



Quod

Environmental Statement Volume II: Appendices

Land at Junction 10, M40

September 2021

Q210325

Table of Contents

Environmental Statement: Volume II

- Appendix 3.1: Location of information in the ES
- Appendix 3.2: EIA Scoping Report
- Appendix 3.3: CDC EIA Scoping Opinion
- Appendix 3.4: EIA Screening Report and Opinion
- Appendix 3.5: List of Cumulative Schemes
- Appendix 5.1: Parameter Plans and Detailed Drawings
- Appendix 5.2: Development Specification
- Appendix 6.1: Framework CEMP – Eastern Development
- Appendix 6.2: Framework CEMP – Western Development
- Appendix 8.1: Transport Assessment
- Appendix 8.2: Framework Travel Plan
- Appendix 9.1: Legislation and Policy Context
- Appendix 9.2: Construction Dust Assessment Procedure
- Appendix 9.3: EPUK and IAQM Planning for Air Quality Guidance
- Appendix 9.4: Modelling Methodology
- Appendix 9.5: Construction Mitigation
- Appendix 9.6: Air Quality Glossary and References
- Appendix 10.1: Acoustics Glossary
- Appendix 10.2: Acoustics Policy and Guidance
- Appendix 10.3: Construction Noise and Vibration Assessment
- Appendix 10.4: Operational Sound Assessment
- Appendix 10.5: Operational Road Traffic Noise Assessment
- Appendix 10.6: Road Traffic Noise Contours
- Appendix 11.1: Cultural Heritage Desk-Based Assessment (DBA)

Appendix 11.2: Geophysical Survey – Western Site

Appendix 11.3: Geophysical Survey – Eastern Site

Appendix 11.4: Policy and Guidance

Appendix 12.1: Legislation and Planning Policy

Appendix 12.2: Protected Species Survey methodology and Results

Appendix 12.3: Biodiversity Net Gain Assessment

Appendix 12.4: Habitat Features and Bat Survey Plans

Appendix 12.5: Statutory Sites Plan

Appendix 13.1: Figures

Appendix 13.2: Photoviewpoint Sheets

Appendix 13.3: LVIA Methodology

Appendix 13.4: Extracts from LCA

Appendix 13.5: Scoped Out Viewpoints

Appendix 13.6: Consultation with Cherwell District Council

Appendix 15.1: Flood Risk Assessment (FRA)

Appendix 15.2: Report on Preliminary Phase II Ground Investigation Report



Appendix 3.1

LOCATION OF SPECIFIED INFORMATION IN THE ES

Appendix 3.1: Location of Specified Information in the ES

Table A3.1: Location of Specified Information in the ES

Specified Information in Regulation 18 of the EIA Regulations		Location within ES
3.		
(a)	A description of the proposed development comprising information on the site, design, size and other relevant features of the development.	Chapter 5: Description of the Development
(b)	A description of the likely significant effects of the proposed development on the environment.	Technical Chapters 7 – 15
(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.	Chapter 5: Description of the Development Chapter 6: Construction Technical Chapters 7 - 15
(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.	Chapter 4: Alternatives
(e)	A non-technical summary of the information referred to in subparagraphs (a) to (d).	Provided as a standalone document which forms part of the ES.
5		
(b).	the environmental statement must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts.	Chapter 1: Introduction
Specified Information in Part 1 and Part 2 of the Schedule 4 of the EIA Regulations		Location within ES
1.		
Description of the Development, including in particular:		
(a)	A description of the location of the Development	Chapter 2: Site and Setting

Specified Information in Part 1 and Part 2 of the Schedule 4 of the EIA Regulations	Location within ES
(b) A description of the physical characteristics of the whole development including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases.	Chapter 5: Description of the Development Chapter 6: Construction
(c) A description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used.	Chapter 5: Description of the Development Chapter 6: Construction
(d) An estimate, by type and quantity, of expected residues and emissions (such as water, air and soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.	Chapter 5: Description of the Development Chapter 6: Construction
2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.	Chapter 4: Alternatives
3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.	Technical Chapters 7 – 15
4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	Chapter 3: EIA Methodology Technical Chapters 7 – 15 Chapter 16: Effect Interactions
5. A description of the likely significant effects of the development on the environment resulting from, inter alia:	Technical Chapters 7 – 15

Specified Information in Part 1 and Part 2 of the Schedule 4 of the EIA Regulations

Location within ES

	<p>(a) the construction and existence of the development, including, where relevant, demolition works;</p> <p>(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;</p> <p>(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);</p> <p>(e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;</p> <p>(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change; and</p> <p>(g) the technologies and the substances used.</p> <p>The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(a) and Directive 2009/147/EC(b).</p>	<p>Chapter 16: Effect Interactions</p>
<p>6.</p>	<p>A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.</p>	<p>Under 'Assumptions and Limitations' within 'Assessment Methodology' section of each technical chapter (i.e. 7 – 15) as relevant.</p>
<p>7.</p>	<p>A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects</p>	<p>Technical Chapters (as required) 7 – 15 Chapter 17: Summary of Mitigation, Monitoring and Residual Effects</p>

Specified Information in Part 1 and Part 2 of the Schedule 4 of the EIA Regulations	Location within ES
<p>on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.</p> <p>8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU(c) of the European Parliament and of the Council or Council Directive 2009/71/Euratom(d) or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.</p>	<p>Scoped out of EIA as discrete assessment. Covered in technical Chapters (as required) 7 – 15</p>
<p>9. A non-technical summary of the information provided under paragraphs 1 to 8.</p>	<p>Provided as a standalone document which forms part of the ES.</p>
<p>10. A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.</p>	<p>Under 'References' section of each technical chapter (i.e. 7 - 15) as relevant.</p>



Appendix 3.2

EIA SCOPING REPORT (JUNE 2021)



Quod

EIA Scoping Report

Land at Junction 10,
M40

22 JUNE 2021

Q210325

Contents

1	Introduction	1
2	Site and Setting	6
3	Description of the Development	9
4	EIA Methodology	10
5	Socio-Economics	16
6	Traffic and Access	19
7	Air Quality	23
8	Noise and Vibration	26
9	Archaeology	29
10	Ecology and Biodiversity	32
11	Climate Change and Greenhouse Gases	43
12	Landscape and Visual Impacts	47
13	Cumulative Effects	52
14	Non-Significant Topics	55

Appendix A: Structure of ES Technical Chapters

Appendix B: EIA Landscape and Visual Impact Assessment Methodology Summary of Approach and Criteria Tables

Appendix C: Proposed Viewpoint Locations

1 Introduction

Purpose

- 1.1 The purpose of this report is to inform a request for an Environmental Impact Assessment (EIA) Scoping Opinion from Cherwell District Council ('CDC') in relation to Albion Land's (the 'Applicant') proposals for the redevelopment of land at Junction 10, M40, OX27 (the 'Site').
- 1.2 Outline permission, all matters reserved except access, is proposed to be sought for circa 280,000 square metres (sqm) Gross Internal Area (GIA) warehouse floorspace (B8 Use), along with vehicular access, circulation and open space (the 'Development'). Two outline planning applications will be submitted for the two parcels of land – eastern and western parcel.
- 1.3 This report sets out the findings of an EIA scoping study and accompanies a request for a Scoping Opinion submitted to the CDC in accordance with Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017¹ (as amended)^{2,3} ('EIA Regulations'). In line with the EIA Regulations, this report identifies the Site location, provides a brief description of the nature and purpose of the Development and an explanation of the likely significant effects of the Development on the environment. The report also outlines the proposed content, approach, and scope of the Environmental Statement (ES) to be submitted with the outline planning application.
- 1.4 Figures 1.1 and 1.2 show the Site's location and the likely extent of the planning application. Brief descriptions of the Site and the Development are provided within Sections 2 and 3, respectively.

Figure 1.1: Site Location Plan

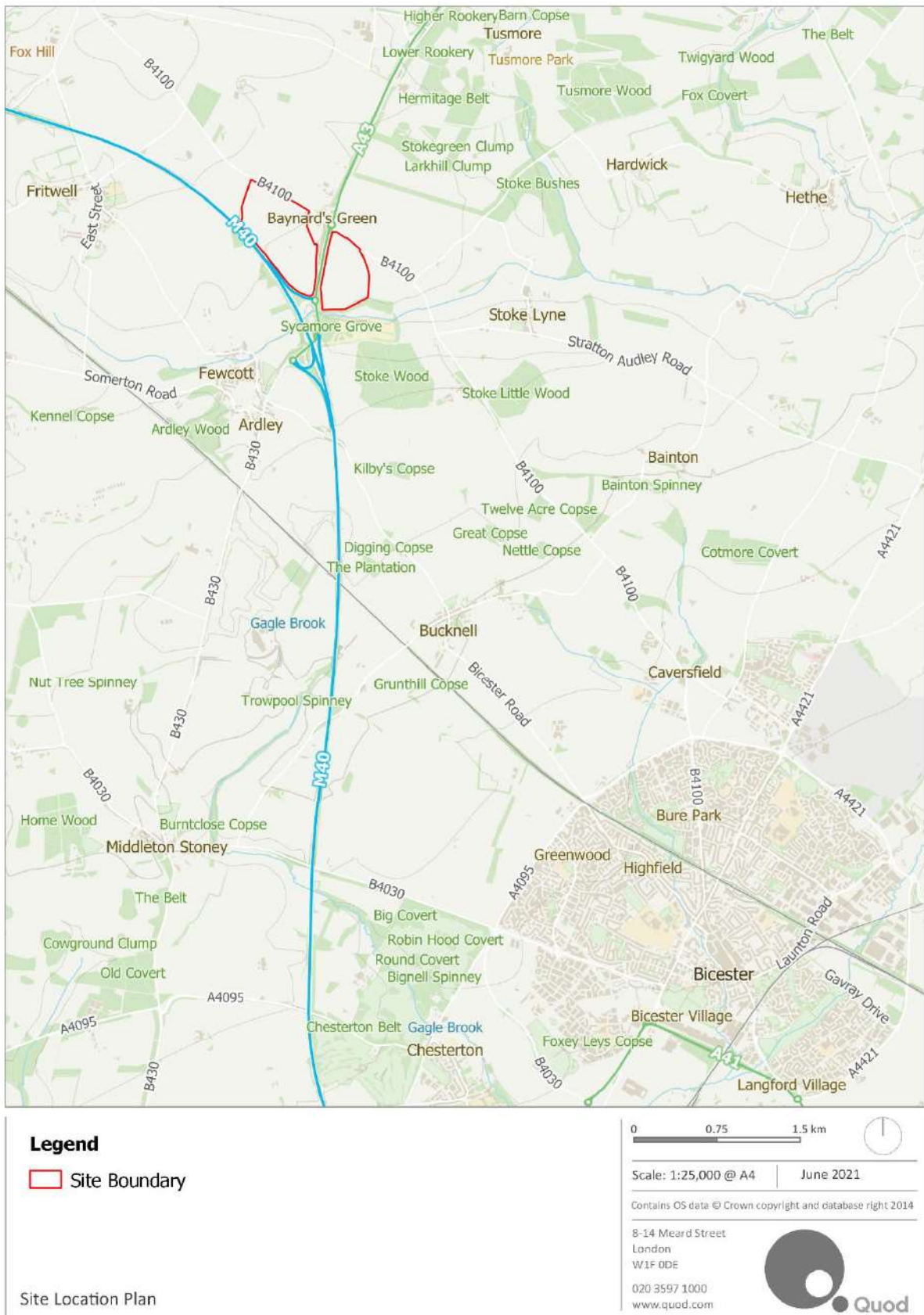
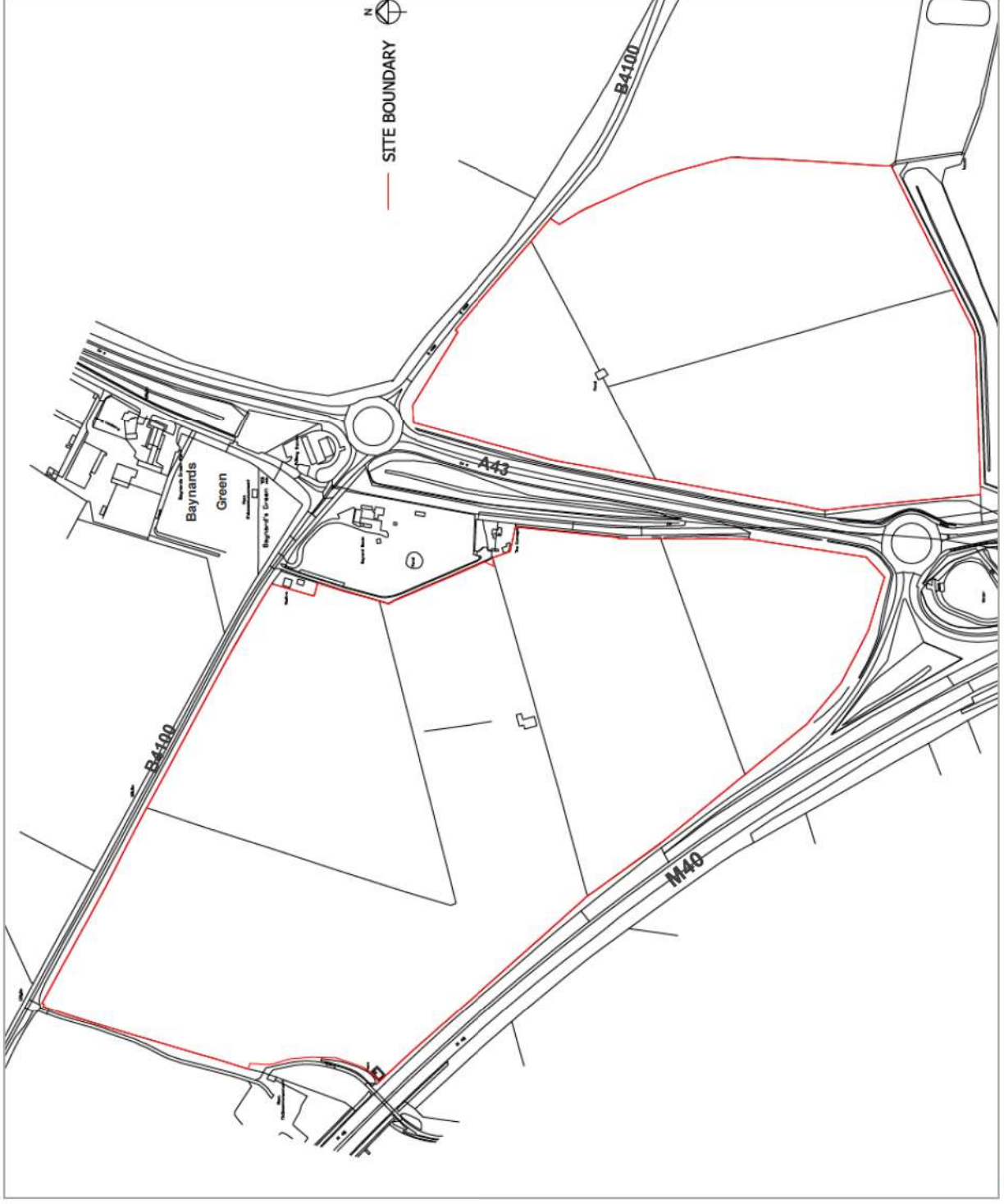


Figure 1.2: Indicative Planning Application Site Boundary



Planning and EIA Context

- 1.5 The Site comprises agricultural land and is unallocated in the Cherwell Local Plan 2016 - 2031⁴ (the 'Local Plan'). The Site has therefore been considered to fall under 'Core Policy SLE1: Employment Development' of the Local Plan which relates to employment intended for B Class Uses (e.g. B1, B2 and B8). The Site is not subject to any extant or historic planning permissions.
- 1.6 The Development falls within Category 10(a) of Schedule 2 of the EIA Regulations, which is applicable to 'Industrial Estate Development Projects'. Due to the scale and nature of the Development, the Applicant has voluntarily commissioned an Environmental Impact Assessment (EIA) process. EIA is a systematic process that aims to prevent, reduce or offset the significant adverse environmental effects of development proposals and enhance beneficial effects. It ensures that planning decisions are made considering the likely significant environmental effects and with engagement from statutory bodies and other stakeholders including the public.
- 1.7 It should be noted that under the EIA Regulations, the ES will be required to be "based on" the Scoping Opinion provided by the CDC and will be prepared by competent experts (see below).

Project Team

- 1.8 In accordance with Regulation 18(5) of the EIA Regulations, it is confirmed that this Scoping Report has been prepared by competent experts from the organisations listed in Table 1.1. These specialists will also undertake the EIA and their relevant expertise and qualifications will be stated within the ES.

Table 1.1: EIA Project Team

Organisation	Role
Albion Land	Applicant
Cornish Architects	Architects
Tyler Grange	Landscape, Biodiversity, Arboriculture and Landscape and Visual Impact Assessment
Quod	Planning, EIA Coordinator and Socio-economics
RPS Group	Archaeology
David Tucker Associates	Transport and Access
Air Quality Consultants	Air Quality
Noise Consultants	Noise and Vibration
Light Planning and Design	Lighting
Troopers Hill	Verified Views
Askew Soils and Land	Agriculture, Land Use and Soils
Bailey Johnson Hayes	Water, Flood Risk and Drainage; Ground Conditions and Contamination

Organisation	Role
Engineering Consultancy Services	Energy and Sustainability
Ecolyse	Climate Change, Carbon and Greenhouse Gases

- 1.9 Quod will be the lead editor of the ES and author of non-technical chapters. Quod is a member of the Institute of Environmental Management and Assessment (IEMA) EIA Quality Mark Scheme, an accreditation scheme which sets high standards for EIA practice and demonstrates a commitment to excellence in EIA activities.

2 Site and Setting

Site Location, Extent and Description

- 2.1 Figures 1.1 and 1.2 show the Site's location and likely extent of the planning application. The Site is located approximately 6.5 km north west of Bicester and 1.2km north east of Ardley. The Site is comprised of two parcels of land, separated by the A43, that extend to approximately 66.63 hectares (ha) in total.
- 2.2 Both parcels of land predominantly comprise existing agricultural land, currently in use for arable farming. The fields have narrow tree belts around some of their perimeters. The Site also comprises bare ground, buildings, dry ditches, hedgerows (species-rich hedgerows, defunct species-poor hedgerows and hedgerows with trees), improved grassland, a waterbody (WB1), scattered trees, dense and scattered scrub, and tall ruderal vegetation.
- 2.3 The eastern parcel is the smaller of the two, extending to circa 23.18 ha. It is bound by the B4100, a single carriageway road which runs between Bicester and Banbury to the north; agricultural land to the east; a deciduous tree belt (designated as Priority Habitat) that acts as a buffer to Cherwell Valley service station complex (comprised of a services, Travelodge hotel and parking) to the south; and the A43, which runs between the M40 and the M1 at Northampton to the west.
- 2.4 The western parcel extends to circa 43.45 ha. It is bound by the B4100 to the north, the A43 to the east, the M40 to the south and agricultural land to the west; this neighbouring field includes an area of hardstanding adjacent to the south west corner of the Site. One farm building, used for storage, is located in the centre of this Site parcel. Three residential properties are located adjacent to but outwith the north east corner of the western Site parcel (including Baynard House), bound by the A43 and B4100 on other sides. Access to these properties is from the B4100.
- 2.5 Two Public Rights of Way (PRoWs) extend along the eastern and western boundaries of the western Site parcel (refs. 367/28/10 and 109/2/40). These are linked by a PRoW that extends south westerly across this Site parcel (ref. 105/5/10).
- 2.6 The area terrain falls some 15-17m north to south and circa 20m west to east, ranging between approximately 125m and 110m Above Ordnance Datum across the Site.

Surrounding Context

Land Uses

- 2.7 The Site is located in an area which is dominated by agricultural land, with sparsely located residential and commercial development. Baynard House, The Cottages and associated outbuildings, and Medkre are located outwith the north east corner of the western parcel.
- 2.8 The nearest settlement is Fewcott, approximately 750m south west of the Site boundary beyond the M40. The Moto Cherwell Valley motorway services and the Travelodge Bicester Cherwell Valley within the service station are located within 100m of the southern boundary of the eastern Site parcel, and an Esso service station (Baynards Green Service Station) is

located approx. 100m north of the Site boundary on the A43/B4100 roundabout junction. Baynards Green Farm, now converted to a commercial estate, is located immediately beyond the Esso service station; this contains a Grade II listed barn.

Transport and Access

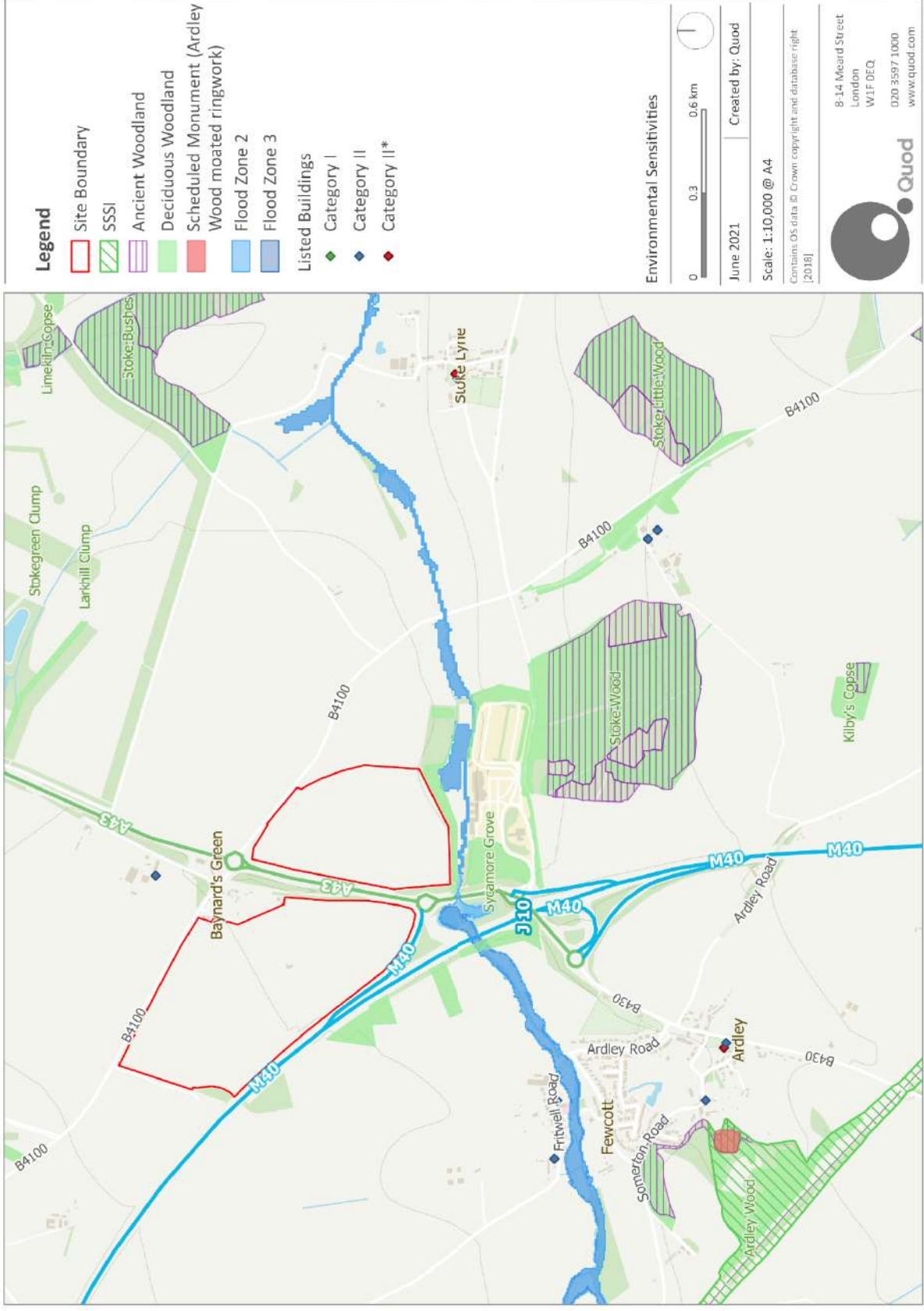
- 2.9 Access to both the Site parcels is currently from the B4100 on the northern Site boundary. The B4100 connects to the A43 at a roundabout adjacent to the north of the Site boundary.

Environmental Sensitivities

- 2.10 Figure 2.1 identifies the key environmental sensitivities within and in close proximity to the Site.
- 2.11 The Site is not located within a 'sensitive area' (as defined in Part 1 of the EIA Regulations) (i.e. a Site of Special Scientific Interest (SSSI), National Park, Area of Outstanding Natural Beauty (AONB), World Heritage Site (WHS), Scheduled Monument or European Site¹) and is not subject to any statutory or non-statutory designations for nature conservation or heritage. There are no WHS, Scheduled Monuments, Registered Parks and Gardens or Registered Battlefields within the Site or within 500m of the Site boundary.
- 2.12 There are no statutory or non-statutory ecological designations within 2km radius of the Site. The nearest designated site is Ardley Cutting and Quarry SSSI, located approximately 1.25km south of the Site boundary. A pocket of ancient woodland within Stoke Wood which also includes semi natural woodland is located 300m south of the eastern parcel. Tusmore Park, a historic parkland, is located 1km north east of the Site.
- 2.13 The western parcel boundary with the A43 is well-vegetated with an overgrown hedgerow boundary with some trees. Similarly, the north east boundary that is formed by the B4100, contains overgrown hedgerow with some trees. The western boundary comprises a native hedgerow. The east perimeter of the Site's eastern parcel comprises a native hedgerow field boundary with the southern boundary marked by a large tree belt, separating the Site from Cherwell Valley Services.
- 2.14 The Site is not located in an Area of Archaeological Potential and there are no statutory or non-statutory heritage designations on the Site, with the nearest built heritage asset being the Grade II listed barn at Baynards Green Farm located approximately 200m north of the Site. No other built heritage assets are located within 800m of the Site.
- 2.15 Based on the Environment Agency flood maps, the Site is shown to be located entirely within a Flood Zone 1. This means the Site is subject to a low risk of fluvial flooding (i.e. less than 1 in 1000-year annual probability). The majority of the Site is subject to a very low risk of flooding from surface water, although a localised area of land within the southern corner of the western Site parcel is subject to a medium risk of flooding from surface water. The Site is not subject to a risk of flooding from reservoirs. The Site does not contain any surface waterbodies.

¹ As defined by the Conservation of Habitats and Species Regulations 2010.

Figure 2.1: Environmental Sensitivities



3 Description of the Development

Overview of the Application

- 3.1 The detailed Development proposals are still being finalised and will be developed following further technical analysis as part of the EIA process and in consultation with CDC, Oxfordshire County Council (OCC), Highways England and other stakeholders.
- 3.2 The planning application will comprise two outline applications (eastern and western parcel), with all matters reserved except for access. For the purposes of the EIA, the Development will be defined by a suite of Parameter Plans accompanied by the design principles set out in a Development Specification and Design Code.
- 3.3 The precise description of Development has not been finalised, however is likely to include construction of:
- Up to circa 280,000 sqm GIA warehouse floorspace (Use Class B8) across four units with a clear internal height of approximately 18m and a ridge height of approximately 22m (no basement proposed);
 - Façade treatment likely to include a mix of flat panel composite and perforated aluminium cladding;
 - Creation of vehicular and pedestrian Site accesses off the B4100;
 - Internal roads, servicing, circulation and parking (approximately 1,400 car parking spaces);
 - Hard and soft landscaping works; and
 - Diversion of the existing public right of way.
- 3.4 Mitigation measures will be incorporated and designed into the Development to address the potential effects on the surrounding land uses. Technical design workshops are currently being undertaken as part of the EIA process to ensure that mitigation measures and enhancement opportunities are incorporated into the design parameters.
- 3.5 The Development will seek to retain habitats such as hedgerows where possible.
- 3.6 Scheme design will be influenced by market information from agents in due course. Subject to planning, an end-occupier has signed up to the Development.

Construction

- 3.7 At this stage, construction of the Development is expected to commence with enabling works in 2022, with construction expected to be complete in 2025. This represents a build out period of circa 3 years.
- 3.8 The Applicant has committed to undertaking construction works in line with a Construction Environmental Management Plan (CEMP) as a means of avoiding, reducing or mitigating potential adverse effects of construction on the environment and local community. The CEMP will be subject to approval by CDC and secured through an appropriate planning condition.

4 EIA Methodology

Introduction

- 4.1 The ES will be prepared in compliance with the EIA Regulations. Reference will also be made to current EIA good practice guidance. This section outlines the general approach to the EIA process.

Consultation and Scoping Opinion

- 4.2 A programme of consultation with key stakeholders will be undertaken with statutory and non-statutory consultees throughout the Development design and in the lead up to the planning application. Key stakeholders include CDC, OCC, Highways England, the Environment Agency (EA), Defra and Historic England.
- 4.3 In line with the EIA Regulations, the ES will be 'based on' the Scoping Opinion provided by CDC. Each ES topic chapter will set out key points made during scoping correspondence between the project team and stakeholders and will explain how these have been addressed by the EIA process.

Alternatives

- 4.4 In accordance with the EIA Regulations, the ES will provide *"a description of the reasonable alternatives... relevant to the proposed project and its specific characteristics which have been considered by the Applicant and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects"*.
- 4.5 The ES will describe the reasonable alternatives to the Development which have been considered by the Applicant, including:
- The 'do-nothing' scenario - this will outline the consequences of no Development taking place and the Site remaining in its current form; and
 - Alternative designs – for example, alternative building layouts, building heights and massing, together with the justification for the selection of the final design.
- 4.6 Alternative sites have not been considered by the Applicant and as such will not be considered in the ES.

EIA Methodology

Significant Effects and Scope of the EIA

- 4.7 As highlighted by the UK Government Online Planning Practice Guidance⁵ (PPG), where considering the scope of EIAs, local planning authorities *"should limit the scope of the assessment to those aspects of the environment that are likely to be significantly affected"*.
- 4.8 With respect to identifying the likely significant environmental effects associated with the Development, consideration is given to potential effects associated with the construction phase and completed Development. These effects could be both beneficial and adverse and deemed to be 'significant' on the basis of:

- The value / importance of the resources and receptors that could be affected;
 - The predicted magnitude of environmental change and / or impact experienced by these resources and receptors, accounting for their size, duration and spatial extent;
 - The susceptibility or sensitivity of resources / receptors; and,
 - Options for avoiding, reducing, offsetting or compensating for any potentially significant adverse effects and the likely effectiveness of such mitigation measures.
- 4.9 The proposed scope of the EIA has been defined through desktop study and surveys, a review of the emerging Development proposals and professional judgement from the consultant team.
- 4.10 Sections 5 to 12 set out those aspects of the environment that are likely to be significantly affected by the Development. Potential effects deemed to be non-significant within topics are also set out within these sections. Section 14 sets out those aspects of the environment that are unlikely to be significant and therefore will be scoped out of the ES.

Determining the Significance of Effects

- 4.11 Determining the significance of environmental effects is intended to inform decision making. The significance of effects will be determined by specialists with reference to subject-specific criteria or, if unavailable, generic assessment criteria for each environmental topic being considered. These criteria will apply a common terminology, classifying whether the effects are major, moderate or minor, as well as, adverse, negligible or beneficial, temporary or permanent, in line with standard practice.

Study Area

- 4.12 The study area for each topic will be based on the geographical scope of the potential for significant effects relevant to the topic or the information required to assess the likely effects, as well as topic-specific guidance and consultation with stakeholders. Further detail is provided in the technical sections (Sections 5-12).

Baseline and Future Baseline Conditions

- 4.13 Baseline environmental conditions need to be established to enable an accurate assessment of potential changes to such conditions that may occur and to assess the likely significant environmental effects of the Development. Understanding baseline conditions is also important for the identification of the most appropriate mitigation which could be employed to reduce any likely significant adverse effects.
- 4.14 Baseline conditions will be taken as the current conditions on the Site. Baseline information is already being gathered through desk-based research and Site surveys in 2021 to define and describe the existing environmental characteristics and receptors for each environmental topic that will be provided within the ES. Where environmental information and data is not available for 2021, it will be necessary to use data which pre-dates 2021. The ES will set out what year the baseline data is sourced from.
- 4.15 In addition to the current baseline conditions, the EIA Regulations require an outline of the likely evolution of the baseline condition without implementation of the Development, as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge (i.e. the 'future baseline'). The future baseline will also take into account other developments that will be built

out that may affect the Site. The future baseline conditions will be described in each chapter of the ES.

Construction Assessment

- 4.16 An indicative construction programme for the Development will be presented in the ES. This will include all aspects of the construction phase including site preparation, construction, fit-out and landscaping works.
- 4.17 The ES will outline the main activities associated with the construction works, together with the likely duration of each activity. Topics which have identified likely significant effects from construction activities are outlined in the following sections. The Applicant has committed to a CEMP, which will be subject to approval by CDC and secured through an appropriate planning condition. Mitigation measures for inclusion in the CEMP will be set out in the ES to avoid, reduce or mitigate potential adverse effects.
- 4.18 In line with Institute of Environmental Management and Assessment ('IEMA') best practice⁶, the CEMP can be defined as 'tertiary' mitigation which is defined as that which *"will be required regardless of any EIA assessment, as it is imposed, for example, as a result of legislative requirements and/or standard sectoral practices. For example, considerate contractor practices that manage activities which have potential nuisance effects"*. As such, the CEMP is considered to be standard practice in the management of the construction works of the Development. The CEMP will be taken into account and form the basis of the assessment of likely significant effects. As such, any effects that might have arisen without this mitigation will not be identified as 'likely effects', as there should be no potential for them to arise. This should result in a simpler and more proportionate ES.
- 4.19 The assessment of construction effects will be based on an assumed 'peak year' of construction activity as a reasonable worst case, when volumes of construction vehicles and on-site activities are likely to be at their highest. At this stage, this assumed to be 2023 although this may be subject to change.

Completed Development Assessment

- 4.20 The likely significant effects of the completed Development will be assessed for the anticipated year of completion. Based on commencement of enabling works in 2022 and a delivery programme of approximately 3 years, the year of completion for the Development is assumed to be 2025. The assessment will assume that the Development is fully completed and occupied. Even though full occupation may not occur until later, this is unlikely to affect the likely significance of effects.
- 4.21 The completed Development assessment will be based on the Parameter Plans, Development Specification and Design Code submitted for approval with the planning application. The following assessment scenarios will be assessed within the technical assessments.

Table 4.1: Assessment Year and Scenarios

Assessment Year	Assessment Phase	Scenario Description
2020/2021	Baseline	Baseline conditions
2023	Construction	Peak construction year

Assessment Year	Assessment Phase	Scenario Description
2025	Future Baseline	Without Development
	Completed Development	With Development

Cumulative Effects Assessment

- 4.22 Cumulative effects can occur either when different effects from the Development interact to exacerbate effects on sensitive receptors ('effect interactions'), or, when the magnitude of an effect is exacerbated by other future neighbouring developments, thus creating a more significant effect on a receptor.
- 4.23 Further details on Effect Interactions is provided in Section 13 of this report.
- 4.24 The cumulative effects of the Development and other cumulative schemes in the local area is considered on a topic-by-topic basis with the cumulative assessment methodologies and the cumulative effects reported in a subsection of each ES chapter, along with mitigation measures where necessary.
- 4.25 A set of screening criteria has been developed to identify which cumulative schemes in the area should be subject to assessment, as follows:
- Expected to be built-out at the same time as the Development and with a defined planning and construction programme;
 - Spatially linked to the development (within 1km of the Site boundary);
 - Considered an EIA development and for which an ES has been submitted with the planning application;
 - Those which have received planning consent from the planning authority (granted or resolution to grant) and / or,
 - Introduces sensitive receptors near to the Site (but are not EIA development).
- 4.26 A planning search was undertaken considering the above criteria and through discussion with the project transport consultant. A hybrid planning application for a site at Heyford Park for construction of up to 1,175 new dwellings, 35,175m² employment space, retail floorspace and new medical and educational facilities (ref: 18/00825/HYBRID) is considered. The approved NW Bicester development for outline planning permission for the erection of up to 53,000 sqm of floor space to be for B1, B2 and B8 (use classes) employment and 150 residential units (ref: 14/01675/OUT as amended by NMA 19/00347/OUT and MMA 20/03199/OUT) is also identified. These will be included in the transport modelling due to the potential for cumulative traffic impacts, subject to agreement from OCC and Highways England, and has the potential for indirect implications for the air quality. The socio-economics assessment will consider the Heyford Park scheme given its location within the same ward, and the LVIA will also provide cumulative assessment of this development scheme given its proximity to the Site.
- 4.27 A scheme recently approved at appeal, referred to as 'Land to the east of M40 and south of A4095, Chesterton, Bicester, Oxfordshire' (appeal ref: APP/C3105/W/20/3259189) for the provision of a new leisure resort incorporating waterpark, family entertainment, hotel,

conferencing facilities and restaurants with associated access, parking and landscaping will be considered as part of the cumulative assessment going forward.

- 4.28 Figure 4.1 illustrates the cumulative schemes that will be considered in this assessment.
- 4.29 Following legal advice, the Oxfordshire Strategic Rail Freight Interchange (SRFI) proposal will not be considered within any cumulative assessments. The DCO proposal is at an early stage and cannot be reasonably considered to be “committed”², therefore there is no requirement to consider it for cumulative assessment purposes for the Development that targets submission end of August 2021. Engagement with SRFI developers is likely to ensure the Development is taken into account in the SRFI Scheme moving forwards.
- 4.30 It is not considered that the Development would have significant cumulative effects in relation to other emerging and consented schemes in the local area in respect of noise and vibration and archaeology. Cumulative assessment will not be provided for these topic assessments.

Structure of the ES Technical Chapters

- 4.31 Each environmental topic scoped into the EIA will be structured as set out in Appendix A.

Scoping Summary

- 4.32 This scoping exercise has been informed by desk-based research, physical surveys, professional judgement and other information available for the Site. Table 4.2 provides a summary of the scoping exercise.
- 4.33 In accordance with the EIA Regulations, all assessments will be prepared by consultants considered to have competent expertise in their discipline.

Table 4.2: EIA Scoping Summary

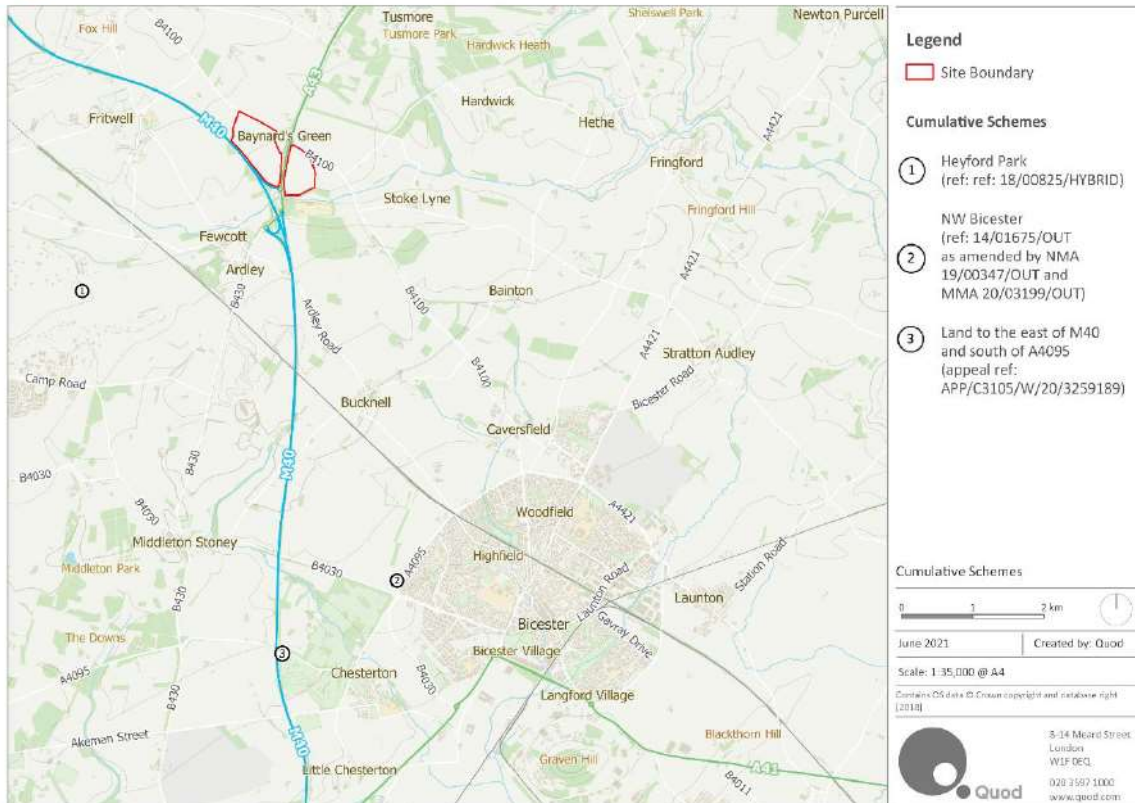
Technical Topics	Potential Significant Construction Effects	Potential Significant Operational Effects	Comments
Socio-economics	✓ - T	✓ - P	ES Chapters to be prepared
Transport and Access	✓ - T	✓ - P	
Air Quality	✓ - T	✓ - P	
Noise and Vibration	✓ - T	✓ - P	
Archaeology	✓ - P	x	
Ecology and Biodiversity	✓ - T & P	✓ - P	
Landscape and Visual Impacts	✓ - T	✓ - P	
Climate Change and Greenhouse Gases	✓ - T	✓ - P	
Human Health	x	x	Topics scoped
Water Resources, Flood Risk & Drainage	x	x	

² As defined by the Town and Country Planning (EIA) Regulations (2017): Schedule 4, Regulation 5e.

Technical Topics	Potential Significant Construction Effects	Potential Significant Operational Effects	Comments
Built Heritage	X	X	out of the ES
Ground Conditions and Contamination	X	X	
Agriculture, Land and Soils	X	X	
Waste	X	X	
Wind Microclimate	X	X	
Vulnerability to Major Accidents or Disasters	X	X	
Energy and Sustainability	X	X	
Utilities	X	X	
Light Pollution	X	X	
Daylight, Sunlight and Overshadowing (DSO) and Solar Glare	X	X	
Telecommunications	X	X	
Electromagnetic Fields	X	X	

Key: ✓ Likely Significant Effect / x No Likely Significant Effect. T – Temporary Effect / P – Permanent Effect

Figure 4.1: Cumulative schemes



5 Socio-Economics

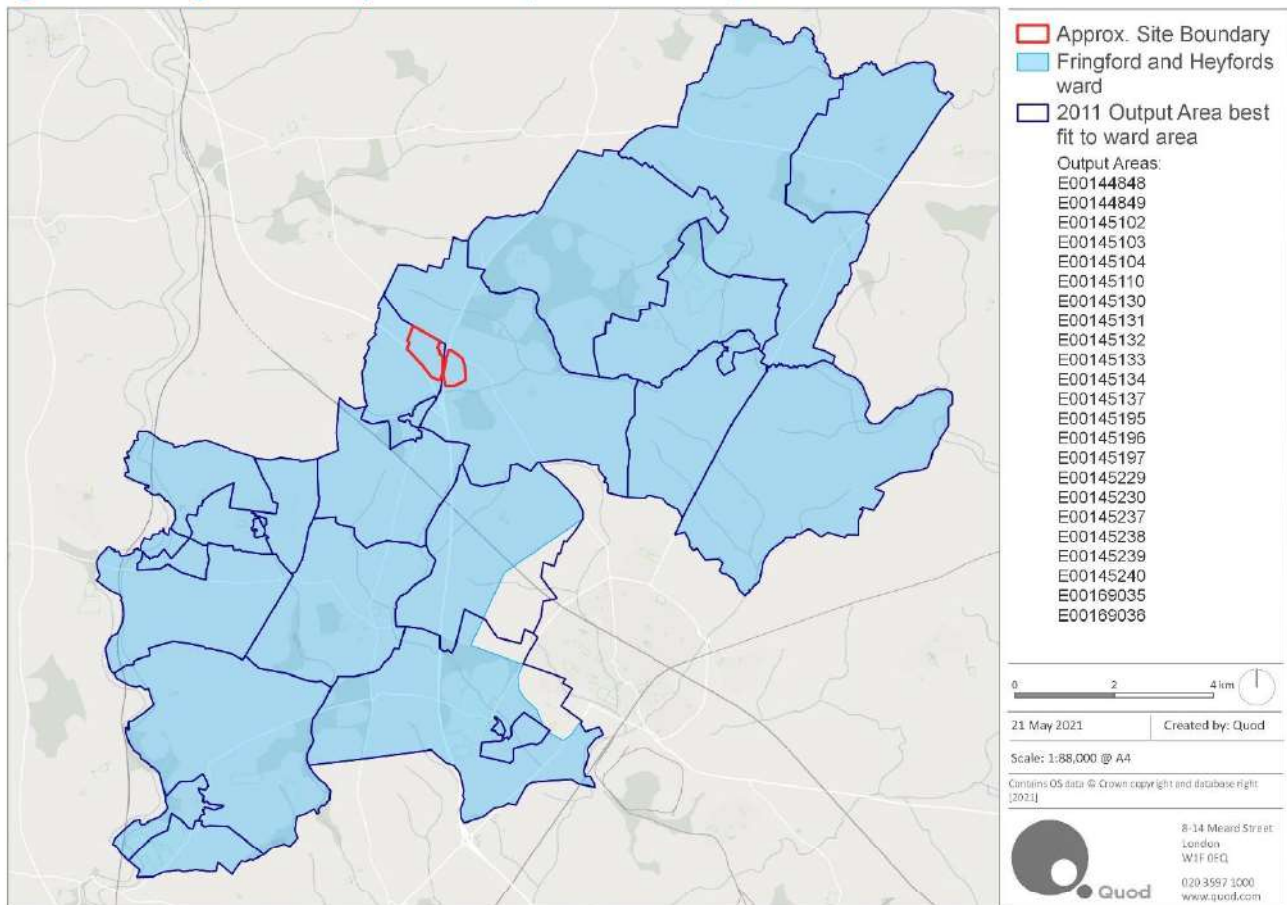
Study Area and Spatial Scope

- 5.1 The Site is located within Fringford and Heyfords ward within the administrative area of CDC.
- 5.2 The baseline assessment will consider relevant social and economic conditions for the Local Area (defined as 'Fringford and Heyfords ward') which will be put into context against the wider district (CDC), county (Oxfordshire) and regional profile.

Baseline Conditions

- 5.3 The Site is currently in agricultural use. At present there are limited employment opportunities on the Site, restricted to the current agricultural activities on the land.
- 5.4 The socio-economic baseline will draw on a range of data sources to establish the prevailing socio-economic conditions focussing on population, deprivation, employment and the economy. The sources of this information will include (but not be limited to):
- 2011 Census⁷;
 - ONS Mid-Year Population Estimates (2020)⁸;
 - Business Register and Employment Survey (2019)⁹;
 - Claimant Count (2021)¹⁰; and
 - Indices of Multiple Deprivation (IMD) (2019)¹¹
- 5.5 Where more up-to-date data is available than stated here, this will be used.
- 5.6 Ward boundaries in Cherwell district were revised in 2016, therefore Census 2011 data for the Local Area will be based on a best-fit of output areas to the new ward area as shown in Figure 5.1.

Figure 5.1: Fringford and Heyfords ward (the 'Local Area')



Key Receptors

5.7 The following receptors are considered sensitive to potential likely significant effects arising from the Development:

- The construction industry and its employees; and
- The local economy and labour market i.e. local businesses and economically active residents.

Future Baseline

5.8 The future baseline will consider population projections³ for the years 2022 to 2025, when the Development is anticipated to be complete and operational.

Assessment Scope

Likely Significant Effects

Construction

5.9 The assessment will consider the following potential likely significant effects:

³ Office for National Statistics (2020) Population Projections – 2018 based

- Generation of temporary employment during the construction period most likely at a local and regional level.

Completed Development

5.10 The assessment will consider the following potential likely significant effects:

- Generation of employment opportunities.

Non-Significant Effects

Construction

5.11 Indirect construction effects such as supply chain effects and spending by construction workers are not likely to be significant. The number of construction workers will fluctuate on-site over the course of the construction programme, as such it will not be possible to quantify the level of spending captured locally. It is also not possible to quantify supply chain and procurement effects as the level of information required will not be available at the planning application stage. The spatial context of supply chain effects can range from local to national and even international depending on the supply and sourcing of construction materials. Whilst these effects are likely to be beneficial, they are unlikely to be significant and further assessment will not be provided.

Completed Development

5.12 The Development will generate economic benefits for the local economy through indirect spending by employees accommodated by the Development. Shops and services within the Local Area may capture some of this spending, however, given the Site is not in close proximity to a local centre, the effect is unlikely to be significant and further assessment will not be provided.

Cumulative Assessment

5.13 The cumulative assessment will assess the identified cumulative scheme at Heyford Park and will consider the same likely significant effects as identified for the Development (outlined above). However, this will not be assessed in the same level of detail as the main assessment.

Assessment Methodology

- 5.14 The assessment of potential likely significant effects will be undertaken using the following methodology and/or tools:
- Construction-related employment effects will be assessed using the Construction Industry Training Board (CITB) Labour Forecasting Tool¹²; and
 - Direct operational employment effects will be assessed by applying standard job density ratios from the Homes and Communities Agency Guidance (2015)¹³.

6 Transport and Access

Study Area and Spatial Scope

- 6.1 The study area of the Development will be defined by the journey to work catchment area of the Site (thirty-minute drive time). Walking, cycling and horse-riding (WCHAR) will be appraised within a five-kilometre catchment area in accordance with current Design Manual for Roads and Bridge (DMRB) guidance¹⁴.
- 6.2 The extent of detailed operational and safety appraisal of the road network will be reviewed based on the nature of forecast change in traffic patterns within the study area and agreed with the respective highway authorities. This will include:
- The B4100 between Souldern and Bicester;
 - A43 between M40 Junction 10 and Tusmore;
 - M40 Junction 10; and
 - Baynards Green (A43 – B4100) Roundabout.

Baseline Conditions

- 6.3 The Site is dissected by the A43. It is bound by the B4100 to the north and the M40 to the south with two roundabouts adjacent to the Site boundary at the junction of both roads with the A43. Junction 10 of the M40 is to the south of the Site.
- 6.4 The Definitive Map and Highways England Highway Boundary mapping will be obtained to confirm highway extents and PRoWs within and adjacent to the Site. Ordnance Survey mapping will also inform the WCHAR appraisal with respect to the wider assessment of PRoWs.
- 6.5 Baseline traffic flow conditions will be based on traffic model data (where available), published traffic survey results (including WebTRIS and Department for Transport (DfT) count data), commissioned traffic surveys, and published transport studies (including relevant Transport Assessments for other committed development sites).
- 6.6 The road safety appraisal will be informed by recorded incidents reported within STAT19 accident data for a period of at least five years. This will be supported by causality data obtained from OCC.
- 6.7 There are no existing bus stops in the vicinity of the Site, however there are existing bus services operating on B4100 and A43 which provide connections to Bicester and Brackley. Published public transport information will be obtained from the bus companies to establish the existing service pattern.
- 6.8 Baseline journey to work trip patterns will be based on published 2011 Census data. Demand will be assigned to the local road network using ESRI's ArcGIS software to route trips onto the road network based on typical network conditions.

Future Baseline

- 6.9 Future baseline traffic demand forecasts will be based on the National Trip End Model as reported through TEMPRO, traffic models developed by the highway authorities and published transport studies including Transport Assessments for other development sites.

Key Receptors

- 6.10 The key receptors are properties (residents and businesses) adjacent to the Site and users of the transport network affected by the Development (including drivers, public transport passengers, cyclists and pedestrians).

Assessment Scope

Likely Significant Effects

- 6.11 The Institute of Environmental Management and Assessment (IEMA) Guidelines for the Environmental Assessment of Road Traffic¹⁵ sets out the environmental impacts that could be considered as potentially significant whenever a new development is likely to give rise to changes in traffic flows:

- Severance;
- Driver delay;
- Pedestrian delay and amenity;
- Accidents and safety; and
- Hazardous loads.

- 6.12 In accordance with the IEMA Guidelines, the following rules are applied to define the scale and extent of the assessment:

- Rule 1: Include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).
- Rule 2: Include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Construction

- 6.13 The assessment will consider the likely significant environmental effects from construction traffic on the capacity and safety of the surrounding road network. These are likely to be localised to the Site and relate primarily to road construction activities during which traffic management is likely to be required. The assessment will also consider the implications for public transport and pedestrian and cycling movements.

Completed Development

- 6.14 The assessment will consider the likely significant environmental effects from the completed Development traffic on the capacity and safety of the surrounding road network, as well as implications for public transport, pedestrian and cycling movements. The potential impacts on PRowS within the Site will be assessed, including the effect of any changes to routes.

Cumulative Assessment

- 6.15 The Development will be assessed against a baseline that will take account of the traffic implications of development more widely within the region. As such, the cumulative assessment will explicitly include the North West Bicester Eco-town planning allocation and the proposed development at Heyford Park (see Section 3 of this report for further details), along with any other planned developments agreed with the highway authorities through the scoping process for the Transport Assessment. Wider growth within the region from planned growth will be represented by growth forecasts based on TEMPRO.

Non-Significant Effects

Completed Development

- 6.16 The Site is not located in close proximity to any Conservation Areas, with one Grade II listed heritage asset in proximity to the Site, to the north on Baynards Green Farm adjacent to the A34. Other heritage assets of note are located within nearby local settlements (e.g. Fewcott) over 50m from the Site boundary and strategic road network. Operational HGV traffic would be routed via the strategic road network and avoid local roads. Therefore, it is not anticipated that the Development would result in traffic-related effects on heritage assets.
- 6.17 It is not anticipated that the Development will require carriage of materials listed on “The Carriage of Dangerous Goods” in the UK. As such, an assessment of traffic-related environmental effects with respect to Hazardous Loads and Heritage and Conservation, which are set out in the IEMA Guidelines for EIA can be scoped out. Traffic-related effects in terms of ecology, dust, dirt and noise and vibration are unlikely to be significant but will be considered elsewhere in other chapters of the ES.

Assessment Methodology

- 6.18 The scope of the Transport Assessment will be agreed with OCC and Highways England as relevant transport authorities. It is intended that a Framework Travel Plan, that will set out the sustainable travel policies for the Site, will be developed in parallel to the Transport Assessment.
- 6.19 The appraisal will be undertaken in accordance with the following technical guidance:
- DfT Circular 02/2013 Strategic Road Network¹⁶ and the delivery of sustainable development;
 - IEMA Guidelines for the Environmental Assessment of Road Traffic¹⁵;
 - Design Manual for Roads and Bridges technical guidance (CD109, CD116, CD122 CD123, CD143, CD195)
 - LA 104 Environmental assessment and monitoring;
 - GG101 Introduction to the Design Manual for Roads and Bridges (DMRB);
 - GG104 Requirements for safety risk assessment;
 - GG119 Road Safety Audit;
 - GG142 Walking, Cycling and horse-riding assessment and review;

- Manual for Streets 2;
 - FTA Designing for Deliveries; and
 - TRICS User Guide.
- 6.20 Development trips will be forecast informed by the TRICS travel database and bespoke travel surveys. TRICS is a database of trip generation from a wide variety of land uses (retail, employment, leisure etc) across the UK. The database provides an estimate of likely trip generation to and from a land use by comparing it with trip generation from existing comparative sites of the same land use.
- 6.21 Traffic will be assigned to the local road network using ESRI software on an all or nothing basis between the Site and population weighted centroids at a middle super output area level (unit of geographic area with an average population 7200). Operational assessments will be undertaken using appropriate industry standard software packages including TRL's Junctions and JCT's LINSIG.
- 6.22 Access to the Site by pedestrians and cyclists will be assessed through the WCHAR assessment process (as per GG142). An independent road safety audit will be carried out and appended to the Transport Assessment.
- 6.23 The scenarios to be tested will be as per Table 4.1 relating to baseline, construction and operation. Additional scenarios, if required by planning or highway authorities, will be assessed within the Transport Assessment. The assessment of potential likely significant effects will be carried out in accordance with the methodology set out in LA104 and IEMA Guidance.

7 Air Quality

Study Area and Spatial Scope

- 7.1 The study area will focus on where the air quality impacts of the Development could be significant. For construction dust impacts, this is defined in Institute of Air Quality Management (IAQM) 'Guidance on the assessment of dust from demolition and construction'¹⁷ as within 350 m of a boundary of the construction site, and within 50m of the roads affected by the trackout of dust and dirt onto the highway by construction vehicles.
- 7.2 The study area for the assessment of impacts of road traffic emissions, during both the construction and operational phases, will be determined by where the increases in road traffic exceed the following screening criteria, defined in the Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) Guidance on 'Land Use Planning and Development Control: Planning for Air Quality'¹⁸:
- An increase in light duty vehicle traffic of 500 Annual Average Daily Traffic (AADT), or 100 AADT within or adjacent to an Air Quality Management Area (AQMA).
 - An increase in heavy duty vehicle traffic of 100 AADT, or 25 AADT within or adjacent to an AQMA.
- 7.3 Receptors for the assessment will be identified based on the road links where a potentially significant change in traffic is predicted. These are likely to be residential properties in proximity to the Site boundary, the M40, the A43 and the B4100 roads.

Baseline Conditions

- 7.4 The Site is not located within or in the vicinity of an AQMA, the nearest of which is located in Bicester, approximately 6.5 km to the south east of the Site. This AQMA was declared for exceedances of the annual mean nitrogen dioxide (NO₂) objective.
- 7.5 CDC carries out monitoring of NO₂ concentrations at 42 diffusion tube sites. The nearest monitoring site is located approximately 1km to the south of the Site, on the B430 road in Ardley. Annual mean concentrations of NO₂ were well below the air quality objective (40 µg/m³) in 2019 (24 µg/m³). CDC does not undertake any monitoring of particulate matter (PM₁₀ or PM_{2.5}) in the district.
- 7.6 Receptors for the assessment will be identified based on the road links where a potentially significant change in traffic is predicted. These are likely to be residential properties in proximity to the Site boundary, the M40, the A43 and the B4100 roads.

Key Receptors

- 7.7 Receptors for the assessment will be identified based on the road links where a potentially significant change in traffic is predicted. These are likely to be residential properties in proximity to the Site boundary, the M40, the A43 and the B4100 roads.

Future Baseline

- 7.8 Future year (2025) background pollutant concentrations will be predicted using the national background maps, which predict concentrations each year up to 2030. Future baseline pollutant concentrations at sensitive receptors will be predicted using dispersion modelling, using background concentrations and emissions factors defined by Defra.

Assessment Scope

Likely Significant Effects

Construction

- 7.9 The potential impacts of dust and PM₁₀ during construction will be assessed in line with the IAQM's 'Guidance on the assessment of dust from demolition and construction', which will be used to inform appropriate mitigation measures to be employed during the construction phase. The assessment will consider potential dust and particulate emissions from demolition, earthworks, construction and trackout.
- 7.10 The potential significant effects of construction traffic emissions will include changes to NO₂, PM₁₀, and PM_{2.5} concentrations that may arise at existing sensitive receptors. Construction traffic generation will be screened against the EPUK/IAQM criteria, and a detailed assessment of impacts undertaken where required.

Completed Development

- 7.11 The potential significant effects to be assessed will include changes to NO₂, PM₁₀, and PM_{2.5} concentrations that may arise at existing sensitive receptors due to emissions from additional traffic from operation of the Development. Operational traffic generation will be screened against the EPUK/IAQM criteria, and a detailed assessment of impacts undertaken where required.

Cumulative Assessment

- 7.12 The assessment of cumulative schemes for this chapter will be based on the transport modelling scenario that underpins the Transport Assessment. As such it will provide a discrete assessment of potential cumulative effects in combination with the proposed development at Heyford Park.

Non-Significant Effects

Construction

- 7.13 It is expected that on-site plant and equipment will conform to existing emissions standards for non-road mobile machinery, and will comply with the measures within the CEMP, which is expected to be secured by planning condition. With these measures in place, it is unlikely that exhaust emissions from construction machinery will give rise to significant effects on air quality.

Completed Development

- 7.14 At this stage of design, the energy and sustainability strategy for the Development has not been confirmed, however it is unlikely to incorporate significant amounts of centralised combustion plant, such as centralised boilers or Combined Heat and Power (CHP) plant. It is therefore unlikely that significant effects will arise from the provision of heating and hot water within the Development, and all proposed plant will be screened in line with the EPUK/IAQM

guidance. Furthermore, opportunities for low emission and renewable energy will be fully detailed in the energy strategy to be submitted with the planning application. For these reasons, pollutant emissions from energy plant are unlikely to be significant and will not be considered in the ES.

Assessment Methodology

7.15 Consultation will be undertaken with the Environmental Health Officer at CDC in order to agree the proposed approach to the air quality assessment. It is anticipated that the methodology will include:

- Defining baseline conditions by identifying relevant monitoring data and existing sources of pollutants in the area. This will include a review of CDC's air quality review and assessment reports, a review of nearby industrial operations using Defra's Pollutant Release and Transfer Register¹⁹, and defining background concentrations using Defra's background maps²⁰.
- Assessing the risk of construction dust impacts using the methodology outlined in the IAQM's 'Guidance on the assessment of dust from demolition and construction', in order to determine the appropriate mitigation measures to employ during the construction phase.
- Assessing the impacts of road traffic using the ADMS-Roads dispersion model, using traffic data provided by the project transport consultant. This will include the assessment of the likely effects of changes in NO₂, PM₁₀ and PM_{2.5} concentrations at existing receptors along the local road network affected by the Development. Concentrations will be predicted for the baseline year (2019) and future year (2025) with and without the Development. Emission factors will be defined using Defra's latest Emissions Factors Toolkit (EFT). Model verification will be carried out using 2019 meteorological data and pollutant concentrations.
- The significance of air quality impacts and effects will be determined with reference to EPUK/IAQM guidance 'Land Use Planning and Development Control: Planning for Air Quality'¹⁷ and professional judgement. Where significant air quality effects are identified, appropriate mitigation measures will be proposed.

8 Noise and Vibration

Study Area and Spatial Scope

- 8.1 The spatial extent of the study area for the construction noise and vibration assessment is proposed to be consistent with those adopted in recent major infrastructure projects, including High Speed Two (HS2) Phases 1 and 2a and Heathrow Expansion:
- 300m: noise from construction activities, such as material movements, earthworks, ground improvement and piling, crushing and breaking;
 - 100m: ground-borne vibration effects from high energy construction activities, including piling works; and
 - 1dB change: noise effects from construction vehicle movements to and from the construction site likely to result in a change of 1 decibel (dB) $L_{Aeq,T}$ or greater.
- 8.2 The spatial extent of the study area for the operational road traffic noise assessment is based on the extent of noise effects from operational road traffic to and from the Development likely to result in a change of 1dB $L_{Aeq,T}$ or greater during either the day or night-time periods. This is based on the distance at which the noise exposure could exceed the relevant daytime and night-time Lowest Observed Adverse Effect Level (LOAEL); this is the level of noise exposure above which adverse effects on health and quality of life can be detected.

Baseline Conditions

- 8.3 The baseline noise conditions at the Site and the nearby noise-sensitive receptors, including the residential properties to the north and hotel to the south east, are likely to be dominated by road traffic noise from the M40 and A43, and to a lesser extent the B4100.
- 8.4 An understanding of the baseline noise environment will be based on the results of a noise survey.

Key Receptors

- 8.5 The assessment will consider the key potential noise and vibration effects associated with the Development. It is anticipated that the assessment will consider the likely significant effects of the Development on:
- Residential receptors – at nearby dwellings (including Baynards House and Medkre), communities and open areas; and
 - Non-residential receptors – including the Travelodge hotel to the south and the potentially sensitive commercial premises to the north.
- 8.6 The closest dwellings to the Development are the residential receptors adjacent to the north east of the western parcel – Baynard House and Medkre – and the closest non-residential receptor is the Travelodge hotel to the south of the eastern parcel.

8.7 The baseline noise survey will include unattended measurements of the existing ambient noise levels at a minimum of two locations, together with additional spot measurements as required. The unattended measurements will be undertaken for a period of up to 24 hours, including:

- A location to the north of the Site, representative of Baynard House and Medkre; and
- A location to the south of the Site, representative of the Travelodge hotel.

8.8 The measurement positions will be agreed with a representative of CDC's Environmental Health Department.

Future Baseline

8.9 Without the Development, baseline noise levels are likely to experience a gradual increase over time, primarily due to growth in road traffic. On low speed roads, changes in car technology may potentially offset some of the expected noise level increases due to traffic growth.

8.10 Noise generated from tyre-road interaction dominates on higher speed roads therefore expected growth in road traffic is likely to increase ambient noise levels regardless of changes in technology.

Assessment Scope

Likely Significant Effects

Construction

8.11 The assessment will consider the following potential likely significant effects:

- Noise effects from construction activities; and
- Noise effects from construction vehicle movements to and from the Site.

Completed Development

8.12 The assessment will consider the following potential likely significant effects:

- Noise effects associated with the operation of the Development; and
- Noise effects from Development-related traffic.

Cumulative Assessment

8.13 The assessment of road traffic noise will be based on the transport modelling scenarios that underpin the Transport Assessment and which include committed developments. As such it will provide an assessment of the potential cumulative effects of road traffic noise together with other committed schemes, including Heyfords Park.

8.14 In terms of operational noise, no committed developments have been identified which could lead to any potentially significant cumulative effects and therefore it is not proposed to address cumulative effects in the assessment.

Non-Significant Effects

- 8.15 The principal contractor(s) will ensure adherence to standard good site practice construction measures set out in a CEMP, such as hoarding, controls on use and maintenance of plant and machinery and hours of work.
- 8.16 Ground-borne vibration effects from construction and operational road traffic on new, altered or existing roads are not expected, as roads are assumed to have a well-maintained surface and would not be a significant source of vibration and are therefore scoped out. It is also anticipated that operation of the proposed development would not involve any significant sources of vibration. Therefore, operational vibration has been scoped out of the assessment.

Assessment Methodology

Construction

- 8.17 The assessment of construction activity noise will be based upon British Standard 5228-1:2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites. Noise' (BS 5228, 2014)²¹. Significance criteria for construction noise will be selected by reference to existing ambient noise levels and the 'ABC' method which is described in Annex E of BS 5228 (2014)²⁰.
- 8.18 The noise exposure arising from changes in traffic flows on the existing road network will be calculated using the Department of Transport's 'Calculation of Road Traffic Noise' (CRTN, 1988)²² method, to derive the Basic Noise Level (BNL) at locations 10m perpendicular from the kerb. This enables a direct comparison to be made of the change in noise level as a result of the proposed development associated with particular sections of road. Significance criteria for road traffic noise will be selected by reference to Table 3.17 of Highways England Design Manual for Roads and Bridges, LA111 'Noise and vibration' (DMRB, 2020)²³.

Completed Development

- 8.19 The potential effects of operational noise from the Development, including from fixed plant and equipment, will be considered by reference to BS 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound' (BS 4142, 2019)²⁴. Reference will also be made to associated internal noise levels at nearby residential receptors where appropriate, and guidance presented within BS 8233 'Guidance on sound insulation and noise reduction for buildings' (BS 8233, 2014)²⁵.
- 8.20 Noise associated with changes in road traffic noise due to the Development will be assessed in accordance with the DMRB (2020)²² advocated assessment criterion.

9 Archaeology

Introduction

- 9.1 The likely significant effects of the Development on the buried archaeological assets that may be present on the Site will be assessed. Any buried archaeological assets form part of the Site's cultural heritage. A full assessment of the planning policy context at national, strategic and local level will be set out together with the relevant methodology and assessment criteria.

Study Area and Spatial Scope

- 9.2 The Study Area will comprise a 1km buffer from the Site boundary and will be agreed with the Oxfordshire County Archaeologist in their role as advisors to Cherwell District. A Written Scheme of Investigation for an Archaeological Desk Based Assessment has been submitted to OCC for approval and to agree the scope of the Desk Based Assessment. This Study Area is based on professional judgement and standard archaeological practice.
- 9.3 A programme of Geophysical Survey is being undertaken to inform the baseline conditions at the Site and has been agreed with the OCC Archaeologist. Geophysical surveys are designed to detect buried features and create a 'map' of subsurface anomalies, including potential archaeological anomalies. The survey will comprise of initial phases prior to crop height becoming a constraint, with additional phases post-harvest to infill areas of survey that are already constrained by crop.

Baseline Conditions

- 9.4 Archaeological heritage assets are recorded in national and/or local historic environment databases, such as the Oxfordshire Historic Environment Record (HER) and the Historic England National Heritage List. A Desk Based Assessment and Geophysical Survey will be undertaken to establish a suitable baseline. At present, the following baseline information can be presented.
- 9.5 In terms of relevant nationally designated heritage assets, no World Heritage Sites, Scheduled Monuments, Historic Wreck or Historic Battlefield sites have been identified either within the Site itself, or within 1km of the Site on the National Heritage List. The nearest such asset comprises a Scheduled Monument moated ringwork at Ardley Wood circa 1.4km to the south west.
- 9.6 A brief review of historic mapping and aerial photography suggests that the Site has comprised open land throughout its mapped history since at least the 18th century. No development has been undertaken within the Site, aside from very localised agricultural buildings, and the Site is shown as agricultural land on aerial photographs from 1945 and 2004 onwards. The Site therefore represents undeveloped land which will have been subject to widespread but shallow past ground disturbance as a result of plough activity. The potential for survival of archaeological remains, if present, is therefore considered to be good.

- 9.7 There is therefore the potential for survival of archaeological remains at the Site, which will be further informed by an upcoming Archaeological Desk Based Assessment and a programme of Geophysical Survey.

Key Receptors

- 9.8 Demolition of the small number of existing agricultural structures, followed by excavation to create foundations and service trenches for the new development could have an adverse impact upon any archaeological remains which may be present within the Site. This will be established through further phases of archaeological work.

Future Baseline

- 9.9 Baseline conditions for below ground archaeology at the Site are not likely to change unless the Site is subject to ground disturbance or redevelopment.

Assessment Scope

Likely Significant Effects

Construction

- 9.10 The Site will be reviewed for its below ground archaeological potential as part of an Archaeological Desk Based Assessment, informed by Geophysical Survey. This will include a review of below ground archaeological findspots, records and previous archaeological work within a 1km buffer study area from the Site. The assessment will form the baseline for agreeing an appropriate archaeological strategy for the Site, in accordance with archaeological industry guidelines and standards and feedback from CDC and their archaeological advisor at OCC.
- 9.11 It is considered that, based on no known knowledge of significant archaeology being present, that should any archaeological remains be present at the Site, these would most likely be of a local or possibly regional importance (Low to Medium).
- 9.12 The demolition and construction works associated with the Development will most likely have up to a direct, high adverse below ground magnitude of impact through machine stripping and the construction of new foundations and associated groundworks.
- 9.13 There is therefore the potential for significant effects during the construction phase in relation to possible below ground archaeological remains if present at the Site.

Completed Development

- 9.14 Any impacts and effects to buried archaeological remains will occur during the construction works. No impacts / effects will occur to buried archaeological remains on completion of the Development.
- 9.15 There are no relevant designated archaeological assets within the nearby area which may be subject to a setting impact as a result of the Completed Development.

Assessment Methodology

- 9.16 In line with the National Planning Policy Framework (NPPF)²⁶, local planning policies and industry standards and guidance, an Archaeological Desk Based Assessment will be prepared to establish the significance and value of known buried heritage assets, the potential for the presence of unknown buried heritage assets and to review the potential development impacts upon any such assets. This assessment will be informed by a programme of geophysical survey. These assessments and survey will establish the archaeological baseline conditions at the Site.
- 9.17 The importance of an archaeological heritage asset is based on existing statutory designations. For undesignated assets, the Secretary of State's non-statutory criteria for Scheduling Monuments²⁷, Historic England's Conservation Principles²⁸ and professional judgement are applied. The NPPF and the NPPG contain criteria for the assessment of the importance of archaeological heritage assets and these will be factored into the assessment.
- 9.18 Importance of relevant archaeological assets will be categorised as High (National), Medium (Regional), Low (Local), None, or Unknown/Uncertain and will require a qualitative judgement in line with relevant industry guidance and criteria.
- 9.19 There will be an assessment of the impacts of the construction of the Development on the identified archaeological resource. This will be followed by an assessment of the overall significance of effect upon archaeological assets, both before and after mitigation. The significance of effect reflects both the importance of the resource and the degree to which the resource would be impacted (i.e. magnitude of impact).
- 9.20 If required and subject to the results of archaeological evaluation work which will characterise the Site's archaeological potential and likely significance of remains if present, an appropriate mitigation strategy will be identified and discussed and agreed as appropriate. All work will be undertaken in consultation with the OCC Archaeologist, in their role as advisors to CDC. It is anticipated that such work could be reasonably secured by an appropriately worded planning condition.

10 Ecology and Biodiversity

Study Area and Spatial Scope

- 10.1 The Study Area is defined by the Zone of Influence (Zol) of the Development and is broadly confined to the Site itself and the immediate surrounding area. In accordance with good practice guidance⁴, likely effects that could occur at greater distances will be assessed with respect to international statutorily protected sites at up to 10km from the Site and national statutorily and non-statutorily protected sites up to 2km. In addition, likely effects to protected and priority fauna species at the Site will be considered, with data records on these species within the Site and within 2km of the Site used for contextual information.

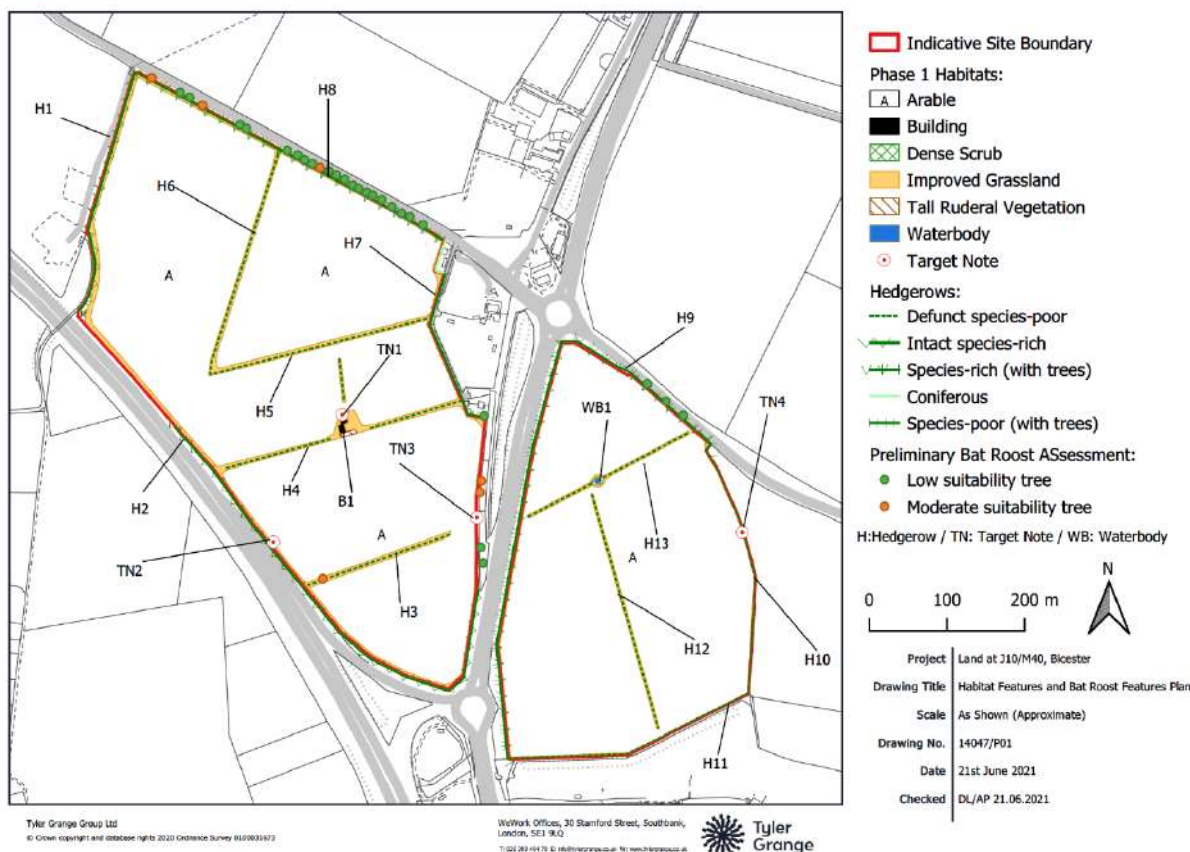
Baseline Conditions

- 10.2 An “extended” Phase I habitat survey and Preliminary Bat Roost Assessment (PBRA) were undertaken on the 16th November 2020 and the 23rd March 2021 (respectively) by an experienced field ecologist and member of CIEEM. A further badger survey, Habitat Suitability Index (HSI) and eDNA survey for Great Crested Newts (GCN) was undertaken by an experienced field ecologist and member of CIEEM on the 16th June 2021 in line with best practice guidance^{29, 30, 31}. Figure 10.1 illustrates identified habitat features.
- 10.3 These surveys identified that the Site comprises arable fields, bare ground, buildings, dry ditches, hedgerows (species rich hedgerows, defunct species-poor hedgerows and hedgerows with trees), improved grassland, a waterbody (WB1), scattered trees, dense and scattered scrub, and tall ruderal vegetation.
- 10.4 The western parcel is enclosed by the B4100 to the north, the A43 to the east and the M40 to the south with arable fields to the west and there is a strip of grassland between the M40 and the southern boundary and an area of immature woodland between the A43 and the eastern boundary. The eastern parcel is enclosed by the A43 to the west and the B4100 to the north, with arable fields to the east and an area of woodland (designated as a Habitat of Principal Importance (HoPI) and considered to be of district ecological importance) to the south⁵. Four waterbodies and a number of ditches were identified through aerial imagery within 250m of the Site boundary.
- 10.5 A desk study using Multi-Agency Geographic Information for the Countryside (MAGIC) Maps³² shows there are no statutory designated sites within or adjacent to the Site boundary.

⁴ CIEEM (2019). Guidelines for Ecological impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. CIEEM: Winchester

⁵ UK priority species and habitats are those subject to conservation action and referred to as Species of Principal Importance (SoPIs) or Habitats of Principal Importance (HoPIs). They are listed at Section 41 [42 in Wales] of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of both SoPIs and HoPIs.

Figure 10.1: Habitat features and bat roost features plan



- 10.6 There are no European designated sites⁶ of international importance within 10km of the Site. Two nationally important designated sites⁷ were identified within 2km of the site: Ardley Cutting and Quarry SSSI (located 1.3km south west of Site) and Ardley Trackways SSSI (located 1.8km south of the Site). There were no statutory sites of local ecological importance⁸ identified within the 2km search area.
- 10.7 The Site falls within the impact risk zone (IRZ) of Ardley Cutting and Quarry SSSI. This IRZ is for Discharges and Water Supply and requires the LPA to consult Natural England on likely risks from large infrastructure such as warehousing/industry where total net additional gross internal floorspace following Development is 1,000 sqm or more.
- 10.8 A 2km data search from Thames Valley Environmental Records Centre (TVERC) shows there are no non-statutory designated sites⁹ within or directly adjacent to the Site boundary. Six non-statutory sites are present within 2km of the Site including one Berkshire, Buckinghamshire and Oxfordshire (BBO) Wildlife Trust reserve and five Oxfordshire Local Wildlife Site (LWS), with the closest, Stoke Wood LWS, located 0.34km south of the eastern parcel.

⁶ European designated sites include designated and candidate Special Areas of Conservation (SAC), designated and potential Special Protection Areas (SPA) and wetlands of international importance (Ramsar sites).

⁷ Designated sites of national importance include Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR).

⁸ Designated sites of local importance include Local Nature Reserves (LNR).

⁹ Non-Statutory sites include Local Wildlife Sites (LWS), Sites of Importance for Nature Conservation (SINCs), Sites of Nature Conservation Importance (SNICIs) and County Wildlife Sites.

- 10.9 There are no areas of ancient woodland on or adjacent to the Site. The nearest ancient woodland is Stoke Wood located 0.32km south of the eastern parcel.
- 10.10 The species-rich hedgerows, hedgerows with trees, dense and scattered scrub, improved grassland, defunct species-poor hedgerow, dry ditches, scattered trees and waterbody are considered to be of local ecological importance. The arable fields, bare ground, buildings, and tall ruderal vegetation are considered to be of negligible ecological importance.
- 10.11 During the Phase I habitat survey and subsequent PBRA, evidence that the following protected and notable species/species groups are present on or directly adjacent to the Site was found:
- Badger *Meles meles*;
 - Barn owl *Tyto alba*;
 - Brown hare *Lepus europaeus*;
 - Nesting birds; and
 - Skylark *Alauda arvensis*.
- 10.12 In addition to the above species/species groups, the following protected and notable species/species groups have been considered as part of the scoping assessment due to the presence of suitable habitat on or adjacent to the site and/or as the data search returned records of these species/species groups within the Zol of the Development:
- Bats (roosting, foraging and commuting);
 - Great Crested Newt (GCN) *Triturus cristatus*;
 - Breeding birds;
 - Hazel dormouse; *Muscardinus avellanarius*;
 - Hedgehog *Erinaceus europaeus*; and
 - Reptiles.
- 10.13 Surveys for protected/notable species (badger, bats, barn owl, breeding birds and GCN) are ongoing or due to be completed, and so at this stage data for these species is not available to inform the scoping assessment.

Key Receptors

- 10.14 The Development falls within the impact risk zone (IRZ) of Ardley Cutting and Quarry SSSI for Discharges Water Supply.
- 10.15 The Development would lead to the loss of habitats of local importance, namely species-rich hedgerows, hedgerows with trees, dense and scattered scrub, improved grassland, defunct species-poor hedgerow, dry ditches, scattered trees and a waterbody.
- 10.16 The area of HoPI woodland directly south of the eastern parcel may be subject to impacts from construction activities, along with indirect effects such as lighting at the operation phase.
- 10.17 The Development would lead to the loss or disturbance to habitats that have the potential to support the following protected species/species groups:

- Badger *Meles meles*;
- Bats (roosting, foraging and commuting);
- Barn owl *Tyto alba*;
- Breeding birds (including Skylark *Alauda arvensis*); and
- Great Crested Newt (GCN) *Triturus cristatus*.

Future Baseline

- 10.18 It is considered that the future baseline conditions at the Site and in the surrounding area without the Development would be largely unchanged from those at present. The Site would most likely continue to be intensely managed for agriculture with very little change in the marginal/boundary habitats.

Assessment Scope

Likely Significant Effects

Construction

Habitats

- 10.19 The Development may lead to the loss of habitats of local ecological importance, namely species-rich hedgerows, hedgerows with trees, dense and scattered scrub, improved grassland, defunct species-poor hedgerow, dry ditches, scattered trees and a waterbody. The loss of these habitats would lead to a potential likely significant effect. Where possible, habitat loss will be avoided and where it is required, habitat loss will be compensated for through habitat creation and enhancement.
- 10.20 Habitat losses will be quantified and assessed through the use of an appropriate metric (namely DEFRA 2.0).
- 10.21 The woodland directly south of the eastern land parcel is designated as a HoPI. Therefore, construction activities could lead to a potential likely significant effect on this woodland, namely from dust, noise, light and chemical pollution, alongside damage to the trees/associated root protection areas. It is considered likely that significant effects can be avoided through the implementation of a CEMP but further arboriculture information is needed and therefore this receptor is scoped in on a precautionary basis.

Protected/Notable Species

Badger

- 10.22 The data search returned 13 records of badger.

- 10.24 It is considered that significant effects could be avoided through the use of a suitable mitigation strategy and associated licence from Natural England. Insufficient information is available at

this stage to determine whether a significant effect will/will not occur and therefore this receptor is scoped in.

Bats

- 10.25 The data search returned 12 records of bats within 2km of the Site.
- 10.26 The PBRA survey identified a barn (B1) and a tree with moderate potential to support roosting bats within the Site which would be lost to Development. These structures will require further emergence/re-entry surveys to determine if roosting bats are present. If roosting bats are present, the loss of the roost(s) at the construction phase could lead to a potential likely significant effect.
- 10.27 With regard to roosting bats, it is considered that significant effects could be avoided through the use of a suitable mitigation strategy and associated mitigation licence from Natural England. Insufficient information is available at this stage to determine whether a significant effect will/will not occur and therefore this receptor is scoped in.
- 10.28 The hedgerows, improved grassland, ruderal vegetation, scattered trees and scrub provide suitable commuting and foraging opportunities for bats and the Site is considered to have low potential for foraging/commuting bats. Therefore, the Site will require further survey for foraging and commuting bats. The loss of habitats suitable for foraging/commuting bats, and lighting associated with the construction phase of the Development, could lead to a potential likely significant effect.
- 10.29 A sensitive lighting strategy will be implemented that maintains dark and unlit areas on foraging/commuting habitats. The Site can be further enhanced for bats through the creation and enhancement of linear green infrastructure with a focus on increasing connectivity to the broader landscape.

Barn Owl

- 10.30 Evidence of barn owl was found in the barn on the western parcel. Further surveys are required to determine if the barn is an active breeding site. In the absence of further survey data, it is considered that the loss of the barn at the construction phase could lead to a potential likely significant effect.
- 10.31 It is considered that significant effects could be avoided through the use of a suitable mitigation strategy. Insufficient information is available at this stage to determine whether a significant effect will/will not occur and therefore this receptor is scoped in.

Breeding Birds

- 10.32 Skylark were observed on both parcels of the Site. The Site has habitats that could support other similarly protected breeding birds.
- 10.33 The Development could lead to losses of habitat that supports notable assemblages of breeding birds, particularly farmland specialists, such as skylark, given the nature of the habitats present.
- 10.34 In the absence of further survey data, it is considered that the loss of the arable and some boundary habitats at the Site may lead to a potential likely significant effect.

- 10.35 Breeding bird surveys will be undertaken in which bird species and their behaviour are mapped and an assessment is made of the significance of the species present and an estimate of the number of breeding territories. This information will be used to assess any potential adverse impacts on breeding birds and to design works to avoid, reduce or mitigate for any loss of habitat.
- 10.36 It is considered that significant effects could be avoided through the use of a suitable mitigation strategy. Insufficient information is available at this stage to determine whether a significant effect will/will not occur and therefore this receptor is scoped in.

Great Crested Newts

- 10.37 The data search returned 27 records of GCN within 2km of the Site. Waterbodies on and within 250m of the Site were identified using aerial imagery and were subject to a Habitat Suitability Index (HSI) assessment, in line with best practice guidance (results detailed in Table 10.1).

Table 10.1: Results of HSI Assessments

Waterbody ID	Location	Description: GCN Suitability	eDNA Survey Undertaken ¹⁰
WB1	Eastern Parcel	Small drainage pond: Poor	No
WB2	20m NE of the Western Parcel	Large garden fishpond: Below Average	Yes
WB3	35m NE of the Western Parcel	Small garden wildlife pond: Average	Yes
WB4	40m NE of the Western Parcel	Small garden fishpond: Poor	No
WB5	60m S of the Eastern Parcel	Large SUDS: Waterbody Dry	No
WB6	100m SE of the Eastern Parcel	Drainage Ditch: Waterbody Dry	No

- 10.38 The Development could lead to losses of some suitable GCN resting and foraging habitat including scrub and improved grassland. WB2 and WB3 have been eDNA surveyed, with results to be confirmed. If present, further surveys will be required to determine population size.
- 10.39 If GCN are present, a potential likely significant effect could occur due to the loss of limited areas of suitable GCN habitats. It is considered that significant effects could be avoided through the use of a mitigation strategy, together with a licence from Natural England to

¹⁰ GCN eDNA sampling is a survey technique in which water samples are analysed for the presence of GCN environmental DNA (DNA fragments from remnants of skin, mucous or faeces etc) to give a more rapid indication of GCN presence/likely absence.

undertake the work if survey results indicate this is necessary. Insufficient information is available at this stage to determine whether a significant effect will/will not occur and therefore this receptor is scoped in.

Completed Development

Designated Sites

- 10.40 The Development falls within the IRZ of Ardley Cutting and Quarry SSSI for Discharges Water Supply. Therefore, at this stage it is considered that impacts on water supply mechanisms to this SSSI could lead to a potential likely significant effect.
- 10.41 It is considered that significant effects could be avoided through iterative scheme design. Insufficient information is available at this stage to determine whether a significant effect will/will not occur and therefore this receptor is scoped in. Natural England will be consulted to determine whether impacts on the SSSI can be scoped out.

Habitats

- 10.42 The woodland directly south of the eastern land parcel is designated as a HoPI. Therefore, activities associated with the operation of the Development could lead to a potential likely significant effect on this woodland, namely through light pollution. A sensitive lighting strategy should be implemented that maintains a dark corridor along this boundary. Insufficient information is available at this stage to determine whether a significant effect will/will not occur and therefore this receptor is scoped in.
- 10.43 A suitable buffer (8-10m) should be installed between the Development and this woodland in order to mitigate any potential impacts on the woodland. Similar buffers (albeit smaller) should be implemented to buffer retained boundary features, namely hedgerows, from impacts at the operation phase of the Development.

Protected/Notable Species

Bats

- 10.44 At the operation phase, roosting/foraging and commuting bats could be subject to a potential likely significant effect from lighting associated with the operation phase of the Development, namely in areas where habitats suitable for foraging/commuting bats or roosting bats have been retained or created.
- 10.45 A sensitive lighting strategy would be implemented that maintains dark and unlit areas on foraging/commuting habitats. The Site can be further enhanced for bats through the creation and enhancement of linear green infrastructure with a focus on increasing connectivity to the broader landscape.

Cumulative Assessment

- 10.46 Two schemes requiring consideration for cumulative assessment have been identified (Heyford Park and NW Bicester) within the ZoI of the Development. Further information is required regarding some of the ecological receptors, and therefore these cumulative schemes will be scoped into, and assessed, within the ES Chapter.

Non-Significant Effects

Construction

Habitats

- 10.47 The Development may lead to the loss of habitats of negligible ecological importance, namely arable fields, bare ground, buildings, and tall ruderal vegetation. Whilst the loss of these habitats would not lead to a potential likely significant effect, the loss of these habitats will be quantified and assessed through the use of an appropriate metric (namely DEFRA 2.0).

Protected/Notable Species

Brown Hare

- 10.48 One record of brown hare was returned by the data search. The Site does support habitat that is suitable for brown hare, namely a matrix of open arable fields with marginal vegetation and hedgerows. The majority of these habitats would be lost to development, however, owing to the availability and extent of suitable habitat in the wider landscape it is considered that this will not represent a significant loss to the brown hare population that may be utilising the site, and as such they are scoped out of further assessment.
- 10.49 Retention and enhancement of boundary habitats and native-species soft-landscaping would provide further mitigation for brown hare by maintaining connectivity to the broader landscape.

Hazel Dormouse

- 10.50 No records of dormouse were returned by the data search. The Site does support limited areas of habitat that have the potential to support hazel dormice, including native species-rich hedgerows and hedgerows with trees as well as some limited woodland habitat immediately adjacent to the Site. However, given the largely arable nature of the Site, hazel dormouse are considered unlikely to be present and are scoped out of the assessment.
- 10.51 In any event, the majority of habitats suitable for dormice are to be retained under the current Development proposals.

Hedgehog

- 10.52 The habitats on Site have some limited potential to support hedgehog.
- 10.53 On a precautionary basis, to avoid killing/injuring hedgehogs during the construction phase, clearance of areas of suitable habitat should be undertaken under precautionary working methods, for example, phased strimming of long grass, scrub and tall ruderal vegetation and hand searches of brash (vegetation) or rubble piles, all of which should happen under an Ecological Clerk of Works (ECoW). Should any hedgehogs be encountered during site clearance or construction works, they will be safely removed by hand and placed in suitable and similar habitat to where originally located.
- 10.54 Based on the above, it is considered that potential likely significant effect on hedgehog will not occur and hedgehog are scoped out of the assessment.