Chapter 4

ALTERNATIVES

4 Alternatives

Preface

This ES Chapter has been updated to principally provide consideration of the potential environmental effects of the Development against the Submitted Scheme.

4.1 Introduction

4.1.1 In accordance with the EIA Regulations, this chapter describes the reasonable alternatives to the Development considered by the Applicant, prior to the selection of the final design and provides a description of the main reasons for the choice made, including a comparison of the environmental effects if available.

4.1.2 The alternatives that are considered in this chapter include:

- Alternative sites / Site extents;
- The 'No Development' alternative; and
- Alternative designs including layout, heights, massing and other aspects.

4.2 Alternative Sites / Site Extents

4.2.1 The Site does not fall under any extant planning permissions. It is unallocated in the Local Plan[1] and the Local Plan Review[2]. Accordingly, the Site is considered with regard to Policy SLE 1: Employment Development' of the Local Plan. Policy SLE 1 directs new employment development to locations in accordance with Policy ESD 1 of the Local Plan, distributing growth to locations identified as sustainable. Policy ESD 1 involves directing employment development to existing employment sites and main urban settlements (Banbury, Bicester and Kidlington). Employment development in rural areas should be located within or on the edge of category A villages unless exceptional circumstances are demonstrated.

4.2.2 Policy SLE 1 sets out criteria that requires the Applicant to demonstrate why a rural location is required and that there is no other available land within existing nearby employment areas that would be suitable for the proposed use. Given the nature and scale of the Development, it requires immediate access to the strategic highway network due to the high levels of HGVs which service the proposed uses likely to occupy the Site. The Site is considered to afford excellent access in this regard.

4.2.3 Development has already commenced or completed at most of the strategic employment sites allocated in the Local Plan and there are no other suitable sites within the urban areas that are capable of accommodating the Development. Although there are other smaller sites located along the M40 corridor, these are generally incapable of accommodating large scale warehouse development that is proposed. Further discussion is provided in the Planning Statement submitted with the outline planning applications.

4.2.4 Given the considerations set out above, no alternative sites have been considered by the Applicant as being reasonable alternatives to the Site. Alternative sites are therefore not considered further in this ES.

4.2.5 Initially, the Applicant intended to submit a single detailed planning application for the Site, which would comprise both the Western and Eastern Sites. This approach was subsequently amended to the preparation and submission of individual outline planning applications for development of both the Western and Eastern Sites to allow greater flexibility in how the sites could come forward for development.

4.3 The 'No Development' Alternative

4.3.1 In line with best practice, this section outlines the consequences of no development taking place at the Site. In this scenario the Site remains in its current state. Chapters 7 to 15 set out the baseline conditions for the Site together with the future baseline conditions which are likely to arise in the absence of the Development. These are not repeated here.

4.3.2 The Site is not subject to any extant planning permissions and is unallocated in the Local Plan. As such, it would be reasonable to assume that in the absence of development, both the Western Site and Eastern Site would remain in agricultural use. However, given the Site's location proximity and good access to the M40 motorway, it is likely to be subject to future consideration by developers due to the significant demand for logistics developments in this location.

4.3.3 In the absence of development, adverse environmental effects related to construction would not occur, for example some habitat loss and biodiversity impacts, construction traffic, air quality, dust, noise and landscape and visual effects. However, these effects have been found by the EIA process to be 'not significant'. Temporary beneficial socio-economic effects, such as construction employment, economic benefits through supply chain effects and local spending by construction workers would also not arise.

4.3.4 Adverse environmental effects associated with the completed Development would not occur, including landscape and visual, transport, noise and vibration, biodiversity and air quality impacts. However, these would be mitigated as far as practicable through detailed design of the new buildings and operational management plans (e.g. adherence to the CTMP, CEMPs, LEMP, Travel Plan).

4.3.5 Chapter 7: Socio-economics identifies that the Development would result in significant beneficial effects, including the creation of circa 2,840 to 3,840 FTE jobs through the operation of the completed Development. The nature of the roles and travel to work distances indicate that these jobs would likely be of direct benefit the local / regional impact area (i.e. Fringford and Heyfords ward and Cherwell District). If the Development did not come forward in this location, it is likely that these jobs would be displaced to another location outwith CDC along the M40 corridor.

4.4 Environmental Design Considerations

4.4.1 The project has been informed through discussions with stakeholders, primarily with CDC and OCC. Environmental analysis of baseline conditions and sensitivities and testing of early scheme designs were also used to inform the Development.

4.4.2 A summary of the main environmental considerations and constraints and how the design responds to these is provided in Table 4.1.

Table 4.1: Main Design Considerations

Topic	Considerations	Design Response
Existing and surrounding uses	The Site is not occupied by sensitive uses although a small number of sensitive residential receptors are located in close proximity to the Site, adjacent to the north-eastern Western Site boundary.	Built form within the Western Development is set back from the northern and north eastern boundary towards the west and south of the Western Site. This maximises the separation distance between the proposed employment uses and the residential receptors.
Cultural heritage	The Grade II listed barn on Baynards Green Farm is approximately 200m north of the Site boundary and the Fewcott Conservation Area and Ardley Conservation Area are located approximately 800m south west from the Site boundary, at its closest point. Fritwell Conservation Area is located approximately 1.2km west of the Site boundary.	
Landscape and visual impacts	Initial Zone of Theoretical Visibility analysis of the Site highlighted the likely visibility of the Development due to the building heights required by the employment uses. This work confirmed the importance of landscape buffers around the perimeter of both the Western and Eastern Developments. The landscape and visual consultant identified that the north eastern boundary of the Eastern Site was particularly visible and as such required a landscaping buffer to act as visual screening.	Maximum building heights are fixed for the Development by market demands for buildings of the scale proposed. Ground levels for the Development could not be lowered without the need for significant export of material off-site which would generate additional HGV movements and associated effects. As such, this was rejected as a reasonable alternative. The location of potential built form within the Build Zones (as illustrated on Parameter Plans 01 and 06) was located away from sensitive site boundaries as far as practicable. The External Lighting Strategy seeks to ensure that required lighting levels are achieved whilst minimising glare and light spillage to surrounding areas (e.g. via back-shields) and ensuring that there is no direct contribution to upward light pollution. The Development includes provision for retaining and strengthening existing vegetation boundaries through

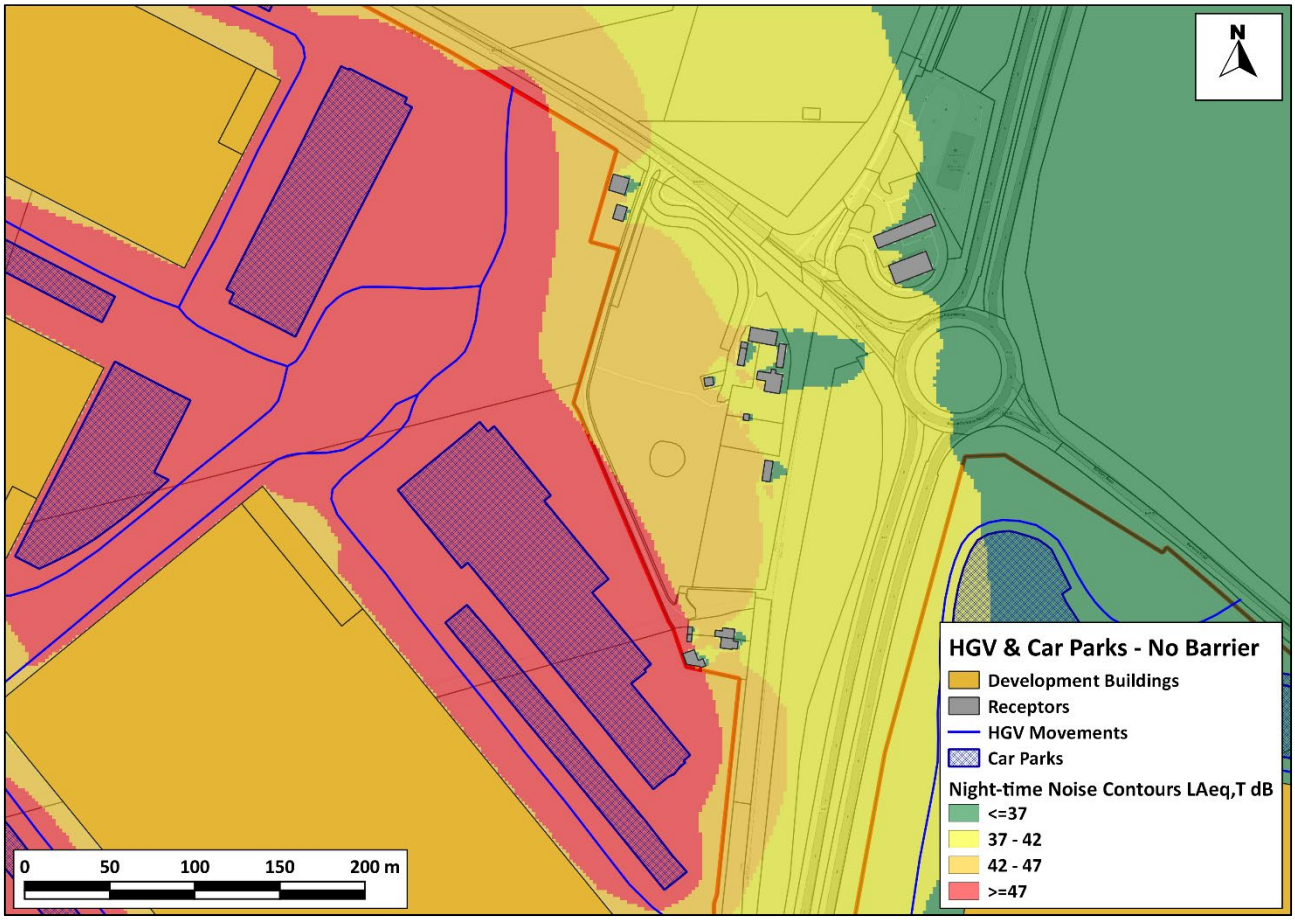
Topic	Considerations	Design Response
		planting to provide a visual buffer, as shown in the Vegetation and Removal Parameter Plans.
Transport and access	Traffic surveys carried out by the project transport consultants on the local road networks and nearby A43 roundabout identified that traffic speeds were higher than initial anticipated and required careful consideration to ensure safe access to the Development. The previously envisaged Growth Fund improvement at the A43/B4100 roundabout was due to be delivered by the highway authority. Funding was removed in late 2022.	Access to the Western Development will be completed as part of the Enabling Works, although the initial designs for the access roundabout to the B4100 shifted eastwards position towards the B4100/A43 roundabout following analysis of traffic speeds to ensure compliance with standard highways safety design requirements. The Applicant proposes an improvement scheme at the A43/B4100 junction with agreement at preliminary design stage with NH and OCC. The scheme comprises signalisation, localised widening and enhanced pedestrian and cycle facilities and the introduction of formal crossing points. As a consequence of the signalised A43/B4100 scheme, the Eastern Development access proposal has been changed from a roundabout to a signalised T-junction. This allows traffic signal capacity benefits and co-ordination. The location of the proposed access is optimally located. This design concept is supported by the highway authorities.
	An existing Public Right of Way (ProW) 105/5/10 traverses the Western Site.	Options to divert the PRoW within the Western Development were explored, including around the northern or south eastern Western Site boundaries or the centre of the Western Site. The central landscape corridor was chosen to provide the most direct, efficient diversion as possible and reflected OCC's pre-application recommendation for potential route.

Topic	Considerations	Design Response
Noise	Initial analysis of the emerging proposals was undertaken by the project noise consultant. This initial analysis predicted that residents of Baynards House would experience high noise levels due to a combination of the future operational HGV use of the Development and the proximity of parking and service yards towards the north east Site boundary associated with the Western Development (as illustrated in Figure 4.1).	To overcome the potential for significant noise impacts at the nearby residential dwellings, provision for an acoustic barrier was integrated into the Development located between the B4100 and the Western Site boundary. Subject to detailed design, it is anticipated that this will be a 2m acoustic screen. Acoustic screening will also be implemented between the Build Zones and the sensitive receptors outwith the north eastern boundary of the Western Site. Chapter 10: Noise and Vibration demonstrates that these measures would effectively avoid significant noise and vibration effects.
Flood risk and drainage	The Site is predominantly at low risk of all types of flooding from all sources. However, given that the Development would bring forward large impermeable areas associated with the new buildings and associated car parks, service yards and access roads, a drainage strategy is required that seeks to reduce flood risk, reduce pollution and provide landscape and wildlife benefits.	Whilst the Site is at low risk of flooding, a drainage strategy has been developed which seeks to reduce flood risk, reduce pollution and provide landscape and wildlife benefits. Multiple swales have been incorporated into the design to mitigate excess surface water discharge. The Development Zone located at the lower part of the Western Development, close to the A43, comprises a system of large swales / infiltration basins to capture surface water flows. A system of large swales / infiltration basins will be implemented on the Eastern Development to reduce outflows to below greenfield runoff rates. Further details are provided within Chapter 5: Description of the Development and Chapter 15: Water Resources, Flood Risk and Drainage.

Topic	Considerations	Design Response
Ecology and biodiversity	The Site is currently in agricultural use, supporting a variety of protected species including breeding birds, bats and badgers. Development will potentially lead to the loss or disturbance to some habitats which support these species.	The Development seeks to retain and enhance hedgerows where possible, following consultation with the projects' ecologist, thus minimising habitat loss on-site (see Vegetation and Removal Parameter Plans). The Applicant has obtained approximately 20ha of nearby land which will be designated as an 'off-site Biodiversity Net Gain (BNG) compensation site', with proposed habitat compensation at this location to offset the potential biodiversity loss caused by the Development. The Applicant considered a range of fields and sites for the habitat compensation site but the final site in Piddington was selected as it is not an optimal site for farming due to wet conditions; High-quality agricultural land is therefore not being utilised. It is also located with an area identified as 'Network Enhancement Zone 1' by Natural England which is defined as *"Land connecting existing patches of primary and associated habitats which is likely to be suitable for creation of the primary habitat..."*[1] Chapter 5: Description of Development provides further details on the off-site compensation site.

[1] Edwards J, Knight M, Taylor S & Crosher I. E (May 2020) 'Habitat Networks Maps, User Guidance v.2', Natural England.

Figure 4.1: Indicative noise modelling results (with no barrier)



4.5 Alternative Designs

4.5.1 The following sections set out the iterative design evolution of the Development and details how environmental considerations have informed these scheme changes.

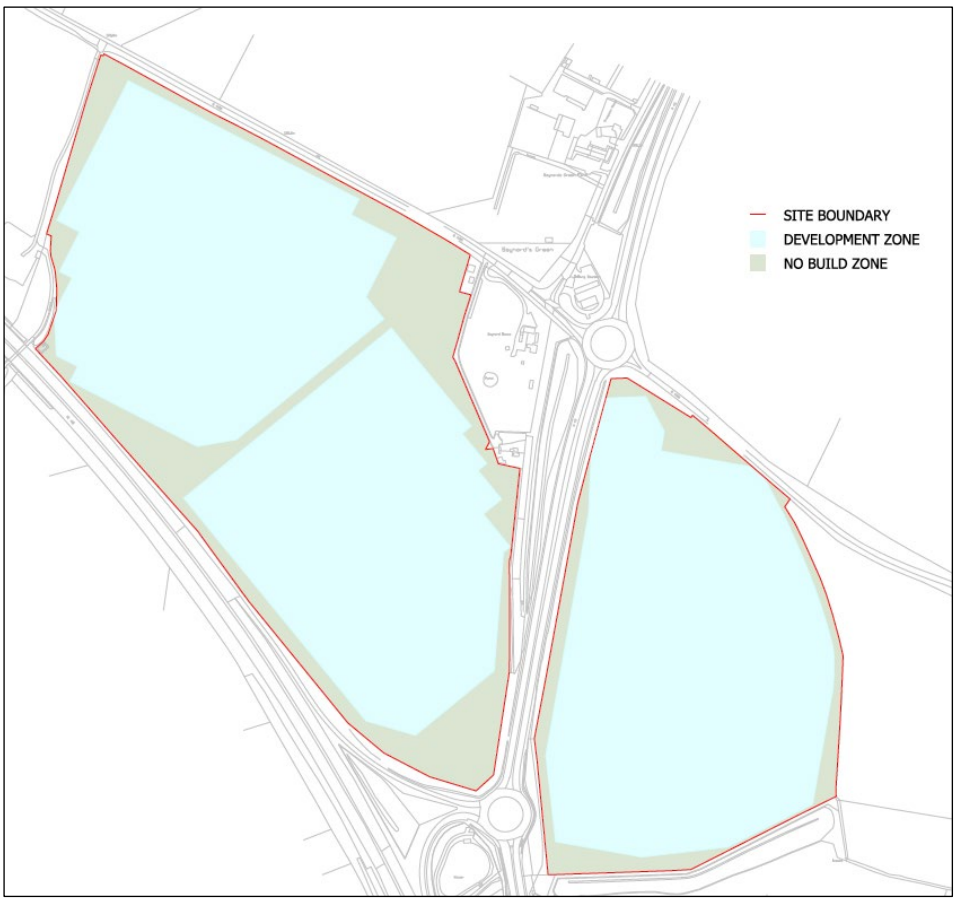
Concept Scheme (April 2021)

4.5.2 A concept scheme was created in April 2021, as illustrated in Figure 4.2. This iteration of the scheme was based on a four-unit scheme across the Site, providing a total of circa 280,281 sqm (GEA) warehouse floorspace and car parking in accordance with OCC's adopted parking standards.

Figure 4.2: Concept Illustrative Scheme (April 2021)

4.5.3 An initial series of Parameter Plans were developed for land use, building heights, vegetation removal and retention, and access for both the Western Site and Eastern Sites. The initial Land Use Parameter Plan is shown in Figure 4.3 showing inclusion of 'Development Zones' and 'No Build Zones'.

Figure 4.3: Concept Scheme – Land Use Parameter Plan (April 2021)



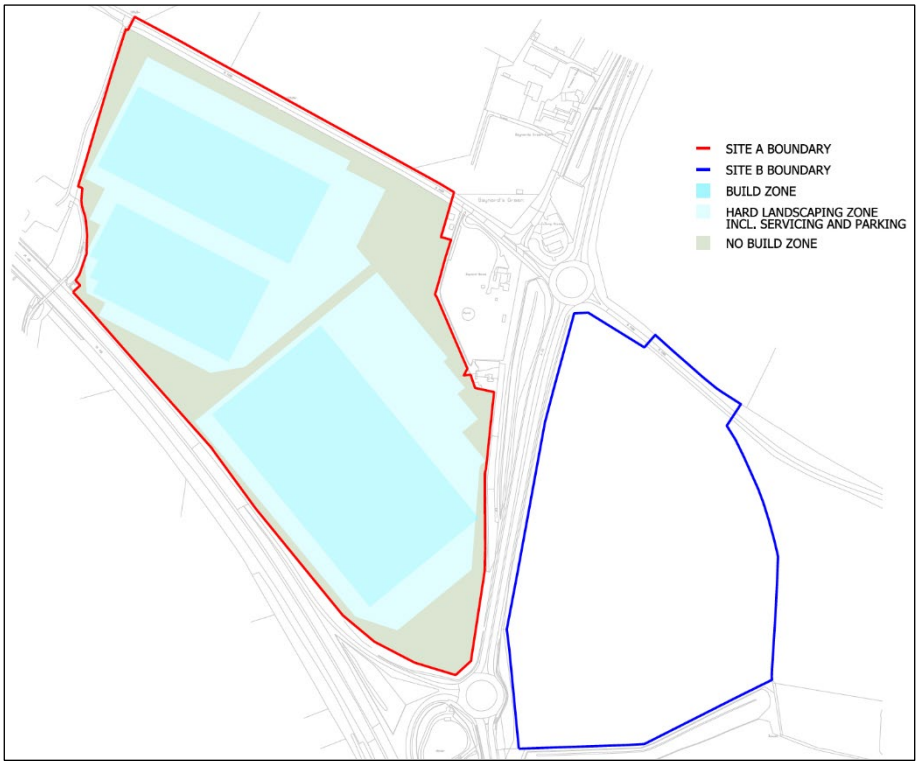
July 2021 Scheme

4.5.4 The April 2021 Parameter Plans were refined in response to technical appraisal and review to allow for additional space for embedded mitigation in the form of increased landscape buffers and to facilitate a more representative assessment of impacts of the proposed built form. The 'Development Zone' shown in the April 2021 Land Use Parameter Plan was reduced in scale and refined to allow greater habitat retention and depth of landscape buffers along the Site boundaries within the No Build Zone.

4.5.5 Following discussions between the Applicant and potential future occupiers, the north western Build Zone was split into two, making potential discrete provision for separate commercial units and allowing more detailed assessment of this potential built form.

4.5.6 The Development Zone was also split into the 'Build Zone' defining where construction of the warehouse units could be located and 'Hard Landscaping Zone', proposed for areas of internal access, car parking and servicing. This iteration is illustrated in Figure 4.4 for the Western Development. This splitting of the Development Zone into two-sub-zones accommodated the final access location to the Eastern Development from the B4100 (as discussed in Table 4.1) and allowed a clearer understanding of the proposed locations for warehouse development and parking and servicing areas. This enabled a more detailed understanding of where the likely landscape and visual, noise and cultural heritage constraints would occur. In turn, this informed further development of the landscape design and mitigation strategy through greater understanding of the potential locations of new structures within the Site.

Figure 4.4: Land Use Parameter Plan - Western Development (July 2021)



Submitted Scheme

4.5.7 Following consultation feedback including CDC Landscape and OCC, further environmental testing and design reviews, the Submitted Scheme was developed. An additional landscaping zone was incorporated – the Existing and Enhanced Areas of Landscaping Zone, as illustrated in Figure 4.5 – that made greater provision for landscape buffering along the Site boundary. This is most pertinent on the Eastern Site's western perimeter where the project landscape and visual consultants identified the greatest potential impact to the surrounding landscape and views. The site access locations were also shifted further away from the A43 roundabout to optimise traffic flows.

4.5.8 The PRoW that extends on a south westerly trajectory across the Western Site (ref. 105/5/10) will be diverted to run through the central landscape corridor within the Western Site boundary. This is in accordance with the recommended alignment suggested by OCC during pre-application consultation.

Figure 4.5: Submitted Scheme Land Use Parameter Plan - Western Development (September 2021)

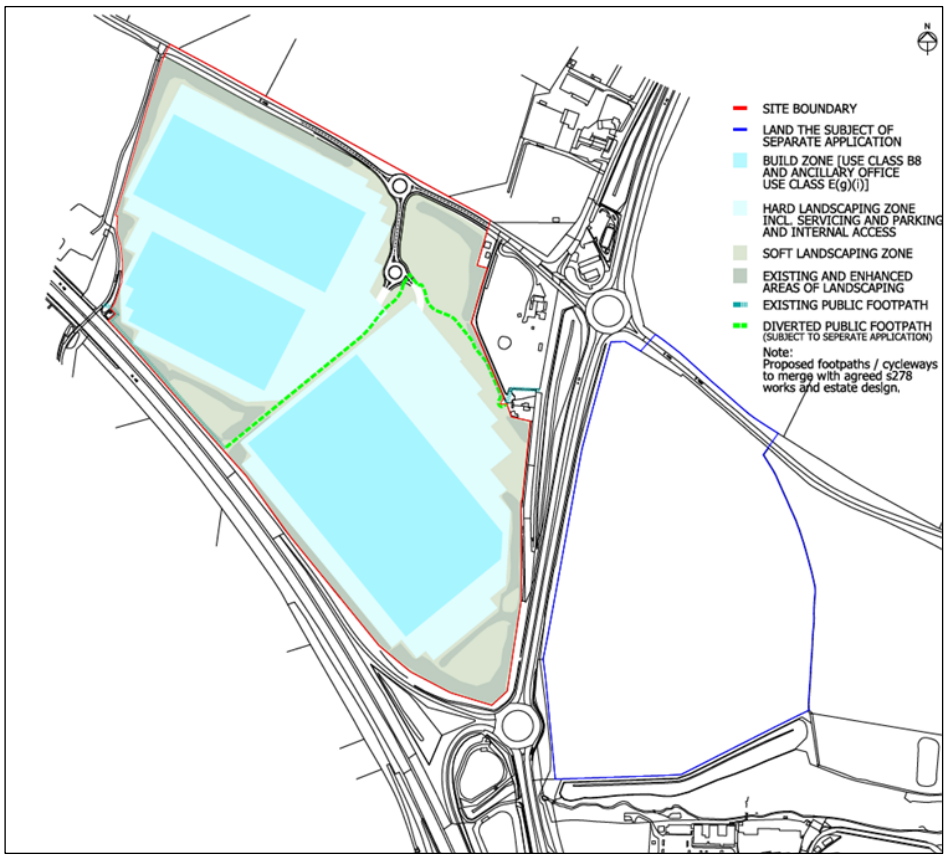
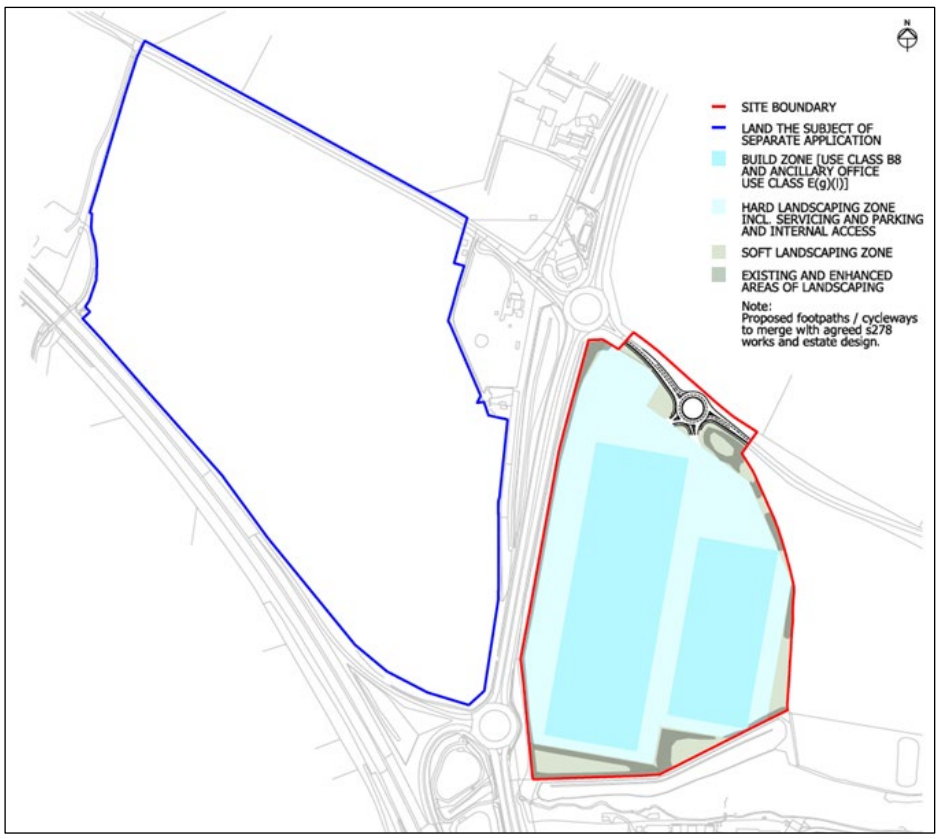


Figure 4.5: Submitted Scheme Land Use Parameter Plan - Eastern Development (September 2021)



4.5.9 Maximum heights of the Submitted Scheme remained unchanged from the Concept Scheme as this was determined by the occupier requirements for the height of proposed warehouse units. An engineering study to define the cut and fill strategy and proposed ground levels informed the proposed site levels that set the maximum heights Above Ordnance Datum on the Building Heights Parameter Plans.

The Submitted Scheme (2021) and the Development (2024)

4.5.10 A high-level comparison of the April 2021 Concept Scheme against the Submitted Scheme is provided below in Table 4.2.

Table 4.2: Comparisons between Concept Scheme (April 2021) and the Submitted Scheme

	Concept Scheme (April 2021)	Submitted Scheme	Change
Commercial warehousing floorspace (Use Class B8) (Gross Internal Area)	277,254 sqm	265,542 sqm	-11,712 sqm
Number of units	4 units (Units 1, 2 and 3 in Western Development and Unit 4 in Eastern Development)	5 units (Units 1, 2 and 3 in Western Development and Units 4 and 5 in Eastern Development)	+1 unit
Maximum Height	23m AOD (ridge height)	23m AOD (ridge height)	No change

4.5.11 The Development has minor amendments to the Submitted Scheme, primarily in response to post-submission consultation with OCC. Alterations were mostly access-related changes, with a proposed roundabout access altered to a T-junction access on the Eastern Development. This form of junction access should provide benefit to traffic flows on the B4100 relative to the roundabout design. Please refer to Chapter 5: Description of Development for further information.

References

[1] Cherwell District Council, 2016. Cherwell Local Plan 2011-2031. December 2016

[2] Cherwell District Council, 2023. Cherwell Local Plan Review 2040 Consultation Draft. September 2023.