project Brief

- Gateshead Council wanted to give the Gateshead International Stadium a contemporary new look
- The Council wanted a canopy roof for the 4,000 spectator seats in the East Stand
- The Canopy was not to obstruct views for spectators, allowing for a greater 'fan experience'
- The Canopy needed to enhance the perception of the Stadium to help it attract big name athletes and stars
- The project is to fit within a tight time-frame and budget
- Poor ground conditions on site should be considered when engineering the structure



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Design Solution

In order to keep the fan's field of vision clear, a bespoke cantilevered canopy was installed over the existing East Stand.

The 30m structure incorporates a series of five flying barrel-vault forms, creating a dynamic impact, protecting the 4,000 seats from the elements.

In order to have the structure look 'light and airy', steelwork was greatly reduced.

Fabric Architecture's in-house engineers engineered this structure "right to the edge of what is technically possible." The reduction in steelwork saved the client thousands of pounds, while allowing the to structure suit the poor ground conditions.

The cantilevered canopy made headlines at the **British Athletics Grand Prix.**





Added Value

- A greater fan experience
- Increased ticket sales
- More families attending events
- Fan loyalty
- Increased revenue from food and beverage sales
- Increased revenue from merchandising
- Additional PR exposure
- World class venues attract world class athletes and entertainment stars

"The new canopy roof over the East Stand of the stadium greatly improves the spectator experience. I'm very proud of it - it's now a World Class Facility!"

Linda Green, Gateshead Council

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