our ref: **Q080535.C.002.EF**
email: elin.fradgley@quod.com
date: 17th January 2017

Caroline Ford
Development Management
Cherwell District Council
Bodicote House
Bodicote
Banbury
Oxfordshire
OX15 4AA

By Email

Dear Caroline,

CAVERSFIELD, BICESTER, OX27 8TG
TOWN & COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 – REGULATION 6 – REQUEST FOR A SCREENING OPINION

a) Introduction

SGR (Bicester 1) Limited ('the Applicant') intends to submit an outline planning application for a small-scale residential development of the Caversfield site (Plot SGR1) in Bicester, OX27 8TG ('the Site') within the North West Bicester EcoTown. On behalf of the Applicant, we write to request an Environmental Impact Assessment (EIA) Screening Opinion from Cherwell District Council (CDC) in accordance with Regulation 6(1) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations').

In accordance with Regulation 6(2), we enclose:

- A plan sufficient to identify the Site **(Annex 1)**;
- A description of the development, including physical characteristics of the development and, where relevant, of demolition works **(Annex 2)**;
- A description of the location of the development, with particular regard to the environmental sensitivity of geographical areas likely to be affected **(Annex 2);**
- A description of the aspects of the environment likely to be significantly affected by the development **(Annex 2)**;
- A description of the likely significant effects of the development on the environment resulting from expected residues and emissions and the production of waste, where relevant; and the use of natural resources, in particular soil, land, water and biodiversity **(Annex 2)**; and
- Measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment **(Annex 2)**.

b) Existing Site and Setting

The Site is located approximately 2.2 kilometres (km) north of the centre of Bicester within the North West Bicester Eco-Town, identified within the Council's Local Plan 2011-2031[1] as an area for housing. The EcoTown extends to 390ha and would deliver approximately 6,000 new homes and up to 4,000 new jobs over the next 20-30 years.

The Site is bound by Banbury Road (the B4110) to the north-east, a farm with light-industrial and office use tenancies in its outbuildings and arable land to the south-east and emerging residential development associated with the consented Exemplar Site ('Elmsbrook') development to the west. The Site is currently in arable use and extends to approximately 5.3 hectares (ha), of which up to 2.15ha is proposed as developable area with the remainder being retained as open space. The Site comprises two plots, separated by a private access road. Annex 1 provides a plan which identifies the extent of the Site and an aerial view of the Site.

b) <u>The Proposed Development</u>

The Applicant is seeking outline planning permission for up to approximately 75 residential units with a range of unit mixes (the 'Development'). Car and cycle parking would be provided in-line with CDC standards alongside pedestrian and cycle access through the Site. Vehicular access would be provided via the existing access road to the western boundary (Cranberry Avenue). Annex 1 provides an indicative layout of the Development.

c) <u>Consideration of the EIA Regulations</u>

Under the EIA Regulations, developments should be screened to determine whether EIA is required. The EIA Regulations provide selection criteria and guidance thresholds at Schedule 3 to help the decision maker determine whether a development requires an EIA.

This Development falls within the Schedule 2, paragraph 10(b) description of urban development projects where the need for an EIA is determined on meeting the criteria below:

- It exceeds the size threshold for that class of development in Schedule 2 **OR** it is in a sensitive area; **AND**
- It is likely to have significant effects on the environment.

The thresholds for urban development projects are defined by Schedule 2 of the EIA Regulations as follows:

[1] Cherwell District Council, 2015, *Local Plan 2011-2031 Part 1,* July 2015

(i) The development includes more than 1 hectare of urban development which is not dwellinghouse development; or

(ii) the development includes more than 150 dwellings; or

(iii) the overall area of the development exceeds 5 hectares.

The need for an EIA is also determined by consideration of its location (as described in Schedule 3 of the EIA Regulations). An EIA may be required if the development is located within an environmentally sensitive location, or will result in unusually complex or potentially hazardous environmental effects. The Site does not fall within an area defined by the EIA Regulations as a sensitive area (for example, a Site of Special Scientific Interest, Special Area of Conservation, an Area of Outstanding Natural Beauty, a Scheduled Monument or a World Heritage Site), although other statutory and non-statutory designations can influence whether EIA is required, and therefore need to be considered.

The overall area of the Development marginally exceeds the 5ha threshold above, although the area which would be subject to built development is significantly less than this at a maximum of 2.15ha.

In considering Schedule 2 development and the need for EIA, the Government's online EIA guidance (ID: 4 updated 06/03/14), states:

> ***"Only a very small proportion of Schedule 2 development will require an assessment."*** (Paragraph 018) and
>
> ***"Environmental Impact Assessment is unlikely to be required for the redevelopment of land unless the new development is of a significantly greater scale than the previous use, or the types of impact are of a markedly different nature or there is a high level of contamination".*** (Paragraph 058)

When considering these 'indicative thresholds' in terms of scale of urban development projects, Paragraph 058 provides the following criteria for guidance, indicating that these proposals are unlikely to merit the requirement for EIA based on scale of development:

> ***"Sites which have not previously been intensively developed:***
>
> - ***would provide a total of more than 10,000m^2 of new commercial floorspace; or***
>
> - ***would have significant urbanising effects in a previously non-urbanised area (e.g. a new development of more than 1,000 dwellings)."***

The Site is located on undeveloped land on the edge of an urbanised zone. The Development marginally exceeds the threshold of 5 ha, although the developable area is significantly below this threshold, as demonstrated by the Indicative Proposals figure in Annex 1. Furthermore, the Site is not located in a sensitive area and would not provide more than 1,000 dwellings.

Notwithstanding, the over-riding consideration for determining whether EIA is required is by establishing whether the Development may have potentially significant effects on the environment. Further consideration

of the potential for significant environmental effects of the Development is given in the screening appraisal in Annex 2. This gives particular consideration to the potential for *significant* cumulative effects.

d) Conclusion

The screening appraisal (Annex 2) demonstrates that the Development will have no more than localised effects, many of which would be managed through the use of standard and well-tested effective forms of mitigation. As such the effects of the Development are not expected to be significant. We have extensively considered the potential for whether significant cumulative effects could arise in combination with other EcoTown applications. Our conclusion is that principally due to the limited scale of the Development it is unlikely to give rise any significant effects in combination with other development schemes.

For ease of reference, a summary of appropriate standard mitigation measures relied upon on the screening appraisal is provided below:

Construction

- Implementation of a Construction Environmental Management Plan; and
- Constructions Logistics Plan.

Design

- Travel Plan;
- Design and implementation of Sustainable Urban Drainage Strategy (SuDS);
- Scheme for ecological/biodiversity enhancement measures;
- View of Grade II* St Laurence Church to be retained in detailed design;
- Sensitive detailed design to respect setting of built heritage assets (e.g. materials/boundary treatment);
- Lighting design to minimise light spill; and
- Section 106 Agreement (demand on health, education, community facilities).

When preparing your Screening Opinion I would be grateful if you could consider the findings of our enclosed appraisal, in particular our observations regarding the potential for cumulative effects. I look forward to receipt of CDC's Screening Opinion within the statutory 21 day period and hope you agree that EIA is **not** required in this instance.

Should you require any further information regarding the enclosed, please do not hesitate to contact me.

Yours sincerely,

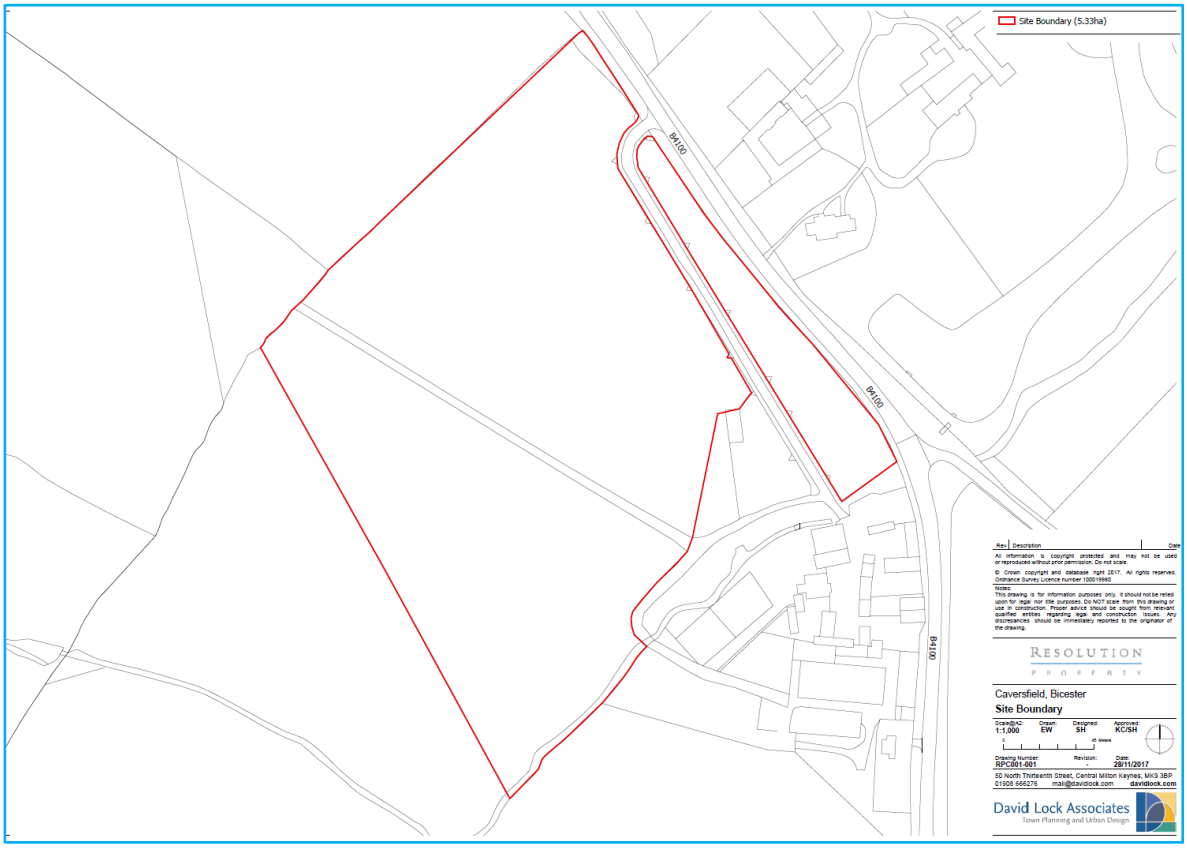
[redacted]

Elin Fradgley
Director

Encs.
Annex 1 & 2

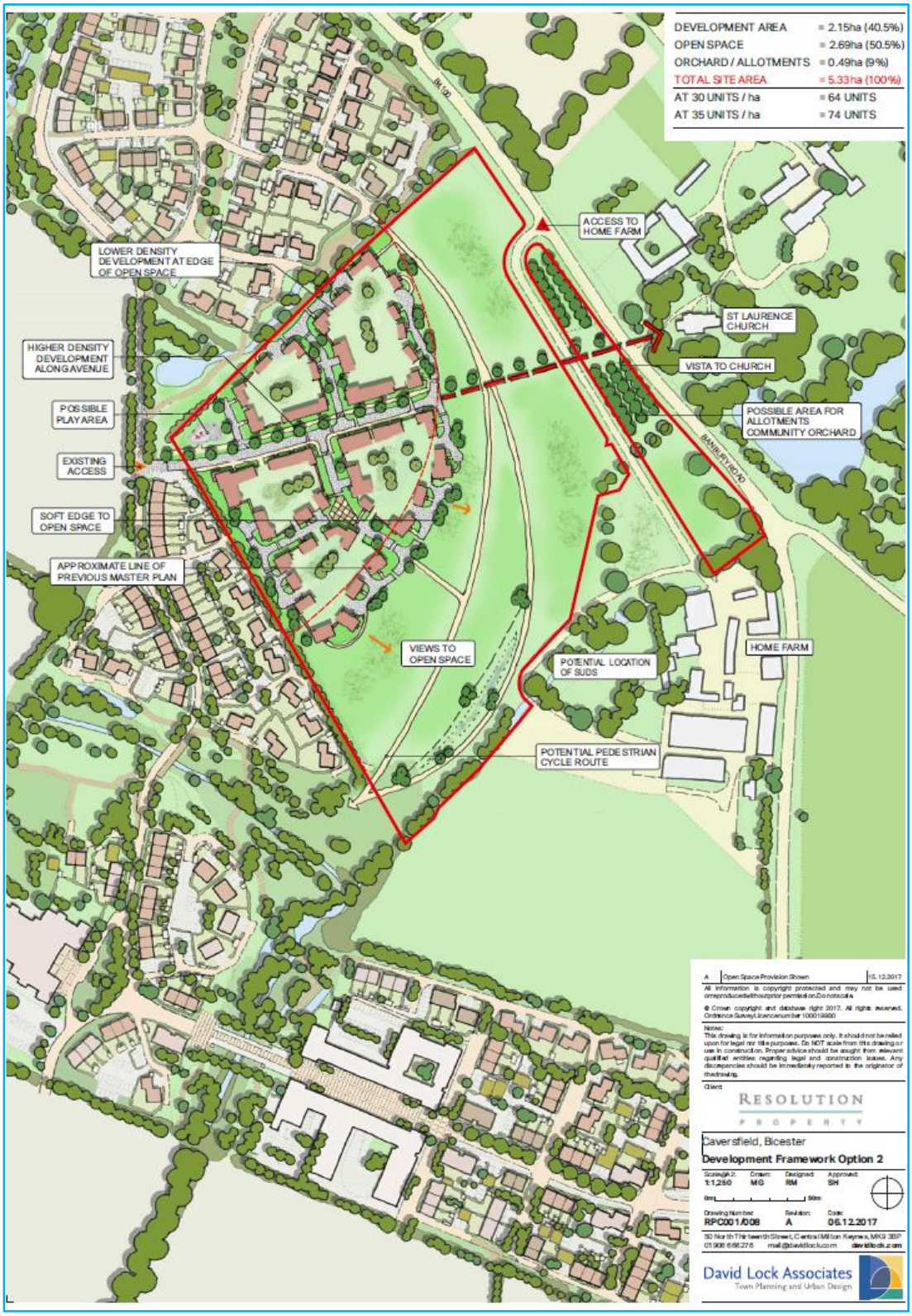
ANNEX 1: FIGURES

Site Boundary



Aerial View of the Site

Indicative Proposals



ANNEX 2: EIA SCREENING APPRAISAL
CAVERSFIELD, BICESTER: EIA SCREENING APPRAISAL

Schedule 3 of the EIA Regulations sets out selection criteria that should be considered, including the characteristics of the development, its location, the type and characteristics of the potential impacts and the possibility of effectively reducing the impact. This Annex provides an appraisal of the Development in the context of these considerations discussing the characteristics of the Development, the environmental sensitivity of areas likely to be affected, and the potential for significant effects.

i) *Location of the Development*

The Site lies on undeveloped land with no statutory designations. The Site does not fall within a sensitive area as defined in Regulation 2(1) of the EIA Regulations, such as a Site of Special Scientific Interest, Special Protection Area, Scheduled Monuments, National Park, Area of Outstanding Natural Beauty or World Heritage Site. There are also no sensitive areas (as defined by the EIA Regulations) in close proximity to the Site.

The Site is located approximately 2.2km north of Bicester town centre and is bound by Banbury Road (the B4110) to the north-east, a farm with light-industrial (B2) and office (B1) uses tenancies in its outbuildings and arable land to the south-east, and emerging residential development associated with the Exemplar site 'Elmsbrook' development to the west (see Section *xi) 'Cumulation with Other Development'* below for more information). The Site extends to approximately 5.3 hectares (ha) and is comprised of two plots of arable land separated by a private access road that extends from Banbury Road to Home Farm adjacent to the south-east. Access to the Site is currently from the western boundary (Cranberry Avenue).

The Site does not lie within a Conservation Area, the closest being RAF Bicester, approximately 480m south-east of the Site boundary. There are two built heritage assets in close proximity to the Site; the Grade II* Church of St. Lawrence and Grade II listed Home Farmhouse, located approximately 30m east and 75m south of the Site boundary respectively.

There are no ecological designations on or adjacent to the Site. The nearest statutory or non-statutory ecologically designated site is Bure Park Local Wildlife Site (LWS) located approximately 810m south-west of the Site boundary. Ardley Cutting and Quarry Site of Special Scientific Interest (SSSI) is located approximately 1.8km west of the Site boundary.

The closest existing residential properties are located within 50m of the Site boundary on Banbury Road. The consented Exemplar site is adjacent to west of the Site and is currently in the early phases of construction. Section *xi)* provides further consideration of this scheme.

ii) *Size and design of the Development*

The Applicant is seeking outline planning permission for construction of up to 75 new residential units on the Site, along with associated parking, vehicular, pedestrian and cycle access and landscaping. These dwellings would range from two to three storeys in height, with taller dwellings likely to be located along the central highways access.

Residential development is proposed only in the north-west corner of the Site, with the remainder of the Site to remain as open space (approx. 2.7ha) and orchard/allotment space (approx. 0.5ha). Car parking will be

provided in-line with CDC standards, to be finalised during detailed design. A single highways access would link the new residential development to the existing access road to the western boundary, with pedestrian and cycle access being provided through the Site.

The majority of existing trees on the boundary and within the Site would be retained with additional planting associated with the new residential dwellings and highways. Landscaped gardens would be provided for between the houses for residents' use. The Development will provide for and exceed the required 40% of green infrastructure across the Site, including the potential provision of an orchard and/or allotments, and a Sustainable Drainage System (SuDS).

Indicative proposals for the Development are included at Annex 1.

The Development is expected to come forward over a single-phased construction programme of between 18 to 30 months, with construction works likely to commence on-site in Quarter 4 (Q4) 2018 and, assuming a worst-case programme, completing in Q2 2021.

The area is a currently agricultural area, however it has an emerging suburban context as part of the North West EcoTown, comprising primarily of low to medium-rise residential dwellings with associated commercial and amenity facilities. The Development is of a similar scale to the existing and emerging built development in the area and will contribute to a changing townscape in the locality (see section *xi)* for further information).

iii) *Use of Natural Resources*

Redevelopment of the Site would, by its very nature, require the use of a range of natural and man-made construction materials to complete the build and fit-out of the scheme.

The Development will incorporate measures to minimise energy usage and water demand. It is expected that the consumption of energy, water and other natural resources from the completed Development will be in-line with standard residential use and impacts are therefore not expected to be significant. The outline planning application will be accompanied by an Energy and Sustainability Statement which will contain a framework to show how the scheme responds to the relevant national and development plan sustainable construction targets, including those set out in the North West Bicester SPD. Therefore, it is considered unlikely that the Development will result in significant effects relating to use of natural resources.

iv) *Production of Waste*

It is not envisaged that significant volumes of waste would be produced during the construction phase as no demolition or significant ground remodelling would be necessary. It is assumed that the management of construction waste will be in accordance with a Construction Environmental Management Plan (CEMP) that will be developed by the Principal Contractor. The CEMP will set out how construction waste will be managed and disposed of and include measures to reduce waste generation, minimise associated impacts of waste handling and removal to nearby sensitive receptors. Opportunities to minimise the amount of waste going to landfill would be sought by the contractor in-line with best practice, so that construction materials will be used efficiently on-site and re-useable wastes will be recovered, re-used or recycled wherever possible. Secondary effects associated with waste production, e.g. spoil removal and vehicle movement, are not considered likely to cause significant effects.

At only 75 units, the waste generated by the completed Development is not considered to be significant. Therefore, it is considered unlikely the Development will result in significant effects relating to production of waste.

v) *Socio-economics*

The Development would bring forward up to 75 new homes on the Site across a range of unit mixes. In the context of the region, the provision of new homes is considered to be beneficial, although it is not considered to be significant in EIA terms.

Any additional demand for social infrastructure, particularly education and healthcare as a result of the increase in population on-site, would be mitigated through financial contributions made through the Community Infrastructure Levy and Section 106 agreement as part of the planning application. New provision is also anticipated to come forward within the Eco-Town area as discussed in Section *xi)* below. Significant effects are therefore not anticipated.

vi) *Pollution and Nuisances*

Traffic and Access

The Site is bound by Banbury Road (B4100) and the A4095 is approximately 600m south of the Site boundary. There is a private road which passes through the Site providing access to Home Farm, separating the two plots, and access to the Site is currently from the western Site boundary, linking to Cranberry Avenue within the Exemplar Site. Bicester North rail station is located approximately 2km to the south of the Site boundary, providing rail links to London, Banbury and Birmingham. The Site is served by one local bus route that provides a link to Bicester town centre, with a bus stop on Banbury Road approximately 50m south of the Site boundary.

During construction of the Development, Heavy Good Vehicles (HGVs) and other vehicles and mobile plant will need to access the Site. Construction traffic routes, movements and associated effects such as driver disruption, dust and dirt would be dealt with through standard and widely used management measures and managed through adherence to a Constructions Logistics Plan and a CEMP. Due to the scale of development, the net increase in HGV flows and vehicle traffic on the local road network during the construction phase is not expected to be significant in the context of existing traffic flows on the surrounding highways. Whilst there may be some temporary effects, these would be localised and, as such, construction traffic effects are not expected to be significant.

Car and cycle parking will be provided in-line with CDC standards, to be finalised during detailed design. A single highways access would link the new residential development to the existing access road to the western boundary, with pedestrian and cycle access to be provided through the Site.

Once complete and occupied, it is expected that the Development would result in a minimal uplift in the number of users and people using public transport near the Site. It is considered that the pedestrian infrastructure and existing public transport network has sufficient capacity to support the number of trips associated with the Development.

While the Development will generate residential vehicle traffic, the impact from up to 75 residential units on the local highway network will be negligible in the context of background traffic. The volume of traffic is not

considered to have a significant impact on highway capacity and the Development will not necessitate any significant improvement works to the local highway network.

Bearing in mind the conclusions outlined above, it is not considered that the construction or operational effects of the Development would be significant. The planning application would be supported by a Transport Assessment which will assess the existing conditions of the local area and the proposed changes brought forward by the Development. It will also take into consideration residual traffic resultant from the adjacent committed developments. In addition, a Travel Plan will be provided that will set out traffic measures to be adopted for the completed and occupied Development to minimise effects on the local road network.

Noise and Vibration

The Site is an undeveloped site, adjacent to a minor arterial road, a converted farm (for light industrial and office uses) and an emerging residential-led development currently in the early phases of construction. Construction noise and vibration will be mitigated as far as practicable through good site practice and construction measures (CEMP).

The nearest existing sensitive receptors that have potential to be impacted by the Development are Home Farm and the parish church of St. Laurence, located within 50m of the Site boundary. Both of these have elements that are designated as listed buildings by Historic England. New residential receptors are also being introduced adjacent to the west of the Site boundary associated with the emerging Exemplar site.

The Development would be constructed over a relatively short term period (up to 30 months) such that any effects would be short term. There is likely to be increased noise during the construction works, including noise resulting from construction plant and vehicles. These are considered to be temporary and would be controlled by industry standard good practice measures including acoustic screening/site hoardings, the selection of appropriate construction techniques, implementation of a Construction Logistics Plan, and the restricted operation of certain plant and activities to agreed hours or durations. These measures would form part of the CEMP. It is not considered that there are likely to be significant vibration effects during this period. Given the existing ambient noise environment, the proposed mitigation to be employed on-site, and the temporary, short-term nature of effects, it is not considered that construction works will result in significant effects on existing or future sensitive receptors as a result of the Development.

The volumes of road traffic are not likely to increase significantly such that a perceptible increase in overall traffic noise would result from the completed and occupied Development.

Notwithstanding, a standalone Noise Assessment will be submitted with the planning application. This will verify that the Development will not result in unacceptable levels of noise and vibration on sensitive receptors.

Air Quality

The Site is not located within an Air Quality Management Area (AQMA). The nearest AQMA is that designated for Kings End, Queens Avenue, Field Street and St Johns in Bicester town centre on the basis of exceedances of the annual mean nitrogen dioxide (NO_2) Air Quality Objective, approximately 2km to the south of the Site boundary.

During the demolition and construction works, the greatest potential air quality effects relate to dust nuisance. Best practice measures will be implemented to minimise and control dust at source during construction which

will be implemented as part of the CEMP. These will be detailed through the use of method statements and include measures such as hoarding, water suppression and covering of transport vehicles. Method statements will be based on industry standard guidance published by the Institute of Air Quality Management (IAQM)[2]. Given the implementation of such measures, dust during the demolition and construction phase is not expected to give rise to significant adverse effects on sensitive receptors.

Car parking provision will be in-line with CDC standards, but due to the scale of development, the vehicular emissions associated with road traffic from the operational Development are not likely to have a significant effect.

The energy strategy is still to be confirmed although, due to the limited scale of development, it is not considered that it would have a significant air quality effect. As such, it is not considered that there will be significant effects on air quality as a result of the Development.

Ground Conditions and Contamination

British Geological Survey (BGS) maps for the area show the Site is underlain by the Cornbrash and Forest Marble Formations, designated as secondary A aquifers. Historical maps demonstrate that the Site has always been in agricultural use, and such the risk of contamination is low.

Construction works would be undertaken in-line with standard practice and legislative requirements to minimise any pollution risks to human health of construction workers. As there is no evidence of contamination on the Site, construction works represent a low risk to ground or surface water receptors and human health. Any previously unidentified contamination hotspots that are identified during earthworks will be investigated and, if necessary, remediated prior to construction of the Development. A verification and monitoring programme will also be employed if required. As such, significant environmental effects are not considered likely to occur likely during construction.

On completion of the Development, much of the Site will be covered with new buildings and hardstanding, with additional mitigation measures such as petrol interceptors and bunding in place where appropriate to minimise the potential for accidental spills and contamination. As such, the risk to receptors is considered to be low. Therefore, there will be no significant effects as a result of the operation of the Development.

Water Resources & Flood Risk

The Site is located in a Groundwater Vulnerability Zone, with a secondary aquifer present below the Site but is not located in a Groundwater Protection Zone. The southern boundary of the Site is bordered by a small tributary which flows in a south-westerly direction to the River Bure.

The majority of the Site is located in Flood Zone 1 (less than 0.1% annual probability of flooding), although the southern boundary of the Site is located within Flood Zone 3 (1% or greater annual probability of fluvial

[2] IAQM, (2014). Assessment of dust from demolition and construction.

flooding). The area within Flood Zone 3 will not be subject to built development as this will be retained as open space/allotments. As such, all development will be located within the areas of low risk.

The Development is therefore not expected to have a significant impact on groundwater and flood risk. Standard mitigation measures will be put in place to protect the adjacent tributary from sediment run-off and accidental spillages. These will be maintained through adherence to the CEMP and may include such measures as bunding, appropriate handling measures and site storage, and spill response procedures.

The Development will lead to an increased demand for potable water and foul water discharge as a consequence of the proposed residential use, although this is not considered to be significant.

A Flood Risk Assessment and Drainage Strategy will be submitted as part of the planning application and will give further consideration to flood risk issues and drainage. This will outline the drainage control measures incorporated within the design proposals, which will include the use of Sustainable Urban Drainage Systems (SuDS).

Archaeology

The archaeological potential of the Site is currently unknown. However, the NW Bicester SPD and Strategic Environment Report (SER)[3] indicates that the NW Bicester Masterplan area was *"undeveloped since the post-medieval and possibly before"*. The desk based assessment for the adjacent Exemplar site (Scheme ID 1) concluded that there is a low potential for archaeological remains to exist at proposed Exemplar development and that the archaeological field evaluation carried out at the site uncovered no evidence for any archaeological remains.

An archaeological desk-based assessment (DBA) will be submitted as part of the planning application which will set out the archaeological potential of the Site. Subject to the findings, trial trenching may be undertaken to provide further evidence to support the conclusions of the DBA, in advance of commencement of works on-site. If necessary, a watching brief will be carried out during construction works to ensure that any harm is prevented to identified or previously unidentified buried heritage assets.

It can be concluded that significant archaeological effects on below ground heritage assets are unlikely, taking into account the above standard measures.

Built Heritage

There are no buildings of historic value within the Site therefore the Development will have no direct physical impacts upon any built heritage assets. There are a number of built heritage assets within the local area including St Lawrence's Church (Grade II* listed), the Home Farmhouse (Grade II listed) and Caversfield House (non-listed) and the other buildings at Home Farm. The Grade II* Church of St. Lawrence and Grade II listed

[3] Hyder Consulting, 2014. NW Bicester Masterplan: Strategic Environmental Report. March 2014

Home Farmhouse, are located approximately 30m east and 75m south of the Site boundary respectively. The SER defines the church asset as having high heritage value, while the farm is a medium-low value asset.

The Development has the potential to affect the setting of these assets. As part of the design measures have therefore been put in place to minimise effects, including maintaining a sightline from St Lawrence's Church, screening the eastern edge of the Development through planting and the sensitive use of building style and materials. The setting of the Church of St. Lawrence and Home Farm are also at least partially shielded from the Site by an existing wall and hedgerow buffer between them and the Development respectively. The retention of these buffers along the Site boundary will help minimise adverse setting effects upon these built heritage assets. The effects on the setting of the built heritage assets in the construction period would be negligible. The aforementioned heritage assets are not expected to experience significant adverse effects as a result of the completed Development.

Landscape and Visual Impacts

The topography of the Site is relatively flat, with a gentle slope southwards to the tributary on the south-east Site boundary. Views to and from the Site are limited, with tree frontages bounding Home Farm to the south and lining the B4100 to the north-east. The immediate surrounding area shows a strong contrast between town and country with the outer limits of Bicester built in the late twentieth century ending abruptly at the A4095 to the south of the Site.

The Site is not in a Conservation Area, with the closest being RAF Bicester, approximately 480m south-east of the Site boundary. There are no Registered Park and Gardens, Areas of Outstanding Natural Beauty or other landscape designations on or in the vicinity of the Site.

The wider surroundings have a predominantly agricultural character, with urban fringe to the south. However, with emerging development to the west, the landscape and townscape is predicated to undergo significant transformation within the next 20 – 30 within the NW Bicester area as it becomes integrated into the urban fringe.

The Development would reach a maximum height of three storeys, which would barely be visible over the tree boundaries to the south and north-east of the Site. Views from the emerging Exemplar ('Elmsbrook') site to the west may be affected, however this type of use will be in keeping with the developing suburban character of the area under the Policy Bicester 1 allocation and there will also be a commitment to high quality urban and landscape design for the Development. The Development would be in keeping with the emerging landscape character (taking into account the adjacent Elmsbrook development and will retain open space to the east with the inclusion of landscape planting. The majority of existing vegetation features would be retained. In views to the proposed Development, existing vegetation and planting proposals are therefore likely to be visible together with glimpses of the new homes. This would result in a minimal change to visual amenity.

The Grade II* listed Church of St. Lawrence is visible from a narrow line of sight within the Site to the east, as illustrated on the Indicative Proposals figure in Annex 1. The SER states that *"the only point where the tower [of the Grade II* Church of St. Lawrence] is visible is along the sightline stretching from the church to the south west corner of the site*. *During the design of the Exemplar site, the efforts made to preserve the line of sight from the north east corner of the wooded area in the north-west corner of the site to St Lawrence's Church be continued. This would significantly lessen the impact of the development of this area on this asset."* The line of

sight to the Church of St. Lawrence passes through the Site and the Applicant will seek to preserve this view through the detailed design.

Overall, and due to the established wider emerging context, including the lack of specific townscape or visual designations and scale of the proposed Development, the landscape and visual effects of the Development are not considered to be significant.

Biodiversity

There are no ecological designations on the Site. The nearest statutory or non-statutory ecologically designated site is Bure Park LWS located approximately 810m south-west of the Site boundary. Ardley Cutting and Quarry Site of SSSI is located approximately 1.8km west of the Site boundary. On-site habitat is dominantly arable land, with mature and semi-mature trees on the boundaries and within the Site and a small tributary on the southern Site boundary.

The potential for the presence of protected species on the Site is currently unknown. A Preliminary Ecological Appraisal will be carried out that will establish the ecological value of the Site and will be provided with the planning application. This will also outline any requirements for further specific species surveys.

Appropriate measures will be adopted during the construction phase to limit the occurrence of adverse effects on sensitive ecological receptors, including noise, dust and lighting effects. These will be set out in the CEMP. As set out above, a significant proportion of the Site would be retained as green space in line with planning policy with the potential for ecological enhancement measures. Consequently, the Development is unlikely to result in a significant ecological effects and will provide a net gain in biodiversity value in line with planning policy.

Arboriculture

There are individuals and groups of trees located within and along the perimeter of the Site which would be retained. A Tree Survey and Arboricultural Impact Assessment will be submitted in support of the planning application. This will be carried out in-line with BS5837:2012[4] and incorporate an evaluation of tree constraints and a tree retention and removal plan. Details of landscaping and tree and root protection will be provided to ensure that and potential effects on trees during construction works are adequately mitigated. As such, it is not predicted that there will be significant effects on arboriculture.

Agriculture and Land Use

The Site is currently an undeveloped site in agricultural use. Whilst no Agricultural Land Classification is available for the site, the ES for the adjacent Exemplar site identified that approximately 95.1% were classed as Grade 3b land, with the remainder (4.9%) classed as Grade 3a. Grade 3 agricultural land is subdivided into two classifications, namely Grade 3a considered good quality Best and Most Versatile (BMV) agricultural land

[4] British Standards Institute, 2012. BS5837:2012: Trees in relation to Design, Demolition and Construction – Recommendations. April 2012

and Grade 3b considered moderate quality agricultural land. Assuming a worst case, and given the minimal area of BMV land affected by permanent development, it is considered that the Development would have no more than a minor adverse effect on agricultural land which would not be significant.

Microclimate: Wind

The proposed scale and height of the Development is unlikely to generate wind effects within the Site and the surrounding area. On this basis, it is assumed that the Development is not likely to give rise to significant effects.

Microclimate: Daylight, Sunlight, Overshadowing, Light Pollution and Glare

There only potentially sensitive developments to daylight, sunlight and overshadowing effects in the vicinity of the Site are the Parish Church of St. Laurence (and rectory) and Home Farm to the east and south of the Site respectively. However, given the distance of these properties from the new houses there would be no such effects. The relationship between the new houses and adjacent Exemplar scheme will be carefully considered at detailed design stage to avoid impacts wherever possible, although given the heights of the proposed buildings no significant effects are anticipated.

Cladding details for the design proposals are currently unconfirmed, but they will not have a significant reflective value and solar glare is therefore not expected to be an issue. Similarly, the design would incorporate best practice of lighting design and will be sensitive to the nearby properties, As such, significant light pollution effects are not anticipated. Details of lighting will be submitted for agreement with CDC as part of reserved matters.

vii) *Risk of Accidents*

There are no Control of Major Accidents Hazards (COMAH) registered activities within or in close vicinity to the Site. Construction of the Development will be undertaken in accordance with current health and safety regulations and guidance, in order to minimise the risk of accidents. The operation of the Development will not include the use of particularly hazardous substances or technologies, and therefore the risk of accidents is not significant.

viii) *Risk to Human Health*

The most significant risks to human health relate to poor ambient air quality and noise conditions. As set out above, these issues are capable of being addressed through design. The Development is not expected to introduce any activities that would affect the health of the local population. As such, no significant effects are anticipated.

ix) *Climate Change*

It is not considered that the Development will give rise to a significant effect on greenhouse gases as there would be no significant uplift in road traffic associated with the Site. The Development will incorporate appropriate climate change adaption measures and will also address potential issues such as overheating and increased rainfall through design.

x) *Sustainability and Energy*

The planning application will be supported by a separate and standalone Sustainability and Energy Statement. All technical assessments will therefore test all sustainable design features sought as part of the planning application.

xi) *Cumulation with Other Development*

Submitted or approved developments in proximity to the Site have been identified to determine the potential for significant cumulative effects to arise in combination with the Development. Whilst the Site is located within the North West Bicester Eco-town, it is not considered that all other emerging development sites within Bicester are within sufficient proximity to the Site such as to have interactive effects to necessitate consideration for cumulative assessment.
There is no EIA guidance on how to define an appropriate study area for considering cumulative effects. The following criteria have therefore been used to identify the schemes which should be considered:

- Those which are expected to be built-out at the same time as the Development and with a defined construction programme;
- Those within 1km of the Site boundary or on strategic highway routes;
- Projects considered EIA development and for which an ES has been submitted with the planning application;
- Those subject to planning consents from Cherwell District Council (granted or resolution to grant); and
- Those which introduce new sensitive receptors close within close proximity to the Site boundary (but are not EIA development).

Figure 1 and Table 1 detail the development schemes which meet the above criteria which have been considered in the context of the potential for cumulative effects.

Figure 1: Map of Cumulative Schemes

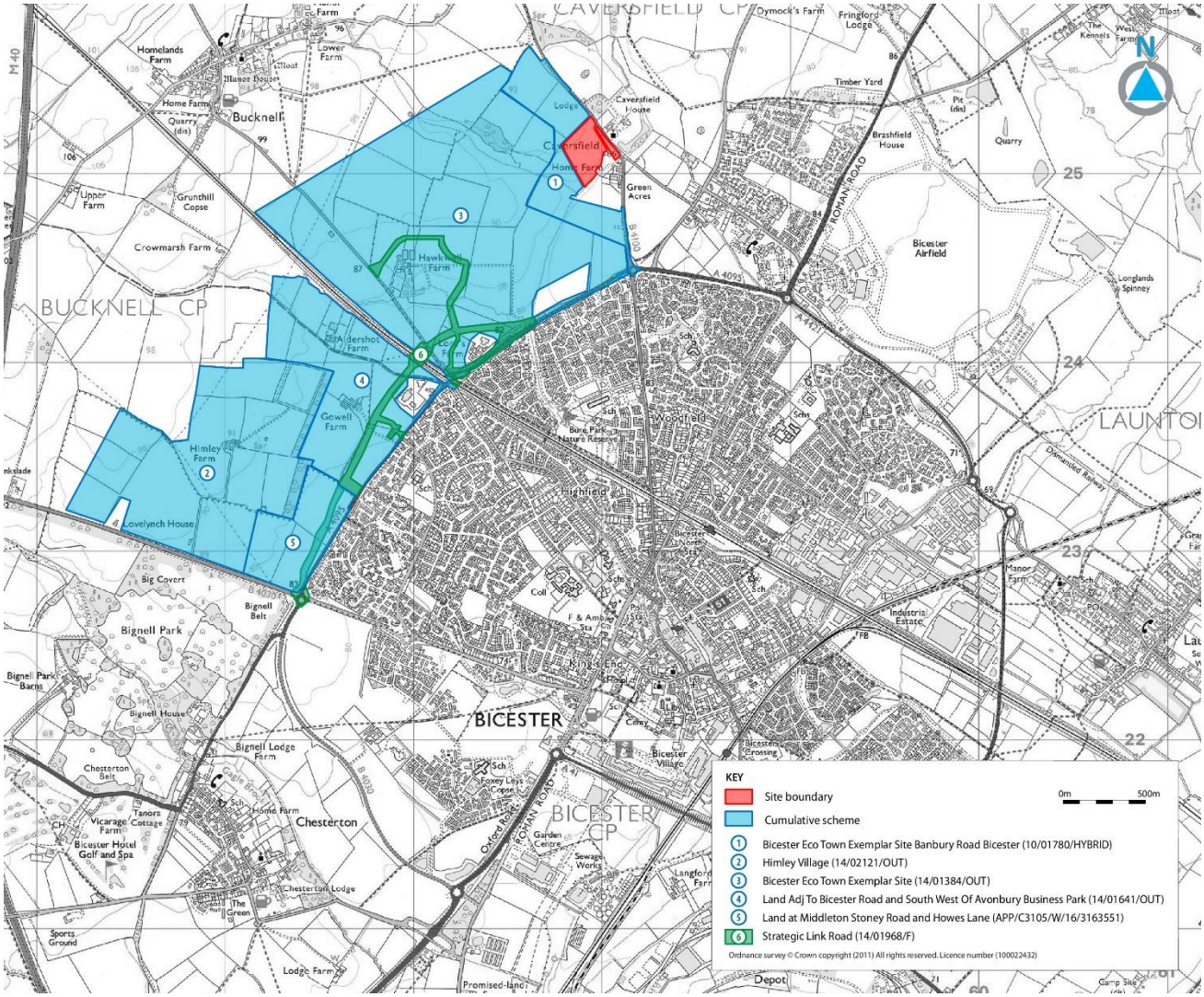


Table 1: Schedule of Cumulative Schemes

Scheme ID.	Cumulative Scheme	Distance from Site boundary	Construction Programme and Information
1	**Bicester Eco-Town Exemplar Site ('Elmsbrook')** (Ref: 10/01780/HYBRID) – Development of Exemplar phase of NW Bicester Eco Town to secure full planning permission for 393 residential units and an energy centre, access, car parking, landscape, amenity space and service infrastructure and outline permission for a nursery of up to 350m^2 (use class D2), a community centre of up to 350m^2, 3 retail units of up to 770m^2 (use class A1)), an Eco-Business Centre of up to 1,800m^2 (use class B1), office accommodation of up to 1,100m^2 (use class B1), an Eco-Pub of up to 190m^2 (use class A4), and a primary school site measuring up to 1.34 hectares with access and layout to be determined. Approved July 2012.	Adjacent to western boundary	**Construction:** Construction commenced in 2014, with planned delivery of 50 units in year one, and 100 units per year thereafter. **Operational:** The date of completion and occupation is unavailable, however it is assumed that 2018 is year of completion based on the submitted project construction programme.
2	**Himley Village** (ref: 14/02121/OUT) – Outline proposal for development to provide up to 1,700 residential dwellings, a retirement village (Use class C2), flexible commercial floorspace (Use classes A1, A2, A3, A4, A5, B1, C1 and D1), social and community facilities (Use class D1), land to accommodate one energy centre and land to accommodate one new primary school (up to 2 Form Entry (FE)). Such development to include provision of strategic landscape, provision of new vehicular, cycle and pedestrian access routes, infrastructure and other operations (including demolition of farm buildings on Middleton Stoney Road). Granted March 2017.	1.7km south-west	**Construction:** Construction was due to commence in 2016, with completion by 2031. However, this has been deferred due to the delay in planning approval. With permission granted in early 2017, it is assumed that construction would commence in 2018. **Operational:** It is assumed that the development will only be operational post-2031.
3	**Bicester Eco-Town Exemplar Site ('SGR2' Site)** (Ref: 14/01384/OUT) – Development comprising redevelopment to provide up to 2,600 residential dwellings (Class C3), commercial floorspace (Class A1 - A5, B1 and B2), social and community facilities (Class D1), land to accommodate one energy centre, land to accommodate one new primary school (Up to 2FE) (Class D1) and land to accommodate the extension of the primary school permitted pursuant to application (reference 10/01780/HYBRID). Such development to include provision of strategic landscape, provision of new vehicular, cycle and pedestrian access routes, infrastructure, ancillary engineering and other operations. Resolution to Grant.	30m east (at closest point)	**Construction:** According to the ES, the development has an estimated 25-year construction period, due to commence in 2018. **Operational:** Based on the estimated construction period, the approximate date for when the development would be completed and occupied is 2044, provided approval is granted by CDC in 2018.
4	**Land Adjacent To Bicester Road And South West Of Avonbury Business Park** (ref: 14/01641/OUT) – Outline application to provide up to 900 residential dwellings, commercial floor space, leisure facilities, social and community facilities, land to accommodate one energy centre and land to accommodate one new primary school (up to 2 FE), secondary school up to 8 FE. Such development to include provision of strategic landscape, provision of new vehicular, cycle and pedestrian access routes, infrastructure, ancillary engineering and other operations. Resolution to Grant.	1.3km south-west	**Construction:** According to the ES, construction works are anticipated to commence in 2018 with an estimated construction period of 20-years, based on approval in 2017. **Operational:** Based on the estimated construction period, the approximate date for when the development would be completed and occupied is 2038.

Scheme ID.	Cumulative Scheme	Distance from Site boundary	Construction Programme and Information
5	**Land at Middleton Stoney Road and Howes Lane** (APP/C3105/W/16/3163551) Erection of up to 53,000 sq m of floor space to be for B1, B2 and B8 (use classes) employment provision within two employment zones covering an area of 9.45 ha; parking and service areas to serve the employment zones; a new access off the Middleton Stoney Road (B4030); temporary access off Howes Lane pending the delivery of the realigned Howes Lane; 4.5 ha of residential land; internal roads, paths and cycleways; landscaping including strategic green infrastructure; provision of sustainable urban systems (SUDS) incorporating landscaped areas with balancing ponds and swales; associated utilities and infrastructure.	2km south-west	**Construction:** It is anticipated that the development will be built-out over an approximate 3 year period, with construction expected to commence in Q4 2018/Q1 2019 and completed by Q1 2022. **Operational:** It is expected that the development will be operational by early 2022.
6	**A4095 Strategic Link Road (SLR)** (ref:14/01968/F) – Construction of new road from Middleton Stoney Road roundabout to join Lord's Lane, east of Purslane Drive, to include the construction of a new crossing under the existing railway line north of the existing Avonbury Business Park, a bus only link east of the railway line, a new road around Hawkwell Farm to join Bucknell Road, retention of part of Old Howes Lane and Lord's Lane to provide access to and from existing residential areas and Bucknell Road to the south and associated Infrastructure. Resolution to Grant.	650m south-west	**Construction:** According to the ES, construction is set to take an approximate 2-3-year period. The date of commencement was predicted to be 2016, however due to a delay in gaining planning consent this has been deferred. Therefore, a worst-case scenario is assumed where construction would commence in 2019 and the development built out at the same time as the Development. **Operational:** Based on a 2-3 year construction period, the development would be completed and operational no later than 2021.

Table 2: Estimated Construction Programme for Cumulative Schemes

	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Proposed Development (Caversfield)																				
1) Bicester Eco-Town Exemplar Site ('Elmsbrook')																				
2) Himley Village																				
3) Bicester Eco-Town Exemplar Site ('SGR2')																				
4) Land Adjacent to Bicester Road and South West of Avonbury Business Park																				
5) Land at Middleton Stoney Road and Howes Lane																				
6) A4095 Strategic Link Road (SLR)																				

* NB. Timelines presented only extend to 2021 as this is the worst-case predicted year of completion and occupation of the Development. Hatched areas are indicative of estimated construction programme where no definitive one is provided within the planning application inferred from details of start/finish dates, or from adopting a worst-case scenario policy.

Based on the programme outlined above, it is expected that the Scheme ID 1 will be completed and fully occupied by the end of 2018. As such, it is not expected that there would be significant overlap of construction phases between the Development and this scheme can be discounted from further consideration of cumulative construction effects.

The Development is predicted to be complete and occupied in advance of all of the other aforementioned cumulative schemes. At Q2 2021 (when the Development would be complete), it is estimated that the cumulative schemes would have delivered approximately 1,173 dwellings. Therefore, at least 75% of the housing provision allocated for the Eco-Town would still need to be delivered.

There is some potential for cumulative effects to arise should the construction phases of the other aforementioned schemes overlap with construction of the Development, particularly associated with traffic, noise and air quality. These impacts could be effectively managed to an acceptable level through CEMP and logistics plans throughout the duration of the construction phase. The construction effects associated with the Development are not anticipated to be significant and it therefore follows that its cumulative effects (i.e. in combination with other schemes) would also not be significant.

Represented below is an estimate of what each scheme is likely to deliver per annum over their respective construction programmes. These figures are not definitive and do not include a detailed breakdown for all works/infrastructure to be delivered by each scheme but are provided for context.

- Himley Village (Scheme ID 2) - 15-year construction programme and once completed will deliver up to 1,700 dwellings, this averages **113 dwellings a year**;
- SGR2 Eco-Town Exemplar site (Scheme ID 3) - 25-year construction programme and once completed will deliver up to 2,600 dwellings, this averages **104 dwellings per year**;
- Land Adjacent to Bicester Road and South West of Avonbury Business Park (Scheme ID 4) - 20-year construction programme and once complete will deliver up to 900 dwellings, this averages **45 dwellings per year**;
- Land at Middleton Stoney Road and Howes Lane (Scheme ID 5) - 3-year construction programme and once completed will deliver up to 150 dwellings, this averages **50 dwellings per year**; and
- A4095 SLR (Scheme ID 6) - three-year construction programme and will deliver a road comprising some 18 ha of land.

What this demonstrates is that the cumulative construction works happening in the area on an annual basis over the 2.5-year construction programme of the Development is a small percentage of the total development that has been approved by the CDC as part of the North-West Bicester Eco-Town area. Per annum, excluding the proposed Development, the cumulative schemes are estimated to deliver in the order of 312 dwellings, 854m^2 of commercial floorspace, car parking spaces and associated infrastructure. This scale of construction activity is unlikely to lead to significant cumulative effects in combination with the Development.

The Development is likely to provide up to 75 new residential dwellings and over a worst case construction period of 2.5 years this would generate an average of 30 homes per year. When considered against the above level of annual housing delivery from cumulative schemes (312) and given that all developments would implement measures to minimise construction traffic and environmental effects (i.e. CEMPs and CLPs), it is considered unlikely that significant cumulative construction effects would occur.

Notwithstanding, the potential for significant cumulative effects is discussed by topic in turn below.

Transportation

Vehicle movements associated with the completed Development would access the B4100 or A4095 via the newly constructed access route through the Exemplar Development (Cranberry Avenue/Charlotte Avenue). The Development would add a small number of trips to these EcoTown access roads as well as the B4100 and A4095. However, due to the limited scale of the Development, the potential for significant transport effects (e.g. delay, severance, pedestrian amenity) in combination with the other schemes is unlikely. Furthermore, the planning application submitted for the SLR (Scheme ID 6) demonstrated that this new road will provide adequate capacity for the future traffic growth to meet existing deficiencies plus the planned growth of the Eco-Town (6,000 homes). This predicted no likely cumulative effects were anticipated during the operational phase of the SLR with cumulative developments.

Noise and Vibration

Noise and vibration effects only propagate over relatively short distances, hence only the cumulative schemes closest to the Site (i.e. within 100m) have the potential to give rise to cumulative residual effects during construction. The only scheme of relevance is therefore Scheme ID 3. Assuming both schemes adopt CEMPs and take available best practice measures to minimise noise during construction the combined (cumulative) effects are unlikely to be significant.

The Development would provide up to 75 new residential units, which equates to 1.2% (i.e. just over 1%) of the accommodated planned growth for the Eco-Town under local policy. The traffic generated by the Development would be minimal and not significant when added to (and considered in the context of) that generated by the adjacent larger schemes. As such, the contribution of road traffic noise generated by the Development in the context of that generated by the other larger schemes is not likely to be significant.

Air Quality

Potential dust effects during earthworks and construction are likely to be localised (i.e. within 350m of the Site boundary) and therefore limited to Scheme ID 3. With mitigation measures in place, together with wheel cleaning/road sweeping, it is unlikely that the Development in-combination with the other cumulative schemes would result in significant dust effects. Best practice dust and emission control measures will be detailed in the CEMPs and implemented during construction at the Site to minimise air quality and dust effects.

Whilst there will be some additional construction traffic from Development in combination with other cumulative schemes, the level of traffic generated by the Site will represent a small contribution to traffic from other cumulative schemes. The Development is therefore not likely to generate significant cumulative effects on air quality in combination with other schemes.

The Development would provide approximately 75 new residential dwellings, which would give rise to a very limited number of car movements. While the cumulative schemes would bring forward a significant number of new homes once built out and, as such, will increase the overall number of cars in the area, the contribution of the Development (and therefore cumulative effect) would be negligible.

As part of a 'zero-carbon' commitment for the Eco-Town, the Development would connect to the forthcoming District-wide Heating System as it is brought forward. As such, there are not expected to be any cumulative effects in relation to plant emissions.

Biodiversity

The Development is not likely to result in any significant residual adverse effects that could interact with those resulting from other developments in the North-West Bicester area due to proximity of other developments and standard site protocols and mitigation. It is, therefore, reasonable to assume that there are sufficient planning and legislative controls to ensure that, in combination with the Development, potential significant effects would be mitigated. Therefore, no significant adverse cumulative effects are expected.

It is only for farmland birds that the SER acknowledges that the overall adverse effect of the wider EcoTown development on farmland birds cannot be mitigated on-site, with a significant adverse impact likely to be at a county level. As such, the SER proposes a fund to secure off-site compensation and increase the 'carrying capacity' of local habitats for farmland birds through the appropriate habitat management. As part of the mitigation for the loss of approximately 5ha of arable habitat at the Site, which forms part of the overall foraging resource for farmland birds, the Development will make the relevant financial contributions at the appropriate stage. No significant cumulative effects are therefore anticipated.

In terms of overall beneficial impacts, all of the sites could deliver a beneficial cumulative impact. This is a possibility if the commitments made so far are achieved. However, in the context of the Development the cumulative effects are not considered to be significant.

Flood Risk and Drainage

Cumulative effects of water resources during construction works tend to be associated with the generation of sediments and their release into the drainage network, spillage and leakage of oils and fuels. The cumulative schemes that would have the potential to result in likely significant cumulative effects during construction works are those closest to the Site (i.e. within 100m). As such, the potential for cumulative effects to arise has been considered in relation to Scheme ID 3.

Potential effects on surface water flow and drainage/flood risk during construction activities would be controlled by a CEMPs on both sites. The CEMPs would also manage other potential effects like oil spillages, which could affect water quality, through standard management practices and measures. Consequently, there are not considered to be any potentially significant cumulative effects to water resources, drainage network, or flood risk as a result of construction processes.

It is anticipated that all local developments will look to reduce site run-off rates through the use of SuDS and also minimise water consumption, in line with planning policy. Given that the Site would implement SuDS and appropriate drainage design to restrict off-site flooding, and that Scheme ID 3 has also committed to SuDS and rainwater harvesting to maintain surface water runoff at or below greenfield rates, it is not considered that there would be any significant cumulative effects as a result of the complete and occupied Development and neighbouring Scheme ID 3.

Ground Conditions and Contamination

The Site and majority of surrounding land has historically been in agricultural use and therefore it is not considered that there is any potential for significant contamination. It is assumed that all cumulative schemes would be required to undertake investigation, remediation and groundwater protection measures, if required, and comply with all statutory processes for managing the decontamination of land. Collectively, the

aforementioned cumulative schemes should therefore lead to a reduced level of contamination risk, if present, which would be a minor beneficial effect to all receptors. This would not however be significant.

In addition, adherence to a CEMP would ensure that all construction works are carefully managed to avoid contamination of sites (e.g. through spills and leaks etc.). As such, no significant cumulative effects are predicted in relation to ground conditions and contamination.

Archaeology and Built Heritage

Effects on archaeology are site specific and construction work is unlikely to give rise to cumulative effects. Collectively, the Development and cumulative schemes would result in disturbance and loss of archaeology, although each site would be subject to site-specific mitigation measures agreed with the County Archaeologist and CDC.

The cumulative schemes that would have the potential to result in likely significant cumulative effects on built heritage assets during construction works are those closest to the Site (i.e. within 100m). As such, likely cumulative effects are limited to the Scheme ID 3. Any cumulative effects on setting would be temporary and are unlikely to be significant.

It is not considered that the Development would lead to any significant direct or indirect effects on built heritage assets. The Grade II* Church of St. Lawrence and Grade II Home Farmhouse are mostly screened by existing buffers which would be maintained.

The proposed height and scale of the Development and cumulative schemes, and limited inter-visibility between conversation areas, schemes and features, is such that the Development is unlikely to result in any significant cumulative effects on built heritage in combination with the cumulative schemes.

Landscape and Visual Impacts

Construction effects are of a temporary, transient nature and would not have a significant cumulative impact over the North-West Bicester area.

Once complete and occupied, existing barriers and new development limit inter-visibility such that the Scheme ID 1 and ID 3 sites are the only two developments with the potential to have significant cumulative effects in regards to the views, landscape character and, indirectly, the setting of nearby built heritage assets. However, by maintaining existing buffers it is not considered that there would be significant cumulative landscape and visual impacts. The existing line of sight to the Church of St. Lawrence will be maintained as far as practicable through detailed design across both the Development and the Exemplar Sites.

Socio-Economics

The Development, together with the cumulative schemes would be expected to generate employment opportunities during construction works, as well as spending by the construction workforce. This is considered to be a beneficial effect at local levels. In the absence of detailed, commercially sensitive, information, it is not possible to make a quantitative assessment of the employment generated from the construction stages of the cumulative schemes. However, due to the limited size of the proposed Development, it is not expected that it will significantly contribute to the cumulative beneficial effects at any spatial levels during construction.

The Development proposes between up to 75 new residential dwellings. In the context of the 6,000 new homes of the Eco-Town, whilst beneficial in the context of housing delivery locally, it is not considered to be of a proportion that would result in significant cumulative socio-economic effects as a result of the Development.

The Development would generate a small demand for new community facilities (e.g. schools, General Practitioners (GPs) etc.), the Scheme ID 2 and Scheme ID 4 schemes to the west would bring forward new community facilities including schools and GPs on completion that could be utilised by the occupants of the Development. Furthermore, following appropriate financial contributions, the cumulative effect in terms of demand for social infrastructure is expected to be negligible.

Overall these schemes, together with the Development, would deliver new housing, generate new employment and have a positive impact on the local economy through increased spending, which together would have a beneficial effect in terms of socio-economics, although this is not considered to be significant due to the scale of the Development.

Human Health

There is potential to generate long-term beneficial cumulative effects on human health with the Development and other cumulative schemes. For example, greater levels of physical activity, access to cycle routes and open space, and new health infrastructure. However, due to the small scale of the Development, the potential for cumulative effects are not considered to be significant.

Soils and Agricultural Land

During construction, the management of soil resources will be implemented through the CEMP to make reuse of soil within the Site boundary. There would therefore be no significant cumulative effects in combination with other schemes.

The build-out of the Development and cumulative schemes will result in additional loss of agricultural land. However, given the allocation of the cumulative schemes land for development under Policy Bicester 1 and the phasing of the various developments, it is expected that farmers currently using the land will be able to forecast the operations and seek alternative land over the course of the Eco-Towns development. Therefore the loss this land for agricultural use is not considered to have a significant cumulative effect.