## 4. DESCRIPTION OF THE PROPOSED DEVELOPMENT

## Introduction

4.1 This Chapter sets out the description of the Proposed Development, as well as outlining how the scheme will be constructed. The technical assessments set out in Chapters 7-18 are based upon the description below.

# The Project Vision

- 4.2 The Vision is to create a sustainable sports, entertainment and lifestyle landmark in Oxfordshire which is locally loved and internationally recognised. The stadium will set the benchmark for commercial innovation, environmental performance and community benefit, and put the visitor experience at the heart of everything it does.
- 4.3 Much like the county of Oxfordshire, OUFC comes from a proud heritage and rich history. The Club has aspirations for a new, modern and sustainable stadium which is a significant community landmark that contributes meaningfully to the economy and society of Oxfordshire. This is a once in a generation opportunity to provide a new home for sport, entertainment, business, education and tourism which the whole county can be proud of.
- 4.4 The Vision is to deliver on the key issues identified by local residents and fans, to ensure that this is both a stadium for elite sports and community use. The aim is for the Proposed Development to provide significant and sustained benefits to Kidlington and Gosford and Water Eaton residents, OUFC's fans and the wider Oxfordshire community.
- 4.5 Key principles that have informed the development include:
  - Visitor Experience at the heart Construct a new landmark for Oxford which instils community pride, is accessible, welcoming and puts the visitor experience at the heart, not just for fans of the game, but for all who visit.
  - United with the community be an active and positive part of the community, creating a sporting legacy and generating new employment, education opportunities and having a positive impact on the health and wellbeing of the communities the Club serves.
  - Sustainability at the core ensure that environmental and commercial sustainability is at the core, to protect the long-term future of OUFC and the planet.
  - Improving connectivity and access ensure the site and all facilities are a safe and
    inclusive place for all, with improved connectivity and access to the site, creating a hive
    of activity and an atmosphere of community, removing barriers to the site.
  - Promoting innovation utilise technology to improve the way things are done, nurturing a culture of collaboration and new ideas.

4.6 The key elements of the Proposed Development are defined through a financial appraisal which identifies the ideal facilities which benefit both the Club and the community. This contributes to the financial sustainability of the Club, whilst also enhancing the offering to the community around Oxford and the surrounding area.

# Overview of the Proposed Development

- 4.7 The Proposed Development looks to deliver a 16,000 capacity stadium for OUFC and associated facilities within a single building. The commercial and community uses within the Stadium provide facilities for conferences, exhibitions, education and other events with a capacity for 1,000 guests. In addition to this the Stadium building provides a Club Shop, public restaurant, bar, health and wellbeing/clinic facility and gym, as well a 180-bed hotel.
- The stadium is situated in the southern part of the site on a north-west/south-east axis. Externally, there will be a pedestrian concourse around the perimeter of the stadium, as well as a community plaza and fan zone to the north of the Stadium, with an area of enhanced green infrastructure in the northern corner of the site. This area will provide connectivity through the Site to the areas of open space to the west and east of the site. Car parking is situated to the south-west of the stadium, which includes an area which will be used as an outdoor broadcasting compound on matchdays. To the south of the site are SUDs drainage ponds as well as another area of public realm to the southeast which provides another arrival space from the south-east.
- 4.9 The Proposed Development will retain the woodland to the south of the site, whilst also looking to protect and enhance other vegetated buffers where possible.

# Description of the Proposed Development

4.10 The description of the Proposed Development is as follows:

'Full planning permission for the erection of a stadium (Use Class F2) with flexible commercial and community facilities and uses including for conferences, exhibitions, education, and other events, club shop, public restaurant, bar, health and wellbeing facility/clinic, and gym (Use Class E/Sui Generis), hotel (Use Class C1), external concourse/fan-zone, car and cycle parking, access and highway works, utilities, public realm, landscaping and all associated and ancillary works and structures'

- 4.11 The description of the Proposed Development should be read in conjunction with the Site Location Plan (**Figure 3.1**) and the following plans that form the basis of this EIA:
  - Figure 4.1: Site Masterplan

- Figure 4.2: Illustrative Landscape Masterplan
- **Figure 4.3:** Floor Plans
- **Figure 4.4**: Roof Plan
- **Figure 4.5:** Proposed Elevations
- Figure 4.6: Main Sections
- Figure 4.7: Landscape Site Wide GA Plan
- **Figure 4.8:** Hard and Soft Landscaping Plans
- Figure 4.9: Illustrative Sections
- Figure 4.10: Landscape Planting Details
- Figure 4.11: Access Proposals

## Land Use and Quantum

4.12 The Proposed Development includes the uses detailed in **Table 4.1.** 

Table 4.1 – Land use and quantum

Use	Use Class	Quantum/Amount
Stadium (F2)	F2	16,000 Capacity
Club Shop and Ticket Office	E	315m <sup>2</sup>
Sports Bar	Sui Generis	197m <sup>2</sup>
Restaurant	Е	276m <sup>2</sup>
Gym	E	698m <sup>2</sup>
Health and Wellbeing/Clinic Facility	E	827m <sup>2</sup>
Hotel	C1	180-bed
Parking		184 car parking spaces, 2 coach bays, motorcycle spaces and 150 cycle parking spaces.
Green Infrastructure/ Landscaped areas		The Plaza and Gardens - 7,515m <sup>2</sup> The Southern Plaza – 1,152 m <sup>2</sup> The Approach – 1,322 m <sup>2</sup> Other areas of landscaping and SUDS drainage – 2,297 m <sup>2</sup>

## **Stadium**

- 4.13 The proposed design for the stadium is for a fully covered 360-degree 16,000 capacity single tier rectangular seating bowl.
- 4.14 The west stand is the main stand and provides player access and facilities, media facilities, hospitality, sky boxes, directors lounge, and premium seating, as well as ancillary offices, equipment and plant and other back-of-house facilities. The large subdividable hospitality lounge has a view of the pitch in one direction and will offer hospitality options for matchday guests including premium seating. To the rear of the west stand there will be a raised tribune for hospitality sky boxes and the directors lounge. This upper level will open on to a roof terrace with views over the surrounding countryside. These areas combined will provide Conferencing and Events space and will be used on both match and non-match days. The lounge area on the first floor has capacity for 1,000 guests.

- 4.15 On the ground floor of the main stand will be located premium general admission (GA) spectator concourses with an enhanced space factor and enhanced food and beverage offer. Central to this stand will be the players and media facilities. The entirety of the rest of the ground floor around the seating bowl on the north, east and south stands will be fully enclosed GA spectator concourses and facilities.
- 4.16 The north stand contains the proposed commercial spaces on the ground floor, as well as the hotel entrance, with the hotel accommodation on the second to fourth floors.
- 4.17 Different levels of seating are provided, comprising of premium seating for hospitality and lounges, Premium GA, and GA, including licenced standing. When the stadium is full, the capacities of the west stand will be as follows:
  - 150 Boardroom and Director's Lounge
  - 250 Sky Boxes
  - 150 Gold Lounge
  - 600 Silver Lounge
  - 1,000 Premium GA
  - 50 Media Positions
- 4.18 The remaining three stands will be made up of over 9,000 GA seats and just under 4,000 licenced standing spaces. The current Rail Seating strategy is to focus them predominantly in the north stand, as well as a section in the south-east corner for the away fans. This will make up just under 25% of the capacity. The away GA seating provision is located in the south-east corner with options of either 800, 1,600 or 2,400 (5, 10% or 15% of the stadium capacity respectively). Each seating category/ hospitality space will have a designated number of wheelchair positions. These will be spread across multiple locations to provide users with flexibility and choice.
- 4.19 A Sensory Room is located on Level 3, adjacent to the sky boxes, and will provide users with the option to enjoy the game from within the room itself or on an adjoining platform. The Proposed Development also incorporates two multi-faith spaces: one designated for players, officials, and staff, and the other intended for match day spectators and non-match day visitors. The primary multi-faith space will be situated on the ground floor, positioned between the GA and Premium GA concourse.
- 4.20 In regard to egress, all spectators are able to escape directly from the vomitories to the Ground Floor concourses. People sat in the Silver Lounge, Gold Lounge and Media seats also have vomitories to take them into the Level 01 lounges and cores.

## **Commercial Spaces**

4.21 The commercial Class E/sui generis space is located to the north of the stadium adjacent to the spectator concourse. These spaces, comprising a mix of uses as above, help to activate the new public plaza and parkland to the top of the Site, as well as drive additional income to help fund the development.

#### Hotel

4.22 Above these commercial uses will be a four storey 180-bed hotel, with its main entrance on the ground floor of the north stand. Half the bedrooms will be outward-looking, overlooking the green roof of the commercial spaces below and wider surroundings. The other half will be inward looking, and two of the levels of the inward-looking rooms will have pitch view.

# **Building Form and Height**

- 4.23 The full justification for the design is set out within the Design and Access Stadium which accompanies this planning application.
- 4.24 The massing and orientation of the stadium has been influenced by a number of factors. This has been partly dictated by the site constraints, but also stadium-specific requirements, such as ensuring that hospitality seats and camera locations face away from the evening sun to avoid glare; this in turn dictates where the main stand is located.
- 4.25 One key driver for the scheme was to provide a 360 degree seating bowl, whilst also incorporating commercial spaces and hospitality provision within a single building.
- 4.26 The location of the commercial spaces and hotel accommodation is in the north of the site, close to the car park, public spaces and routes through and close to the site. The number of rooms has been dictated by commercial advice and results in four storeys in this location. The eastern and southern stands of the building consist solely of a concourse and seating area and as a result, the roof is proposed to be angled to reduce the overall mass and create a stadium atmosphere that isn't overshadowed by vast empty spaces beneath the roof.
- 4.27 The proposed maximum height of the stadium is 24.6m. The most prominent part of the building on-site is at the north-west corner. This corner will serve as the public face of the Proposed Development. The scale of this corner is celebrated, and the height is gradually reduced as it extends east and south.
- 4.28 In terms of the design of the stadium, it is not proposed to encase the entire building in a uniform exterior, but instead, express the distinct features of each individual part. The stadium is designed

to look and feel like a stadium, featuring a continuous 360-degree seating bowl with a concourse beneath. The hospitality areas and the hotel create a different mass, height and required aesthetic, which will wrap around the stadium on two sides.

- 4.29 In respect of the appearance of the stadium, the entire development is set on a ground floor plinth framed with pre-cast elements in Oxford buff stone texture. Set within this is a mixture of glazed curtain walling to the north and west, and solid precast panels to the south and east.
- 4.30 In terms of the western elevation, the central part of this façade is a four-storey element in the same materials as the ground floor plinth. This form expresses the main hospitality lounge with large windows, with the remainder of the elevation being clad in a blue-grey slate coloured metal composite panels. The top of this facade slopes to match the slope of the main roof, and where the building is highest, branded signage is proposed.
- 4.31 The ground floor plinth on the north stand bulges out from the main building line above on the northern elevation to contain the commercial elements of the Proposed Development. The roof of this single storey space is proposed as a bio-diverse roof. Above the plinth, the blue-grey slate coloured metal composite panel facade contains the hotel. The widows are formed with punched apertures set in vertical slots with spandrel panels across floor levels. The top of this facade slopes to match the slope of the main roof. As a juxtaposition on this elevation, the eastern part is set back, with a dramatic diagonal slope, exposing the metal stadium structure constructed out of tree like Y-frames. Semi-translucent polycarbonate panels clad the rear of the stadium structure from plinth level to just short of the roof leaving a ventilation gap. This arrangement allows the roof to float above the body of the building.
- 4.32 On the eastern elevation, the ground floor plinth on the east stand becomes much simpler and is made up of large flat precast panels in the Oxford buff stone texture. Set within this wall are spectator ingress and exit gates in dark grey metal panelling. This facade is mainly dominated by the metal stadium structure constructed out of tree like Y-frames. This elevation has the same semi-translucent polycarbonate panels from plinth level to just short of the roof, allowing the roof to float above the body of the building. At the eastern end of the 4-storey hotel block, it is intended to install a green wall to the stepped elements.
- 4.33 On the southern elevation, the ground floor plinth remains simple, with spectator ingress and exit gates in dark grey metal panelling. As with the eastern elevation, this façade is mainly dominated by the metal stadium structure and semi-translucent polycarbonate panels cladding. At the western end, the upper part of the west stand rises and on the roof of the single-storey plinth is another section of biodiverse roofing.

# Stadium Operation/Hours of Use

- 4.34 The Proposed Development will function as a multi-purpose sporting, leisure and cultural facility.
- 4.35 The stadium is likely to hold 28 men's first team football matches per annum, including 23 home league games, and 5 pre-season and cup games. In addition to this, women's league and cup fixtures are proposed to be held at the stadium of which it is anticipated that there will be 11 home league games and 2 cup fixtures per annum. It is also projected that there will be 2 stadium hire events per year, for sporting events such as junior international matches, or community or university sport events. Whilst these are projected to result in a lower average attendance of 10,000 people, a worse case of full capacity is assessed. As such, the assessment has been done on the basis of 43 football matches per annum at 16,000 capacity. This is a worst-case scenario as attendances are likely to be lower.
- 4.36 In terms of events, it is not proposed that the stadium will host concerts. However, it will be utilised for a wide range of activities including conferences, meetings, trade shows, corporate events and dinners. Over the course of a year, it is anticipated that around 580 events will be hosted. These will be of differing scales, with the majority being smaller events with an average attendance of 10 or 30 people. The stadium has capacity to host events for up to 1,000 attendees and initial projections anticipate that there will be approximately 85 events with an average of 150 people, and 68 large events with an average number of 700 people. This includes Christmas parties.
- 4.37 The majority of football matches are held in the afternoon / early evening of weekends during the football season. Some matches, in particular cup-ties, are held during the week with kick-off time around 19:45. These games usually finish by 22:00, with the exception of very few cup games that go to extra-time and penalties.
- 4.38 There will be activity on site 24 hours a day. At this stage, end users for the commercial and community uses have not been defined but it is anticipated that the hours of use, with the exception of the hotel use which will be 24 hours, will be between 06:00-00:00. The specific hours will vary depending on the use but are likely to fall within these broad parameters. Security will be on site 24-hours.

## Job Creation

4.39 The Proposed Development is anticipated to generate employment during the operational phase. The Proposed Development is predicted to support 285 net full time equivalent jobs directly on the Site. These employees will likely generate an economic output (GVA) of £12.6m in GVA in Cherwell annually.

4.40 In addition to on-site jobs, the Proposed Development will support a number of off-site jobs and GVA through indirect and induced effects across Oxfordshire amounting to 142 full time equivalent off-site jobs and £13m in GVA including new and retained jobs and GVA. In addition, the proposed development is expected to support off-site visitor spending in the region of £5.8m, which in turn will support around 95 full time equivalent jobs.

# Open Space and Landscape/Biodiversity Strategy

- 4.41 One of the project drivers to is incorporate native species and local prominence landscaping elements into the design. Specifically trees, shrubs and wildflowers, and other natural features that enhance local biodiversity. The vision has been to incorporate flexible multi-functional spaces that can be enjoyed whether it be a match-day or not. The Proposed Development aims to connect the stadium to the wider countryside, woodlands, canal walks, and nearby towns in a way that is attractive, safe, and enjoyable for walkers and cyclists, while also promoting environmental and cultural stewardship.
- 4.42 Whilst the Proposed Development would introduce new built form and open space to the landscape, the proposed stadium has been situated as far south within the Site as possible without impacting on the woodland block to the south of the site. The Proposed Development would see the introduction of a large number and variety of new landscape features, creating new areas of habitat, open space and helping to reduce the visual impacts of the built form. Vegetation removals along the eastern and western boundaries of the triangle area to facilitate access are replaced within the Site.
- 4.43 The Planning Application is accompanied by a Landscape Strategy. This identifies that the strategy consists of four main character spaces:
  - 1. The Garden
  - 2. The Plaza
  - 3. The Approach
  - 4. The Southern Plaza
- These are described below and primarily comprise the areas to the north, east and south of the stadium. The western side of the Site includes the proposed vehicular access and egress from Frieze Way with a single way in and out onto the southbound carriageway. Some vegetation removal along this boundary is necessary to facilitate this access arrangement. Vehicles enter the Site alongside the stadium concourse with car and coach parking area in the southwestern part of the Site, including space for TV broadcasting. The southern and western edges of the car park are defined by areas of planting and SuDS attenuation, which contribute to the landscape buffer to the retained Priority Habitat woodland within the south of the Site. The stadium building itself will

accommodate sections of biodiverse roofing as well as a living wall on the northwestern elevation. These provide additional opportunity for biodiversity and ecological enhancement.

## The Gardens

The northern section of the Site is proposed as 'The Gardens' set amongst the retained boundary vegetation and trees along the northwestern and northeastern edges of the Site. New native tree planting bolsters these existing boundary features to create a sense of enclosure and privacy. The village green includes a "sculptured mound" of up to 3.5m in height with maximum gradients of 1:3 wrapping around the northern edge of the space to create a natural amphitheatre. A footpath runs along its ridge. This would provide a vantage point within the Site looking south towards the proposed stadium. The mound wraps around a natural pond, which occupies the central part of the green space. This has varying depths of water to provide a range of ecological habitats and is surrounded by a marginal grassland mix and scattered tree planting, which includes some extra heavy standard specimens.

## The Plaza

- The southern edge of The Gardens is defined by a formal walkway, running along an east-west orientation and establishing a new pedestrian connection across the Site to link the land to the east of the Site within the PR7A allocation and PRoW 229/4/30 to Stratfield Brake Sports Ground to the west, including enhanced pedestrian crossings over Oxford Road and Frieze Way. This walkway is defined by rectilinear planting beds and is partially covered by a series of three willow archways, which make reference to the current use of the Site. A series of sculptures and statues provide reference points within this part of the landscape.
- 4.47 The walkway is punctuated by three areas of paved landscape which provide access to the northern greenspace from the block paved fan zone and stadium concourse area. This zone is characterised as 'The Plaza' and is envisaged as the home team fan zone on match days and a community space on non-match days. The hard paved landscape treatment has been designed to use complementary, earthy tones with open spaces informally framed by raised planters and tree planting to allow for flexibility of use. The existing overhead power lines crossing the Site are retained and run over the top of this space.

## **The Southern Plaza**

4.48 The southern area of the Site is characterised as 'The Southern Plaza' and is the away fans area. It includes areas of hardstanding around the perimeter of the stadium, framed by a large SuDS attenuation area, tree planting and ecotone edge to the existing woodland block, which is retained in its entirety. The landscape treatments along the northern edge of the woodland are designed to

prevent access to retain the existing character and ecology of the woodland. The south-eastern corner of this zone includes stepped and ramped access from Oxford Road. Set back from the road corridor and at the top of the steps is a proposed stone archway, which is 10m tall and acts as a gateway feature for fans arriving from the south that provides a reference to the former "Manor Arch" at Oxford United's original home ground.

### The Approach

The eastern boundary of the Site along Oxford Road is characterised as 'The Approach'. This forms the main pedestrian and cycle access to the Site from Oxford Road, which would also include users of the rail and bus networks. The existing vegetation along Oxford Road (including the two TPO'd Oak trees) will be substantially removed to create a more permeable edge. New raised and stepped planters would provide new opportunities for planting and six new boulevard trees of minimum 30cm girth would be planted along this boundary to reestablish a mature landscape frontage with Oxford Road. The rising levels of Oxford Road in the south of the Site require the retention of some areas of embankment in the southeastern corner of the Site, access to the Site would be stepped in this location with ramped and level access further north along this boundary. Within the Site, the stadium concourse provides continuity of movement around the periphery of the stadium with material changes and planting within rain gardens and planters providing lower-level visual interest both within the Site and along Oxford Road. In the south east of the Site, the vegetated embankment between Oxford Road and Oxford Parkway Station would see the removal of some areas of vegetation to accommodate a new staircase between the Station and Oxford Road.

## **Tree Removal**

- 4.50 The submitted Arboricultural Impact Assessment for the Site identifies the proposed removal of 17 individual trees (one Category A, four Category B, 10 Category C and 2 Category U) of varying maturity and the removal of five tree groups (one Category B and four Category C) and the partial loss of two groups to facilitate the Proposed Development. The retention of the existing mature trees along the northern boundary and the partial retention of the existing trees on the eastern and western boundaries help to retain a mature landscape setting for the Proposed Development alongside the existing woodland to the south of the Site.
- 4.51 The majority of trees to be removed are categorised as 'C'. The Proposed Development therefore provides the opportunity to significantly increase the overall number of trees, the range of species (and associated ecological benefits) and improve the age-structure of the tree stock. 143 new trees would be planted within the Site, including 81 trees of extra heavy standard or above, approximately 2,000m² of scrub planting and 350 linear metres of native hedgerow. Replacement and additional trees will be planted as early as feasible within the construction programme to enable their rapid establishment. The tree removals can be seen at **Figure 4.12.**

## **Biodiversity Enhancement Measures**

- 4.52 The Proposed Development seeks to achieve a minimum of 10% Biodiversity Net Gain. The landscape planting strategy, which helps to achieve this, is as follows:
  - The protection of the adjacent woodland.
  - Creation of species-rich wildflower grassland and species-rich amenity grassland, and if deemed necessary, a transplantation exercise of those plants that are of greater conservation value to dedicated areas left for biodiversity.
  - New native tree and hedgerow planting is proposed of a length/area greater than lost.
  - Creation of a pond and attenuation features;
  - Creation of new scrub habitat and hedgerows which will include Blackthorn.
  - New bird nest boxes and bat boxes will be provided on suitable retained trees within the Site.
  - Log piles will be created within areas of open space.
  - Three areas of biodiverse roof are proposed on parts of the north, east and south stands and a green wall is proposed on the northeastern elevation of the stadium to provide additional opportunities for ecological enhancement.

# Access and Parking

4.53 The access and parking strategy will vary on a match day and non-match day.

## **Access and Parking**

- Vehicle access to the Site is via a new junction on Freize Way to the north of the proposed stadium, with vehicle egress on to Freize Way south of the stadium. The proposed access designs (Figure 4.11) are based upon the existing speed limits of 40 mph north of Stratfield Brake and 70mph to the south. The designs will need to be amended if the speed limits are altered with the adjacent Kidlington Road and active travel improvement scheme.
- 4.55 There is a taxi drop-off area to the north of the stadium, in front of the proposed hotel. There is also an emergency access to the east of the site to Oxford Road.

## Parking Levels

- 4.56 Car parking is situated to the west of the proposed stadium and accommodates a total of 184 car parking spaces, of which:
  - 78 are accessible bays;
  - 106 are standard car bays.

- 4.57 In addition to the above, 2 coach bays will be provided. 150 cycle parking spaces are proposed onsite which are located to the west, north and east of the stadium. Cycle parking is also proposed to be provided at Oxford Parkway Station. This would allow dual use during match days as well as being available for commuters at the transport interchange in this location during the week. This will include charging provision for electric bikes.
- 4.58 On match days, some of the car parking spaces (approximately 25 of the standard spaces) are to be utilised as a TV Broadcasting Area. These are to be provided in Grasscrete.
- 4.59 On match days, it is anticipated that the accessible spaces will be allocated to fans based on need and through a booking system. The standard spaces will be used by match officials, operational staff and outside broadcast on match days, which will require pre-booking in advance of the match.
- 4.60 On non-match days, the car park will be used by OUFC staff working at the stadium, visitors to the hotel, commercial, and leisure uses. The car park will be managed by OUFC and will either be by permit (staff) or through allocated parking manged by ANPR.
- 4.61 EV Charging will be provided for 25% of car parking spaces across the site, with passive provision installed for all spaces to allow for EV capacity to be rolled on in the future.

#### **Transport Strategy**

- 4.62 The Transport Strategy has been underpinned by a detailed understanding of the origins of the OUFC home supporters, based upon travel surveys at Kassam Stadium carried out in 2022 and an assessment of the travel demands of these home supporters, away supporters, teams, staff, supporting operators and users of the associated facilities.
- 4.63 The use of the stadium will vary depending upon the event, the profile and importance of the football game, and the day of the week.

## Walking and Cycling

4.64 The Site is within cycling distance from Kidlington and north of Oxford. Cycle routes OXR4 and OXR3 as well as National Cycle Route 51 connect the Site to these areas. There are also proposals for OCC to improve the highway network in the vicinity of the site, namely improvement work at Loop Farm Roundabout, Peartree Interchange and Kidlington Roundabout; the latter includes signalisation of the junction with signalised crossing facilities, and shared cycleways on Oxford Road and Bicester Road to improve sustainable travel, which is now under construction.

- 4.65 As part of the Proposed Development, new and improved pedestrian and cycle routes to and from the Site will be provided, which will also connect to the committed pedestrian and cycle routes at Kidlington Roundabout and on Oxford Road. The improvements will include signage and lighting to improve safety for users.
- 4.66 Crossing facilities (TOUCAN) are proposed across Oxford Road and Frieze Way, which will provide links to Oxford Parkway to the south-east, the allocated site PR7a to the east, as well as to Stratfield Brake to the west of the Site.
- 4.67 A new stepped access to Oxford Parkway from Oxford Road is proposed to provide direct access from the railway station towards the stadium.
- 4.68 The proposed access arrangements, including crossings and walking and cycling links, are shown in **Figure 4.13**.

#### **Public Transport**

- 4.69 In terms of public transport, the Club will include travel information on its website and within the matchday programme, including bus services, Park and Ride locations and bus shuttles, rail services and ticketing information. The Applicant is working with Oxford Bus Company, Stagecoach, Chiltern Railways and OCC in order offer an integrated public transport ticket in the cost of a season ticket and match day tickets.
- 4.70 New bus stops are proposed on Oxford Road so that the existing services can stop next to the Site on match and non-match days. These stops will include level boarding, shelters and real time information. Additional bus stops and layby are being investigated with OCC on Frieze Way.
- 4.71 Shuttle bus services will operate from the Park and Ride sites on match days (subject to ticket sales) to intercept supporter vehicle trips based on the geographical pull of their journey towards Oxford, and supporters within walking and cycle distance of the Park and Ride sites around the City.
- 4.72 OUFC currently operate supporter shuttle services to/from Abingdon and Witney to Kassam Stadium; these will continue at the new site. OUFC will also work with supporters' associations and clubs to organise away supporter coaches.

## **Match Day Traffic Management and Crowd Management**

4.73 Detailed pedestrian modelling has been undertaken to understand pedestrian movements representing a full capacity scenario of 16,000 supporter match day scenario, although it is not expected that this level of attendance would be seen for a number of years. On match days with high ticket sales, it is expected that traffic management will be required for safety reasons. Traffic

will be diverted via Frieze Way (a dual carriageway) for at least 30 minutes to enable the supporters to safety arrive and leave the stadium via Oxford Road to reach the transport interchange at Oxford Parkway. This expected to be as follows:

- Pre-Match general traffic will be diverted for at least 30 minutes, with key bus services and coaches marshalled through Oxford Road during periods of lighter pedestrian flows. Bus services and general traffic will continue to access/egress Oxford Parkway from the Site
- Post-Match general traffic will be diverted for at least 30 minutes, with key bus services
  and coaches marshalled through Oxford Road during periods of lighter pedestrian flows.
  Bus services and general traffic will continue to access/egress Oxford Parkway from the
  Site.
- 4.74 A traffic management contractor will be appointed to enact the closure and station marshals to guide supporters. Other traffic management measures include a Variable Message Signage Strategy (VMS), Park and Ride signage enhancements, passenger travel information systems, OUFC publishing a list of the planned closures and the implementation of match day controlled parking zones (CPZs) up to 2km from the site.
- 4.75 In terms of pedestrian movements, it is proposed that the majority of pedestrians will travel from Oxford Parkway if coming from the south (Oxford City). Cyclists will also be encouraged to park here on match-days. From Oxford Parkway, there will be routing of both the home fans and away fans. Away fans will enter the in the south-east corner of the triangle site where there is a multifunctional arrival space, and home fans will be directed to The Plaza to the north of the stadium. Hard landscaping and wayfinding will help to direct fans, with security and management staff on hand to assist.

# Energy, Sustainability and Climate Change

4.76 The Applicant has developed a 'customised' Sustainability Framework for the Proposed Development. This sets out a series of target ambition levels across a range of sustainability themes and reflects OUFC's commitment to the key sustainability principles. It provides the structure for embedding sustainability within the Proposed Development. Key themes are as follows:

OUFC New Stadium Development: Environmental Statement Volume 1 (February 2024)

- Energy and Carbon
- Ecology and Biodiversity
- Waste and Materials
- Water
- Transport and Movement
- Health and Wellbeing
- Community
- Governance

- 4.77 The Sustainability Framework sets out a range of sustainability issues, questions and key performance indicators designed to optimise sustainability performance for the Proposed Development. Performance Indicators included within the Framework are aligned with meeting, or exceeding, relevant policy requirements and/or recognised industry guidance. The Sustainability Framework is a working document and will continue to evolve through the design, construction and operation stages of the development; however, it demonstrates the commitment of OUFC to deliver a number of measures across the site.
- 4.78 The application is accompanied by a Sustainability Statement which provides the structure for embedding sustainability within the Proposed Development. This demonstrates that the Proposed Development is targeting 'Best in Class' or better across all the themes.
- 4.79 The stadium will be constructed to achieve the highest economically viable energy efficiency and be designed to maximise the delivery of decentralised renewable or low-carbon energy generation. A feasibility study of the Low and zero carbon technologies has been undertaken as part of the drive towards achieving carbon neutrality. The stadium will aim to reduce energy use and carbon emissions through the use of energy efficient equipment and Low and zero carbon technologies. Heating and cooling will be provided in the form air source heat pumps to provide space heating and cooling. In addition, PV panels are also proposed as an onsite electricity generation system, further reducing the energy consumption of the building. Together these renewable and low carbon technologies will maximise energy efficiency.
- 4.80 The Proposed Development is looking to achieve at least BREEAM 'Very Good'.

# Waste Management

- 4.81 It is proposed that the stadium will operate with zero plastic, with minimal waste and packaging. This is in line with UEFA's Football Sustainability Strategy 2030 to achieve zero plastic waste (to landfill) in the food and beverage sector at Champions League finals by 2026.
- 4.82 An Operational Waste Management Strategy (OWMS) will be produced which will provide an estimate of the anticipated waste generation from the Proposed Development during operation. The OWMS will provide guidance on how to allow waste to be disposed, stored and managed in a sustainable manner.
- 4.83 The recycling target of the waste generated by the Proposed Development will be 75%.
- 4.84 Good practices for recycling of waste generated will be incorporated that includes:
  - Composting of green waste.
  - Source segregation of dry recyclables.
  - Treatment of food waste by anaerobic digestion process or by composting

4.85 The Proposed Development will have a waste management contract with a waste management service provider to help manage all waste generated from its site, prior to its being operational.

## Other Technical Matters

## Sustainable Drainage

- 4.86 The Proposed Development incorporates sustainable drainage systems (SuDS) which comprises of filter drains, rain gardens and two attenuation ponds. Two storage ponds and geo-cellular ground surface storage will provide flow attenuation. One pond is positioned directly south of the stadium receiving runoff from the western part of the Site. The second pond is proposed to be located southwest of the stadium and will receive the runoff from the remainder of the Site and the stadium roof. Groundwater management such as lining features with impermeable membranes will be used to ensure that available storage is not reduced by groundwater ingress. Rain gardens will be located within the car park area together with a combination of filter drains, filter strips and swales providing further attenuation.
- 4.87 The SuDS system will be designed to provide attenuation storage for the 1% annual exceedance probability (AEP) plus 40% climate change event. The drainage system will remain operational during an extreme event and will not contribute to the flood event.
- 4.88 The finished floor levels of the buildings in the Proposed Development will be raised above the surrounding ground levels with ground surfaces sloping away from the buildings.
- 4.89 The design includes for the safe failure of the drainage systems on the Site during extreme events with surface water to be retained within the car park. The Flood Emergency Access Plan will provide procedures for the management of egress from the Site and emergency access, using the alternative access points away from the flooded area of the car park in this situation.

#### Noise

- 4.90 The new stadium will be of a modern 'wrap around' configuration which limits noise egress. This measure is considered by designers to provide the optimum amount of noise screening. The aspiration is to design the stands such that crowd noise is directed towards the pitch and other stands, enhancing the atmosphere within the stadium.
- 4.91 Based on the measured background noise levels in the area, the following rating level criteria have been set according to BS4142:
  - Daytime (07:00-23:00) of 49 dB

- Nightime (23:00-07:00) of 39 dB
- 4.92 Noise control measures for building services plant will be incorporated into the design to ensure compliance with these noise criteria. These control measures are widely used and well understood and may consist of; optimum location of plant to minimise noise emission, selection of quiet equipment options, use of attenuators, acoustic louvres and acoustically lined plena, vibration isolation, management of the hours of operation of plant, deployment of screening measures or other measures appropriate to the equipment specified.
- 4.93 The PAVA system will be designed to minimise noise spillage outside of the stadium, for example by utilising a larger number of low powered speakers directed at the crowd rather than a small number of high-powered speakers.

#### Lighting

- 4.94 As part of the Proposed Development, mitigation is proposed to minimise the impact of lighting on nearby residential and ecological receptors. This can be summarised as follows:
  - External lighting:
    - During non-match days the external lighting for the Proposed Development will be dimmed by <50% after 23:00, on match days this dimming taking place once spectators have vacated the Site. This does not apply to the hotel entrance.
    - Car parking and road areas:
      - The lighting for the car park and road areas will be provided by LED street lighting luminaires of a modern design with the option of installing back light louvres, shields, and/or the use of luminaire optics with back light control
      - Column height will be a maximum of 8m
      - All luminaires will have an upward light ratio (ULR) of 0%, will be installed with 0° of tilt, and will have a minimum G class of G4.
      - The correlated colour temperature (CCT) will be limited to a maximum of 3000K.
    - Main entrances:
      - The design will achieve a minimum uniformity of ≥0.25 to ensure then entrance is sufficiently clear and attractive.
      - The lighting for the main entrances will be provided by LED luminaires of a modern design (bulkhead and column mounted).
      - Mounting height will be a maximum of 4m.
      - All luminaires will have an ULR of 0%, will be installed with 0° of tilt, and will have a minimum G class of G4.
      - The CCT will be limited to a maximum of 4000K.
    - o Building perimeter:

- The lighting for the building perimeter area will be provided by LED luminaires of a modern bulkhead and bollard design.
- All luminaires will have an ULR of 0%, will be installed with 0° of tilt, and will have a minimum G class of G4 and will be mounted at a maximum of 6m.
- The CCT will be limited to a maximum of 3000K.

#### o Plaza

- Lighting in this area will be provided for wayfinding only, with the lighting levels being dependent on further design development.
- Lighting in this location will be provided by luminaires of a modern bollard design with a maximum height of 1m.
- All luminaires will have an ULR of 0%, will be installed with 0° of tilt, and will have a minimum G class of G4.
- The CCT will be limited to a maximum of 3000K (ideally ≤2700K).
- During design development the switching off the lighting in this area at a predetermined time will be considered subject to a risk assessment.

#### Loading and unloading bays

- The lighting for the loading and unloading bays will be provided by LED luminaires of a modern design (bulkhead and column mounted).
- Mounting height will be a maximum of 8m.
- All luminaires will have an ULR of 0%, will be installed with 0° of tilt, and will have a minimum G class of G4.
- The CCT will be limited to a maximum of 3000K.
- Lighting provided for these areas will only be on when loading/unloading is taking place during the hours of darkness (morning and evening).

## Field of Play lighting

- The field of play lighting will be designed to achieve several different illuminance standards dependent on the task being undertaken.
- Illuminance levels for match days will be dependent on the level of competition of the match. Lower levels of illuminance will be used for training and other activities.
- The CCT of the field of play lighting will be compliant with guidance for sports lighting for the applicable level of competition. With the colour rendering index of Ra80 – Ra90 and a colour temperature in the range of 4200K to 5700K.
- The ULR of the field of play lighting will be ≤2.5% in line with E2 environmental zone criteria. This is an upper limited and lower ULR % is likely for the finalised design.
- The field of play lighting will be mounted on the side stand roofs at various hights depending on the slope of the roof. The mounting of the luminaires

is subject to further design development and maintenance access requirements.

## • Façade Illumination

- Facade lighting will follow the maximum permissible luminance levels for their relevant environmental zone.
- Downlighting will be the primary source of façade illumination where access for maintenance allows.
- Careful aiming of luminaires will be used to ensure that any upward light is minimised.
- o If uplighting is utilised then luminaires with the correct optical distribution in combination where required with light controlling attachments such as shields, baffles and louvres will be used to ensure upward light and spill light is minimised as far as reasonably practical.

## Illuminating Advertising

- Illuminated advertising will follow the maximum permissible luminance levels for their relevant environmental zone
- During the daytime sign luminance should never exceed 5000cd/m². This is to ensure drivers and pedestrians are not distracted by glare, and ensure the signage will not be overly prominent in the landscape.
- o For digital signs where the content is changeable, the rate of change will not exceed once every 5 seconds. Moving images, animation, video, or full motion images shall not be displayed at locations where they could present a hazard, for example if they could be seen by drivers in moving traffic.

## Internal Lighting

#### o Luminaire Selection

- Luminaire positioning and optical angle will be carefully considered to ensure spill light through glazing is minimised as far as is reasonably practicable.
- Ceiling recessed luminaires, or non-recessed luminaires with tight optical control shall be used throughout the design. Internal wash lighting will be avoided where possible.
- Decorative luminaires may be used to create features of interest; however, it must be demonstrated that the inclusion of these features will not result in unacceptable spill light through glazing, glare, or upward light.

## o Lighting Controls

Lighting control will be implemented to ensure a suitable internal illuminance level is achieved throughout the hours of use of the Proposed Development. Lighting control methods such as daylight harvesting will be used to achieve this.

- The internal building lighting control system will also be used to ensure that no internal lighting is left on after the hours of use, other than that which may be necessary for security or operational purposes. Typical lighting control arrangements are as follows:
  - Local switching: small rooms, stores, control rooms.
  - Enhanced local switching (scene setting): Hospitality.
  - PIR: toilets, offices, corridors, changing rooms, plant rooms.
  - Centralised switching: concourse, external lighting, GA, sports lighting.
  - Centralised lighting control: all areas.

# Development Programme and Construction Methodology

4.95 The following sets out of the development construction programme and methodology in respect of the Proposed Development.

## **Construction Stages**

- 4.96 The construction stages of the Proposed Development are as follows:
  - Enabling Works: Enabling works are defined as the site establishment which includes
    the set-up of welfare, formation of site entrances and clearance of the existing site to
    prepare the land for the construction works to commence. Works will include limited
    utility works.
  - 2. **Substructure:** Substructure works are defined as construction elements which are below ground.
  - 3. **Superstructure:** Superstructure and Envelope works are defined as the formation of the building above ground.
  - 4. **Fitout:** Fitout works are defined as the internal furnishing and completion activities which enable the building to become operational and occupied.
  - 5. **External Works**: External works are defined as the works which are undertaken outside of the building footprint.
  - 6. **Completion Activities:** The completion activities stage is defined as the period of time where witnessing and commissioning is undertaken. This also includes the handover and licensing phase and may require test events as part of the process.
- 4.97 A brief description of the works involved at the various stages of the construction phase is set out at **Table 4.2.**

Table 4.2 - Construction Sequence and Brief Description

Construction Sequence	Description		
Enabling Works	<ul> <li>Site set up including car parking, hoarding and site security, site accommodation, temporary services</li> <li>Utility diversions and incoming supplies</li> <li>Site clearance and removal of trees</li> <li>Temporary roads and footpaths constructed to support deliveries</li> <li>S278 works</li> <li>Cut and Fill</li> <li>Formation of piling platform</li> </ul>		
Substructure	<ul> <li>Piling</li> <li>Foundations</li> <li>Utility works</li> <li>Below ground drainage and services</li> <li>Road formations and installations</li> </ul>		
Superstructure and Envelope	<ul> <li>Steel frame</li> <li>Vertical platforms shafts and stairs</li> <li>Roof cladding</li> <li>Wall cladding and glazing</li> <li>Roof services</li> </ul>		
Fit Out	<ul> <li>Internal fit out works – partitions, mechanical and electrical fit out, doors, joinery, flooring etc.</li> <li>Plant and equipment fit out</li> <li>Specialist AV and lighting</li> </ul>		
External Works	<ul> <li>Roads, footpaths, paving, street furniture, fencing</li> <li>Soft and hard landscaping</li> <li>Field of Play</li> </ul>		
Completion Activities	<ul> <li>Commissioning and handover</li> <li>Test Events</li> <li>Stadium licencing</li> </ul>		

4.98 Where relevant, further details on the construction works can be found within the Technical Chapters which consider important mitigation measures to alleviate any residual effects of the Proposed Development.

## **Construction Programme**

- 4.99 The Proposed Development will be constructed over a period of 2 years, beginning in August 2024 and ending in July 2026. **Table 4.3** shows the anticipated construction programme for the Proposed Development.
- 4.100 As demonstrated, there are instances where the activities within **Table 4.3** would overlap and be undertaken concurrently.

Table 4.3 – Anticipated Construction Programme

Construction Phase	Approximate Timescales	Approximate Start and End Date
Enabling Works	12 weeks	August 2024 – November 2024
Substructure	20 weeks	November 2024 – April 2025
Superstructure and Envelope	30 weeks	February 2025 – September 2025
Fitout	30 weeks	August 2025 – March 2026

External Works	40 weeks	April 2025 – February 2026
Completion Activities	24 weeks	November 2025 – July 2026

#### **Construction Methods**

## **Plant and Equipment**

4.101 **Table 4.4** sets out the likely plant and equipment to be used during the different stages of the construction phase of the Proposed Development. More detail on the specific types of plant, quantity and implications are considered in more detail in the relevant Technical Chapters.

Table 4.4 - Likely Plant/Equipment

Plant/Equipment	Enabling Works	Substructure	Superstructure	Fit- Out	External works	Completion Activities
Dozer	✓	✓				
Excavators	✓	✓				
Breakers	✓	✓				
Piling Rigs		✓				
Generators	✓	✓	✓	✓	✓	✓
Compactor	✓	✓	✓			
Concrete Pump		✓	✓	✓		
Concrete Batching		✓	✓	✓		
Plant						
Works Trucks	✓	✓	✓	✓	✓	✓
Tower Crane	✓	✓	✓	✓		
Mobile Access Platforms			✓	<b>√</b>	<b>√</b>	✓
Wheel Washing Plant	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	✓
Road Planer/Sweeper	✓	<b>✓</b>	✓	<b>√</b>	<b>√</b>	<b>✓</b>
Scaffolding			✓	✓	✓	✓
Specialist Pitch Installation Equipment				<b>√</b>	<b>✓</b>	<b>√</b>

### **Construction site set-up and Welfare**

- 4.102 A fully encompassing office and welfare facility will be provided within the Site boundary. This will provide space for temporary porta cabins/parking for site offices and welfare facilities for contractors, tool and equipment storage, storage of construction vehicles, and storage of materials.
- 4.103 Prior to commencement of development, a plan will be submitted to the LPA depicting the siting of this construction compound. This can be secured through a planning condition and the Construction Environmental Management Plan. This should also include details of the site enclosure, including the extent of fencing around the site, the proposed parking locations for contractors, the proposed waste area locations and all emergency muster points.

4.104 The location will be determined in consultation with the contractor and landscape consultant, in order to reduce the landscape and visual impact of these elements as much as possible. All cabins and storage mounds will be as low as possible to minimise the visual effects of these elements. The contractors' cabins are to be of a muted and visually recessive colour to minimise the visual effect of these temporary elements in localised views. The lighting of the compound is to be low level and directional into the working area.

## **Site Working Hours and Days**

- 4.105 Activities that may give rise to audible noise at the surrounding properties and heavy goods vehicle movements to and from the Site would be limited to the following hours:
  - Monday to Friday 07:00 19:00;
  - Saturdays 08:00 18:00;
  - Sundays and Bank Holidays 08:00 13:00; and
  - Other hours by exception and with prior agreement from the LPA.
- 4.106 Activities that are unlikely to give rise to noise audible at the site boundary, such as light vehicle movements, team briefings or survey work for example, may be undertaken outside of the stated hours.

## **Construction Employment**

4.107 It is estimated that the proposed Development would support in the region of 210 construction jobs per year. This employment will be expected to include a broad range of job-types and occupations, both on-site and off-site (i.e. both directly and as part of the supply chain). Beneficial effects would be enhanced through the Applicant targeting and engaging with local employment initiatives.

## **Construction Traffic**

## **Construction Traffic Routing**

- 4.108 Construction traffic is to be routed along the Strategic Road Network and access to the site by construction vehicles will be via the A4260 Frieze Way. Construction Traffic has been distributed based on the distribution of HGVs (excluding buses), obtained from 2018 surveys provided by OCC. Construction traffic will not be permitted through Kidlington.
- 4.109 Within the site, the Principal Contractor shall adopt good practice in planning the site layout and consider the following:
  - Reversing should be minimised wherever possible;
  - Parking areas should be made available away from lay-down areas;

- Pedestrians and vehicles corridors should be segregated;
- Site waste containers positioned for the ease of drop off and collection;
- A one-way system should be implemented if possible;

#### **Construction Traffic Timings and Frequency**

- 4.110 As above, a number of the construction phases would overlap and be undertaken concurrently. 2025 is anticipated to be the peak year for construction activity and will therefore be the peak period for construction traffic and project personnel vehicles. A preliminary assessment has identified that during this peak period, there will be approximately 53 HGVs entering/existing the Site per day (105 two-way movements), as well as 250 cars and LGVs (500 two-way movements).
- 4.111 It must be noted that these figures for cars/LGVs have assumed a worst-case scenario that 100% of the construction staff will drive alone; however, measures to reduce this will be encouraged including car share schemes and using public transport. Measures to incentivise the use of sustainable transport modes are included in the Construction Traffic Management Plan, as below.
- 4.112 It is proposed that the majority of construction deliveries and collections will occur outside peak traffic periods on weekdays and weekends.

#### **Construction Traffic Management**

- 4.113 Controls will be imposed through planning conditions, health and safety requirements and good construction site practices in relation to mitigating any effects received from construction. A Construction Traffic Management Plan (CTMP) will ensure mitigation measures to address transport effects through construction are implemented. A draft CTMP can be found at **Appendix 10.4**, but this will be secured by a planning condition. Such measures are anticipated to include:
  - Construction traffic will not be permitted through Kidlington;
  - Appropriate signing of the delivery route to ensure vehicles use the approved route to and from the site;
  - Warning signs for vehicles and pedestrians as appropriate;
  - Co-ordination of delivery times to ensure that as far as possible deliveries take place outside peak periods;
  - Deliveries will be carefully scheduled to avoid multiple vehicles arriving at the site simultaneously. Construction vehicles must adhere to a strict delivery management/booking system to ensure no vehicles queuing on Frieze Way;
  - Design of the site access to ensure that vehicles have appropriate visibility upon leaving the site;
  - Wheel washing facilities for vehicles leaving the site, and road sweeping when necessary;
     and

- Details of liaison with neighbours.
- 4.114 The CTMP will set out the necessary controls to ensure safety of other road users and to protect the environment.

#### **Environmental Controls**

## **Construction Environmental Management Plan**

- 4.115 A detailed Construction Environmental Management Plan (CEMP) will be prepared which will set out the principles and measures that contractors should adhere to on site to minimise and mitigate environmental impact that may arise during the construction period. The preparation of a CEMP is an established method of managing environmental effects resulting from construction works and will be secured by planning condition or S106 Agreement.
- 4.116 The Technical Chapters of the ES set out in more detail the measures to be included in the CEMP; however, key principles are set out below.

## **Management of Construction Works**

- 4.117 The Site would be registered with the 'Considerate Constructors Scheme' (CCS) which is a national scheme set up by the construction industry, and the contractors will abide by the ethics and standards within the scheme. This will ensure the highest levels of community relations and via impartial audit, ensure the construction process fully considers its neighbours.
- 4.118 Detailed Site Management Plans will be prepared as part of the CEMP by the contractor in advance of construction. Task specific risk assessment will be carried out for each work activity and detailed method statements prepared to control the operation and to ensure that all concerned are aware of safety and environmental hazards associated with the work and the precautions to be taken.
- 4.119 A key aspect of the construction process is maintaining good public relations and engaging the community throughout the life cycle of the project. It is the intention for there to be a dedicated community engagement manager, who will be responsible for maintaining positive relationships, organising regular events in order to disseminate project information. The full contact details of this manager will be published prior to construction starting on site.

## **Waste Management**

4.120 The Proposed Development will seek to maximise the reuse of materials generated on site, where possible, in accordance with the waste hierarchy (reduce, reuse, recycle, recover and disposal) in order to minimise waste disposal.

- 4.121 Construction activities on site will be managed to reduce the level of waste generated. This involves promoting the use of recycled materials, re-using on site where possible, and disposing of any waste in the most sustainable manner. The CEMP will include mitigation measures to reduce waste, including:
  - A Resource Management Plan (RMP) will be produced to outline the procurement requirements for reused, recycled and locally sourced materials.
  - A Materials Management Plan (MMP) to identify ways to reuse site-won or excavated materials within the construction of the Proposed Development.
  - A Site Waste Management Plan (SWMP) to ensure that waste is managed in accordance with the waste hierarchy and other relevant legislative requirements, and it details information on the waste carriers and waste management facilities that could be used. It will also be used to measure and monitor the types and quantities of waste removed offsite. The SWMP is a key part of the CEMP and will be a live document based on construction operations as they occur. The SWMP will be produced in line with best practice guidance and will establish resource efficiency and waste minimisation opportunities.
- 4.122 Where waste must be taken to a recycling or disposal site, the contractor has a legal duty to ensure that the Sites have the appropriate permits. The appointed contractor would identify the closest relevant treatment and disposal sites, to minimise the impacts of transportation.

#### Control of Noise, Vibration, Dust and Lighting

- 4.123 The project will employ several measures to control the potential effects of noise, vibration, dust and lighting during the construction phase. These are outlined within the relevant Technical Chapters but includes:
  - 1. Limiting lighting to security purposes only within the construction compound;
  - 2. Selecting quiet equipment and ensuring it is not left running unnecessarily;
  - 3. Controlling plant activity siting and time near the most sensitive receptors;
  - 4. The erection of temporary noise barriers around working areas, if required;
  - 5. Placing lighting near the task being performed at the minimum safe height, and directing lighting into the site and away from boundaries and sensitive receptors;
  - 6. Use of light shields where lighting is needed near the boundaries;
  - 7. Reduction of construction vehicles where possible;
  - 8. Management of Construction Traffic through a CTMP;
  - 9. Preparation of a Dust Management Plan;
  - 10. Regular site inspections/monitoring of the CEMP.

4.124 These measures, which are outlined in more detail in **Chapters 11, 12 and 13** will form part of the CEMP. This can be secured by an appropriately worded planning condition or S106 Agreement.

## **Protection of Ecological Resources and Trees**

- As part of the CEMP, procedures and management measures to ensure the protection of ecological resources, including habitats (where retained) will be included. This will include, but not be limited to, best practice measures for pollution prevention of watercourses/waterbodies, employment of an Ecological Clerk of Works (ECoW), fencing of ecological features to be retained including woodland, and angling construction lighting away from suitable habitat. Specific mitigation measures for badgers include providing means of escape from trenches for badgers, and inspection of trenches. Any clearance of any scrub, hedgerows and trees outside of the bird-breeding season; if this is not possible, checks by an ecologist should be made prior to any clearance.
- 4.126 An Arboricultural Impact Assessment with Tree Survey accompanies the planning application identifying tree locations, classification of those trees and their Root Protections Areas (RPAs).

#### **Water Resources**

- 4.127 The CEMP will include best practice measures in relation to water resources including drainage and flood risk. These would include but not be limited to:
  - Preventing stockpiled materials from being washed into the local watercourses.
  - Training of workers onsite regarding site housekeeping and preventing material stored on site from into the local watercourses.
  - Designing temporary site drainage so that sediment, litter and other foreign materials are removed from surface water runoff prior to discharge into the local watercourses.
  - Signing up to extreme weather event alerts to plan for extreme rainfall events.
  - Maintaining a buffer between works activities and surface water drainage system
    including preventing sediment entering drains and watercourses. Construction
    compounds, soil/material stockpiles, plant and temporary work areas shall be located
    away from the surface water drainage system.
  - Clearance and repairs to the drainage culvert under A4260 prior to construction works.
  - The period of exposure of bare areas and uncontrolled runoff from newly paved areas will be limited as far as practicable through careful phasing and implementation of the works to reduce the risk of increased runoff to watercourses.
  - A network of pre-earthworks/cut-off drains will be installed to keep runoff from the natural catchment separate from construction site runoff.