



SWIM ENGLAND
Standard Pool Design | Concept Document

August 2020



The creation of a new swimming and leisure space...

Swim England's partners, Paragon Structures and Cowan Architects, have developed this innovative **concept design** for a high quality, cost effective and environmentally friendly Swim Centre that can be rapidly constructed with economic cost certainty through a pre-designed, off-site solution.

Paragon and Cowan have developed the concept building form and layout in conjunction with swimming pool and leisure industry experts bringing together a complete project team to deliver a turnkey solution from design through to hand over of the finished Swim Centre:

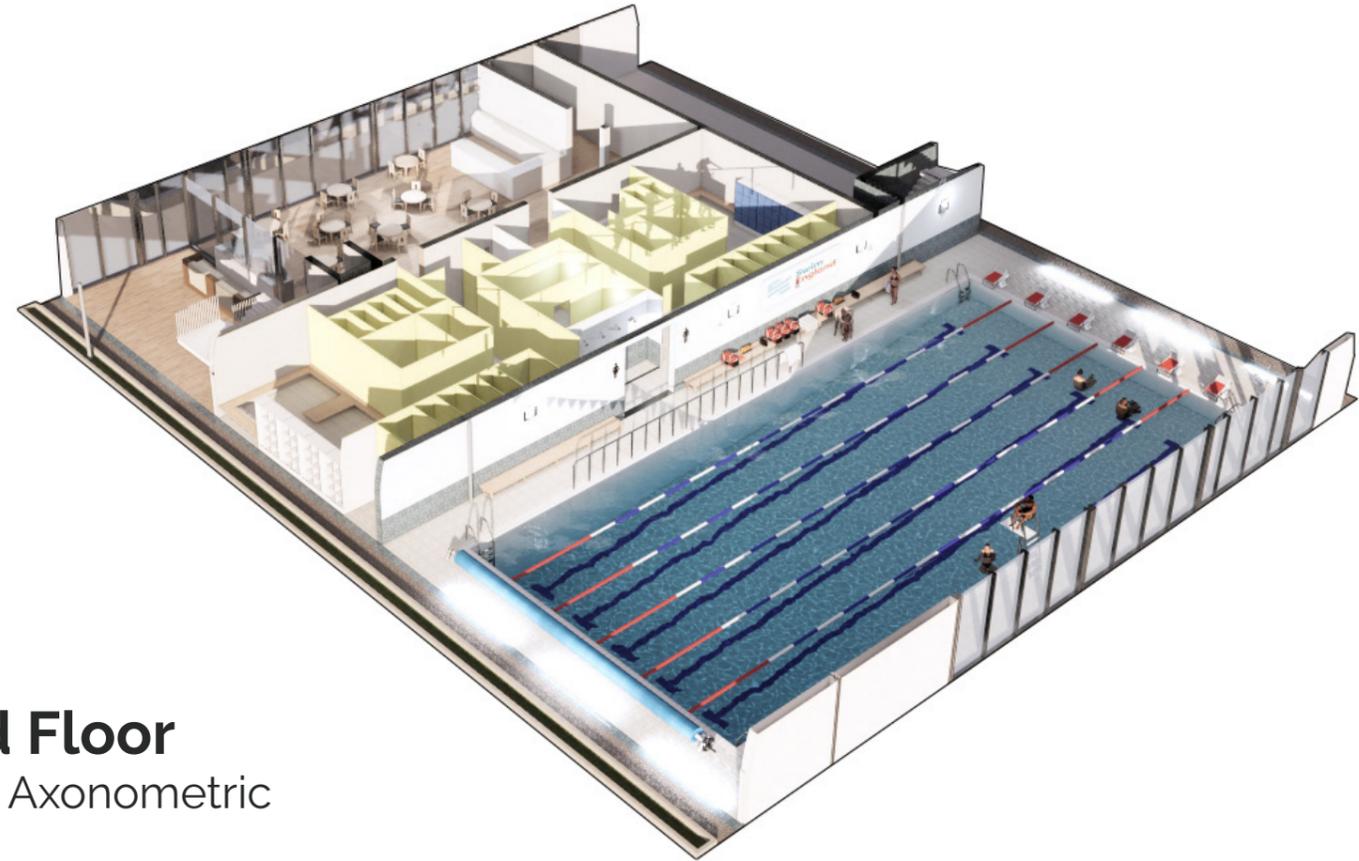
- Paragon Structures
- Cowan Architects
- Synergy
- Osborn Associates
- WFBA Structural Engineers
- FT Leisure
- Myrtha Pools



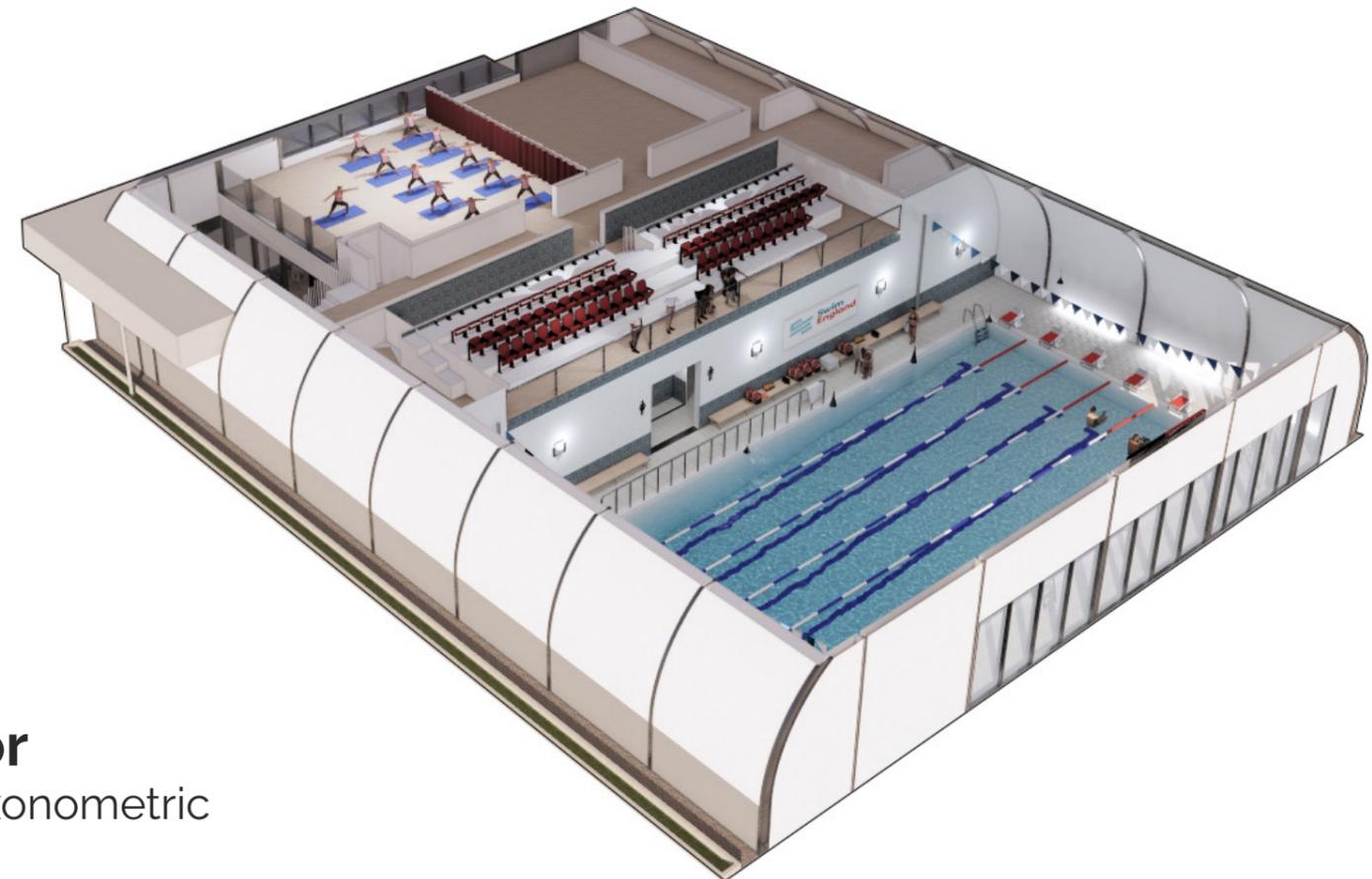
A space that is inviting and accessible for the whole community...

The **concept design** develops a complete swimming and activity centre promoting health and well-being in an environmentally and economically attractive package:

- Fully accessible facility for swimming, activities, spectating and socialising
- Naturally lit 25 metre 6 lane pool, with spectator seating and views over the external landscaping
- Wet changing villages meeting all age-group compliance
- Multi-purpose activity spaces
- Welcoming reception, café and social activity space
- Offices and staff changing
- Dimensions: 30m x 37m with gross internal floor area of 1,610 sqm



Ground Floor
Exploded Axonometric



First Floor
Exploded Axonometric

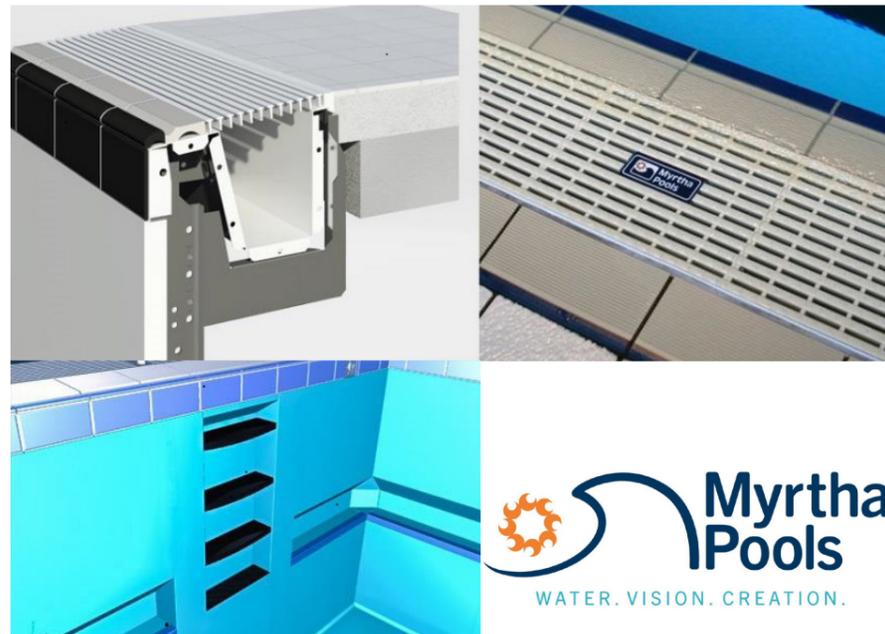
Cutting edge building and pool technology...

The **concept design** utilises the world's leading insulated tensioned membrane building from Sprung Structures and world leading pool technology, providing unique design, construction and operating benefits and delivering a superior swimming environment at lower cost:

- Daylight roof panels and white membrane provide a naturally light and airy swimming and leisure environment
- Excellent acoustic qualities enhance the user experience
- Sprung superstructure and Myrtha pool designed and manufactured off-site reducing design costs and providing greater certainty on build cost and construction programme length
- Aluminium and membrane structure provides a corrosion resistant, low maintenance building, ideal for indoor swimming pools (50 year frame warranty)
- Vastly reduced construction time and disruption; building erected in 5 weeks and full build programme of 35-40 weeks compared to 1 year+ for a conventionally built pool centre
- Innovative FTMicron4 pool filtration improves water quality, reduces plant room size and reduces operating costs
- Works cost estimate of **£4.0 million / £2,500 per sqm** - this compares to a typical conventionally built pool centre of close to £4,000 per sqm



130 year old family company with over 12,000 structures built in 100 countries worldwide. Recent references include Tesla and new corporate head office for Amazon's Blue Origin space project.

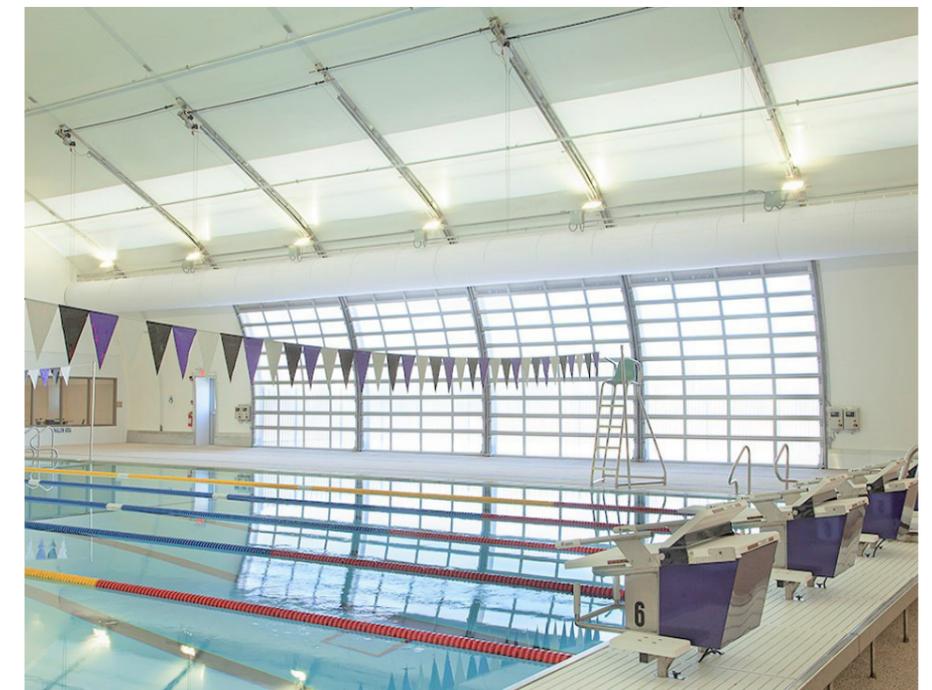


THE FUTURE OF POOL WATER TECHNOLOGY

Designed for Low Carbon Footprint and High Sustainability...

The **Swim Centre** has been design with a focus on energy efficiency, sustainability and lifecycle costs

- BREEAM rating of Excellent
- Superstructure designed and manufactured off-site and delivered in only 4 shipping containers hugely reduces vehicle traffic during construction
- Lightweight aluminium construction significantly reduces the size of concrete foundations and associated earth removal
- Building is constructed with a high proportion of recyclable components
- Prefabricated stainless steel pool further reduces vehicle traffic and concrete usage during construction
- Excellent thermal properties of the building ensure u-values and energy loss are well below similar building types reducing capital cost and operating costs:
 - » Insulation levels in excess of building regulations
 - » Air permeability less than 20% of the building regulations standard
- Micro-filtration system reduces concrete substructure requirements, drainage infrastructure and energy costs

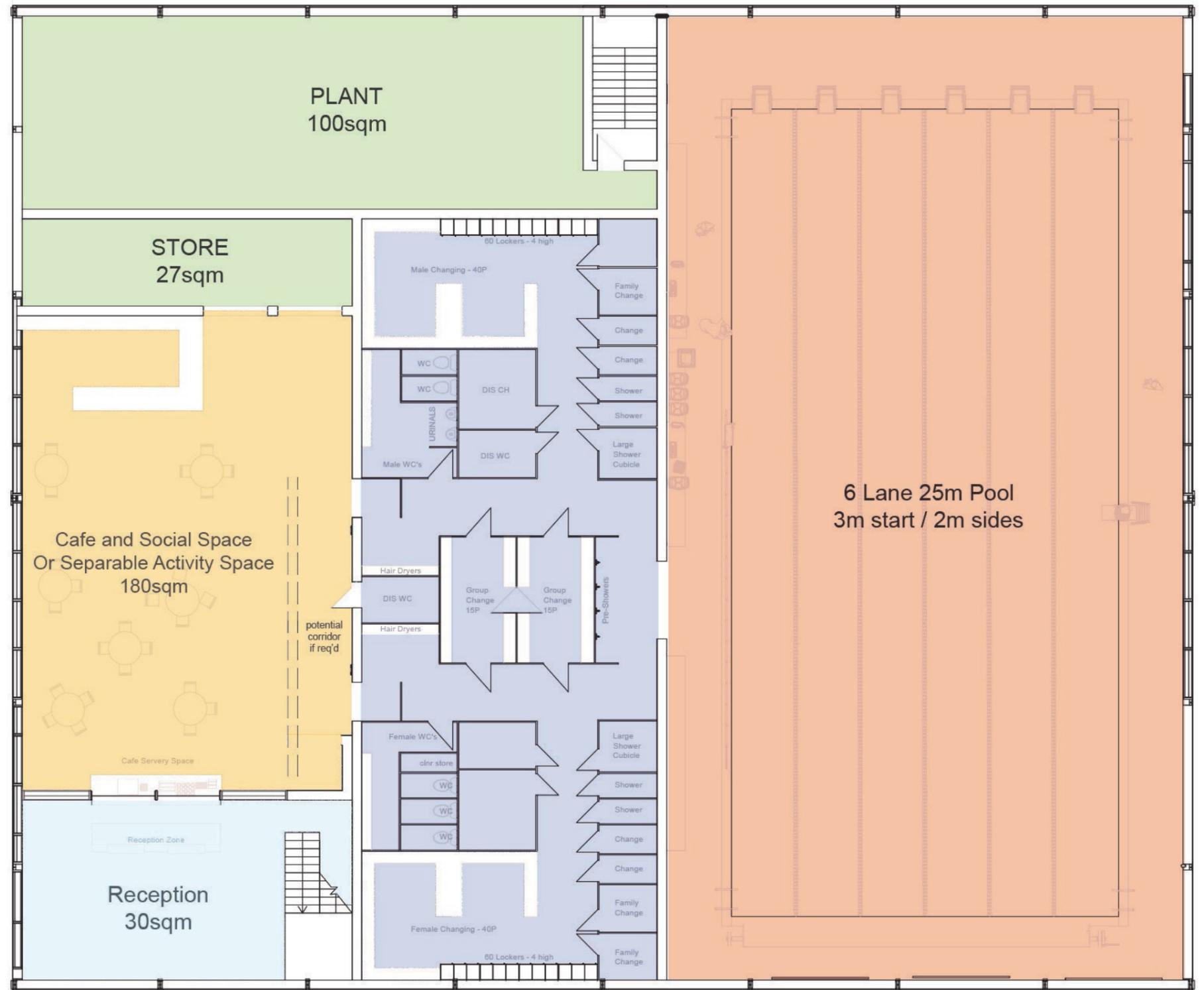


Ground floor: space for accessible swimming...

The **ground floor** provides an open and light reception area, leading onto a cafe and social space. From here you can access the changing village and onto the pool side; or up via the lift and stairs to the first floor activity spaces and poolside viewing.

Accommodation includes:

- Fully accessible, naturally lit, 25 metre 6 lane pool, with views over the external landscaping
- Swim England compliant pool sides and activity zones for community, school and exhibition swimming
- Separate wet changing villages, connected with group rooms with multiple family / baby change rooms within both changing areas meeting all age-group compliance
- Welcoming reception and arrival hall, linking directly to café and social space and first floor areas
- Integral plant room and storage accessible directly from the pool hall



Ground Floor
General Arrangement Plan

Drawing Key:

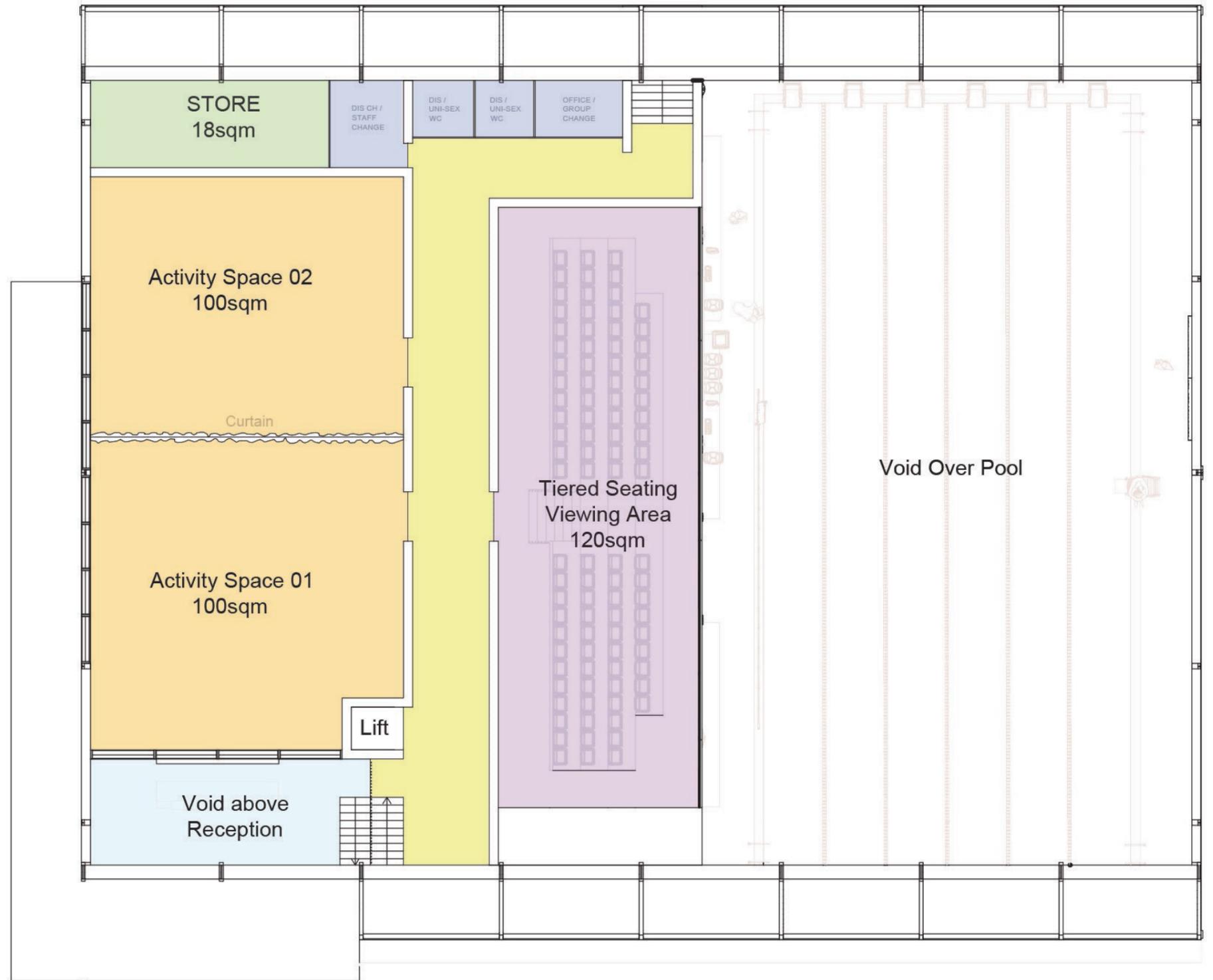
 Reception Space	 Changing Space	 Circulation Space
 Activity Space	 Pool Space	
 Storage / Plant Space	 Viewing Area	

First floor: space for activities, events and pool viewing...

The **first floor** provides an open and light circulation area, connecting to the poolside viewing and activity / fitness areas. The spaces overlook the reception, café and social spaces and are supported by functional office, storage and toilet facilities.

Accommodation includes:

- Fully accessible facilities for activity, spectating and viewing
- Tiered spectator seating for up to 150 people
- 200 square metre, divisible, multi-purpose activity spaces
- Office and staff changing for activity and swimming pool uses
- Small group / individual dry changing and toilet facilities adjacent to activity spaces
- Storage for activity areas



First Floor
General Arrangement Plan

Drawing Key:

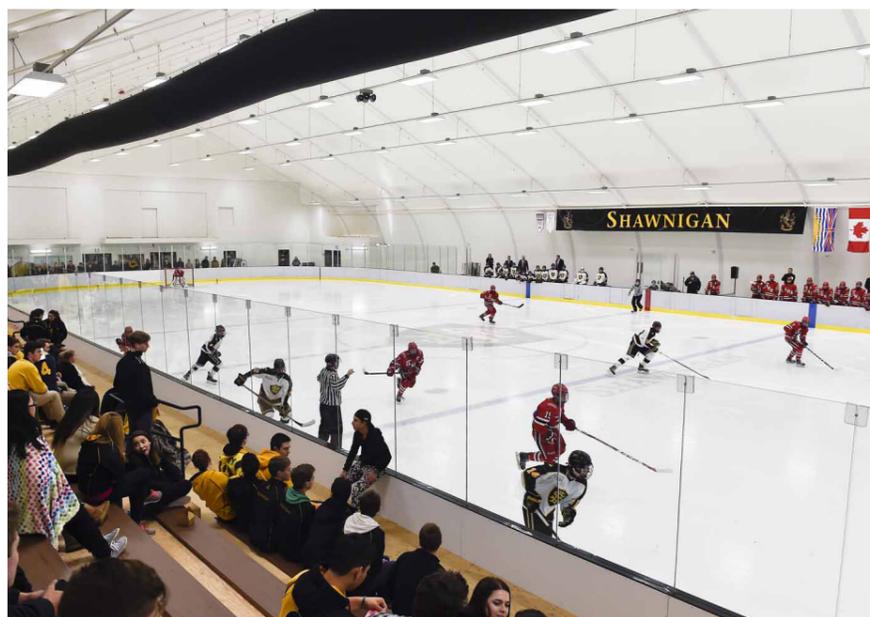
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A standardised design with inherent flexibility...

Whilst the **concept design** is standardised, the flexibility of the Sprung structure offers the option to develop the building for the needs of each user group or client.

These include:

- **Varying pool size and width.** *Additional lanes or pool length can be incorporated by simply adding additional bays to the building or increasing the structure width .*
- **Different leisure activities.** *Additional activity spaces can be incorporated on either floor, or by extending the building with additional bays.*
- **Different building uses.** *The open plan structural arrangement enables a whole range of additional uses, such as fitness suites, community spaces, event spaces and dance academies to be easily incorporated from the beginning or adapted during the building's life.*



The team...

This **concept design** has been developed in conjunction with Swim England's partners:

Paragon Structures

Paragon is a UK business developing state of the art sports facilities for educational institutions, local authorities and sports organisations. Paragon are European partner of Sprung Structures and provide a cost-effective alternative to traditional construction methods that will outperform traditional swim centres, throughout the life-cycle of the facility.

Cowan Architects

An innovative, multi-disciplinary architectural practice, working nationwide, with over 36 years experience. We have collaborated with Paragon and Sprung over 10 years, on a number of education, sports and swimming projects across the UK. A recent Paragon / Cowan joint project at Millfield School was awarded SBC Education Building of the Year.

Synergy

Synergy is a multi-disciplinary construction consultancy providing a comprehensive service including Cost Consultancy, Project Management, Building Surveying and Specialist Consultancy. We provide a Partner-Led, customer focused service on all our projects, across a diverse range of sectors including Education, Sport and Swimming.

Osbornes Associates

Osborn Associates are a team of project managers, building services engineers and cost managers. Our expertise is focused on providing our clients with minimum risk combined with optimum value for money. Our strength and depth enables us to deliver a customised service, combining technical excellence with consistent, market-led innovation.

WFBA

WFBA is a design led Civil & Structural Engineering Consultancy formed in 1995. We thrive when working with multi-disciplined teams, where collaborative thinking delivers exceptional results for the benefit of our clients.

FT Leisure

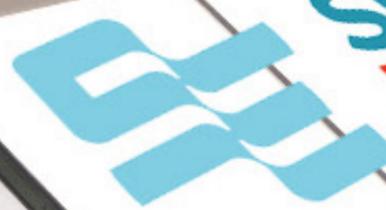
FT Leisure is the UK's premier swimming pool water treatment and filtration specialist having delivered 160+ new build schemes, 450+ refurbishment projects with continuous service and maintenance to 500+ swimming pools. We lead the industry by setting the standards and continuously heighten them through research and innovation.

Mrytha Pools

Myrtha Pools (A&T Europe), was founded in 1961 in Castiglione delle Stiviere. Over the last 59 years, it has grown to be one of the world's leaders in the research, development and manufacture of swimming pools. Each year, we manufacture approximately 1,500 pools with over 300 going to local authorities, across 70 different countries.





 Swim
England

SWIM CENTRE
 Swim
England

Richard Lamburn
Head of Facilities
Swim England
Pavilion 3, Sportpark
3 Oakwood Drive
Loughborough University
Leics LE11 3QF
01509 618700
Richard.Lamburn@swimming.org


paragon
STRUCTURES

Paragon Structures Limited
Northgate House
Upper Borough Walls
Bath
BA1 1RG
01225 418 888
info@paragonstructures.com

 Swim
England