**Croudace Homes Ltd**

**Stoneyfield, Oxted**

**EIA Scoping Report**

August 2024

# STONEYFIELD OXTED EIA SCOPING REPORT

## Prepared for:

**Croudace Homes Ltd**

Croudace House,
Tupwood Lane,
Caterham,
Surrey
CR3 6XQ

## Prepared by:

**Campbell Risdon (and technical specialists)**

**Consultant**

Temple Chambers
3-7 Temple Avenue
Temple
London
EC4Y 0DA
campbell.risdon@templegroup.co.uk

www.templegroup.co.uk

## Document Control

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# Contents

# 1. Introduction

## 1.1 Background

1.1.1 Croudace Homes ('the Applicant') intend to submit a detailed planning application for the development of an approximately 9 hectare (ha) site, which currently comprises greenfield space (the 'Site'), to provide a residential development (the 'Proposed Development').

1.1.2 The determining authority for the planning application is Tandridge District Council (TDC) and the Site is located to the northwest of Oxted Station, in the wider suburban setting of Oxted, centred on Ordnance Survey (OS) National Grid Reference (NGR) TQ388531.

1.1.3 The Site is bounded by:

- Barrow Green Road to the north;
- A railway line to the east;
- St Mary's Church and Wheeler Avenue to the south; and
- Residential dwellings and woodland to the west.

1.1.4 The Site boundary is shown in **Figure 1.1**.

1.1.5 The Proposed Development will comprise the construction of a residential development, providing up to 220 new homes (inclusive of 140 homes and a care home with 80 units) with associated, access, parking and landscaping.

1.1.6 The Proposed Development falls within the classification of Schedule 2, 10 (b) (Infrastructure Projects – Urban Development Projects) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the EIA Regulations')[1]. Given the scale of the Proposed Development exceeds the thresholds set out in Schedule 2 of the EIA Regulations: 10b Urban Development Projects (i.e. the Proposed Development will provide more than 150 dwellings), it is anticipated that there is the potential for significant environmental effects to arise. Therefore, the Applicant has volunteered to produce an Environmental Statement ('ES') which will accompany the planning application and communicate the findings of the EIA.

[1] The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/571).

1.1.7 Temple Group Ltd ('Temple') has been commissioned by the Applicant to prepare an EIA Scoping Report in line with the requirements of Regulation 15 of the EIA Regulations, to support a request for an EIA Scoping Opinion.

## 1.2 Purpose of the Scoping Report

1.2.1 Scoping is the process of determining the scope and level of detail of information to be provided in the ES and agreeing where a topic is unlikely to have significant effects and, therefore, can be excluded. This forms an early stage in the EIA process, enabling the activity of reviewing any environmental studies undertaken to date and identifying those environmental aspects that may be significantly affected / impacted by a Proposed Development.

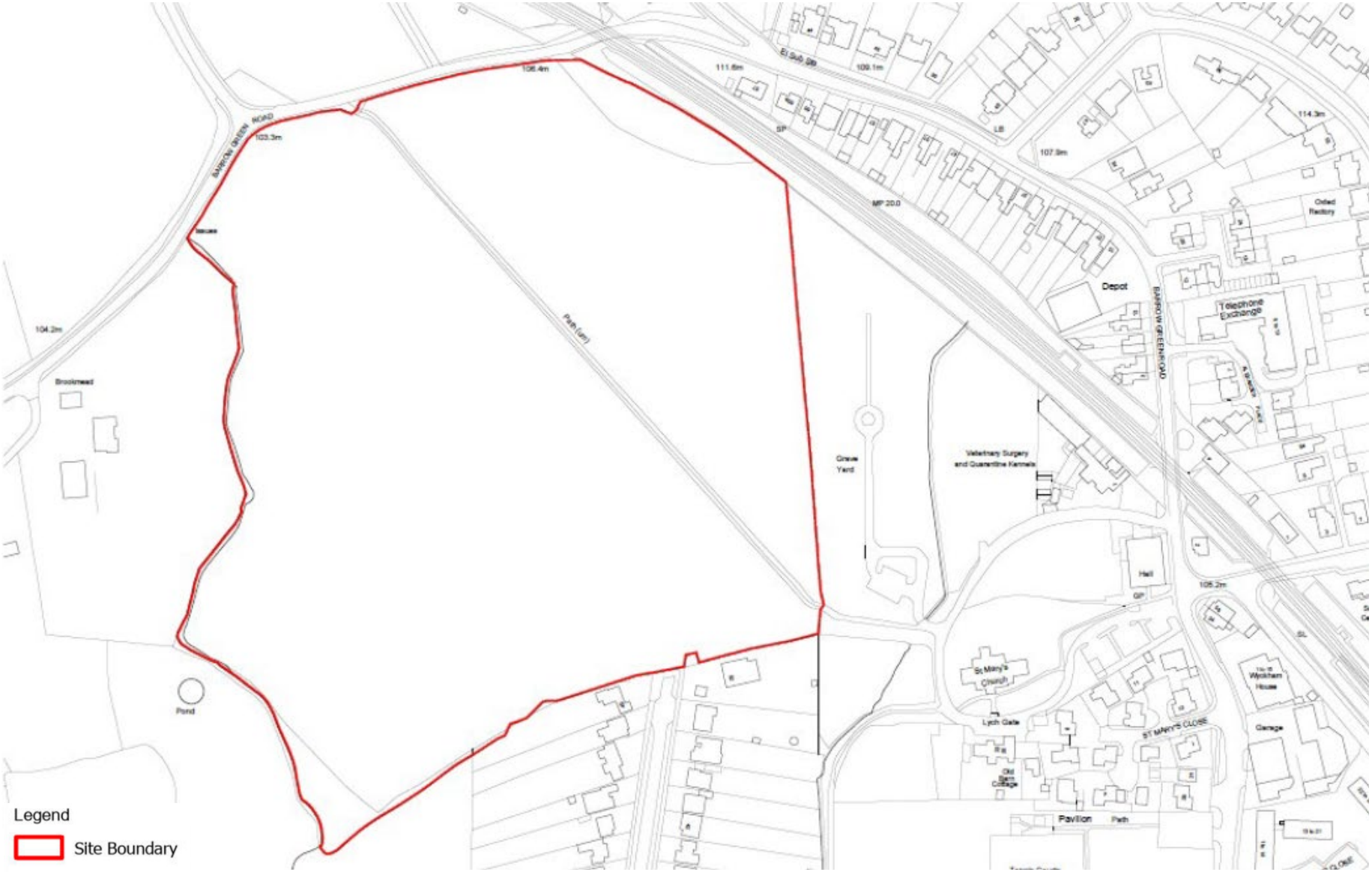
1.2.2 This Scoping Report describes the scope of the technical studies to be undertaken in order to provide a comprehensive assessment of significant effects likely to arise, and to determine suitable mitigation measures for the demolition and construction and operational phases of the Proposed Development. The Scoping Report outlines the proposed scope of the Stoneyfield Oxted EIA, providing a mechanism for consulting on and agreeing the content and methodology of the subsequent EIA with TDC officers, statutory consultees, and other stakeholders.

## 1.3 Structure of the Scoping Report

1.3.1 This Scoping Report is structured as follows:

- Section 1 introduces the requirement for EIA and scoping process;
- Section 2 describes the Site context and key receptors;
- Section 3 describes the policy context;
- Section 4 describes the Proposed Development;
- Section 5 summarises the consultation strategy;
- Section 6 outlines the overall assessment methodology and approach to the EIA;
- Section 7 presents the key environmental topics to be addressed by the EIA;
- Section 8 summarises the issues intended to be scoped out of the EIA;
- Section 9 provides the proposed structure of the ES; and
- Section 10 provides an overall summary and conclusions to the report.

**Figure 1.1: Site Boundary and Immediate Surroundings**



## 1.4 The Environmental Statement

1.4.1 The EIA Regulations require that an EIA be undertaken for the Proposed Development, and that an ES identifying effects and associated mitigation measures must be provided for EIA developments to accompany the planning application.

1.4.2 For the purposes of the EIA Regulations, Regulation 18 (3) defines an ES as:

*"...a statement which includes at least:*

*a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development;*

*b) a description of the likely significant effects of the proposed development on the environment;*

*c) a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;*

*d) a description of the reasonable alternatives studied by the developer, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;*

*e) non-technical summary of the information referred to in sub-paragraphs (a) to (d); and*

*f) any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.*

1.4.3 Temple has been commissioned by the Applicant to prepare the EIA in accordance with the EIA Regulations and other relevant EIA guidance, and to produce the ES which will be submitted with the planning application.

1.4.4 The Applicant will provide the necessary information to enable the EIA to be undertaken. The ES will ensure that sufficient information is provided to enable TDC to make a decision about the planning application with due regard to and in the knowledge of any likely significant environmental effects.

1.4.5 Once submitted, the competent authority responsible for authorising the relevant development (in this instance, TDC) should publicise the availability of the ES (and any related additional information) to potentially interested parties, such as statutory and non-statutory consultees and the public, so as to enable their opinions on the Proposed Development and ES to be represented to the planning process.

## 1.5 The EIA Project Team

1.5.1 The EIA Regulations 2017, state in Regulation 18 (5) *"In order to ensure the completeness and quality of the environmental statement-*

*a) the developer must ensure that the environmental statement is prepared by competent experts; and*

*b) the environmental statement must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts".*

1.5.2 In accordance with Regulation 18 (5) (a & b), it is confirmed that this Scoping Report has been prepared, and the EIA will be undertaken and prepared, by competent experts from the below organisations. Their relevant expertise and qualifications will be stated within the ES.

1.5.3 Temple is one of the UK's leading independent infrastructure and property consultancies, specialising in environment, planning and sustainability. Temple is a founding member of the Institute of Environmental Management and Assessment (IEMA) EIA Quality Mark and recognised provider of EIA services on some of the UK's most high-profile development schemes. Temple also has a strong track record providing expertise and formal review services on behalf of Local Authorities of EIAs submitted by other third parties. Temple will be responsible for the coordination and management of the EIA and the preparation of the ES.

1.5.4 The EIA project team is comprised of the organisations identified in **Table 1.1.**

**Table 1.1: The Proposed Project Team**

| Project Role | Organisation |
|---|---|
| The Applicant | Croudace Homes Ltd |
| Architect | Omega |
| Town Planning Consultant | Andrew Black Consulting |
| EIA Coordination, Air Quality, Noise and Vibration and Socio economics | Temple |
| Built Heritage | RPS |
| Water Resource | Motion |
| Landscape and Visual Impact | Bryant Landscape Planning |
| Ecology | Ecology Partnership |
| Transport | Pell Frischmann |

# 2. Description of Context and Key Receptors

## 2.1 Site Description

2.1.1 Currently, the Site comprises greenfield space. The Site is bounded by:

- Barrow Green Road to the north;
- A railway line to the east;
- St Mary's Church and Wheeler Avenue to the south; and
- Residential dwellings and woodland to the west.

## 2.2 Site Context

2.2.1 The Site is located towards the south of Barrow Green Road and adjacent to the railway line that services Southern Rail and the Thameslink. The location of the Site in its wider geographical context is presented in **Figure 2.1**.

2.2.2 Oxted Station is located approximately 385 m toward the south east of the Site. As mentioned above, this station is serviced by Southern Rail and the Thameslink which provides services to East Grinstead, Uckfield and London Victoria.

2.2.3 There are seven bus stops within a 500 m radius of the Site, all located east and southeast of the Site, with the closest stop being Barrow Green Road 300 m east of the Site. The surrounding Stops provide services primarily for bus routes 594 and 595, which connect the nearby area of Chalkpit Wood to Oxted Station.

2.2.4 The Site is not located within an Air Quality Management Area (AQMA). The nearest AQMA to the Site is located approximately 7 km toward the northwest (Croydon AQMA), which has been designated for exceedances in nitrogen dioxide ($NO_2$).

2.2.5 There are seven listed buildings and structures within a 500 m radius of the Site, the closest being the Church of St Mary the Virgin (Grade I) approximately 80 m to the southeast, and Blunt House (Grade II) approximately 200 m to the west.

2.2.6 There is one Scheduled Monument within 1 km of the Site; The Mount Barrow Green is located approximately 950 m to the southwest.

2.2.7 There are no Registered Battlefields or Registered Parks and Gardens located within 1 km of the Site.

2.2.8 The Site is not located within an Archaeological Priority Area.

2.2.9 There are 10 Local Nature Reserves (LNRs) located within 10 km of the Site, with the closest of these being the Hill Park, Tatsfield, located approximately 3.9 km to the

northeast of the Site. South London Downs National Nature Reserve is located approximately 7.25 km to the northwest of the Site.

2.2.10 There are 13 Sites of Special Scientific Interest (SSSI) located within 10 km of the Site, with the closest being the Woldingham and Oxted Downs SSSI located approximately 500 m north and northeast of the Site.

2.2.11 There are no Ramsar sites, Special Areas of Conservation, or Special Protection Areas within 10 km of the Site.

2.2.12 The entire Site is located in Flood Zone 1 (areas with a low probability of flooding).

2.2.13 The Surrey Hills Area of Outstanding Natural Beauty (AONB) is located approximately 500 m to the north of the Site. The Kent Downs AONB is located beyond the Surrey Hills AONB to the east, approximately 4.25 km away from the Site.

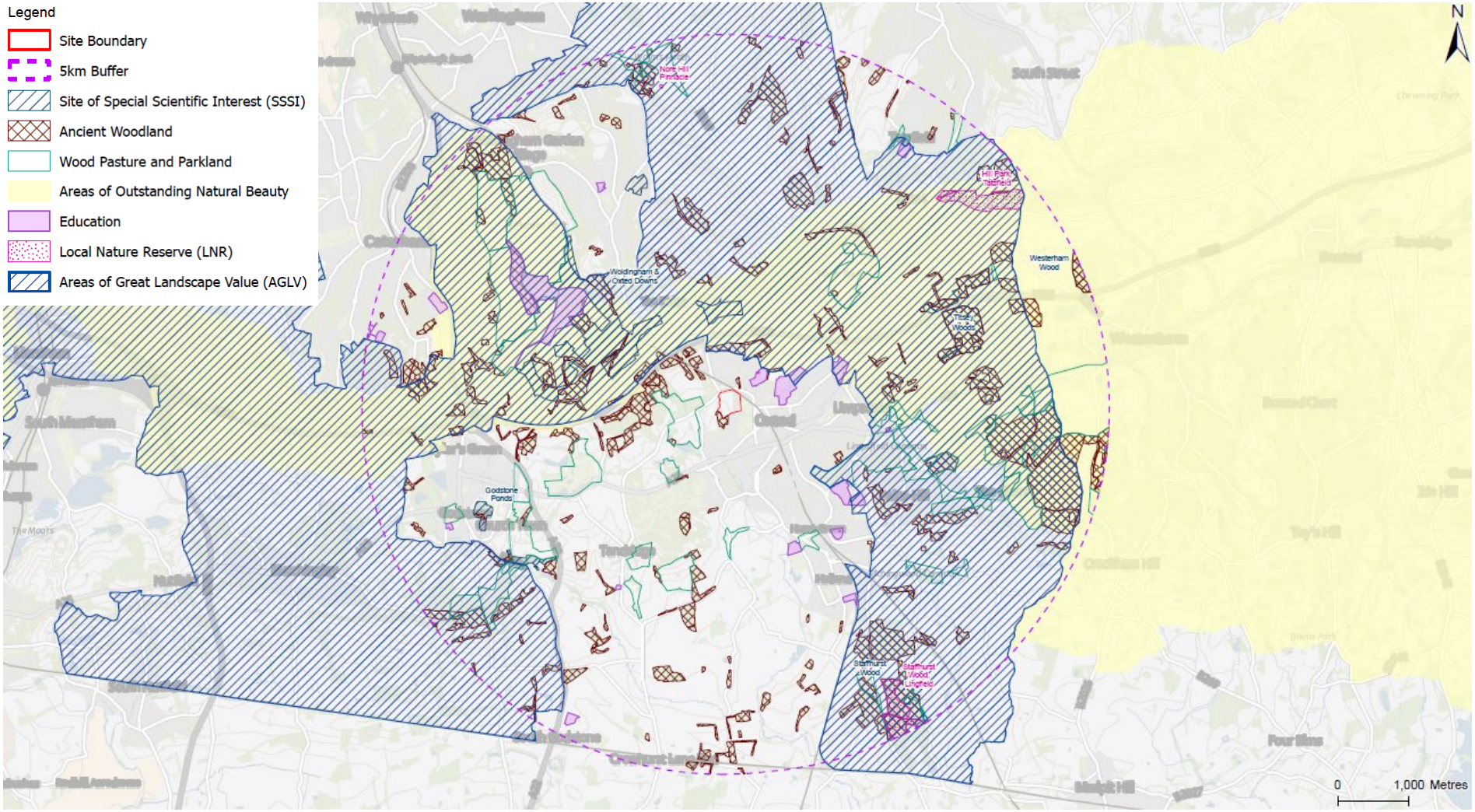
2.2.14 There are no National Parks within 1 km of the Site.

2.2.15 The key receptors which are considered potentially sensitive to the construction and operation of the Proposed Development have been identified and are summarised in **Table 2.2**.

**Table 2.2: Potential Key Receptors**

| Category | Potential Sensitive Receptor / Land Use |
|---|---|
| Residential | Current residents within surrounding buildings including those along Barrow Green Road to the west, north and northeast, off Wheeler Ave to the south, and future residents of the Proposed Development. |
| Commercial | Existing commercial uses to the southeast of the Site. |
| Community | Users of current public open spaces, such as King George V Playing Field (to the southeast of the Site), and future public open spaces / realm.<br>Users of current social infrastructure such as schools, GP surgeries and NHS dentists. |
| Global climate system | Global climate system. |
| Landscape and views | Landscape Character Areas.<br>Pedestrians.<br>Vehicular users.<br>Residential receptors. |

**Figure 2.1: Site Context**



# 3. Policy Context

## 3.1 Planning Context

3.1.1 The EIA will consider legislation and relevant national and local planning policy guidance as summarised below.

## 3.2 National Planning Policy

3.2.1 The ES will have regard to the National Planning Policy Framework (NPPF)[2], which sets out the Government's economic, environmental and social planning policies for England. The policies contained within the NPPF articulate the Government's vision of sustainable development, which are intended to be interpreted at a local level, to meet the requirements of local aspirations.

3.2.2 The NPPF should be read alongside the national Planning Practice Guidance (PPG), which aims to make planning guidance more accessible, and to ensure that the guidance is kept up to date.

3.2.3 The ES will have regard to the most recent revision of the NPPF, published in December 2023.

## 3.3 Local Planning Policy

3.3.1 The ES will utilise the Tandridge District Core Strategy[3] (2008). The Core Strategy is the overarching document within the Local Plan which sets out the long-term strategic vision for the District. The ES will also regard to the Tandridge District Council Local Plan 2033 (2019)[4], however it should be noted that as the plan was unsound by the Inspector, the plan will not directly effect the development plan.

3.3.2 The Local Plan and Core Strategy outline TDC's planning vision from 2019 to 2033, along with the planning policies which would be used to deliver TDC's vision.

[2] Ministry of Housing, Communities and Local Government (MHCLG) (September 2023); National Planning Policy Framework.

[3] Tandridge District Core Strategy

[4] Tandridge District Council, January 2019; Our Local Plan 2033. Available at: Our Local Plan 2033 (tandridge.gov.uk)

## 3.4 Other Policy and Guidance Considerations

3.4.1 There are a number of supporting policy and guidance documents that are relevant to each environmental discipline and will be considered on a topic-by-topic basis within the ES.

# 4. Scheme Description

4.1.1 The Proposed Development will comprise the construction up to 220 new homes (inclusive of 140 homes and a care home with 80 units) with associated, access, parking and landscaping. While the heights and massing have not yet been finalised, the development will be low-rise in nature. It is assumed that the heights of the houses will not exceed 2.5 storeys and will not include basements.

4.1.2 The care home will be located in the southwestern portion of the Site, with the majority of the houses oriented along the Bridleway that bisects the Site. The hedgerow perimeter will remain prominent along the western boundary with the gardens facing inwards.

4.1.3 The Proposed Development will also provide associated access, parking and landscaping.

## 4.2 Construction

4.2.1 It is anticipated that the construction of the Proposed Development will take place over a period of approximately 3.5 years and will be first occupied in 2030.

4.2.2 At this stage limited detail is available on the proposed construction methodology; however, timescales and construction methods are likely to be comparable to those of any similar scale development. As such, the stages are likely to include any necessary grading, piling/pouring of foundations, construction of the building structures, external fit-out, internal-fit out and landscaping. The ES will include a chapter describing the proposed construction methodology and timescales.

## 4.3 Operation

4.3.1 Once the Proposed Development is fully operational, it will be occupied by Site residents. This will be detailed further within the ES.

# 5. Consultation and Engagement

5.1.1 The process of consultation is important to the development of a comprehensive and balanced ES. Views of the interested and affected parties serve to focus the environmental studies and to identify specific issues that require further investigation. Consultation is an ongoing process as part of the design development.

5.1.2 Information and views are being sought from a range of statutory and non-statutory bodies through public consultation and the intention is for consultees to be involved in the evolution of the design and assessment of environmental effects.

5.1.3 Key consultees are considered to include, but are not limited to:

- Local residents and community groups (to be agreed with the TDC);
- Important neighbouring occupiers and landowners, where necessary;
- TDC Environmental Health)
- Surrey County Council (SCC) (including departments such as Highways and Flooding);
- Environment Agency (EA);
- Historic England (HE);
- Natural England (NE);
- National Grid (NG) and other statutory utility providers; and
- Surrey Hills National Landscape.

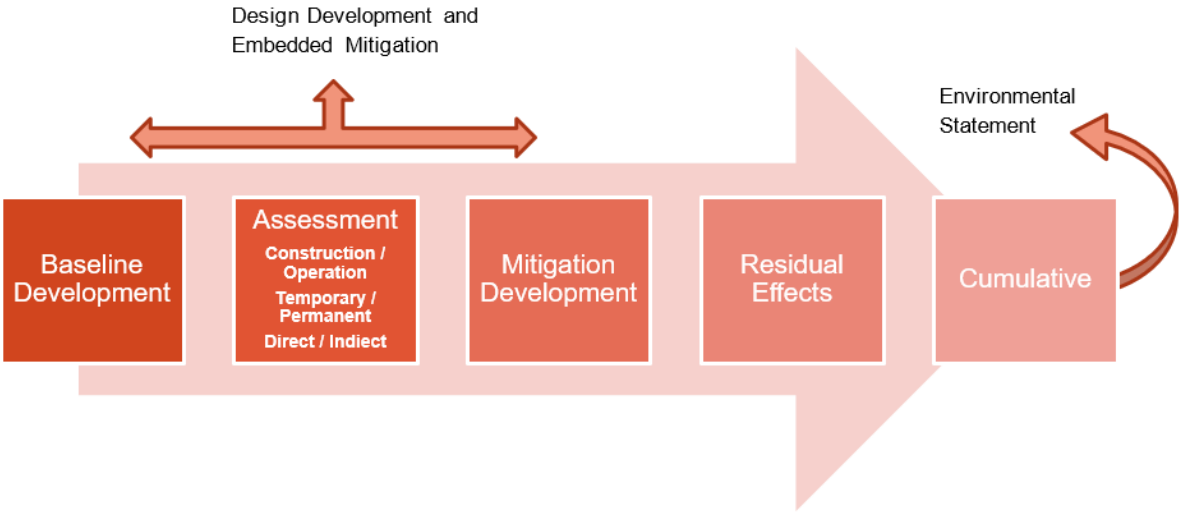
5.1.4 A programme of community consultation is being undertaken by the project team who will continue to engage with third parties and stakeholders throughout the planning process.

# 6. EIA Approach and Methodology

6.1.1 The general approach to assessment will establish a baseline for each topic. Receptors and resources will be identified, and their sensitivity classified. The potential impacts of the Proposed Development on these receptors and resources will be assessed, for the demolition and construction and operation of the Proposed Development. Subsequent mitigation of impacts will be considered, along with the identification of likely cumulative and residual effects.

6.1.2 The process that the EIA will take is shown in **Figure 6.1** below:

**Figure 6.1: EIA Assessment Process**




## 6.2 Baseline Development

6.2.1 The EIA will primarily describe environmental impacts in terms of the extent of likely change to the baseline environment. The baseline represents the environmental conditions of the Site at the time of the assessment.

### Spatial Scope

6.2.2 The redline boundary of the Proposed Development is shown in **Figure 1.1**. Assessment study areas will vary by topic areas, according to the baseline information and the nature of likely impacts. These will be determined during the EIA.

6.2.3 It is understood that the application is being submitted in detail as such the full details will be assessed by the relevant topic areas.

### Temporal Scope

6.2.4 The ES will assess the environmental impacts of the Proposed Development during the construction and operational stages. The assessment will compare current and future baseline conditions (as appropriate) to those conditions expected with the construction and operation of the Proposed Development. The assessment will assume that the construction works will start in Q3 2026, subject to securing planning permission.

6.2.5 The assessment will consider the totality of the Proposed Development from construction through to operation, using the following assessment scenarios:

- existing baseline;
- future baseline (without Proposed Development);

- assessment of peak demolition and construction effects;
- assessment of operational effects (all construction complete, the Proposed Development fully occupied and operational).

6.2.6 The point at which peak construction effects are anticipated varies between assessment topics. For those assessments driven by the effects of traffic, peak construction traffic is likely to lead to peak effects. For assessment topics where effects are driven by massing, effects are likely to increase over the duration of the construction period. Effects related to the sub-surface will be greatest during enabling works, excavation and substructure stages.

6.2.7 This assessment of peak construction effects will assess a worst-case scenario and therefore be a conservative assessment of any interim effects; therefore, no time-slices or interim construction assessments are considered necessary for most topics. This will be reviewed on a topic-by-topic basis.

## 6.3 Assessment of Effects and Defining Significance

### Prediction of Impacts

6.3.1 Once impacts have been identified, prediction methods will be used to identify the magnitude and nature of changes to the environment resulting from the Proposed Development, compared to the situation without the Proposed Development (i.e. the baseline conditions). The relative significance of these changes will then be defined using thresholds and criteria, as appropriate.

6.3.2 There are a number of methods available for predicting the effects of the Proposed Development, some of which are qualitative and quantitative. Quantitative methods predict measurable changes resulting from a development, and hence rely on the ability to measure and or model baseline conditions accurately, for example the concentration of air pollutants. In comparison, qualitative techniques rely on expert judgement; for example, the Landscape and Visual Impact Assessment (LVIA). In these circumstances, a clear distinction will be made between matters of fact and professional judgement.

### Evaluation and Assessment of Significance of Impacts

6.3.3 The definition of significance thresholds and criteria will take account of the:

- Value / sensitivity of the resource (international, national, regional and local level importance);
- magnitude of the impact (for example the number of receptors);
- duration of the impact; and
- reversibility of the effect.

6.3.4 Typically, the criteria will be developed from a matrix approach comprising the value/sensitivity of the resource on one axis and the magnitude of the predicted impacts on the other. The classification of effects is shown in **Table 6.1**.

**Table 6.1: Classification of Effects**

| | Magnitude of Impact | | |
|---|---|---|---|
| **Value / Sensitivity** | **Minor** | **Moderate** | **Major** |
| **Negligible** | Negligible | Negligible | Negligible |
| **Low** | Minor-negligible | Minor | Moderate-minor |
| **Medium** | Minor | Moderate-minor | Major-moderate |
| **High** | Moderate-minor | Major-moderate | Major |

6.3.5 The classification of the effect will also consider the following descriptors:

- adverse, neutral or beneficial;
- permanent or temporary;
- duration / frequency or likelihood; or
- direct or indirect.

6.3.6 The duration of the effect will be assessed to be either temporary or permanent where:

- temporary (e.g. construction phase):
- short term (<5 years);
- medium term (5 – 10 years);
- long term (>10 years); or
- permanent (e.g. once the Proposed Development is completed and operational).

6.3.7 **Table 6.1** displays a range of effects associated with the magnitude of change and sensitivity as in certain situations the effect may fall within this range, ultimately the level of significance is based upon the professional opinion of the specialist involved and the assessment matrix table is intended as a guide.

## Mitigation Development

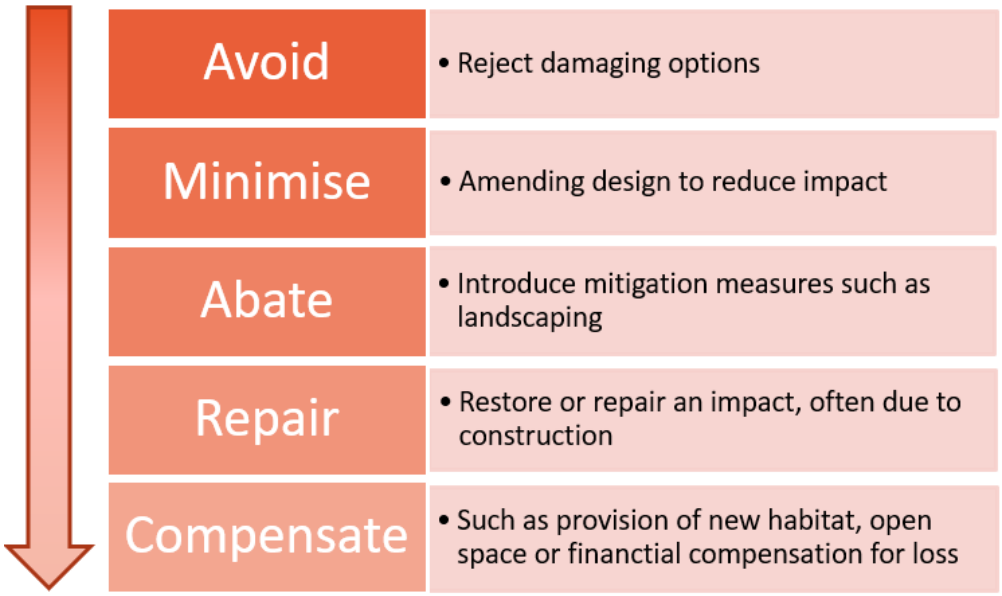
6.3.8 During the EIA, there will be an on-going design process, looking at ways to best mitigate any likely environmental effects through amendments to the design of the Proposed Development. This will constitute embedded design mitigation and where this has occurred it will be identified within the relevant topic chapters within the ES.

6.3.9 Further assessment mitigation measures may be introduced where adverse environmental impacts remain following the culmination of the design process and,

in these instances, further mitigation will be proposed where feasible within the relevant technical chapters. A practical example of this (for illustrative purposes only) could be that all dwellings are designed to fulfil certain requirements in terms of noise insulation (embedded design mitigation); however, the noise assessment may identify, post outputs from modelling, that a specific dwelling requires enhanced glazing specification (additional assessment mitigation).

6.3.10 Proposals for mitigation will follow the following hierarchy set out in **Figure 6.2**. Where beneficial effects and or opportunities for enhancement and betterment are identified, measures to maximise these will also be proposed.

**Figure 6.2: Mitigation Hierarchy**




6.3.11 Design mitigation will include compliance with legislation, industry good practice, Best Practicable Measures (BPM) and construction environmental management procedures. Design features that have been adapted to reduce or prevent impacts will be described.

## Residual Effects

6.3.12 The residual effects will be assessed using the same system as described above taking account of any assessment mitigation proposals. Generally, based on the described classification and professional judgement, effects considered to be moderate or major will be deemed significant, and those considered minor, or negligible, will be deemed not significant.

6.3.13 Residual effects will be presented within each individual topic chapter and summarised in a chapter entitled *Residual Effects and Conclusions.*

## Cumulative Effects

6.3.14 The EIA Regulations specify that an ES should include *'a description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative…effects.'*

6.3.15 Cumulative effects are the combined effects of several development schemes (in conjunction with the Proposed Development) which may, on an individual basis be non-significant but, cumulatively, have a significant effect.

6.3.16 Two types of cumulative effects will be considered in the assessment. These include Type 1, intra-project effects (or effect interactions) which are the combined effects of individual topic impacts on a particular sensitive receptor, and Type 2, inter-project effects which are the combined effects of different development projects, alongside the Proposed Development.

6.3.17 Type 1 cumulative effects will be addressed in a separate ES chapter. Type 2 cumulative effects will be assessed in each individual topic chapter. Cumulative effects during both the construction and operational phases of the Proposed Development will be assessed.

6.3.18 The EIA will consider Type 2 cumulative effects from schemes of an appropriate scale and spatial extent in the context of the Proposed Development.

6.3.19 Applying the EIA thresholds for what is more likely to be considered significant development schemes and therefore give rise to cumulative effects, schemes which are likely to produce an uplift of more than 10,000 $m^2$ (GEA) of mixed use floorspace or over 150 residential units have been considered within a 5 km radius of the Site.

6.3.20 These schemes include:

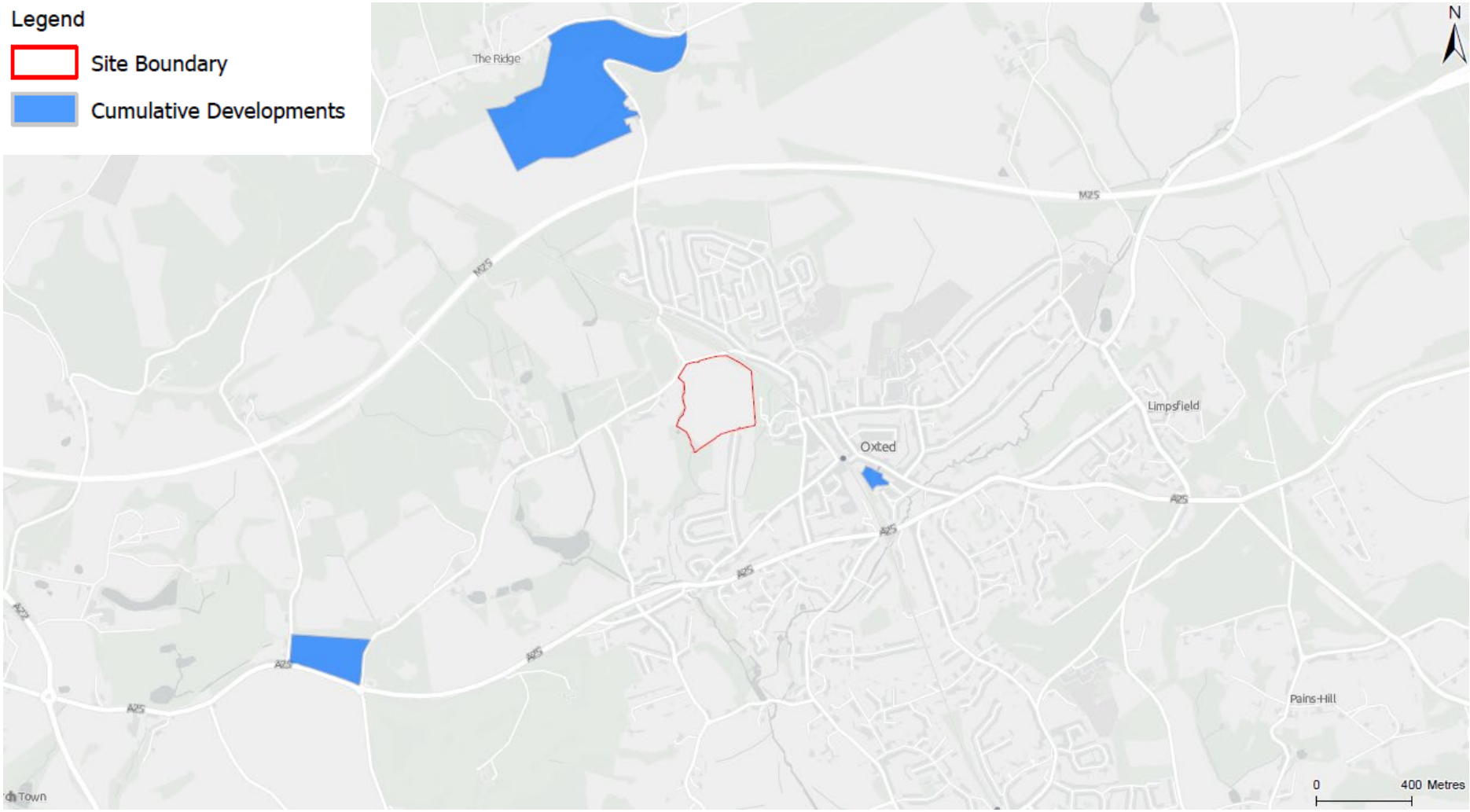
- approved but incomplete projects (i.e. unimplemented or under construction);
- projects for which a planning application has been submitted and which are under consideration by the consenting authorities;
- project for which a request for an EIA Scoping Opinion has been submitted; and
- for certain topics (e.g. visual impact) it may be appropriate to include developments outside of this area of search, should those projects individual characteristics warrant it (e.g. a particularly tall building). Additional schemes for each topic will be identified within the individual topic chapters.

6.3.21 From an initial planning search, 3 schemes were found that could potentially give rise to significant effects when considered in cumulation with the Proposed Development. These schemes are presented in **Table 6.2** and **Figure 6.3** below.

**Table 6.2 Consented and Committed Cumulative Schemes**

| Authority | Site | Planning App Ref | Summary of Development | Distance from Site | Planning Status/ Approval Date |
|---|---|---|---|---|---|
| Tandridge District Council | Former Oxted Gasholder Site & Johnsdale Carpark, Station Road East, Oxted. | 2019/1404 | Variation of condition No. 2 (Approved Plans) of planning application TA/2018/729 dated 02/07/2018 to allow for various minor amendments to the development (Demolition of existing gasholder, erection of 111 residential apartments, together with the provision of enhanced access route, landscaping and associated parking) | 450 m | Approved 21/02/2020 |
| Planning Inspectorate | Land Off Oxted Road (a25), Oxted. | APP/M3645/W/21/3272384 | Erection of crematorium facility with associated memorial areas, landscaping, parking and infrastructure. | 1.6 km | Approved 30 Sep 2021 |
| Surrey County Council | Oxted Quarry, Chalkpit Lane, Oxted. | TA/2023/1135 | Cessation of winning and working of minerals and importation of waste. A revised scheme of restoration to create a natural parkland with public access, footpaths and ecological habitat areas and erection of 75 dwellings, a proportion of which would be affordable housing, and associated hard and soft landscaping and access, provision of a field study centre, restoration of the historic lime kilns, and works to Chalkpit Lane including traffic calming and a new footway link to Oxted. | 1 km | Under consideration |

**Figure 6.3 Consented and Committed Cumulative Schemes**



6.3.22 TDC officers are invited to identify any additional committed or consented schemes that they believe are likely to require consideration within the ES as a result of likely significant inter-project environmental effects.

## 6.4 Construction

6.4.1 The ES will include a chapter describing the proposed construction methodology, the likely phasing of the Proposed Development and the proposed construction timescales. It will indicate the likely plant and equipment to be used, construction traffic access and management, the location and size of construction welfare facilities, materials and resource use and anticipated waste quantities.

## 6.5 Consideration of Alternatives

6.5.1 The ES will include consideration of the main alternatives considered during the design process, such as the location and types of land uses and layouts. The rationale for the selection of the preferred option will also be included within the ES.

# 7. Proposed Environmental Topics to be included in the ES

## 7.1 Topic Sections

7.1.1 The following topics are proposed to be scoped into the ES and these are further described below:

- Socio-Economics;
- Air Quality;
- Noise and Vibration;
- Traffic and Transport;
- Ecology;
- Built Heritage; and
- Landscape and Visual Impact Assessment.

## 7.2 Socio-Economics

### Summary of Baseline Conditions and Anticipated Sensitive Receptors

7.2.1 The Site is located within the Oxted North and Tandridge ward, within Surrey County and a part of Tandridge District.

7.2.2 According to the most recent population statistics, the population of the ward was around 5,984 in 2020[5]. In terms of age groups, the highest proportion of the population were aged 25-49 (29%) followed by 65+ year olds (22%). Furthermore, the proportion of the population aged 16-24 was around 9%.

7.2.3 There are four LSOAs within Oxted North and Tandridge Ward. According to the 2019, IMD, two out of the four LSOAs within the study ward were ranked amongst the 10% most affluent areas in England[6]. The remaining two LSOAs

[5] Office of National Statistics (2021) 202 Ward Level Mid-Year Population Estimates (Experimental Statistics

[6] Ministry of Housing Communities and Local Government (2019) English indices of deprivation 2019

within the study ward were ranked amongst the 40% most affluent neighbourhoods within the country.

## Key Issues and Potential Likely Impacts Identified

### *Construction Phase*

7.2.4 The construction of the Proposed Development is likely to result in the temporary creation of construction employment. Furthermore, a temporary effect is likely to affect the town and other centres, as a result of additional spending from the construction workforce.

### *Operational Phase*

7.2.5 The Proposed Development is likely to result in a permanent effect via the provision of new housing. Permanent jobs will also be generated by the operation of the Proposed Development. The town and other centres are likely to be subject to the spending of the additional population and workers, resulting in a further potential effect.

7.2.6 Potential adverse effects may be experienced by the following receptors due to increased demand from the new residential population: childcare; healthcare; and community and recreational facilities.

## Assessment Methodology

### *Determination of the Baseline*

7.2.7 The baseline for the socio-economic conditions of the local area will be established from a number of sources, including: the 2021 Census, which is the most up to date source of information on social and housing conditions at a local level; annual population surveys for economic data; lists of the community facilities that serve the study area published by TDC, Surrey County Council (SCC), the National Health Service (NHS) and other organisations.

7.2.8 Impacts on social and economic determinants and facilities will be assessed using various geographical impact areas, depending on the likely geographical extent of an impact. These reference areas will be compared with socio-economic information for the District, Surrey County and for the South East region as a whole.

7.2.9 **Table 7.1** below shows the spatial area of impact that will be applied for the baseline and assessment. There is no standard guidance for assessing socio-economic effects. Therefore, the significance of socio-economic effects will be

based on existing best practice guidance where available. Where this is not available, professional judgement will be applied.

**Table 7.1: Geographical Area of Impact for Different Socio-Economic Themes**

| Theme | Geographical Area of Impact |
|---|---|
| Local Population and Demographics | Oxted North and Tandridge Ward |
| Housing | TDC area |
| Childcare | 1 km road travel distance from the Site. |
| Education | State-funded primary schools – 2 km road travel distance from Site.<br>State-funded secondary schools – 4 km road travel distance from Site. |
| Health | GP surgeries and NHS dentists within 1 km of the Site (road travel distance). |
| Community and Leisure Facilities | Government-funded library, leisure or sports centre, youth and community centres within 1 km of the Site (road travel distance). |
| Open and Play Space | 800 m (local parks and open spaces) and 1.2 km (district parks) road travel distance; Play space requirements based on the SCC child yield contributions |
| Crime, Fear of Crime and Anti-Social Behaviour | Oxted North and Tandridge Ward |
| Local Economy, Employment and Skills | TDC/ Surrey County |
| Town and Other Centres | TDC |

## *Prediction Methodology*

7.2.10 Assessments will be undertaken in the context of national and local planning and other policy, e.g. TDC housing targets. In addition to the baseline data, the assessment of effects will be underpinned by forecasts / estimates for both the construction and operational phases.

### Construction Phase

7.2.11 Effects during construction will be assessed for the full duration of the construction period.

7.2.12 Employment (gross) in the construction of the Proposed Development will be estimated from:

- The cost of the construction provided by the Applicant;

- Estimates of turnover per employee from Business Population Estimates produced by the Department for Business, Energy & Industrial Strategy (formerly Department for Business Innovation and Skills); and
- A conventional assumption that ten years of short-term work equates to one full-time equivalent (FTE) job.

### Operational Phase

7.2.13 Fundamental to the assessment is an estimate of the likely population of the Proposed Development. This is based on the ONS 2021 Mid-Year Population Estimates (small areas) and 2011 Census data which will provide contextual evidence to estimate the likely size of the future population of the Proposed Development. This estimate will inform the assessments of additional demand for services.

7.2.14 The following benchmarks will be used to calculate the likely demand for school places and the likely GP demand created from the Proposed Development:

- Schools – estimates of primary and secondary places based on the GLA population yield calculator; and
- GPs – average numbers of patience to GP ratios in the UK from NHS Digital.

7.2.15 The assessment of net employment effects will reflect the principles set out in the (now withdrawn) Homes and Communities Agency's Additionality Guide in order to eliminate (as far as possible) additional jobs that would have been created anyway regardless of the Proposed Development. The additionality assessment also takes account of the reference case (the employment on-Site if the intervention did not go ahead), leakage effects and indirect and induced employment, which contribute to the overall multiplier. The potential adjustments for these factors are outlined in **Table 7.2**.

**Table 7.2: Proposed Levels of Leakage, Displacement and Multiplier Effects**

| | Construction Jobs | Operational Jobs |
|---|---|---|
| **Leakage** | Low | Low |
| **Displacement** | Low | Low |
| **Multiplier** | TBC | TBC |

7.2.16 The economic and regeneration effects of the Proposed Development will be included within the assessment; for example, the stimulation of spending in the local area.

### *Mitigation Recommendation*

7.2.17 The socio-economics assessment will also explore the scope for mitigation and enhancement measures which could add value to the local economy and community.

7.2.18 The residual effects on the Proposed Development during both construction and operation will be presented within the chapter.

### *Cumulative assessment*

7.2.19 As appropriate, the assessment will consider the effects from the Proposed Development with other developments identified for Socio-economics during both the construction and operational phases.

## 7.3 Air Quality

### Summary of Baseline Conditions and Anticipated Sensitive Receptors

7.3.1 The Site is located within the jurisdiction of the Tandridge District Council (TDC), Surrey. The nearest AQMA to the Site is located approximately 5.8 km toward the west (Sevenoaks District Council AQMA), which has been designated for exceedances in nitrogen dioxide ($NO_2$). These AQOs are derived from the Air Quality (England) Regulations 2000, as amended.

7.3.2 According to the Air Quality Annual Status Reports for TDC (2023), there were four Sites measuring for annual mean $NO_2$ concentrations within 1.5 km of the Site during 2022, the latest year for which monitoring data are available. The results of the monitoring data collected from 2018 to 2022 at the TDC monitoring locations are shown in **Table 7.3**, below. **Figure 7.1** presents the monitoring locations. **Table 7.3** shows that annual mean $NO_2$ concentrations were below the AQO at Site from 2018-2022.

**Table 7.3: Annual mean $NO_2$ concentrations ($\mu g/m^3$)**

| Site ID | Site Type | Distance from Site (km) | Annual mean $NO_2$ concentrations ($\mu g/m^3$) | | | | |
|---|---|---|---|---|---|---|---|
| | | | 2018 | 2019 | 2020 | 2021 | 2022 |
| TD9 (Greenacres Oxted) | Urban Background | 0.65km | 17.8 | 17.8 | 12.5 | 13.2 | 15 |
| TD28 (Westerham Road Oxted) | Roadside | 1.08 km | 29.8 | 28.1 | 22.2 | 22.3 | 22.6 |
| TD32 (Snatts Hill Oxted) | Roadside | 0.93 km | 22.9 | 21.9 | 17.1 | 17.3 | 18.4 |
| TD34 (Amy Road Oxted) | Urban Background | 0.66 km | 19.7 | 21.2 | 16.2 | 16.5 | 17.6 |

7.3.3 TDC does not undertake hourly monitoring for $NO_2$, $PM_{10}$ and $PM_{2.5}$ concentrations within its jurisdiction.

**Figure 7.1: LBW's Air Quality Monitoring Locations & Air Quality Focus Areas**


## *Estimated Background Data*

7.3.4 Estimated background data are available from the United Kingdom Air Information Resource website[7] operated by Defra. The website provides estimated annual average background concentrations of $NO_2$, $PM_{10}$ and $PM_{2.5}$ on a 1 $km^2$ grid basis.

7.3.5 **Table 7.4** presents estimated annual average background $NO_2$, $PM_{10}$ and $PM_{2.5}$ concentrations for the grid square containing the Site (X538224, Y153341), for 2022. The estimated background concentrations are well below the relevant UK Air Quality Strategy Objectives for $NO_2$, $PM_{10}$ and $PM_{2.5}$. As background

[7] Department for Environment, Food & Rural Affairs (Defra), 2020. *United Kingdom Air Information Resource (UK-AIR): Background Mapping data for local authorities – 2018.*

concentrations are predicted to fall with time, background concentrations in future years would not be expected to exceed their respective annual mean standards.

**Table 7.4: Estimated Background Annual Average $NO_2$, $PM_{10}$ and $PM_{2.5}$ Concentrations at the Site**

| Assessment Year | Estimated Annual Average Pollutant Concentrations Derived from the UK-AIR Website | | |
|---|---|---|---|
| | Annual Average $NO_2$ (µg/m$^3$) | Annual Average $PM_{10}$ (µg/m$^3$) | Annual Average $PM_{2.5}$ (µg/m$^3$) |
| **2022** | 12.88 | 13.63 | 7.25 |
| **Air Quality Objective** | 40 | 40 | 20 |

7.3.6 Based on the monitored and estimated background data presented above, it is considered that the Site is located in an area where each of the AQOs will be complied with. As background air quality is projected to improve with time, as newer, cleaner vehicles are introduced into the vehicle fleet, breaches of AQOs are not expected in future years.

### *Sensitive Receptors*

7.3.7 The Study Area will be specifically determined by the locations breaching the screening criteria and the availability of traffic data. There are multiple receptors broadly within the Study Area which may be affected by the Proposed Development during the construction and operational phases. These are described below.

- As a result of construction related activities, there are users of nearby buildings or amenity space, who may experience a loss of amenity due to dust soiling, or whose health may be affected, as a result fugitive dust and pollutants such as $NO_2$ and $PM_{10}$ generated by construction related activities or non-road mobile machinery (NRMM, i.e., plant). The receptors in the vicinity of the Site include organisations at the local light industrial parks.
- Emissions from additional vehicles attributable to the occupants of nearby buildings in proximity to roads carrying traffic travelling to and from the Site, both whilst construction activities are ongoing and once operational. Dust generated as a result of 'trackout' from the Site along the local road network may also affect amenity and exposure to $PM_{10}$ along roads in the vicinity of the Site. This may include receptors along Barrow Green Road which runs along the northern and eastern sides of the Site.
- Future occupants of the Proposed Development, which may be affected by poor ambient air quality. Impacts here may be exacerbated by emissions of

pollutants such as $NO_2$, $PM_{10}$ and $PM_{2.5}$ generated both by road traffic and stationary combustion plant attributable to the Site.

7.3.8 Once traffic data is received, the Air Quality team will be able to determine specific sensitive receptor locations, based on where the potential impacts of Proposed Development generated emissions are likely to be. Proposed receptors will also be modelled inside the Proposed Development to ensure new residents are not exposed to unacceptable air quality.

7.3.9 A search of the Multi-Agency Geographic Information for the Countryside (MAGIC) maps website operated by Natural England indicates that the Site is located approximately 3.9 km from Hill Park, Tatsfield, a Local Nature Reserve. Additionally, there is the Woldingham and Oxted Downs SSSI located approximately 500 m north and northeast of the Site. No other designated Special Areas of Conservation, Special Protection Areas, Ramsar Sites, Sites of Special Scientific Interest, National Nature Reserves or Ancient Woodland located within the vicinity of the Site. Therefore, the potential need for the assessment of impacts at the nearby Woldingham and Oxted Downs SSSI will be decided as part of the air quality assessment, once the extend of the traffic generated by the Proposed Development is realised. This will include an appraisal of both potential construction and operational phase impacts.

## Key Issues and Potential Likely Impacts Identified

### *Construction Phase*

7.3.10 During the construction phase, construction activities have the potential to generate fugitive dust emissions which may give rise to annoyance due to the soiling of surfaces. Emissions of this nature can also pose a risk of human health effects due to the increase in exposure to $PM_{10}$ concentrations.

7.3.11 Emissions from traffic and plant generated and used in connection with the proposed construction activities may also affect ambient air quality at and around the Site.

### *Operational Phase*

7.3.12 Emissions from vehicles, car parks and combustion plant (if present) associated with the Proposed Development during the operational phase may affect local air quality. In addition, future users / residents of the Proposed Development may be impacted by existing local air quality, including contributions from road traffic emissions.

## Assessment Methodology

### *Review of Baseline Air Quality*

7.3.13 In order to determine the baseline conditions, the requirements of national, regional, and local planning policy in relation to air quality, including the NPPF[8], London Plan[9] and the Tandridge District Core Strategy[10] (2008) will be referenced.

7.3.14 Publicly available sources of data will also be reviewed to characterise baseline ambient air quality at and around the Site, including air quality monitoring undertaken by TDC and neighbouring districts and boroughs, the Defra background maps and estimated LAEI baseline concentrations.

### *Prediction methodology*

#### Construction Phase

7.3.15 A qualitative dust risk assessment for the construction phase of the Proposed Development will be undertaken, in line with the most recent IAQM Guidance on the assessment of dust from demolition and construction released in August 2023[11]. This will provide an assessment of the likely impacts of dust from the various stages of construction at selected representative receptor locations within 350 m of the redline application boundary and within 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the Site exit(s). These receptor locations will include, as appropriate, receptors at nearby committed and consented development sites.

7.3.16 Construction traffic data for the Proposed Development will be screened against the Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) screening criteria, found in the Land-Use Planning &

[8] National Planning Policy Framework (NPPF), 2023

[9] The London Plan, The Spatial Development Strategy for Greater London, March 2021

[10] Tandridge District Core Strategy

[11] IAQM, Guidance on the assessment of dust from demolition and construction, 2023

Development Control: Planning for Air Quality guidance (2017) ('the EPUK-IAQM guidance')[12], which suggests a detailed air quality assessment is required when:

- The change in light duty vehicle (LDV) flows is greater than 100 annual average daily traffic (AADT) within or adjacent to an Air Quality Management Area (AQMA); or
- The change in heavy duty vehicle (HDV) flows is greater than 25 AADT within or adjacent to an AQMA.

7.3.17 Where, in any given year during which construction activities take place, one or both of these thresholds are exceeded, it is proposed to quantify the effects that this additional traffic may have on air quality using the ADMS Roads 5 dispersion modelling software.

7.3.18 Where one or more of the EPUK-IAQM guidance screening criteria are exceeded (in relation to construction vehicle movements) and where construction may take place for at least one year, it is also proposed to model the impact of vehicle movements on air quality for the following three scenarios:

- 'Base case' (verification) scenario (year to be confirmed, but likely to be 2022);
- 'Peak construction year without development', for the year during which the largest volume of construction traffic attributable to the Proposed Development (or alternatively construction and operational traffic combined, where the development Proposed Development is phased) will be generated, inclusive of future baseline and traffic from nearby committed and consented developments (if data are available) but without the development Proposed Development in place; and,
- 'Peak construction year with development': the year during which the largest volume of construction traffic attributable to the scheme Proposed Development (or alternatively construction and operational traffic combined, where the development Proposed Development is phased) will be generated, inclusive of future baseline, traffic from nearby committed and consented developments (if data are available) and Proposed Development traffic.

7.3.19 Where the effects of construction traffic on air quality can be screened out, a qualitative assessment detailing findings from the screening exercise will be undertaken.

[12] EPUK and IAQM, Land-Use Planning & Development Control: Planning for Air Quality, 2017

### Operational Phase

7.3.20 The potential impacts of the Proposed Development on local air quality (from increased concentrations of $NO_2$, $PM_{10}$ and $PM_{2.5}$), and the effects of introducing future Site users into an area of potentially poor ambient air quality, will be assessed using the ADMS Roads 5 dispersion modelling software.

7.3.21 It is proposed to model the following scenarios:

- Base case scenario (identical to the base case scenario described under the 'Construction' heading above);
- 'Without development': future baseline traffic during the year in which the Proposed Development is expected to be fully operational, without the Proposed Development in place but inclusive of committed and consented schemes; and,
- 'With development': future baseline traffic during the year in which the Proposed Development is expected to be fully operational, with the Proposed Development in place and any committed and consented schemes.

7.3.22 Potential effects will be considered at representative locations where people might experience a change in local air quality in the vicinity of roads where the Proposed Development is expected to introduce potentially significant volumes of additional traffic (when reviewed against the EPUK-IAQM guidance screening criteria) for which traffic data are made available.

7.3.23 Emission factors from the Defra Emissions Factors Toolkit (current at the time) will be used in the assessment. It is proposed to use emissions factors appropriate to the years being assessed. Where the Proposed Development is phased, the emissions factors applicable to the first opening year may be used with final year traffic data, to ensure site suitability is acceptable for all Proposed Development phases.

7.3.24 The assessment will include model verification against local monitoring data at a reasonably representative selection of local monitoring locations, including monitoring locations referenced in the TG22[13].

7.3.25 The changes in concentration between comparable 'without development' and 'with development' scenarios for annual mean $NO_2$, $PM_{10}$ and $PM_{2.5}$ will be undertaken with reference to the AQOs. The impact magnitude will be assessed with reference to the descriptors provided in the EPUK-IAQM guidance. Professional judgement will be exercised to determine the overall significance

[13]. Local Air Quality Management Technical Guidance 2022, Defra 2022

of effects, based on the impact magnitudes assigned and the number of additional receptors which are exposed to concentrations exceeding an AQO where they were not predicted to without the development in place.

7.3.26 All predicted pollutant concentrations will be inclusive of background concentrations, which will either be based on local background air quality monitoring data or, where not considered representative, taken from Defra's estimated background maps for the 1 $km^2$ grid in which the modelled receptor is located. Professional judgement will be used to select the background concentration at each receptor location. Where pollutant concentrations are derived from the estimated background maps, concentrations from the assessment year will be applied for the same year as the emissions factors.

7.3.27 One year of meteorological monitoring data from a nearby representative monitoring station, such as Gatwick Airport, will be used. The year selected will match the base year selected.

7.3.28 The modelling will account for buildings and street canyons as appropriate.

### *Mitigation recommendations*

7.3.29 Following the findings of the assessment, high-level recommendations, if appropriate, for mitigation of the potential impacts that the Proposed Development may have on local air quality and/or to prevent the risk of new exposure to poor air quality at the Proposed Development Site will be provided.

### *Cumulative effects*

7.3.30 As appropriate, the qualitative dust risk and modelling assessments will consider the combined impacts from the Site with other adjacent committed and consented sites on air quality at existing receptor locations. Where new receptors may be significantly affected by activities attributable to construction related activities, vehicular traffic or stationary combustion sources connected with the Proposed Development (whilst undergoing construction or once operational), impacts at these receptors will also be assessed.

## 7.4 Noise and Vibration

### Summary of Baseline Conditions and Anticipated Sensitive Receptors

7.4.1 An environmental noise surveys will be undertaken to quantify the environmental noise levels impacting the Site, arising from key environmental noise sources.

7.4.2 Noise from the railway line to the east of the Site and road traffic noise arising from Barrow Green Road and the M25 are likely to be the dominant environmental noise sources impacting the Site.

7.4.3 There may also environmental noise contributions from the adjacent facilities such as St Mary's Church and Oxted Community Hall to the southeast of the Site as well as from aircraft, especially those taking off and landing at Gatwick Airport, approximately 15 km to the south-east.

7.4.4 Noise sensitive receptors will be the residential dwellings along Barrow Green Road to the west and east of the Site, along with the residential dwellings along Wheeler Avenue to the south of the Site. Further residential dwellings along Gordons Way to the northeast of the Site may also experience impacts from noise. These receptors are shown on **Figure 7.2.**

## Key Issues and Potential Likely Impacts Identified

### *Construction Phase*

7.4.5 Potential noise impacts include construction noise, construction traffic and any associated plant. The nearest sensitive receptors which may be impacted are the surrounding residential properties and St Mary's Church to the south east.

7.4.6 The following have the potential for significant effects and will be assessed:

- noise and vibration from construction on surrounding residential and non-residential receptors; and
- increase in off-site road traffic noise from construction traffic on residential and non-residential receptors adjacent to traffic routes.

**Figure 7.2: Anticipated Noise Sensitive Receptors**

### *Operational Phase*

7.4.7 Potential noise impacts include road traffic noise increases and operational noise from the proposed residential and community uses on site and fixed mechanical plant associated with the development. The nearest sensitive receptors which may be impacted are the same as during the construction phase.

7.4.8 The following have the potential for significant effects and will be assessed:

- road traffic noise changes from operational phase on residential and non-residential receptors adjacent to traffic routes; and
- operational noise associated with the development, including noise from mechanical plant construction on surrounding residential and non-residential receptors.

7.4.9 The site suitability assessment will also assess the potential adverse effect of existing noise sources on the Proposed Development in internal and external noise sensitive spaces.

## Assessment Methodology

### *Determination of the Baseline*

7.4.10 The noise climate on a large proportion of the Site is currently likely to be dominated by road traffic noise from adjacent roads and the railway to the east. To determine the baseline conditions for the Proposed Development, baseline attended survey measurements will be undertaken at key noise sources and receptors around the Site. If feasible, attended daytime measurements will be undertaken at multiple locations between 09:00 – 16:00. The survey plan will be discussed with TDC. Unattended monitors will be set-up on site, likely on the open space that the Site currently exists as. Where this is not possible due to site security, attended nighttime surveys will instead be undertaken. The baseline survey proposed consists of two unattended monitors covering day and night time periods for at least 24 hours.

7.4.11 Survey measurements will be carried out in accordance with guidelines in British Standard (BS) 7445:1991[14]. The survey will measure A-weighted and octave band measurements of the following parameters: $L_{eq}$, $L_{max}$, $L_{10}$, and $L_{90}$. All sound level meters will be of class 1 accuracy, within current manufacturer periods of calibration and will be checked for calibration before and after all

[14] Description and measurement of environmental noise part 2 – Acquisition of data pertinent to land use and other relevant standards and guidance, British Standard (BS) 7445:1991

survey works. Meteorological conditions will also be observed to establish the validity of the data.

7.4.12 Given that the Site is already clear and that the foundations laid will not be exceedingly deep into the ground, Vibration is not anticipated to be significant at the Site and has therefore been scoped out.

### *Prediction methodology*

7.4.13 We will assess the site's suitability for noise sensitive development based on the predicted noise exposure from local noise sources such as the local roads and any commercial/industrial plant noise.

7.4.14 Based on the noise survey data and architect's drawings, we will prepare a 3D noise model of the Proposed Development to predict noise levels at the noise sensitive receptors.

7.4.15 An assessment will be undertaken to determine where internal night time noise limits maybe exceeded in accordance with Approved Document O[15]. The initial assessment will indicate which facades maybe exposed to noise levels that will require additional mitigation such as vents/louvres, comfort cooling or other mechanical ventilation systems.

7.4.16 The site suitability assessment will be based on comparing predicted internal and external noise levels with guideline levels from BS8233:2014[16] and WHO guidance[17] as well as any local authority requirements. Outline mitigation measures will be proposed where required to meet guideline levels.

7.4.17 The following further impact assessments will be carried out:

- construction noise and vibration assessment - calculations and assessment according to BS5228 part 1 and 2: 2009+A1:2015[18];
- construction and operational phase road traffic noise assessment according to guidance from Design Manual for Roads and Bridges[19];
- operational mechanical plant noise assessment – if applicable and subject to the Energy Strategy for the Proposed Development, noise from mechanical plant associated with the development will be assessed using

[15] Overheating Approved Document O, 2021

[16] Guidance on sound insulation and noise reduction for buildings, BS8233:2014

[17] World Health Organisation (WHO) guidance

[18] The Control of Noise (Code of Practice for Construction and Open Sites), BS5228 part 1 and 2: 2009+A1:2015

[19] Design Manual for Roads and Bridges (DMRB), March 2020

BS4142:2014+A1:2019[20]. Details of mechanical plant are not likely to be known when undertaking the assessment, so we will propose suitable noise limits and advise on outline mitigation to minimise adverse noise effects if required. Other commercial noise sources such as servicing the commercial units will be assessed in the same way.

### *Cumulative effects*

7.4.18 The future development traffic flows will be calculated and assessed for their cumulative effects on noise at the identified receptors surrounding the Proposed Development. In addition, the potential effect of cumulative construction noise or operational plant noise from surrounding committed developments will be considered.

## 7.5 Traffic and Transport

### Summary of Baseline Conditions and Anticipated Sensitive Receptors

7.5.1 A highways and transport assessment will be undertaken to determine the potential effects of the Proposed Development on the local road network, transport infrastructure and facilities, and access.

7.5.2 The Traffic and Transport ES chapter will be prepared in line with IEMA's Guidance on the Environmental Assessment of Traffic and Movement (2023).

### *Baseline Conditions*

7.5.3 The existing access to the Site is from Barrow Green Road to the north of site and there is further non-vehicle access from Court Farm Lane via Bridleway 97. No existing access is available from Wheeler Avenue. Nearest train and bus services are as stated in Section 2.2. The strategic highway network (A25, A22 and M25 can be accessed via Barrow Green Road.

### *Potential Sensitive Receptors*

7.5.4 Sensitive receptors in study area include people at home or work, vulnerable groups, retail/ high street areas with high concentration of people on Station Road, junctions/ highway links at or over capacity.

### Key Issues and Potential Likely Impacts Identified

[20] Methods for rating and assessing industrial and commercial sound, BS4142:2014+A1:2019

7.5.5 For both the Construction and Operational phases, the following impacts are identified:

- Severance
- Driver Delay
- Pedestrian and Cyclist Delay
- Non-Motorised User (NMU) Amenity
- Fear and Intimidation; and
- Road Safety.

7.5.6 Due to the standard methods of construction proposed, and the lack of relevant operational uses, effects of hazardous loads are proposed to be scoped out of the assessment.

## Assessment Methodology

### *Methodology*

7.5.7 As stated above, the assessment will be undertaken in line with the Institute of Environmental Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement (July 2023).

7.5.8 In line with this guidance, highway links will be scoped in where they meet one of the following two criteria:

- Highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
- Highway links of high sensitivity where traffic flows have increased by 10% or more.

7.5.9 The Transport chapter will be based on anticipated traffic generation for the following scenarios:

- 2023 Baseline: Based on traffic survey data from 2023
- Construction Phase 'Do Minimum' (DM): Construction Phase DM scenario (without development);
- Construction Phase 'Do Something' (DS): Construction Phase DS scenario. Based on the Construction DM scenario plus Proposed Development peak month of construction traffic;
- Operational Phase 'Do Minimum' (DM): Operational Phase DM scenario based on the anticipated future baseline opening year.; and

- Operational Phase 'Do Something' (DS): Operational Phase DS scenario. Based on DM scenario plus Proposed Development complete occupied and operational traffic.

7.5.10 The assessment of impacts would be undertaken based on the comparison of the DM scenario against the DS scenario, for both the construction and operational phases. The assessment of impacts would be in line with the methodology and set out in the IEMA Guidelines.

7.5.11 The scale and significance of the effects assessed across each highway link/ junction have been determined in line with the principles outlined in both the IEMA Guidelines and DMRB LA104. This is based on the following process:

- Receptors within the study area are identified and each highway link is assigned a sensitivity value based on the relationship of the sensitive receptor with the highway environment;
- For each highway link, the magnitude of impact is determined for each effect, based on the relevant effect's assessment methodology (in line with IEMA Guidelines);
- To determine the scale and significance of each effect, the magnitude of impact is considered along with the sensitivity assigned to the highway link/ junction under question, based on the effect matrix shown in **Table 7.5** below; and
- Any effect identified as 'Major' or 'Moderate' is considered to be 'significant' in the context of EIA and is considered for further mitigation to ensure that there are no significant residual risks.

**Table 7.5 – Significance Matrix for Transport Chapter**

| Magnitude of Impact | Sensitivity of Receptors | | | |
|---|---|---|---|---|
| | High | Medium | Low | Negligible |
| **High** | Major | Major | Moderate | Negligible |
| **Medium** | Major | Moderate | Minor | Negligible |
| **Low** | Moderate | Minor | Minor | Negligible |
| **Negligible** | Negligible | Negligible | Negligible | Negligible |

## *Cumulative effects*

7.5.12 Cumulative schemes would be included in the trip generation that forms the basis of the assessment. As such, separate assessments without cumulative

schemes would not be undertaken since the assessment of traffic and movement effects would inherently be cumulative.

## 7.6 Ecology

### Summary of Baseline Conditions and Anticipated Sensitive Receptors

7.6.1 The site is largely arable, however, it does include areas of native hedgerow, and priority woodland, and is adjacent to ancient woodland habitat. A mature oak of moderate potential to support roosting bats is located in the south-west of the site. An ephemeral stream forms part of the south-western boundary and drains into the ancient and wet woodland to the south. Bat activity on site was relatively low and considered of value only up to local level. Good population of slow worm recorded along field margins. The land within the ancient woodland to the south is listed as a Potential Local Wildlife Site, (pLWS) however, has not been formally designated. Woldingham & Oxted Downs SSSI is located 1 km to the north.

### Key Issues and Potential Likely Impacts Identified

#### *Construction*

- Pollution of watercourse, priority woodland, ancient woodland and pLWS;
- Loss of priority hedgerow habitat; and
- Impact on slow worm through habitat loss.

#### *Operation*

- Pollution of watercourse, priority woodland, ancient woodland and pLWS;
- Recreational pressure on priority woodland and ancient woodland habitats;
- Recreational pressure on Woldingham and Oxted Downs SSSI; and
- Impact on commuting and foraging bats from artificial light and potential severance of commuting habitat

### Assessment Methodology

7.6.2 PEA, bat activity surveys, reptile surveys, and dormouse surveys have been completed previously and will be used to inform the ES Chapter. It is recommended that an update habitat assessment is carried out to accompany the original PEA and highlight any changes on site in the intervening years.

7.6.3 Cumulative effects will be determined based on a search of the local planning portal for any other major developments within 2 km of the Site, that

contribute to recreational pressure on local statutory and non-statutory designated sites.

## 7.7 Heritage

### Summary of Baseline Conditions and Anticipated Sensitive Receptors

7.7.1 The Site forms part of the setting of two heritage assets, namely:

- Church of St Mary the Virgin, Grade I (NHLE 1189608), located 80 m west of the Site; and
- Blunt House, Grade II (NHLE 1377646), located 200 m west of the Site.

7.7.2 The Site lies to the north-west of the Church of St Mary and forms part of the setting of this heritage asset. The church is a multi-phased building set on elevated ground to the west of the current, commercial core of Oxted. The church has a broad, 12th century tower which forms a local landmark in close and longer distance views, and exhibits a range of built fabric, including flint, rubblestone and some rendered finishes.

7.7.3 The church historically had a relatively isolated setting, forming part of a small cluster of buildings west of "New Oxted" near to Court Farm. The setting has changed through the 19th and 20th centuries to provide additional surrounding development. The church was historically bound by orchards to the west, which were associated with the neighbouring farm, and which would have provided a degree of visual enclosure from the surrounding rural land.

7.7.4 The Site lies to the north-west of the church and is linked to the church by a bridgeway. This right of way is marked on 19th century ordnance survey mapping and appears to be a well-established, historic route. It would have provided a link to the church for parishioners within the wider, rural parish. The church is still experienced, in glimpsed views, from this footpath although the intervening planting reduces views, even in winter months. The wider site provides similar, glimpsed and heavily filtered views of the church beyond the planting. The fullest views of the church are permitted from the low-lying land to the south where it is seen set beyond the mature trees and existing residential development.

7.7.5 Blunt House is located south of Barrow Green Road, in an elevated position relative to the Site. It is a late 19th century house, constructed in a neo-Georgian style and modelled on the original Blunt House in Croydon. The building

contains some interior features that were salvaged from the earlier Blunt House.

7.7.6 The building is located within a relatively secluded location, elevated above the level of the Site. It is set within enclosed, well-vegetated grounds which heavily restrict views to the south-east, towards the Site.

7.7.7 Despite the planting, some filtered views of the listed building are permitted from within the Site in summer and winter months, with the Site forming part of its wider setting. However, they are limited.

7.7.8 There are no designated archaeological assets within, or within the near surroundings of, the Site.

## Key Issues and Potential Likely Impacts Identified

### *Construction*

7.7.9 Temporary changes to setting including noise, vibration and visual impacts from construction stage. These will be temporary in nature and are unlikely to lead to significant effects.

7.7.10 Below ground impacts including loss, or truncation, of any archaeological features present.

### *Operation*

7.7.11 Permanent changes to setting, including visual impacts, change in land-use and character, additional noise, activity and movement. These are unlikely to lead to significant effects to Blunt House, but do have the potential to caused significant effects to the Church of St Mary.

## Assessment Methodology

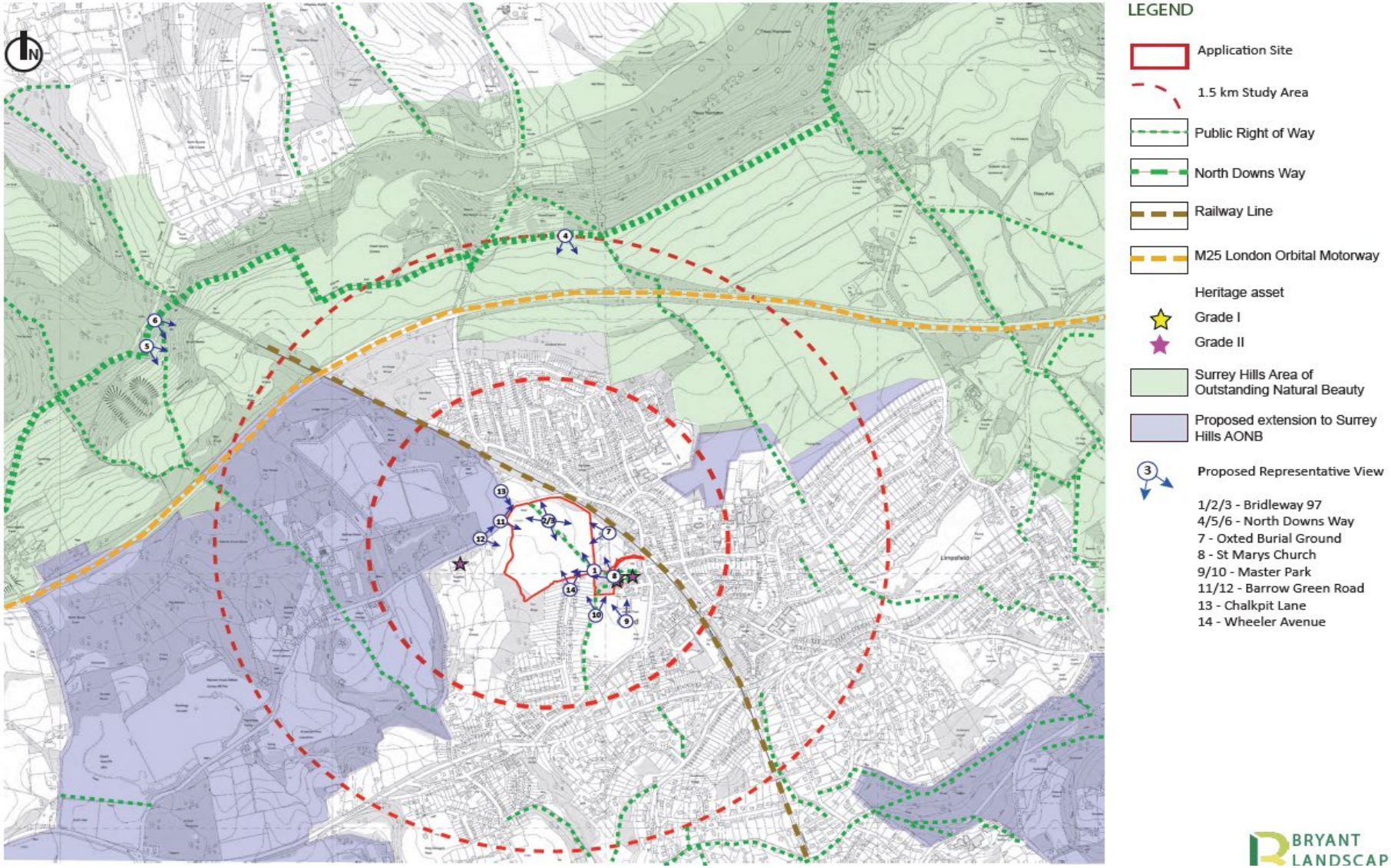
7.7.12 The Site will require a Heritage Impact Assessment, undertaken in accordance with GPA3: The Setting of Heritage Assets.

7.7.13 The Site would also benefit from an Archaeological Desk-based Assessment to understand archaeological potential of the site. This will be undertaken in accordance with CIfA guidance.

7.7.14 Both reports will meet the requirements of paragraph 200 of the NPPF.

7.7.15 A list of cumulative sites will be assessed to understand whether any heritage assets will be affected by multiple sites/developments. At this stage, it is not anticipated that any cumulative effects will occur.

## Figure 7.3 Heritage Asset Plan



## 7.8 Landscape and Visual Impact

### Summary of Baseline Conditions and Anticipated Sensitive Receptors

7.8.1 The landscape value of the Site is medium, reflecting its location within the setting of the Surrey Hills AONB.

7.8.2 The landscape features which could experience direct effects from the Proposed Development comprise the trees within the Site and on its boundaries, which are of medium-high value.

7.8.3 The landscape value of the wider area is assessed as medium and of the Surrey Hills AONB, high.

7.8.4 Development proposals should consider sensitive views from within the AONB to the north, ensure that any development can be assimilated into the landscape and settlement of Oxted, and maintain views from within the Site towards the church and towards the scarp as positive features.

7.8.5 Views from within the cemetery on the Site's eastern boundary should be considered.

#### *Landscape Receptors and Sensitivity*

- The site (medium);
- Trees and vegetation within the Site and on its boundaries (including The Bogs) (high);
- LCA Merstham to Clacket Lane Greensand Valley (medium); and
- Surrey Hills AONB (high)

#### *Visual Receptors and Sensitivity*

- Users of bridleway 97 (high);
- Users of footpaths south of the Site (high);
- Users of footpaths in the AONB, including the North Downs Way (high);
- Visitors to Master Park (high);
- Visitors to Oxted Burial Ground (high);
- Visitors to Saint Marys Church (high);
- Users of Barrow Green Road and Chalkpit Lane (medium);
- Users of Wheeler Avenue (low);
- Residents of properties on Wheeler Avenue (medium); and

- Residents of properties north of Barrow Green Road (medium).

## Key Issues and Potential Likely Impacts Identified

### *Construction*

7.8.6 There will be temporary, adverse impacts during the construction phase on the site and on the character of the immediate setting of the site due to vehicle movements, construction activity and noise.

7.8.7 It is predicted that there will be temporary, adverse impacts on some local views due to the introduction of site hoarding, vehicle movements and construction activity etc.

### *Operation*

7.8.8 Key issues are:

- The future viability of retained trees within the site (T16 & T25) and the trees and hedgerows on the site boundaries;
- The impact on the setting of the Surrey Hills AONB;
- Retention and enhancement of views towards Saint Marys Church; and
- The impact on views from the AONB.

7.8.9 It is anticipated that there will be impacts on the Site itself, on views from Barrow Green Road and Chalkpit Lane.

## Assessment Methodology

7.8.10 The LVIA will be carried out in accordance with the principles set out in the Guidelines for Landscape and Visual Impact Assessment; Third Edition, 2013 (GLVIA3) published by the Landscape Institute and IEMA.

7.8.11 The baseline appraisal will identify landscape and visual receptors, based on desk-based and field studies. The term 'receptor' refers to an element or assemblage of elements (e.g. people who may have views of the Proposed Development or a landscape character area) which may experience change as a result of the Proposed Development. The baseline landscape appraisal will be informed by relevant published character assessments and the visual baseline appraisal by representative views which provide an understanding of the Site's visibility.

7.8.12 The value of the landscape and visual receptors and their susceptibility to the type of change proposed will be established; these assessments establish the sensitivity of each receptor.

7.8.13 The magnitude of change which each receptor may experience during the Construction Phase, at the first year of operation, and, where relevant, at 15

years when landscape proposals should have reached maturity, will be assessed; from this the residual significance of 'effect' following any proposed mitigation will be assessed.

7.8.14 In line with best practice, whilst interrelated, landscape and visual effects will be considered separately.

7.8.15 An assessment of cumulative landscape and visual impacts from identified committed developments will be carried out.

# 8. Non-Significant Issues

## 8.1 Topic Sections

8.1.1 The following sections of this EIA Scoping Report describe the topics where it is believed there is not the potential for significant environmental effects to arise from impacts associated with the Proposed Development.

8.1.2 The following topics are proposed to be scoped out of the EIA as standalone chapters:

- Archaeology;
- Agriculture;
- Climate Change Mitigation and Adaptation;
- Ground Conditions and Contamination;
- Human Health;
- Materials and Waste;
- Major Accidents and / or Natural Disasters; and,
- Water Resources.

## 8.2 Archaeology

8.2.1 The Site is not within any County Sites of Archaeological Importance (CASI) or areas of High Archaeological Potential (AHAP). The nearest AHAPs are designated for bronze age and Roman cremation burials, 130 m to the south of the Site, and a possible bronze age or Saxon barrow 260 m to the west of the Site. The nearest Scheduled Monument is 450 m to the south-east of the Site, the Mount at Barrow Green, comprising earthworks associated with a (11$^{th}$-13$^{th}$ century) medieval motte castle. Given the continued agricultural use at the Site, it is considered likely that the potential for post-modern remains will be low. There may be a higher potential for earlier remains, however this will be established by an Archaeological Desk Based Assessment will be undertaken and submitted with the planning application. This will set out the potential for remains across relevant archaeological eras.

8.2.2 The Archaeological Desk Based Assessment will identify appropriate mitigation based on the potential for archaeological remains. Depending on the potential, this may comprise an archaeological watching brief (for lower potential) or trial trenching and excavation alongside geophysical survey (for higher potential). The exact procedure would be set out in a Written Scheme of Investigation, which would be expected to be secured by planning condition. The results of

the various investigations are assessed, analysed, published and the results would be disseminated. Any material finds and digital/hard copy records of the work would be archived with the local museum.

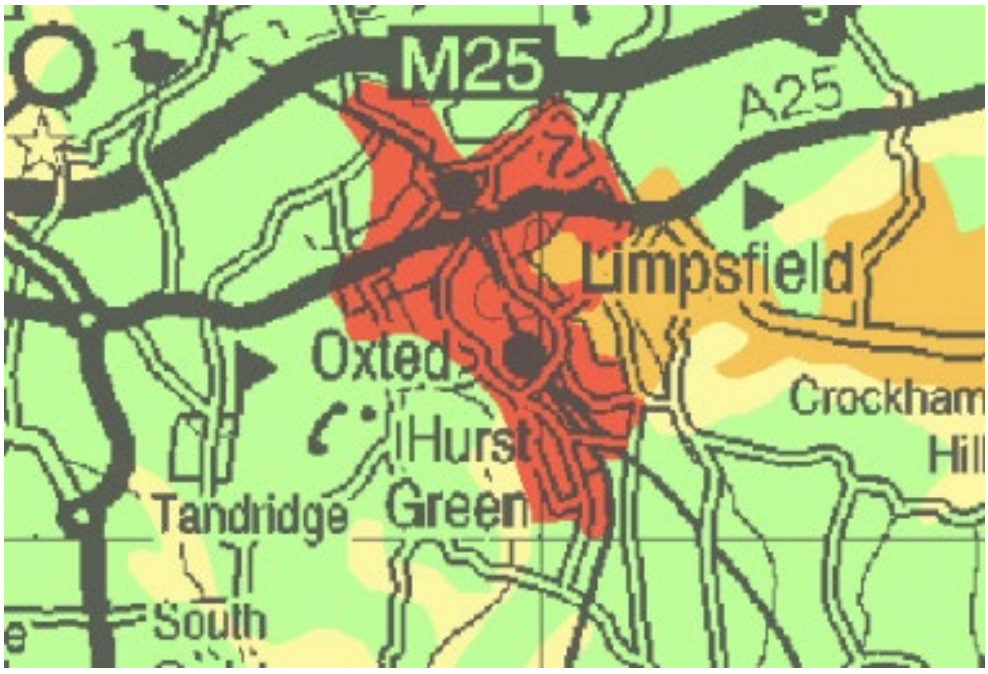
8.2.3 Archaeological remains are not likely to experience Operational Phase impacts as the most sensitive areas/remains are subject to mitigation pre-commencement of construction activities, which would be the source of any impacts.

8.2.4 With this mitigation in place, it considered unlikely that there would be any significant effects on archaeological remains from the Proposed Development, during construction or operation. Therefore, it is proposed to scope this topic out of the EIA.

## 8.3 Agriculture and Soils

8.3.1 With reference to the Natural England BMV Land Assessment, (see **Figure 8.1**) the Site is located in an area where land is predominantly in urban use. This classification is also used in the Tandridge Landscape Capacity and Sensitivity Study, 2016 (OXT007). Extrapolating the assessment to remove the urban classification and relating it to surrounding assessments suggests the Site would fall into the Grade 3 (Good to Moderate) category. The Site has not been classified under the Post 1988 Agricultural Land Classification and therefore it has not been classified in terms of categories 3a and 3b.

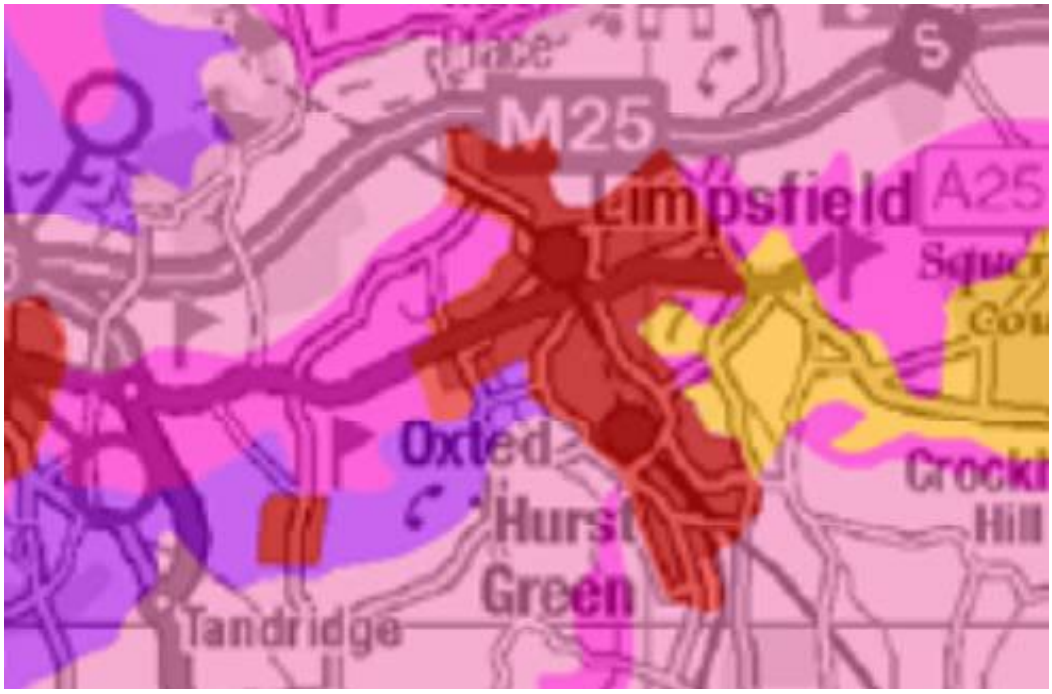
**Figure 8.1 Natural England BMV Land Assessment**




8.3.2 In addition to the above, the Natural England maps (see **Figure 8.2**) indicates the Site is partially classified as land predominantly in urban use (approx. 50%)

with the remaining 50% in the north having a predicted moderate likelihood of BMV land (20% to 60% probability of including BMV soils).

**Figure 8.2 Natural England predictive BMV Land Assessment**




8.3.3 No Grade 1 or 2 agricultural soils are predicted to be present on Site or within close proximity.

8.3.4 Therefore, the only potential for BMV land is where they may be classified as Grade 3a.

8.3.5 Given the limited size (10ha), isolated nature of the field and current urban ALC classification which reflects the immediate surrounding uses in the wider village of Oxted, it is considered that the land is of limited benefit for agricultural purposes.

8.3.6 As such, it is unlikely that a detailed Agricultural Land Classification Survey will be undertaken for the Site. There are no sensitive agricultural receptors likely to be affected by the Proposed Development.

8.3.7 A Soil Management Plan should be produced either as a standalone plan or as part of the wider CEMP to ensure enhancements and mitigation wherever feasible for the Site and Proposed Development.

## 8.4 Climate Change Mitigation and Adaptation

8.4.1 A changing climate has the potential to fundamentally affect the world around us and the way we live. The Climate Change Act 2008 (as amended 2019)[21] sets up a framework for the UK to reduce its greenhouse gas (GHG) emissions by 100 % from 1990 levels by 2050. Furthermore, it promotes the creation of a program focused on adapting to climate change.

8.4.2 The baseline greenhouse gas (GHG) emissions that would be emitted or sequestered in the existing Site are considered to be zero as there are no material operations on-Site currently, the baseline is considered to be zero emissions, meaning that any net change in emissions would be against this.

8.4.3 The Proposed Development will result in greenhouse gas emissions (mostly carbon dioxide) through embodied carbon within building materials, construction and operational traffic and operational energy use. Under IEMA guidance 'Assessing Greenhouse Gas Emissions and Evaluating Their Significance' (2022)[22] this describes how a proportionate assessment of a development's potential impact on climate can be achieved and how to communicate the results in terms of a notional percentage contribution relative to a carbon budget, accounting for achievable mitigation. Key updates from the 2017 guidance include:

- Mitigation should be considered from the outset and throughout the project's lifetime;
- Relative significance descriptions to assist assessments; and
- Five distinct levels of significance which are not solely based on whether a project emits GHG emissions alone, but how the project makes a relative contribution towards achieving a science-based 1.5°C aligned transition towards net zero.

8.4.4 It is considered that measures to mitigate emissions will be incorporated, particularly through avoidance and reduction.

8.4.5 Emissions arising from construction activities and transport will be mitigated in line with Best Practice measures including a CEMP and Waste Management Plan. Embodied carbon within construction materials (particularly steel and concrete) will lead to some notable emissions, but consideration will be given to

[21] HMSO (2008): Climate Change Act 2008 (2050 Target Amendment) Order 2019.

[22] IEMA (2022) Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance

optimising the design so as to reduce overall quantities of materials and use higher recycled content. Over the lifespan of the Proposed Development (60 years +), further small amounts of embodied carbon will arise from maintenance activities. Though, due to the size of the Proposed Development and the implementation of the CEMP, the emissions are not considered to give rise to significant effects.

8.4.6 Emissions from operational energy are considered to be the largest proportion over the lifespan of the Proposed Development. An Energy and Sustainability Statement will be submitted as part of the planning application to demonstrate how energy efficiency, cleaner energy generation and renewable energy measures will reduce energy usage below the requirements of the Building Regulations.

8.4.7 Furthermore, vegetation and trees surrounding the Site will help to absorb carbon. Overall, the effects of GHG emissions in the global context would be very small and therefore highly unlikely to trigger the need for EIA.

8.4.8 In terms of the effects of climate change on the Proposed Development, this is predicted to manifest itself in two main ways: changing surface air temperatures and flood risk/water availability. The risk and effects of flooding upon the Proposed Development has been discussed in Section 7.7 and have been scoped into the assessment.

8.4.9 In terms of changing surface air temperatures, these are generally predicted to increase in summers and winters are expected to become milder. In order to meet the energy efficiency requirements described above, the Proposed Development will have high levels thermal efficiency (e.g. insulation) built in.

8.4.10 The Energy and Sustainability Statement mentioned above will lay out measures for the Proposed Development to minimise carbon emissions as far as viably and technically practicable. Given the scale of the Proposed Development, carbon emissions are not likely to give rise to significant effects during either construction or operation.

8.4.11 The Proposed Development will be designed to avoid overheating, and the outdoor spaces will have shade and shelter provided, alongside carbon sequestration benefits. Taking these matters into consideration there are not likely to be significant effects on climate change from the Proposed Development.

8.4.12 The planning application will be supported by an Energy and Sustainability Statement.

## 8.5 Ground Conditions and Contamination

8.5.1 A Phase 1 Land Quality Desk Study has been undertaken, including a Site

walkover.

8.5.2 The Site currently comprises agricultural land consisting of ploughed fields with a public footpath running NNW to SSE across the central area. It is noted that whilst the Site is currently an arable agricultural field, it is isolated and within a wider urban environment. Surrounding land includes a graveyard, parkland, commercial and residential.

8.5.3 According to British Geological Survey (BGS) 1:50,000 scale mapping, the general geological sequence (see Figure 2-2) underlying the Site is as follows:

- Superficial deposits: Mostly absent with Alluvium (Clay, Silt, Sand and Gravel) in the far western section of Site associated with the unnamed tributary of the River Eden; and
- Solid geology: Folkestone Formation (Sandstone) across the majority of the Site with the Gault Formation (Mudstone) in the far north of the Site.

8.5.4 5 No. historic sand pits are located within 500m of Site (between 165 m and 451 m), all of which comprised surface mineral workings. In accordance with Surrey County Council's mineral and waste policies and plans, the Site does not fall within a minerals safeguarding or strategy area.

8.5.5 Soilscapes records the majority of soil on Site (Folkestone Formation) as Soilscape 6, freely draining slightly acid loamy soils with low fertility. There is a small parcel of land in the north-east (Gault Clay) classified as Soilscape 18, slowly seasonally wet slightly acid but base-rich loamy and clayey soils of moderate fertility.

8.5.6 Where present along the western boundary, the superficial Alluvium is classified by the EA as a Secondary A Aquifer. A Secondary A Aquifer is described by the EA as 'comprising permeable layers that can support local water supplies, and may form an important source of base flow to rivers.'

8.5.7 The Folkestone Formation bedrock below the majority of the Site is classified by the EA as a Principal Aquifer. A Principal Aquifer is described as 'rocks that provide significant quantities of water and can support water supply and/or baseflow to rivers, lakes and wetlands on a strategic scale. They typically have a high intergranular and/or fracture permeability, meaning they usually provide a

high level of water storage.' Where present in the far north of the Site, the Gault Formation is classified as unproductive strata.

8.5.8 According to the BGS, groundwater vulnerability across the Site is classified as high with bedrock permeability estimated by the BGS to be high and intergranular.

8.5.9 The Site falls into Zone III (total catchment) of a Source Protection Zone (SPZ). However, there are no licenced abstractions noted within 500 m of Site.

8.5.10 Earliest OS mapping from 1888 shows the Site and surrounding area to consist of ploughed agricultural land which has remained to the present day. Whilst the Site has remained in agricultural (arable) use, the surrounding area has become increasingly urban leading it to become an isolated field.

8.5.11 Natural England mapping and previous assessments by Tandridge District Council (OXT007) note that the Site is classified as land which is predominantly in urban use.

8.5.12 Due to the low risk on Site no site investigation is recommended. Adherence to relevant legislative and best practice construction mitigation measures and pollution controls will be undertaken to ensure the construction works do not give rise to any significant contamination risks (and therefore effects) to human health and the environment.

8.5.13 To this end, a Construction Environmental Management Plan (CEMP) would be devised and implemented during the construction phase of the Proposed Development. The CEMP would outline management procedures for pollution prevention, hazardous materials storage, requirements for risk assessments and method statements, use of materials on-Site and the disposal of materials from the Site. The CEMP would outline health and safety requirements for workers who may encounter contaminants.

8.5.14 Based the effectiveness of the above, it is not anticipated that the Proposed Development would give rise to significant effects with respect to ground conditions and contamination.

8.5.15 In view of the above, it is considered unlikely that there will be any significant effects in relation to ground conditions and contamination, as a result of the Proposed Development. Therefore, it is proposed to scope this topic out of the EIA. The Phase 1 Land Quality Desk Study (**Appendix A**) and will be submitted

as part of the planning application and the standard mitigation (outline above) will captured within the ES.

## 8.6 Human Health

8.6.1 Health is influenced by many factors (i.e. determinants of health), including (but not limited to) physical activity; diet and nutrition; housing; open space; leisure and play space; transport modes, access and connections; social participation, interaction and support; education and training; employment and income, climate change and adaptation; air quality; noise and vibration; land quality; and health and social care services.

8.6.2 Those who will experience changes in health as a result of the Proposed Development (i.e. sensitive receptors) include vulnerable groups of the general population (i.e. older people, people with disabilities, communities experiencing deprivation). The general population will cover future residents, future users of the Site, demolition and construction workers and operational or maintenance workers.

8.6.3 Whilst IEMA's Guide to Determining Significance for Human Health in Environmental Impact Assessment[23] highlights that there could be a range of sensitivities within sub-populations, with some who are more vulnerable and less able to deal with changes (for example, being more sensitive than others), it was considered that the population and sub-populations anticipated to be affected by the Proposed Development are unlikely to have an increased sensitivity to health impacts. Consequently, a low sensitivity of receptor was assumed.

8.6.4 Further to the above, it is considered that the Proposed Development will have a low magnitude of impact on elements such as (but not limited to) risk taking behaviour, air quality, water quality or availability and land quality, as the implementation of a CEMP would reduce risk taking behaviour and potential adverse effects on air quality, water quality and land quality during the construction of the Proposed Development.

8.6.5 However, it was considered that the Proposed Development will also have a medium magnitude of impact on elements such as (but not limited to) physical activity levels, housing need, provision of facilities for older people (care home), play space, transport modes and connections and community safety, as the Proposed Development will promote physical activity through the provision of open/play space and encouragement to use sustainable modes of transport,

[23] IEMA. (2022) IEMA Guide: Determining Significance for Human Health in Environmental Impact Assessment.

provide a dwelling mix relative to the community need and provide affordable housing and be designed to minimise actual fear and crime.

8.6.6 Given the above, in line with the generic indicative EIA significance matrix presented in IEMA's Guide to Determining Significance for Human Health in Environmental Impact Assessment[24], it was considered that the Proposed Development would not result in any likely significant effects. Although beneficial effects would likely be realised as a result of the Proposed Development, these would be considered to be minor and not significant. Therefore, Human Health is proposed to be scoped out of the ES.

## 8.7 Materials and Waste

8.7.1 The Proposed Development will require construction work, which is anticipated to produce waste. Other materials and any contaminated material will be disposed to appropriate landfill facilities. Such waste will be handled, processed and removed from Site by suitably qualified contractors, all being undertaken in line with The Hazardous Waste (England and Wales) Regulations 2005 and The Waste (England and Wales) Regulations 2011. Overall, it is anticipated that that there will be a surplus of material for disposal off-site, which will be managed in accordance with the Waste Hierarchy.

8.7.2 All waste arisings during construction are to be controlled through the implementation of a CEMP and a best practice Site Waste Management Plan (SWMP). The CEMP will be informed by the waste provisions of the Environmental Protection Act 1990 and will set out the principles and legal requirements relating to waste (including hazardous waste). The SWMP will describe how materials will be managed and stored efficiently and disposed of legally during the construction phase. It will also outline the aims, objectives and on-going management responsibilities, including management and storage practices, to be implemented during the construction phase, and will set targets for the reduction, diversion from landfill and reuse of waste.

8.7.3 Operational waste will be generated by residential uses. The Proposed Development will include provisions for waste storage facilities, which will include facilities for the separation of waste for recycling purposes. An Operational Waste Management Strategy (OWMS) will be developed for the Site

[24] Ibid.

which will set out the principles, strategy and targets for the management of waste and maximise recycling, in accordance with TDC established policy.

8.7.4 Operational wase from residents will be managed by Surrey County Council. Residents in TDC achieve a 59.9% reuse, recycling and composting rate, higher than the county and national averages.

8.7.5 With regards to materials, there is not anticipated to be any significant issues in terms of availability of materials required for the Proposed Development. The Proposed Development will comprise a high number of sustainable features and construction methods. The Proposed Development is likely to be free from any known issue regarding materials stock and will be built with industry-standard materials. Subsequently, there are not anticipated to be any significant effects on materials from the Proposed Development.

8.7.6 Through the use of a SWMP, OWMP, CEMP and best practice, it is not expected that the Proposed Development will not hold the potential for significant adverse environmental effects to occur. In terms of landfill capacity, effects are only considered significant where waste generated by the development would reduce regional landfill void capacity by over 5%. Given the scale of the development, neither the construction or operational phases are expected to create this level of waste. This scoping guidance is in line with the IEMA guide to Materials and Waste in Environmental Impact Assessment (2020[25]).

8.7.7 Based on the above evidence, effects related to materials and waste are not considered to be significant and, therefore, it is proposed to scope this topic out of the EIA.

## 8.8 Major Accidents and/or Natural Disasters

8.8.1 Under Schedule 3 of the EIA Regulations, the risks of major accidents and natural disasters relevant to the Proposed Development need to be considered.

8.8.2 As a residential development, the Proposed Development would not be a source of hazard that could result in a major accident or disaster during operation. Measures to eliminate the risk of major accidents of disasters as a result of the construction of the Proposed Development will be outlined in a CEMP.

8.8.3 A review has been undertaken of potential sources of hazard in the surrounding area, that have the potential to interact with the Proposed Development.

[25] IEMA (2020) Materials and Waste in Enviromnental Impact Assessment, Guidance for a Proportionate Approach

8.8.4 As described in **Section 8.5: Ground Conditions and Contamination**, risks from ground contamination are unlikely to be considered significant and, as described in **Section 7.7: Water Resources and Flood Risk**, adverse changes to water resources and surface water flooding are likely to be considered significant and as such have been scoped into the ES. It is not expected however that the significance of these impacts, as they relate to Major Accidents and/or Natural Disasters, will be demonstrable to a point in which they would need to be covered outside of the Water Resources and Flood Risk chapter.

8.8.5 No structural, geomorphological or geochemical features are recorded on or near the Site by British Geological Survey (BGS) mapping. There are no Health and Safety Executive (HSE) Control of Major Accident Hazards (COMAH) sites in close proximity to the Site. There are furthermore no intersections with pipelines or hazard zones as reported by HSE's Planning Advice Web App.

8.8.6 The zetica bomb maps[26] show the Site to be in a low risk area for unexploded ordnance (UXO); therefore, a UXO risk assessment would not be required. This map has been included in **Appendix B.**

8.8.7 It is considered that existing design measures and standard practice will adequately control any potential major accidents and / or disasters; therefore, it is proposed to scope this topic out of the EIA.

## 8.9 Water Resources and Flood Risk

8.9.1 The BGS online 1:50,000 GeoIndex mapping identifies that the underlying solid geology is Folkestone Formation - Sandstone.

8.9.2 Defra's Magic Map website lists the soil as being 'freely draining slightly acid loamy soils', however it is noted that the default HR Wallingford Greenfield

[26] https://zeticauxo.com/downloads-and-resources/risk-maps/

Runoff Tool runoff rates are based on a heavy clay Standard Percentage Runoff (SPR) of 0.47.

8.9.3 Ordinary watercourses flow south along the eastern boundary of the site and close to the western boundary of the site that meet approximately 175m downstream of the site.

8.9.4 The site is in the Medway Management Catchment; the bedrock geology is designated a Principal aquifer; and the Groundwater Vulnerability Map (England) classification is High.

8.9.5 The site is located in a drinking water safeguard zone (surface water) and a groundwater source protection zone 3, but is not located in a drinking water protected area.

8.9.6 The Southern Water capacity check response states that there 'is currently inadequate capacity within the foul sewerage network' and upgrades would need to be made to support development.

8.9.7 The Site lies in Flood Zone 1 according to the Environment Agency (EA) Flood Map for Planning. This means that in any year the majority of the site has a less than 1 in 1000 chance of flooding. A review of the EA Risk of Flooding from Surface Water map indicates that the site is predominantly located in the 'very low' surface water flood risk category (less than 1 in 1000 chance of flooding each year). However, there is a low, medium and high risk surface water flood flow path through the western half of the site (i.e. between 1 in 1000 and 1 in 100, between 1 in 100 and 1 in 30 and more than 1 in 30 chance of flooding each year respectively); the maximum extent of which interacts with around 18 of the proposed dwellings and the car parking area for the care home.

8.9.8 The CIRIA SuDS Manual provides guidance on the treatment of surface water runoff. Current planning policy and EA guidance will require the proposed development to employ Sustainable Drainage Systems (SuDS). Therefore, careful design of SuDS features that closely reflects the natural hydrology can be managed through statutory consultation as part of the planning application.

8.9.9 Surface water modelling will be undertaken to inform the planning application and the drainage strategy. This is particularly important to understand the implications of both the interception and routing of surface water by drainage infrastructure along Barrow Green Road, as well as the large diameter surface water gravity sewer flowing down Chalkpit Lane – both of these connect to the oridinary watercourse on the eastern boundary of the site. During the site visit undertaken on the 9th May 2024, it was noted that there appears to be a spring onsite. There will be further investigation to understand the process by which

the spring originates so as to inform the drainage strategy. The Drainage Strategy will be submitted as part of the planning application.

8.9.10 Southern Water has a duty to provide network capacity from the point of practical connection (point of equivalent or larger diameter pipe) funded by the New Infrastructure Charge. The nearest point where waste water treatment capacity is currently available is at Oxted WTW which is located approximately 2.9 Km towards southeast of the proposed development site.

8.9.11 Fluvial flooding will not be a constraint on the site as the site is shown to be located outside of Flood Zones 2 and 3. A flood risk assessment will be submitted as part of the planning application.

8.9.12 Prior to construction a Construction Surface Water Management Plan will be prepared to ensure surface water run-off and discharge from the construction site will also be appropriately managed. This should be secured by planning condition.

8.9.13 With the above considerations designed into the scheme, there is not anticipated to be any significant effect on flood risk, surface water or groundwater quality, or potable or wastewater treatment capacity, and as such, water resources has been scoped out of the ES.

# 9. Proposed Structure of the Environmental Statement

## 9.1 Structure of the Assessment Chapters

9.1.1 The proposed structure for the individual technical assessment chapters is as follows:

- Scope of Assessment;
- Key Legislation, Policy and Guidance Considerations;
  - Legislation and Regulations;
  - Planning Policy;
  - Technical Standards and Guidance;
- Assessment Methodology;
  - Determination of the Baseline;
  - Prediction Methodology;
  - Limitations and Assumptions;
- Baseline Assessment and Identification of Key Receptors;
  - Baseline Assessment;
  - Conclusions Regarding Baseline Environmental Quality and Key Receptors;
- Identification and Description of Changes Likely to Generate Effects;
  - Construction Phase;
  - Operational Phase;
- Assessment of Likely Significant Effect;
  - Embedded Construction Mitigation Measures;
  - Anticipated Effects During the Construction Phase;
  - Embedded Operational Mitigation Measures;
  - Anticipated Effects During the Operational Phase;
- Scope for Additional Mitigation Measures;
  - Potential Additional Mitigation Measures;
  - Likely Effectiveness of Additional Mitigation Measures;
- Residual Effects;

  - Significant Residual Effects;
- Cumulative Effects; and
- Summary and Conclusion

## 9.2 Structure of the ES

9.2.1 The ES will comprise the following set of documents:

- ES Volume 1: Non-Technical Summary NTS: this document will provide a clear and concise summary of the Proposed Development, alternative designs that were considered, environmental impacts and mitigation measures;
- ES: Volume 2: Main Text: this will contain the main body of the EIA with the proposed chapter headings as set out below;
- ES Volume 3: Heritage, Landscape and Visual Impact Assessment (HLVIA): the methodology and findings of the HTVIA accompanied by a full set of views and verified images; and
- ES Volume 4: Technical Appendices: these will provide supplementary details of the environmental studies conducted during the EIA including relevant data tables, figures and photographs.

9.2.2 It is currently envisaged that the ES Volume 2: Main Text will be structured with the following chapter headings:

- Chapter 1: Introduction;
- Chapter 2: The Site;
- Chapter 3: EIA Methodology;
- Chapter 4: Alternatives Considered and Design Evolution;
- Chapter 5: The Proposed Development and Construction Overview;
- Chapter 6: Socio Economics;
- Chapter 7: Air Quality;
- Chapter 8: Noise and Vibration;
- Chapter 9: Traffic and Transport;
- Chapter 10: Ecology;
- Chapter 11: Built Heritage;
- Chapter 12: Effect Interactions; and
- Chapter 13:  Residual Effects and Conclusions.

9.2.3 There will also be the following related standalone documents submitted as part of the planning application:

- Design and Access Statement;
- Planning Statement;
- Statement of Community Involvement;
- Arboricultural Impact Assessment;
- Archaeological Desk Based Assessment;
- Construction Management Plan;
- Construction Logistics Plan and Delivery and Servicing Plan;
- Preliminary Ecological Appraisal (PEA);
- Biodiversity Net Gain Assessment;
- Phase 1 Land Quality Desk Study;
- Outline Drainage Strategy;
- Energy and Sustainability Statement;
- Servicing and Waste Management Plan;
- Transport Assessment.

# 10. Conclusion

10.1.1 This report requests a Scoping Opinion from the TDS, pursuant to Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended).

10.1.2 The TDC and consultees are invited to consider the contents of this report and comments accordingly within the five-week period prescribed by the EIA Regulations.

# Glossary of Terms

| Term | Definition |
|---|---|
| Above Ordnance Datum (AOD) | Ordnance Datum is the vertical datum used by Ordnance Survey as the basis for deriving altitudes on maps. Topography may be described using the level in comparison or 'above' ordnance datum. |
| ADF | Average Daylight Factor |
| ADMS Dispersion model | Atmospheric Dispersion Modelling System used in the modelling of air quality data |
| Air pollutants | Amounts of foreign and/or natural substances occurring in the atmosphere that may result in adverse effects on humans, animals, vegetation and/or materials. |
| Air Quality Management Area (AQMA) | A defined area by virtue of Section 82(3) of the Environment Act 1995, where it appears that the air quality objectives prescribed under the UK Air Quality Strategy will not be achieved. In these areas, a Local Authority must designate Air Quality Management Areas, within which an Action Plan can be proposed to secure improvements in air quality so that prescribed air quality objectives can be achieved. |
| Air Quality Objectives (AQO) | Criteria for the assessment of local air quality expressed in terms of a concentration threshold to be achieved by a certain date. The thresholds are established at concentrations considered acceptable in the light of what is known about the effects of each pollutant on health or ecosystems. |
| Air quality sensitive receptors | People, property or designated sites for nature conservation that may be at risk from exposure to air pollutants that could potentially arise as a result of the Proposed Development. |
| Annual mean concentration | The average (mean) of the hourly pollutant concentrations measured or predicted for a one year period. |
| Application Site | The site for which the planning application is submitted. |
| APSH | Annual Probable Sunlight Hours |
| Baseline | Environmental conditions at specific periods of time, present on, or near a site, against which future changes may be measured or predicted. |
| BGS | British Geological Society |
| BRE | Building Research Establishment |
| CIL | Community Infrastructure Levy |
| CoCP | Code of Construction Practice |
| COMAH | Control of Major Accident Hazards |
| Concentration (air quality) | The amount of a (polluting) substance in a volume (of air), typically expressed as a mass of pollutant per unit volume of air (for example, micrograms per cubic metre, $\mu g/m^3$) or a volume of gaseous pollutant per unit volume of air (parts per million, ppm). |

| Term | Definition |
|---|---|
| Committed development | Planning application of development schemes which have been approved by the relevant local authority. |
| Conservation Area | An area of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance. Designation by the local authority often includes controls over the demolition of buildings; strengthened controls over minor development; and special provision for the protection of trees. |
| Construction | All construction works associated with the Proposed Development. |
| CRMP | Construction Resource Management Plan |
| Cumulative effects | The summation of effects that result from changes caused by a development in conjunction with other reasonably foreseeable committed developments that is either consented but not yet constructed or is in the process of seeking permission. |
| DEFRA | Department for Environment, Food and Rural Affairs |
| Designated Heritage Asset | A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated as such under the relevant legislation. |
| Desk Based Assessment (DBA) | Research based primarily on database and internet data gathering methods. |
| Direct effect | An effect that is directly attributable to the Proposed Development. |
| Dust | Fine particles of solid materials in the size faction 1µm - 75µm in diameter, as defined in BS 6069:1994 capable of being re-suspended in air and settling only slowly under the influence of gravity where it may cause nuisance. |
| EIA Regulations | The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. |
| Emission | A material that is expelled or released to the environment. Usually applied to gaseous or odorous discharges to the atmosphere. |
| Enhancement | Landscape improvement through restoration, reconstruction or creation. |
| Environment Agency (EA) | The Environment Agency is an executive non-departmental public body, sponsored by the Department for Environment, Food and Rural Affairs which was established in 1996 to protect and improve the environment. |
| Environmental effect | The consequence of an impact on the environment. |
| Environmental impact | A physical or measurable change to the environment attributable to the Proposed Development. |
| Environmental Impact Assessment (EIA) | A systematic means of assessing a development project's likely significant environmental effects undertaken in accordance with EIA Regulations. |

| Term | Definition |
|---|---|
| EIA Development | A development constitutes 'EIA Development' when it is determined that the Proposed Development requires EIA, or an ES is submitted to accompany the application. |
| Environmental Statement (ES) | A statement that includes the information that is reasonably required to assess the environmental effects of the development and which the applicant can, having regard to current knowledge and methods of assessment, reasonably be required to compile, but that includes at least the information referred to in the EIA Regulations. |
| EPUK | Environmental Protection UK |
| Exceedance | A period of time where the concentrations of a pollutant is greater than, or equal to, the appropriate Air Quality Objective. |
| Flood Zone | There are four classifications for flood zones as defined in the National Planning Policy Framework (NPPF):<br>• Zone 1: Low probability (less than 1 in 1000 annual probability of river or sea flooding in any year);<br>• Zone 2: Medium probability (between 1 in 100 and 1 in 1000 annual probability of river flooding or between 1 in 200 and 1 in 1000 annual probability of sea flooding in any year);<br>• Zone 3a: High probability (1 in 100 or greater annual probability of river flooding in any year or 1 in 200 or greater annual probability of sea flooding in any given year); and<br>• Zone 3b: High probability (functional flood plain. Essentially the 1 in 20 or greater annual probability of flooding in any given year). |
| GEA | Gross External Area |
| Hectare (ha) | A unit of area (10,000 $m^2$/2.471 acres). |
| Heritage | Historical or cultural associations. |
| Heritage Asset | A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage assets include designated heritage and assets identified by the local planning authority (including local listing). |
| Historic England (HE) | A public body which looks after England's historic environments |
| Historic Environment | All aspects of the environment resulting from the interaction between people and places through time including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora. Those elements of the historic environment that hold significance are called heritage assets. |
| HSE | Health and Safety Executive |
| IAQM | Institute for Air Quality Management |
| IEMA | Institute of Environmental Management and Assessment |

| Term | Definition |
|---|---|
| Impact | A physical or measurable change to the environment attributable to the Proposed Development. |
| Indirect effects | Effects that result indirectly from the proposed project as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or time from the source of the effects. |
| Kilometre (km) | Measurement of distance (1000 metres) |
| Land Use | The primary use of land, including both rural and urban activities. |
| L10 | The noise level just exceeded for 10% of the measurement period |
| L90 | The noise level exceeded for 90% of the measurement period |
| Leq | 'Equivalent Continuous Sound Level': The sound level in decibels equivalent to the total sound energy measured over a stated period of time |
| Listed Building | A building entered on a list of buildings of special architectural or historic interest compiled by the Secretary of State for the guidance of local planning authorities in the exercise of their planning functions under the Planning (Listed Buildings and Conservation Areas) Act 1990 and the Town and Country Planning Act 1990. Buildings are graded as follows:<br>• Grade I – Buildings of exceptional interest;<br>• Grade II* - Particularly important buildings of more than special interest; and<br>• Grade II – Buildings of special interest. |
| Lmax | 'Maximum Sound Level' - Maximum Sound Level during a measurement period or a noise event |
| Local Nature Reserve (LNR) | A statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949, and amended by Schedule 11 of the natural Environment and Rural Communities Act 2006, by principal local authorities. |
| Local Plan | A detailed district or borough-wide land-use plan, prepared and adopted by a district planning authority, which is part of the statutory development plan. Consists of a written statement which sets out the district planning authority's development control policies and proposals for land use and transport over a period of about 10 years and an Ordnance Survey-based proposals map. |
| Magnitude | A combination of the scale, extent and duration of an effect. |
| Methodology | The scientific approach and techniques used for the study |
| Mitigation Measures | Actions proposed to avoid, prevent, reduce and where possible offset significant adverse environmental effects arising from the whole or specific elements of a development. |
| MUGA | Multi-use Games Area |
| NE | Natural England |

| Term | Definition |
|---|---|
| NGR | National Grid Reference |
| NHS | National Health Service |
| Nitrogen Oxides (NOx) | Nitric oxide (NO) is mainly derived from road transport emissions and other combustion processes such as the electricity supply industry. NO is not considered to be harmful to health. However, once released to the atmosphere, NO is usually very rapidly oxidised to nitrogen dioxide (NO2), which is harmful to health. NO2 and NO are both oxides of nitrogen and together are referred to as nitrogen oxides. |
| NNR | National Nature Reserve |
| NPPF | National Planning Policy Framework |
| NPPG | National Planning Policy Guidance |
| NSL | No Skyline Contour |
| Operational | When the Proposed Development is constructed on the Application Site and is in or ready for use |
| OS | Ordinance Survey |
| Particulate Matter | Fine particles are composed of a wide range of materials arising from a variety of sources including combustion sources (mainly road traffic), and coarse particles, suspended soils and dust from construction work. Particles are measured in a number of different size fractions according to their mean aero-dynamic diameter. Most monitoring is currently focussed on PM10 (less than 10 microns in aero-dynamic diameter), but the finer fractions such as PM2.5 (less than 2.5 microns in aero-dynamic diameter) is becoming of increasing interest in terms of health effects. |
| PEA | Preliminary Ecological Appraisal |
| Phase 1 Habitat Survey | An ecological survey technique that provides a standardised system to record vegetation and wildlife habitats. It enables a basic assessment of habitat type and its potential importance for nature conservation. |
| $PM_{10}$ | Particulate matter with a mean aerodynamic diameter of less than 10µm. |
| Post-medieval | AD 1500 – present. |
| Pre-Historic | The period of human history preceding written records. |
| Receptor | A component of the natural, created or built environment such as humans, water, air, a building, or a plant that has the potential to be affected by the Proposed Development. |
| Registered Historic Parks and Gardens | Parks and Gardens of special historic interest in England. Registered parks and gardens are designated heritage assets and subject to the planning policies within the NPPF. |
| Residual | When used to describe archaeological artefacts, this means not in-situ, i.e. Found outside the context in which it was originally deposited. |

| Term | Definition |
|---|---|
| Residual Effects | Those effects of a development that cannot be mitigated following implementation of mitigation proposals. |
| Scheduled Monument | An ancient monument or archaeological deposits designated by the Secretary of State as a 'Scheduled Ancient Monument' and protected under the Ancient Monuments Act. |
| Scoping | An exercise undertaken to determine the topics to be addressed within the Environmental Statement. |
| Sensitivity | A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor. |
| Setting of a heritage asset | The surroundings in which (the asset) is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral. |
| SFRA (or FRA) | Strategic Flood Risk Assessment |
| Significance (effect) | A measure of the importance or gravity of the environmental effect defined by significance criteria specific to the environmental topic. |
| Site of Special Scientific Interest (SSSI) | A site statutorily designated under the Wildlife and Countryside Act 1981 (as amended) as being of special nature conservation or geological interest. SSSIs include wildlife habitats, geological features and landforms. |
| Special Area of Conservation (SAC) | A site designated under the EU's Habitats Directive which is transposed into UK law by the Conservation of Habitats and Species Regulations 2017. |
| Special Protection Area (SPA) | A designation under the European Union Directive on the Conservation of Wild Birds. Under the Directive, Member States of the European Union (EU) have a duty to safeguard the habitats of migratory birds and certain particularly threatened birds. |
| SPG | Supplementary Planning Guidance |
| Study area | Defined area surrounding the proposed development in which archaeological data is collected and analysed in order to set the site into its archaeological and historical context. |
| Susceptibility | The ability of a defined landscape or visual receptor to accommodate the specific proposed development without undue negative consequences. |
| Sustainable Drainage System (SuDS) | Sustainable management practices designed to control the rate and quality of surface water runoff into receiving waters, for example the use of swales and wetlands as buffers, as opposed to conventional drainage practices. |
| Tandridge District Council (TDC) | The local authority in charge of the ultimate planning decision for the Proposed Development. |

| Term | Definition |
|---|---|
| Temporary or permanent effects | Environmental effects may be considered as temporary (limited duration and reversible) or permanent (irreversible). Some development may also be reversible. |
| Transport Assessment (TA) | A quantitative assessment of transport effects of construction and completed development phases of the proposed development. |
| Travel Plan (TP) | A travel plan is a package of measures produced by employers to encourage staff to use alternatives to single-occupancy car use. |
| Type or Nature of Effect | Whether an effect is direct or indirect, temporary or permanent, positive (beneficial), neutral or negative (adverse) or cumulative. |
| UKPN | United Kingdom Power Network |
| Visual receptors | Individuals and/or defined groups of people who have the potential to be affected by a proposal. |
| Visualisation | A computer simulation, photomontage or other technique to illustrate the appearance of a proposed development. |
| VSC | Vertical Sky Component |
| Worst-case situation/scenario | Principle applied where the environmental effects may vary, for example, seasonably to ensure that the most sever potential effect is assessed. |
| WRAP | Waste and Resources Action Programme |
| $\mu g/m^3$ | Micrograms per cubic metre of air: A measure of concentration in terms of mass per unit volume. A concentration of 1 µg/m3 means that one cubic metre of air contains one microgram (millionth of a gram) of pollutant). |

# Appendices

- Appendix A: Phase 1 Land Quality Desk Study
- Appendix B: UXO Map

# Appendix A: Phase 1 Land Quality Desk Study

# Stoneyfield Oxted: Desk Based Soils and Agricultural Land Assessment

P21295_R1
August 2024

# Document Control

## Title

Stoneyfield Oxted: Desk Based Soils and Agricultural Land Assessment

## Client

Temple Group Ltd
on behalf of
Croudace Homes,
Tupwood Lane,
Caterham,
Surrey,
CR3 6XQ

## Reference

P21295_R1

## Status

Final draft for comment

## Document Control

| Document reference | Issue date | Comments | Written by | Approved by |
|---|---|---|---|---|
| P21295_R1 | August 2024 | Final draft for comment | ACW | JEM |

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# Tables



# Figures



# Drawings

P21295_R1_D01 Site location

# Appendices

Appendix A: Report conditions
Appendix B: Client drawings
Appendix C: Groundsure Report

# 1. Introduction

## 1.1. Instruction

Yellow Sub Geo Ltd (Yellow Sub) has been instructed by Temple Group Ltd (Temple) on behalf of Croudace Homes (the Client) to provide a desk based soils and agricultural land assessment (Desk Study) for a proposed residential led development at Stoneyfield, Barrow Green Road, Oxted (the Site). Instruction to proceed was confirmed by email on the 29th July 2024.

## 1.2. Brief

The brief was to undertake desk based research to provide an understanding of the soils, minerals, agricultural land classification and land quality to support the proposed development through the planning process.

## 1.3. Limitations

This report has not been supported by on-Site soil surveys.
This report is written strictly for the benefit of the Client and bound by the conditions presented in Appendix A.



Registered in England and Wales with Company No. 10888960 at Rabble Studio, 103 Bute Street, Cardiff, CF10 5AD.

# 2. Site Information

The following section collates and presents available information pertinent to the Site and its local environs.

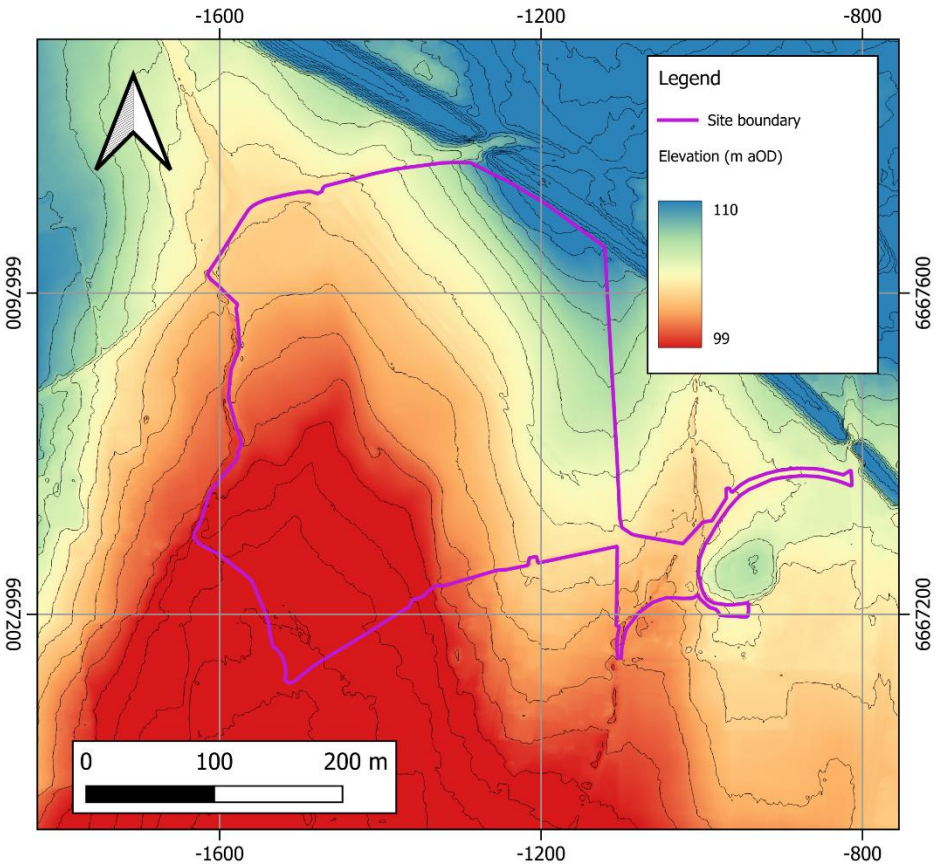
## 2.1. Site location and description

A Site location plan is presented as drawing P21295_R1_D01. The Site address is as follows:

Land off Barrow Green road,
Stoneyfields,
Oxted,
Surrey
RH8 0LW (nearest postcode).

The Site area (taken from the indicative Site layout presented in Appendix B) is approximately 10.24ha and the National Grid Reference at the centre of the Site is 538775,153120. The Site slopes slightly from the north-eastern corner to the south-western corner ranging from approximately 110m above Ordnance Datum (m aOD) to 99m aOD as shown in Figure 2-1 below.

*Figure 2-1 Site topography*



## 2.2. Site description

The Site currently comprises agricultural land consisting of ploughed fields with a public footpath running NNW to SSE across the central area. It is noted that whilst the Site is currently an arable agricultural field, it is isolated and within a wider urban environment.
Surrounding land includes a graveyard, parkland, commercial and residential which is summarised in Table 2-1.

*Table 2-1 Adjacent land use summary*

| Boundary | Land use |
|---|---|
| North | The land immediately adjacent to the Site comprises Barrow Green Road. The East Grinstead railway line runs almost adjacent to the north-east of the Site, running parallel with the north-eastern boundary. |
| East | A graveyard and St Mary's Church lie immediately to the east/ southeast, with a hub of residential and commercial buildings further eastwards. |
| West | Ridgeway Manor care home and other residential properties lie to the west of Site. A unnamed stream, a tributary of the River Eden, runs in parallel to the Site's western boundary. |
| South | Wheeler Avenue with associated residential housing lies to the south of the Site as well as Oxted Lawn Tennis Club and Master Park. Ancient woodland, still marked on OS mapping as 'Bogs', lies adjacent to the Site's south-western corner. |

## 2.3. Geology and mineral deposits

### 2.3.1. Geology

According to British Geological Survey (BGS) 1:50,000 scale mapping, the general geological sequence (see Figure 2-2) underlying the Site is as follows:

- Superficial deposits: Mostly absent with Alluvium (Clay, Silt, Sand and Gravel) in the far western section of Site associated with the unnamed tributary of the River Eden.
- Solid geology: Folkestone Formation (Sandstone) across the majority of the Site with the Gault Formation (Mudstone) in the far north of the Site.

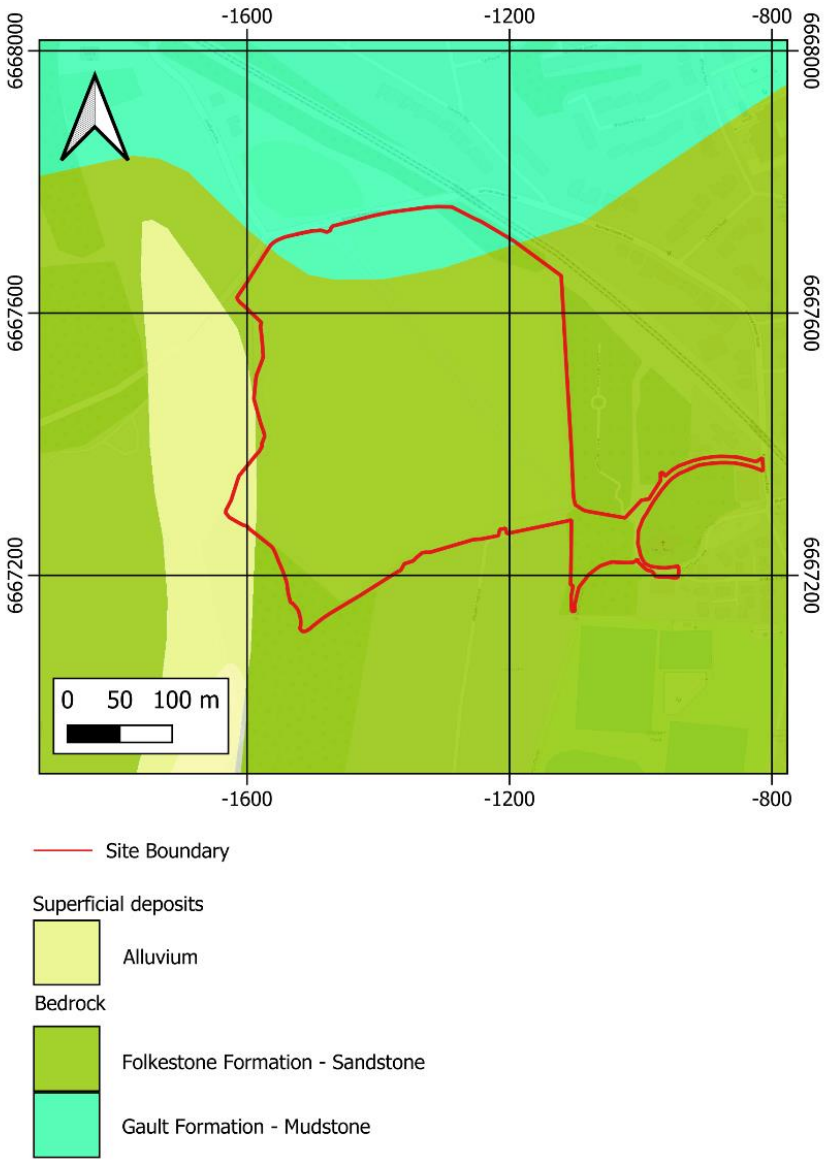
Nearby historical borehole logs within the BGS database confirm this succession and those closest are summarised in Table 2-2.

*Table 2-2 Strata encountered in nearby historical borehole logs*

| Borehole ref. | Strata | Maximum depth (m bgl) |
|---|---|---|
| TQ35SE2 (179m east) | MADE GROUND: Fill of brick and gravel | 0.91 |
| | Medium dense white SAND | 2.13 |
| | Very dense white SAND with traces of fine gravel | 6.1 |
| TQ35SE3 (179m east) | MADE GROUND: Fill of brick and gravel | 1.83 |
| | Medium dense white SAND | 3.39 |
| | Very dense white SAND | 5.49 |
| | Very dense white silty SAND | 6.1 |

| Borehole ref. | Strata | Maximum depth (m bgl) |
|---|---|---|
| TQ13SE194 (45m north) | Dense to very dese gravelly SAND with a layer of clay | 1.6 |
| | Medium strength to high strength CLAY to silty CLAY with a layer of sand | 2.3 |
| | Low strength to medium strength CLAY | 7.4 |
| | Loose to medium dense gravelly SAND with a layer of clay | 7.75 |

*Figure 2-2 BGS 1:50,000 combined geology*




Contains BGS 1:50,000 map data

### 2.3.2. Mineral Resources

5No. historic sand pits are located within 500m of Site (between 165m and 451m), all of which comprised surface mineral workings.
In accordance with Surrey County Council's mineral and waste policies and plans, the Site does not fall within a minerals safeguarding or strategy area.

## 2.4. Soils

### 2.4.1. Published soils data

Soilscapes records the majority of soil on Site (Folkestone Formation) as Soilscape 6, freely draining slightly acid loamy soils with low fertility. There is a small parcel of land in the north-east (Gault Clay) classified as Soilscape 18, slowly seasonally wet slightly acid but base-rich loamy and clayey soils of moderate fertility.

### 2.4.2. Agricultural Land Classification

With reference to the Natural England BMV Land Assessment, (see

Figure 2-3) the Site is located in an area where land is predominantly in urban use. This classification is also used in the Tandridge Landscape Capacity and Sensitivity Study, 2016 (OXT007). Extrapolating the assessment to remove the urban classification and relating it to surrounding assessments suggests the Site would fall into the Grade 3 (Good to Moderate) category. The Site has not been classified under the Post 1988 Agricultural Land Classification and therefore it has not been classified in terms of categories 3a and 3b.

In addition to the above, the Natural England maps (see Figure 2-4) indicates the Site is partially classified as land predominantly in urban use (approx. 50%) with the remaining 50% in the north having a predicted moderate likelihood of BMV land (20% to 60% probability of including BMV soils).
No Grade 1 or 2 agricultural soils are predicted to be present on Site or within close proximity. Therefore the only potential for BMV land is where they may be classified as Grade 3a.

*Figure 2-3 Natural England BMV Land Assessment*

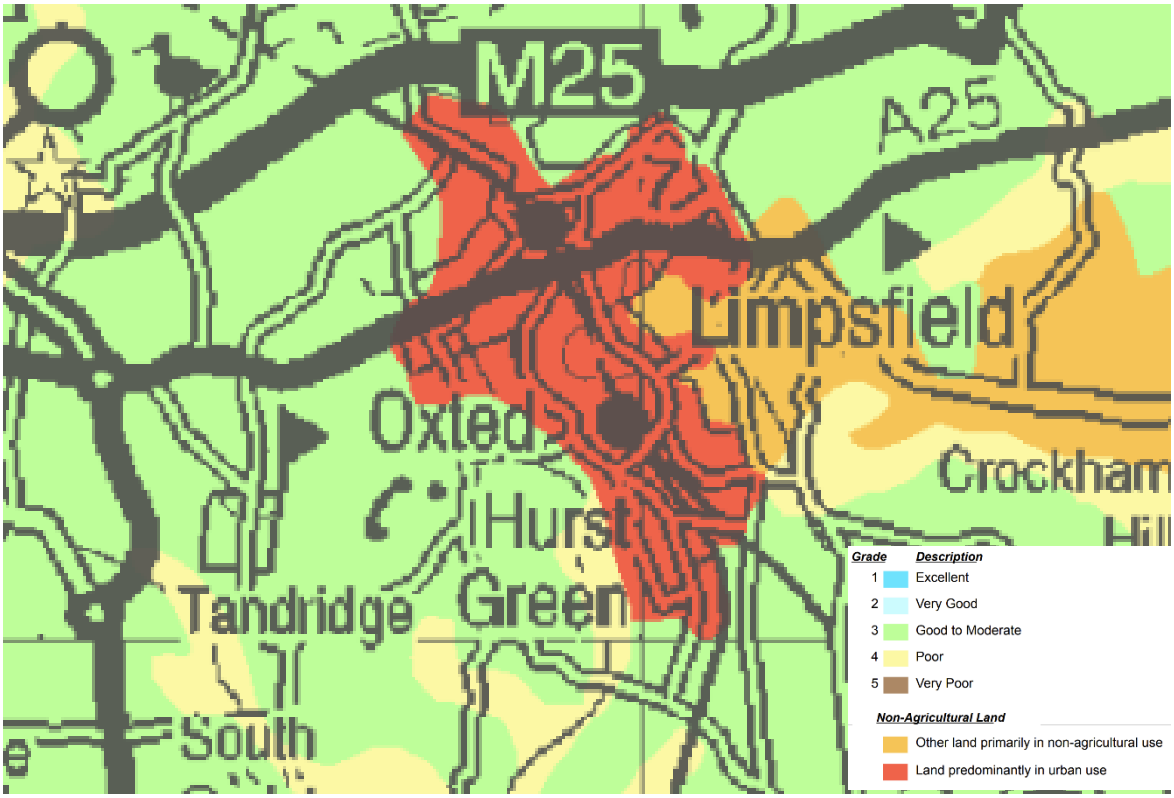
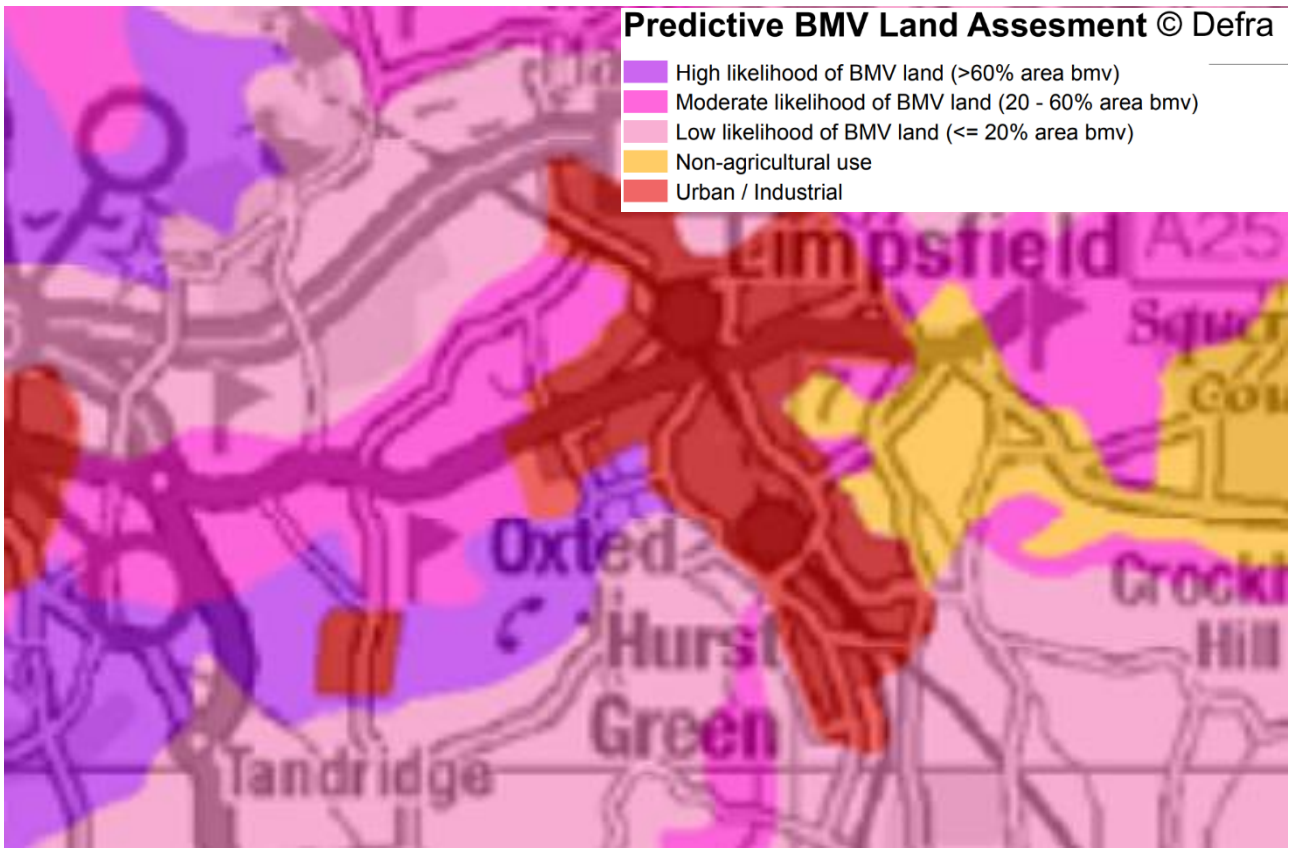


*Figure 2-4 Natural England predictive BMV Land Assessment*




### 2.4.3. Soil geo-chemistry

The values below are estimated from rural topsoil data collected by the BGS, with a sampling density of 1 sample per 2km$^2$. In areas where soil sampling was not possible, stream sediment data was collected with a sampling density of 1 per 2.5km$^2$.

*Table 2-3 BGS Estimated Background Soil Chemistry*

| Potentially harmful element | Estimated background concentration (mg/kg) | Location |
|---|---|---|
| Arsenic | 15-25 | On Site |
| Lead | 100-600 | |
| Bio-accessible Lead | 60-360 | |
| Cadmium | 1.8 | |
| Chromium | 40-90 | |
| Nickel | 15-30 | |

## 2.5. Hydrogeology

Where present along the western boundary, the superficial Alluvium is classified by the EA as a Secondary A Aquifer. A Secondary A Aquifer is described by the EA as 'comprising permeable layers that can support local water supplies, and may form an important source of base flow to rivers.'

The Folkestone Formation bedrock below the majority of the Site is classified by the EA as a Principal Aquifer. A Principal Aquifer is described as 'rocks that provide significant quantities of water and can support water supply and/or baseflow to rivers, lakes and wetlands on a strategic scale. They typically have a high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage.' Where present in the far north of the Site, the Gault Formation is classified as unproductive strata.

According to the BGS, groundwater vulnerability across the Site is classified as high with bedrock permeability estimated by the BGS to be high and intergranular.

The Site falls into Zone III (total catchment) of a Source Protection Zone (SPZ). However there are no licenced abstractions noted within 500m of Site.

## 2.6. Hydrology

### 2.6.1. Surface water

Surface water features on-Site consist of an unnamed stream running along the Site's western boundary. This stream is a tributary of the River Eden, converging approximately 1km south of the Site. Another unnamed stream is recorded along the eastern boundary running in parallel to Court Farm Lane/ the two graveyards. Towland pond is located approximately 550m south-west of the Site.

### 2.6.2. Flooding

Review of the Flood Map for Planning from the EA, indicates that the Site is in Flood Zone 1 and is at low risk from surface water (pluvial) flooding.

### 2.6.3. Groundwater flooding

BGS data indicates there is low to moderate potential for groundwater flooding to occur at the Site.

## 2.7. Site history

A review of historical and contemporary Ordnance Survey (OS) mapping of the Site has been undertaken. The historical mapping is provided in Appendix C with salient observations summarised in Table 2-4.

*Table 2-4 Site History*

| Date | Details |
|---|---|
| 1840 (1:2,500) | The earliest OS mapping shows the Site as 3No. fields of agricultural land with ancient woodland shown adjacent to the Site's south-western boundary with a smaller patch of trees shown on the north-eastern edge of Site. A public footpath is shown running through the centre of Site. Court Farm and St Mary's Church are present off-site to the south-east close to the Site boundary. The London, Brighton & South Coast railway line has been constructed running north-east of Site. |
| 1869-1871 (1:10,560) | Off-site Chalkpit Wood is established 500m north of the Site, connecting to the woods on the north-eastern edge of Site. |
| 1895-1896 (1:2,500, 1:10,560) | The Site remains agricultural fields. Off-site St Mary's Church has an adjacent graveyard constructed. Further residential expansion is noted east of the Site. Ridgeway House has been constructed west of the Site. A lime works, gravel pit and associated shafts are noted 1km north of Site. |
| 1912 (1:2,500) | No significant changes on Site. The ancient woodland adjacent to the Site's south-western boundary is now marked as 'The Bogs'. Off-site a tank is noted at Court Farm. A gasworks and associated tank as well as a laundrette have been constructed approximately 450m south-east of Site. A Goods Shed has also been constructed adjacent to the Gas Works. |
| 1933 (1:2,500) | No significant changes on Site. Off-site another graveyard has been constructed to the east of Site. Ridgeway house to the west of the Site has been renamed 'Blunt House' and has expanded towards Site with a swimming pool constructed close to the western boundary. Allotment gardens have been planted 250m north of the Site. |
| 1964 (1:2,500) | No significant changes on Site. Off-site to the south, Wheeler Avenue has been built with associated residential housing. |
| 1970-1971 (1:10,000) | No significant changes on Site. The graveyard east of the Site has been expanded and now lies adjacent to the Site's eastern boundary. The swimming pool adjacent to the Site's western boundary is now marked as a pond. |
| 1976-1977 (1:10,000) | No significant changes on Site. Off-site the gasworks is no longer marked. |
| 1990-1992 (1:2,500) | No significant changes on Site. Blunt house to the west of the Site has been renamed 'Ridgeway Manor (Home for the Aged). |
| 1998 (1:10,000) | No significant changes on Site. |
| 2001(1:10,000) | No significant changes on Site. |
| 2010 (1:10,000) | No significant changes on Site. |
| 2024 (1:10,000) | No significant changes on Site. |

## 2.8. Environmental designations

Online mapping (Defra) indicates there are multiple environmental designations on and within close proximity of the Site and in the surrounding local area, a summary of these designations is provided in Table 2-5 below.

*Table 2-5 Environmental designations*

| Designation | Location | Information |
|---|---|---|
| Ancient Woodland | Adjacent to the Site's south-western boundary | An area of designated ancient woodland lies adjacent to Site with further 7No. areas of ancient woodland located within 500m north of the Site. |
| Greenbelt | On-Site | - |
| Nitrate Vulnerable Zones | On-Site | Areas at risk from nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). Upper Eden NVZ surface water and Godstone. |

# 3. Conclusions

## 3.1. Conclusions

Earliest OS mapping from 1888 shows the Site and surrounding area to consist of ploughed agricultural land which has remained to the present day. Whilst the Site has remained in agricultural (arable) use , the surrounding area has become increasingly urban leading it to become an isolated field.

Natural England mapping and previous assessments by Tandridge District Council (OXT007) note that the Site is classified as land which is predominantly in urban use. However, extrapolating surrounding ALC data suggests the Site would fall into Grade 3 (moderate to good). No surveys have been undertaken to classify the Site in terms of Grades 3a and 3b. Therefore, whilst no BMV land is mapped on-Site, its presence cannot be ruled out. Natural England predictive mapping suggests a 20% to 60% probability of BMV land being present on Site.

Given the limited size (10ha), isolated nature of the field and current urban ALC classification which reflects the immediate surrounding uses in the wider village of Oxted, it is considered that the land is of limited benefit for agricultural purposes.

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# Appendix A Report Conditions

This report has been prepared by Yellow Sub Geo Ltd. (Yellow Sub Geo) in its professional capacity as soil and groundwater specialists, with reasonable skill, care and diligence within the agreed scope and terms of contract and taking account of the manpower and resources devoted to it by agreement with its client, and is provided by Yellow Sub Geo solely for the internal use of its client. The advice and opinions in this report should be read and relied on only in the context of the report as a whole, taking account of the terms of reference agreed with the client. The findings are based on the information made available to Yellow Sub Geo at the date of the report (and will have been assumed to be correct) and on current UK standards, codes, technology and practices as at that time. They do not purport to include any manner of legal advice or opinion. New information or changes in conditions and regulatory requirements may occur in future, which will change the conclusions presented here. Where necessary and appropriate, the report represents and relies on published information from third party, publicly and commercially available sources which is used in good faith of its accuracy and efficacy. Yellow Sub Geo cannot accept responsibility for the work of others. Site investigation results necessarily rely on tests and observations within exploratory holes only. The inherent variation in ground conditions mean that the results may not be representative of ground conditions between exploratory holes. Yellow Sub Geo take no responsibility for variation in ground conditions between exploratory positions. This report is confidential to the client. The client may submit the report to regulatory bodies, where appropriate. Should the client wish to release this report to any other third party for that party's reliance, Yellow Sub Geo may, by prior written agreement, agree to such release, provided that it is acknowledged that Yellow Sub Geo accepts no responsibility of any nature to any third party to whom this report or any part thereof is made known. Yellow Sub Geo accepts no responsibility for any loss or damage incurred as a result, and the third party does not acquire any rights whatsoever, contractual or otherwise, against Yellow Sub Geo except as expressly agreed with Yellow Sub Geo in writing. Yellow Sub Geo reserves the right to withhold and/ or negotiate the transference of reliance on this report, subject to legal and commercial review.



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# Appendix B Client Drawings



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# Appendix C Groundsure Report



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# Appendix B: UXO Map

# UNEXPLODED BOMB RISK MAP

**SITE LOCATION**

Map Centre: 538809,153097


This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

**LEGEND**

- **High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- **Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- **Low:** Areas indicated as having 15 bombs per 1000acre or less.

**Miltary** | **Industry** | **UXO find** | **Other**

**Transport** | **Docks** | **Luftwaffe targets**

**Utilities** | **Bombing decoy** | **Airfields**

## How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

## What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density.
Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then additional detailed research is recommended.

## If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our pre-desk study assessments (PDSA) by emailing a site boundary and location to uxo@zetica.com.

**You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.**

## If I have any questions, who do I contact?

**tel:** +44 (0) 1993 886682 **email:** uxo@zetica.com **web:** www.zeticauxo.com

**The information in this UXB risk map is derived from a range of sources and should be used with the accompanying notes on our website.**

temple

**CREATING SUSTAINABLE FUTURES**

**Temple Group**
Temple Chambers
3-7 Temple Avenue
Temple
London
EC4Y 0DA

+44 (0)20 7394 3700
enquiries@templegroup.co.uk
**templegroup.co.uk**