

# UNIVERSITY OF BIRMINGHAM SPORT & FITNESS CLUB

## EDGBASTON, BIRMINGHAM

**Status:** Completed April 2017  
**Client:** University of Birmingham  
**Operator:** University of Birmingham  
**Value:** £45 million



Main entrance foyer and climbing wall, with pool hall block to right and sports hall block to left

The University of Birmingham's position as a leading academic and sporting university, nationally and globally, requires the provision of first-class facilities, to support the student, local and wider communities.

The University's new Sport & Fitness Club provides top-class facilities including the city's first 50 metre Olympic-length pool, a 12-court multi-use indoor arena with 800+ retractable seats, 200-station fitness suite and a sports performance centre for injury, treatment, health assessments, applied performance lab and a performance gym.

Built on a former brownfield site within the Edgbaston Campus adjacent to the recently redeveloped 3G and synthetic outdoor pitches, the development brings the University's sports facilities together in a more prominent and accessible location, catering for the students and staff and the wider local and regional communities. The flexibility of the facility also provides the opportunity to host sporting events, such as the 2022 Commonwealth Games.

The project was funded by the University and Sport England.

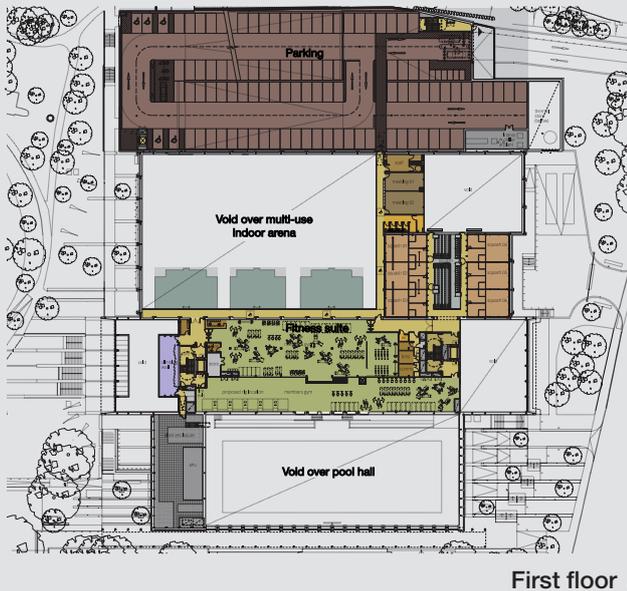


Pool hall

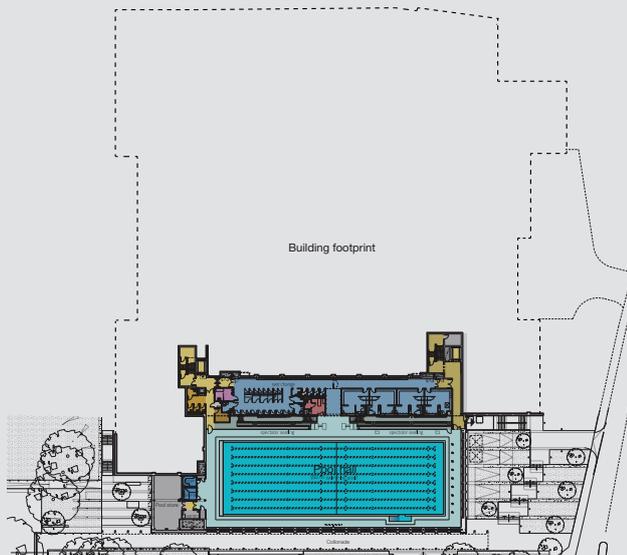


Main sports hall

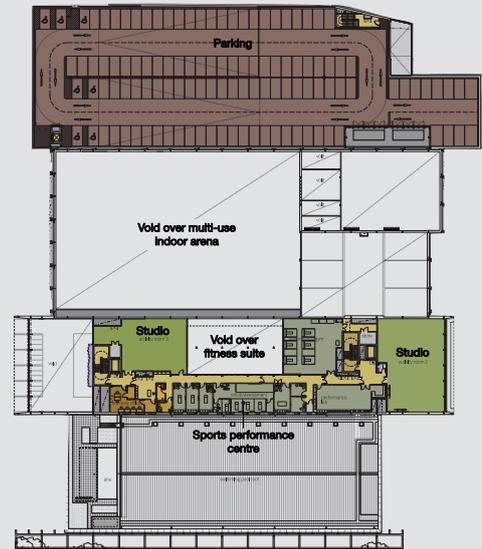
*The new sport and fitness club will provide future generations of the city's athletes and the wider community with first-class sports, training and leisure facilities*



First floor



Lower ground floor



Second floor



Ground floor

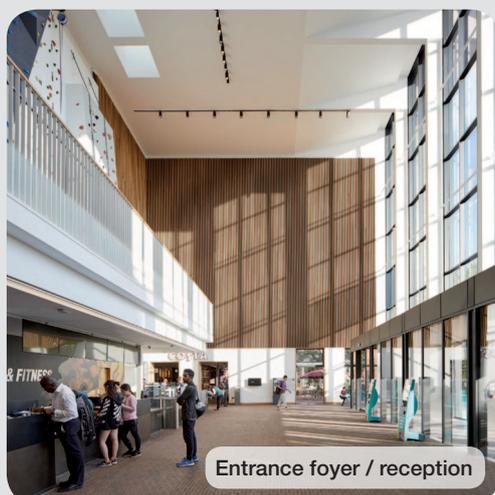
### Key

	Entrance		Wet change		Multi-use indoor arena
	Circulation		Steam/ sauna		Dry change
	Foyer/ public toilets/ cafe		Changing Places		Climbing wall
	Staff areas/ reception		First aid		Stores
	Meeting rooms		Fitness suite		Plant / service void
	Spectator seating		Studios / activity rooms		Parking
	Pool hall		Sports performance centre		Void

## Design

The new Sport & Fitness Club creates an impressive new gateway at the University's Edgbaston Campus. The new building has achieved both a BREEAM 'Excellent' rating and Environmental Performance Certificate (EPC) 'A' certificate.

The brief called for an architecturally excellent building that would provide a sense of arrival for visitors approaching the campus from the city. Established by Royal Charter in 1900 as the UK's first 'red brick' university, the campus sits within a conservation area and boasts some magnificent buildings. Therefore, the challenge was to develop a scheme that would be in keeping with the surrounding buildings, but with a clear identity.



Entrance foyer / reception

The new building has been conceived as four discrete volumes, detailed in brick and bronze with clear visual connections between core areas of activity – notable are the views of the climbing wall on entering the main reception area and the views of the swimming pool from the upper level of the gym.

Emphasis was placed on the quality of materials to be used with the high level of specification according with the environmental and sustainability requirements.

## Schedule of Areas

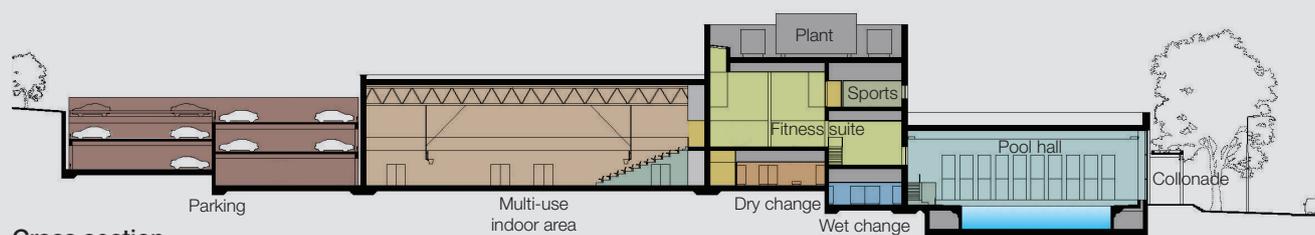
Gross site area	29,035 m <sup>2</sup>
Building footprint area (including car park)	10,598 m <sup>2</sup>
Gross internal floor area (GIFA) (excluding car park)	13,277 m <sup>2</sup>
Circulation area (% GIFA excluding staff areas)	9.8 %

## General Accommodation / Standards

Pool hall	50 m 8-lane pool with movable boom and movable floor
Sports halls	12-court multi-use indoor arena with 800+ retractable bleacher seats. Separate 2-court hybrid sports hall
Fitness suite	200+ station fitness suite
Studios	3 multi-purpose studio/ activity rooms, cycle studio and ergo studio
Squash courts	6 courts with glazed rear walls and 200-seat viewing area
Sports performance centre	Performance centre with sports injury, treatment, health assessment and consultation rooms, applied performance lab and performance gym
Climbing wall	10 m climbing wall over main reception area
Changing areas	Separate wet, dry and group changing facilities
Reception and café	3-storey main reception entrance / foyer, café area with viewing over pool and external terrace
Meeting rooms	2 public-use meeting rooms for hire
Car parking	2-storey car parking facility with cycle storage area

## Environmental Sustainability

- Designed to achieve EPC 'A' rating and BREEAM 'Excellent' rating (the UK's first sports centre to do so)
- Simple internal layout of spaces and structure, together with an inherent flexibility of use is an important aspect of the centre's sustainable credentials (embodied energy in fabric and structure equates to many years of carbon used in operation)
- Good daylight in the heart of the building significantly reduces projected CO<sub>2</sub> emissions by artificial lighting while enhancing the user experience
- Natural ventilation in spring and autumn reduces energy consumption
- In summer, cool night air introduced into the building lowers the exposed thermal mass temperature and daytime heat gains
- Very low U-values through the building envelope reduces heating demand
- Efficiency savings from connection to the university's district heating system
- Very high levels of air tightness (3m<sup>3</sup>/h/m<sup>2</sup> @ 50Pa)



Cross section

## General Description of Key Specifications and Materials

Frame	Structural steel frame with glulam beams to pool area, precast concrete plank upper floors
Pool tank	Traditional reinforced in situ concrete
Cladding	Facing brick external skin cavity walling, rendered blockwork external skin cavity walling, bronze rainscreen cladding, glazed curtain walling
Roofing	Aluminium standing seam roof system
Internal walls and partitions	Fair-faced blockwork and glazed screens
Internal doors	Laminate-faced door and frame sets
Wall finishes	Painted fair-faced blockwork, rendered blockwork, ceramic tiling, acoustic panelling to sports halls, proprietary squash court system
Floor finishes	Carpet tile, ceramic tile, vinyl sheet, rubber sheet, vinyl sports floor, brick paving, power floated concrete, beech timber sports floor
Ceiling finishes	Suspended ceiling grid, plasterboard, acoustic ceiling raft, painted exposed soffit, timber soffit

## Summary of Elemental Costs

	Element	Total Cost (£)	Cost (£) per m <sup>2</sup>
1	Substructure	3,046,000	229
2	Superstructure	9,478,000	714
3	Internal finishes	2,384,000	180
4	Fittings	2,682,000	202
5	Services	9,773,000	736
6	External works	2,133,000	161
7	Preliminaries	3,886,000	293
8	Professional fees	4,042,000	304
9	Fixtures, fittings and equipment costs	1,200,000	90
10	Contingencies	6,433,000	485
	<b>TOTAL PROJECT COST</b>	<b>45,057,000</b>	<b>3,394</b>

### Notes:

- Costs are rounded and based at 2Q2013
- Costs exclude VAT
- Costs do not include any land acquisition costs

## Specific Items of Interest

Element	Approximate area (m <sup>2</sup> )	Water area ratio
<b>Total water area</b>	<b>850</b>	
Pool hall area	1,334	1 : 1.57
Wet changing, toilets and showers	510	1 : 0.60
Pool equipment store	78	1 : 0.09
<b>Combined area of pool hall, wet changing and storage</b>	<b>1,922</b>	<b>1 : 2.26</b>
Sports halls	2,545	
Fitness suite	1,287	
Studios	1,005	

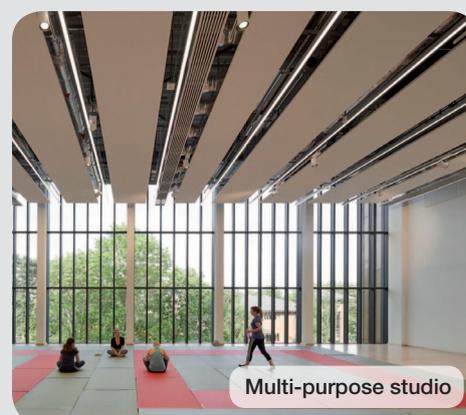
## Procurement / Programme

Operator	University of Birmingham
Contractor	Interserve
Project Manager	University of Birmingham
Designers	Lifschutz Davidson Sandilands and AFLS+P
Tender	Single Stage Design & Build
Contract	JCT Design & Build
Duration	95 weeks

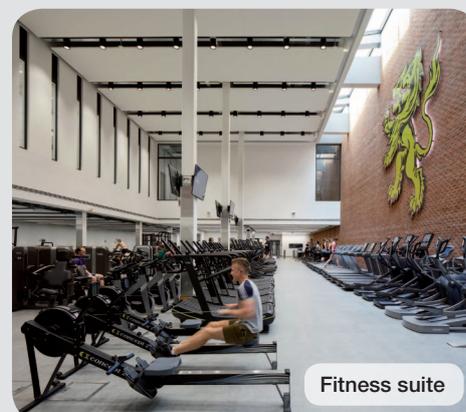
“...We are immensely proud to have such a fabulous building, and that it is already having such a positive impact on the quality of so many people’s lives...”

**Zena Wooldridge OBE**

Director of Sport, University of Birmingham



Multi-purpose studio



Fitness suite

Illustrations based on drawings provided by Lifschutz Davidson Sandilands. Photographs by ©Hufton+Crow.

[Click here for 'User Guide'](#)

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