

Barratt and David Wilson Homes

Cherryfield Drive, Kirkby

Proposed Residential Development

Environmental Statement Volume 1: Non-Technical Summary

March 2024

Prepared for

Barratt & David Wilson Homes

Prepared by

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Document Review

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1. Introduction

- 1.1 Barratt & David Wilson Homes (hereafter referred to as 'the Applicant') are seeking full planning permission for a residential development on land known as Cherryfield Drive, Kirkby. The proposed development is located in the administrative authority of the Knowsley Metropolitan Borough Council ("KMBC"). A Site Location Plan is provided at **Appendix 1**.
- 1.2 The site is irregular in shape and occupies c. 23.7 hectares ("ha") of green and brownfield site. The Site is bordered to the west by the A506, to the south by Bewley Drive and to the north and east by Cherryfield Drive. At the northeast corner of the Site is the Knowsley Community College, Kirkby Campus, which consists of a college building, carparking and playing fields. To the east of the Site is Kirkby Leisure Centre, with associated carparking and football pitches. The character of the area to the south, east and west of the Site is defined by 20th and 21st century residential development. There is also a smaller residential development on the north side of Bewley Drive. To the northwest of the Site is the historic settlement of Kirkby, including the Church of St Chad.
- 1.3 The assessments within this Environmental Statement ("ES") have demonstrated that the potential effects of the proposed development, sought for approval as part of this application, can be suitably mitigated to ensure a sustainable development can be delivered.
- 1.4 Egniol Consulting has been commissioned by the Applicant to co-ordinate the Environmental Impact Assessment ("EIA") process and produce the ES for the proposed development. Specialist consultants have been appointed to investigate the environmental effects of the proposals.
- 1.5 This document is the Non-Technical Summary and is Volume 1 of the ES. It has been prepared by Egniol Consulting in accordance with the Town and Country Planning (Environmental Impact Assessment) (England) Regulations 2017.

2. Approach & EIA Methodology

- 2.1 An EIA predicts the positive and negative environmental impacts associated with a development proposal to provide the Local Planning Authority with sufficient information to make an informed decision on the granting of planning consent.
- 2.2 Once the need for EIA was established a 'scoping' request was submitted to KMBC. The process of scoping identifies the range of possible environmental impacts and the technical assessments that need to be considered further within the EIA process. The scoping process involved a site walkover, initial desk-based work and consultation with KMBC.
- 2.3 A Scoping Opinion was provided by KMBC and proposed the scope of the EIA which comprises:
- Traffic and Transport.
 - Air Quality.
 - Noise and Vibration.
 - Heritage.
 - Contaminated Land.
 - Climate Change.
 - Ecology
- 2.4 Cumulative effects associated with a number of cumulative developments were considered as part of the scoping process. The full detailed proposals relating to each cumulative scheme are set out in Chapter 2: Approach of the ES.
- 2.5 Each environmental topic adopts the same approach to ensure consistency and the final results are presented to KMBC in a document referred to as an ES. The chapters assessing the environmental topics first establish the baseline conditions on the site before predicting the potential impacts during both the construction phase and the operational phase of development.
- 2.6 The EIA has identified and assessed the significance of potential environmental effects relating to the topics listed above. The assessment of 'significance' has been undertaken for all potential effects to determine their relative importance.
- 2.7 The type of effect can be adverse, negligible or beneficial; a brief description is provided below:

- **Adverse** - a negative impact on a sensitive receptor or the existing environment;
- **Negligible** - no discernible effect on a sensitive receptor or the existing environment; and
- **Beneficial** - a positive effect on a sensitive receptor or the existing environment.

2.8 In addition, the degree of significance can be minor, moderate or major; and a brief description is provided below:

- **Minor** - slight, short-term, or localised effect on a sensitive receptor or the existing environment;
- **Moderate** - a noticeable effect on a sensitive receptor or the existing environment; and
- **Major** - a substantial effect on a sensitive receptor or the existing environment.

2.9 When a significant adverse impact is identified as a result of the assessment process, then measures to avoid, reduce and, if possible, offset significant adverse environmental effects associated with the proposal are outlined within the assessment. These measures are referred to as mitigation. Embedded mitigation is measures which have been 'designed-in' to the proposed development to mitigate potential adverse environmental effects. Identifying and implementing mitigation measures is a key part of the EIA process and the residual impacts which remain after mitigation have been identified and their significance stated.

3. Site Description

Site Location

- 3.1 The site is irregular in shape and occupies c. 23.7 hectares (ha). The Site is located to the south of Kirkby Town Centre and occupies an area of mostly undeveloped land. The Site is bordered to the west by the A506, to the south by Bewley Drive and to the north and east by Cherryfield Drive. At the northeast corner of the Site is the Knowsley Community College, Kirkby Campus, which consists of a college building, carparking and playing fields. To the east of the Site is Kirkby Leisure Centre, with associated carparking and football pitches. The character of the area to the south, east and west of the Site is defined by 20th and 21st century residential development. There is also a smaller residential development on the north side of Bewley Drive. To the northwest of the Site is the historic settlement of Kirkby, including the Church of St Chad.
- 3.2 The site is located c. 10km northeast of Liverpool city centre. The A506, Valley Road is located the west of the site boundary, this can be used to access Cherryfield Drive and Bewley Drive which enclose the site boundary. The site is accessible via Valley Road Junction 6 and Moorgate Road Junction 4 of the M57.

Site History

- 3.3 Kirkby was founded in the early medieval period, developing as agricultural village. The village received a train station in 1848 and later developed following the Liverpool slum clearances in the 1950s. A college was constructed to the northwest of the site and a school complex to the east. The A506 Valley Road was constructed to the west in the 1970s. The school buildings were later demolished in the 21st century and replaced by a leisure centre. A number of buildings and houses located along Cherryfield Drive were also demolished in 2018 to make way for the new development of Cherryfield Drive north and south. The site is located next to the historical landfill of 'Valley Hills' located to the southwest of the site.

Site Characteristics

- 3.4 The main environmental characteristics of the Site have been identified as follows:
- The site has excellent transport accessibility to the Strategic Road Network.
 - There are no ecological constraints associated with the site.

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- The closest water source is located 100m west of the site boundary, the site located in flood zone 1.
 - The site has access to Valley Hills an area of greenspace located to the southwest of the site.

4. Alternatives

- 4.1 The proposed development has been developed through the EIA and design process with extensive stakeholder and community consultation. Environmental constraints and potential adverse effects have been identified and as a result mitigation measures have been incorporated in the overall proposals.

No Development Option

- 4.2 The EIA considered the implications of the development not coming forward, referred to as the 'do nothing' alternative. The do nothing alternative would be for the site to remain in its current state and is anticipated to remain as undeveloped land. In the do nothing alternative, a number of implications are identified including:

- The potential to provide much needed residential housing would not be realised.
- The jobs created during construction and through the operation of the building would not be realised.
- The site would remain visually undesirable.

- 4.3 In the absence of the proposed development, potential impacts which are anticipated as a result of the scheme would not occur. Such impacts include heritage impacts during the construction and operational phase, construction phase impacts relating to traffic and transport. These impacts should be weighed up against the potential benefits of the scheme, particularly with regards to the social and economic benefits.

- 4.4 Without the proposed development, the area will not be able to benefit from the site's development of much needed quality homes and the associated creation of green space, and affordable housing and the benefits associated to the local economy.

Key Design Drivers and Design Evolution

- 4.5 The Applicant and the design team for the application have regularly liaised with KMBC and a range of consultees and key stakeholders to ensure that a high-quality sustainable development which respects the site constraints and enhances the social, economic and environmental benefits is developed.

- 4.6 The key design drivers which have informed the scheme's design evolution include:

- Urban Living, including 'Homes for All'.

- Parkland Setting with the inclusion of SUDS.
- Provision of sufficient access widths for access to proposed site at four locations.

4.7 The key points of design evolution which have been explored during the design process include:

- Inclusion of a range of housing including 2,3 and 4 beds housing and bungalows, Including affordable housing.
- Creating a parklike setting with green tree lined streets in an urban area.
- Ensure the traffic and transport access for all.
- Delivering a residential development to provide new high quality green space and landscaping for site users and the surrounding community.

4.8 The design has evolved to take on board not only the results of the technical constraints but also to reflect the extensive consultation with KMBC, key stakeholders and the public. Negative effects associated with the proposed development are limited following the implementation of mitigation.

5. The Proposed Development

5.1 The proposed development is defined on the planning application forms as:

“Full planning application for demolition of existing buildings and erection of a residential development (Use Class C3) with associated access, landscaping, parking and infrastructure including reconfiguration of existing Cherryfield Drive car park and highways improvements to Cherryfield Drive”.

5.2 The planning application seeks full planning permission for the construction of a residential led development comprising of 807 dwellings, associated access, landscaping, parking and infrastructure. To confirm, the key elements of the Proposed Development sought for approval as part of the planning application are as follows:

Full Planning Permission for:

- 807 energy efficient new homes incorporating a mix of Barratt David Wilson Homes brands.
- 81 Affordable homes and 10 bungalows.
- A mix of 1-4 bedroom terraced, semi-detached, detached properties and bungalows.
- Sensitive boundary treatments, low walls and hedges and a minimum privacy distance in compliance with adopted separation distances.
- Highways improvements to Cherryfield Drive and road access links on both Cherryfield Drive and Bewley Drive including resurfacing of the roads and pavements and clear safe routes for pedestrians and cyclists and easy access to the town centre through a series of walkable, easily accessible landscaped green links running across the site
- Associated open space, landscaping, highways and other infrastructure.

5.3 A Site Layout Plan is located at **Appendix 2** which shows the proposed layout of the development.

5.4 The assessment of effects is undertaken based on the quantum of development and the detailed planning application drawings and elevations. These drawings include detailed layout, heights, elevations, widths, landscaping and access arrangements to the site. These plans, along with the written description of the proposed development, allow the likely significant effects of the proposals to be fully assessed and appropriate mitigation secured.

Use, Amount and Operation of the Development

- 5.5 The Proposed Development includes a residential led development comprising a series of residential homes and bungalows across an irregularly shaped a c. 23.7ha site. As set out previously, the planning application is submitted as a full planning application, seeking planning permission for the construction of a residential led development, including the landscaping, infrastructure and associated work. A mix of bungalows (1 storey), 2, 2.5 and 3 storey dwellings are proposed.

Phasing of Development

- 5.6 The development of the site will be carried out in a series of phases based over a c.10 year build out. The overall effects within this ES are presented assuming simultaneous build out to represent a 'worst case' scenario for assessment purposes.

Demolition

- 5.7 The majority of the Site is vacant and undeveloped, the Knowsley Community College as well as some smaller buildings in the northwest of the Site will be demolished.

Landscaping, Green Infrastructure and Acoustic

- 5.8 A comprehensive landscaping strategy has been prepared by Barratt & David Wilson Homes (see Appendix 2). This comprises a detailed landscape strategy and layout for the detailed application area. This includes tree lined streets and designated SUDs. Tree planting and landscaping works will be undertaken on the site to integrate and enhance the green infrastructure provision on site.

Application Area

- 5.9 The elements of the layout have been driven by the need to deliver a residential-led approach for the proposed development. This has been informed by the development team, and specifically the ecologist to maximise biodiversity gains, green space urban living in a park life environment and surface flood water management through high quality landscaping. A range of measures are proposed including (but not limited to):

- SUDs;
- Links to green space;

- Highway access; and
- Trees and Ecology.

5.10 The landscaping creates an activated blue and green infrastructure throughout the site. This creates green edges and tree lined streets along the main and sub movement networks with integrated SUDs within the proposed residential application area.

Landscaped / Acoustic Mitigation

5.11 The proposed residential development layout will be constructed to optimise distance between the source and noise-sensitive receptors to minimise noise transmission using natural screens and other buildings. The development has also included sensitive boundary treatment and separation distances designed with careful consideration for existing properties and businesses bound by the development, meeting all interface standards. This will include low walls and hedges around properties with existing residences.

Surface Water

- 5.12 It is proposed to discharge surface water flows direct to the watercourse (Kirkby Brook) located along the western portion of the site. Due to the size of the development it is proposed to split the drainage networks into separate outfalls. This will help keep reduce the depths of the gravity drainage networks and will spread the flows / attenuation throughout the development.
- 5.13 The surface water drainage system provides storage for up to a 100-year storm event with a 10% allowance for urban creep and a 45% allowance for climate change. The entire surface water network consisting of pipes, manholes, SUDS features, and flow controls will be offered to United Utilities for adoption via a S104 Agreement and therefore will be maintained by United Utilities.

Foul Water

5.14 United Utilities have responded to a wastewater pre-development enquiry and have confirmed all foul flows from the development can drain to public foul / combined sewer system. Due to site topography and size of the development it is proposed to drain the site via six separate gravity networks with points of connection within the Cherryfield Drive and Bewley Drive foul sewers.

- 5.15 The entire foul network consisting of pipes and manholes will be offered United Utilities for adoption via a S104 Agreement and therefore will be maintained by United Utilities.

Construction

- 5.16 Precise construction methodologies will only be finalised once a contractor is appointed. It is expected that the appointed contractor and its sub-contractors will at all times apply the principle of Best Practicable Means. The construction phase will be supported with a Construction Environment Management Plan (CEMP) which will be agreed with Knowsley Council prior to construction. The purpose of which sets out developer plans to avoid, minimise or mitigate effects on the surrounding environment and local residents living closely to the site.

Construction Programme and Enabling Works

- 5.17 The anticipated construction programme is as follows:
- Start on site – 2024.
 - Full site completion by 2033.
- 5.18 It is anticipated the first phase of development will begin with the demolition and remediation commencing in 2024 with a build period of approximately 7-10 years to completion of the development. The sites construction delivery will be confirmed through the provision of a phasing plan which will be conditioned as a part of the planning permission.

Vegetation and Tree Clearance

- 5.19 Vegetation clearance will be required to facilitate development as tree clearance will be required to facilitate construction of the proposed residential buildings. Clearance will be conducted outside of the bird breeding season (March to August inclusive), where possible. Should this not be possible, pre-clearance checks will be undertaken prior to vegetation clearance. Any updated ecological surveys and any licensing procedures would also be undertaken.

Construction Hours of Work

- 5.20 Working hours will be subject to agreement with KMBC. However, it has been assumed that standard working hours during construction would be followed. These are presented below:

- Monday to Friday: 08:00 - 18:00;
- Saturday: 08:00 - 13:00; and
- No working on Sundays or Bank Holidays.

- 5.21 No other work is permitted outside the times presented above without the written permission of the Local Planning Authority (LPA).
- 5.22 Where works unavoidably need to take place outside the core working hours, occupiers of nearby residential properties shall be informed by the contractor in advance of the works and their likely duration.
- 5.23 A Construction Environmental Management Plan ("CEMP") will be prepared prior to commencing works on site. This document outlines the methods which will be employed by developers and contractors to manage and where practical minimise the impact of the development's construction activities upon the site and surrounding area. The Plan demonstrates a commitment to achieving high environmental standards and compliance with considerate contractor scheme procedures. The Plan includes best practice measures and those mitigation measures identified through the EIA process.

6. Traffic and Transport

- 6.1 A traffic and transport assessment has been undertaken to assess the effects of the proposed development on the existing traffic conditions in the local area during the construction and operational phases of development. The assessment was undertaken by MODE.
- 6.2 Baseline traffic flows have been undertaken for junctions within the vicinity of the site, including:
- A506 (Valley Road) / Cherryfield Drive / Kirkby Row roundabout
 - Cherryfield Drive / Webster Drive priority junction
 - Cherryfield Drive / Bewley Drive priority junction
 - A506 (Valley Road) / Bewley Drive signalised junction
 - A506 (Valley Road) / Whitefield Drive signalised junction
- 6.3 There are a number Public Rights of Way (PRoW) located around the site boundary as follows;
- KB/7/3, KB/8/1 and KB/8/2 to the south of the site.
 - KB/4/1 to the west of the site.
 - KB/2/1, KB/2/2 and KB/2a/2 to the north of the site.
- 6.4 Adopting a 'ready-reckoner' approach, based upon previous construction traffic assessment work for similar scale developments, it has been established that an approximate total of 21 two-way HGV trips can be generated by each dwelling constructed.
- 6.5 The total calculated volume of two-way construction HGV trips forecast to be generated during the entire construction phase is 16,401.
- 6.6 The construction workforce will also generate traffic; however, it is envisaged that these trips will be made by smaller (private) vehicles, with a high proportion of workers car sharing or using sustainable non-car modes. It is estimated that the construction of the proposed development could create approximately c.380 Full Time Equivalent (FTE) jobs on site across the construction phase.

- 6.7 It has been assumed that all construction traffic would route via Junction 6 of the M57, with 50% routing to / from the west and 50% to / from the east. The construction traffic was also distributed across each of the 4 access points equally (25% to from each access).
- 6.8 The level of impact, in terms of construction traffic is 'Negligible' across all links anticipated to experience increases in construction traffic.
- 6.9 A CEMP will be implemented during the construction phase to manage the movement of vehicles to and from the site. All residual construction phase effects are anticipated to be negligible.
- 6.10 During the operational phase, the proposed development is expected to result in 96 two-way trips during the AM peak period and 95 two-way trips during the PM peak period from each access point. This equates to approximately 2 trips every 3 minutes on average during the AM and PM peak period. Overall, the potential effects on the local highways network due to the proposed development are not anticipated to have a severe impact. The potential effects on the local highways network are anticipated to have low impact upon the local highway network, with low increase in queuing, delay and impact on capacity. A Travel Plan will be implemented to encourage the use of sustainable modes of transport to access the site. In the long term, the effects are considered to be negligible (severance, driver delay, pedestrian amenity and delay, and fear and intimidation) or negligible (accidents and safety).
- 6.11 Overall, no significant effects are anticipated during the construction and operational phases of the development in relation to traffic and transport. Where applicable, the traffic flows from cumulative schemes have been incorporated into the traffic figures and are therefore considered throughout the assessment, and the findings presented. No further significant cumulative effects have been identified.

7. Air Quality

- 7.1 An air quality assessment has been undertaken to establish the baseline conditions currently existing at the site and surrounding area, the potential direct and indirect impacts of the development arising from construction and operation, the mitigation measures required to prevent, reduce, or offset the impacts and the residual impacts on air quality.
- 7.2 The site is not located within, or in the immediate vicinity of an Air Quality Management Area ("AQMA"). The nearest AQMA is crossing the most westerly point of Willsford Ave, Kirkby Park AQMA located c. 1.3km northwest of the site. The Defra background concentrations demonstrate that the site's Air Quality Standard objectives are below the required levels for NO_x, NO₂, PM₁₀ and PM_{2.5}.
- 7.3 Assessments have been completed to evaluate the potential sources and amounts of dust and PM₁₀ on site associated with the construction phases. IAQM (2023) divides construction activities into four main activity types to assess level of impacts, these being; demolition; earthworks; construction; and track out. A methodology has been set out and full assessment of the proposed development conducted, mitigation measures have been provided to reduce potential issues. The residual effect is considered to be not significant as the impacts of the construction phases will be temporary.
- 7.4 The completed and operational development has the potential to have an effect on local air quality if the traffic generated by the proposals increase the levels of NO_x, NO₂, PM₁₀ and PM_{2.5}. Based on IAQM / EPUK criteria, potential receptors include 15 existing receptors including residential, hotel, workplace, educational and commercial uses. Predicted emissions are anticipated to be below the relevant thresholds for all Air Quality Standards for existing and proposed sensitive receptors. Nonetheless, the Applicant will implement a Travel Plan which will aim to reduce the level of private vehicle use to commute to and from the site and encourage future site users to access the site via sustainable modes of transport. The residual long term air quality effects of the proposed development are anticipated to be temporary, negligible and are not significant.
- 7.5 Overall, no significant effects are anticipated during the construction and operational phases of the development in relation to air quality and dust. Where applicable, the traffic flows from cumulative schemes have been incorporated into the traffic figures and are therefore considered throughout the air quality assessment, and the findings presented. No further significant cumulative effects have been identified.

8. Noise and Vibration

- 8.1 Potential significant effects from construction activities, construction traffic and operational road traffic on the wider road network have been assessed.
- 8.2 The nearest receptors to the site and their respective sensitivities have been identified and a noise survey undertaken to quantify baseline levels at representative locations.
- 8.3 The results of the baseline survey have informed an assessment of construction activity noise, based on the methodology set out in BS 5228:2014. Moderate and Major Adverse impacts have been identified at a limited number of receptors. However, with appropriate mitigation, these short-term and temporary effects are assessed as having a not significant effect.
- 8.4 Traffic data has been used to undertake an assessment of the change in road traffic noise levels on link roads during the construction and completed development phases, which follow the principles set out in DMRB LA111. The assessment shows that noise from operational road traffic noise has a not significant effect.
- 8.5 Whilst full details of any fixed plant and equipment that may be installed in connection with the proposed development are unknown at this stage, suitably worded planning conditions can ensure that their operation has a not significant effect.
- 8.6 Overall, no significant effects are anticipated during the construction and operational phases of the development in relation to noise and vibration. Where applicable, the traffic flows from cumulative schemes have been incorporated into the traffic figures and are therefore considered throughout the noise assessment. The assessment also considers the potential effects on committed residential receptors to ensure a worst-case cumulative effects assessment has been undertaken. No further significant cumulative effects have been identified.

9. Heritage

- 9.1 A heritage impact assessment has been undertaken to assess the existing heritage assets which could be affected by the proposed development during the construction and operational phases of the development. The assessment was undertaken by Turley.
- 9.2 There are no designated heritage assets within the site, nor are there any world heritage sites, scheduled monuments, registered conservation area, or grade I or II* listed buildings within the wider study area of interest. There are seven designated heritage assets comprising six listed buildings, and one conservation area, within the study area of interest.
- Old Hall Conservation Area
 - Church of St Chad (grade II listed building)
 - Kirkby Hall Lodge (grade II listed building)
 - Vicarage (grade II listed building)
 - Stables to the North of the Vicarage (grade II listed building)
 - Gate Piers to South of Vicarage (grade II listed building)
 - Kirkby War Memorial (grade II listed building)
- 9.3 The proposed development is not within the setting of any of the designated or non-designated asset listed above. The site is separated from these assets by due to the distances between the proposed development and the heritage assets, as well as intervening-built form, infrastructure and vegetation. No effects are anticipated during the construction and operational phases on designated and non-designated built heritage assets.

10. Ground Conditions and Contaminated Land

- 10.1 A ground conditions assessment has been undertaken to determine the existing soil and geological conditions, and likelihood for contamination affecting the construction and operational phases of development. The assessment was undertaken by E3P.
- 10.2 The southern sector of the site comprises maintained grassland with an area in the southeast of the site having recently undergone the felling of semi-mature and mature trees. The central sector of the site is currently unmaintained vacant grassland. Within the north of the site, is an area of active car park and former roadways and hardstanding associated with previous development. Knowsley community College is located in the northwest of the site.
- 10.3 The site borders Valley Hills a historical landfill located beyond the southwest perimeter of the site. Ground investigations were completed within the site to identify ground conditions. Based upon the findings of the site investigation and subsequent contaminated land risk assessment, E3P developed a detailed Remediation and Enabling Works Strategy that sets out all the measures that are needed to mitigate the identified risks.
- 10.4 During the construction and operational phases, the potential effects are impacts on ground water and resources; and impacts to off-site human receptors and construction workers on-site; and future residential end users. These effects range from negligible to moderate adverse in the absence of mitigation. However, prior to commencing works on site, an extensive intrusive ground investigation exercise will be undertaken. This will identify any contaminated land and set out a detailed remediation strategy, if necessary. Other measures include using appropriate Personal Protective Equipment ("PPE"); nuisance mitigation and site management measures set out within a CEMP; and a Material Management Plan ("MMP"). After implementing these measures, all residual effects are reduced to negligible.
- 10.5 During the operational phase, the proposed development will implement a clean cover system and therefore any contamination would be remediated, leading to a minor beneficial effect on human health. The increased level of hardstanding will lead to an increase in surface water runoff; however, the SUDS strategy will restrict discharge rates and ensure this effect is reduced to negligible. Any ground gas will be identified and remediated through protection measures (if necessary), prior to the completion and occupation of the development. Therefore, the effects are considered to be negligible.
- 10.6 Overall, no significant construction or operational phase effects are anticipated in relation to ground conditions. Each cumulative scheme will be required to implement best practice ground conditions

treatment and remediation measures, and therefore no additional cumulative significant effects are anticipated.

11. Climate Change

- 11.1 A climate change assessment has been undertaken to determine the potential effects of climate change during the construction and operational phases of the development. The assessment was undertaken by WATT.
- 11.2 During construction the on-site emissions have been estimated using the average construction site emission value of 1400 kgCO₂e/£100k of the project value given within 'Whole life carbon assessment for the built environment' (RICS Guidance). This figure is based on data from 2015 and has not been adjusted to reflect inflation. The emissions arising from the on-site emissions from the construction and installation process are estimated to be 1610 tonnes of CO₂e. This expected to have a **neutral**, non-significant impact when compared to a similar development carrying out construction to generic standards. The materials used within the development should be recycled where possible to reduce potential further emissions related to the production of new materials.
- 11.3 This operational assessment has measured the potential impacts on climate change for the proposed development at Cherryfield Drive. The development is targeting a low carbon development by minimising the heating demand through the adoption of a 'fabric-first' approach. A PV array is being considered at this stage to further offset residual emissions.
- 11.4 The calculation being provided within this assessment, is the overall comparison between the Target Emission Rate (TER) and the Dwelling Emission Rate (DER) and this will show whether the Proposed Development has met the policy targets. Once the homes are built the Dwellings Emission Rate for the residential units has been calculated to be 11.51 kg/CO₂/m²/year which is a 1.8% reduction to the Target Emission Rate and so complies with Part L of the Building Regulations (June 2022). This results in a neutral, non significant impact. It should be noted that although the proposed development does not exceed the requirements of the Building Regulations (June 2022) by much, these new Regulations are much more stringent than the previous Regulations.
- 11.5 In addition to the emission reductions shown above, the development in its entirety, can tackle the predicted GHG emissions by offsetting the total amount produced through obtaining all operational energy from a 100% renewable energy electricity provider. This is however down to homeowner choice in the future.
- 11.6 The proposed development, if built to modelled assumptions, will meet the requirements of Part L of the Building Regulations (2022). This is due to the significantly improved fabric efficiency and Solar PV.

- 11.7 In terms of adaptation of climate change It will not be possible to eliminate every risk associated with climate change but through intelligent design, preparation and responsible construction, these risks will be minimised. Discussion and recommendations within the climate change chapter have detailed reducing these risks in key areas such as overheating, flooding and extreme weather, which has taken into consideration not only the health and safety of the users of the proposed development, but the resilience of the proposed development itself.

12. Ecology

- 12.1 The residential development can be achieved at the site with no significant adverse effect on designated sites for nature conservation and ecologically valuable habitats, including Priority Habitat and irreplaceable habitats.
- 12.2 Adverse effects on protected species are reasonably discounted and measures for the protection of bats, nesting birds and hedgehog during the construction period can be achieved by the implementation of actions as outlined in the CEMP.
- 12.3 By protection of existing habitats and the creation of new and diverse habitats, the proposed development achieves compliance with the requirements of the NPPF and policies CS8 of the Knowsley Local Plan Core Strategy.
- 12.4 The proposed development will secure management in the long-term of all retained and created habitats in accordance with conservation objectives. Mitigation to address identified potential indirect adverse effects on off-site statutory designated sites as a result of recreational pressures and the risk of adverse effects on the features interest at the nearby Kirkby Brook LWS is feasible and will be secured via planning obligations, as needed.
- 12.5 In addition to the landscape planting, the proposed development will secure beneficial measures within the built environment for breeding and feeding birds and roosting bats.
- 12.6 Collectively and in the long-term it is concluded that the proposed development will deliver measurable gains and additionality for biodiversity, particularly for Priority Species and bird species of conservation targets.

13. Summary and Conclusions

- 13.1 A comprehensive assessment of the potential effects of the construction and operational phases of the proposed residential development has been undertaken as part of this EIA to establish the environmental changes associated with the development.
- 13.2 The proposed development has been designed in accordance with the findings and recommendations of the EIA. Any adverse effects identified through the assessment have been minimised as far as possible through the design process or the application of appropriate mitigation measures. Those effects associated with the construction activities will be controlled by a CEMP and other associated measures and management plans.
- 13.3 The EIA has identified no major adverse significant effects during the construction and operational phases of development.
- 13.4 To a degree a number of minor adverse impacts of development are inevitable but it is concluded that these effects should be weighed against the significant benefits in the long term as well as the contribution that the proposals make to local and national policy objectives. Overall, the proposed development constitutes a sustainable, high-quality development.
- 13.5 In summary, there are no reasons, based on the findings of the EIA that would preclude the granting of planning permission for the proposed development and the development would contribute significantly to the sustainable development objectives of KMBC.

14. ES Availability and Comments

- 14.1 The Non-Technical Summary, Environmental Statement and Appendices are available for viewing at KMBC Offices. Further Copies of the ES and Technical Appendices are available on CD at a cost of £25 from Egniol. Hard copies are available at a cost of £250. Contact details are as follows:

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Llys Onnen

Ffordd y Llyn

Parc Menai

Bangor

LL57 4DF

Kevin Foster

Knowsley Council

Huyton Library

Civic Way

Huyton

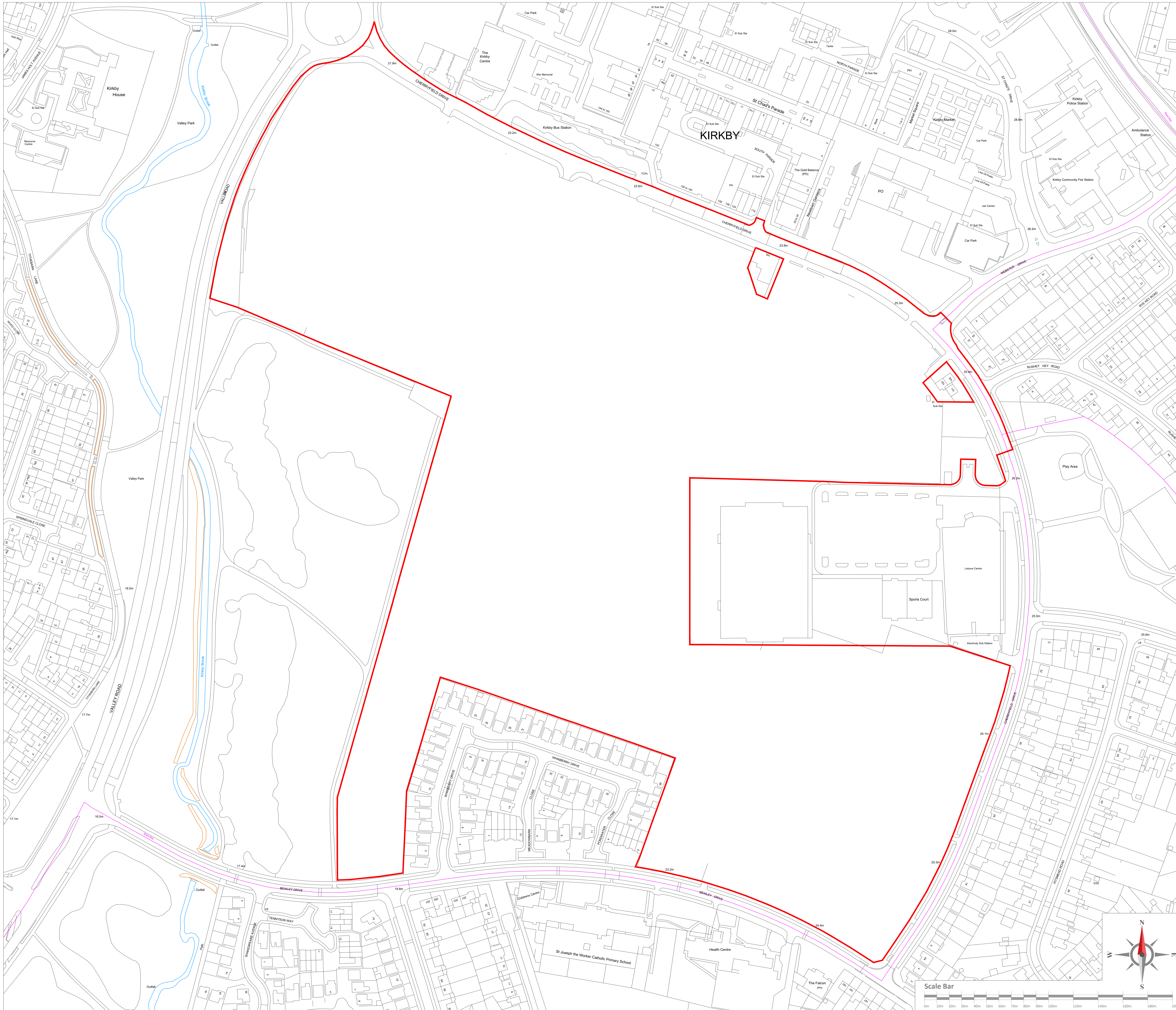
Knowsley

L36 9GD

E: richard.kevan@egniol.com

E: kevin.foster@knowsley.gov.uk

Appendix 1 – Site Location Plan.



Key:

Application boundary

Rev	Amendment	Drops/Notes

Barratt Homes (Manchester Division)

Adams House,

Towers Business Park,

Winterton Road,

Dobson,

M20 2HT

Tel: 0161 872 0161

Fax: 0161 855 2828

BDW Homes (North West)

301 Bridgewater Place

2nd Floor

Warrington

Cheshire

WA3 3GF

TEL: 01925 846600

DAVID WILSON HOMES

WHERE QUALITY LIVES

Project

Cherryfield Dr
Kirkby

Drawing Title

Location Plan
DWH & Barratt

Status

For Comment

Scale

1:1000 @ A0

Date

09.02.24

Drawn By

JC

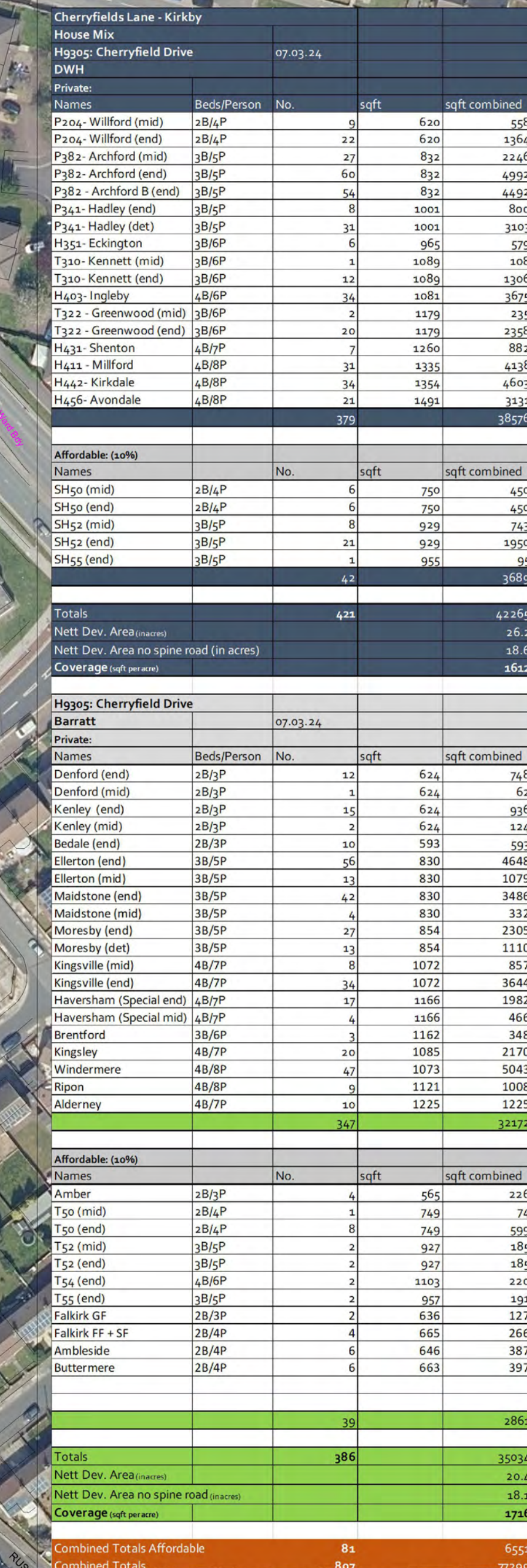
Drawing Ref

H9305-DWH-XX-XX-DR-JD-201001

Revision

P01

Appendix 2– Overall Planning Layout.



Cherryfield Drive, Kirkby Overall Site Layout