

3 Proposed Development

3.1 Introduction

3.1.1 This chapter provides the definitive description of the Proposed Development for the purposes of the EIA.

3.1.2 The chapter identifies the demolition, construction and operational design features of the Proposed Development that might affect the environment or contribute to the overall environmental effects of the scheme. Given that the intention of the Proposed Development is to provide residential development as part of a new Garden community, the environmental effects of decommissioning have not been considered.

3.2 Development Description

3.2.1 The description of the development is as follows:

“Application for the phased development of a new community at Loddon Garden Village, comprising, in outline:

- *up to 2,800 residential units to include up to 100 custom and self-build plots;*
- *2 primary schools (up to 3 forms of entry) to include early years provision and 1 secondary school (up to 12 forms of entry);*
- *one District Centre, to incorporate up to 11,000m² of Class E (Commercial, Business and Service, to include a including food store of around 2,500m²), and Class F (Local Community and Learning);*
- *one Local Centre; to incorporate up to 2,400m² of Class E;*
- *a Sports Hub to include sports pitches and pavilion space;*
- *up to 4,250m² of further Class E, Class F and sui generis development to include commercial, health care and public house;*
- *comprehensive green infrastructure including a Country Park, landscaping and public open space, and ecological enhancement measures;*
- *20 gypsy and traveller pitches;*
- *comprehensive drainage and flood alleviation measures to include Sustainable Urban Drainage Systems (SUDS) and engineering measures within Loddon Valley for the River Loddon;*
- *internal road network including spine road with pedestrian and cycle connections and associated supporting infrastructure;*
- *new and modified public rights of way;*
- *associated utilities, infrastructure, and engineering works, including the undergrounding of overhead lines;*

- *Ground reprofiling to accommodate infrastructure, flood alleviation and development parcels;*
- *Up to 0.5ha of land adjoining St Bartholomew's church for use as cemetery;*
- *Electricity substation (up to 1.5ha)*

All matters reserved other than access, incorporating:

- *a new pedestrian, cycle and vehicular access to Lower Earley Way via a new 4th arm to the Meldreth Way roundabout;*
- *a new pedestrian, cycle and vehicular bridge over the M4;*
- *a new pedestrian, cycle and vehicular bridge over the River Loddon;*
- *a new vehicular access to the A327 Reading Road, via a new arm to the Observer Way roundabout;*
- *a new pedestrian, cycle and vehicular access to Thames Valley Science Park;*
- *an initial phase of internal roads with associated drainage, landscape and engineering works and ground reprofiling, between the A327 and the south eastern boundary of the Site.*

Application includes full permission for the change of use of 40.4 hectares of agricultural land to Suitable Alternative Natural Greenspace (SANG), 18.35 hectares of SANG link, and provision of Biodiversity Net Gain measures, the demolition and clearance of 20,809 m² of buildings and structures at the Centre for Dairy Research (CEDAR) and at Hall Farm, the demolition of 3 existing dwellings on Carter's Hill Lane, and the retention of specified buildings at Hall Farm."

3.2.2 The EIA has assessed the quantum of development set out above alongside the spatial parameters set out within the Parameter Plans.

3.2.3 The EIA has been undertaken on the basis of the Parameter Plans and detailed design drawings set out in Table 3.4 at the end of this chapter. These are provided in ES Volume 1b – Main Statement Figures and Drawings.

3.2.4 The Proposed Development is defined by the Parameter Plans. These define the maximum parameters in terms of land use areas, building heights and transport routes which reflect the outline nature of the application. Further detail of the Proposed Development and its anticipated delivery is provided below. The Parameter Plans submitted as part of the outline elements of this hybrid application establish the maximum envelope of development applied for.

- **Figure 3.1 – PP01 Land Use Plan (and Figure 3.1A – PP01A Land Use Plan (Community Hub Detailed Plan))** – The land uses Parameter Plans set out the areas identified for residential development, commercial development, the community hub, educational facilities, district centres and open space. The plan shows that development is centred around a spine road (primary streets) that links to Lower Earley Way to the north and the A327 to the southwest as well as connecting to the Wider SDL through the Gleeson land in the southeast and Hatch Farm land in the northeast.
- **Figure 3.2 – PP02 Landscape** – The landscape parameter plan sets out areas within the northwest of the Site for ecological enhancement and SANG, namely the EcoValley which occupy a substantial part of the Site. Attenuation basins are located throughout

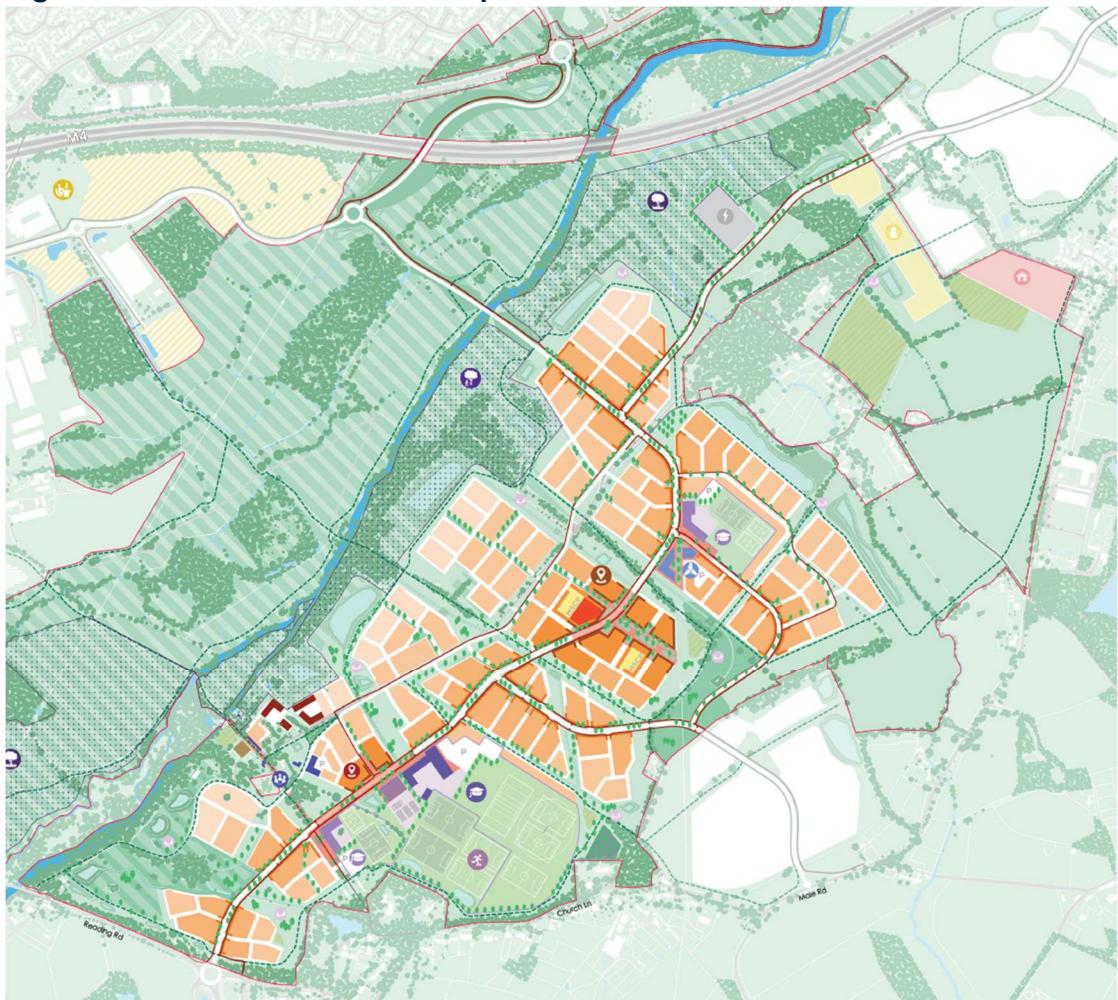
the Site to capture surface water and drain this sustainably. The plan also shows areas of the Site identified for areas of Public Open Space, play spaces, outdoor sports facilities, general amenity, sports, civic space, parks & gardens and food growing as well as areas retained as agricultural land.

- **Figure 3.3 – PP03 Movement** – The access and movement Parameter Plan envisions a clear hierarchy of streets that are safe and legible. The road network creates a permeable development. The Site is proposed to have two primary vehicular access routes from the north (B3270 Lower Earley Way and southwest (from A327 Reading Road). To the east connections will be made to the Hatch Farm Land development and to the South to the Gleeson development. Pedestrian and cycle access points will be provided through the EcoValley/SANG to the northwest and throughout the Site, primarily following routes of existing PROWs whilst diverting others.
- **Figure 3.4 – PP04 Density** – A range of densities are proposed across the Site. High density areas (60+dph) are proposed in the mixed use centre and retail areas to the centre and southwest. Medium-high density areas (50-59 dph) are proposed to the centre, north and south of the Site. Medium-low density (40-49 dph) and low density areas (30-39 dph) are proposed to the fringes of the Site where views are likely to be more sensitive to built development.
- **Figure 3.5 – PP05 Building Heights (and PP05A Building Heights (Community Hub Detailed Plan))** – The maximum building heights parameters aim to maximise housing delivery while also considering the sensitivities of the surrounding context. The plan shows maximum proposed heights up to five storeys (<18m height), located within the mixed use centre in the centre of the spine road and to the southwest as part of the retail uses and educational facilities. Buildings up to 3.5 storeys (<12m height) are dispersed across most of the Site through the residential parcels providing a contrast with the other built development. The remainder of the Site consists of buildings up to 2.5 storeys (<9m height) on the more sensitive edges of the development area.
- **Figure 3.6 – PP06 Combined Parameter Plan** – This combines the land use, development areas, open space and movement Parameter Plans into a comprehensive plan which future Reserved Matters applications will be based on.

3.2.5 The Illustrative Masterplan for the Proposed Development is shown in Figure 3.7. The plan sets out an illustrative layout for the development of the Site within the redline boundary. The Site area is approximately 397 Ha.

3.2.6 Figure 3.7 shows an extract of the Illustrative Masterplan which has been iteratively refined with consultation from the Council. This provides an indicative overview of the proposal as a whole based on the outline Parameter Plans submitted in the application.

Figure 3.7 IM01 Illustrative Masterplan



3.2.7 This section describes in detail, the Proposed Development and the associated technical studies.

Land Use

3.2.8 The Site measures approximately 397 hectares overall. The Land Use plan sets out areas across the Site, within which the major components, as shown on the Parameter Plans, include:

- Residential development: circa 54.3ha
- Mixed-use centres (including Class E and F): circa 5.2ha
- Self-build: circa 2.6ha
- Education (primary and secondary schools and sports hub): circa 19.3ha
- Gypsy and traveller pitches: 2.5ha
- Electrical substation: 1.3ha
- Retained agricultural land: 30.7ha
- SANG and SANG link: 58.75ha
- Other public open space: 15.5ha

Illustrative Mix and Tenure

Residential

3.2.9 The outline planning application has sought to reflect the Local Housing Needs Assessment (LHNA) which is set out in Table 3.1 below. The same figures feature within Table 7 of the submitted Wokingham Local Plan Update, as the starting point for applications.

Table 3.1 Local Housing Needs Assessment

Number of Bedrooms	Affordable Housing	Total Market Housing
1-bed	17%	5%
2-bed	38%	13%
3-bed	33%	47%
4+ bed	12%	36%

3.2.10 Given this application is made in Outline, with Layout and Scale as Reserved Matters, a specific market housing mix is not proposed. As each phase of the development comes forward, the applicant for that phase will need to propose a mix that reflects relevant policy and the latest evidence. Given the length of time it will take for the entire development to come forward, it is likely that the LHNA underpinning the LPU will be replaced and later phases will propose differing mixes to the above.

3.2.11 Nevertheless, the Local Plan policies require specialist accommodation (such as residential, nursing or dementia care premises), accessible housing, Gypsy and Romany traveller pitches and custom build housing to be provided within the Site and within the overall mix.

3.2.12 The requirement within the emerging Local Plan (Policy H9) is for 20 gypsy and traveller pitches at Loddon Garden Village, and these will be provided within the outline proposals. In addition,

custom or self-build housing should be provided on the LGV Site pursuant to Policy SS13 (a)(ii) of the emerging Local Plan and therefore, up to 100 plots has been provided for across the Site within this application.

3.2.13 Although a detailed mix for specialist accommodation has not been formalised at this outline stage, there is sufficient flexibility within the proposals for this to come forward as the Site progresses.

3.2.14 The mix and quantum of Part M4(1), M4(2) and M4(3) accessible dwellings can be secured by planning condition or within the Section 106 agreement, where required, to be in line with the latest Building Regulations.

Non-residential

3.2.15 As noted above, planning approval is being sought for up to 17,650m² of Class E and/or Class F of flexible employment, retail, community, education, and *sui generis*, comprising:

- *2 primary schools (3FE) and 1 secondary school (12FE);*
- *one district centre (incorporating 11,000m² of Class E (including a food store of around 2,500m²), and Class F);*
- *one local centre to incorporate 2,400m² of Class E;*
- *a Sports Hub including sports pitches;*
- *up to 4,250m² of further Class E, Class F and *sui generis* development to include commercial, health care and public house.*

3.2.16 The Land Use Parameter Plans (Figure 3.1 and 3.1A) identifies the indicative locations of these non-residential uses. These locations are toward the centre of the Site in the highest density locations where they are most effective.

3.2.17 Assumptions have been made on the indicative on-Site Employment within Chapter 16 – Socio-economics (re-produced here for ease) which estimates a potential 1,335 jobs when operational. As the planning application is applied for in outline, the figures below are indicative but provide a meaningful assessment of the Proposed Development. See Table 3.2 below.

Table 3.2 Estimating On-Site Employment

Land Use	Floorspace (GIA)	Employment Density	Vacancy Rate	Employment (FTE)
Homeworkers	2,800 homes	0.17 FTE / home	n.a.	430
Co-working	2,000	12.5 NIA sqm / FTE	18%	100
Retail	5,200	17.5 NIA sqm / FTE	2%	250
Restaurant and cafes	2,150	17.5 NIA sqm / FTE	0%	105
Community	2,600	112 GIA sqm / FTE	n.a.	20
Vet Clinic	300	32 GIA sqm / FTE	n.a.	10
GP Surgery	1,600	32 GIA sqm / FTE	n.a.	50
Leisure	500	83 GIA sqm / FTE	0%	5
Office Space (Use Class E)	3,000	12.5 NIA sqm / FTE	18%	150
Primary School	2 x 3FE Form, 1,260 pupils	11.9 pupils / FTE	n.a.	105
Secondary School	1 x 8FE Form, 1,200 pupils	10.9 pupils / FTE	n.a.	110
Total Proposed Jobs				1,335

Access

Elements of the Proposed Development applied for in Full

3.2.18 The Proposed Development is mostly in outline, however the following access elements are applied for in full (The full list of detailed access drawings are set out in table 3.4):

- a new pedestrian, cycle and vehicular access to Lower Earley Way via a new 4th arm to the Meldreth Way roundabout;
- a new pedestrian, cycle and vehicular bridge over the M4 Motorway;
- a new pedestrian, cycle and vehicular bridge over the River Loddon;
- a new vehicular access to the A327 Reading Road, via a new arm to the Observer Way roundabout;
- a new pedestrian, cycle and vehicular access to Thames Valley Science Park;
- an initial phase of internal roads with associated drainage, landscape and engineering works and ground reprofiling, between the A327 and the south eastern boundary of the Site.

3.2.19 This sets the parameters to ensure that access around and into the development is safe, sustainable and secured in full for the preparation of any future Reserved Matters applications.

M4 Motorway and River Loddon Bridge Design

- 3.2.20 The bridge over the M4 spans 36m across both carriageways and will be integrated into the landscape up to a height of 7m above the carriageway.
- 3.2.21 The bridge crossing over the River Loddon, by contrast, spans 46m over the river at a height of 5m above a pedestrian route to the northern side of the bridge.
- 3.2.22 Vehicular, pedestrian and cycle crossings are designed into both bridges to create active travel routes and allow safe passage. Detailed design drawings are provided to allow a meaningful assessment to be undertaken. These drawings can be found at Appendix 3.1 – M4 Motorway Crossing and Appendix 3.2 – Indicative River Loddon Crossing – Central High Point (3.5m clearance).

Vehicular access and car parking

- 3.2.23 The proposed vehicular accesses to the Site are provided at Lower Earley Way, via a new fourth arm to the Meldreth Way roundabout; at the A327 Reading Road, via a new arm to the Observer Way roundabout; via two new road bridges over the M4 and over the River Loddon; new routes through to the Thames Valley Science Park; safeguarded access route to the south via the Gleeson Land parcel and an initial phase of internal roads with associated landscape and engineering works.
- 3.2.24 Car parking proposals are not included in detail within this application but the majority is anticipated to be provided within garages, on residential driveways or parking courts across the Site with on street parking for visitor, car club and non-residential blue badge bays. EV charging will be provided across the Site.

Pedestrian and cycle access and parking

- 3.2.25 The established residential area of Earley lies just beyond the M4 and is linked to the Site to the northwest via an existing pedestrian and cycle bridge, enhancing non-motorised connectivity.
- 3.2.26 Segregated cycleways will be provided to a high specification along the primary streets, and these will be supplemented by an extensive network of shared use footways / cycleways to run alongside the main highway corridors as well as through areas of green space. Off-road routes follow corridors which respond positively to the WBC's planned Greenway networks (identified through the WBC Rights of Way Improvement Plan 2020-2030) in the area. A network of other, less formal, paths will also be provided along the peripheries of the development which will complement and enhance the public rights of ways in these areas.
- 3.2.27 Cycle parking will be provided in accordance with WBC Standards and will include spaces for larger, adaptable cycles and the long stay spaces will be secure and covered. Additionally, visitor (short-stay) cycle parking will also be provided .

Public transport connectivity

- 3.2.28 Public transport connections are available nearby. The nearest train station, Winnersh, is approximately 3km to the northeast and offers frequent services between Reading and London Waterloo. Reading station, a key hub in the national rail network, is 7km north, while the new Green Park station is about 6km west of the Site.
- 3.2.29 Multiple bus routes already serve the area, with the South of M4 SDL bus service routing through the Thames Valley Science Park (TVSP) and providing regular services to destinations

such as Reading town centre, the main rail station, Royal Berkshire Hospital, and the University of Reading's Whiteknights campus.

- 3.2.30 The area around the Site has seen significant investment in new pedestrian and cycling infrastructure as part of the TVSP expansion and the broader development of the South of the M4 SDL. This has resulted in excellent levels of walking and cycling connectivity to surrounding communities and key amenities.
- 3.2.31 Additionally, new bus routes will be provided through the Proposed Development providing frequent connections to surrounding areas and ensuring sustainable transport options can be provided as part of the Proposed Development. These will be secured via planning condition or through a S106 agreement.

Servicing and refuse

- 3.2.32 The safe delivery, collection, servicing and refuse and recycling arrangements will be provided across the Site. These measures will be incorporated into the design of the proposals at the Reserved Matters stage.
- 3.2.33 A servicing strategy will be developed (via planning condition) to ensure that delivery and refuse collection activity can be accommodated safely and efficiently. It is anticipated that servicing will be highly managed and conducted in dedicated areas to minimise impact on the public realm.
- 3.2.34 The servicing and refuse management will be monitored and reviewed regularly to ensure it is as efficient as possible.

Drainage

- 3.2.35 A Drainage Strategy has been produced by Abley Letchford (See Appendix 3.2). Given the application is being submitted in outline, the drainage strategy sets out the drainage design parameters that are proposed to inform the future drainage design and approvals for the Site.
- 3.2.36 The proposed drainage network is designed not to exacerbate any existing flood risk associated with properties situated upstream, or downstream, of the Site in accordance with principles set out within the National Planning Policy Framework (NPPF).

Surface Water Drainage Strategy

- 3.2.37 The proposed Drainage Strategy has been developed to achieve the requirements of NPPF and Adopted and Emerging Local Plan policies and foresees the provision of a comprehensive Sustainable Drainage System (SuDS) which is provided as part of the Drainage Strategy submitted as part of this application (see Appendix 3.2). The utilisation of SuDS not only provides the benefit of controlling waters at source and on-line treatment of collected surface water but also allows enhanced aesthetics through improved landscaping, biodiversity, and ecological opportunities.
- 3.2.38 SuDS are proposed as mitigation and assumptions have been made in order to appropriately size attenuation for surface water flows. Further investigation will be required as designs progress to determine whether measures to limit groundwater ingress into SuDS features are required.
- 3.2.39 The Proposed Development drainage arrangement will comprise appropriate SuDS devices. These systems will work in combination with source control drainage techniques within development parcels, with attenuation basins and sub-surface storage features providing attenuation storage, and high water quality benefits, with flow restricted by a proprietary device

(e.g. flow control chamber and orifices) to hold back water throughout the SuDS train and ensure flows are released at the greenfield rate for the specific phase.

- 3.2.40 Basins will form an integral part of the landscape and will be designed to reflect the landscape typologies within which they are located. Careful integration of landscape and green infrastructure will further support sustainable drainage objectives, while also contributing to the overall ecological value and visual appeal of the development. For example, within amenity green space, the basins will be designed with side slopes with a maximum gradient of 1 in 5 to provide access for amenity use. Where appropriate and safe to do so, informal seating and steps may be included as well as features to promote play. These basins will be predominantly dry until rainfall events.
- 3.2.41 Areas of flood risk (within Flood Zones 2 and 3) are located within the Eco Valley / SANG to the northwest and these will be managed naturally, where possible. No built development is proposed in these areas.
- 3.2.42 It is proposed to provide a network of roadside swales, bioretention features such as pits and filter strips, and traditional pipes to collect the surface water runoff from impermeable areas such as roads, roofs and driveways.

Foul Water Drainage Strategy

- 3.2.43 There are no existing foul sewers within the Site and therefore new points of connection will be established. Thames Water sewers are located in Reading Road to the south of the Site. This includes a gravity network discharging to a local pump station with flows ultimately being pumped to the Arborfield Sewage Treatment Works which is located approximately 2km from the Site.
- 3.2.44 Due to the topography of the Site and location of the public foul sewer network, wastewater from the Site cannot flow entirely by gravity to the receiving public sewer and a number of pump stations will be required.
- 3.2.45 Discussions between Abley Letchford and Thames Water have been taking place since early 2022 to develop the foul water drainage strategy. Thames Water determines capacity and a suitable point of practical connection to the public sewerage through their Pre-Planning Enquiry process. This includes a high-level internal hydraulic analysis to establish if the development can be accommodated within its sewer network and sewage treatment works, whilst still within their allowable discharge and treatment rates.
- 3.2.46 This initial Pre-Planning Enquiry to Thames Water has established inadequate sewer capacity within the immediate vicinity and known performance issues at the Arborfield Sewage Treatment Works. Discussions are ongoing with Thames Water regarding the extent of additional off-Site sewers or improvements to existing sewers that will be required to provide sufficient capacity to service the development.
- 3.2.47 Since April 2018, upgrades are funded by Thames Water through their New Infrastructure Charging mechanism or, in the case of large development projects such as this, through Business Plan/Asset Management Plan (AMP) funding where strategic infrastructure is required. Should network capacity improvements be required, certainty of delivery is therefore guaranteed as the reliance on the Developer to facilitate upgrades is removed.
- 3.2.48 The proposed foul water sewers and pump stations will be designed in collaboration with Thames Water as approving body in accordance with the new Sewerage Sector Guidance (SSG) and will be offered to Thames Water or New Appointment Variation (NAV) for adoption under S104 Agreements of the Water Industry Act.

Ecological Mitigation and Enhancement

3.2.49 The Ecological Impact Assessment for the Proposed Developments has been produced by Ecological Planning and Research Ltd. (EPR) and sets out the likely significant effects on biodiversity and ecology.

3.2.50 There are a number of sensitive designated sites, habitats and species within 5km of the Site as well as twenty-nine Berkshire Local Wildlife Sites within 2km of the Site. Five of these sites are located within the Site boundary, whilst an additional three are located immediately adjacent. The Site is approximately 4.4km north of the Thames Basin Heaths SPA. Further details are provided in Chapter 2 and Chapter 11.

3.2.51 The Proposed Development is likely to lead to some habitat loss, disturbance of species and changes in water quality, however, the Proposed Development includes a significant amount of mitigation both inherent in the design of the proposals, particularly through the provision of Biodiversity Net Gain, and as additional mitigation and compensation which will address any residual negative effects.

3.2.52 The proposed ecological mitigation strategy includes:

- Construction Environmental Management Plan (CEMP) – A CEMP will be implemented during the construction phase to address impacts such as dust, noise, lighting, and other forms of pollution. The CEMP will be secured by condition.
- Buffer Zones – All retained habitats identified as Important Ecological Features (IEFs) will be appropriately buffered. This includes implementing buffers during the construction phase to prevent damage and incorporating semi-natural buffers during the operational phase. Provisional Ancient Woodlands and IEF woodlands will have a buffer zone of no less than 15 meters. Buffer Zones are inherent to the design of the scheme.
- Tree Root Protection Zones – To avoid root zone compaction and accidental damage to retained trees and hedgerows, a Tree Protection Plan will be implemented during the construction phase. This plan will include prescriptions for the installation and maintenance of fencing to exclude construction activity within root protection areas. A radius extending 15 times the diameter of the tree (as measured at 1.5m above ground level) or 5m beyond the tree's outermost canopy will be implemented. Tree Root Protection Zones are inherent to the design of the scheme with a detailed Tree Protection Plan secured by planning condition.
- Drainage Strategy – A detailed Drainage Strategy will be implemented to avoid and mitigate adverse effects on hydrology and water quality during the operational phase. This strategy will ensure that discharges from the Site maintain or improve current water quality levels, prevent the migration of pollutants and sediments off-Site, and maintain discharge volumes at current greenfield runoff rates. This has been submitted as part of the application and is inherent to the design of the scheme.
- Lighting Strategy – During the construction phase, the impacts of artificial lighting will be controlled through measures implemented as part of the CEMP. Each development parcel will have a Lighting Strategy to minimize lighting impacts during the operational phase, particularly focusing on nocturnal and crepuscular species. A detailed lighting strategy will be secured by planning condition.
- Access Management – The development includes the delivery of Suitable Alternative Natural Greenspace (SANG) to avoid adverse impacts on the Thames Basin Heaths

Special Protection Area (SPA). This will provide attractive alternative recreational spaces for new and existing residents, drawing visitors away from sensitive sites. Access Management is inherent to the design of the scheme.

- Species Specific Mitigation (to be secured through planning condition) –
 - Great Crested Newt – The creation and management of natural open greenspace within 500 meters of known breeding ponds will provide greater permeability through the landscape for the local GCN population as well as the inclusion of scrub planting, hedgerows and provision of deadwood to provide new terrestrial habitats and a proportion of attenuation basins will hold water on a permanent basis to provide alternative habitats.
 - Breeding, Nesting and Wintering Birds – Through habitat creation and enhancement within the EcoValley and natural greenspaces, retained habitats will be of an increased value to the breeding and wintering bird assemblage. This can be achieved through the creation of new woodlands, species-rich grasslands, and wetlands, as well as the restoration of floodplains from grazed pasture to species-rich grasslands and wetlands.
 - Bats – The proposed habitat creation and restoration plans will include new roosting, foraging, and commuting habitats, as well as the creation of new roosting opportunities through bat boxes and specially designed features.
 - Otter – Increased public access along the River Loddon will be managed to minimize disturbance to Otters, with measures such as selective vegetation thinning and the implementation of a sensitive lighting strategy.

3.2.53 In summary, the Proposed Development will implement a range of ecological mitigation strategies, including a Construction Environmental Management Plan to control pollution, buffer zones for important habitats, tree root protection, and a detailed drainage plan to safeguard water quality. Lighting and access will be managed to minimise impacts on wildlife, with specific measures for alternative greenspaces to protect sensitive areas. Additional targeted actions include creating and improving habitats for great crested newts, birds, bats, and otters, ensuring their protection and supporting biodiversity throughout the development.

Landscape

3.2.54 The Landscape Parameter Plan (Figure 3.2), Illustrative Open Space Strategy (Figure 3.2A) and Illustrative Play Strategy (Figure 3.2B) details the location, quantum and specification of the open spaces, public realms and play spaces as well as the key landscape features for the Proposed Development.

3.2.55 A Landscape & Visual Impact Assessment and Landscape Strategy has been prepared by Savills in support of the Application.

3.2.56 The rural landscape, once defined by farmland and woodland, now features elements like the Thames Valley Science Park and nearby roads, altering its character. Key areas of pasture and woodland near the River Loddon will be incorporated into the EcoValley. Southern parts of the Site, with farmland and hedgerows, form a natural boundary and offer visual enclosure of the Site which will be preserved within the new community.

3.2.57 The proposed EcoValley forms a further piece of the extensive greenspace network. The parts of the Site referred to as the EcoValley cover an area of over 195 Ha and relate to much of the land associated with the River Loddon corridor, extending to the M4 and the edge of Lower Earley, which defines the northern extent of the site. The EcoValley also includes the SANG areas described below.

3.2.58 EcoValley is also intended to form part of a wider Country Park which includes land beyond the extents of the Site. It will be retained and managed by the University of Reading as part of its wider land holding in the area, with a commitment to the legacy of the University. It will therefore provide opportunities for education and research as well as other significant benefits to the whole community, including wildlife conservation, recreation and active travel.

3.2.59 Although there are no national landscape designations on the Site, local policies (such as Policy NE6 – Valued Landscape of the emerging Local Plan Update) require careful integration of the development with the area's character and valued landscapes, particularly along the River Loddon. Existing landscape features will be enhanced and incorporated into the masterplan's green network.

Landscape Strategy

3.2.60 The Landscape Strategy for the Proposed Development is shaped by a comprehensive assessment of the Site's character, history, and existing biodiversity. It seeks to preserve and enhance the natural qualities of the wider area, particularly focusing on the River Loddon floodplains and the pastoral farmland of the valley terraces. The Illustrative Masterplan and Landscape Parameter Plan demonstrate how the development integrates a diverse range of open spaces, including formal green spaces acting as focal points, and green corridors or 'fingers' that run between and frame development parcels.

3.2.61 The landscape strategy is rooted in detailed on-Site biodiversity assessments, ensuring all enhancements are informed by the ecological context. Together, these measures aim to deliver a resilient, ecologically rich environment, supporting wildlife, providing recreational opportunities, and reinforcing the area's unique character within the new community. The strategy is centred on creating a well-connected, high-quality environment. The inherent design of the scheme includes the following elements:

- Integrated Pedestrian and Cycle Routes – A comprehensive network of paths will be established, connecting the open spaces within the Site to the wider public rights of way. This encourages walking and cycling as sustainable alternatives to private car use.

- Multi-Functional Green Spaces – A variety of green areas will be provided, supporting children's play, recreational activities, nature conservation, and incorporating Sustainable Urban Drainage Systems (SuDS) to manage water sustainably.
- Tree and Vegetation Management – While acknowledging some necessary removal, the strategy retains the majority of mature trees and hedgerows within the Site and along its boundaries. These will be further enhanced with new planting to support biodiversity and visual amenity.
- Spine Road and Street Trees – Street trees will line the new main route through the Site, establishing a distinctive landscape character and green infrastructure spine.
- Preservation of Quality Trees – Category A and B trees (the most valuable) will be preserved wherever possible and integrated into public spaces, maintaining the Site's natural heritage.
- Public Realm – A blend of high-quality hard and soft landscaping will be delivered, creating attractive, accessible, and legible public spaces throughout the development, including distinctive areas adjacent to new District and Local Centres.
- Biodiversity Enhancement – The existing habitats will be protected and improved, and new habitats created to boost the Site's biodiversity assets. Both natural and semi-natural landscapes will be developed, closely linked with the SuDS and biodiversity strategy.
- SuDS Features – A network of basin features and new ponds will be incorporated as part of the SuDS strategy, using a variety of design approaches to manage surface water sustainably and enhance ecological value.

Suitable Alternative Natural Green Space (SANG)

3.2.62 The Proposed Development requires the provision of Suitable Alternative Green Space in order to help protect and reduce recreational demands on the Thames Basin Heaths Special Protection Area (SPA).

3.2.63 The SANG needs to provide opportunities for informal recreation and in particular for dog walking with provision of a path network offering a variety of routes, parking facilities and access to spaces where dogs can be safely allowed off lead.

3.2.64 The proposals provide approximately 40.4Ha of SANG as part of the wider EcoValley, with these split into two separate components. This exceeds the required area of 34.53Ha.

3.2.65 The main SANG is to be provided on the Lourdes Meadow part of the site, with an area of 26.85Ha. A second area of SANG to the eastern part of the site, beyond the proposed River Loddon bridge crossing provides a further 13.55Ha.

3.2.66 To allow for a connecting route between these two areas a further 'SANG Link' is to be provided which runs along the river corridor. This provides a further 18.17Ha of accessible green space with a route that weaves through the existing woodland and vegetation.

3.2.67 The main areas of SANG have been designed to meet the Natural England requirements with features to include the following:

- 2.3km circular route with a range of shorter routes available
- Parking provision

- Perceived as safe for users
- A semi-natural landscape with plenty of variation
- Wooded or semi-wooded landscape
- Unrestricted access suitable for dogs to be allowed off lead

3.2.68 Further details of the proposed SANG are provided with the Design and Access Statement (DAS) submitted as part of the suite of planning application documents.

Energy and Sustainability

3.2.69 Sustainability, placemaking, and inclusive development form the foundation of resilient, thriving communities. To embed these principles throughout the project, a comprehensive sustainability framework has been established for Loddon Garden Village (LGV), ensuring a considered, responsible, and future-focused approach to planning and delivery. This framework guides every stage of the design and development process, from initial concept through to construction and occupation.

3.2.70 Underpinned by measurable and ambitious sustainability targets, it ensures each phase not only meets but exceeds the standards required to generate meaningful, long-term benefits for the local community.

3.2.71 Chapter 10 - Climate Change and Greenhouse Gases and the Sustainability Statement (Appendix 3.3) provide further details.

Energy

3.2.72 The preliminary energy strategy for the LGV development is designed to support the ambition of delivering a net zero carbon community. This strategy follows the energy hierarchy – prioritising demand reduction, energy efficiency, and renewable energy generation – and sets out a clear pathway to minimise operational energy use across the Site.

3.2.73 A “fabric first” approach will underpin the design, focusing on optimising the thermal performance and airtightness of buildings to reduce the need for heating, cooling, and ventilation. This includes the use of high-quality insulation, energy-efficient windows with low U-values, and airtight construction to minimise energy loss. The development aims to achieve a Site-wide average space heating demand of approximately 20 kWh/m²/year for both residential and non-residential buildings.

3.2.74 Once energy demand is reduced, efficient systems will be deployed, including all-electric heating solutions such as air-source or ground-source heat pumps, mechanical ventilation with heat recovery (MVHR), and low-energy LED lighting with smart controls. Building Management Systems (BMS) and smart meters will be incorporated where appropriate to monitor and optimise energy performance.

3.2.75 To further reduce reliance on the grid, on-Site renewable energy technologies will be integrated, including photovoltaic (PV) panels and battery energy storage systems. These will help manage peak loads and store excess energy for use during periods of low generation. The feasibility of community-scale energy infrastructure, such as an integrated SmartGrid (microgrid) or local heat networks, is also being explored to enable load sharing and demand-side management.

Whole Life Carbon

3.2.76 The LGV development adopts a holistic approach to carbon reduction by addressing both operational and embodied carbon emissions through a Whole Life Carbon approach. This ensures that carbon impacts are considered from material extraction through to construction, operation, maintenance, and eventual deconstruction or reuse.

3.2.77 The development will also be fossil fuel-free, with an all-electric energy strategy supported by heat pumps and solar power, with an estimated Site-wide carbon emission savings potential of up to 95%, compared to a 2024 baseline. With renewables sized to match operational demand, in line with WBC's Submission Local Plan (Regulation 19), the development is expected to achieve carbon neutral status - complementing the whole life carbon strategy by eliminating emissions from on-Site combustion and reducing reliance on carbon-intensive infrastructure.

Utilities

3.2.78 A Utilities Assessment has been produced by Abley Letchford. See Appendix 3.5.

Power

3.2.79 High voltage overhead power cables cross the Site. 132kV cables run north-south on the eastern side of the Proposed Development. 33kV cables are located on the western side of the Site, within the red line boundary but outside the area of built development. It is proposed to divert the 132kV cables and place them underground in two ducts through the Proposed Development. Overhead 11kV cables providing power to the existing buildings will not be affected by the Proposed Development.

Gas

3.2.80 A medium pressure gas main is located through the middle of the Site, running from the north east of the Site, crossing underneath the River Loddon. A second medium pressure gas main is located in Mole Road on the southern boundary of the Site, turns north west and crosses the Site. Records show it stops at Hall Farm and does not cross the River Loddon. An exclusion zone of 6m is required to any development. An intermediate pressure gas main and a high pressure gas main cross the southern portion of the Site in a shared corridor. An exclusion zone of at least 6m is required to any development from these mains and this has been factored into the parameters of the proposed development.

Drainage

3.2.81 A foul rising main is located in the north west part of the Site. Development is not proposed directly to the main, however, the proposed road link to Lower Earley Way and Thames Valley Science Park will cross the rising main and may require local diversion.

Telecoms

3.2.82 Openreach infrastructure is located to the north of the Site, and to the south of the Site. Gigaclear infrastructure is located to the north west of the Site. Connections to the existing buildings are made from the south of the Site. Further investigations will be required to identify the exact location of plant within each future phase of detailed development.

3.2.83 The load demands for the Proposed Development have been assessed and all necessary enquiries have been made with statutory undertakers and utility service providers. At the time of writing, responses are still awaited.

Lighting

3.2.84 A Lighting Strategy has been prepared by DFL Ltd. in support of the application (Appendix 3.6).

3.2.85 The Proposed Development is located in the countryside, adjacent to existing built development at Arborfield, Shinfield and the Thames Valley Science Park. The aim of the lighting strategy is to ensure a safe level of illumination is provided to all areas of the Proposed Development.

3.2.86 Lighting requirements for areas across the Site have been considered within the lighting strategy including spine roads, bridge crossings, primary, secondary and tertiary roads, parking areas, edge of settlement roadways, sports hub, local centres, education areas, country park.

3.2.87 The design of these lighting solutions account for best practice for the design of lighting to ensure the lighting requirements for each area adheres to local authority and industry standard guidance. Non-illuminated parameters have been made for locations that are retained green space and where ecological constraints are present.

3.3 Construction and implementation

3.3.1 This section describes the anticipated programme of demolition and construction works and the key activities that will be undertaken prior to completion and occupation of the Proposed Development.

Construction Duration

3.3.2 The approximate duration of the construction and demolition phase is outlined below:

- Construction to commence in 2027
- First occupation in 2028
- Construction to complete in 2042

Construction Environmental Management Plan (CEMP)

3.3.3 Details of measures to protect the environment during the construction of the Proposed Development will be formalised and secured in a CEMP, which has been submitted in draft form with this application (see Appendix 3.7). Measures will address hours of working, noise, vibration, dust, light spill, wheel washing and control of runoff. It is anticipated that the implementation of the CEMP will be a condition of the planning permission and that it will be regularly monitored.

3.3.4 Once finalised and approved by the Local Planning Authority, the CEMP would be held on-Site. All Site personnel would be made aware of its existence and undertake to adhere to the guidance.

Plant and Equipment

3.3.5 An indication of the typical types of plant and equipment likely to be used during the Site clearance and construction works are provided in Table 3.3.

Table 3.3 Indicative Plant and Equipment

Plant/Equipment	Demolition	Groundwork	Superstructure
Dozer	✗	✓	✗
Backhoe with breaker	✓	✓	✗
Tracked excavator	✓	✓	✗
Dumptruck	✓	✓	✗
Hydraulic vibratory compactor	✗	✓	✗
Generator	✓	✓	✓
Grinder	✗	✗	✓
Concrete mixer	✗	✗	✓
Tower crane	✗	✗	✓
Piling rig	✗	✗	✓

Methods of Working

3.3.6 It is anticipated that construction compounds will be located as secure areas within the Site and will be relocated, where necessary, as each construction phase nears completion onto the subsequent phase. All materials and plant storage will occur on the Site and no off-Site compounds are necessary.

3.3.7 The working hours are anticipated to be:

- 08:00 - 18:00 hours Monday to Friday inclusive
- 08:00 - 13:00 hours on Saturday; and
- No noisy work to be carried out on Sundays or Bank Holidays.

3.3.8 In order to maintain these working hours, the contractor(s) may require a period of up to half an hour before and up to one hour after normal working hours for start-up and close down of activities. This does not include operation of plant or machinery giving rise to noise with the potential to disturb nearby residents or the arrival of any HGV at Site before 07:30 hours.

Construction Traffic

3.3.9 Construction traffic movements consider the following sources of traffic:

- Workforce movements to and from the Site;
- Deliveries made to the Site;
- Removal/ import of material from the Site; and
- Trips made by associated trades.

3.3.10 Access for construction vehicles will be gained by the main Site access off the A327 / Reading Road.

3.3.11 Details of measures to manage traffic during the construction of the Proposed Development will be formalised and secured in a Construction Traffic Management Plan (CTMP), which has been submitted in draft form with this application.

Safe storage of fuel/oil

3.3.12 The safe storage and use of fuels for the plant will be a priority in Site management. Drainage within the temporary, secure Site compound where construction vehicles will park and where any diesel fuel will be stored, will be directed to an oil interceptor to prevent pollution should any spillage occur. Diesel storage and refuelling will be within a designated area or a self-bunded tank in accordance with the Government's Oil Storage Regulations. All oil storage tanks are proprietary self-bunded to equal quantities of oil held. This is regarded as industry standard practice and also includes mandatory legal requirements which are considered as integral to the development. Spill kits and mandatory spillage reporting is standard procedure.

Health and Safety

3.3.13 All work will be undertaken to relevant Health and Safety legislation. The construction of the Proposed Development will be supervised in accordance with the CDM Regulations 2015. Risk assessment will be undertaken for each work package prior to activities taking place.

Decommissioning

3.3.14 As this is a mixed-use residential scheme, the Site will permanently alter to residential / mixed-use on Site and will not be decommissioned and therefore, a decommissioning phase is not considered appropriate.

3.4 Waste

3.4.1 A Waste Management Report has been prepared by RPS for the Proposed Development (Appendix 3.4). This report sets out the estimated waste arising from the demolition, construction and operational stages of the Proposed Development and sets out waste minimisation measures for all phases of the Proposed Development to comply with all relevant waste legislation and promote strong performance in waste reuse and recycling. Detailed waste management proposals will be set out during the detailed design phase and secured through planning conditions.

Demolition Waste

3.4.2 The Proposed Development involves the demolition of a number of buildings on Site (shown in Figure 3.8 – DP01 Demolition Overview). The buildings associated with the CEDAR, buildings, associated with the Arborleigh Angling Club and other agricultural buildings, to the southwest of the Site; all of the buildings associated with Hall Farm, to the centre of the Site; and, another storage shed, to the northeast of the Site, will all be demolished.

3.4.3 The management of demolition waste focuses on controlling all materials generated during demolition activities. This process includes carefully sorting materials for reuse or recycling, either on-Site or off-Site, as well as ensuring that hazardous waste is appropriately disposed of. Materials such as wood, metal, concrete, and both hazardous and non-hazardous substances are to be segregated at the Site. All handling of hazardous waste will follow safety regulations and secured through the Site Waste Management Plan (SWMP) forming part of the CEMP.

3.4.4 In total, approximately 109,872m³ of soil/topsoil is anticipated from stripping the Site and 145,214m³ of material arising from the demolition of existing buildings may arise from the demolition phase of the built development¹.

Construction Waste

3.4.5 In total, approximately 186,426 tonnes of waste may arise from the construction of the built development². This assumes no minimisation, reuse or recycling has taken place. It is therefore the baseline figure from which a reduction in waste arising can be established.

3.4.6 All construction waste will be separated on Site with as much as possible being recycled. The mixed waste which is not suitable for on Site separation will be sent to a waste separation centre where it is further separated and any material that can be recycled is removed. A very small percentage of overall construction waste is then sent to landfill if it is not suitable for recycling.

3.4.7 In order to minimise the volume of waste generated, a Site Waste Management Plan (SWMP), forming part of the CEMP, has been prepared as part of the Waste Management Report produced by RPS. The CEMP (which should be prepared in discussion with the appointed contractor(s)) would be agreed with the Council prior to commencement of works at the Site and the appointed contractor(s) would be required to comply with the requirements of the CEMP. Such adherence would ensure that significant adverse effects from the management of waste would be unlikely.

Operational Waste

Waste Management

3.4.8 An integrated waste management approach will facilitate effective recycling, composting, and safe disposal of waste from both construction and operation.

3.4.9 Dedicated storage areas for segregated waste and recycling will be provided for both residential and non-residential uses, conveniently located to encourage responsible disposal behaviours.

3.4.10 When completed and occupied, there would be an increase in the volume of household waste collected at the kerbside. According to WasteDataFlow statistics from the Department for Environment, Food and Rural Affairs (DEFRA), a fortnightly allowance of 180L of general waste per self-contained housing unit and a weekly allowance of 80L per property with communal waste facilities for general waste are both strictly practiced across Wokingham Borough. There is no restriction on capacity for dry recycling and food waste recycling.

3.4.11 Therefore, using the guidance from British Standard BS5906:2005 Waste Management in Buildings³, the amount of household waste arising from the Proposed Development would be in the order of 3,030 tonnes annually. The Council will collect the residential waste generated at the Site under their statutory duties and waste generated by the non-residential elements of the Site will be disposed of via private waste contractors.

¹ See Table 3-1 Quantities of Excavation and Demolition Waste within the Waste Management Report (Appendix 3.4) (2025) produced by RPS

² See Table 3-2 Quantities of Construction Waste within the Waste Management Report (Appendix 3.4) (2025) produced by RPS

³ See Table 3-4 Guidance from British Standard BS5906:2005 Waste Management in Buildings BSi and G.Blyth, A. (2005) within the Waste Management Report (Appendix 3.4) (2025) produced by RPS

3.4.12 In addition, as there are other, non-residential uses on Site the following have been calculated for the likely quantity of waste quantities annually⁴:

- Two 3-form entry primary schools – 24.3 tonnes
- An 8-form entry secondary school, 5 of which are part of the Proposed Development – 13.75 tonnes from 5 year groups
- Entertainment Complex/Leisure Centre – 6,200,000 litres
- Retail – 2004.6 tonnes
- Food and Drink – 633 tonnes
- Class E(c) Professional Services and Class E(g) – 443 tonnes

Table 3.4 List of Assessment Plans

Plan Reference	Plan Name	Parameter Plan?
LP01	Site Location Plan	✗
DP01	Demolition Overview	✗
PP01	Land Use Plan	✓
PP01A	Land Use Plan (Community Hub Detailed Plan)	✓
PP02	Landscape	✓
PP03	Movement	✓
PP04	Density	✓
PP05	Building Heights	✓
PP05A	Building Heights (Community Hub Detailed Plan)	✓
PP06	Combined Parameters	✓
A392-OPA-0101D	General Arrangement Sheet 1*	✗
A392-OPA-0102C	General Arrangement Sheet 2*	✗
A392-OPA-0103B	General Arrangement Sheet 3*	✗
A392-OPA-0104B	General Arrangement Sheet 4*	✗
A392-OPA-0105C	General Arrangement Sheet 5*	✗
A392-OPA-0106B	General Arrangement Sheet 6*	✗
A392-OPA-0107B	General Arrangement Sheet 7*	✗
A392-OPA-0108B	General Arrangement Sheet 8*	✗
A392-OPA-0109C	General Arrangement Sheet 9*	✗
A392-OPA-0120B	M4 Motorway Crossing Plan and Profile*	✗
A392-OPA-0121B	River Loddon Crossing Plan and Profile*	✗

⁴ See Table 3-6 Estimated Operational Waste Arising Quantities within the Waste Management Report (Appendix 3.4) (2025) produced by RPS

A392-OPA-0501C	Drainage & Levels Layout Sheet 1*	✗
A392-OPA-0502C	Drainage & Levels Layout Sheet 2*	✗
A392-OPA-0503C	Drainage & Levels Layout Sheet 3*	✗
A392-OPA-0504C	Drainage & Levels Layout Sheet 4*	✗
A392-OPA-0505C	Drainage & Levels Layout Sheet 5*	✗
A392-OPA-0506C	Drainage & Levels Layout Sheet 6*	✗
A392-OPA-0507C	Drainage & Levels Layout Sheet 7*	✗
A392-OPA-0508C	Drainage & Levels Layout Sheet 8*	✗
A392-OPA-0509C	Drainage & Levels Layout Sheet 9	✗
A392-OPA-0520B	Storm Water Catchment Plan Sheet 1*	✗
A392-OPA-0521B	Storm Water Catchment Plan Sheet 2*	✗
A392-OPA-0522B	Storm Water Catchment Plan Sheet 3*	✗
A392-OPA-0523B	Storm Water Catchment Plan Sheet 4*	✗
A392-OPA-0530A	Drainage Details Sheet 1 *	✗
A392-OPA-0531A	Drainage Details Sheet 2*	✗
A392-OPA-0540B	Basin Sections Basin 1,2,3&4 *	✗
A392-OPA-0541B	Basin Sections Basin 5,6&7*	✗