

Halls of sporting kings

Loughborough University has been a beacon of sporting excellence for many years now, but a recent period of investment has seen the creation of a nucleus of sport-specific training facilities to rival any in the world

BY WARREN CLARK

To have one world-class sporting facility at any single venue is something of which one can be proud. To have several is almost unthinkable, but at Loughborough University there are elite facilities of a quality that has athletes willing to travel from all over the country just for the privilege of training there.

In the past 18 months or so, the university has spent around £35m on capital improvements, with funding coming from a wide range of sources – the English Institute of Sport (EIS), the Lawn Tennis Association (LTA), philanthropic investment from Sir John Beckwith and the university itself. It is investment which is already bearing fruit – world-class athletes are choosing to come to Loughborough to train and study, including Jamaican 400m hurdler Kemel Thompson, Finnish vaulters Mikko Lavvala and Hanna Palama, South African cricketers Mark Rosenburg and Mark Smith, together with French swimmer Quentin Leharne. Existing students include double Commonwealth gold medal-winning athlete Chris Rawlinson and the world championship medal-winning British swimmer James Gibson.

Multi-sports hall

The period of improvement began around seven years ago with the construction of the multi-sports hall, which, even in the shadow of the sport-specific facilities that have sprung up since then, is still an impressive building today. The sheer size of the hall would be the envy of many sport and leisure centre managers, as it contains three full-size basketball courts side by side, each of which is marked for multi-sports including badminton, short tennis, indoor hockey, five-a-side football, volleyball, trampolining and martial arts. The overall size of the hall is such that, out of term-time, it is often put to use for conferences and exhibitions.



The multi-sports hall.

The hall can be divided into three separate areas, allowing for three different sports to be played simultaneously. One of the 'zones' can be separated by a full-height curtain (as opposed to the conventional part-curtain/part-mesh dividers), allowing for complete privacy for training. The zone was used by one of the national badminton squads until the new facility became available.

The hall was built with an emphasis on performance characteristics rather than aesthetics, with the available cash being spent on a sprung wooden floor, suitable lighting, provided by specialist discharge lighting, and forced ventilation through the roof mounted air handling units. Although there is extendible

seating in place (brought in some time after the original construction), it is a facility designed for training rather than competition; this is a theme which extends throughout the more recent elite facilities.

Given that it is a multi-sport hall – and one which is heavily used throughout the year – thought has also been given to storage. Stephen Stewart, deputy director of sports development at Loughborough University, explains: 'With the design of some other sports halls, operators can find that the space set aside for "storage" is wholly inadequate. We consciously thought about the equipment that we had – trampolines, goals and rebound boards, for example – and then designed the storage around it.'



The badminton courts, which feature specially-positioned lighting bars.

Netball and badminton

At the beginning of August, the latest in a line of elite training facilities opened at the campus – a single building housing facilities for netball and badminton, designed by Bond Bryan Architect Partnership and funded largely by a grant from the EIS. Each sport is treated separately within that building. Naturally, each sport has its own playing hall, but they also have separate offices, meeting rooms and analysis areas, enabling the individual sports to have everything they need for an elite training base. In addition, changing facilities are impressive and include large group changing, smaller changing facilities, referees and umpires changing rooms, and also include a capacity for ice baths after a strenuous work out or match.

The netball facility, which will be the training base for the national team, contains two full-size courts, marked out for that sport alone, and the goals are fixed and permanent. The place has a very different feel to it when compared to the multi-sport hall, largely because of the natural light here.

‘We decided we wanted to create a world-class environment for netball,’ explains Stephen. ‘Everything in this hall was fully specified and agreed by the netball performance director Wai Taumaunu along with our coaching staff – the floor, the colour of the walls, the orientation of the courts, the amount of natural light, the height of the artificial lighting and the lighting levels. For a facility like this to do the job intended, there has to be a high level of user consultation.’

Part of that consultation involved setting the

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The netball courts, which feature both natural and artificial light.



The new LTA-funded tennis centre.



The existing Dan Maskell Tennis Centre.

high pressure sodium lighting levels for training and matches. A simple control device has two presets – 500 and 800 lux – for each respectively.

Across the entrance hall is the badminton centre, which has a different ambience to it. It is much darker – there is no natural light – and the artificial lighting is hung much lower than you would see in a multi-sport hall. The high frequency fluorescent tube lighting bars are suspended in between each of the four courts, rather than directly above them, in order to reduce glare. Ventilation (crucial in a badminton facility as it must not affect the flight of the shuttle) is provided by standalone comfort cooling units. ‘Everything is geared to shuttlecock visibility,’ explains Stephen.

The floor is wooden underneath, but with a Taraflex coating, as specified by the badminton high performance centre coach Andy Wood and facilities consultant John Bristow. It has ideal characteristics, such as good grip, which is essential in a sport where the slightest slip can make a huge difference.

Tennis

Just eight years ago, Loughborough University built the four-court Dan Maskell Tennis Centre, in partnership with the LTA and the Leicestershire LTA. It became the base for Loughborough’s tennis scholarship scheme and supported the



The indoor athletics facility is geared towards training.

'The quality of these elite facilities all together on one site is breathtaking, and it is no wonder that students and athletes adore training here. Sports halls here are certainly challenging design concepts'

regional development centre and the county performance squads.

Such was the success of this facility that the LTA decided it would put up funding to increase the number of courts, not least to house the expanding LTA Academy. Designed by Isherwood McCann Architects, the centre features a further four indoor courts, three outdoor clay and three outdoor acrylic courts, which all opened in March this year.

Both tennis centres enjoy a large amount of natural light and feel very spacious. Each features an acrylic surface and, again, the facilities have been designed specifically for tennis with no compromise for other sports.

The most striking difference between the two centres is the change of colour scheme. The Dan Maskell Centre is based around green hues, whereas the LTA centre features shades of blue – a change specified by the LTA, who were fully on board throughout the entire design and build process.

'These courts are exactly the same as our outdoor courts,' explains Stephen. 'This is great

for the players, as they can play on the same surface both indoors and out dependent on weather conditions.'

Athletics

Another recent addition has been an indoor athletics training facility, designed from an initial brief put forward by key university athletics staff and UK Athletics senior performance coach Steve Rippon, who travelled to a number of similar centres around the world looking at best practice, and subsequently advising the architects Maber Associates on the ideal design requirements. One of these was a requirement that athletes could run, jump and throw at the same time – a rare capability in most indoor facilities, but perhaps the jewel in the crown is that the facility is the only one in the UK to allow for indoor steel hammer throwing.

The facility comprises a 132-metre, eight-lane straight track, laid with a sandwich polyurethane surface. A feature of the track is the inclusion of a number of sensors down the length of the track which enable the athlete to record and analyse their speeds at different stages of their sprint.

NGBs unite for better facilities

TWO NATIONAL GOVERNING BODIES (NGBS) have agreed to co-operate to enable the building of new sports halls.

The Badminton Association of England and the English Basketball Association have come together to promote and market the Ball Hall concept, a purpose-built sports hall, which incorporates design features to cater for the specific needs of these major indoor sports.

The sprung sports floor is a delight compared to some of the solid floors that have been suffered by their sporting athletes over the years. The spacious 'run-off' around the courts is particularly liked by the basketball players; the specialist lighting and wall colours loved by the badminton players.

The attention to detail of the sporting needs of the NGBs' plans have all been incorporated. The result is a design/build facility that brings exceedingly good value for money.

Ball Hall is offered as a stand-alone build project or with a management package. Examples of this are the Stockport Reddish Vale, Oldham Kaskenmoor and Kirkby Brookfield Ball Halls. All on school sites, they each have dedicated full-time sports development officers who drive programmes, coaching and competition, into the venue after school hours, at the weekend and during the holidays. These projects are highly successful, delivering exactly what NGBs are about – more facilities – more playing opportunities – more teams – more members.

Again, this is an example of how all these new facilities have been built with training in mind, rather than competition.

There is also a permanent pit for long and triple jump, and two beds for pole vault. The lane between these jumps lane is also fitted with a force plate to allow athletes to measure various forces and speed at take-off.

On a mezzanine level, there are throwing cages for hammer and discus, a throws wall for strength and conditioning, a shot put circle, and a high jump bed. All of these can be used simultaneously without one interfering with another.

The quality of these elite facilities all together on one site is breathtaking, and it is no wonder that students and athletes adore training here. It is also fascinating to see how different each of the sports halls is, especially in terms of floors and lighting, and to what extent compromises are made in multi-use sports halls.

With the National Cricket Academy, Gymnastics Analysis Centre and Performance Centre to be opened in early autumn, sports halls at Loughborough are certainly challenging design concepts. ●