

Chapter 4: The Proposed Development

4. The Proposed Development

4.1. Introduction

This chapter describes the physical characteristics of the proposed development, including the land use requirements during the demolition and construction stage and completed development stage, to enable the likely significant effects of the proposed development to be identified.

4.2. The Need for Development

Wrexham CBC is currently preparing their Local Development Plan (LDP) (1), a revised strategic planning framework which will set the planning requirements for achieving sustainable development and identify where and how much new development will be delivered over the period 2013-2028. Once adopted, the LDP will replace the current Unitary Development Plan as the primary planning policy document against which the Council will consider planning applications. The LDP is at an advanced stage, having been examined and found sound by an Inspector. Whilst Wrexham CBC has decided not to adopt the plan at this stage, it remains a material consideration with significant weight, as it has been found sound by a Planning Inspector.

The LDP has been informed by an extensive evidence base, which has assessed the Borough's future needs and explores and identifies options for addressing them. Wrexham CBC's employment land requirements up to 2030 are set out in the Joint Employment Land Review (ELR) (2015) (2). The ELR estimates that 4,200 jobs will be generated across the study area (the Wrexham County Borough and Flintshire County economy) over the lifetime of the development plan, which equates to an employment land requirement of 45ha.

Qualitative research indicates that there is a growing land supply shortfall at Wrexham Industrial Estate, relative to identified demand. Wrexham Industrial Estate is recognised as a nationally and regionally important employment location. The industrial estate has a crucial role to play in delivering the Council's overall spatial strategy in the emerging LDP by contributing to delivering the jobs growth required to support the Council's proposed housing targets.

The ELR therefore identifies a need to allocate 20-30 ha of land at Wrexham Industrial Estate to ensure there are adequate sites to meet the needs of existing and future occupiers. Employment land allocations need to be sufficiently large to meet the needs of occupiers, with individual plot sizes between 2-5 ha deemed appropriate based on enquiries from prospective occupiers.

The allocation of additional land at Wrexham Industrial Estate has been subject to a site selection exercise to ensure that any site proposed for allocation at the Industrial Estate is the most appropriate in relation to environmental factors, accessibility, and infrastructure provision. Background Paper 05 'Wrexham Industrial Estate Expansion Selection' (3) considered two areas of search as possible locations for the expansion of the Industrial Estate: Area A and Area B. Area A is located to the north of the existing industrial estate. The application site at Bryn Lane comprises the majority of land within Area A. Area B comprises the area located to the southwest of the existing industrial estate.

Areas A and B were identified as potential locations to accommodate a strategic employment development due to the scale of infrastructure required to deliver strategic allocations and their proximity to recently completed link roads. Other locations on the edge of the Industrial Estate were not considered viable alternatives due to access, ecology, flooding, and highways constraints.

Following the area of search assessment, the Council set out in the Initial Sustainability Appraisal (2016) which supported the LDP Preferred Options and the Sustainability Appraisal which supported the LDP Deposit Version (2018), that Area A offered the best potential for accommodating a new extension of Wrexham Industrial Estate owing to its lower quality agricultural land, fewer ecology constraints, and proximity to markets accessed from the A483.

The application site is now proposed as an employment allocation under Policy SP11 of the emerging Local Plan, as allocation reference KSS3 'Land to the north of Bryn Lane, Wrexham Industrial Estate'. This policy recognises the potential of the site to deliver approximately 28ha of employment land for B use class purposes, including an ecological network and residential buffer zone, along with necessary infrastructure.

The delivery of the application site for development would contribute to the ability of the Council to deliver its overall spatial strategy within the plan period, would ensure that there is adequate employment provision at Wrexham Industrial Estate to

meet existing and future demand, and is the most sustainable and appropriate site available as demonstrated by the site selection process.

4.3. Planning Application Description

The proposals comprise a commercial development, predominantly comprising industrial and storage & distribution floorspace, with flexibility for ancillary retail/drive thru facilities, a hotel and a petrol filling station (PFS). The description of development as it appears on the hybrid planning application is as follows:

"Hybrid planning application seeking:

- Full planning permission for the demolition of existing buildings and re-profiling of the site for development comprising the severable and phased construction of employment floorspace (Use Class B1c/B2/B8) with ancillary (integral) office floorspace (Use Class B1a) and the provision of associated infrastructure including earthworks, sub-station, parking, landscaping, access from Industrial Estate Road roundabout and Bryn Lane and internal estate road; and
- Outline planning permission for the severable and phased construction of employment floorspace (Use Class B1c/B2/B8) with ancillary (integral) office floorspace (Use Class B1a), ancillary retail and drive thru facilities, a hotel and petrol filling station (Use Class A1/A3/C1/sui generis) and associated infrastructure including earthworks, internal estate road, parking and landscaping (all matters are reserved for future determination)."

4.4. Form of Application, Parameters & Principles

As set out above in the description of development as it appears on the planning application, full planning permission is sought for part of the proposed development, while outline planning permission is sought for the other part.

The part of the application site where full planning permission is sought is hereafter referred to as the 'detailed component', while the part area of the application site where outline planning permission is sought is referred to as the 'outline component'.

The parts of the application site subject to the detailed and outline components of the proposed development are shown in **Figure 4.3.1**. The detailed component is approximately 20.43 ha in size and consists of the central and south-eastern parts of the application site, as well as the south-western corner. The outline component is approximately 16.78 ha in size and consists of the north-eastern and western parts of the application site.

The detailed component of the proposed development is defined by the following detailed plans which have formed the basis of the assessments of this part of the scheme set out in this ES:

- Proposed Masterplan (Detailed Component) (**Figure 4.3.2**);
- Site Layout and Elevation Plans for Units 2 to 7 and 14 to 16 (**Figures 4.3.3 to 4.3.10**);
- Detailed Floorspace Schedule (Detailed Component); and
- Detailed Landscape Strategy (Detailed Component) (**Figure 4.3.11**).

The outline component of the proposed development seeks to reserve all matters for future determination at the reserved matters stage (access, appearance, landscaping, layout and scale). While all matters are reserved for future consideration at the reserved matters stage, a series of development parameters and key development principles have been submitted to Wrexham CBC for formal approval. The parameters that have been submitted alongside the planning application, and which have formed the basis of the assessments of the outline component set out within this ES, comprise:

- Parameters Plan (Outline Component) (including development plots, maximum building heights, maximum floorspaces, landscaping zones, and land use distribution) (**Figure 4.3.12**);
- Principles for the design of the proposed development that would be secured through subsequent reserved matters applications, set out within Section 12 of the Design & Access Statement.

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An illustrative masterplan has also been prepared by the project architects, SGP, which illustrates how the outline component of the scheme could potentially come forward. The Illustrative Masterplan is shown in **Figure 4.3.13**.

The following sections describe the various elements of the proposed development that are relevant to the assessment of its environmental effects. Further detail is provided in the Planning Statement and the Design & Access Statement that accompany the planning application.

4.5. Proposed Development Summary

The detailed component of the proposed development comprises:

- Demolition of all existing buildings, site clearance and preparation works, including removal of vegetation and reprofiling of topsoil, where necessary;
- Construction of a new warehouse unit (53.95 m AOD), providing 33,595 sqm gross external area (GEA) of floorspace for B1c (light industry appropriate in a residential area), B2 (general industrial), and/or B8 (storage and distribution) uses (referred to as Unit 2);
- Construction of eight new small to medium size industrial units (ranging between up to 45.20 m AOD and 52.98 m AOD; referred to as Units 3-7; and 14-16), providing a total of 29,659 sqm GEA of floorspace for B1c (light industry appropriate in a residential area), B2 (general industrial), and/or B8 (storage and distribution) uses;
- Access and parking provision, including new access junctions, internal roads, service yards and car and HGV parking. Two new junctions are proposed providing vehicular access, as well as cycle and pedestrian access, from Bryn Lane/Industrial Estate Road with an additional access road for a substation. 592 car parking spaces (32 accessible spaces) and 138 HGV spaces are proposed within the detailed component;
- Retention and enhancements of some existing on-site green spaces and provision of landscaping around the detailed component of the application site; and
- Implementation of drainage/attenuation measures and ancillary infrastructure, including substation and pumping station.

The outline component of the proposed development comprises:

- Construction of new buildings, up to 59.80 m above ordnance datum (AOD) (28.5m above ground level) in height, collectively providing up to 72,635 sqm GEA of floorspace for B1c (light industry appropriate in a residential area), B2 (general industrial), and B8 (storage and distribution) uses, as well as potential ancillary retail/drive thru facilities, a hotel and a petrol filling station (A1, A3, C1 or sui generis). The overall quantum of A1, A3, C1 and/or sui generis use floorspace would not exceed 16,150 sqm GEA;
- Access and parking provision, including internal roads, service yards and car and HGV parking. Up to 908 car parking spaces and up to 138 HGV trailer spaces and HGV lorry spaces are proposed across the application site;
- Retention and enhancements of some existing on-site green spaces and provision of landscaping around the application site; and
- Implementation of drainage/attenuation measures.

4.6. Proposed Demolition Works

Permission is being sought for demolition of the following two existing residential properties on-site, including all associated outbuildings:

- Honeysuckle Cottage, Francis Lane, located in the north of the application site; and
- Little Acorns, Bryn Lane, located in the south of the application site.

The demolition plan is provided in **Figure 6.2.1**. Further information on the construction programme and methodology is provided in Chapter 6 of this volume of the ES.

4.7. Building Scale & Form

The scale and form of the buildings within the detailed component is shown in the Proposed Masterplan (Detailed Component) (**Figure 4.3.2**) and the detailed component layout and elevation plans (**Figures 4.4.3 to 4.3.11**).

One large warehouse unit (Unit 2) is proposed in the south-east of the application site, while eight small to medium sized units are proposed around the centre of the application site (Units 3-7 and 14-16). The maximum height of the proposed buildings in the detailed component is 53.95 m AOD (Unit 2). The proposed building heights of units within the detailed component are set out in **Table 4.7.1**.

Table 4.7.1
Detailed Component: Proposed Building Heights

Unit	Height	
	Storeys (Office element)	m above ordnance datum (AOD)
2	3	53.95
3	2	45.5
4	2	46.15
5	2	46.9
6	2	53
7	2	52.975
14	2	45.2
15	2	45.2
16	2	49.5

Source: Stephen George + Partners (Architects)

Given that the layout and scale of the proposed buildings within the outline component are reserved for future determination, the form of the individual buildings cannot be confirmed at this stage. To inform the assessments in the ES, the maximum footprints and building heights of the built form on each development zone have been set out on the Parameters Plan (Outline Component) (**Figure 4.3.12**).

Three development zones are proposed within the outline component, which are referred to on the parameter plans as:

- Zone A1;
- Zone A2; and
- Zone B.

Zone A1 is located in the south-west of the application site, north of Bryn Lane and north-east of the Industrial Estate Road roundabout. Zone A1 comprises a developable area of 1.22ha. Built form within this development zone would have a maximum height of 53.25 m AOD.

Zone A2 is located in the north-west of the application site, north of Zone A1 and the main arterial access road proposed through the application site, and east of the Industrial Estate Road. Zone A2 comprises a developable area of 3.26 ha. Built form within this development zone would have a maximum height of 56.05 m AOD.

Zone B is located in the north-east of the application site, to the north and east of the detailed component and to the south and west of the surrounding agricultural land. Zone B comprises a developable area of 8.02 ha. Built form within this development zone would have a maximum height of 59.80 m AOD. The maximum building heights proposed in each development zone are summarised in **Table 4.7.2** below.

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Table 4.7.2
Outline Component: Proposed Maximum Building Heights

Development Zone	Maximum Height	
	m agl	mAOD
A1	20.00	53.25
A2	20.00	56.05
B	28.5	59.80

Source: Stephen George + Partners (Architects)

4.8. Proposed Land Uses

Table 4.8.1 sets out a breakdown of the proposed uses for which planning permission is being sought. In respect of the outline component, the Applicant is seeking permission for maximum floorspace parameters, including flexibility for additional use classes (Use Classes A1, A3, C1 & *Sui Generis*).

Table 4.8.1
Proposed Development Area Schedule

Land Use	Detailed Component Proposed Floorspace (sqm)		Outline Component Proposed Maximum Floorspace (sqm)	
	GIA	GEA	GIA	GEA
B1c (light industry appropriate in a residential area), B2 (general industrial), and/or B8 (storage and distribution)	61,423	63,254	-	-
B1c (light industry appropriate in a residential area), B2 (general industrial), and/or B8 (storage and distribution), as well as potentially A1/A3 (ancillary retail/ drive thru facilities), C1 (hotel), and/or <i>sui generis</i> (petrol filling station)	-	-	70,520	72,635*
Notes: *The overall quantum of A1, A3, C1 or <i>sui generis</i> contributing to this total would not exceed 16,150 sqm GEA.				

Source: Stephen George Architects

Each of the technical assessments reported in ES Volumes II & III, have been undertaken based on the maximum floorspace proposed for the outline component to ensure a worst-case scenario has been assessed. This is with the exception of the socio-economics assessment. As set out in Chapter 7: Socio-Economics, to assess a worst-case in respect of the employment generated by the proposed development, a minimum floorspace quantum has been used for the outline component to inform the assessment. The minimum floorspace quantum that has been used is 47,500 sqm GEA, which is considered to be representative of a reasonable conservative scenario. For the avoidance of doubt, this minimum floorspace quantum is a conservative estimate only. The Applicant is not seeking to set limits on the minimum floorspace to be delivered at the application site.

4.8.1. Industrial/Storage & Distribution Floorspace

Permission is being sought for provision of up to 135,889 sqm GEA of industrial/storage & distribution floorspace within the proposed development, comprising use classes B1c (light industry appropriate in a residential area), B2 (general industrial) and B8 (storage and distribution).

A total of 63,254 sqm GEA would be delivered within all 9 units within the detailed component (Units 2-7 and 14-16). Within each of these units, the industrial/storage & distribution floorspace would be delivered across an open plan, single warehouse floor. Segregated ancillary office floorspace would also be provided in each unit. In each case, a principle office space would be provided at one end of the unit. For Unit 2, this space would be three storeys in height, while for the other units, this space would be two storeys in height. Smaller, 2 storey, hub office spaces are also proposed within larger units, which would be accessible from both the warehouse floor and the service yard, which is intended to provide good surveillance for deliveries and operations within the service yards, as well as to provide driver amenity facilities.

The service yards have been sized in line with the size of the unit(s) it serves, as well as to accommodate the dimensions and turning circles of modern articulated vehicles. The service yards would be positioned next to the warehouse floor, which would be accessed via a one level access door.

Up to 72,635 sqm GEA of industrial/storage & distribution floorspace would be delivered in the outline component across the three development zones, as follows:

- A maximum of 6,283 sqm GEA would be delivered within Zone A1;
- A maximum of 16,789 sqm GEA would be delivered within Zone A2; and
- A maximum of 49,563 sqm GEA would be delivered within Zone B.

4.8.2. Flexible Retail / Commercial / Hotel / Petrol Filing Station Floorspace

Permission is being sought for up to 16,150 sqm GEA of flexible floorspace, within the total floorspace of 135,889 sq m GEA, for retail (use class A1), restaurants and cafés, including drive thru facilities (use class A3), hotel (use class C1) and/or a petrol filling station (PFS) (use class *sui generis*).

These uses are proposed within the outline component and, if delivered, would be brought forward within Zones A1 and A2 in the west of the application site.

The key assumptions regarding the consideration of these uses that have informed the technical assessments are as follows:

- The illustrative masterplan includes a hotel that could comprise 90 keys/rooms. To ensure a conservative assessment, a 100 key/room hotel has been assumed for the purposes of the relevant assessments. Where an even more conservative assessment has been undertaken, this is stated clearly. Refer to ES Volume II, Chapter 8 *Transport* and Chapter 12 *Ground Conditions & Contamination* for further information.
- In respect of the potential for a petrol filing station (PFS), based on market demand and the typical size of petrol filing stations, it has been assumed that the PFS could comprise up to 10 bays for the purposes of the relevant assessments (refer to ES Volume II, Chapter 8 *Transport* and Chapter 10 *Noise and Vibration* for further information).

4.8.3. Operational Assumptions

The proposed development would operate 24 hours a day, 7 days a week. Whilst it is expected that operations during the night time hours would be reduced on comparison with daytime operations, the noise assessment has been undertaken on a worst-case assumption that the proposed development would remain 100% operational during night-time hours (i.e. between 23:00 & 07:00) (refer to Chapter 10 *Noise and Vibration*).

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4.9. Materiality

The materiality of the proposed buildings will be informed by the functional parameters and the nature of the proposed uses, with a more functional design used for industrial/storage & distribution uses and a more innovative design for the ancillary office uses.

Details regarding the materiality of the outline component would be secured at the reserved matters stage. However, the design would adhere to the principles and commitments as set out in Sections 12.1 and 12.2 of the Design and Access Statement. The proposed design of the units applied for in detail are shown in the submitted Design & Access Statement and on the proposed elevation plans.

4.9.1. Industrial/Storage & Distribution Materiality

Detailed Component

Key design and materiality features relating to the individual units within the detailed component are summarised below.

Unit 2

Unit 2 would comprise a steel-framed unit. Given that Unit 2 would comprise the largest building within the detailed component, with an overall length of 228 m and a width of 138 m, the materiality has been selected to break up the massing. In this regard, the façade would be broken up using horizontal cladding elements, as well as loading docks plus dock doors at low levels, and canopies above level access doors which create a strong horizontal shadow line across the length of the building. Blue feature bands would define the façade extents, as well as define the transition between the warehouse space and primary ancillary office space.

As shown in **Figure 4.3.3**, the façade for the primary ancillary office space would be glazed to provide a more human-interface and also provide contrast to the rest of the unit, which is characterized by a more solid form.

Units 3, 4 & 5

Located adjacent to one another in the central-western part of the application site, Units 3, 4 & 5 share the same design principles and would comprise steel-framed distribution units. As shown in **Figures 4.3.3 to 4.3.6**, the massing would be broken up horizontally with various cladding elements as well as level access doors which would create a strong break and pause from long side elevations along the length of the building. Blue feature bands would also define the façade extents, as well as the transition between the warehouse space and primary ancillary office space.

The façade for the ancillary office space would be glazed to provide a more human-interface and also provide contrast to the rest of each unit, which is characterized by a more solid form.

Unit 6

Unit 6 would comprise a steel-framed unit.

As shown in **Figure 4.3.7**, massing would be broken up horizontally with various cladding elements as well as dock levellers and level access doors which would create a strong break and pause from long side elevations along the length of the building. Blue feature bands would also define the façade extents, as well as the transition between the warehouse space and primary ancillary office space.

The one storey mezzanine office at ground level would also break up the massing. The façade for this ancillary office space would be glazed to provide a more human-interface and also provide contrast to the rest of the unit, which is characterized by a more solid form.

Unit 7

Unit 7 would comprise a steel-framed unit. As shown in **Figure 4.3.8**, massing would be broken up horizontally with various cladding elements as well as loading docks plus dock doors at low levels, and canopies above level access doors which create

a strong horizontal shadow line along the length of the building. Blue feature bands would also define the façade extents, as well as the transition between the warehouse space and primary ancillary office space.

The façade for the primary ancillary office space would be glazed to provide a more human-interface and also provide contrast to the rest of the unit, which is characterized by a more solid form.

Units 14 & 15

Located adjacent to one another in the central-eastern part of the application site, Units 14 & 15 would follow the same design principles. The units would comprise a steel-framed unit.

The two storey offices at the west and east of the units would break up the massing of the units when viewed from site entrances.

As shown in **Figures 4.3.9 to 4.3.10**, massing would also be broken up horizontally with various cladding elements as well as loading docks plus dock doors at low levels, and canopies above level access doors which create a strong horizontal shadow line along the length of the building. Blue feature bands would also define the façade extents, as well as the transition between the warehouse space and primary ancillary office space.

The façade for the primary ancillary office space would be glazed to provide a more human-interface and also provide contrast to the rest of the unit, which is characterized by a more solid form.

Unit 16

The unit would comprise a steel-framed unit.

The two storey offices at the north-west of the unit would break up the massing of the unit when viewed from the site entrance.

As shown in **Figures 4.3.11**, massing would also be broken up horizontally with various cladding elements as well as level access doors which create a strong break and pause from long side elevations along the front of the building. Blue feature bands would also define the façade extents, as well as the transition between the warehouse space and primary ancillary office space.

The façade for the primary ancillary office space would be glazed to provide a more human-interface and also provide contrast to the rest of the unit, which is characterized by a more solid form.

Outline Component

The key design features of the units within the outline component of the proposed development are summarised as follows:

- The industrial/storage & distribution units will comprise steel-framed structures, with clear internal height above floor level to the underside of the eaves.
- To break up the scale and appearance of the units, the materiality of the structures will be varied, including elements of ribbed and flat composite cladding panels and built up profiled cladding systems laid both horizontally and vertically. A selection of neutral colours will be used to reduce the visual impact of units upon the surrounding environment, with the possibility for the use of stronger colours in feature bands, flashings and fascias. Glazing may be used at lower levels to offer contrast and relief and create individuality for occupiers.
- The roofs of the industrial units would comprise colour coated profiled steel. As above, a muted colour palette would be used to reduce the effect of the mass of the buildings, while stronger colours would be used to distinguish building features and provide corporate branding opportunities for occupiers.
- To enhance the pedestrian interface with the industrial units, features such as curtain walling entrance features and aluminium framed glazing/window systems would be used.

4.9.2. Flexible Retail / Commercial / Hotel / Petrol Filling Station Materiality

The materiality of the proposed buildings for the potential alternative uses within the outline component would be determined at the reserved matters stage and would be subject to occupier requirements. The materiality used would consist of an

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architectural language consistent with the industrial and commercial character of the rest of the proposed development. Whilst the potential hotel would provide for a more flexible design aesthetic at the entrance to the application site, this too will be designed to accord with the surrounding context.

4.10. Site Access & Servicing Arrangements

The proposed site accesses and key arterial route within the proposed development forms part of the detailed component and is shown in **Figure 4.3.2**.

Primary vehicular access to the application site will be provided via a new junction off the existing Industrial Estate Road roundabout in the south-western corner of the application site. The new junction will connect to the key arterial route which will run in a general west-to-east alignment through the application site. The arterial route will provide two-way vehicular access sitewide, including to the service yards associated with each of the industrial units, as well as the other potential uses, such as the drive thru, hotel and PFS.

A second vehicle access will be provided via a new priority right turn island junction from Bryn Lane in the south of the application site adjacent to Unit 2, which will connect to the key arterial route via an internal two-way road. A pedestrian refuse island is proposed to the west of this access point to assist with crossing Bryn Lane.

A third vehicle access point will provide access to the primary substation in the south-eastern corner of the application site from Ridleywood Road.

As shown on the Parameters Plan (**Figure 4.3.12**), access to the development zones within the outline component could be provided anywhere along the boundary between the development zones and the key arterial route. Vehicle access and servicing arrangements for each development zone would be agreed at the reserved matters stage. In respect of the potential PFS and drivethrus, if delivered, vehicular access to these uses would be two-way; however, within the PFS and drivethrus itself, circulation would be one-way.

Minimisation of individual car travel will be encouraged and occupiers on-site will be subject to an approved Travel Plan.

Cycle and pedestrian routes would be provided across the application site. The pedestrian routes would be 3 m wide and on-site crossing points would be provided where required.

The service yard areas for each of the industrial units are/would be sized such that they can accommodate modern articulated vehicles and their turning circles.

To create a secure environment, 2.4 m high security fencing is proposed around the perimeter of industrial units and associated service yard areas. Access to service yards would be controlled via a gatehouse or remotely controlled gates to ensure that unauthorized access is not permitted. The boundary treatment details for the outline component would be designed and agreed at the reserved matters stage.

Light fittings relating to all external works would be 'Dark Skies' compliant in line with CIBSE Lighting Guide LG6: 1992 and lights would be optically set to direct light only where required and to minimise light spill.

4.10.1. Parking

Car parking spaces, HGV trailer spaces and HGV lorry spaces are proposed across the application site and would be provided in accordance with Wrexham CBC's standards.

Up to 1,500 car parking spaces will be provided within the proposed development, with 592 car parking spaces proposed within the detailed component and up to 908 proposed in the outline component. Accessible parking would be provided in line with Wrexham CBC standards.

Up to 300 HGV parking spaces would be provided within the proposed development, with 138 HGV parking spaces proposed within the detailed component and up to 162 proposed within the outline component. The design and use of the lorry parking area in the outline component would be determined at the reserved matters stage.

Car park areas would be screened through the use of mounding, fencing and planting, as necessary.

130 cycle parking spaces will be provided within the detailed component. Cycle parking within the outline component would be provided in accordance with Wrexham CBC standards. Secure, covered cycle parking areas will be provided for each unit and will be located in close proximity to the office accommodation entrances. Shower and changing facilities would be provided within all units to encourage non-car travel.

Car and cycle parking would be separated from the service yards and HGV access points.

Further details on proposed parking arrangements within the outline component would be secured through subsequent reserved matters applications.

4.10.2. Waste Management

Each unit would be provided with its own refuse store which would be accessed through the service yards. Each refuse store would include provision for general waste and recyclables, as well as bulk storage, in line with industry requirements. The future occupiers of each unit would be responsible for producing and implementing their own waste management strategy to meet their operational needs.

4.11. Landscaping & Open Space

The proposed landscaping and open space proposals are set out within the Detailed Landscape Strategy (**Figure 4.3.11**) for the detailed component and the Parameters Plan (**Figure 4.3.12**) for the outline component.

As discussed in ES Chapter 5: Alternatives and Design Evolution, the landscaping and open space proposals have been a key part of the proposed development's design and layout. In line with the application site's allocation within the emerging Wrexham Local Development Plan (the KSS3 site), the landscaping proposals have been designed to retain and deliver an ecological network across the application site, as well as provide a buffer to surrounding residents.

Ecological Network

The landscaping proposals comprise a series of connected areas of soft landscaping running along the application site's perimeter, along the internal road network and between the proposed developable areas. As shown in the detailed landscape strategy (**Figure 4.3.11**), the proposed development would deliver a key north to south ecological corridor that will run down the centre of the application site, between Units 3 to 5 in the detailed component and Zone B in the outline component.

Across the application site, the areas of soft landscaping would comprise the implementation of new species and habitats, as well as the retention of existing species and habitats, including trees and ponds, which have been identified as supporting the existing Great Crested Newt (GCN) population (refer to Chapter 11 *Biodiversity*). Habitats to be retained across the detailed component, as well as commitments being made at this stage in relation to habitats to be retained within the outline component, are shown in **Figure 4.3.14** (tree retention plan) and **Figure 4.3.16** (pond strategy). The strategy for trees and ponds can be summarised as follows:

- Within the detailed component, a total of 88 scattered trees (covering an approximate area of 0.72 ha), 13 hedgerows (with a total length of approximately 1.81 km) and ten tree groups will be retained. Within the outline component, a minimum of 34 trees, 6 hedges and 7 tree groups are proposed to be retained. Trees and hedgerows to be retained will be protected in accordance with BS5837:2012 and based on the approved Tree Protection Plan (See ES Volume IV, Appendix 11.3: Arboricultural Impact Assessment). A minimum of 1,121 new trees are proposed to be planted, comprising 575 in the detailed component and a minimum of 546 in the outline component.
- Of the seven existing ponds on-site, two pond in the centre of the application site would be retained and enhanced and incorporated into the green corridor. A further 16 'stepping stone' ponds will be created within the proposed ecological corridor. Three of the existing ponds located in the north-west area will be combined and relocated in a nearby location. Similarly, one pond in the north-east and one pond in the south-east will be relocated in a nearby location to their original position.

The proposed ecological corridor is intended to connect the existing ecological corridor, which runs through the application site, connecting Wrexham's industrial estate to the south, with the agricultural land to the north. The ecological corridor would

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be approximately 38m wide. As mentioned above, it will deliver a series of 21 ponds (two existing, three relocated and sixteen new) and other suitable habitat for GCNs and other species. A 200 x 200 mm concrete wildlife tunnel would be delivered beneath the proposed key arterial route and would connect the ecological corridor with the agricultural land to the south of the application site.

The overall landscaping strategy for the proposed development is intended to deliver extensive landscaping and biodiverse habitats. In addition to the pond and tree proposals noted above, the proposed development would include the following ecological provisions:

- A mixture of native trees (with a particular focus on Pendunculate Oak which occurs frequently in the area), native hedgerows, native pollinator trees, wildflower grassland mixes, native and non-native shrub and ornamental herbaceous planting will be included within the landscaping strategy;
- A minimum of 25 bird and 25 bat boxes will be provided; and
- Butterfly and bee banks will be provided in identified locations using sharp sand over soil in a linear or horseshoe shape on south and south-westerly facing areas.

Residential Buffer

As shown in **Figure 4.3.11** and **Figure 4.3.12**, a bund is proposed along the north-eastern, northern and north-western boundaries of the application site. The bund would range between 3 m and 5 m in height above ground level (between approximately 33 m AOD and 39 m AOD) and is intended to provide visual and acoustic screening of the proposed development from the surrounding sensitive receptors, including the residential receptors along Hugmore Lane and at Holt Lodge Farm to the north-west and the public right of way (PRoW) to the north.

Whilst the exact bund heights within the outline component will be secured at the reserved matters stage, the bund height in the north-west corner will be 5 m agl (approximately 44 m AOD) to provide the required screening to the aforementioned residential receptors. The bund height elsewhere within the outline component would be a minimum of 3 m agl (ranging between approximately 33 m AOD and 39 m AOD).

The bunds will be formed using the cut and fill materials generated from the earthworks during the demolition and construction stage and will be planted with wildflower grass mixes, native trees, native scrub mixes to lower areas and scarified 'bare-earth' mosaic patches for locally occurring rare butterfly habitat creation.

Amenity Space

An approximate 2,250 m long wellness trail would be delivered around the application site, which would also connect with the public footpath to the north. The wellness trail would be lined with hedgerows and mounding with plentiful soft landscaping and grasslands. Seating areas and decking walkways would flank the trail to create opportunities for sitting and help achieve a relaxing place for users of the trail. Fitness points would also be provided along the trail.

The landscaping and open space details for the outline component would be secured at the reserved matters stage.

Hardstanding

Car parking access roads and parking bays would be surfaced in a flexible bituminous material. Parking bays would not be surfaced with any material that may be adversely affected by spills from standing vehicles.

Pedestrian links through car park areas would also be picked out in a contrasting material and rumble strips should be introduced at transition points.

As discussed in Section 4.10.1 above, car park areas would be screened through the use of mounding, fencing and planting, as necessary. Soft landscaping will be integrated into the car parking areas to enhance the visual appearance. In this regard, parking bays would be capped with tree and shrub planting.

In the interests of safety, the design of car parking areas and other pedestrian areas would ensure that soft landscaping in these areas does not obscure visibility and that there are no hiding places.

As above the soft and hard landscaping details for the outline component would be secured at the reserved matters stage.

4.12. Surface & Foul Water Drainage

Surface Water Drainage Strategy

The proposed surface water drainage strategy is presented in the Storm Water / SuDS Maintenance Plan and submitted drainage plans, which have been prepared to accompany this planning application. The submitted Flood Consequence Assessment demonstrates how peak rainfall associated with a 1 in 100 year probability event (including 40% increase in rainfall to account for climate change) would be accommodated within the proposed development without causing flooding inside or outside the application site.

The key components of the drainage strategy can be summarised as follows:

- A range of SuDS features would be provided throughout the proposed development, including swales, permeable paving and tree pits, where feasible.
- Surface water would be discharged to the existing watercourse to the east of the application site and peak forward flow would be restricted to QBAR for existing greenfield run-off rate.
- Due to the depth of the existing watercourse, surface water would be required to be lifted via a pump system to achieve the discharge point.

Foul Water Drainage Strategy

In the first instance it is proposed to discharge foul water to the existing sewerage network. All sewers would be constructed to comply with Part H of the Building Regulations. The suitability of design and the quality of sewer construction would be ensured by adopting high standards of workmanship and adhering to the DEFRA Protocol on Design, Construction and Adoption of Sewers. All excavation works associated with managing surface water runoff and associated pipework would require the excavation of certain amounts of spoil which would be managed responsibly.

Furthermore, the introduction of low water consumption appliances and recycling throughout the proposed development, wherever possible, would minimise the volumes of potable water consumption and foul water discharge resulting from the site activity. Such measures would be considered at the detailed design stage.

As discussed in Chapter 3: Application Site and Surrounding Area and Chapter 11: Biodiversity, the River Dee is subject to a statutory ecological designation (the River Dee and Bala Lake SAC) and new developments must demonstrate that they would not contribute to increasing phosphate levels entering the River Dee catchment. As discussed in Appendix 12.1, Volume IV, it has been assumed that the proposed development would result in a phosphate load ranging between 7 and 33 kg TP/year for a 1mg/l phosphate permit and between 0.5 and 19 kg TP/year for a 0.7 mg/l phosphate permit. This has been based on a conservative calculation using the worst-case land uses, as well as precautionary assumptions requested by Wrexham CBC. Initial consultation with Dwr Cymru Welsh Water (DCWW) has confirmed that there is unlikely to be sufficient headroom to treat the wastewater & phosphate load that would be generated by the proposed development. As such, a second option for an on-site wastewater treatment system has been designed to ensure that there would be no phosphate impacts to the River Dee SAC, should it be required following confirmation from DCWW. The wastewater treatment system comprises a series of 5 modular tank systems which would be located across the application site and would treat waste coming from the individual units before feeding into the proposed foul water drainage system. The foul water drainage system would flow across the centre of application site to a pumping station in the east, which would discharge into the existing ditch, which runs in a north-south orientation.

The modular tanks proposed would comprise a two-stage treatment process, including biological treatment followed by Hydro's Electrocoagulation (EC) system. The tanks would be installed below ground. The exact scale of on-site treatment required would be determined during the detailed design stages & following completion of consultation with Natural Resource Wales, Wrexham CBC and DCWW.

4. The Proposed Development

4.13. Energy

An Energy Statement has been prepared to accompany this planning application. The Energy Statement sets out what passive design, energy efficient, clean systems and renewable technology interventions are available to achieve energy and sustainability intentions. The proposed energy strategy is set out in **Table 4.13.1**.

Table 4.13.1
Proposed Energy Strategy

Stage	Energy Strategy
Passive measures	In order to achieve a development that complies with Building Regulations and improve upon the baseline target CO ₂ emission rate, the following passive design measures are considered for the design: - Efficient building envelope with enhanced U-values. - Enhanced air permeability to reduce heating demand in the winter months. - Glazed façades throughout office space to provide natural daylighting and reduce reliance on artificial lighting. - Balanced g-value for translucent elements to ensure optimised internal conditions in the winter and summer months.
Energy Efficiency	The following high efficiency systems, plants, controls and equipment would be incorporated into the proposed development: - Energy efficient LED lighting. - Enhanced and automated lighting control system. - Optimised plant controls. - Variable speed drives to ensure energy usage matches demand requirements. - Heat recovery on ventilation systems.
Clean systems	Multiple options for clean technology for use in the proposed development would be considered as the designs are developed and further review would be developed as new technologies become available. System selection would focus on electric systems in support of a decarbonising grid and the scheme's net zero carbon journey. It is anticipated that air source heat pumps (ASHPs) would be used to heat and cool the ancillary office areas, as well as the potential non-industrial land uses which may be delivered, such as the hotel.
Renewable technology	Photovoltaic cells (PVs) are proposed on roofs across the proposed development (i.e., the omission of space taken by roof lights; man-safe working and the roof signage). The level of PVs installed would be subject to individual occupier requirements and/or the technical ability and viability in the exportation of electricity generated by the PVs into the National Grid. This is to prevent installation and manufacture of unused PV panels and allows the most up to date technology to be fitted when required. A minimum of 18% of PVs would be installed prior to occupation of each building to provide the normal base load of electricity to the unit prior to occupier specific requirements. The details of the PV panels can be secured by way of an appropriately worded planning condition.

The ultimate capacity required by the complete development is in excess of the available capacity within the local Scottish Power Energy Network (SPEN) 11KV (HV) network and therefore it has been established that the connection to the SPEN system would be at 33KV (EHV) via a new 33KV/11KV Primary Sub-Station located in the south eastern corner of the application site.

To facilitate the early stages of development, however, until such time as the Primary Sub-Station is built and energised, a connection would be made to the SPEN 11KV HV system to provide an interim solution to enable the first buildings to be constructed and occupied making use of the remaining available capacity that can be drawn at 11KV from the network in the area.

The design of the electrical distribution network would allow excess renewable energy generated within the development to be exported back to the grid.

4.14. Utilities

Given that the proposed development would comprise the development of agricultural land, new utility capacities would be required. All utility providers (electricity, gas, water, telecoms) have been consulted and all have developed preliminary feasibility studies to confirm that they are able to provide new infrastructure and capacities to support the development.

4.15. Associated Development

Given the hybrid nature of the planning application, the full extent of any associated development, such as utilities or junction works outside the application site boundary, are not confirmed at this stage. However, any such works are not expected to be substantial in the context of the proposed development as a whole and are not considered likely to affect the outcome of this assessment presented in Volumes II and III of this ES.

4.16. Works Cited

1. Council, Wrexham County Borough. *Draft Wrexham Local Development Plan 2013-2028*. 2023.
2. Council, Wrexham County Borough Council and Flintshire County. Joint Employment Land Review. [Online] BE Group, October 2015. <https://www.flintshire.gov.uk/en/PDFFiles/Planning/Evidence-Base-Documents/Employment/LDP-EBD-EM1-Employment-Land-Review-Final-Report-%E2%80%93October-2015.pdf>.
3. Council, Wrexham County Borough. *Wrexham Local Development Plan 2013-2028: BP5 - Wrexham Industrial Estate Expansion Selection*. 2016.