

6. Landscape and Visual Amenity

6.1. Introduction

- 6.1.1. Pegasus Group has prepared this Landscape and Visual Impact Assessment (LVIA) ES Chapter in relation to the Site at Land east of Knowsley Lane, Knowsley. The assessment has been carried out and checked by Chartered members of the Landscape Institute.
- 6.1.2. The Proposed Development includes the erection of up to 700 dwellings together with public open space, landscaping, new vehicular access junctions, active travel links, sustainable urban drainage systems and other associated infrastructure.
- 6.1.3. The purpose of this LVIA is to review the Site and its surrounding context in order to describe and identify the relative level of effects arising as a result of the Proposed Development, in relation to:
- The features and character of the local landscape; and
 - The visual amenity of people who view the Site.
- 6.1.4. The judgements provided within the LVIA may then inform the planning balance to be carried out by the determining authority.
- 6.1.5. This chapter is supported by the following appendices and/or figures:
- Appendix 6.1 – Assessment Criteria
 - Appendix 6.2 – Viewpoint Assessment
 - Appendix 6.3 – Photographic Record
 - Figure 6.1 – Site Context and Topography
 - Figure 6.2 – Environmental Designations
 - Figure 6.3 – Landscape Character
 - Figure 6.4 – Visual Receptors
 - Figure 6.5 – Screened ZTV and Viewpoints
 - Figure 6.6 – Local Context
 - Figure 6.7 – Illustrative Landscape Masterplan
- 6.1.6. This Chapter, and its associated appendices, is intended to be read as part of the wider Environmental Statement (ES) with particular reference to the introductory chapters (Chapter 1 to Chapter 4), as well as to Chapter 7 (Ecology) and 8 (Cultural Heritage).

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6.2. Assessment Approach

Methodology

Guidance

6.2.1. In accordance with published guidance, landscape and visual effects are assessed separately, although the procedure for assessing each of these is closely linked. A clear distinction has been drawn between landscape and visual effects as described below:

- Landscape effects relate to the effects of the proposals on the physical and other characteristics of the landscape as a resource in its own right and its resulting character and quality; and
- Visual effects relate to the effects on specific views experienced by visual receptors and on visual amenity more generally.

6.2.2. The LVIA chapter is prepared in accordance with the following guidance:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA3)¹, Third Edition, 2013; Landscape Institute and the Institute of Environmental Management and Assessment;
- Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third edition (GLVIA)¹ – Technical Guidance Note LITGN-2024-01 (August 2024);
- Landscape Institute Technical Guidance Note 06/19 (2019)² – Visual Representation of Development Proposals will be followed in respect of Type 1, Annotated Viewpoint Photographs; and
- Landscape Institute Technical Guidance Note 02/21³ – Assessing landscape value outside national designations will be followed in respect of the assessment of valuing the landscape.

Landscape and Visual Impact Assessment Process

6.2.3. The assessment of landscape effects follows a recognised process set out below:

- Identify the baseline landscape resource (i.e. individual landscape elements and landscape character) and its value;
- Describe any mitigation measures proposed to avoid, reduce and ameliorate potential adverse impacts and to maximise the beneficial impacts of the Proposed Development;
- Evaluate the sensitivity of the landscape resource to the type of Proposed Development;

¹ Landscape Institute (2013) Guidelines for landscape and visual impact assessment. Third Edition. Routledge.

² https://www.landscapeinstitute.org/wp-content/uploads/2019/09/LI_TGN-06-19_Visual_Representation-1.pdf

³ <https://landscapewpstorage01.blob.core.windows.net/wwwlandscapeinstitute-org/2021/05/tgn-02-21-assessing-landscape-valueoutside-national-designations.pdf>.

- Identify predicted landscape impacts of the Proposed Development;
- Evaluate the magnitude of change to the baseline landscape resource; and
- Assess the level of residual effect of the Proposed Development on the landscape.

6.2.4. The assessment of visual effects follows a similar process, as set out below:

- Identify a 'screened' Zone of Theoretical Visibility (ZTV) for the development using digital terrain data (i.e. the geographical area where views of the Proposed Development are theoretically possible with a bare earth scenario);
- Identify potential visual receptors for the Proposed Development (i.e. groups of people who would have views of the Site);
- Describe any mitigation measures proposed to avoid, reduce and ameliorate potential adverse impacts and to maximise the beneficial impacts of the Proposed Development;
- Evaluate the sensitivity of the visual receptor groups to the nature of the Proposed Development;
- Describe the nature of the baseline views (usually illustrated by a photograph) and the predicted visual impacts of the Proposed Development on the views of each receptor group;
- Evaluate the magnitude of change in the view of the receptor groups; and
- Assess the level of residual effects on the views from representative receptor groups and on overall visual amenity.

Baseline Information and Assumptions

- 6.2.5. The baseline landscape resource and visual receptors were identified in part through a desk-based study of published landscape character studies, relevant planning policy guidance, aerial photography and Ordnance Survey mapping. In addition, site visits were conducted between 2021 and 2025, with the viewpoint photographs taken in April 2025.
- 6.2.6. Access during site visits was restricted to publicly accessible locations. No access was possible to private properties, which were assessed from the nearest available publicly accessible vantage point. Therefore, some assumptions have been made regarding views from private properties. These assumptions have been based on professional experience and interpretation of available desktop data as well as land use and vegetation present at the time of the site visits.
- 6.2.7. Knowsley Park was not visited as part of the site visits, as the registered park and garden is not publicly accessible where close to the Site. Knowsley Park was visited by others and referred to within **Chapter 8: Cultural Heritage**.

Study Area

- 6.2.8. Following preliminary desktop research and field work, an initial study area of 3km was considered for the LVIA (used to understand the wider context of the development site's location). However, due to the limited theoretical visibility identified at the scoping stage, a reduced 1.5km study area was considered to be more appropriate to reflect the actual visibility

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in reality. Therefore, it is considered that any views of the Proposed Development beyond a distance of 1.5km would be negligible and unlikely to give rise to any effects greater than minor.

Assessment of Significance

- 6.2.9. This LVIA takes the precautionary approach that all effects, unless stated otherwise, are assessed as adverse. The criteria used as guidance in assessing the significance of the effects of the Proposed Development are outlined in **Appendix 6.1**.

Legislative and Policy Framework

- 6.2.10. A full and detailed consideration of planning policy is contained in the accompanying Planning Statement. This section provides an overview of the planning policy framework relevant to the landscape and visual matters considered in this LVIA.
- 6.2.11. At a national level The National Planning Policy Framework (NPPF, 2024)⁴ sets out the priorities for planning in England. The NPPF places significant emphasis on the presumption in favour of sustainable development. At a local level the current development plan consists of the Knowsley Local Plan Core Strategy (2016)⁵.

National Planning Policy

National Planning Policy Framework (December 2024)

- 6.2.12. The NPPF sets out the Government's national policy on land use planning in England. The primary principle of the NPPF is the presumption in favour of sustainable development, which is set out at NPPF Paragraphs ten and eleven as follows:

'So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development [...]

Plans and decisions should apply a presumption in favour of sustainable development.

For plan-making this means that:

a) all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects;

b) strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless: i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area**; or ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.*

⁴ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

⁵ <https://www.knowsley.gov.uk/sites/default/files/2023-11/knowsley-local-plan-adopted-core-strategy.pdf>

For decision-taking, this means:

c) approving development proposals that accord with an up-to-date development plan without delay; or

*d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date***, granting permission unless: i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed**, or ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole ...'*

6.2.13. The following footnotes clarify further details:

**as established through statements of common ground*

***policies referred to are those in this Framework (rather than those in development plans) relating to: habitats sites [...] and / or sites designated as SSSIs, land designated as Green Belt, Local Green Space, a National Landscape, a National Park [...] Heritage Coast, irreplaceable habitats, designated heritage assets (and other heritage assets of archaeological interest [...]) and areas at risk of flooding or coastal change.*

****this includes, for applications involving the provision of housing, situations where: the local planning authority cannot demonstrate a five year supply of deliverable housing sites (with the appropriate buffer as set out in paragraph 78); or where the Housing Delivery Test indicates that the delivery of housing was substantially below (less than 75% of) the housing requirement over the previous three years.*

6.2.14. Paragraph 96 of the NPPF in relation to 'Promoting healthy and safe communities' states that:

'Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:

promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;

are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of well-designed, clear and legible pedestrian and cycle routes, and high quality public space, which encourage the active and continual use of public areas; and

enable and support healthy lives, through both promoting good health and preventing ill-health, especially where this would address identified local health and well-being needs and reduce health inequalities between the most and least deprived communities – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.'

6.2.15. Paragraph 105 of the NPPF states:

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'Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.'

- 6.2.16. In Section 12 'Achieving well-designed places', paragraph 135 outlines some key points in respect to the design of new developments:

'a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;

b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;

c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);

d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;

e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.'*

- 6.2.17. In Section 13, 'Protecting Green Belt land', paragraph 142 of the Framework states that the fundamental aim of Green Belt policy is to:

'[...] prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.'

- 6.2.18. Paragraph 143 of the Framework states that Green Belt serves the following purposes:

'a) to check the unrestricted sprawl of large built-up areas;

b) to prevent neighbouring towns merging into one another;

c) to assist in safeguarding the countryside from encroachment;

d) to preserve the setting and special character of historic towns; and

e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.'

- 6.2.19. Paragraph 153 addresses proposals affecting the Green Belt and states that:

'When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt, including harm to its openness. Inappropriate development is, by definition, harmful to the Green Belt and should not be

approved except in very special circumstances. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.'

- 6.2.20. In Section 15, 'Conserving and enhancing the natural environment', paragraph 187 states that the planning system should contribute to and enhance the natural and local environment by:

'a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland...'

The Development Plan

Knowsley Local Plan Core Strategy (January 2016)

- 6.2.21. The core strategy was adopted on 6 January 2016, aiming to set the strategic framework for the growth and development of Knowsley up to 2028 and beyond. It sets out how and where new development and regeneration should take place and will therefore promote, guide and manage the future development of the borough. The site itself is identified under policy SUE1 as part of the safeguarded land surrounding Knowsley village and has been removed from Green Belt.

- 6.2.22. Policies relevant to landscape and visual matters are set out in Table 6.1 below.

Table 6.1: Relevant Policy from Knowsley Local Plan Core Strategy (2016)

Policy	Relevant Detail
Policy CS2: Development Principles	Policy CS2 of the core strategy in relation to development principles, and specifically principle 4, states: <i>'...Principle 4: Recognise environmental limits, protect and enhance environmental assets, enhance local character and promote quality of place by:</i> <i>a) Understanding and respecting the character and distinctiveness of places and landscapes;</i> <i>b) Protecting and enhancing the historic environment;</i> <i>c) Promoting good quality design and ensuring that development respects its setting taking into account relevant design requirements, and best practice;</i> <i>d) Maximising opportunities for the regeneration of previously developed land, including derelict or unsightly areas to improve the image of Knowsley and use land resources efficiently...</i>

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	<i>...f) Supporting policies relating to Green Infrastructure and the greening of towns and cities;</i> <i>g) Maintaining or enhancing the tranquillity of open countryside and rural areas...</i> <i>...Development that will have an unacceptable impact upon any of the above will only be permitted where the benefits of the proposal clearly outweigh the harm...'</i>
Policy CS8: Green Infrastructure	In relation to green infrastructure and specifically the approach to green infrastructure and new development, Policy CS8 states: <i>'6) New development must be served by Green Infrastructure to meet the needs of residents and the local environment, in a manner which will:</i> <i>Contribute to the creation of a high quality residential environment;</i> <i>Provide access to high quality open space for leisure and recreational purposes;</i> <i>Seek to protect, maintain and where possible enhance biodiversity within and around new developments according to their designation and significance to provide space for nature; and</i> <i>Provide adequate mitigation and/or, as a last resort, compensation for Green Infrastructure or biodiversity loss, in circumstances where harm resulting from the development is otherwise unavoidable.'</i>
Policy CS19: Design Quality and Accessibility in New Development	Policy CS19 of the core strategy in relation to design quality and accessibility in new development, states: <i>'1) To enhance the local distinctiveness, identity and accessibility of places, new development within Knowsley will be expected to:</i> <i>a) Respond to and integrate positive characteristics of immediate surroundings, including local materials, scale, mass, form, layout, alignment and density of the existing built environment;</i> <i>b) Complement and enhance (where possible), existing landscape, topography, Green Infrastructure; and features of local importance and historic interest;</i> <i>c) Consider provision of landmark buildings and additional detailing at and adjacent to main gateways, movement</i>

	<i>corridors, town centres and strategic regeneration opportunities;</i> <i>d) Create spaces and places as a focal point, accommodating social interaction and active lifestyles, including provision and integration of high quality public realm and open spaces, public art (as appropriate); and landscaping which promotes biodiversity and integrates existing local habitats;</i> <i>e) Provide safe, secure and convenient routes for movement (including signage), with priority for walking, cycling and public transport, to meet the access needs of all users, particularly pedestrians, cyclists, less mobile people and the elderly;</i> <i>f) Integrate effectively with existing development and link to existing shopping and service provision...</i> <i>...2) To maintain a good standard of amenity for all existing and future occupants of land and buildings, development proposals will be required to:</i> <i>a) Avoid unacceptable impacts on existing residents, business occupiers, and future occupiers;</i> <i>b) Minimise crime, fear of crime and anti-social behaviour, including good levels of natural surveillance and security; and</i> <i>c) Accommodate future maintenance and long term management requirements.'</i>
Policy CS20: Managing the Borough's Historic Environment	Policy CS20 of the core strategy relates to managing the borough's historic environment. Although relevant to landscape and visual matters, this policy is addressed in full within Chapter 8: Cultural Heritage.
Policy CS21: Greenspaces and Trees	Policy CS21 of the core strategy in relation to greenspaces and trees, and specifically the enhancement of natural and semi-natural greenspace and tree protection, states: <i>'10) The Council will encourage proposals for new development to incorporate:</i> <i>a) Retention of existing trees, woodland, vegetation and other habitat features which offer a positive contribution to the local environment in terms of visual amenity, recreation value or biodiversity/wildlife interest;</i>

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	<i>b) Appropriate planting of trees, other soft landscaping and installation of habitat features for the benefit of biodiversity; and</i> <i>c) Adequate replacement provision where tree loss is unavoidable, comprising two additional trees for every tree lost and taking account of species and size.'</i>
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Saved Policies of the Knowsley Replacement Unitary Development Plan (June 2006)⁶

6.2.23. Most of the policies with the unitary development plan have been replaced by Local Plan Core Strategy policies, however, some remain in effect and continue to be saved.

6.2.24. Policy DQ4 of the unitary development plan in relation to trees and development, states:

'All new development

1. Proposals for new development should include appropriate planting of trees or other soft landscaping, the location and details of which should be determined as an integral part of the development, and which shall have regard to the character of the surrounding area.

Developments affecting existing trees

2. Development proposals affecting existing trees, woodlands and other vegetation, which make a positive contribution to amenity, should make provision for their retention.

3. Applicants for planning permission will be required to provide a detailed survey of all existing trees on the site and the likely effects on them of the proposed development, as outlined in the Council's technical advice note "Trees and Development".

4. Where the Council accepts that tree loss will be unavoidable the applicant will be required to make adequate provision for their replacement, normally including two new trees for each tree lost. Replacement planting will take into account the number; size and species of trees lost and should contribute to the extension of tree and woodland cover across the Borough...'

Supplementary Planning Documents (SPD)

6.2.25. The SPDs of relevance are listed below:

- Design Quality in New Development SPD (2016)⁷ – The SPD identifies the overarching context for design in the Borough, this includes guidance in relation to building design, density and form, and also landscaping and public open space.
- Trees and Development SPD (2016)⁸ – The SPD explains the council's approach in relation to trees and development, setting out guidance relating to promoting best practice for proposals incorporating trees and landscaping within new developments, development

⁶ <https://www.knowsley.gov.uk/sites/default/files/2023-11/Knowsley%20UDP%202006.pdf>

⁷ <https://www.knowsley.gov.uk/sites/default/files/2023-11/27-Design-Quality-in-New-Development-SPD.pdf>

⁸ <https://www.knowsley.gov.uk/sites/default/files/2023-11/Trees-and-Development-SPD-Adoption-Version.pdf>

proposals affecting existing trees, woodlands and other vegetation, requirements for detailed survey of all existing trees and requirements for provision of replacement trees.

EIA Scoping Process

- 6.2.26. As discussed in Chapter 2, a request for a Scoping Opinion was submitted on behalf of the Applicant to Knowsley Metropolitan Borough Council (KMBC) on 26th March 2025, which set out the proposed scope of assessment for the project (see **Appendix 2.1**). KMBC issued their Scoping Opinion on 21st May 2025 and is summarised in Chapter 2 and included in full at **Appendix 2.2**.
- 6.2.27. With regards to landscape and visual matters, relevant responses were received from the consultees and comments have been addressed accordingly, as follows in **Table 6.2** below. Note that specific landscape design related queries which are applicable at more detailed stages have been excluded from the table.

Table 6.2: Relevant EIA Scoping Consultation Comments

Consultee	Summary of Comment	Response or location within the ES where comments are addressed
Natural England (17/04/2025)	The ES should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies.	The LVIA considers the assessment of national and local character assessments as well as the landscape character of the Site and immediate surroundings.
	Recommends use of the methodology set out in <i>Guidelines for Landscape and Visual Impact Assessment 2013</i> ((3rd edition).	LVIA uses recommended guidance, as set out in section 6.2.
	The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area, including proposals at scoping stage.	A cumulative assessment is included as part of the LVIA
	The development should respond to and enhance local landscape character and distinctiveness and reflect local characteristics wherever possible, taking account of local and national design guides.	Details provided within the Design and Access Statement in support of the application and illustrated on Figure 6.7 Illustrative Landscape Masterplan.

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	The ES should consider potential impacts on access land, common land and public rights of way.	These form part of the recreational visual receptors, where effects upon them are considered within Section 6.4 of the LVIA.
Knowsley Council – Environmental Sustainability, Landscape (19/05/2025)	Consider landscape and visual impacts in winter.	The LVIA considers winter condition to adopt a worst-case scenario. Although the photographic record within Appendix 6.3 was taken with leaves present, the Site was visited in winter months.
	Visual envelope needs to be quantified to understand the visual impact.	Figure 6.5 shows the SZTV and sets out the parameters and methodology used. The SZTV is used as a tool to guide site work, with all visual receptors visited, where possible.
	Confirmation of landscape screening to respect the setting of Knowsley Hall boundary by offsetting the development.	Offsets provided along all Site boundaries, as shown on the Parameters Plan (Figure 4.1). Landscape treatment of boundaries illustrated on Figure 6.7 Illustrative Landscape Masterplan.

Limitations to the Assessment

- 6.2.28. The viewpoint photography which is set out within **Appendix 6.2** was taken when vegetation was in leaf, however, the assessment of landscape and visual effects considers a worst-case scenario where vegetation has no leaves and potentially increasing the potential visibility of the Proposed Development from surrounding receptors. Although the photography shows vegetation in leaf, the Site was visited in the winter months, with these conditions considered within the LVIA.

6.3. Baseline Conditions

Site Description and Context

- 6.3.1. The Site covers approximately 33.75 hectares and is located on the southern edge of the settlement of Knowsley, approximately 9 km northeast of Liverpool city centre.
- 6.3.2. The Site situated between the Knowsley Village settlement, the M57, and the Knowsley Estate as shown in **Figure 6.1 – Site Location and Topography Plan**.
- 6.3.3. The Site comprises multiple parcels of arable agricultural land interspersed with areas of scrub, divided by mature hedgerows. Two wooded areas, known as Spookies Wood, are situated in the centre of the Site and contain ponds and drainage ditches.
- 6.3.4. The Site is bounded by:
- A mature hedgerow along Home Farm Road, Ross Close Playing Fields, and the rear gardens of residential properties on Parklands and Sugar Lane (see **Figure 6.6 – Local Context**). An access track continues from Home Farm Road, severing the Site;
 - A sandstone wall, tree planting and scrub along the eastern boundary up to Stanley Grange Business Park, where there is a mix of close-board fencing and chain-link fencing to the rear of residential properties on Parklands. Beyond the wall lies mature woodland from the Knowsley Park Estate, a designated Registered Park and Garden and Local Wildlife Site (Local Wildlife Site ref. 40);
 - A continuation of the sandstone wall and mature along the southern boundary with mature woodland from Knowsley Park / Ash Plantation adjacent; and
 - a mature hedgerow along Knowsley Lane (B5202) forming the western boundary, with Aker's Pit (Local Wildlife Site ref. 59), footpath KN/5/1, the Sanctuary Community Woodland and the M57 motorway beyond this.
- 6.3.5. Photographic record of views toward the site and its local context are provided in **Appendix 6.3**.

Baseline Survey Information

Designations

- 6.3.6. The Site is not covered by any national or local landscape designations (see **Figure 6.2 Environmental Designation Plan**). It adjoins the Registered Park and Garden of Knowsley Hall along part of its eastern and southern boundary. The nearest Listed Buildings to the Site are those of Grade II listed Littlewood Lodge (List Entry: 1253469), approximately 100m south of the Site and Grade II* listed Knowsley Hall (List entry: 1253241), approximately 770m to the east. A local nature reserve, Croxteth Local Nature Reserve, is about 1.3 km west.
- 6.3.7. At a local level, Knowsley Conservation Area is located approximately 110m from the Site's north-western boundary at its closest point. There is a further conservation area at Prescott Town Centre more than 2.7km to the southeast of the Site.
- 6.3.8. The Site is identified in KMBC Local Plan Core Strategy (adopted January 2016) as Safeguarded Land (Policy SUE1), having been removed from the Green Belt which surrounds the Site to three sides.

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Public Rights of Way (PRoW)

- 6.3.9. There are no Public Rights of Way (PRoW) located within the Site itself. Bridleway KN/5/1 is located to the western boundary and travels in a westward direction on Fluker's Brook Lane and then northwards adjacent to the M57 motorway. National Cycle Network Route 862 follows a route approximately 360m west of the Site, adjacent to the western side of the M57.

Landscape Features

Topography and Landform

- 6.3.10. The Site is relatively flat, with a gentle rise in elevation from approximately 26m AOD in the west to around 35m AOD in the east, as shown in **Figure 6.1 – Site Location and Topography Plan**.
- 6.3.11. Surrounding the site, topography remains fairly flat towards the west although rises steeply at Knowsley Park to the east, reaching 97m AOD at Hag Brow.

Watercourses and Drainage

- 6.3.12. There are several ponds, dry pits and ditches running through Spookies Wood in the centre of the site, with a historic infilled pond in the north-west. Further ponds and ditches can be found external to the Site at Aker's Pit and Ash Plantation. The nearest watercourse is Croxteth Brook, about 850m to the west which eventually flows into the River Alt. White Man's Dam located 0.8km to the east.

Vegetation

- 6.3.13. The Site is bounded along the majority of the northern boundary by an established hedgerow, immediately adjacent to Home Farm Road and the settlement of Knowsley Village. The Site extends east of Berry Hill Avenue and Ross Close Playing Fields to the rear of residential properties on Sugar Lane and Parklands and the boundary with Home Farm, a cluster of buildings with commercial and office uses. The remainder of the eastern boundary and the southern boundary comprise part of the well wooded edges of Knowsley Park Registered Park and Garden. The western boundary is defined by a hedgerow and Knowsley Lane, beyond which a tract of woodland extends to the M57.
- 6.3.14. The Site comprises five arable field delineated by hedgerow. Howards Pit and Knowles's Pit, also known as Spookies Woods, is a Priority Woodland located in the centre of the Site. While the Multi Agency Geographic Information for the Countryside (MAGIC) website did not identify any woodlands within or immediately adjacent to the Site as Ancient Woodland, ecological surveys identified ancient woodland indicator species. With ancient woodland in England being defined as an area that has been continuously wooded since at least 1600 AD, due to the proximity of the woodlands to an historic estate which dates to the late 15th century, the recorded woodland has been assumed to be ancient for the purpose of assessment to take a robust approach. Large areas of scrub and bramble have populated in the most southern and northern fields.
- 6.3.15. Immediately surrounding the Site, Ash Plantation is a Priority Woodland within Knowsley Park Local Wildlife Site (LWS) where TPOs are present.

Land Use, Building and Infrastructure

- 6.3.16. The Site is greenfield land comprising five arable agricultural field with boundaries, two centrally located woodland blocks and hedgerows to most field boundaries.
- 6.3.17. The surrounding area is mostly arable farmland, woodland at various scales, and settlements of varying sizes. The various quarries to the west and northwest of the Site are also prominent land uses in the area.
- 6.3.18. There is no built form located within the Site apart from a sandstone wall defining the eastern and southern boundaries to Knowsley Hall estate, although in a section close to Home Farm the wall has been reinstated in blockwork that is out of character with the original wall.
- 6.3.19. Home Farm is a cluster of buildings, associated with the former estate that are used for office and commercial use. The settlement of Knowsley Village abuts the northern boundary along Sugar Lane and Home Farm Lane. This residential area influences the character of the Site, being on the urban fringe and is visible from most of the Site. The Site is very well contained on all boundaries.
- 6.3.20. Notable infrastructure surrounding the Site includes the M57 to the west, and Stanley Grange Business Park and a telecommunications mast to the west. Knowsley Lane is the main primary route adjacent to the western boundary providing access into the Site.

Landscape Character

National Character Area

- 6.3.21. The Site sits within National Character Area (NCA) 32, Lancashire and Amounderness Plain but close to the boundary with NCA 58: Merseyside Conurbation, as shown on **Figure 6.3 – Landscape Character Plan**.
- 6.3.22. The NCA 32 is described as “an area of high-grade agricultural land, bounded by Morecambe Bay in the north and Liverpool in the south. The eastern boundary is contained by the Bowland Fringe. The plain is made up of a series of low-lying landscape types: in the east, undulating lowland farmland on the highly productive coastal plain, and in the west, the former mosslands and their remnant sites, and the coastal marshes and dunes”.
- 6.3.23. The national level assessment gives a broad-brush impression of a region and provides a useful contextual overview of the character of the wider landscape. However, the proposed development is not considered to have the potential to result in any perceptible effects on landscape character at this national scale and to remain proportionate to the small scale of the Site in relation to the NCA, focus is placed upon the local landscape character.

Local Landscape Character Areas

- 6.3.24. At a local level, the Site falls within Landscape Character Type (LCT) ‘Urban Fringe Farmed Parkland’ and Landscape Character Area (LCA) ‘Knowsley Estate’ of the Landscape Character Assessment of Knowsley Metropolitan Borough (see **Figure 6.3**) and also lies adjacent to the ‘Knowsley Village / M57 Corridor’ LCA. Both of these landscape characters are considered in this report.

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Knowsley Estate LCA

6.3.25. The key summary points of LCA, Knowsley Estate, of relevance to this report are outlined below:

- *“Both flat low-lying topography and gently rolling topography: ...*
- *Private formal estate with some agricultural cropping to the north of the estate – Cereal and Market Gardening;*
- *Clumps, planting belts and small woodlands provide a high tree cover within the estate. Mixes of deciduous and evergreen species provide seasonal interest and are used to enhance vistas throughout the estate;*
- *Large country house set in walled parkland with a number of outlying estate houses and farm dwellings. Mainly red brick with some sandstone and pitched grey slate tiled roofs;*
- *The Estate consists of the flat low lying topography to the North containing the farmland and the rolling topography of the south containing the formal estate and the pastures;*
- *Urban influences on the area are minimal apart from some minor periphery noise from road traffic including the M57 and A580. This provides a sense of remoteness;*
- *The Estate is enclosed within a sandstone wall providing a positive visual impact along its boundary;*
- *The estate is well maintained and managed with ongoing restoration and replanting ensuring a quality landscape is sustained;*
- *Woodland tree lines are always prominent as a backdrop to the estate landscapes”.*

Knowsley Village / M57 Corridor

6.3.26. The key summary points of LCA, Knowsley Village / M57 Corridor, of relevance to this report are outlined below:

- *The topography of this area is flat and low-lying, dissected in places by drainage ditches and water courses such as the River Alt and Knowsley Brook;*
- *A pattern of moderately large arable fields exists, with tree cover largely restricted to isolated groups around buildings and along roads;*
- *Topography Flat with some a gentle undulation towards the Knowsley Estate;*
- *Land Use predominantly agriculture with arable cropping and pasture;*
- *Tree Cover Generally deciduous woodland in clumps or isolated trees along tracks, roads and old field boundaries;*
- *Urban fringe settlement is prominent in the background with isolated farmsteads and scattered residential dwellings;*

Baseline Visual Receptors

Extent of Visibility

- 6.3.27. Following desktop research and site visits, it is evident that visibility of the Proposed Development would be very limited in nature, with only those areas immediately surrounding the Site having any visibility, owing to a combination of woodland to the west, south and east and built form associated with Knowsley to the north. Potential views from further afield would likely be reduced by the intervening vegetation and buildings, with only select parts of the Proposed Development visible from the surrounding landscape. The approximate area of theoretical visibility of Proposed Development is illustrated by the SZTV at **Figure 6.5**, however, during site visits, the theoretical visibility was deemed to overexaggerate actual visibility.

General Views and Screening Elements

- 6.3.28. The Site benefits from areas of mature woodland to the south and east associated with the pattern of woodland within Knowsley Park. Although mostly deciduous, the mature woodland includes some evergreen species which further enhances the enclosure to the Site. The woodland provides a visual screen between the park and the Site, as well as from nearby roads including Knowsley Lane (B5194) (**refer to Viewpoint 4**).
- 6.3.29. Two areas of mature woodland are located within the Site, which include a mix of species and contain areas of rhododendron. These woodlands break up the Site and limit intervisibility between one part of the Site to another, as well as limit views from surrounding roads and residential properties to all areas of the Site.
- 6.3.30. Mature field boundary hedgerows along northern and eastern boundaries of the Site limit direct views from adjacent roads, including from Home Farm Road and Knowsley Lane (B5194) (**refer to Viewpoints 1, 2, 3 and 4**). The hedgerows also limit some direct views from properties along Home Farm Road and adjacent streets, however, views from upper floor windows are still likely to be possible. Beyond Knowsley Lane to the west, mature woodland provides additional visual enclosure to the Site and also encloses numerous isolated residential properties, as well as views from public rights of way (**refer to Viewpoint 11**).
- 6.3.31. Woodland and areas of maturing scrub to the north-east of the Site limit some direct views towards the Site from residential properties along Sugar Lane and Parklands (**refer to Viewpoint 8**). However, from some locations, open views across the Site are possible (**refer to Viewpoint 7**).
- 6.3.32. The building complex and surrounding vegetation at Stanley Grange Business Village provides further visual enclosure to the Site to the north-west, including limiting views from Ormskirk Road (**refer to Viewpoint 9**).

Visual Receptors

- 6.3.33. A number of visual receptors exist either adjacent to the Site or within the immediate landscape surrounding the Site. Those that formed the initial basis of the fieldwork study were identified through desk-based study in advance of the site visit. Through fieldwork observations and an understanding of screening elements and general visibility, some of the locations originally identified as having the potential for visibility have been discounted due to an absence of views. These include the M57 motorway, National Cycle Network Route 862, isolated residential properties to the west and south-west (including properties off Fluker's Brook Lane and properties along Knowsley Lane), properties within Croxteth and properties along School Lane

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(B5194) to the north-west. In addition, there are no publicly accessible locations within Knowsley Park and with limited or no theoretical visibility, therefore, no receptors have been considered within the park.

- 6.3.34. A number of viewpoints have been considered to help represent the nature of views towards the Site from the surrounding landscape. The following 11 viewpoint locations have been considered, as illustrated in **Figure 6.5** and presented in a Photographic Record at **Appendix 6.3**. A Viewpoint Assessment is also set out at **Appendix 6.2**.

Table 6.3: Viewpoint Locations

Viewpoint number	Viewpoint name	Receptor Type
1	Home Farm Road	Residential
2	Junction of Knowsley Lane (B5194) and Home Farm Road	Road / Residential
3	Knowsley Lane / Fluker's Brook Lane (Bridleway KN/5/1)	Road / Recreational
4	Knowsley Lane (B5194) near Knowsley Cottage	Road
5	Knowsley Lane (B5194)	Road
6	Eastern end of Home Farm Road, within the Site	Recreational
7	Ross Close	Residential / Recreational
8	Parklands	Residential
9	Entrance to Stanley Grange Business Village, Ormskirk Road	Road
10	Public Right of Way (Footpath KN/2/1)	Recreational
11	Public Right of Way (Bridleway KN/5/1) on bridge over the M57	Road / Recreational

- 6.3.35. In addition to the assessment viewpoints, a range of different receptor groups that form the focus of this assessment are listed below.

Residential Receptors

- 6.3.36. Surrounding residential receptors are largely limited to those adjacent to or in proximity to the Site, and include:

- Properties along Home Farm Road/Whitestone Close
- Properties along Longborough Road
- Properties along Berry Hill Avenue
- Properties along Ross Close and Sugar Lane
- Properties along Parklands
- Knowsley Cottage
- Properties along Alder Lane / Pinfold Lane

Recreational Receptors

6.3.37. The following recreational receptors are considered further within the chapter and include:

- PRoW / Bridleway KN/5/1 (along Fluker's Brook Lane)
- Informal open space between Home Farm Road and Ross Close
- PRoW / Footpath KN/2/1

Places of Work

6.3.38. Users of the adjacent Stanley Grange Business Village are considered as a receptor.

Road Receptors

6.3.39. The following road receptors are considered further within the chapter, with those included as part of another receptor group stated in brackets, as follows:

- Home Farm Road (to form part of the residential receptor)
- Knowsley Lane (B5194)
- Ormskirk Road
- Fluker's Brook Lane (to form part of a recreational receptor PRoW / Bridleway KN/5/1)

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6.4. Assessment of Likely Significant Effects

- 6.4.1. The assessment of effects firstly assesses the sensitivity of the landscape resource or visual receptor. An assessment is then made as to the magnitude of the change in terms of its scale or size.
- 6.4.2. The assessments of sensitivity of the receptor and magnitude of change are then combined with the duration of the effect and the reversibility of the effect, to assist in determining the relative level of effect on each landscape feature, character area or visual amenity.
- 6.4.3. Landscape and visual mitigation measures have been integrated into the design of the Proposed Development through an iterative design process, and such measures are therefore considered to be embedded primary mitigation. These measures are described in **Chapter 4** of the ES and summarised in **Section 6.7** of this chapter.
- 6.4.4. Effects on landscape character and local visual amenity are therefore assessed on the basis of such embedded primary mitigation being in place.

Sensitivity

Sensitivity of Landscape Features

Landform and Topography

- 6.4.5. The landform and topography of the Site is relatively flat and not unusual in the locality, particularly of land within Knowsley and is considered to be of low value, however, is deemed to have a medium susceptibility to change due to the changes in level predicted as a result of the Proposed Development. On balance, the sensitivity of landform and topography is considered to be medium to low.

Watercourses and Drainage

- 6.4.6. There are no water courses within the Site, however, a number of ponds are located within the two central woodlands. These ponds relatively unmanaged, however, have some amenity and wildlife value and therefore, judged as having a medium to high value. The woodlands would be retained as part of the Proposed Development, therefore are deemed to have a medium to low susceptibility to change. On balance, the sensitivity of watercourses and drainage is considered to be medium.

Vegetation

- 6.4.7. The Site benefits from a series of mature field boundary hedgerows, two mature woodlands and areas of scrub. Although not within the Site, southern and eastern boundaries are bordered by mature woodland associated with Knowsley Park. Although not on the register and in need of management, the two central woodland areas are considered to have ancient woodland indicator species. The value of vegetation is therefore considered to be high. The Proposed Development would respect woodland within and surrounding the Site, as well as incorporate the existing field pattern, however, would require some removal of field boundary hedgerows and scrub. Therefore, vegetation is considered to have a medium susceptibility to change, which when combined with a high value, results in a medium to high sensitivity.

Land Use, Building and Infrastructure

- 6.4.8. The Site comprises a series of agricultural fields and an area of informal recreational land to the north-east and lies adjacent to Knowsley Hall. The Site has therefore some cultural and recreational value, as well as wildlife value associated with the two central woodlands. There are no roads on the Site, however, an informal track crosses the north-eastern part of the Site. However, the Site is influenced by the residential edge of Knowsley to the south. On balance, the value of the Site is considered to be medium to high. The susceptibility of the green field Site to the Proposed Development, with the retention and respect of valued features and the influence of adjacent roads, business park and the settlement edge, is considered to be medium. A resultant medium to high sensitivity is assigned to land use, building and infrastructure.

Sensitivity of Landscape Character

Landscape Character of the Site and its Immediate Surroundings

- 6.4.9. The site is mostly made up of agricultural fields with established field boundaries within a relatively flat landscape and which is managed, however, with some areas of overgrown scrub. However, the site lies adjacent to Knowsley Park registered historic park and garden to the east and west, with two small woodlands which are considered to have the attributes of ancient woodland. Although there are no public rights of way through the Site, north-eastern parts of the Site form part of Ross Cross Playing Fields, which constitutes an informal and publicly accessible open area. The Site is not unattractive, however, is very enclosed by surrounding woodland to the east, west and beyond Knowsley Lane to the west. The Site is influenced however, by the busy road to the west, Stanley Grange Business Village to the north-east and the edge of Knowsley village which abuts the Site to the north and north-east. When balancing these factors, the value of the Site and its immediate surroundings is considered to be medium to high.
- 6.4.10. When considering the susceptibility to change of the Site and influence upon the immediate local landscape, whilst the Proposed Development would be located on a green field Site managed for its agricultural uses, with some recreational uses to the north-east, the Site is influenced in part by the adjacent busy road, the settlement edge of Knowsley village and the adjacent Stanley Grange Business Village to the north-east. The Proposed Development would retain much of the existing landscape features including the two small woodlands, most of the field boundary vegetation and surrounding mature woodlands. The overall susceptibility for the Site and immediate surroundings is considered to be medium for the type of development proposed.
- 6.4.11. When combining a medium to high value and medium susceptibility to change, the sensitivity of the Site and its immediate surroundings is considered to be medium to high.

Local Landscape Character Areas

- 6.4.12. The Landscape Character Assessment of Knowsley Metropolitan Borough (2007) does not include an analysis of the landscape sensitivity of its defined landscape character areas. The landscape character assessment does not include a description of areas defined as settlement, therefore, these areas have been excluded from the assessment.

Knowsley Estate LCA

- 6.4.13. Most of the Site lies within this LCA, located within the western most part of the LCA. The Site has some similar characteristics of the LCA in that it has flat topography, is adjacent to the

Landscape and Visual Amenity

estate wall, including small woodland areas and features a high tree cover including deciduous and evergreen species. Due to the historic influence of Knowsley Park, the LCA as a whole is considered to have a high value and susceptibility to change, resulting in a high sensitivity.

Knowsley Village / M57 Corridor

- 6.4.14. The Site lies adjacent to this LCA beyond Knowsley Lane. Due to the influencing features within the LCA, including the M57 motorway and its embankment and noise, as well other adjacent industry and buildings, the value and susceptibility to change are deemed to be no greater than medium to low. The LCA is therefore, deemed to have a medium to low sensitivity.

Sensitivity of Visual Amenity Receptors

- 6.4.15. All residential receptors as set out above are considered to have a high susceptibility to the Proposed Development and a medium to high value, which equates to an overall high sensitivity. It is generally accepted that sensitivity decreases within upper floors of properties due to the use of upper storeys generally not being associated with primary living spaces. However, as a precautionary approach, the default position adopted is that residential receptor sensitivity is high for all views from residential properties.
- 6.4.16. Similarly, PRoW and users of the informal open space are also considered to have a high sensitivity, when combining a high susceptibility to change and value.
- 6.4.17. In relation to the surrounding roads, drivers do not appear to be using the routes primarily for recreational activities or the specific enjoyment of the landscape, which serves to lower their susceptibility to change and value, which equates to a medium sensitivity. The exception to this is Fluker's Brook Lane, which due to its dual use as a bridleway, serves to increase the sensitivity to high.
- 6.4.18. People at work within nearby commercial / industrial premises at Stanley Grange Business Village are of low visual sensitivity, due to being considered to have low susceptibility to change and a low value.

Construction

- 6.4.19. **Chapter 4** provides an overview of the likely construction practices
- 6.4.20. It is recognised that there would be some additional temporary, non-permanent effects during the construction of the proposed development, over and above those assessed as permanent effects associated with the operational phase. The effects would primarily relate to the following temporary construction works:
- Site clearance, including limited areas of vegetation removal;
 - Movement and presence of associated construction vehicles, plant and materials;
 - Presence of construction compounds, site offices and welfare facilities;
 - Earthworks and construction associated with the formation of building platforms, foundations, road infrastructure, drainage features and earth bunding;
 - Highways works to provide viable connections to Knowsley Lane;

- Building construction, including scaffolding; and
- Use of hoarding, temporary fencing and signage.

Effects of Landscape Features During Construction

Landform and Topography

- 6.4.21. During construction there would be minimal changes in level throughout most of the Site to accommodate building platforms, roads and attenuation basins. The levels surrounding existing vegetation would be respected. The magnitude of change would be medium to low, and with medium to low sensitivity, the scale of effect would be **Moderate/Minor** adverse and **Not Significant**.

Watercourses and Drainage

- 6.4.22. During construction, due to the location of existing water features within areas of retained woodland, they would not be affected in any way. Two large scale attenuation basins would be introduced to the Site, located centrally and to the north-west, which would require sizeable earthworks. The magnitude of change would be low, and with medium sensitivity, the scale of effect would be **Moderate/Minor** adverse and **Not Significant**.

Vegetation

- 6.4.23. The Proposed Development has been designed so that most of existing trees, woodland, scrub and hedgerows within the Site would be retained, with retained vegetation utilised within green corridors and to divide development parcels. Retained vegetation would be protected during construction, including the two central woodlands, through the use of appropriate tree protection measures in accordance with BS 5837:2012 and as set out in a suitably worded Construction Environmental Management Plan (CEMP). There would be some losses to hedgerows during construction to accommodate vehicular access from Knowsley Lane and roads through the Proposed Development. Areas of scrub would also be cleared to allow construction of the housing, roads and creation of green corridors.
- 6.4.24. The magnitude of change would be low, and with medium to high sensitivity, the scale of effect would be **Moderate/Minor** adverse and **Not Significant**.

Land Use, Building and Infrastructure

- 6.4.25. During construction of the Proposed Development, there would be a gradual but complete change of land use within the Site, from agricultural land and informal recreational land to residential development with associated infrastructure and landscaping. The change would be observed in the context of the settlement edge of Knowsley to the north, a business park to the north-east and the busy Knowsley Lane to the west.
- 6.4.26. The magnitude of change would be high, and with medium to high sensitivity, the scale of effect would be **Moderate/Major** adverse and **Significant**.

Effects on Landscape Character During Construction

Landscape character of the Site and Immediate Surroundings

Landscape and Visual Amenity

- 6.4.27. During construction of the Proposed Development, there would be a complete change to the landscape character of the Site, where construction activity would influence the former agricultural and recreational land. However, due to surrounding built form and established woodland, the influence of construction activity would largely be limited to the Site itself. The magnitude of change is assessed as high during construction, resulting in a **Moderate/Major** level of effect, which is **Significant**.

Knowsley Estate LCA

- 6.4.28. Due to the proximity of adjacent development and the visual enclosure of the Site, the influence of construction activity associated with the Proposed Developments upon the wider LCA would be limited in nature. The magnitude of change for the LCA is assessed as low during construction, resulting in a **Moderate/ Minor** level of effect, which is **Not Significant**.

Knowsley Village / M57 Corridor LCA

- 6.4.29. Due to the presence of established woodland west of Knowsley Lane and mature vegetation along both sides of the road, the influence of construction activity associated with the Proposed Development would be very limited. As such, the magnitude of change for Knowsley Village / M57 Corridor LCA is assessed as very low during construction, resulting in a **Minor/No effect** level of effect, which is **Not Significant**.

Effects on Visual Amenity During Construction

Residential Receptors

Properties along Home Farm Road/Whitestone Close

- 6.4.30. Although the intervening field boundary hedgerow along the roads would be retained, construction activity would be clearly noticeable in the foreground, particularly from upper storey windows. In some places, direct views towards construction activity would be filtered by trees along the road. A medium to high magnitude of change is predicted during construction, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.

Properties along Longborough Road

- 6.4.31. Only properties to the south of the road are predicted to have views towards construction activity associated with the Proposed Development. Despite the proximity of the residential properties, views towards construction activity would be seen at an oblique angle due to the orientation of buildings, with some direct views towards construction activity obscured by buildings along Home Farm Road. Some direct views would also be filtered in part by the intervening hedgerow along Home Farm Road. A medium to low magnitude of change is predicted during construction, which would result in a **Moderate to Minor** adverse level of effect, which is considered to be **Not Significant**.

Properties along Berry Hill Avenue

- 6.4.32. Only properties to the east of the road are predicted to have views towards construction activity associated with the Proposed Development. Views towards construction activity would be possible to the east of the properties, as well as obliquely to the south. Most direct views towards construction activity would be partly filtered by garden vegetation and fencing at the rear of the residential properties and slightly offset from the edge of property boundaries.

However, views towards construction activity from upper storeys are likely to be clearly noticeable, particularly to the east. A medium to high magnitude of change is predicted during construction, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.

Properties along Ross Close and Sugar Lane

- 6.4.33. Whilst all properties along Ross Close are considered within the assessment, only those immediately adjacent to Ross Close to the west and all those properties to the east are considered in the assessment. Views from properties further to the west of Sugar Lane towards the Site would be obscured by intervening buildings.
- 6.4.34. Most direct views towards construction activity would be partly filtered by garden vegetation and fencing at the rear of the residential properties, by intervening retained trees and scrub within the Site and seen at an oblique angle from those properties along Ross Close. However, views towards construction activity from upper storeys are likely to be clearly noticeable. A medium to high magnitude of change is predicted during construction, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.

Properties along Parklands

- 6.4.35. Views from most properties towards construction activity would be limited in nature due to existing retained trees filtering direct views. However, those residential properties to the south of the road would have views towards construction activity within the north-eastern corner of the Site, particularly from upper storeys and despite intervening garden vegetation and fencing. A medium to high magnitude of change is predicted during construction, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.

Knowsley Cottage

- 6.4.36. Views towards construction activity from the cottage and properties further to the west would be mostly filtered by the dense intervening vegetation between the cottage and Knowsley Lane. Adjacent mature woodland to the north of the cottage further limits views towards construction activity. A worst case low magnitude of change is predicted during construction, which would result in a **Moderate to Minor** adverse level of effect, which is considered to be **Not Significant**.

Properties along Alder Lane / Pinfold Lane

- 6.4.37. Views towards construction activity would be limited by vegetation surrounding the properties, vegetation along Knowsley Lane including field boundary hedgerows and woodland and retained vegetation surrounding the Site. A worst-case low magnitude of change is predicted during construction, which would result in a **Moderate to Minor** adverse level of effect, which is considered to be **Not Significant**.

Recreational Receptors

PRow / Bridleway KN/5/1 (along Fluker's Brook Lane)

- 6.4.38. To the east of the route adjacent to Knowsley Lane, construction activity would be clearly noticeable in the foreground, seen above the retained existing hedgerow along the road and set back from the edge of the Site. Walkers further to the west would gradually see less of the Proposed Development due to woodland on both sides of the route, with trees along Fluker's Brook Lane framing views towards construction activity. A worst-case medium to high

Landscape and Visual Amenity

magnitude of change is predicted during construction adjacent to Knowsley Lane, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.

Informal open space between Home Farm Road and Ross Close

- 6.4.39. Due to the proximity of this linear area of public open space directly adjacent to the Site, construction activity would be prominent in the foreground. A high magnitude of change is predicted during construction, which would result in a **Major** adverse level of effect, which is considered to be **Significant**.

PRoW / Footpath KN/2/1

- 6.4.40. It is predicted that due to intervening woodland and properties, there would be no views towards the Proposed Development during construction, resulting in **No effect**, which would be **Not Significant**.

Places of Work

Stanley Grange Business Village

- 6.4.41. Due to the proximity of those working at the business village, particularly those to the west, construction activity associated with the Proposed Development would be clearly noticeable, filtered in part by intervening vegetation adjacent to the Site. A high magnitude of change is predicted during construction, which would result in a **Moderate** adverse level of effect, which is considered to be **Significant**.

Road Receptors

- 6.4.42. Visual effects along Home Farm Road is covered under recreational receptors, with Fluker's Brook Lane covered under recreational receptors, namely Bridleway KN/5/1. Therefore, visual effects have not been repeated in the section.

Knowsley Lane (B5194)

- 6.4.43. Those parts of the road influenced by construction of the Proposed Development are limited to where the road passes directly past the western boundary of the Site and to those parts of the road directly north and south close to the Site. These areas equate to a distance of approximately 0.6km along the road.
- 6.4.44. Views of construction activity would be clearly noticeable whilst travelling along the road, including through gaps in the existing field boundary hedgerow along the western Site boundary to accommodate new road access points. Although fleeting and oblique in nature, a worst-case high magnitude of change is predicted during construction, which would result in a **Moderate** adverse level of effect, which is considered to be **Significant**. However, effects beyond the Site to the north and south are predicted to be considerably less.

Ormskirk Road

- 6.4.45. Most of the road would have no views towards the Site, however, glimpses are possible close to the entrance to Stanley Grange Business Village. Construction activity is predicted to be glimpsed through the intervening vegetation in the foreground, however, would be barely perceptible. A very low magnitude of change is predicted during construction, which would result in a **Minor** adverse level of effect, which is considered to be **Not Significant**.

Operation

- 6.4.46. See **Chapter 4** for an overview of the Operation Phase for the project.

Effects of Landscape Features During Operation

Landform and Topography

- 6.4.47. It is assumed for the purposes of this assessment that the Proposed Development would be constructed largely at grade with current ground levels, with minor alterations to topography in certain areas as required by buildings, attenuation basins or landscape design proposals. Areas of land within and surrounding the two central woodlands and boundaries to the south and east would remain unaltered.
- 6.4.48. Although the effects are considered long term and permanent, the magnitude of change across the Site is assessed as low across both at Year 1 and Year 15 of operation, resulting in a **Minor** adverse level of effect to landform and topography, which is **Not Significant**.

Watercourses and Drainage

- 6.4.49. Upon operation, the existing ponds would be unaffected and the attenuation basins would be seeded and planted where appropriate. Due to the creation of these new features, a very low beneficial magnitude of change is predicted at Year 1 of operation, resulting in a **Minor** beneficial level of effect to water courses and drainage, which is **Not Significant**.
- 6.4.50. Over time, the planting within these new features would mature, with existing ponds managed for their wildlife benefit. A low beneficial magnitude of change is predicted at Year 15 of operation, resulting in a **Moderate/Minor** beneficial level of effect to water courses and drainage, which is **Not Significant**.

Vegetation

- 6.4.51. Upon completion, most of the existing landscape features, including the two central woodlands would be retained, along with most existing hedgerows and trees, as well as some areas of scrub surrounding the Proposed Development. Most existing vegetation would be set within public open space or green corridors. New planting would be introduced throughout the Proposed Development, including within public open spaces and for the benefit of local wildlife. Although the new planting would be in place, it would not yet have matured at Year 1. Therefore, a low beneficial magnitude of change is predicted at Year 1 of operation, resulting in a **Moderate/Minor** beneficial level of effect to vegetation, which is **Not Significant**.
- 6.4.52. By Year 15 of operation of the Proposed Development, the maturing proposed planting along with the retention and enhancement of existing vegetation would provide further beneficial effects. A medium beneficial magnitude of change is predicted at Year 15 of operation, resulting in a **Moderate** beneficial level of effect to vegetation, which is **Not Significant**.

Land Use, Buildings and Infrastructure

- 6.4.53. On completion, effects as identified during construction would remain, due to the agricultural land and informal recreational land altered to residential development with associated infrastructure and landscaping. The magnitude of change is assessed as high at Year 1 of operation, resulting in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.

Landscape and Visual Amenity

- 6.4.54. With the benefit of maturing vegetation set within green corridors throughout the Proposed Development, the residential development would integrate with the surrounding landscape and appear as an extension to Knowsley village. The magnitude of change is assessed as medium at Year 15 of operation, resulting in a **Moderate** adverse level of effect, which is considered to be **Not Significant**.

Effects on Landscape Character During Operation

Landscape Character of the Site and Immediate Surroundings

- 6.4.55. On completion, effects as identified during construction would remain, due to the Proposed Development and its influence on former agricultural and recreational land. However, the Site is deemed to already be influenced by the settlement edge of Knowsley to the north, by Stanley Grange Business Village to the north-east and by Knowsley Lane to the west. Due to surrounding built form and areas of established woodland, the influence of the Proposed Development would largely be limited to the Site itself. The magnitude of change is assessed as high at Year 1 of operation, resulting in a **Moderate/Major** adverse level of effect, which is considered to be **Significant**. These are inevitable adverse effects when building upon undeveloped fields.
- 6.4.56. With the benefit of maturing vegetation set within green corridors throughout the Proposed Development, the residential development would integrate with the surrounding landscape and appear as an extension to Knowsley village. However, inevitable adverse effects would remain as a result of building upon undeveloped fields. The magnitude of change is assessed as medium/high at Year 15 of operation, resulting in a **Moderate/Major** adverse level of effect, which is considered to be **Significant**.

Knowsley Estate LCA

- 6.4.57. The Site is located to the west of the LCA. Whilst the Site has some characteristics of the LCA, including in relation to flat topography, the estate wall and small areas of woodland, the Site appears physically and visually separate from Knowsley Park. The Proposed Development would not be uncharacteristic to the adjacent built up area of Knowsley village to the north and north-east and is visually enclosed from Knowsley Park by dense areas of mature woodland including both deciduous and evergreen woodland species. The proximity of adjacent development and the visual enclosure of the Site serve to reduce the Proposed Developments influence upon the wider LCA.
- 6.4.58. The magnitude of change for the LCA is assessed as low at year 1 of operation, resulting in a **Moderate/ Minor** level of effect, which is **Not Significant**. At year 15 of operation, as the maturing landscape mitigation serves to soften the influence of the Proposed Development, the magnitude of change for Knowsley Estate LCA is assessed as very low, giving rise to a **Minor** level of effect, which is **Not Significant**.

Knowsley Village / M57 Corridor LCA

- 6.4.59. The Proposed Development would have no direct effect upon the LCA, however, would influence limited parts beyond Knowsley Lane. Due to the presence of established woodland west of Knowsley Lane and mature vegetation along both sides of the road, the influence of the Proposed Development would be very limited. As such, the magnitude of change for Knowsley Village / M57 Corridor LCA is assessed as very low at year 1 and year 15 of operation, resulting in a **Minor/No effect** level of effect, which is **Not Significant**.

Effects on Visual Amenity During Operation

Properties along Home Farm Road/Whitestone Close

- 6.4.60. Views towards the Proposed Development upon operation (Year 1) would be clearly noticeable, filtered in part by vegetation along the road and by the retained field boundary hedgerow along the Site boundary. Although some proposed tree and scrub planting would be in place along the green corridor adjacent to the existing vegetation, it would not yet be visually effective. A medium to high magnitude of change is predicted at Year 1 of operation, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.
- 6.4.61. With the benefit of maturing tree and scrub planting along the northern boundary, some direct views towards the Proposed Development would be filtered and appear integrated with the adjacent developed edge. A medium magnitude of change is predicted at Year 15 of operation, which would result in a **Moderate** adverse level of effect, which is considered to be **Not Significant**.

Properties along Longborough Road

- 6.4.62. Only properties to the south of the road are predicted to have views towards the Proposed Development. Upon operation (Year 1), views towards the Proposed Development would be seen at an oblique angle due to the orientation of buildings, with some direct views towards the Proposed Development obscured by buildings along Home Farm Road. Some direct views would also be filtered in part by the intervening field boundary hedgerow along Home Farm Road. Although some proposed tree and scrub planting would be in place along the green corridor along Home Farm Road, adjacent to the existing hedgerow, it would not yet be visually effective. Views of the new housing would be in keeping with the surrounding environs. A medium to low magnitude of change is predicted during construction, which would result in a **Moderate to Minor** adverse level of effect, which is considered to be **Not Significant**.
- 6.4.63. With the benefit of maturing tree and scrub planting along the northern boundary, some direct views towards the Proposed Development would be filtered and appear integrated, seen in context of adjacent residential development along Home Farm Road. A low magnitude of change is predicted at Year 15 of operation, which would result in a **Moderate to Minor** adverse level of effect, which is considered to be **Not Significant**.

Properties along Berry Hill Avenue

- 6.4.64. Only properties to the east of the road are predicted to have views towards the Proposed Development. Upon operation (Year 1), although the Proposed Development would be slightly offset from the properties and garden vegetation and fencing would filter some direct views, the housing would be clearly noticeable, particularly to the east and from upper storey windows. Although some proposed tree and scrub planting would be in place along green corridors along the periphery of the Site, it would not yet be visually effective. A medium to high magnitude of change is predicted at Year 1 of operation, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.
- 6.4.65. With the benefit of maturing tree and scrub planting along the Site boundaries, some direct views towards the Proposed Development would be filtered and appear integrated with the adjacent developed edge. A medium magnitude of change is predicted at Year 15 of operation, which would result in a **Moderate** adverse level of effect, which is considered to be **Not Significant**.

Properties along Ross Close and Sugar Lane

Landscape and Visual Amenity

6.4.66. Upon operation (Year 1), although the views towards the Proposed Development would be filtered by garden vegetation and fencing, as well as trees and scrub within the Site, the housing would be clearly noticeable, particularly from upper storey windows. Although some proposed tree and scrub planting would be in place along green corridors along the periphery of the Site, it would not yet be visually effective. A medium to high magnitude of change is predicted at Year 1 of operation, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.

6.4.67. With the benefit of maturing tree and scrub planting along the Site boundaries, some direct views towards the Proposed Development would be filtered and appear integrated with the surrounding residential properties. A medium magnitude of change is predicted at Year 15 of operation, which would result in a **Moderate** adverse level of effect, which is considered to be **Not Significant**.

Properties along Parklands

6.4.68. Upon operation (Year 1), views from those residential properties to the north of the road towards the Proposed Development would be limited in nature due to existing retained trees filtering direct views. However, those residential properties to the south of the road would have views towards construction activity within the north-eastern corner of the Site, particularly from upper storeys and despite intervening garden vegetation and fencing. A medium to high magnitude of change is predicted at both Year 1 and 15 of operation, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.

Knowsley Cottage

6.4.69. Upon operation (Year 1), views towards the Proposed Development from the cottage and properties further to the west would be mostly filtered by the dense intervening vegetation between the cottage and Knowsley Lane. Adjacent mature woodland to the north of the cottage further limits views towards the Proposed Development. A worst case low magnitude of change is predicted at Year 1 of operation, which would result in a **Moderate to Minor** adverse level of effect, which is considered to be **Not Significant**.

6.4.70. With the benefit of maturing proposed tree and scrub planting along Knowsley Lane set within a green corridor, views towards the Proposed Development would be further filtered. A very low magnitude of change is predicted at Year 15 of operation, which would result in a **Minor** adverse level of effect, which is considered to be **Not Significant**.

Properties along Alder Lane / Pinfold Lane

6.4.71. Views towards the Proposed Development would be limited by vegetation surrounding the properties, vegetation along Knowsley Lane including field boundary hedgerows and woodland and retained vegetation surrounding the Site. Although some proposed tree and scrub planting would be in place along green corridors along the periphery of the Site, it would not yet be visually effective. A worst case low magnitude of change is predicted at Year 1 of operation, which would result in a **Moderate to Minor** adverse level of effect, which is considered to be **Not Significant**.

6.4.72. With the benefit of maturing proposed tree, shrub and scrub planting along Knowsley Lane set within a green corridor, views towards the Proposed Development would be further filtered. A very low magnitude of change is predicted at Year 15 of operation, which would result in a **Minor** adverse level of effect, which is considered to be **Not Significant**.

Recreational Receptors

PRoW / Bridleway KN/5/1 (along Fluker's Brook Lane)

- 6.4.73. Upon operation (Year 1) of the Proposed Development, views towards the new houses would be clearly noticeable by those along bridleway where adjacent to Knowsley Lane, seen above the intervening roadside hedgerows and through the gaps created by new roads. The Proposed Development would be set back from the edge of the Site, with a public open space located directly adjacent to the road. Although some planting, including proposed tree and scrub planting, would be in place within public open spaces adjacent to the western boundary of the Site, it would not yet be visually effective. Views further westward along the bridleway would become more limited due to the presence of woodland on either side of the route. A worst-case medium to high magnitude of change is predicted at Year 1 of operation, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.
- 6.4.74. With the benefit of maturing planting, including proposed tree and scrub planting along the western boundary, direct views towards the Proposed Development would be filtered. A medium magnitude of change is predicted at Year 15 of operation, which would result in a **Moderate** adverse level of effect, which is considered to be **Not Significant**. Visual effects would be considerably less further to the west, with no view of the Proposed Development once the bridleway reaches the M57 motorway.

Informal open space between Home Farm Road and Ross Close

- 6.4.75. Due to the proximity of this linear area of public open space directly adjacent to the Site, the Proposed Development would appear prominent in the foreground, located to the east and south. Although some planting, including proposed tree and scrub planting, would be in place within public open spaces adjacent to the Site, it would not yet be visually effective. A medium to high magnitude of change is predicted at Year 1 of operation, which would result in a **Moderate to Major** adverse level of effect, which is considered to be **Significant**.
- 6.4.76. As planting matures within the adjacent public open space, some direct views of the Proposed Development would be filtered, with activities within the informal open space complimenting those in the Site. However, a medium magnitude of change is predicted at Year 15 of operation, which would result in a **Moderate** adverse level of effect, which is considered to be **Significant**.

PRoW / Footpath KN/2/1

- 6.4.77. It is predicted that due to intervening woodland and properties, there would be no views towards the Proposed Development during Year 1 and Year 15 of operation, resulting in **No effect**, which would be **Not Significant**.

Places of Work

Stanley Grange Business Village

- 6.4.78. Due to the proximity of those working at the business village, particularly those to the west, the Proposed Development would be clearly noticeable, filtered in part by intervening vegetation adjacent to the Site. Although some planting, including proposed tree and scrub planting, would be in place within public open spaces adjacent to the Site, it would not yet be visually effective. A high magnitude of change is predicted at Year 1 of operation, which would result in a **Moderate** adverse level of effect, which is considered to be **Significant**.

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- 6.4.79. As planting matures within the adjacent public open space, some direct views of the Proposed Development would be filtered. A medium magnitude of change is predicted at Year 15 of operation, which would result in a **Moderate to Minor** adverse level of effect, which is considered to be **Not Significant**.

Road Receptors

- 6.4.80. As stated above visual effects along Home Farm Road is covered under recreational receptors, with Fluker's Brook Lane covered under recreational receptors and not repeated in this section.

Knowsley Lane (B5194)

- 6.4.81. As set out above, the parts of the road influenced by the Proposed Development equates to a distance of approximately 0.6km. Upon operation (Year 1) of the Proposed Development, views towards the new houses would be clearly noticeable whilst travelling along the road, including through gaps in the existing vegetation adjacent to the road. The Proposed Development would be set back from the edge of the Site, with a public open space located directly adjacent to the road. Although some planting, including proposed tree and scrub planting, would be in place within public open spaces adjacent to the western boundary of the Site, it would not yet be visually effective. A medium to high magnitude of change is predicted to continue at Year 1 of operation, which would result in a **Moderate** adverse level of effect, which is considered to be **Significant**.

- 6.4.82. As planting matures within the adjacent public open space including at Site entrances, some direct views of the Proposed Development would be filtered. A medium magnitude of change is predicted at Year 15 of operation, which would result in a **Moderate** adverse level of effect, which is considered to be **Not Significant**.

Ormskirk Road

- 6.4.83. Upon completion, the Proposed Development would be barely perceptible, glimpsed through the intervening vegetation along the access road into the business village. A very low magnitude of change is predicted to continue at Year 1, which would result in a **Minor** adverse level of effect, which is considered to be **Not Significant**. The visual effect would continue at Year 15.

6.5. Mitigation, Enhancement and Residual Effects

Mitigation by Design

6.5.1. Landscape and visual mitigation measures have been integrated into the design of the Proposed Development through an iterative design process – embedded primary mitigation. Potential landscape and visual effects were identified early on in the design process. This allowed landscape and visual mitigation measures to be embedded into the overall design for the Proposed Development.

6.5.2. Embedded mitigation measures comprise:

- Retention of the two central woodlands within the Site, including appropriate offsets guided by ecological and arboricultural constraints and provision of new scrub planting around the borders to deter access;
- Retention of the majority of existing field boundary vegetation within and on the periphery of the Site;
- Retention and enhancement of select areas of existing scrub around the periphery of the Site for wildlife benefits and to enhance visual enclosure;
- Creation of a green corridor to the south and east of the Site, to respect the setting of Knowsley Park boundary wall, provide additional visual enclosure, incorporate new tree and scrub planting for wildlife benefit and include informal routes and play opportunities;
- Creation of green corridors along Knowsley Lane and Home Farm Road, to enhance visual enclosure and assist with integration of the Proposed Development;
- Provision of a new central green space, including new tree, hedgerow and shrub planting, as well as formal play provision and creation of a community orchard;
- Street tree planting, including the creation of a tree-lined primary street through the Proposed Development;
- Creation of new areas of scrub in between existing woodlands, incorporating open glades and informal footpaths;
- The long-term management of existing and proposed vegetation.

Additional Mitigation

6.5.3. From a landscape and visual amenity perspective, there would be no additional mitigation measures required which have not already been included within the design of the scheme and conveyed (in broad terms) on the Parameters Plan, specifically in the areas of Green Infrastructure and placement of built form. (**Figure 4.1**). However, during construction, tree protection fencing would be secured through a suitably worded CEMP.

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Table 6.4: Mitigation

Ref	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How measure would be secured		
		By Design	By S.106	By Condition
1	Retention of two central woodlands	X		
2	Retention of the majority of existing field boundary hedgerows	X		
3	Retention and enhancement of existing scrub	X		
4	Creation of a green corridor to the south and east	X		
5	Creation of green corridors along Knowsley Lane and Home Farm Road	X		
6	Provision of a new central green space	X		
7	Street tree planting	X		
8	Creation of new areas of scrub in between existing woodlands	X		
9	The long-term management of existing and proposed vegetation			X

Enhancements

- 6.5.4. From a landscape and visual amenity perspective, the elements of design which are considered as enhancements to the Proposed Development, but which would not specifically be referred to as mitigation, as set out above, would include specific design elements in relation to the internal landscape scheme. These elements would enhance the experience of residents and visitors to the site, which would include incidental tree, shrub and amenity planting and seeding within and between the development cells. There are also areas of landscape design such as informal footpaths, incidental play opportunities, seating areas, paved spaces or similar, which would be incorporated into the design. These elements, however, would not provide any benefits to conclusions reached in relation to effects upon landscape character, landscape features or visual amenity.
- 6.5.5. These elements are set out on the Illustrative Landscape Masterplan at **Figure 6.7**, with additional detail of their benefits to users of the Site set out within the Design and Access Statement.

Residual Effects

- 6.5.6. The proposed mitigation has been considered as part of the iterative design process; however, as this mitigation is integral to the final layout, there is no difference between the assessed effects at Year 15 reported in this chapter and the residual effects.

6.6. Cumulative and In-Combination Effects

Cumulative Schemes Assessed

6.6.1. Potential cumulative landscape and visual effects are considered for the Proposed Development in conjunction with three other sites as identified in **Chapter 2 of the ES** and summarised below:

- Land bounded by East Lancashire Road, Ormskirk Road and Knowsley Lane (22/00348/FUL);
- Mixed use development including employment, residential dwellings, landscaping and infrastructure – Land at Knowsley Lane, Huyton (18/00062/HYB); and
- Petrol filling station and industrial units – Vacant Land at junction of Moorgate Road and M57 Slip Road and School Lane (19/00243/OUT and 21/00929/REM).

Methodology

6.6.2. Cumulative effects can be defined as landscape and visual effects that *'result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments.'* (GLVIA3).

6.6.3. GLVIA3 also advises that *'the emphasis in EIA is on likely significant effects, rather than on comprehensively cataloguing every conceivable effect that might occur.'*

6.6.4. Cumulative effects are considered using the same methodology as is adopted for the main LVIA. In addition, this includes assessing where environmental effects could combine to create a more significant impact on a particular receptor or receptors.

6.6.5. Cumulative effects on visual amenity can occur either as:

- Combined visual effects: where it is possible to see two or more projects from one location, either in combination (in the viewer's same field of view at any one time), or in succession (in different fields of view from the same location); or as
- Sequential visual effects: where the viewer has to move through the landscape to see different projects, such along a PRow or a road.

6.6.6. Cumulative effects have been assessed on the basis of the cumulative schemes being built out first, with effects arising from the Proposed Development being in addition to this.

Cumulative Effects on Landscape Features and Elements

6.6.7. The Site for the Proposed Development and the cumulative sites are all separate and distinct land parcels, located some distance apart. Therefore, there would be **no direct cumulative** effects upon any landscape features and elements within the sites as a result of the Proposed Development.

Cumulative Effects on Landscape Character

6.6.8. The Site for the Proposed Development and the cumulative sites are all separate and distinct land parcels within different local character areas, with no physical or visual relationship with

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one another. Therefore, there would be **no direct cumulative effects** on landscape character as a result of the Proposed Development.

Cumulative Effects on Visual Amenity

- 6.6.9. The Site for the Proposed Development and the cumulative sites are all separate and distinct land parcels, with no visual relationship with one another. No visual receptor would perceive the Proposed Development in relation to the any of the cumulative sites. Therefore, there would be **no direct cumulative effects** upon visual amenity as a result of the Proposed Development.

6.7. Summary**Introduction**

- 6.7.1. This chapter assesses the likely significant landscape and visual impacts of the Proposed Development during construction and operation.
- 6.7.2. It describes the methods used to assess these effects and determines the baseline conditions currently existing at the Site. Primary mitigation measures, such as considered design for both built form/infrastructure and green infrastructure to help minimise effects on landscape character and visual amenity, are incorporated into the design of the Proposed Development through an iterative design process. Secondary mitigation measures to prevent, reduce or offset any residual landscape and/or visual effects are not therefore considered practicable or necessary.
- 6.7.3. The methodology and assessment criteria adopted to inform the assessment of effects has been developed in accordance with the principles established in GLVIA3.
- 6.7.4. The LVIA considers:
- effects on the landscape as a resource in its own right (the landscape effects); and
 - effects on specific views and visual amenity more generally (the visual effects).
- 6.7.5. Effects have been assessed during the construction phase, and at Years 1 and 15 of the operational phase.

Baseline Conditions

- 6.7.6. The Site covers approximately 33.75 hectares and is located on the southern edge of the settlement of Knowsley, approximately 9 km northeast of Liverpool city centre. The Site comprises five arable fields of arable agricultural land interspersed with areas of scrub and divided by mature hedgerows. Two wooded areas, known as Spookies Wood, are situated in the centre of the Site and contain ponds and drainage ditches.
- 6.7.7. The Site is not covered by any national or local landscape designations. The Site is identified in KMBC Local Plan Core Strategy (adopted January 2016) as Safeguarded Land (Policy SUE1), having been removed from the Green Belt which surrounds the Site to three sides.
- 6.7.8. The Site is relatively flat, with a gentle rise in elevation from approximately 26m AOD in the west to around 35m AOD in the east. There are several ponds, dry pits and ditches running through Spookies Wood in the centre of the site, with a historic infilled pond in the north west.
- 6.7.9. The Site is bounded along the majority of the northern boundary by an established hedgerow, immediately adjacent to Home Farm Road. The western boundary is defined by a hedgerow and Knowsley Lane. The eastern and southern boundaries face onto the well wooded edges of Knowsley Park Registered Park and Garden and is defined by a continuous sandstone wall.
- 6.7.10. The Site falls within National Character Area (NCA) 32, Lancashire and Amounderness Plain but close to the boundary with NCA 58: Merseyside Conurbation.

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Likely Significant Effects

- 6.7.11. Significant landscape and visual effects during the construction phase would be limited to those areas within the Site itself or directly adjacent to the Site, many of which would arise as a result of the inevitable change from agricultural fields to a housing development. Significant construction effects are predicted to include the following:
- Land use within the Site;
 - Landscape character of the Site and immediate surroundings;
 - Visual amenity experienced by residential occupiers along Home Farm Road, Whitestone Close, Berry Hill Avenue, Ross Close, Sugar Lane and Parklands;
 - Visual amenity experienced by workers from Stanley Grange Business Village;
 - Visual amenity experienced by recreational users of PRow / Bridleway KN/5/1 along Fluker's Brook Lane and users of Ross Close Playing Fields; and
 - Visual amenity experienced by road users of Knowsley Lane (B5194).
- 6.7.12. Of the receptors which would undergo significant effects during the construction phase, these effects would generally remain significant during the operational phase at both Year 1. However, with the benefit of the embedded mitigation measures only the following significant landscape and visual effect would remain in Year 15, noting their very limited and localised nature:
- Landscape character of the Site and immediate surroundings;
 - Visual amenity experienced by residential occupiers along Parklands; and
 - Visual amenity experienced by recreational users of the informal open space between Home Farm Road and Ross Close.
- 6.7.13. It is predicted that there would be no direct cumulative effects on any landscape features, landscape character, and visual amenity as a result of the Proposed Development.

Mitigation

- 6.7.14. Landscape and visual mitigation measures have been integrated into the design of the Proposed Development through an iterative design process – embedded primary mitigation. Potential landscape and visual effects were identified early on in the design process. This allowed landscape and visual mitigation measures to be embedded into the overall design for the Proposed Development.
- 6.7.15. Embedded mitigation measures comprise:
- Retention of the two central woodlands within the Site, including appropriate offsets guided by ecological and arboricultural constraints and provision of new scrub planting around the borders to deter access;
 - Retention of the majority of existing field boundary vegetation within and on the periphery of the Site;

- Retention and enhancement of select areas of existing scrub around the periphery of the Site for wildlife benefits and to enhance visual enclosure;
- Creation of a green corridor to the south and east of the Site, to respect the setting of Knowsley Park boundary wall, provide additional visual enclosure, incorporate new tree and scrub planting for wildlife benefit and include informal routes and play opportunities;
- Creation of green corridors along Knowsley Lane and Home Farm Road, to enhance visual enclosure and assist with integration of the Proposed Development;
- Provision of a new central green space, including new tree, hedgerow and shrub planting, as well as formal play provision and creation of a community orchard;
- Street tree planting, including the creation of a tree-lined primary street through the Proposed Development;
- Creation of new areas of scrub in between existing woodlands, incorporating open glades and informal footpaths; and
- The long-term management of existing and proposed vegetation.

Conclusion

- 6.7.16. The Site comprises arable farmland which is not designated and which lies adjacent to the village of Knowsley and Stanley Grange Business Village.
- 6.7.17. Landscape and visual mitigation measures have been integrated into the design of the Proposed Development through an iterative design process. Potential landscape and visual effects were identified early on in the design process, allowing landscape and visual mitigation measures to be embedded into the overall design for the Proposed Development.
- 6.7.18. In conclusion, whilst the Proposed Development would result in some longer-term significant adverse landscape and visual effects, they would be limited to within the Site itself and its immediate environs. Such effects are not an indicator of poor design or an unsuitable site, but are an inevitable consequence of development on greenfield land.

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Table 6.5: Summary of Effects, Mitigation and Residual Effects

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
Construction								
<u>Landscape Features and Elements</u>								
Landform and Topography	Changes to level	Temporary Direct	Medium to low	Medium to low	Local	Moderate/Minor adverse Not Significant	CEMP	Moderate/Minor adverse Not Significant
Watercourses and Drainage	Changes to Water courses and water features	Temporary Direct	Medium	Low	Local	Moderate/Minor adverse Not Significant	CEMP	Moderate/Minor adverse Not Significant
Vegetation	Loss of existing vegetation	Temporary Direct	Medium to high	Low	Local	Moderate/Minor adverse Not Significant	CEMP	Moderate/Minor adverse Not Significant

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation n / Enhance ment Measure s	Residual Effects
Land Use	Change of land use	Temporary Direct	Medium to high	High	Local	Moderate/Major adverse Significant	CEMP	Moderate/Major adverse Significant
<u>Landscape Character</u>								
Site and Immediate Surroundings	Change to landscape character	Temporary Direct	Medium to high	High	Local	Moderate/Major Significant	CEMP	Moderate/Major Significant
Knowsley Estate LCA	Change to landscape character	Temporary Indirect	High	Low	Borough	Moderate/Minor Not Significant	CEMP	Moderate/Minor Not Significant
Knowsley Village / M57 Corridor LCA	Change to landscape character	Temporary Indirect	Medium to low	Very low	Borough	Minor/No effect Not Significant	CEMP	Minor/No effect Not Significant
<u>Visual Amenity – Residential Receptors</u>								

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Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
Properties along Home Farm Road/Whitestone Close	Changes to views	Temporary Direct	High	Medium to high	Local	Moderate to Major adverse Significant	CEMP	Moderate to Major adverse Significant
Properties along Longborough Road	Changes to views	Temporary Direct	High	Medium to low	Local	Moderate to Minor adverse Not significant	CEMP	Moderate to Minor adverse Not significant
Properties along Berry Hill Avenue	Changes to views	Temporary Direct	High	Medium to high	Local	Moderate to Major adverse Significant	CEMP	Moderate to Major adverse Significant
Properties along Ross Close and Sugar Lane	Changes to views	Temporary Direct	High	Medium to high	Local	Moderate to Major adverse Significant	CEMP	Moderate to Major adverse Significant
Properties along Parklands	Changes to views	Temporary Direct	High	Medium to high	Local	Moderate to Major adverse	CEMP	Moderate to Major adverse

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
						Significant		Significant
Knowsley Cottage	Changes to views	Temporary Direct	High	Low	Local	Moderate to Minor adverse Not Significant	CEMP	Moderate to Minor adverse Not Significant
Properties along Alder Lane / Pinfold Lane	Changes to views	Temporary Direct	High	Low	Local	Moderate to Minor adverse Not Significant	CEMP	Moderate to Minor adverse Not Significant
<u>Visual Amenity – Recreational Receptors</u>								
PRoW / Bridleway KN/5/1 (along Fluker's Brook Lane)	Changes to views	Temporary Direct	High	Medium to high	Local	Moderate to Major adverse Significant	CEMP	Moderate to Major adverse Significant
Informal open space between Home Farm Road and Ross Close	Changes to views	Temporary Direct	High	High	Local	Major adverse Significant	CEMP	Major adverse Significant

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Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
PRoW / Footpath KN/2/1	Changes to views	Temporary Direct	High	Very low	Local	No effect Not Significant	CEMP	No effect Not Significant
<u>Visual Amenity – Places of Work</u>								
Stanley Grange Business Village	Changes to views	Temporary Direct	Low	High	Local	Moderate adverse Significant	CEMP	Moderate adverse Significant
<u>Visual Amenity – Road Receptors</u>								
Knowsley Lane (B5194)	Changes to views	Temporary Direct	Medium	High	Local	Moderate adverse Significant	CEMP	Moderate adverse Significant
Ormskirk Road	Changes to views	Temporary Direct	Medium	Very low	Local	Minor adverse Not Significant	CEMP	Minor adverse Not Significant

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
Operation								
<u>Landscape Features and Elements</u>								
Landform and Topography	Changes to level	Permanent Direct	Medium to low	Year 1: Low	Local	Minor adverse Not Significant	Embedded mitigation	N/A
				Year 15: Low	Local	Minor adverse Not Significant	Embedded mitigation	Minor adverse Not Significant
Watercourses and Drainage	Changes to Water courses and water features	Permanent Direct	Medium	Year 1: Very low	Local	Minor beneficial Not Significant	Embedded mitigation	N/A
				Year 15: Low	Local	Moderate/Minor beneficial	Embedded	Moderate/Minor beneficial

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Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
						Not Significant	mitigation	Not Significant
Vegetation	Loss of existing vegetation	Permanent Direct	Medium to high	Year 1: Low	Local	Moderate/Minor beneficial Not Significant	Embedded mitigation	N/A
				Year 15: Low	Local	Moderate/Minor adverse Not Significant	Embedded mitigation	Moderate/Minor adverse Not Significant
Land Use	Change of land use	Permanent Direct	Medium to high	Year 1: High	Local	Moderate/Major adverse Significant	Embedded mitigation	N/A
				Year 15: Medium	Local	Moderate adverse Not Significant	Embedded mitigation	Moderate adverse Not Significant

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
<u>Landscape Character</u>								
Site and Immediate Surroundings	Change to landscape character	Permanent Direct	Medium to high	Year 1: High	Local	Moderate/Major adverse Significant	Embedded mitigation	N/A
				Year 15: Medium / High	Local	Moderate/Major adverse Significant	Embedded mitigation	Moderate/Major adverse Significant
Knowsley Estate LCA	Change to landscape character	Permanent Indirect	High	Year 1: Low	Borough	Moderate/Minor Not Significant	Embedded mitigation	N/A
				Year 15: Very Low	Borough	Minor Not Significant	Embedded mitigation	Minor Not Significant

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Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
Knowsley Village / M57 Corridor LCA	Change to landscape character	Permanent Indirect	Medium to low	Year 1: Very Low	Borough	Minor/No effect Not Significant	Embedded mitigation	N/A
				Year 15: Very Low	Borough	Minor/No effect Not Significant	Embedded mitigation	Minor/No effect Not Significant
Visual Amenity – Residential Receptors								
Properties along Home Farm Road/Whitstone Close	Changes to views	Permanent Direct	High	Year 1: Medium to high	Local	Moderate to Major adverse Significant	Embedded mitigation	N/A
				Year 15: Medium	Local	Moderate adverse Not Significant	Embedded mitigation	Moderate adverse Not Significant

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
Properties along Longborough Road	Changes to views	Permanent Direct	High	Year 1: Medium to low	Local	Moderate to Minor adverse Not Significant	Embedded mitigation	N/A
				Year 15: Low	Local	Moderate to Minor adverse Not Significant	Embedded mitigation	Moderate to Minor adverse Not Significant
Properties along Berry Hill Avenue	Changes to views	Permanent Direct	High	Year 1: Medium to high	Local	Moderate to Major adverse Significant	Embedded mitigation	N/A
				Year 15: Medium	Local	Moderate adverse Not Significant	Embedded mitigation	Moderate adverse Not Significant
Properties along Ross Close and Sugar Lane	Changes to views	Permanent Direct	High	Year 1: Medium to high	Local	Moderate to Major adverse	Embedded	N/A

Landscape and Visual Amenity

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
						Significant	mitigation	
				Year 15: Medium	Local	Moderate adverse Not Significant	Embedded mitigation	Moderate adverse Not Significant
Properties along Parklands	Changes to views	Permanent Direct	High	Year 1: Medium to high	Local	Moderate to Major adverse Significant	Embedded mitigation	N/A
				Year 15: Medium to high	Local	Moderate to Major adverse Significant	Embedded mitigation	Moderate to Major adverse Significant
Knowsley Cottage	Changes to views	Permanent Direct	High	Year 1: Low	Local	Moderate to Minor adverse Not Significant	Embedded mitigation	N/A

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
				Year 15: Very Low	Local	Minor adverse Not Significant	Embedded mitigation	Minor adverse Not Significant
Properties along Alder Lane / Pinfold Lane	Changes to views	Permanent Direct	High	Year 1: Low	Local	Moderate to Minor adverse Not Significant	Embedded mitigation	N/A
				Year 15: Very Low	Local	Minor adverse Not Significant	Embedded mitigation	Minor adverse Not Significant
Visual Amenity – Recreational Receptors								
PRoW / Bridleway KN/5/1 (along Fluker’s Brook Lane)	Changes to views	Permanent Direct	High	Year 1: Medium to high	Local	Moderate to Major adverse Significant	Embedded mitigation	N/A

Landscape and Visual Amenity

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
				Year 15: Medium	Local	Moderate adverse Not Significant	Embedded mitigation	Moderate adverse Not Significant
Informal open space between Home Farm Road and Ross Close	Changes to views	Permanent Direct	High	Year 1: Medium to high	Local	Major to major Adverse Significant	Embedded mitigation	N/A
				Year 15: Medium	Local	Moderate adverse Significant	Embedded mitigation	Moderate adverse Significant
PRoW / Footpath KN/2/1	Changes to views	Permanent Direct	High	Year 1: Very low	Local	No effect Not Significant	Embedded mitigation	N/A
				Year 15: Very low	Local	No effect Not Significant	Embedded	No effect Not Significant

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
							mitigation	
<u>Visual Amenity – Places of Work</u>								
Stanley Grange Business Village	Changes to views	Permanent Direct	Low	Year 1: High	Local	Moderate adverse Significant	Embedded mitigation	N/A
				Year 15: medium	Local	Moderate to Minor adverse Not Significant	Embedded mitigation	Moderate to Minor adverse Not Significant
<u>Visual Amenity – Road Users</u>								
Knowsley Lane (B5194)	Changes to views	Permanent Direct	Medium	Year 1: Medium to High	Local	Moderate adverse Significant	Embedded mitigation	N/A

Landscape and Visual Amenity

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
				Year 15: Medium	Local	Moderate adverse Not Significant	Embedded mitigation	Moderate adverse Not Significant
Ormskirk Road	Changes to views	Permanent Direct	Medium	Year 1: Very low	Local	Minor adverse Not Significant	Embedded mitigation	N/A
				Year 15: Very Low	Local	Minor adverse Not Significant	Embedded mitigation	Minor adverse Not Significant
Cumulative and In-Combination								
<u>Land bounded by East Lancashire Road, Ormskirk Road and Knowsley Lane (22/00348/FUL)</u>								
Landscape Features and Elements				No effect	N/A	No effect	N/A	No effect
Landscape Character				No effect	N/A	No effect	N/A	No effect

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation n / Enhance ment Measure s	Residual Effects
Visual Amenity				No effect	N/A	No effect	N/A	No effect
<u>Land at Knowsley Lane, Huyton (18/00062/HYB)</u>								
Landscape Features and Elements				No effect	N/A	No effect	N/A	No effect
Landscape Character				No effect	N/A	No effect	N/A	No effect
Visual Amenity				No effect	N/A	No effect	N/A	No effect
<u>Vacant Land at junction of Moorgate Road and M57 Slip Road and School Lane (19/00243/OUT and 21/00929/REM)</u>								
Landscape Features and Elements				No effect	N/A	No effect	N/A	No effect
Landscape Character				No effect	N/A	No effect	N/A	No effect
Visual Amenity				No effect	N/A	No effect	N/A	No effect