7.4 Stadium Bowl

7.4.1 PITCH AND PLAYING AREA

The pitch dimensions are 105m x 68 m in accordance with recommendations set out in FIFA 'Football Stadiums – Technical recommendations and requirements – 5th Edition 2011'. The overall grass surface is 114.58m x 79.84m, approximately the same as the ‘recommendations’ in FIFA ‘Football Stadiums – Technical recommendations and requirements – 5th Edition 2011’ (115m x 78m).

The proposed surface is currently a Desso system, set on top of a proprietary sub-air system with an integrated irrigation system.

7.4.2 PITCH PERIMETER

The pitch perimeter is minimised to aid spectator proximity to the pitch. On this basis it does not conform to the FIFA ‘Football Stadiums – Technical recommendations and requirements – 5th Edition 2011’ with states 10m behind the goals and 8.5m at the sides of the pitch. It must be remembered that the dimensions set out in FIFA ‘Football Stadiums – Technical recommendations and requirements – 5th Edition 2011’ are only recommendations and are primarily set for stadiums to be used in FIFA World Cup TM competitions. This does not however preclude the use of stadiums in FIFA World Cup TM competitions that do not meet these dimensions.

The dimensions in the current design are 7970mm from the front wall to the pitch on the west, north and east sides of the pitch and 4985mm at the south end of the pitch.
7.4.3 BOWL CONFIGURATION

The bowl design was a response to client and market requirements, firstly to maximise hospitality provision within the west and east stands where the highest value of seating is located and secondly to provide a large single tier ‘home’ stand at the south end of the stadium. Further to this the client wished to keep spectator proximity to the pitch as tight as possible (and not to the recommendations within the FIFA ‘Football Stadiums – Technical recommendations and requirements – 5th Edition 2011’) including club and other hospitality tiers.

In line with FIFA ‘Football Stadiums – Technical recommendations and requirements – 5th Edition 2011’ all seating is within the maximum 190m viewing distances with the maximum being approximately 180m from within the South Stand to the far corners at the north end of the pitch.

The bowl design evolved firstly by maximising the hospitality provision within the west and east Stands and utilising the views to the pitch between tiers. The resultant solution was to locate hospitality at the rear of the lower tiers of the west and east stands and to insert a new floor between the ground floor and the floor at the rear of the GA seating within the bowl.

The mid tier west and east houses the majority of the club hospitality seating and the directors box (on the centreline within the west stand mid tier) with the accommodation located within Level 03 (but with access as required to Level 02 Club). To the north the mid tier which in the west and east stands consists of eight rows continues up to level 4 with a resultant sixteen rows in total. This north mid tier has a tread depth of 850mm to be consistent with the tier to the east and west. This is to allow for consistent sightlines and also for the ability of this tier to be upgraded at a later date, if required, to club or enhanced GA seating, by upgrading the seating and the accommodation behind.

By locating hospitality seating (boxes in the west and club seating within the east, including Champions League Lounge) at the rear of the lower tiers within these stands, it allows space for an additional floor of hospitality over the previous scheme. This allows the locating of all hospitality seating to be within these two stands without the need to use the two end stand (south and north) and without a reduction in overall hospitality seating numbers, indeed the hospitality provision increased nominally over the previous scheme.

As no hospitality provision was required within the north stand, the lower tier continues up to level 2 to maximise GA seating within this tier.
7.4.4 BOWL CAPACITY

The bowl capacity is in excess of 61,000 as briefed by the client. The current figure is 61,461 gross. The gross figure includes all seating including seats for media and players.

The breakdown of all seating is indicated in the tables and diagrams below with a hospitality provision of 8,091 out of the 61,461.

<table>
<thead>
<tr>
<th>GA SEATING SOUTH</th>
<th>GA SEATING NORTH</th>
<th>OTHER CLUB LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>17,109</td>
<td>6,211</td>
<td>350</td>
</tr>
<tr>
<td>3,681</td>
<td>6,271</td>
<td>164</td>
</tr>
<tr>
<td>3,544</td>
<td>3,544</td>
<td>128</td>
</tr>
<tr>
<td>6,104</td>
<td>6,104</td>
<td>129</td>
</tr>
<tr>
<td>GA SEATING WEST</td>
<td>GA SEATING EAST</td>
<td>GA SEATING NORTH AWAY</td>
</tr>
<tr>
<td>3,851</td>
<td>2,766</td>
<td>3,020</td>
</tr>
<tr>
<td>6,694</td>
<td>1,028</td>
<td></td>
</tr>
</tbody>
</table>

HOSPITALITY SUB TOTAL 7,063

CLUB WHEELCHAIR POSITIONS 24 + 23 HELPERS = 47

BOX SEATS
356 LOWER WEST
48 LOWER SOUTH EAST
266 UPPER WEST (126 + 162)
334 UPPER EAST

BOX SUB TOTAL 1,028

HOSPITALITY TOTAL 8,091
7.4.5 AWAY FANS SEGREGATION

The away fan segregation area is primarily located in the lower tier in the north east corner of the stadium and is serviced from the eastern portion of the North Stand Level 01 GA concourse. Entrance into this concourse is via turnstiles off the north podium (nominally at Level 01), spectators directly to the concourse at Level 01. Wheelchair spectators enter via a pass gate adjacent to the turnstiles to access a lift in the stair / lift core to the Level 02 concourse.

From the concourse, seating is accessed via ‘vomitories’ at the rear of the tier and a stair which accesses a lateral gangway to reach the seats in front of the hospitality seating in the north east corner.

This lateral gangway acts as an additional segregation zone and as a security route to a dedicated fixed gangway and barrier that acts as the segregation zone between home and away fans in the lower east stand tier.

The segregation zone at the other end of away fan area will be created using moveable barriers and a zone of unoccupied seats to be used by stewards. This flexibility of segregation zones allows for a range of capacities to be achieved from 1,500 to 3,000 or greater in the lower tier. For away support up to 15% of the stadium (9,150) half the mid and upper tier are also used utilising the same core that is used by away fans using wheelchairs.

Segregation on the main concourse at Level 02 is created by gates / doors which are opened or closed in various arrangements depending on away capacity.

Similar temporary barriers and gates will be used at Levels 4 and 5 for the 15% requirement.
7.4.6 WHEELCHAIR VIEWING SPACES


The overall provision will be 259 (minimum) wheelchair viewing spaces, with 230 of those positions for GA spectator use. The overall figure is in excess of the recommendations set out in ‘Accessible Stadia’ which based on a capacity of 61500 would require the provision of 253 spaces. Companion seating will be provided on a 1:1 basis.

Note that the 259 is a nominal figure to demonstrate conformance with Accessible Stadia Table 4. There will be areas in the stadium, notably the Sky Lounges and Boxes where more wheelchair users could be and will be accommodated depending on booking/ticketing requirements.

Distribution and choice have been driving factors in locating the wheelchair viewing spaces in order to provide a variety of fan experiences. There will be a significant number of wheelchair viewing positions located within the South Stand which will form the heart of the bowl design and will create an important home identity with an atmosphere to match.

The quantity of wheelchair viewing spaces in each area (GA, Club and Box) will be proportionate to the overall spectator mix and capacity of the stadium, with a slightly enhanced provision for GA spectators. In general, GA seating represents some 80% of the spectator mix; the 230 GA wheelchair view positions (comprising of 212 positions for GA home fans and 18 positions for GA away fans positions) mean that 88% of the available wheelchair viewing spaces will be available to GA spectators.

Twenty one of the Hospitality wheelchair view spaces will be located within hospitality platform positions and there has been an allowance of 3 positions within the Sky Lounges (based on capacity ratio). This number can be increased if demand requires without additional changes to the fabric of the building, dependent on lift capacity and emergency evacuation strategy.

Each of the 71 boxes will be capable of accommodating one or more wheelchair users, but for the purposes of calculating conformance with the requirements of ‘Accessible Stadia’, an allowance of 5 wheelchair viewing spaces, based on the ratio of box users compared to the overall stadium capacity has been used, in large part because the positions are not ‘fixed’ and remain flexible depending on boxholder requirement. The quantum of wheelchair users in the Boxes can be increased without additional changes to the fabric of the building, dependent on lift capacity and emergency evacuation strategy.

A few locations will not achieve all the requirements set out by current guidance in regards to unobstructed spectator ‘C’ values. These areas have been identified and the shortcomings discussed with THFC’s own consultative access group, where the group were shown 3D modelling of seated/standing ‘C’ values and demonstrations showing that in no instances would views of the goal line be compromised. Most of these areas have a quality of view or perceived quality of view such that additional measures may not be required, as the views will not hinder the match day experience for wheelchair users and initial discussions. The group did not propose that non-conformances required significant alterations. As the design progresses, the design team will continue to consult with representatives of THFC accessibility group and other external stakeholders representing disabled people to determine if compensatory measures will be required.

Companion seats for will be located adjacent to the wheelchair viewing positions spaces with equally good sight lines. For planning purposes, the numbers of wheelchair users and companion seats are identical; however, the proposals are for companion seats that will be removable and re locatable, and match dependent, will provide the opportunity for wheelchair users to sit with a companion (as is commonly adopted) or for a group of wheelchair users to be able to sit with friends and family members.

7.4.7 EASY ACCESS / AMENITY SEATING

Seating for ambulant disabled spectators or people requiring ease of access will be in excess of the 253 seats recommended by ‘Accessible Stadia’. Provision will be up to 1% of the overall capacity (615 positions). These seats will be located in areas with easy access from the concourses and have good access via lifts.

Twenty dedicated positions for spectators will be located to the rear of the commentary area in the upper west stand with additional legroom for guide dogs to be accommodated. Other blind or partially-sighted spectators will be accommodated throughout the stadium with commentary via the WR system.

7.4.8 FUTURE-PROOFING

As a service provider with duties under the Equality Act 2010, THFC and the design team have done an exercise looking at how the stadium might accommodate additional wheelchair users or disabled people in the future. Areas have been identified where increased provision might be made in the future, as demand and changes in the demographic of the population present themselves in the spectator base while disturbing as little as possible or the proposed structure and circulation routes.
7.4.9 SLIDING PITCH

The introduction of a sliding pitch to the stadium design is a key element in accommodating both sports within the venue. It enables a natural turf surface to be provided for soccer and a separate artificial turf surface to be provided for NFL and other uses, which will allow both sports to co-exist without any issues associated with the quality of the playing surface.

- Sliding the soccer pitch out to be replaced by an astroturf field of play has the advantages of preserving the natural turf for soccer and providing the preferred surface for the NFL game.
- Pitch markings and logos for NFL in the artificial turf surface can be easily changed and be put in place well in advance of any NFL event with little effect on soccer operations before and after any NFL event, thus reducing the turnaround time from one event to another.
- By sliding the soccer pitch out sightlines for NFL are improved by raising the front row of the spectator seating to a height of 4 feet from NFL pitch level to front row tread level. This negates the loss of seats on the front of the east and west stands and helping improve the proximity of spectators to the sidelines.

The turf soccer pitch sits in three trays which separate and then slide into a parked position below the south stand and southern podium. In order for this to be possible and for the artificial pitch, including run offs to be accommodated three rows at the front of the south stand are removed in NFL mode. This has been taken account of within the stadium capacity figures outlined elsewhere.

The sliding pitch construction and mechanism is covered in a separate report produced by Buro Happold.
7.4.10 SLIDING PITCH MOVEMENT AND STRUCTURE

The Club has announced a landmark agreement with the NFL to play a minimum of two games per year during a 10-year partnership at our new Stadium.

The new stadium has been designed for multi-use, including a structurally engineered fully retractable pitch – the first for any stadium in the UK – to ensure that the football playing surface is always in peak condition.

Underneath the grass field will be a synthetic grass surface that would be used for NFL games and other events. This innovative solution also allows greater flexibility in the scheduling of games, reducing the set up time required to prepare the ground for other events.

The seating bowl has also been designed to enable excellent sightlines to be achieved for the different formats of football and the NFL, without having to screen off rows of seats at the front of the lower tier, maintaining an excellent atmosphere for all sports and events.
7.5.1 STADIUM ACCOMMODATION OVERVIEW

**Stadium Facilities**

**Level B1 – Basement**
- Car parking, plant and furniture storage

**Level 00 – Ground floor**
- West and East stand hospitality entrances and access from Sainsbury’s car park.
- Players’ officials and team staff facilities.
- Media centre, stadium management offices, staff accreditation and facilities, central production kitchen, police and medical centre, stadium and pitch maintenance, service yard, primary services intake, plant rooms, parking, match day toilets, Tottenham Experience.

**Level 02 and Level 03 – North Stand**
- Future Fit-out areas.

**Level 06 and Level 07 – Offices and plant**
- THFC offices and main plant rooms. Secondary IT equipment room.

**General Admission Concourses**

**Level 01 – Lower Concourse**
- General spectator access to east and west lower tier with concourse, toilets, and concessions. First aid rooms. South stand flood court and principal away fans north-east concourse.

**Level 02, Level 03 and Level 04 – South Stand**
- General spectator access to south home single tier stand with concourse, toilets, and concessions.

**Level 02 – North Stand**
- General spectator access to north lower tier with concourse, toilets and concessions.

**Level 04 – North Stand**
- General spectator access to north middle tier with concourse, toilets and concessions.

**Level 05 – Upper Concourse**
- General spectator access to upper tier with concourse, toilets and concessions, first aid rooms and access from Lillywhites House.

**Hospitality**

**Level 00 – West**
- Tunnel club west, access to lower bowl behind home team player bench.

**Level 00 – East**
- Tunnel club east (lower level at B1), access to centreline lower tier.

**Level 02 – West**
- Lower west suites and lower tier west club with access to centreline lower tier.

**Level 02 – East**
- Lower east suites and East Club hospitality (including Champions League Lounge, when required) with access to rear to east lower tier.

**Level 03 – West**
- Directors’ suite, West club hospitality with access to west middle tier.

**Level 03 – East**
- East club hospitality with access to east middle tier.

**Level 04 – West**
- Platinum club, upper west suites.

**Level 04 – East**
- Upper east suites.

**Level 08 – SkyLounge bowl access**
- SkyLounge hospitality vomitory and toilets.

**Level 09 – SkyLounge**
- East and West SkyLounge hospitality.
7.5.2 GENERAL ADMISSION FACILITIES

Concourse Areas

The concourses have been sized to provide net floor areas as recommended by the FLA guide to concourses which recommends 0.5 m² per person, assuming 50% of spectators use the concourse at half-time (ie 0.25 m² per person).

The concourses will include the relevant toilets, food and beverage outlets, retail and first aid rooms to each area. Suitable refuse areas and cleaners stores will be provided.

Concourse Toilets

General admission toilets will be provided to meet the guidelines “FSADC / Sports Council Guide Toilets in Stadia” 1991. The ratio that has been designed to meet 90% male / 25% female spectator split.

This ratio will cater for the current 87% / 13% male / female demographic found at the current stadium, but also will offer more flexibility in the future if events are held that attract an increased female attendance.

Flexibly has been designed to the toilets to Level 01 north concourse to offer different segregation options.

Unisex accessible toilets will be provided on the concourses near to wheelchair positions, with one toilet provided for each 12-15 wheelchair spectator positions in accordance with Accessible Stadia 2003 and BS8300:2009. In addition a toilet designed in accordance with the Changing Places recommendations and BS8300:2009 will be provided at Level 01, west concourse. In each of the standard public toilet blocks standard ambulant accessible WC compartments will be provided, and enlarged WC compartments provided if in a block of more than 4 cubicles.

Concourse Concessions

Concessions will be provided to serve a range of food and beverage offer with a catering strategy developed with THFC in Stage E. The overall concession provision has been designed to a benchmark of 1m length of counter per 80-90 spectators to match or exceed the provision in the North Stand at the existing stadium.

Additional to these areas the “Food Court” at Level 01 in the South Stand is designed to function primarily as a pre and post match facility for all GA spectators. The inclusion of sprinklers into the building will allow for a contemporary casual dining experience with permanent and pop up catering. This ‘Food Court’ will also supplement the catering provision for South Stand spectators at half-time.

First Aid Facilities

The primary first aid room is located in the north-east corner at Level 00, with direct access to the pitch via the vehicle pitch tunnel. An ambulance parking bay will be provided adjacent and a route out of the stadium via the stadium service yard and to Northumberland Park maintained during events. Access to the primary first aid room is via the core lifts serving all floors in the north east core.

Satellite first aid facilities will be provided to serve the concourses with close proximity to a core lift suitable to accommodate a stretcher. Each will accommodate an accessible toilet or an accessible toilet will be located in close proximity.

Match-day toilets including an accessible toilet will be provided at Level 00 and directly accessed from the High Road or Worcester Avenue, and on the south podium.

Provision of toilets for concert usage would form an additional study.

www.populous.com
Level 01
General Admission Concourses

West/North concourse capacity
East concourse
North Away Fans

Level 02
General Admission Concourses

North Away concourse
North Home concourse

Level 02 North are seen as satellite concourses to level 01 home and away fans, providing a more quiet location for wheelchair fans to access the bowl and facilities.