

# **Plot SGR1**

Transport Assessment Section 1 of 4

On behalf of SGR (Bicester 1) Ltd

Project Ref: 41436/5501 | Rev: V1.2 | Date: March 2018





#### **Document Control Sheet**

Project Name: Plot SGR1
Project Ref: 41436/5501

Report Title: Transport Assessment

Doc Ref: V1.2

Date: March 2018

	Name	Position	Signature	Date
Prepared by:	Adam Humphries	Graduate Engineer		March 2018
	Anthony Bubb	Transport Planner		March 2018
Reviewed by:	Nick Church	Director of Transport	3.	March 2018
Approved by:	Nick Church	Director of Transport		March 2018
For and on behalf of Peter Brett Associates LLP				

Revision	Date	Description	Prepared	Reviewed	Approved
V1.1	February 2018	Draft for Client Review	AH / AB	NC	NC
V1.2	March 2018	For Outline Planning Submission	AH / AB	NC	NC

Peter Brett Associates LLP disclaims any responsibility to the Client and others in respect of any matters outside the scope of this report. This report has been prepared with reasonable skill, care and diligence within the terms of the Contract with the Client and generally in accordance with the appropriate ACE Agreement and taking account of the manpower, resources, investigations and testing devoted to it by agreement with the Client. This report is confidential to the Client and Peter Brett Associates LLP accepts no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk.

© Peter Brett Associates LLP 2018



# **Contents**

1	Introduction		1
	1.1	Overview	1
	1.2	Site Location and Description	1
	1.3	North West Bicester Eco Town	1
	1.4	Development Proposal	2
	1.5	Objective of the Transport Assessment	2
	1.6	Structure of the Report	3
2	Policy	Context	4
	2.1	Overview	4
	2.2	National Policy and Guidance	4
	2.3	Local Policy and Guidance	7
	2.4	Summary	14
3	Site Co	ontext and Access Opportunities	16
	3.1	Overview	16
	3.2	Site Location and Description	16
	3.3	North West Bicester Masterplan Strategic Access Objectives	16
	3.4	Sustainable Access Opportunities	18
	3.5	Highway Network	24
	3.6	Personal Injury Collision Data	26
	3.7	Summary	27
4	Develo	pment Proposal and Access Strategy	28
	4.1	Overview	28
	4.2	Development Proposal	28
	4.3	Access Strategy	29
5	Develo	pment Travel Demand	31
	5.1	Introduction	31
	5.2	Development Travel Demand	31
	5.3	Development Trips Journey Purpose	32
	5.4	Development Trips Modal Split	33
	5.5	Total Development Multi-Modal Trip Generation	37
	5.6	Development Vehicle Traffic Distribution & Assignment	40
6	Traffic	Impact Assessment	53
	6.1	Introduction	53
	6.2	2026 'Do Nothing' 2026 'Do Something' Forecast Flows	53
	6.3	Development Flows	56
	6.4	2026 'Do Something' Forecast + Development Flows	56
	6.5	Summary	61
7	Summ	ary and Conclusions	62



# **Tables**

Table 3.1: Bus Services Available from Manorsfield Road	22
Table 3.2: Rail Journey Times from Bicester North Station	23
Table 3.3: Rail Journey Times from Bicester Village Station	
Table 3.4: 2018 Baseline Traffic Flows on Local Highway Network	
Table 3.5: Recorded 85th Percentile Speeds for Local Highway Network	26
Table 3.6: PIC Summary	27
Table 3.7: Nature of Personal Injury Collisions with Vulnerable Road Users	27
Table 5.1: 85 <sup>th</sup> %ile Residential Person Trip Rates per 1 Dwelling	31
Table 5.2: Residential Person Trip Generation (75 Units)	
Table 5.3: Journey Purpose of Residents (2008/12 National Travel Survey Table NTS0502)	32
Table 5.4: Residential Trips by Journey Purpose	33
Table 5.5: 2011 Census Journey to Work Data (Method of Travel to Work from Cherwell 012) for Employment Trip Purpose	33
Table 5.6: Baseline Trips for Employment Trip Purpose by All Modes	
Table 5.7: Percentage of School Aged Children in Each Type of School	
Table 5.8: National Travel Survey Education Mode Share for Education Trip Purpose	
Table 5.9: Baseline Trips for Education Purposes by All Modes	36
Table 5.10: 2011 Census Journey to Work Data (Method of Travel to Work from Cherwell 012) and Target Mode Share for Other Trips	36
Table 5.11: Baseline Trips for Other Purposes by All Modes	
Table 5.12: Total Baseline Multi-Modal Trip Generation	
Table 5.13: Total Baseline and Target Mode Share for All Trips	39
Table 5.14: Distribution of Employment Traffic	
Table 5.15: Baseline Vehicle Distribution of Employment Traffic	41
Table 5.16: Baseline Vehicle Distribution of Education Traffic	44
Table 5.17: Baseline Vehicle Distribution of Other Traffic	
Table 5.18: Baseline Vehicle Distribution of All Traffic	50

#### **Appendices**

Appendix A	Red Line Boundary Plan
Appendix B	Indicative Masterplan
Appendix C	North West Bicester Eco Town SPD Masterplan and Access and Movement Framework
Appendix D	Charlotte Avenue General Arrangement Drawing
Appendix E	Automatic Traffic Count Data
Appendix F	Personal Injury Collision Data
Appendix G	Journey to Work Distribution





# 1 Introduction

#### 1.1 Overview

- 1.1.1 This Transport Assessment (TA) has been prepared by Peter Brett Associates LLP (PBA) on behalf of SGR (Bicester 1) Ltd to support an outline planning application for the development of up to 75 residential units on Plot SGR1.
- 1.1.2 A formal pre-application scoping meeting between PBA and Oxfordshire County Council, in their capacity as local highway authority, was held on Thursday 25 January 2018 to discuss the development proposals from a transport and highways perspective and to scope the transport technical work required to support an outline planning application. Cherwell District Council, in their capacity as local planning authority, were also in attendance to provide the planning context for the development proposals and additional support to Oxfordshire County Council.
- 1.1.3 A Travel Plan has also been prepared by PBA (Ref: 41436/5502, March 2018) to support the outline planning application alongside this TA. It demonstrates how the design of the development will encourage sustainable travel choices by future residents.

#### 1.2 Site Location and Description

- 1.2.1 The site is bound by B4100 Banbury Road 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 development scheme (10/01780/hybrid) to the west. It is currently in arable use and extends to approximately 5.03 hectares in size.
- 1.2.2 The location of the site is shown by the red line boundary on the plan included in **Appendix A**.

#### 1.3 North West Bicester Eco Town

- 1.3.1 The application site forms part of the wider North West Bicester Eco Town scheme. The North West Bicester Eco Town is a zero carbon sustainable development which will provide a new community of up to 6,000 homes as well as new employment opportunities and attractive amenities on 390 hectares of land to the north-west of Bicester.
- 1.3.2 The overall Eco Town scheme is guided by the North West Bicester Masterplan and Supplementary Planning Document which sets out the key principles of the development such as land use distribution and the overall access strategy by all modes of transport. It provides a guide for all future planning applications across the site and establishes a framework against which these planning applications will be judged by the local planning authority.
- 1.3.3 In summary, the Eco Town will provide through the North West Bicester Masterplan:
  - Up to 6,000 "true" zero carbon homes;
  - Employment opportunities providing at least 4,600 new jobs;
  - Up to four primary schools and one secondary school:
  - 40% green space, half of which will be public open space;
  - Pedestrian and cycle routes;
  - New links under the railway line and to the existing town;



- Local centres to serve the new and existing communities; and
- Integration with existing communities.
- 1.3.4 Phase 1 of the Eco Town scheme, Exemplar (10/01780/hybrid), known as *Elmsbrook*, was given planning permission in July 2012 for 394 residential units on land adjacent to the application site. The development is under construction at the time of writing and it is understood based on the development webpage that it will be complete by the end of 2018.
- 1.3.5 Following the Exemplar development, a further two outline planning applications have been submitted to Cherwell District Council which represent additional phases of the Eco Town scheme. Outline Application 1: Bicester Eco Town Exemplar Site (SGR2 Site) (14/01384/OUT) is for 2,600 units on 155 hectares of land to the north of the railway line while Outline Application 2: Land Adjacent to Bicester Road and South West of Avonbury Business Park (14/01641/OUT) is for 900 units on 51 hectares of land to the south of the railway line. Both of these outline planning application have a resolution to grant subject to the agreement of S.106 contributions.
- 1.3.6 Outline Application 1 & Outline Application 2, combined with the proposals for the re-alignment of the A4095 Strategic Link Road (14/01968/F) through the Eco Town and the Exemplar development scheme under construction, provide the supporting transport infrastructure and associated mitigation measures that will help underpin the delivery of the wider North West Bicester Masterplan and Supplementary Planning Document.

### 1.4 Development Proposal

- 1.4.1 The proposal is to provide up to 75 residential units with a single point of vehicular access along Charlotte Avenue, which is under construction at the time of writing, and provides for footpath / cycle connections to the adjacent development areas. The development proposal makes provision for extensive open space including an orchard and allotments where an informal parking area is provided for these users and St Laurence Church parishioners, accessible via the existing Home Farm access from B4100 Banbury Road.
- 1.4.2 The indicative masterplan for the development is included in **Appendix B** with development parameter plans set out as part of the supporting Environmental Statement prepared by Quod under separate cover. A Design and Access Statement prepared by David Lock Associates under separate cover provides further information in respect of the design of the development proposal.

#### 1.5 Objective of the Transport Assessment

- 1.5.1 The overall objective of this TA is to demonstrate that the development proposal follows the same principles and methodology that has been established for the North West Bicester Masterplan and supports the movement and access strategy of the Supplementary Planning Document. It recognises that the development sits within an overall framework and should not be considered in isolation.
- 1.5.2 To achieve this objective, the TA demonstrates that:
  - The development proposal conforms with national and local transport policy:
  - The site access strategy will encourage sustainable travel choices; and
  - The predicted traffic generation of the development, in the context of the wider Eco Town scheme, will not have a significant impact on the local highway network.



## 1.6 Structure of the Report

- 1.6.1 The structure of the TA is as follows:
  - Chapter 2: reviews national and local policy and guidance documents relevant to the application site as well as the North West Bicester Eco Town scheme as a whole;
  - Chapter 3: defines the context of the application site and describes the opportunities to access the site by sustainable modes of transport;
  - Chapter 4: describes the development proposals and outlines the vehicular and sustainable transport access strategy for the development;
  - Chapter 5: provides an overview of the predicted travel demand from the proposed residential development by all modes of transport;
  - Chapter 6: outlines the traffic modelling work undertaken to assess the impact of the development proposal on the local highway network; and
  - Chapter 7: provides an overall summary and conclusion to the report.



# 2 Policy Context

#### 2.1 Overview

- 2.1.1 This chapter of the TA reviews the following national and local policy and guidance documents relevant to the application site as well as transport and movement as a whole across the North West Bicester Eco Town scheme.
  - National Planning Policy Framework
  - National Planning Practice Guidance
  - Planning Policy Statement: Eco Towns A Supplement to Planning Policy Statement 1
  - Oxfordshire Local Transport Plan 4 (LTP4)
  - Cherwell Local Plan 2011-2031 Part 1
  - North West Bicester Supplementary Planning Document

## 2.2 National Policy and Guidance

#### **National Planning Policy Framework (March 2012)**

- 2.2.1 The National Planning Policy Framework (NPPF) sets out the economic, environmental and social planning policies for England and articulates the vision of sustainable development. It recognises the importance that transport has in enabling development while also contributing towards wider sustainable and health objectives.
- 2.2.2 In paragraph 17, the NPPF identifies core planning principles to actively manage "patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable" and to "take account of and support local strategies to improve health, social and cultural wellbeing for all, and deliver sufficient community and cultural facilities and services to meet local needs".
- 2.2.3 Additionally, in promoting sustainable transport, paragraph 31 states that "local authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development" while paragraph 32 states that "all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether.
  - i. the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
  - i. safe and suitable access to the site can be achieved for all people; and
  - ii. improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."
- 2.2.4 The NPPF at paragraph 34 states that "plans and decisions should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised" while paragraph 35 states that "developments should be located and designed where practical to:



- Accommodate the efficient delivery of goods and supplies;
- Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;
- Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and
- Consider the needs of people with disabilities by all modes of transport."
- 2.2.5 The NPPF recognises that a key tool to facilitate this will be through a Travel Plan such that all developments which generate significant amounts of movements should be required to provide a Travel Plan.

# National Planning Practice Guidance (March 2014; and subsequent updates)

- 2.2.1 Planning Practice Guidance (PPG)¹ provides links to the NPPF and identifies the following with regards to Travel Plans: 'Travel Plans can play an effective role in taking forward those mitigation measures which relate to on-going occupation and operation of the development. (Paragraph: 005, Reference ID: 42-005-20140306)'
- 2.2.2 Travel Plans are important as they:
  - promote and encourage sustainable travel;
  - create 'accessible, connected, inclusive communities';
  - reduce the impact of trip generation;
  - reduce the impact on the environment through reducing carbon emissions;
  - improve quality of life, health and road safety; and
  - reduce 'the need for new development to increase existing road capacity or provide new roads'.
- 2.2.3 With regard to Travel Plans, PPG states that 'The primary purpose of a Travel Plan is to identify opportunities for the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport and tele-commuting, in connection with both proposed and existing developments and through this to thereby reduce the demand for travel by less sustainable modes (Paragraph: 005, Reference ID: 42-005-20140306)'. Travel Plans are 'long-term management strategies for integrating proposals for sustainable travel into the planning process. They are based on evidence of the anticipated transport impacts of development and set measures to promote and encourage sustainable travel (such as promoting walking and cycling) (Paragraph: 003, Reference ID: 42-003-20140306)'.
- 2.2.4 Travel Plans should evaluate and consider:
  - benchmark travel data including trip generation databases;

<sup>&</sup>lt;sup>1</sup> First published as an online document in March 2014, this is a live document which is updated periodically. Any relevant updates since publication are also considered here.



- information concerning the nature of the proposed development and the forecast level of trips by all modes of transport likely to be associated with the development;
- relevant information about existing travel habits in the surrounding area;
- proposals to reduce the need for travel to and from the site via all modes of transport; and
- provision of improved public transport services.

#### **Planning Policy Statement: Eco Towns**

- 2.2.5 Planning Policy Statements (PPS) set out the national policies on different aspects of spatial planning in England before all, inclusive of the PPS on Eco Towns, were superseded by the NPPF in 2012.
- 2.2.6 The PPS on Eco Towns supplements PPS1 which outlines the overarching planning policies on the delivery of sustainable development through the planning system. It sets out the objectives for sustainable development in the form of large-scale development providing more homes while responding to the impact of climate change as well as a wide range of standards for the delivery of zero carbon development, homes, transport, jobs and other components of an Eco Town.
- 2.2.7 The objectives for planning set out in the PPS1 supplement were:
  - To promote sustainable development by ensuring that eco-towns achieve sustainability standards significantly above equivalent levels of development in existing towns and cities by setting out a range of challenging and stretching minimum standards for their development, in particular by:
    - providing a good quantity of green space of the highest quality in close proximity to the natural environment
    - offering opportunities for space within and around the dwellings
    - promoting healthy and sustainable environments through 'Active Design'2 principles and healthy living choices
    - enabling opportunities for infrastructure that make best use of technologies in energy generation and conservation in ways that are not always practical or economic in other developments
    - delivering a locally appropriate mix of housing type and tenure to meet the needs of all income groups and household size, and
    - taking advantage of significant economies of scale and increases in land value to deliver new technology and infrastructure such as for transport, energy and community facilities.
  - To reduce the carbon footprint of development by ensuring that households and individuals in eco-towns are able to reduce their carbon footprint to a low level and achieve a more sustainable way of living.
- 2.2.8 The PPS1 supplement states that Eco Towns should develop unique characteristics by responding to the opportunities and challenges of their location and community aspirations and that all Eco Town proposals should meet the standards as set out in the PPS1 supplement or any standards in the development plan which are of a higher standard. The document identifies at Appendix A that the North West Bicester site allocation will be required to meet the Eco Town standards.



- 2.2.9 Policy ET11 Transport in the PPS1 supplement identifies the standards for transport in an Eco Town. It states that "travel in eco-towns should support people's desire for mobility whilst achieving the goal of low carbon living. The town should be designed so that access to it and through it gives priority to options such as walking, cycling, public transport and other sustainable options, thereby reducing resident's reliance on private cars, including techniques such as filtered permeability. To achieve this, homes should be within ten minutes' walk of (a) frequent public transport and (b) neighbouring services. The provision of services within the eco-town may be co-located to reduce the need for individuals to travel by private car and encourage the efficient use of the sustainable transport options available."
- 2.2.10 PPS1 states that Travel Plans are required to be included with any planning application with respect to Eco Town development and should demonstrate:
  - How the town's design will enable at least 50% of trips originating in eco-towns to be made by non-car means, with the potential for this to increase over time to at least 60%;
  - Good design principles, drawing from Manual for Streets, Building for Life, and community Travel Planning principles;
  - How transport choice messages, infrastructure and services will be provided from "day one" of residential occupation; and
  - How the carbon impact of transport in the eco-town will be monitored, as part of embedding a long-term low-carbon approach to travel within plans for community governance.
- 2.2.11 PPS1 also states that where an Eco Town is close to an existing higher order settlement, in this case Bicester, planning applications should also demonstrate:
  - Options for ensuring that key connections around the eco-town do not become congested as a result of the development, for example by extending some aspects of the Travel Plan beyond the immediate boundaries of the town; and
  - Significantly more ambitious targets for modal share than the 50% (increasing to 60% over time) for the use of sustainable transport.
- 2.2.12 Eco Towns should also be "designed in a way that supports children walking or cycling to school safely and easily. There should be a maximum walking distance of 800m from homes to the nearest school for children aged under 11."

### 2.3 Local Policy and Guidance

#### Oxfordshire Local Transport Plan 4 2015-2031 (Updated 2016)

- 2.3.1 The Oxfordshire Local Transport Plan (LTP4) 'Connecting Oxfordshire' includes objectives and policies for improving transport in Oxfordshire to 2031. These objectives and policies look at, in addition to other issues, minimising the need to travel and encouraging active travel.
- 2.3.2 The focus of the LTP4 is to attract and support economic investment and growth, deliver transport infrastructure, tackle congestion and improve quality of life. In *Connecting Oxfordshire Volume 1*, it also sets out policy priorities for parts of Oxfordshire less affected by the Knowledge Spine; therefore, it provides a basis for securing transport improvements to support development across the whole of Oxfordshire.
- 2.3.3 LTP4 has been developed with 3 over-arching transport goals in mind:
  - Goal 1 To support jobs and housing growth and economic vitality;



- Goal 2 To reduce emissions, enhance air quality and support the transition to a low carbon economy
- Goal 3 To protect and enhance Oxfordshire's environment and improve quality of life
- 2.3.4 To achieve these transport goals, 10 objectives for transport have been developed:

#### Objectives Against Goal 1

- 1) "maintain and improve transport connections to support economic growth and vitality across the county;
- 2) make most effective use of all available transport capacity through innovative management of the network;
- 3) increase journey time reliability and minimise end-to-end public transport journey times on main routes;
- 4) develop a high quality, innovative and resilient integrated transport system that is attractive to customers and generates inward investment;

#### Objectives Against Goal 2

- 5) minimise the need to travel;
- 6) reduce the proportion of journeys made by private car by making the use of public transport, walking and cycling more attractive;
- 7) influence the location and layout of development to maximise the use and value of existing and planned sustainable transport investment;
- 8) reduce per capita carbon emissions from transport in Oxfordshire in line with UK government targets;

#### Objectives Against Goal 3

- 9) mitigate and wherever possible enhance the impacts of transport on the local built, historic and natural environment; and
- 10) improve public health and wellbeing by increasing levels of walking and cycling, reducing transport emissions, reducing casualties, and enabling inclusive access to jobs, education, training and services."
- 2.3.5 A number of policies in the LTP4 are important to Eco Town development:
  - Policy 03 Oxfordshire County Council will support measures and innovation that make more efficient use of transport network capacity by reducing the proportion of single occupancy car journeys and encouraging a greater proportion of journeys to be made on foot, by bicycle, and / or by public transport;
  - Policy 19 Oxfordshire County Council will encourage the use of travel associated with healthy and active lifestyles;
  - Policy 20 Oxfordshire County Council will carry out targeted safety improvements on walking and cycling routes to school, to encourage active travel and reduce pressure on school bus transport;



- Policy 22 Oxfordshire County Council will promote the use of low or zero emission transport, including electric vehicles and associated infrastructure where appropriate; and
- Policy 23 Oxfordshire County Council will work to reduce the emissions footprint of transport assets and operation where economically viable, taking into account energy consumption and the use of recycled materials.
- 2.3.6 Connecting Oxfordshire Volume 8 Part ii outlines the strategies for particular local areas within Oxfordshire. The Bicester Area Strategy outlines 4 key aims for Bicester with respect to the county:
  - BIC1 Improve access and connections between key employment and residential sites and the strategic transport system by:
    - Continuing to work with Highways England to improve connectivity to the strategic highway;
    - Investigating a new motorway junction as part of the Garden Town work;
    - Reviewing key county road links out of Bicester, including those that cross the county boundary;
    - Investigating options for infrastructure improvements and bus priority;
    - Delivering effective peripheral routes around the town;
    - Investigating solutions to East-West Rail Phase 2 challenges; and
    - Supporting the proposals to secure a potential freight interchange at Graven Hill and working with the district and developers to achieve this.
  - BIC2 We will work to reduce the proportion of journeys made by private car through implementing the Sustainable Transport Strategy by:
    - Significantly improving public transport connectivity with key areas of economic growth within Oxfordshire, through access to high-quality, high frequency services on the core network between Bicester, Oxford, Banbury, Witney and Science Vale, operating on a 'turn up and go' basis throughout the day; integrated connections between local bus services and services on the core network; and flexible, cashless payment, with the ability to switch between modes of travel without penalty or the need to make separate payments.
    - Where possible we will encourage and support bus operators' proposals to develop innovative bus services and alternative routes, especially more direct and express services; for example, a strategic bus link between south-east of Bicester and Oxford Eastern Arc.
    - Improving Bicester's bus services along key routes and providing improved public transport infrastructure considering requirements for and integrating strategic development sites. Working with Bicester Town Council we will also enhance passenger information at strategic locations. The aim is to connect residential areas and transport hubs with existing and future employment centres including, but not limited to:
      - Graven Hill;
      - North West Bicester;
      - Launton Road Industrial Estate:



- Bicester Business Park;
- South-East Bicester;
- North-East Bicester;
- Town centre; and
- Bicester Village.
- Bus connectivity improvements may be required at anticipated pinch points within the town as future developments come forward. This will include connections between North West Bicester and the town centre and consider the need for bus lanes along the A41 to connect with the Park and Ride scheme.
- This will be supported using funding from development to enhance the quality and frequency of existing services, with the aim of services reaching full commercial viability;
- Enhancing pedestrian, cycle and public transport links to the Bicester Village Station, Bicester North Station and key employment sites.
- Securing green links will be considered between proposed development sites on the outskirts of town and existing Public Rights of Way, providing a series of leisure / health walks. We will also pursue opportunities to join a number of missing links in the Public Rights of Way network through working with developers;
- Implementing Bicester town centre highway modifications. In combination with improvements to peripheral routes, highway restrictions in Bicester Town Centre will be considered on through routes in order to reduce through traffic in the town centre;
- The Bicester Sustainable Transport Strategy has identified a number of new sections of urban pedestrian and cycle routes to better connect residential developments with the town centre and key employment destinations; and
- Progressing a Wayfinding Project for Bicester with the aim of improving signage across the town.
- BIC3 We will increase people's awareness of the travel choices available in Bicester, which should improve public health and wellbeing, by:
  - Undertaking travel promotions and marketing measures;
  - Developing a coordinated parking strategy in partnership with Cherwell District Council;
  - Discourage undesirable routeing of traffic by developing a signage strategy;
  - Providing coordinated information and advance notice of construction closures and traffic related issues; and
  - Providing new approaches to transport through the North-West Bicester development site, including a heavy emphasis on sustainable modes and travel choice advice, as well as early provision of bus services and cycle routes. This may unlock opportunities for wider travel choice options.
- BIC4 To mitigate the cumulative impact of development within Bicester and to implement the measures identified in the Bicester Area Transport Strategy we will:
  - Secure strategic transport infrastructure contributions from all new development;



- Secure sustainable transport measures through all major new development. For large new or expanded housing development sites, the following principles for cycle provision apply:
  - a. Developers must demonstrate through masterplanning how their site has been planned to make cycling convenient and safe for cyclists travelling to, from, within and through the site
  - b. Site road network and junctions must be constructed with cycling in mind, including providing space for cycling on main / spine roads through the provision of, as a minimum, advisory cycle lane
  - c. We will ask developers to fund cyclability audits, so that the local user view is incorporated into new cycle facilities; and
- Secure strategic public transport contributions for new or improved public transport services as well as bus stop infrastructure to support sustainable development.
- 2.3.7 The wider North West Bicester site is indicated on the indicative map of transport infrastructure and proposed growth in Bicester as 'Local Plan Mixed Use Areas Comprising Residential and Employment' in the context of the Eco Town. A proposed secondary school and the Western Peripheral Corridor transport scheme (realigning the A4095 Howes Lane, including a new tunnel under the railway) are also indicated on the map within the wider site area.

#### Cherwell Local Plan 2011-2031 (Updated December 2016)

- 2.3.8 The Cherwell Local Plan 2011-2031 Part 1 sets out how Cherwell will grow and change in the period up to 2031. It identifies the long term spatial vision for Cherwell and includes policies to help deliver that vision.
- 2.3.9 It demonstrates the importance of the North West Bicester Eco Town to Cherwell as a whole through Policy Bicester 1. It states that "an Eco Town development of 6,000 homes will be developed on land identified at North West Bicester in accordance with the standards set out in the former Eco Towns PPS." The policies map as well as the inset map for Policy Bicester 1: North West Bicester Eco Town both identify the location and the area of the Eco Town scheme and development proposals.
- 2.3.10 Any development proposals as part of the Eco Town scheme should ensure the below.
  - A zero-carbon development as defined in the Eco Towns PPS and Eco Bicester One Shared Vision.
  - Delivery of a high quality local environment.
  - Climate Change Adaptation: Eco Town standards are met on water, flooding, green infrastructure and biodiversity.
  - Homes that achieve at least Level 5 of the Code for Sustainable Homes.
  - Employment: at least 3,000 jobs within the plan period (approximately 1,000 jobs on B use class land on the site within the plan period). An economic strategy will be required and there should be local sourcing of labour, including providing apprenticeships during construction.
  - Transport: at least 50% of trips originating from the development to be made by means other than the car.



- Promotion of healthy lifestyles.
- Provision of local services and facilities.
- Green Infrastructure and Biodiversity: 40% of the total gross site area will be provided as green space of which at least half will be public open space.
- Sustainable management of waste.
- 2.3.11 Policy Bicester 1 also states that "a masterplan for the North West Bicester site will be required to demonstrate how proposals will achieve the standards set out in the Eco Towns PPS and Eco Bicester One Shared Vision. Development will be considered on the basis of a masterplan for the whole development area, to ensure that development takes place in an integrated, coordinated and planned way, whilst recognising that phasing of development within the overall masterplan strategy will be required. It will integrate with and complement the function and urban form of Bicester and reinforce the role of Bicester town centre as the primary retail and service centre." Policy Bicester 1 ensures that the Eco Town scheme will be designed as an exemplar which incorporates best practice and provide a showcase for sustainable living.
- 2.3.12 Policy Bicester 1: North West Bicester Eco Town
  - Development Area: 390 hectares
  - Development Description: A new zero carbon mixed use development including 6,000 homes will be developed on land identified at North West Bicester.
  - Planning permission will only be granted for development at North West Bicester in accordance with a comprehensive masterplan for the whole area to be approved by the Council as part of a North West Bicester Supplementary Planning Document.
- 2.3.13 The council will expect the North West Bicester Masterplan and applications for planning permission to meet the following requirements which relate to transport and movement:
  - Proposals should enable residents to easily reduce their carbon footprint to a low level and live low carbon lifestyles;
  - Layout of development that enables a high degree of integration and connectivity between new and existing communities;
  - A layout that maximises the potential for walkable neighbourhoods;
  - New footpaths and cycleways should be provided that link with existing networks, the wider urban area and community facilities with a legible hierarchy of routes to encourage sustainable modes of travel;
  - A layout which makes provision for and prioritises non-car modes and encourages a modal shift from car use to other forms of travel;
  - Infrastructure to support sustainable modes of transport will be required including enhancement of footpath and cycle path connectivity with the town centre, employment and rail stations.
  - Measures to ensure the integration of the development with the remainder of the town including measures to address movement across Howes Lane and Lords Lane;



- Good accessibility to public transport services should be provided for, including the provision of a bus route through the site with buses stopping at the railway stations and at new bus stops on the site;
- Contributions to improvements to the surrounding road networks, including mitigation measures for the local and strategic highway network, consistent with the requirement of the Eco-Towns PPS to reduce reliance on the private car, and to achieve a high level of accessibility to public transport services, improvements to facilities for pedestrians and cyclists and the provision and implementation of a Travel Plan to maximise connectivity with existing development;
- Provision of a Transport Assessment;
- Measures to prevent vehicular traffic adversely affecting surrounding communities; and
- Significant green infrastructure provision, including new footpaths and cycleways, enhancing green modal accessibility beyond the site to the town centre and Bicester Village Railway Station, and adjoining developments.
- Public open space to form a well-connected network of green areas suitable for formal and informal recreation.
- 2.3.14 All proposals for development across the Eco Town site will be required to meet the Eco Town development standards set out in Policy Bicester 1: North West Bicester Eco Town and make a degree of contribution towards transport mitigation measures.

#### **North West Bicester Supplementary Planning Document (2016)**

- 2.3.15 The North West Bicester Supplementary Planning Document (SPD) expands upon Policy Bicester 1 of the adopted Cherwell Local Plan 2011-2031 Part 1. The SPD provides further detail to Policy Bicester 1 and a means of implementing the strategic allocation at North West Bicester. The Access & Movement Framework and Masterplan Framework for the Eco Town from the SPD are included in **Appendix C**.
- 2.3.16 The SPD sets out the minimum standards to be achieved by proposed development across the Eco Town. It is encouraged that developers exceed these standards where possible and will be expected to apply new higher standards that arise during the life of the document and reflect up to date best practice and design principles.
- 2.3.17 The key elements of the SPD are:
  - The North West Bicester Masterplan;
  - Development and design principles aimed at delivering a high quality scheme;
  - Requirements for addressing sustainable design;
  - Requirements relating to the scheme's delivery and implementation; and
  - Requirements which should be met at the detailed planning application stage and beyond to ensure adequate and consistent approaches to quality and delivery.
- 2.3.18 It is recognised that the SPD supports the implementation of Policy Bicester 1 of the Cherwell Local Plan 2011-2031 Part 1 and will be a material consideration in determining planning applications on the North West Bicester site.



- 2.3.19 The SPD will ensure that the vision for the Eco Town will be successfully delivered; it has taken key elements from the North West Bicester Masterplan and vision documents. The Masterplan illustrates the key components of the development strategy for the site and includes the landscape framework that underpins the masterplanning providing connectivity and structure to the site.
- 2.3.20 The SPD sets a number of development principles and requirements for the Eco Town.
- 2.3.21 Development Principle 6 Transport, Movement & Access states that walking and cycling will be encouraged and supported to be the first choice of transport in new developments and that a higher priority should be given to pedestrian and cycle movement. It also states that development proposals must show an understanding of existing routes and provide a considered response that enhances existing access and connections and seeks to improve / remove barriers to movement on and off-site.
- 2.3.22 Development Requirement 6 Transport, Movement & Access states that the following key considerations for movement should be addressed in planning applications:
  - Reducing car dependency;
  - Prioritising walking and cycling;
  - Generating activity and connectivity;
  - Highway and transport improvements; and
  - Bus priority and links and infrastructure including RTI.
- 2.3.23 The SPD states that planning applications are required to illustrate the permeability of the site.
- 2.3.24 A key consideration of the SPD is that all planning applications for development in the Eco Town should include a Travel Plan which demonstrates how the design of the development will enable at least 50% of all trips from the development to be made by non-car modes of travel with a potential increase to 60% by 2020. The SPD also states that all planning applications need to be supported by a Transport Assessment which addresses the guidance in the SPD.

#### **Additional Local Design Guidance Used to Inform the Proposals**

- 2.3.25 The following local design guidance has also been considered in the preparation of this TA and the design of the masterplan:
  - Oxfordshire County Council "Residential Road Design Guide" (2015)
  - Oxfordshire County Council "Parking Standards for New Residential Developments" (2011)
  - Oxfordshire County Council "Oxfordshire Walking Design Standards" (2017)
  - Oxfordshire County Council "Oxfordshire Cycling Design Standards" (2017)

## 2.4 Summary

- 2.4.1 This TA demonstrates that the development proposal for Plot SGR1 is in accordance with national and local policy and guidance documents as well as the design principles set out in the North West Bicester Masterplan and Supplementary Planning Document for the wider Eco Town.
- 2.4.2 It demonstrates that:



- A safe and suitable access to the development is achievable for all people;
- The proposed access strategy for the development gives priority to pedestrian and cycle movements as well as access to high-quality public transport facilities;
- A frequent public transport service is within a 10-minute walk of the site;
- New pedestrian and cycle infrastructure for the development will connect with the existing network of the adjacent developments; and
- The predicted peak period development travel demands by all modes and the percentage impact of the peak hour development traffic generation across a local study area, informed by 2026 forecast traffic flows derived from the Oxfordshire County Council 'Bicester Transport Model'.
- 2.4.3 The layout of the development and the location of the site as part of the wider Eco Town scheme will promote travel by sustainable modes of transport and will seek to ensure that at least 50% of all trips from the site are made by non-car modes in accordance with the wider objectives of the North West Bicester Masterplan and supporting documentation including the SPD.



# 3 Site Context and Access Opportunities

#### 3.1 Overview

- 3.1.1 This chapter of the TA sets out the context of the application site with regards to its access opportunities. It provides an overview of the infrastructure proposed for the wider Eco Town scheme through the North West Bicester Masterplan and describes how the infrastructure provided and further proposed as part of the Exemplar development scheme will provide the opportunity to access Plot SGR1 by sustainable modes of transport.
- 3.1.2 The chapter has been prepared through reference to a range of data sources including:
  - review of the North West Bicester Masterplan and Supplementary Planning Document;
  - desktop review of a range of publicly available information sources;
  - Personal Injury Collision data sourced from Oxfordshire County Council; and
  - observations made by PBA during a single site visit undertaken in January 2018.

## 3.2 Site Location and Description

- 3.2.1 Plot SGR1 is bound by B4100 Banbury Road 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 development scheme (10/01780/hybrid) to the west.
- 3.2.2 It is currently in arable use and extends to approximately 5.03 hectares in size.
- 3.2.3 The location of the site is shown by the red line boundary on the plan included in **Appendix A** and the indicative masterplan is included in **Appendix B**.

## 3.3 North West Bicester Masterplan Strategic Access Objectives

- 3.3.1 The existing context of Plot SGR1 is being shaped by the delivery of the wider Eco Town development proposals and accordingly the delivery of this wider scheme is directly informative to the future access and movement provision at the application site. The broader North West Bicester Masterplan and Access and Movement Framework proposals are illustrated in plans included in **Appendix C**.
- 3.3.2 Plot SGR1 is located in the northern half of the Eco Town scheme. The North West Bicester Masterplan sets out the following with respect to transport development principles across the Eco Town:
  - "The overall design is centred around four urban and four rural areas interconnected through green 'lanes' which include both direct and leisure routes, so everyone can get from home to work, and play, in no time at all.

There will be plenty of opportunities to reduce travel by car and minimise CO<sub>2</sub> emissions, because every home will be within 400 metres of a bus stop and within an easy ten-minute walk of local shops and primary schools. With so many beautiful and spacious green lanes, it will be easy for everyone to cycle to work in and around NW Bicester. And for those who travel a little further, there will also be improved cycle and bus routes into Bicester that can connect into improved rail connections to Oxford and beyond. Real time travel information in every home will make use of public transport more accessible.



The network of rural footpaths and cycleways and a series of bus only road links will mean public transport is more rapid and frequent; enabling people to make sustainable travel choices. With a car club and network of charging points for electric vehicles, for those that do still require cars for longer journeys, we will inspire the use of hybrid or electric vehicles".

- 3.3.3 The North West Bicester Masterplan sets out the following strategic access objectives for the wider site:
  - Ensure future access and connectivity works with the surrounding area and the new proposed development;
  - Ensure there are good connections within the development between all facilities;
  - Ensure the development is well connected to the rest of Bicester;
  - Enable a frequent and high-quality bus service to be provided;
  - Give priority to strong walking, cycling and bus connections; and
  - Minimise traffic going through existing communities.
- 3.3.4 The North West Bicester Masterplan outlines that walking and cycling routes through the Eco Town will be of a high-quality with all-weather surfacing, well-lit and easily maintained. Where possible, these will be segregated from the carriageways and cyclists and pedestrians will also be segregated to avoid conflicts. Safety will be ensured by providing routes of appropriate widths and with numerous crossing points.
- 3.3.5 It is proposed that walking and cycling routes across the Eco Town will be split into two distinct categories: 'Direct Routes' will act as commuting routes to enable direct and fast access to key local employment areas, schools, local centres and hubs; while 'Leisure Routes' will be introduced which will consist of longer meandering paths which will be more rural in nature.
- 3.3.6 The North West Bicester Masterplan states that bus routes through the Eco Town will be designed to take residents in the most direct route possible to key destinations in Bicester including local centres, employment sites and public transport interchanges. A bus service is to be provided with frequent and direct links to the town centre and local facilities to encourage bus travel over car use.
- 3.3.7 The Eco Town will have two bus routes: Bus Route 1 will serve the southern half of the Eco Town while Bus Route 2 will serve the northern half where the application site is located. Both routes will loop within the side of the Eco Town that they serve and then travel along Bucknell Road towards the town centre.
- 3.3.8 There are plans for a form of bus priority on Bucknell Road included in the North West Bicester Masterplan, as well as improvements to bus priority in the town centre. This will give advantage to buses on routes with heavy traffic flow therefore improving journey times and making bus travel a more attractive option.



## 3.4 Sustainable Access Opportunities

3.4.1 The opportunities to access the application site by sustainable modes of transport are intrinsically linked to the Exemplar development scheme and the wider infrastructure proposed through the North West Bicester Masterplan. *Elmsbrook* is under construction at the time of writing and while some of the phases of the development are complete, the remaining phases are expected to be complete in advance of the application site; therefore, this section makes reference to existing provision at the time of writing and proposed delivery underway as part of the *Elmsbrook* proposals, when considering access opportunities for Plot SGR1. This section should be read in conjunction with **Figures 3.1 & 3.2**.



