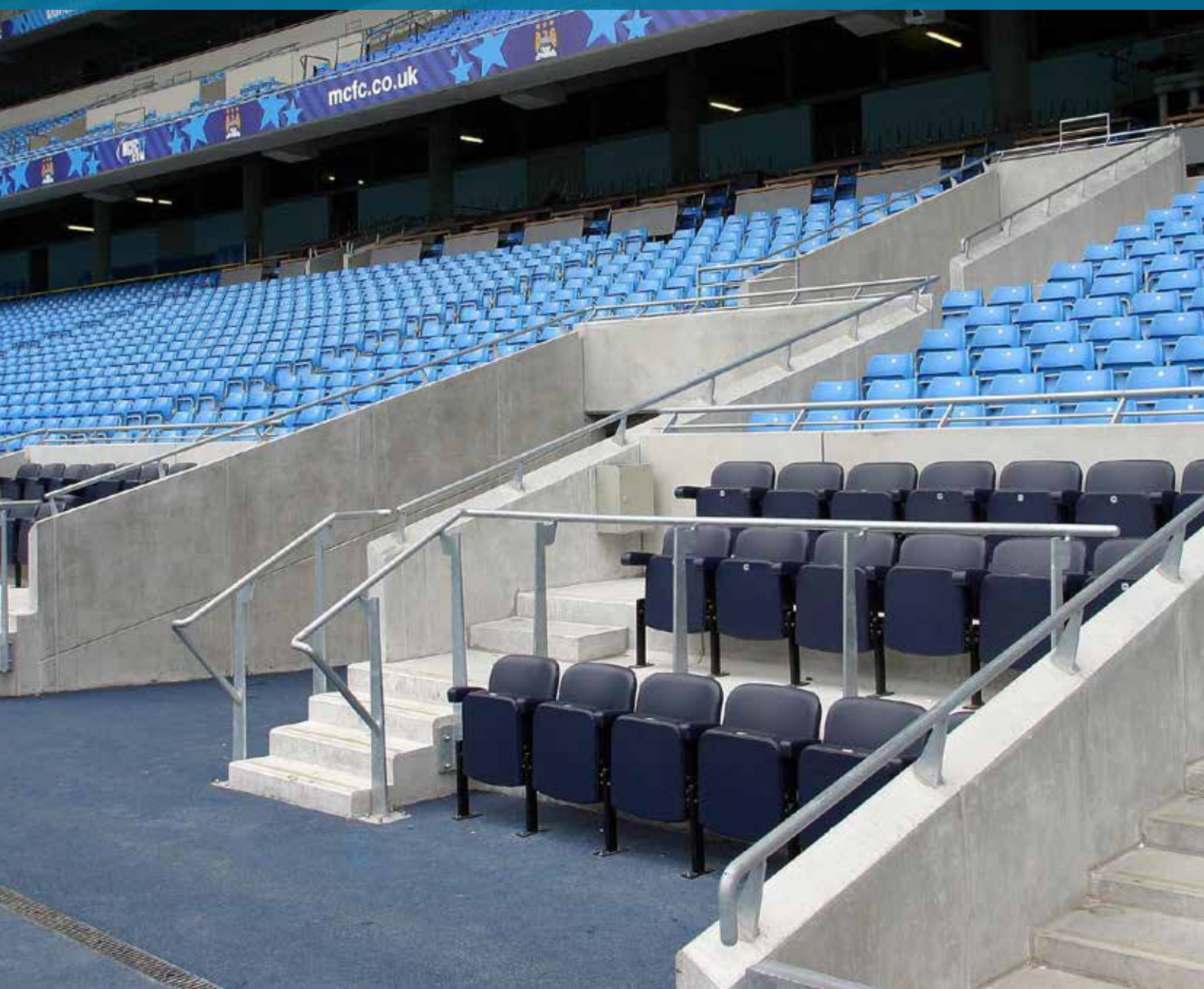


PRECAST CONCRETE STADIUM TERRACES



PRECAST TERRACING

Precast terracing from FP McCann has been developed to offer a 'one-stop' terracing solution for customers working within the stadia sector.

Precast terracing components are factory engineered, minimising cost, time and health and safety implications on site. Designed under bs8110 principles, each section is cast from high quality timber and steel moulds to a type a finish.

FP McCann's concrete designs provide stadia terraces with imposed loadings, seating, raker beams, terrace units and vomitory walls. Produced to exist under exposed conditions, precast terracing is fire resistant and aims to accommodate the requirements of dynamic performance.

FLEXIBLE DESIGN, VARIETY AND A SOLUTION FOR ALL OCCASIONS

FP McCann offers a wide range of moulds to suit the demands of all stadia projects. Individual moulds can be modified to create standing terraces with varying tread and riser dimensions. Spans can vary considerably depending whether they are simple precast or designed as pre-stressed units.

Offering a complete bespoke solution that varies according to scale and design, FP McCann continues to invest in research and development programmes that enable existing moulds to be adapted and meet the ever-evolving needs of this sector. FP McCann's innovative in house design solutions have proven to be cost effective, whilst product development has reduced the component weight and erection time to a minimum.

RELIABLE DELIVERY AND INSTALLATION

Providing a full design, manufacture, delivery and installation service means FP McCann can provide a valuable service at every stage of the contract. Close attention to detail and precision production control ensure FP McCann meets the strict quality and programming requirements of stadia projects.

Just in time delivery assists sites where space and access is limited and has the added benefit of significantly reducing construction programmes as well as the associated health and safety risks.

The streamlined delivery and off-site production remove unnecessary work activities from the congested site environment.

CARDIFF ICE ARENA

Site: Ice Arena Wales, Cardiff Bay International Sports Village

Client: Greenbank Partnerships

Main Contractor: Kier Construction

Products Supplied: Bespoke Precast Concrete Terracing Units

A £17.5 million 3,000 seat ice arena is nearing completion in Cardiff with FP McCann playing a major part in the construction by supplying the precast concrete terracing units onto which the spectator seating will be located.

The centre to be named 'Ice Arena Wales' is part of the £400 million Cardiff Bay International Sports Village and will become the new home of the Cardiff Devils ice hockey team. It is expected to open early next year.

The contract to build the new two-rink facility was awarded to Kier Construction early in 2014 by developer Greenbank Partnerships. FP McCann successfully tendered for the precast concrete special terracing units and steps and has worked closely with the Kier team throughout the 70 week build programme to ensure all product specifications and delivery requirements have been met.



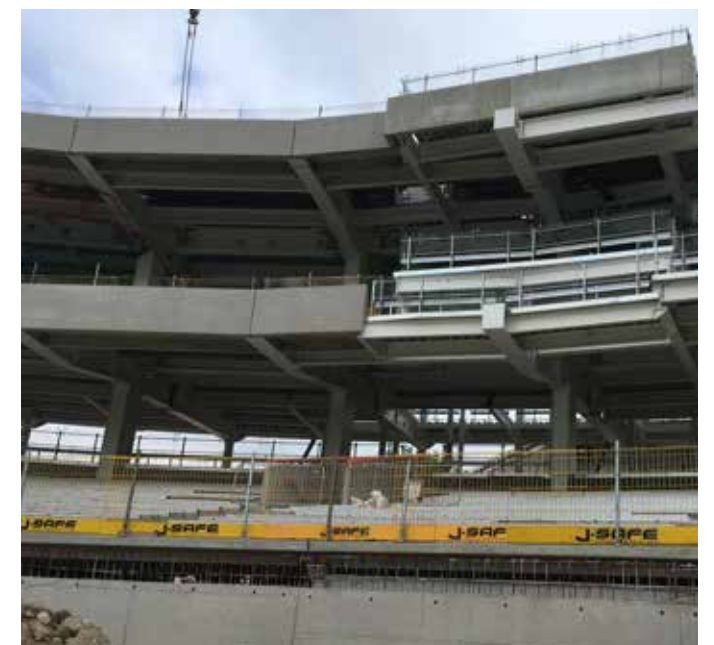
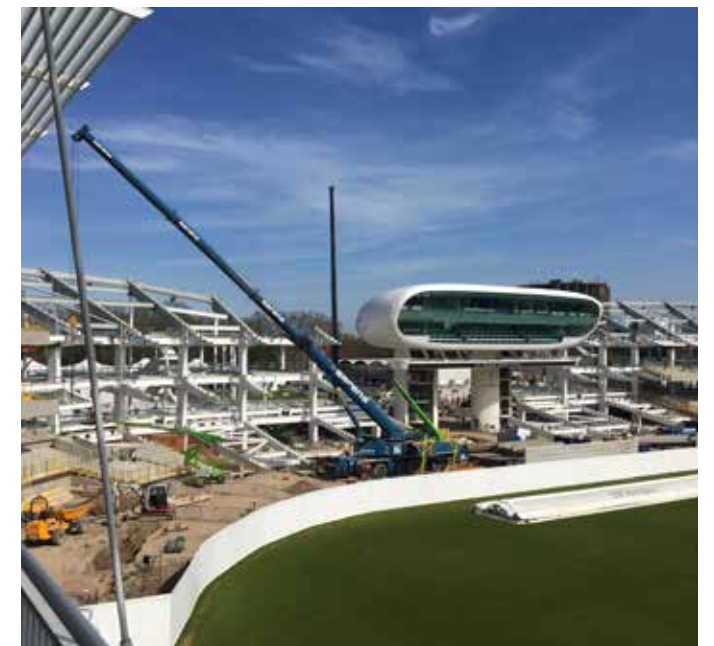
LORDS CRICKET GROUND LONDON

Site: Ice Arena Wales, Cardiff Bay International Sports Village
Client: Greenbank Partnerships
Main Contractor: Kier Construction
Products Supplied: Bespoke Precast Concrete Terracing Units

Two brand new three tier stands are well underway at Lord's Cricket Ground the home of Marylebone Cricket Club (MCC). The £52 million phase 2 redevelopment is scheduled for completion for the start of the 2021 cricket season and will see capacity increased by an additional 2,600 spectators. Building of the Compton and Edrich stands commenced in summer 2019 with global construction specialist ISG the successful contract bidder.

FP McCann is playing a major part in the construction works supplying the total package of precast concrete seat terracing, walls and stair flights which are being installed within the steel frame stand structures. This prestigious contract is running in conjunction with the redevelopment of the Oval cricket ground onto which the FP McCann is supplying a precast façade system.

In total, FP McCann has delivered in excess of 1,350 individual precast concrete units with a combined weight of 3,700 tonnes. The order comprises terrace seating units, 'U' shaped balconies combining front facade, base slabs and step blocks. Additional items include precast concrete vomitory walls, precast stair flights and landings. All products have been manufactured at the Company's specialist precast facilities at Littleport (Cambs), Grantham (Lincs) and Byley (Cheshire).



RAEBURN PLACE STADIUM EDINBURGH

Site: Raeburn Place

Client: The Raeburn Place Foundation / Edinburgh Academicals

Main Contractor: Robertson Central East

Products Supplied: Precast Terracing, Structural Units

FP McCann is playing a major part in the construction by supplying the precast concrete terracing units onto which the spectator seating will be located.

The contract to build the retail outlets and the stadium was awarded to infrastructure and construction company Robertson Central East early in 2019 by The Raeburn Place Foundation, the charity responsible for the development.

FP McCann successfully tendered for the supply of precast concrete terracing and complementary structural units and has worked alongside the Robertson team throughout the build ensuring all product specifications and delivery schedules have been met.

In total, FP McCann has supplied in excess of 200 individual precast concrete units comprising mainly straight terrace seating units, base slabs, and double step blocks. Additional items include precast vomitory and tunnel walls, precast concrete stairs flights and landings and 200mm deep hollowcore flooring slabs. All products have been manufactured at the Company's specialist precast facility at Uddingston.

For further protection from the elements, all of the precast concrete products supplied have been waterproofed using the Sika Watertight Concrete System, an admixture designed to permanently seal the concrete against the penetration of water and other liquids.



THE KIA OVAL

Site: One Oval Square (Stand Development – The Kia Oval)

Client: Surrey County Cricket Club

Main Contractor: Buckingham Group Contracting Ltd

Products Supplied: Precast Concrete Red Brick Face Walling
Façade; 3D Architectural Walling Panels; Precast Concrete Cills

FP McCann's architectural facades division has supplied and installed bespoke brick faced precast concrete panels, cills and a unique three dimensional decorative roof façade to envelope a brand new £26 million stand at the famous Kia Oval Cricket ground, home of Surrey County Cricket Club.

The three storey spectator stand named One Oval Square and designed by local architect Rolfe Judd curves around the perimeter of the ground and features two new roof terraces floating over the existing Peter May Stand. The capacity of the ground will increase to 28,000 after the addition of a further 2,300 seats. The new development will also contain hospitality suites, bars and restaurants.

Main contractor Buckingham Group Contracting Ltd commenced work on the stand in 2019 with part of the design brief to mirror some of the external architecture features of the existing main pavilion brick and stone portico constructed in 2013. Recognising FP McCann's experience in this field, Buckingham along with Rolfe Judd approached the Company to quote for the design, supply and installation of two key precast architectural elements; red brick clad precast structural wall columns and white Portland cement 3D patterned structural precast panels on the roof terrace.

On securing the contract FP McCann employed structural installation partner RLH Construction Ltd to undertake the build using a combination of mobile and tower cranes, eliminating the need for any scaffolding on the building.

In total some 45,000 'Deppe 60 WS bricks supplied by EH Smith Architectural Clay Products were cast onto the precast structural wall panels at FP McCann's Littleport factory and pointed with mortar, colour as specified by the architect Rolfe Judd. FP McCann also supplied a dusted mastic seal to match the specified mortar colour mimicking the aesthetical view of the pointed joints.

Additionally and as part of the feature roof structure, precast concrete panels have been installed with detailed and unique 3D patterns created by using special moulds and formliners. The white Portland cement panels were also manufactured at the Company's Littleport factory and along with the structural wall façade were delivered on a just-in-time basis.



ALEXANDER STADIUM

Site: Alexander Stadium, Birmingham

Main Contractor: McLaughlin & Harvey

Products Supplied: Straight and Curved Terrace Seating Units;
Base Slabs, Double Step Blocks; Vomitory and Lift Shaft Walls;
Stair Flights and Landings and Balcony Units

The redevelopment of Birmingham's Alexander Stadium ahead of the 2022 Commonwealth Games is well underway. On completion in spring 2022 the permanent seating capacity will increase from 12,700 to 18,000 with temporary seating for more than 30,000 spectators during the Games themselves.

The main focal point of the £72 million stadium is the impressive new West Stand currently under construction. Designed by Arup in conjunction with Associated Architects, FP McCann is playing a key role in the build by supplying the precast concrete terracing units onto which the spectator seating will be located.

Appointed project management group Mace awarded the main contract to redevelop the stadium to Northern Ireland construction company McLaughlin & Harvey, with the structural steelwork and precast concrete installation being undertaken by South Lanarkshire based BHC Installations. The West Stand measuring 153 metres long with a maximum height of 28.5 metres has been erected using some 1,450 tonnes of steel in the main frame

FP McCann successfully tendered for the supply of precast concrete terracing and complementary stadia structural units and has worked alongside the stadium's designer Arup, McLaughlin & Harvey and BHC teams throughout the build ensuring all product specifications and delivery schedules have been met.

In total, FP McCann has supplied in excess of 1500 individual precast concrete units comprising curved and straight terrace seating units, base slabs, and double step blocks. Additional items include precast vomitory and lift shaft walls, precast concrete stair flights and landings and precast balcony units; the heaviest middle tier balcony units requiring a 160 tonne capacity crane to lift them into position. All products have been manufactured at the Company's specialist precast facilities at Grantham and Littleport.

Alexander Stadium is set to serve as the hub of the multi-sport event, hosting athletics events as well as the opening and closing ceremonies. Following the Commonwealth Games, the stadium will be the centrepiece of the regenerated Perry Bar area of Birmingham, which is benefiting from more than £500m of investment in the coming years.



**LITTLEPORT OFFICE:**

Wisbech Road
Littleport
Ely, Cambridgeshire
CB6 1RA
T 01353 861416
sales@fpmccann.co.uk

AGRICULTURE

Lydney 01594 847500 Grantham 01476 562277

ARCHITECTURAL PRECAST

Byley 01606 843500 Grantham 01476 562277 Littleport 01353 861416

BOX CULVERTS

Weston Underwood 01335 361269

BUILDING PRODUCTS

Cadeby 01455 290780

DOCK LEVELLER PITS

Weston Underwood 01335 361269

DRAINAGE

Ellistown 01530 240000 (England/Wales) Magherafelt 028 7954 9026 (Scotland)

FENCING

Cadeby 01455 290780

FILTER BED SYSTEMS

Littleport 01353 861416

FLOORING

Weston Underwood 01335 361269 Uddingston 01698 803300

POWER & INFRASTRUCTURE

Littleport 01353 861416

RAIL

Littleport 01353 861416

SPECIALIST PRECAST

Littleport 01353 861416

STRUCTURAL PRECAST

Byley 01606 843500 Grantham 01476 562277 Littleport 01353 861416

TANKS & CHAMBERS

Littleport 01353 861416

TUNNELS & SHAFTS

Cadeby 01455 290780

WALLING

Grantham 01476 562277 Lydney 01594 847500
Uddingston 01698 803 300 (Scotland)

FPMCCANN.CO.UK