

Related sections in the submitted Design & Access Statement:

# 9.0 INCLUSIVE DESIGN

- 9.1 Inclusive Design Statement
- 9.2 Inclusive Access Plans
  - 9.2.1 Level 00
  - 9.2.2 Level 01
  - 9.2.3 Level 02
  - 9.2.4 Level 03
  - 9.2.5 Inclusive Access Masterplan
  - 9.2.6 Lift Access to West Terrace
- 9.3 Accessible Seating Layout
  - 9.3.1 Wheelchair Tribunes
- 9.4 Letter of Support

# **INCLUSIVE DESIGN STATEMENT**

Inclusive design has been integral to the design process throughout and the updates to the scheme since the planning submission in December 2019 have enabled the design team to make further improvements. The slightly larger stadium concourses have been redeveloped along with the seating bowl to provide better facilities for disabled supporters and new facilities have been added which support a range of needs.

There has been further stakeholder engagement following comprehensive feedback from the LCC Inclusive Design Officer (IDO) during the consultation period. A workshop was held in May 2020, to review the comments and their implementation in the updated scheme. Further engagement with the IDO as well as consultation with the Everton Disabled Supporters Association (EDSA) has continued since the workshop and is an ongoing process.

The design team has worked with the SGSA to clarify the calculation methodology for wheelchair position provision, SGSA provided the design team with a file note that confirmed the calculation methods to be used. As a result of this recalculation, the number of wheelchair viewing positions has increased significantly. It is understood by the design team that the calculation methodology followed is agreed between SGSA, LCC-BC and Level Playing Field.

The following points summarise the key changes to the design relating to inclusive design, as well as some clarifications, since the submission in December 2019.

### **Entrances**

All spectator entrances to the stadium are via turnstile or gate. Any other entrance and all exits are swing doors, typically glazed doors in a curtain wall. These doors conform to Approved Document M, Table 2 and BS-8300-2 and operate at not more than 30 N from the closed position. All glazed doors will have manifestation as per Approved Document K or BS-8300-2. There are no revolving doors in the scheme, internally or externally.

### Signage and Wayfinding Strategies

The signage and wayfinding strategy is being prepared as part of the technical development of the project. The strategy ensures that sight lines, lighting, visual contrast and legibility are appropriate. The strategy includes both text and graphical information, to ensure it is accessible to people with cognitive impairments and for people whose first language may not be English.

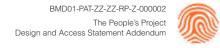
### **Public Realm**

The Public Realm has been improved throughout, with works to the pavement to minimise trip hazards at Regent Road. As suggested by the LCC. The corduroy hazard warning tactile paving along the north and south concourses have been increased in depth from 400-800mm to make it more legible. Developments to the construction methodology for the paving surface should ensure that level surfaces can be maintained over time. There are two dog spending areas adjacent to the north and south Regent Road gates within the scheme, to provide relieving stations for assistance dogs, based on the RNIB's 'Guidance on the provision of spending facilities for guide dogs and other assistance dogs'.

In the west of the site, the boardwalk is a special area in the design which enables visitors to be close to the water in the channel. In response to the IDO's comments, the junctions between gradients and steps have been improved, so that the slopes are less steep than 1:20 and the edge treatment of the steps, which also provides seating, has been developed with upstands rather than a feathered edge. Positions have been incorporated for wheelchair users that allow for lateral transfer to the seats or can simply be used as a space that is adjacent to the seating. This is as recommended in the LCC Design for Access for All SPD (2010). These positions have been developed to ensure the slopes remain freely accessible to other users.

The new West Terrace seating area incorporates seating spaces suitable for wheelchair users at the bottom and top of the terrace. Due to numerous site, safety and fire-fighting constraints it has unfortunately not been possible to incorporate slopes or ramps into the design of the steps themselves. However, the adjacent stadium lifts provide access to the upper surface of the terrace for all visitors. Please refer to section 9.2.7 of this document for further information.

Related sections in the submitted Design & Access Statement:







### Parking

Due to the removal of the MSCP from the scheme, on-site parking is now only available in the surface car park in the West Quay. Accessible parking spaces are provided well in excess of the percentage required and on a match day approximately 50% of the available parking is accessible. Please refer to Section 3.5 for details of the parking scheme including bay counts. The layout of accessible parking bays accords with BS-8300-1. The route from the car park to the stadium is highlighted in the following masterplan diagram and seating around the site is provided at regular intervals such that there are rest points at least every 50m.

### **Circulation - Horizontal**

The updated plans in this document demonstrate step-free access throughout the stadium. All circulation routes remain accessible for both staff and spectators, with all doors conforming to Approved Document M guidance. The opening force of manual doors will not exceed 30 N.

### **Circulation - Vertical**

The vertical circulation is very similar to the scheme submitted in December 2019. The main GA stairs have been rationalised for an efficient layout of entrance turnstiles and stairs that are intuitive to navigate. All escalators and lifts have been adjusted to improve circulation and adjacencies so that they are colocated where possible. Please refer to the plan in section 6.7 to see all vertical circulation elements including all accessible entrances.

The hospitality lounges in the west have been redesigned such that no spectators have to change level at half time. This provides an easier route for spectators to access their hospitality offer within the half-time period, without the need to use stairs, escalators or lifts.

The LCC IDO raised the issue of the provision of a lower, second handrail as set out in Design for Access for All SPD (2010). An evidenced based design note, produced originally for the London 2012 Olympics demonstrated the provision of an additional lowered did not provide the benefits previously thought. By agreement with the IDO a second, lowered handrail will only be provided in the stairs that serve the shop, the family tribune and areas of the Public Realm such as the West Terrace and steps to the water's edge.

Lifts and Escalators

The general admission escalators that were previously in the east have been relocated to the south, allowing fans to access the centre of Level 02 and the upper tier of the home stand. In this location, the escalators will be of benefit to more fans. An additional escalator serves the hospitality lounge in the east, so there is a net increase of one escalator in the updated scheme. A new entrance has been added in the south to access these escalators. This will be clearly signed, as will the alternate entrances for general admission lifts and stairs, which are located in each corner of the building. This signage will be clearly visible on the approach to the building.

Lift access is generally very similar to the scheme submitted in December 2019. In the east, the corner lift cores have been extended to reach Level 03. This means that access for general admission and hospitality ticket holders is fully separated for ease of entry. Hospitality entrances in the east and west have both been rationalised to make the entry sequence clearer. The lifts and escalators have been located close together and will be clearly signed to provide routes for people that cannot or choose not to use escalators.

The lift for Away spectators has been redesigned with the stairs to provide an increased lobby area at Level 00 and more circulation space around the lift and stair landing at Level 01.

### **Facilities**

The provision of specific facilities within the stadium itself are shown in the plans that accompany this submission, with little variation from the December 2019 submission. As the design has developed the following changes and improvements have been made.

- In response to LCC comments, the general admission concourses will be developed to include storage facilities for mobility aids close to easy access and amenity seats.
- The design of the press conference room podium at approximately 750mm will include platform lift access and stepped access making it accessible to all.
- Concession counters are in accordance with BS-8300-2 incorporating a single height counter at 850mm above finish floor level. This approach is more inclusive, as wheelchair users and people of short stature can use any position.

### Seating

The number of wheelchair viewing positions has been increased in line with a clarification from the SGSA regarding the calculation method. The number of general admission wheelchair viewing positions has increased to 228, and the number of hospitality wheelchair viewing positions has increased to 55, giving a total of 283 wheelchair viewing positions in the bowl. This figure does not include the one position possible in each of the hospitality boxes

Easy access and amenity seating is provided in equal quantity to the number of wheelchair viewing positions. These seats are located close to vomitories and adjacent to the gangways, to ensure there are minimal steps and obstructions.

Related sections in the submitted Design & Access Statement:





### **Sanitary Accommodation**

There have been a number of improvements to the provision and arrangement of toilet facilities within the revised scheme. Accessible WCs have been redistributed and are typically located within 40m of all wheelchair viewing positions, although this figure is occasionally exceeded in cases where it is not possible to provide a WC closer to the tribune. Please refer to the following set of diagrams which indicate routes and travel distances between wheelchair tribunes and accessible WCs. All accessible WCs have been designed to BS-8300:2-2018 (which are larger than Approved Document M) with an outward opening door. Accessible WCs are located close to the single-sex toilet blocks and are handed for transfer throughout the stadium. Wherever possible, accessible WCs are grouped together so that there is a choice of left and right-handed facilities in close proximity.

The number of accessible WCs is in line with the increased number of wheelchair viewing positions in the bowl. The provision ratio is better than 1:15, allowing for additional wheelchair viewing positions in the future if required, and in recognition of the fact that accessible WCs are not only used by wheelchair users.

There is one ambulant cubicle in every separate sex toilet block, and an additional enlarged cubicle in every toilet block with more than 4 cubicles. The WC pans in ambulant and enlarged cubicles will be mounted at 480mm above fixed floor level. This far exceeds a 1:15 provision for easy access and amenity seats and is distributed throughout the whole stadium. Easy access and amenity seating is generally located within 40m of separate sex or gender neutral WCs.

All toilet blocks have been designed to BS-6465:2-2017 and BS8300-2 including the required spacing between fixtures for use and circulation. Fixtures such as urinals, sinks and mirrors will be specified to be mounted at heights which provide for users with different requirements.

There are three Changing Places (CP) facilities in the stadium, which have been strategically located to avoid users having to cross segregation lines. There are a CP facilities for home supporters at Level 01 that will serve Hospitality and the Family Concourse; and Level 02 adjacent to the wheelchair viewing tribune. A CP facility will be located at Level 00 for with direct access for away supporters with the added benefit that it has a connection with the Medical Centre, if required. On non-match days, this CP facility can be made available for visitors in the Fan Plaza.

Gender-neutral WCs are provided in the general admission, Family and Away concourses as individual toilets with sinks and are directly accessed from the concourses. The gender-neutral WC's have been designed such that one WC is an ambulant facility in each group, as per BS-8300:2-2018. The self-contained WCs accord with the spatial requirements of BS-6465-2. This provision has not been included in the half time analysis for people movement, so these facilities are additional to requirements, and should therefore not be overburdened and will have a positive impact on queuing times in the single sex toilets.

Family WCs, designed to BS-6465:2-2017, are provided at Level 01 in the Family Concourse and the Player's Family lounge. Additionally, there are accessible baby change facilities with WC's available on all levels for general admission and hospitality spectators. It should be noted that these baby change facilities are for use by those requiring an accessible facility and are in addition to the 1:15 accessible WC provision. Baby changing facilities are also provided in nearly all separate sex toilet blocks, with a drop-down table in the enlarged cubicle.

An enlarged accessible shower has been provided in the player's area. This is located in the Doping Control area so it can be accessed from all of the team changing rooms. The player's shower rooms have also been developed to ensure it is possible for drop-down shower seats to be fitted in the home and away changing rooms if the need arises.

Related sections in the submitted Design & Access Statement:





# **INCLUSIVE ACCESS PLANS**

# 9.2.1 Level 00

# Circulation ▲ Accessible Entrance Mixed Lift (Spectators and Goods)\* Passenger Lift ■ Escalator Escape Stairs 1 Lift Core 1 (All Levels)

- 2 Lift Core 2 (All Levels)
- 3 Away Fans Lift (Level 1)
- 4 East Hospitality Lifts (Level 1 and 2)
- 5 Lift Core 5 (All Levels)
- 6 Service Lifts (All Levels)
- 7 West Hospitality Lifts (All Levels)
- 8 Director Lifts (Level 1 and 2)
- 9 West Hospitality Lifts (All Levels)
- 10 Lift Core 10 (All Levels)

### **Facilities**

Toilet Block with Ambulant/ Enlarged WC

Unisex Accessible WC

"♥" Gender Neutral WC

Accessible Baby Change with WC

Accessible Shower

Quiet Room

Changing Places

Faith Room

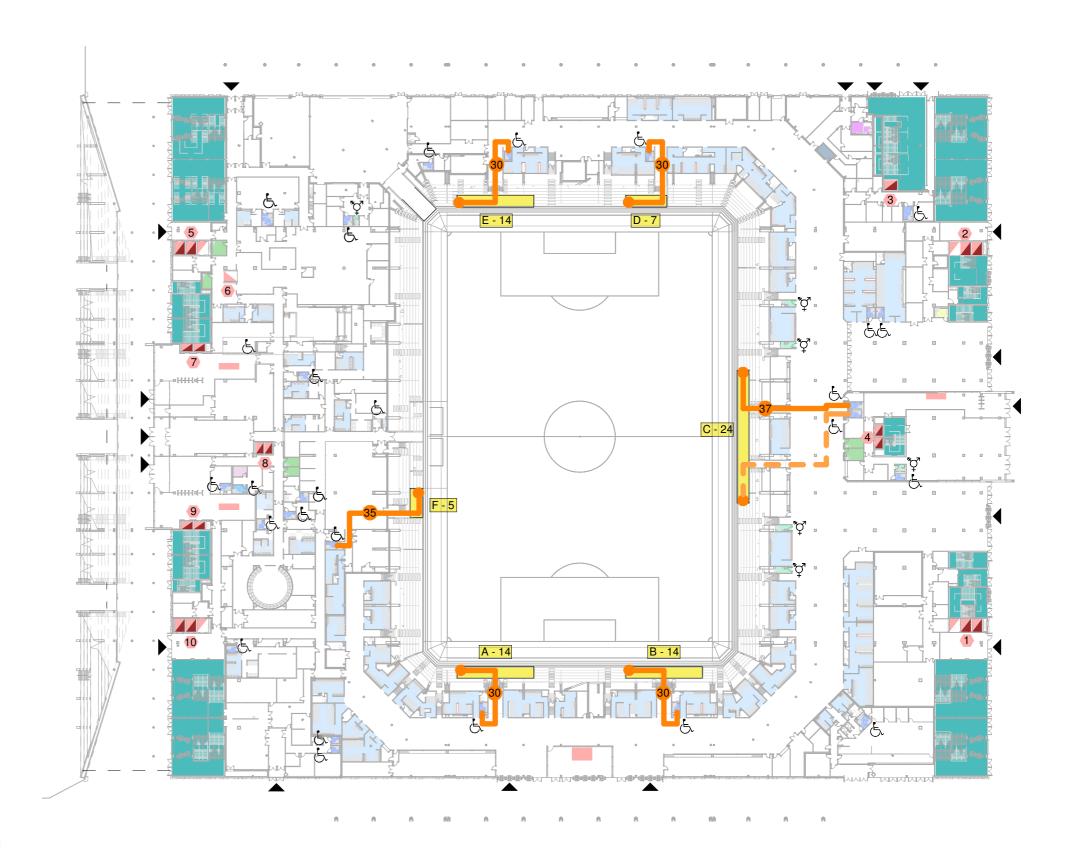
### Seating

Related sections in the submitted Design & Access Statement:

14.1.1



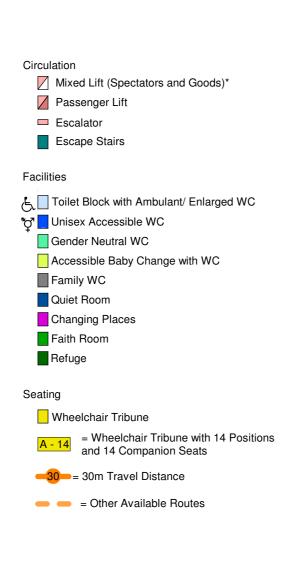
<sup>\*</sup> Note: Lifts will not be used as goods lifts during match time.







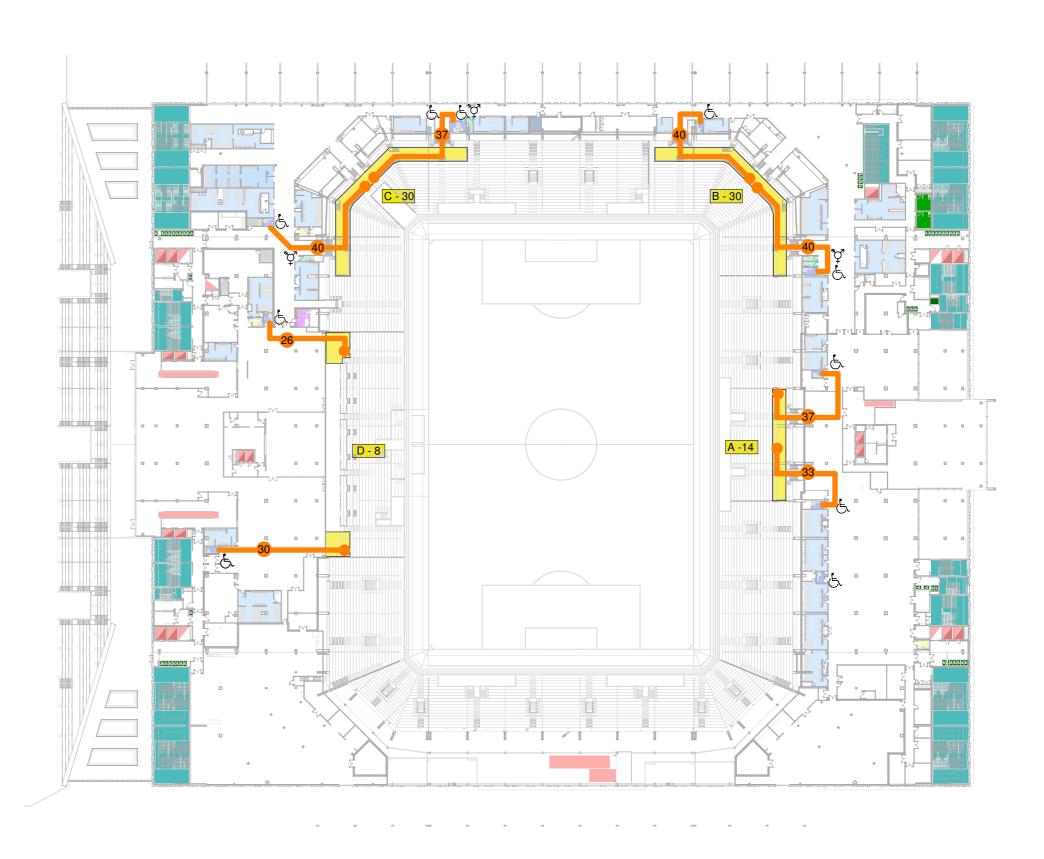
## 9.2.2 Level 01



Related sections in the submitted Design & Access Statement:

14.1.2

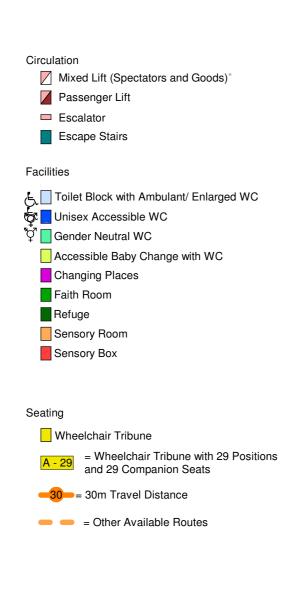
<sup>\*</sup> Note: Lifts will not be used as goods lifts during match time.







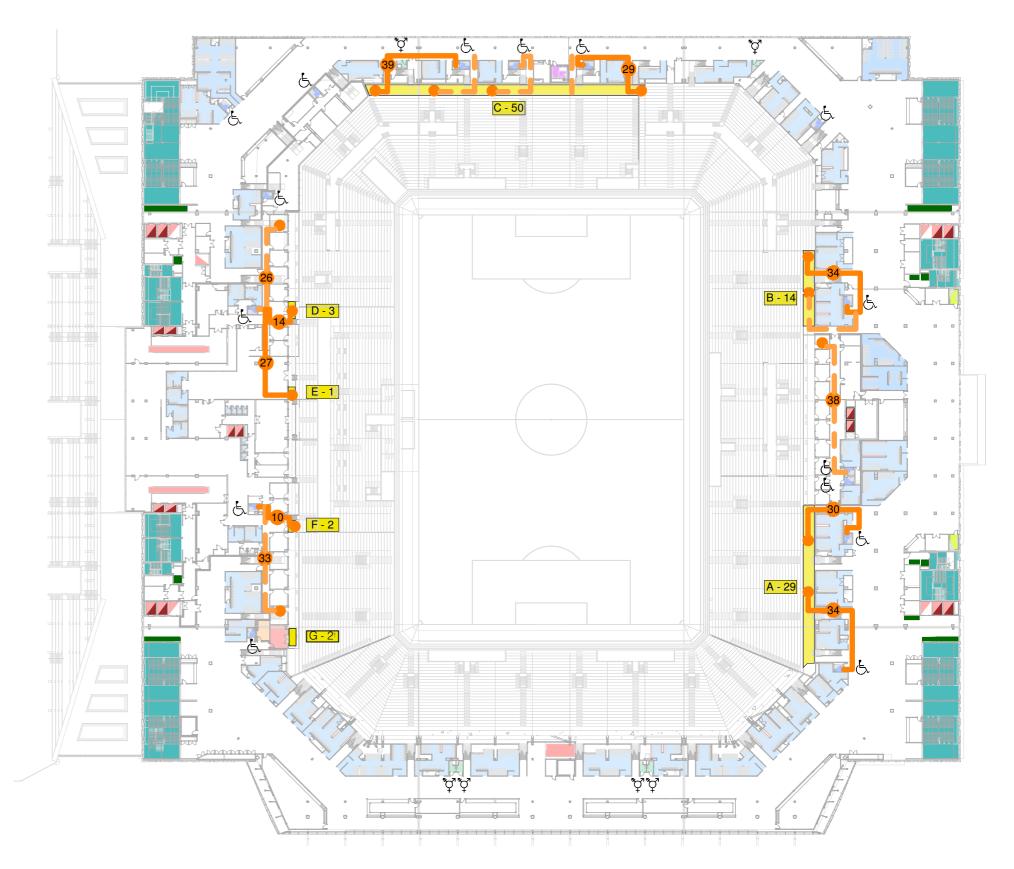
# 9.2.3 Level 02

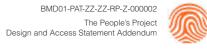


Related sections in the submitted Design & Access Statement:

14.1.3

<sup>\*</sup> Note: Lifts will not be used as goods lifts during match time.





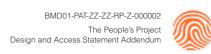
 $<sup>^{\</sup>dagger}$  Note - Wheelchair tribune G is associated with the sensory box

# 9.2.4 Level 03 Circulation Mixed Lift (Spectators and Goods) Passenger Lift Escalator Escape Stairs Facilities Toilet Block with Ambulant/ Enlarged WC Unisex Accessible WC Gender Neutral WC Accessible Baby Change with WC Refuge Seating Wheelchair Tribune = Wheelchair Tribune with 22 Positions and 22 Companion Seats = 30m Travel Distance = Other Available Routes

Related sections in the submitted Design & Access Statement:

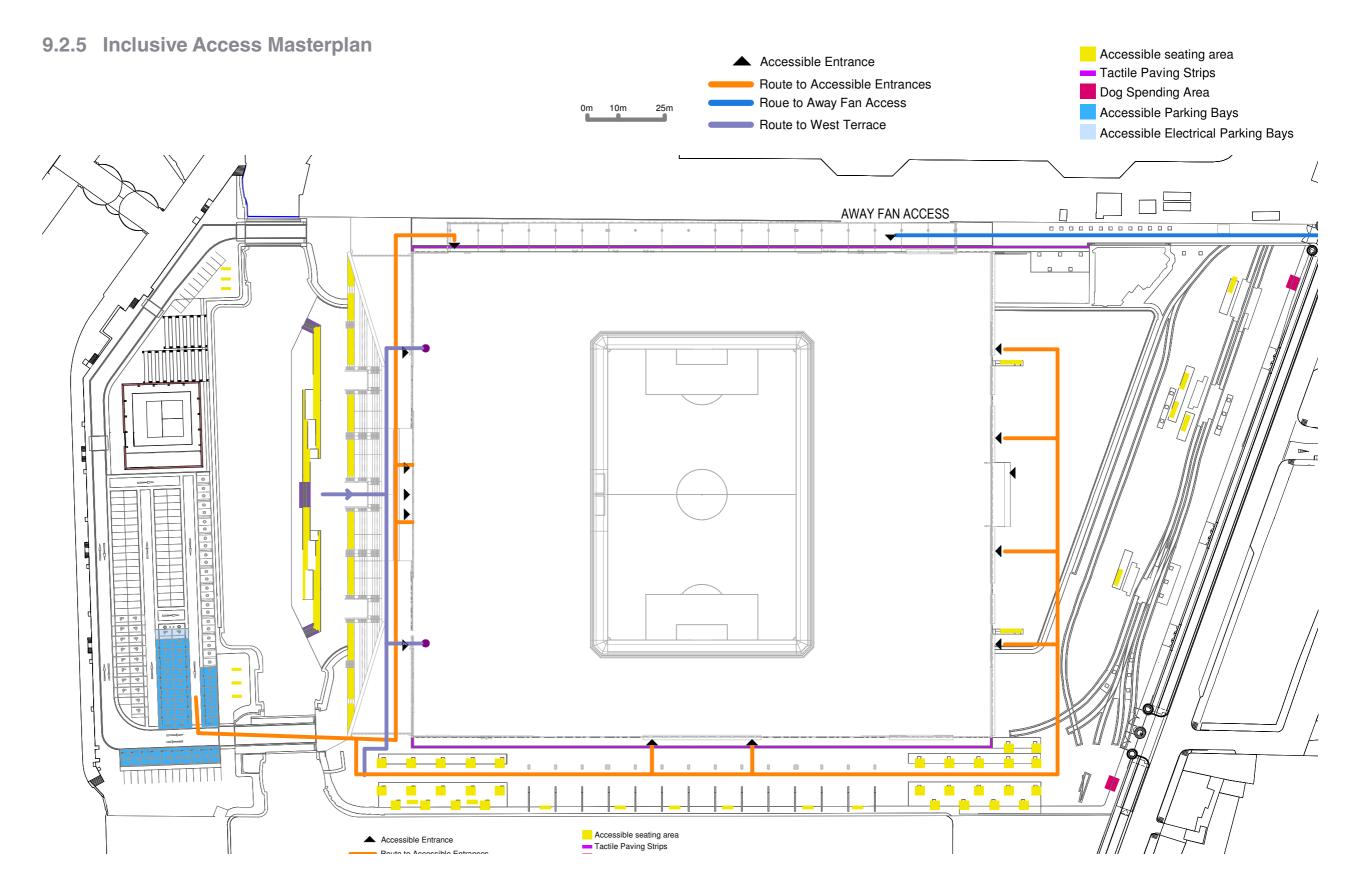
14.1.4

\* Note: Lifts will not be used as goods lifts during match time.









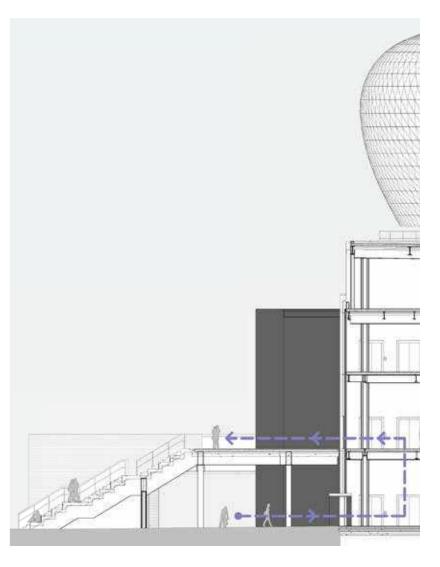
### 9.2.6 Lift Access to West Terrace

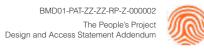
The West Terrace is a new part of the proposal since the scheme was submitted in December 2019. Please refer to section 3.4 for details of it's design and development.

The covered Fan Plaza at the lower level is treated in the same manner as the rest of the Public Realm, with falls typically at 1:80 gradient and level surfaces throughout. Step free access is provided to the top level of the West Terrace via the stadium lifts, which will be available for use by the public on match days as well as on non-match days when the other stadium entrances are typically closed.

The West Terrace will be closed for safety reasons when there are high winds, and in this event the lifts will not be available. In this scenario access to the bottom of the terrace steps and the water's edge area will be restricted by a series of gates which ensure the public cannot gain access to any part of the site where the wind exceeds a safe level.

 ▲ Accessible Entrance Route to West Terrace









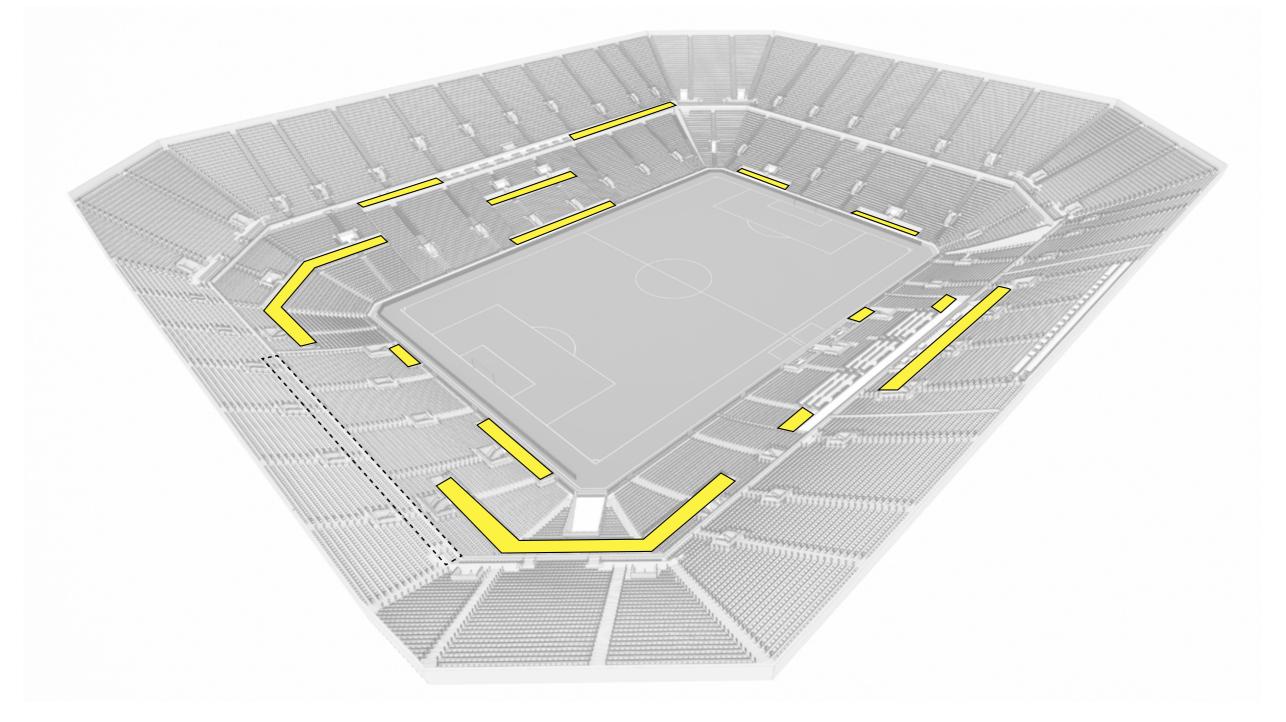
# 9.3 ACCESSIBLE SEATING LAYOUT

# 9.3.1 Wheelchair Tribunes

The tribunes for wheelchair viewing positions are distributed around the bowl, offering a variety of different fan experiences. The image below indicates the different locations, with just under 30% of positions in pitch-side locations.



Wheelchair Tribune, hidden in this view by the upper tier



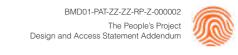


# 9.4 LETTER OF SUPPORT

Consultation with the Everton Disabled Supporters Association (EDSA) was held in July and August 2020. In these meetings the design team outlined the design changes and improvements to the scheme since the initial planning application was submitted in December 2019.

At the meeting in July 2020, EDSA members were invited to give feedback and comment on the design, raising any concerns or suggestions for improvements either at the meeting or in the week following. All of the comments raised were reviewed and acted on by the design team as necessary, with the outcomes presented at the second meeting in August 2020. This was a positive and collaborative process which enabled the timely feedback to be incorporated into the design ahead of the planning addendum submission.

After the consultation meetings the EDSA committee submitted a letter of support to the club. A copy of this letter is included in full on the next page.











### Wednesday 2 September, 2020

Dear Rachael,

The EDSA committee would like to place on record our sincerest thanks to you, Alix, Colin and the rest of the design team for allowing EDSA to be involved in detailed consultation meetings ahead of the submission of amendments to our planning application for Bramley Moore Dock (BMD), including the Transport Assessment (section 11.13).

Dialogue with disabled stakeholders is vital in allowing for user-led feedback to be given, the sharing of lived-experiences and solution-focused ideas to be received. EDSA is very appreciative of the opportunity we have had recently to see the latest updates to the BMD project and to provide the club with constructive feedback.

The BMD project is an extremely exciting one and it from our last two meetings with the design team it is clear that accessibility and inclusivity are at the forefront of the club's vision for our new ground. Having wheelchair user spaces (with adjacent companion seating) across all areas of the stadium will be very welcome by disabled supporters. The additional spaces included in the new design plans will allow for many more disabled fans to be able to attend matches. The implementation of accessible services and facilities such as multiple Changing Places, ambulant disabled toilet cubicles and flexible seating options to allow family / friends to sit together will make matchdays at BMD a more accessible and inclusive experience for all disabled spectators.

As a committee, we are grateful to the design team for taking on board our comments and solution-based ideas from our first meeting in July in such a detailed and timely manner and is another indication of how important accessibility is to the club. Access to the stadium is critical for all supporters, but particularly so for disabled fans. The removal of the multi-storey on-site car park and subsequent changes in landscaping has enabled an increase of accessible parking spaces. It means the club will be providing more parking for disabled fans than is currently on-site at Goodison Park and goes beyond the minimum number of required accessible parking spaces as per UEFA guidance and UK legislation. We are looking forward to consulting with Everton FC further on the allocation of accessible car parking spaces between EDSA and non-EDSA members at the most relevant time in the project.

The introduction of a club operated park and ride scheme from Stanley Park and the shuttle bus services to and from Sandhills station are positive steps and will be welcomed by many disabled supporters. We look forward to working with the club and relevant partners in the future on areas like ascertaining demand for the services and further pick-up points.

Similarly, the implementation of designated drop-off points is appreciated. Shuttle bus services, taxis or private vehicles with transport disabled spectators will be able to drop-off and pick-up near to the stadium entrance during the soft road closure period. It is recognised that during the hard road closure time period, these vehicles will be restricted to other points within the soft road closure areas. These drop-off / pick-up points will be a help to many disabled fans to reach the stadium and

we appreciate the hard and soft road closures need to be enforced as there has to be a balance between crowd safety and vehicle access pre-kick off and post-full time, as there is at Goodison presently. However, we do have some concerns around the distance of these designated points to accessible entrances gates, smooth transition surfaces in and around the ground, general pavement conditions on all access routes to the stadium. We are aware that an audit of drop-off/pick-up point locations and walking routes will be carried at a further, appropriate time in the construction process, to identify where access routes can be improved.

EDSA would also like to see options for accessible parking spaces made available with the soft road closures area, although we understand this would be a decision that falls under the control of Liverpool City Council and not Everton Football Club. EDSA would welcome involvement in continued dialogue on this issue between EFC and LCC at the appropriate times in the design process, and to help overcome any potential barriers in order to make BMD one of the most accessible stadia in world football

Once again, on behalf of the EDSA committee and our members, we thank you for involving disabled fans in such detailed consultation and allowing us the opportunity to share our feedback on the new design proposals. We appreciate the changes that have already been made for disabled spectators and look forward to sharing our experiences in the future with the team and other partners.

Yours sincerely,

**EDSA Committee** 







# 10.0 SUSTAINABILITY

- 10.1 Sustainability
- 10.2 Sustainability Design Features
  - 10.2.1 Resource Efficiency
  - 10.2.2 Access and Mobility
  - 10.2.3 Sustainable Reuse of Site
- 10.3 Photovoltaic Array
  - 10.3.1 Design
  - 10.3.2 Energy Drivers and Targets

# **10.1 SUSTAINABILITY**

An updated Sustainability Statement has been prepared by Buro Happold and is submitted as part of this planning addendum submission.

As set out within the submitted Design and Access Statement (DAS), the Club have developed a bespoke Sustainability Performance Framework based on the Club's 11 Principles of Development, the unique context of the Bramley-Moore Dock site and the planning requirements of Liverpool City Council (LCC). Since the submission of the DAS no changes to the performance requirements set out within this document have been made.

Throughout the design development, the project team have continued to design the building in line with the Sustainability Performance Requirements of the Sustainability Performance Framework. The design changes proposed are compliant with the minimum performance standards set out within the Sustainability Performance Framework. A summary of the key design changes and the impact of these on the Sustainability Performance Requirements is set out below.

A number of the Sustainability Performance Requirements related to site management activities. Since the submission of the DAS the appointed contractor has been briefed on their roles and responsibilities for sustainable site management.

Related sections in the submitted Design & Access Statement:





# 10.2 SUSTAINABILITY DESIGN FEATURES

# 10.2.1 Resource efficiency

- In the updated proposal the PV array has been relocated to the barrel roof of the stadium. Upon review of the scheme, it was decided that the Photovoltaic array that previously cover the west quay surface canopy obstructed views of the river and meant the west quay was an inflexible space. The roof-mounted array maintains the 2050m<sup>2</sup> area of PV panels in the previously submitted scheme. This exceeds the area required to comply with Part L of the Building Regulations.
- The updated proposal, required for the reasons set out elsewhere in this report, will result in an increase in construction waste generation, from 63,600 tonnes to 65,900 tonnes. As part of the contractors it will be required that a minimum of 80%, 90%, and 95% of non-demolition, demolition, and excavation waste respectively is diverted from landfill.

## 10.2.2 Access and Mobility

 Based on non-match day provision, there has been an overall increase in the number of Electric Vehicle charging bays from the previous proposal. Within the revised scheme, a total of 26 (increase from 24) Electric Vehicle charging bays will be provided on non-match days. On match days, the revised scheme will provide 10 Electric Vehicle charging bays. In both scenarios the total amount of parking has been reduced, meaning electric vehicles make up an overall greater proportion of parking bays and encouraging users to travel to the site via alternative low or zero carbon modes.

### 10.2.3 Sustainable Reuse of Site

- As part of the proposed changes to the soft landscape works, there has been an overall increase in the proportion of specified trees and planting species that are native, both in quantity and in planted area.
- The maritime industrial heritage of the site is immediately evident due to the myriad of materials, artefacts and structures, which still exist in their original locations. The proposed development is sensitive to the sites unique context and assets of heritage value have been protected and retained as outlined in earlier sections of this document.

Related sections in the submitted Design & Access Statement:





# 10.3 PHOTOVOLTAIC ARRAY

## **10.3.1 Design**

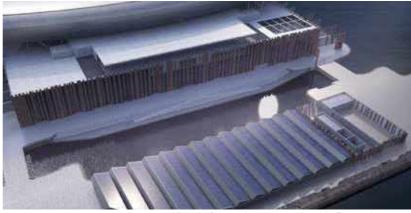
In the scheme submitted in December 2019, the Photovoltaic (PV) Array was mounted to a canopy which covered the west quay surface car park. Upon review of the scheme, it was decided that the canopy obstructed views of the river and meant the west quay was an inflexible space, as can be seen in the image opposite.

In the updated proposal the PV array has been relocated to the barrel roof of the stadium. The roof-mounted array maintains the 2050m<sup>2</sup> area of PV panels in the previously submitted scheme. This exceeds the area required to comply with Part L of the Building Regulations. The roof mounted Building Integrated PV (BIPV) will sit on a frame above the standing seam construction and clipped back to it as indicated in the image opposite.

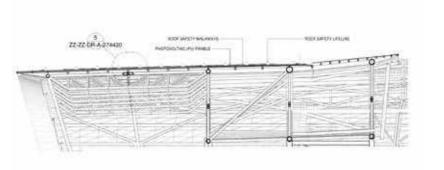
Many options were considered to ensure the design is visually part of the overall geometry of the roof. The preferred option is considered the optimum solution for both the efficiency of the array and coverage of the roof.

The PV panels are surrounded by access walkways and strategically located wash down outlet positions with a portable house reel connection for manual wash down. Annual maintenance will be required, however due to the site location more regular cleaning may be needed to ensure optimum efficiency

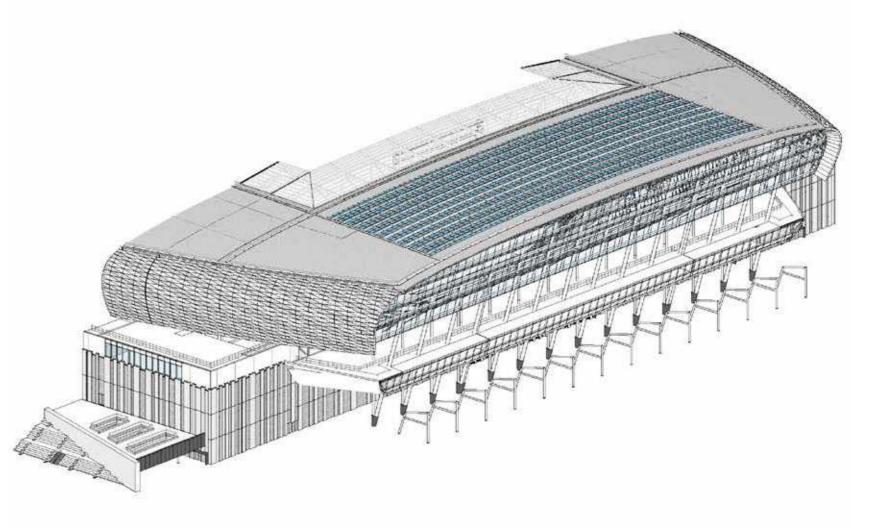
It should be noted that the array will not be visible from street level anywhere around the stadium, either on the site or in the surrounding area. Please refer to images from the Townscape Visual Impact Assessment.



Visual of the scheme submitted in December 2019



Bay Study - North/ South Section View of the Solar Planels



3D Roof Mounted Solar Panels

Related sections in the submitted Design & Access Statement:







# **10.3.2 Energy Drivers and Targets**

For full details of the drivers in reducing the energy consumption and carbon emissions of the stadium refer to the Sustainability and Energy Statements submitted as part of this application.

### **Project Scale**

The People's Project Sustainability Framework which has been developed for the project incorporates the above policy drivers, as well as those requirements from the Club which were drawn up through a series of workshops. It contains a number of Key Performance Indicators related to operational energy and the use of low or zero-carbon technologies. More detail is provided in section 10.1 of this document.

The resultant energy target is to comply with Part L of the Building regulations.

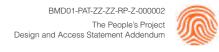
### **Energy technology assessment**

In order to achieve this target, a number of technologies were considered as described in the table opposite.

Related sections in the submitted Design & Access Statement:

15.2.1

Technology	Technically Feasible	Comments
Solar Photovoltaic	YES	Method to achieve compliance targets
		Sufficient area on rooftop
District Heating Network	YES	Complements current mechanical design
		Provides integration into local heat infrastructure
Batteries	YES	Could be used for resilience in lieu of diesel generators
		Can be utilised as revenue generator
Smart Grid	YES	Can be used to maximise generation and storage assets
ASHP	NO	• Air source heat pump is not able to payback due to lack of base load and not being supported by the Renewable Heat Incentive. The government are currently not supporting the RHI scheme beyond January 2021, which results in neither air nor water source heat pumps paying back during their estimated lifespan.
WSHP	NO	
Hydropower	NO	Requires extensive design works and planning
		Not feasible at building scale
Solar Thermal	NO	Irregular heating and hot water demand     Inefficient due to storage leader
Diamaga	NO	Inefficient due to storage losses  Air quality is a conserve.
Biomass	NO	Air quality is a concern
		Fuel delivery and storage constraints
GSHP	NO	Location and site specifics deem this unfavourable
CHP	NO	Irregular heating and hot water demand
		Grid decarbonisation reduces carbon savings
Wind Power	NO	High capital cost
		Unpredictability of generation
		Location within Unesco World Heritage site may restrict height of turbines
Kinetic Tiles	NO	High capital cost
		Short lifespan









The result of the above assessment is that the sustainable energy strategies and technologies that are incorporated into the stadium design, following the mean, lean, green hierarchy for sustainable design, are as follows:

### Mean

- Building Fabric exceeding minimum requirements of building regulations
- Optimum Glazing and shading performance to maximise daylight whilst reducing unwanted heat gain
- Improved Air Tightness to minimise thermal losses and gains from internal areas through air infiltration from outside
- Zoning the control of the HVAC system to allow different thermal and fresh air demands to be compartmentalised, permitting optimum flexibility and load balancing.

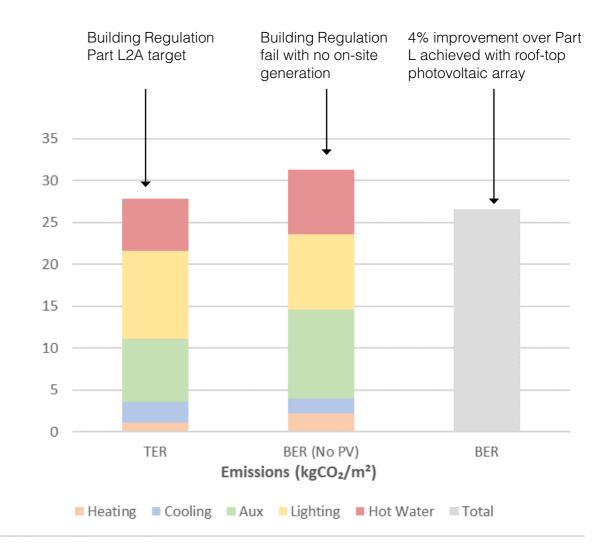
### Lean

- · Highly Efficient System Design selected to meet project requirements. The plant generates heating and cooling at high efficiencies and ensures efficient delivery throughout the building distribution, minimising loss. This complements the passive fabric strategy, reducing building energy and fuel use.
- Heat Recovery devices harness the energy within exhausted air and recirculate it back into the building to reduce heating and cooling loads.
- Demand Controlled Ventilation controls airflow to respond to occupancy and internal temperature. These controls will be linked to the building management system, with CO2 and temperature sensors provided to occupied zones.
- Energy Efficient Lighting. LED lighting can incorporate automatic controls that respond to daylight and human presence to minimise the buildings electrical lighting load.
- Centralised Heating Plant enables ease of connection to a future district heat network connection and minimises storage losses in comparison to a distributed heating solution.

- Photovoltaics will be provided on the stadium roof.
- Battery Storage Technology has been sized to provide backup for life safety and essential loads whilst having the capacity to facilitate energy market participation and performance.

### Stadium energy performance

Following the energy strategy described above, the following chart shows how compliance with Part L of the building regulations is reliant upon a PV array. The size of array that gives the proposed contingency of 4% improvement upon Part L is approximately 2,050m2 depending on the efficiency of the panels.



Related sections in the submitted Design & Access Statement:

15.2.1







# 11.0 CONCLUSION

11.1 Summary



# 11.1 SUMMARY

This Design & Access Statement Addendum has outlined the design developments to the scheme since the original submission for full planning permission in December 2019. The enhancements to the scheme described are a response to consultee and stakeholder feedback and represent a significant material improvement to the public benefit of the scheme.

Consultation and collaboration have been key to the success of the design to date. An ongoing and open dialogue between the different departments of LCC, HE and other key stakeholders has played a crucial role in developing the design. Key project decisions (such as the selection of the facing brick) have been taken with LCC, HE, the Club, LOR, and the design team as active participants in the design process.

The positive outcome of this collaboration is a scheme that expresses the unique characteristics of it's site. It sits comfortably as a building of solidity and mass alongside the behemoth brick warehouses within the Stanley Dock Conservation Area. The metal roof addresses the Nelson Dock to the south with a large picture window that brings views of Liverpool into the seating bowl. The west terrace confidently addresses the River Mersey with its cascading steps, reminiscent of the graving docks just a few hundred meters away. Overall, the scheme represents a high quality design solution for a highly sensitive site at the end of the World Heritage Site.

From the moment of entering the site through the openings in the massive Regent Road wall, there are strong reminders and memory traces of the site's active past and its dockland setting. The retained rail tracks in the paving, the dappled blue effect of the in-fill dock paving and the bold brickwork of the facade are just some of the ways the scheme reflects its local history and gives character to the currently under-utilised and inaccessible Bramley-Moore Dock site.

The landscaping and surface finishes have been carefully considered to make this industrial site appropriate for the public for the first time in its history. The sequence of public spaces that surround the site each have their own character and celebrate the site location and its heritage in different ways.

The elevated west terrace is a new civic space on Liverpool's storied waterfront, giving a destination of scale and importance for the new river walk. The covered fan zone beneath it will shelter spectators and build a sense of arrival before they

go through the threshold of the stadium turnstile. The openair west quay is now a flexible space accessible to the public. and capable of different uses and events through the year. The southern concourse running adjacent the Nelson Dock has been improved by groves of trees with seating, adding a reflective character to this space. The east plaza remains an Evertoncentric fan zone, with heritage details that subtly articulate the Everton community's long-standing link to the docklands.

Throughout the scheme, however, there are the signs of innovation that demonstrate this is a 21st century building. The futuristic double-curvature of the barrel roof plays with light. reflection and porosity to provide a compelling contemporary counterpoint to the more traditional appearance of the solid brick façade base - itself constructed to factory-quality standards through cutting-edge DfMA methods.

The design of the stadium itself remains functional, robust, and suitable for it's location in an extremely sensitive heritage site. A high quality of design and detailing ensures that the building will be durable and retain its character over time. The use of a simple and strong palette of materials – brick, steel, aluminium and glass - provides a clarity in the architectural expression that is attractive without being trendy. It is a building that will weather gracefully the harsh marine climate of the Liverpool docklands.

Together the public realm and the stadium establish a strong sense of civic public place in the currently closed-off and private Bramley-Moore Dock. The mix of uses on the site, including football (the stadium), cultural (the Hydraulic Engine House), hospitality (the River View Restaurant), retail (the Club Shop) and heritage (the river walk through the Unesco WHS), promise to attract the public to the site year-round and make the most of its privileged waterfront location.

The scheme is, at its heart, inclusive. Easy and level access from gate to seat has been considered, and amenity facilities to serve a variety of needs are provided. Close consultation with the LCC Inclusive Design Officer, as well as the Everton Disabled Supporters Association has been essential to ensuring the stadium and public realm design meets the expectations of its future users.

Sustainable design and construction methods have been woven through the scheme, and it is on track to deliver on the ambitious goals to deliver real sustainability benefits. The combination of passive strategies like natural ventilation of concourses paired with the active strategies of rainwater harvesting and renewable energy generation make this a proudly sustainable scheme.

The People's Project remains a potent catalyst to regeneration in the north Liverpool and docklands area. It promises broad public benefits that have been expanded through the design developments set out in this addendum. In the context of the recent Coronavirus pandemic, the project has taken on new significance as a major driver for economic recovery in the

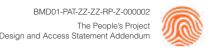
At the time of writing, the design team is fully mobilised and continues to develop the technical design of the scheme such that construction could commence rapidly following a favourable determination. The successful stakeholder engagement process that enabled the rapid pace of design development since the previous application will continue, as the design team reviews key details with the relevant authorities and consultees. It is hoped that this collaborative approach between consultees, stakeholders and the project team will continue to drive positive design developments in the scheme.

# 11.1.1 Planning Policy Compliance

The original Design & Access Statement (MEIS, December 2019) submitted with the planning application completed a detailed appraisal of the scheme against the aims and objectives of the World Heritage Site Supplementary Planning Guidance (SPG) document. A wider assessment was also taken against the relevant design-based policies of the statutory development plan (Liverpool UDP) and relevant material considerations including the emerging Liverpool Local Plan, NPPF and emerging National Design Guide.

The revisions to the submitted scheme have been subject to significant step-by-step consultation with statutory consultees which has resulted in a final scheme design which is improved from the original. The scheme responds to a highly sensitive location within the WHS architecturally as well as from a heritage and landscaping perspective, seeking to positively address the stated aims and objectives of the WHS SPD.

Related sections in the submitted Design & Access Statement:











Related sections in the submitted Design & Access Statement:

16.0

View of the south concourse and West Terrace



