Oaklands Blossom

OAKLANDS COLLEGE

Oaklands College & Land south of Sandpit Lane, St Albans

Transport Assessment (including Parking Strategy)

October 2025

OAKLANDS BLOSSOM & OAKLANDS COLLEGE, ST ALBANS

TRANSPORT ASSESSMENT

03 October 2025

EVOKE

OAKLANDS BLOSSOM & OAKLANDS COLLEGE, ST ALBANS

TRANSPORT ASSESSMENT

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Table of contents

List of Figures

List of Tables

Appendices

Executive Summary

This Transport Assessment has been prepared to support the planning application for the residential-led mixed use development comprising up to 472 residential dwellings, a children's home, local centre, construction of new buildings and facilities within Oaklands College, up to 70 extra care homes and a primary school, on land to the north-east of St Albans between Sandpit Lane and Hatfield Road.

The application comprises two parcels of land – Oaklands Blossom to the north which comprises the Taylor Wimpey aspect and Oaklands College to the south.

This application is submitted as a hybrid application, with detailed permission sought for 167 residential dwellings, a four-bedroom children's home, a new local centre and construction of new buildings and education facilities for Oaklands College.

It is of note that the application site forms a draft allocation for a mixed-use residential-led development within the Draft St Albans City District Council Local Plan. To support the potential allocation, the site was tested as part of the Transport Impact Assessment which concluded that the impacts from the development can be mitigated to a degree that is acceptable regarding the NPPF test of 'severe' regarding congestion and safety and that there are 'no showstoppers'. Given the proposals involve the same quantum of development that was assessed within the allocation, it is considered that the conclusions are still valid, and the development can be accommodated on the local transport network.

In summary, this Transport Assessment illustrates the following in accordance with key national and local policy including the National Planning Policy Framework:

- The Transport Vision for the site, which promotes a hierarchical approach to transport, focused on reducing the need to travel first and foremost and prioritising sustainable modes of transport over the private car;
- That sustainable access and choice for non-motorised users has been prioritised and will be improved through delivering new high-quality routes within the site, as well as improvements to existing routes internally, and improvements to access route and connections with the wider transport network;
- That safe and suitable means of access can be provided for all modes of travel to and from the site;
- That the development involves a comprehensive package of mitigation measures to improve the transport and highway network within the vicinity of the site, prioritise active travel modes and public transport users;
- Two scenarios have been demonstrated of potential development impact in accordance with national 'Decide and Provide' guidance;
- That the proposals would not have a severe impact on the operation of the local transport network, nor would they lead to an unacceptable impact on highway safety, following mitigation and taking into account all reasonable future scenarios.

1. Introduction

1.1. Context

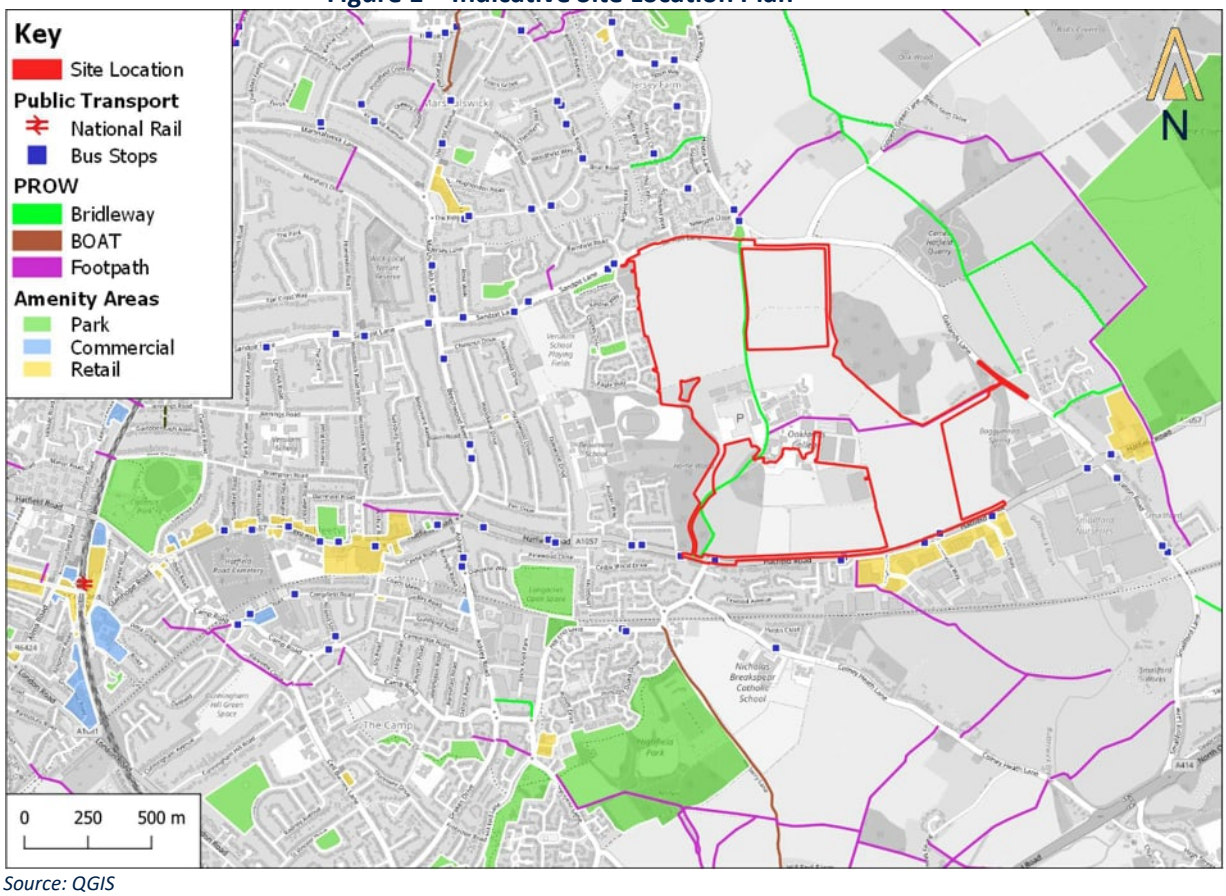
1.1.1. Evoke Transport Planning Consultants (Evoke) has been commissioned by Taylor Wimpey North Thames and Oaklands College (herein referred to as the 'Applicants') to provide transport consultancy services to support a hybrid planning application for a mixed-use residential-led development on land south of Sandpit Lane and the renovation and construction of new education facilities at Oaklands College in St Albans. The local planning authority (LPA) are St Albans City and District Council (SACDC), and the local highway authority (LHA) are Hertfordshire County Council (HCC).

1.1.2. The Site lies to the north-east of St Albans, between Sandpit Lane and Hatfield Road, and comprises two main areas:

- Land referred to by the Council as "Site B4 East St Albans" and herein referred to as "Oaklands Blossom" within this report; and
- The Oaklands College and its associated facilities and sports pitches, herein referred to as "Oaklands College".

1.1.3. The wider site is bordered by Sandpit Lane to the north, land owned by Oaklands College to the east, Hatfield Road to the south and by the recently constructed residential development to the north-west (also delivered by Taylor Wimpey) known as Oaklands Grange and by Home Wood ancient woodland to the south-west. The site currently comprises open land in former arable, pasture and horticultural use and the existing Oaklands College site. Figure 1 outlines the location of the site and surrounding context.

Figure 1 – Indicative Site Location Plan



Source: QGIS

1.2. Proposed Development

1.2.1. The development description is:

- *"A Hybrid planning application for a severable phased development comprising:*
  - *Full planning application for the construction of homes (use class C3); new local centre and community facility (use classes E(a to f) and F); a children's home (use class C2); demolition and renovation of existing college buildings; construction of new college buildings (use class F1.); the creation of Active Travel Routes including footpaths for walking, cycling and equestrian activities; removal and planting of trees; along with the laying out of green infrastructure (including publicly accessible open space) and habitat creation; drainage infrastructure, earthworks, new means of access and alterations to existing access points.*
  - *Outline planning application (access only, all other matters reserved) for the construction new homes (use class C3); new extra care home dwellings (use class C2); land for the construction of a new primary school (use class F.1); demolition and renovation of existing college buildings; construction of new college buildings (use class F1.); the construction of new sports facilities and pitches; the creation of Active Travel Routes including footpaths for walking, cycling and equestrian activities; removal and planting of trees; new energy centre; new recycling facilities; new car parking facilities; along with the laying out of green infrastructure and habitat creation; drainage infrastructure, earthworks, pedestrian and cycle routes, alterations to existing access points.*
  - *The phasing of the development is indicative allowing different phases to commence at different times and independently (severable) from each other. The outline phases are the subject of parameter plans and design codes*".

1.2.2. The proposed masterplan is attached at **Appendix A.**

1.2.3. In summary, this application is submitted as a hybrid application, comprising:

- Full Detail application for:
  - 167 residential dwellings;
  - A children's home;
  - New local centre comprising:
    - Up to 578sqm of commercial floorspace (Use Classes E (a to f)); and
    - Approximately 100sqm of community floor space (Use Class F);
  - Provision of open space;
  - Demolition works and renovation of existing Oaklands College buildings;
  - Construction of new buildings and education facilities for Oaklands College; and
  - With the following matters to be approved – access, layout, scale, appearance and landscape;
- Outline application for:
  - Up to 305 residential dwellings;
  - Up to 70 extra care homes;
  - Land for two form entry primary school, anticipated to provide 420 pupil spaces.

1.2.4. Pedestrian and cyclists will be prioritised throughout the development, with access for these users obtained in various locations surrounding the Site, with improvements to existing routes as well as the provision of new routes.

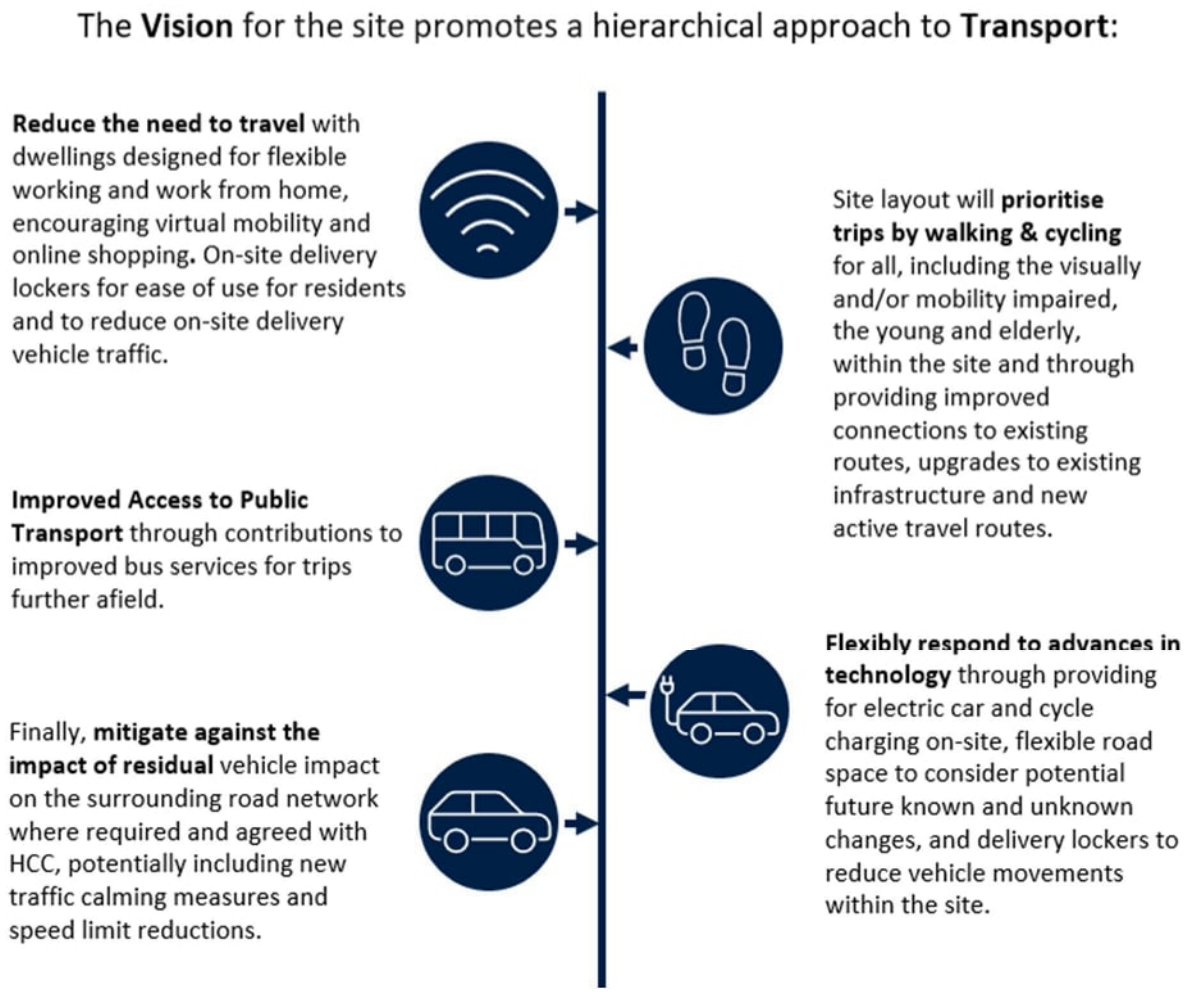
1.2.5. Vehicular access to Oaklands Blossom is proposed via the creation of two access points off the southern side of Sandpit Lane, with the eastern access taking the form of a ghost island right-turn lane and the western access taking the form of a simple priority junction.

1.2.6. Vehicular access to Oaklands College will be retained from the two existing access points, with both accesses subject to improvements.

Vision

1.2.7. The overriding principle of the indicative masterplan is to create a neighbourhood that contains high quality landscaping, including green open spaces and play spaces, in addition to strategic planting to soften the visual impact of the internal road network and built up areas. The proposals will provide safe and suitable vehicular access, however active travel routes and permeability for pedestrians and cyclists has been prioritised at the core of the development, including connections to both formal active travel routes and leisure routes in accordance with HCC's transport user hierarchy. Further information on the vision and transport hierarchy is shown in Figure 2 and outlined in Section 3.

Figure 2 – Transport Hierarchy



1.3. Pre-Application Consultation

1.3.1. Extensive pre-application discussions have taken place with both SACDC, HCC, Sandridge Parish Council, Marshalswick North Residents' Association, Jersey Farm Residents' Association, LLFA, The Ramblers and other statutory consultees have taken place prior to submission of the planning application.

HCC Highways

1.3.2. With regards to the pre-application with HCC Highways, a formal scoping note was submitted to HCC in January 2025. Following this, numerous meetings have been held with HCC Highways with regards to the active travel routes within the site, off-site mitigation design and public transport proposals, which have been supported by various further scoping notes produced by Evoke focusing on key topics. Responses have been received in the form of emails and various informal documents; however no formal pre-application response has been received from HCC Highways, however key email correspondence is attached at **Appendix B**. This report has been produced with regards to the detailed discussions had.

National Highways Pre-Application

1.3.3. A pre-application consultation was undertaken with National Highways (NH) to seek to agree the extent of modelling required on the Strategic Road Network (SRN). A pre-application scoping note was submitted to NH demonstrating the developments potential impact upon the A1(M), in particular Junctions 3 and 4. The following concluding comments were received from NH on 9th June 2025 (NH Reference: NH/25/10339), with the email correspondence attached at **Appendix C**:

- "*We are happy that the proposals demonstrate the small-scale nature of the local centre that will likely be used by local residents producing low external trip attraction.*
- *We have reviewed the updated traffic flow diagrams and are satisfied at this stage that the anticipated vehicle movements are unlikely to cause any adverse safety implications or material increase in queues and delays at J3 and J4 of the A1(M).*
- *We do not require any further assessment of impacts at these junctions at this stage*".

1.3.4. As such, no detailed assessments have been undertaken of the developments impact on the SRN, however a quantitative assessment of the increase in vehicle flows at each junction has been demonstrated in Table 37.

1.4. Public Consultation

1.4.1. A public consultation event was held at Oaklands College on Thursday 24th April 2025 which was attended by local councillors and residents with an attendance of 71 people, made up of 14 stakeholders and 57 residents. A subsequent webpage was set up which allowed for respondents to complete a survey.

1.4.2. A number of transport related comments were made and this Transport Assessment has sought to take on board a number of the comments made and address any concerns through mitigation.

1.4.3. A summary of the comments from the public consultation will be contained within the Statement of Community Involvement (SCI) that will be submitted in support of the planning application. These discussions and events have provided valuable feedback which has resulted in the positive evolution of the Proposed Development.

1.5. Report Structure

1.5.1. This Transport Assessment (TA) considers the highway and transport matters associated with the proposed development and is produced with consideration of the National Planning Policy Framework (NPPF), Planning Practice Guidance (PPG) "Travel Plans, Transport Assessments and Statements", Circular 01/2022 and local guidance. This TA has been produced in accordance with the NPPF guidance that focuses on 'vision-led' development, as such this TA has been restructured to reflect this.

1.5.2. This TA is submitted alongside a Residential Travel Plan, updated Travel Plan for Oaklands College and a Framework Primary School Travel Plan, all produced by Evoke.

1.5.3. Following this introductory section, this TA is structured as follows:

- **Chapter 2: Policy Context –** A review of the relevant transport planning policy and guidance at a national and local level;
- **Chapter 3: Development Vision –** Provides an overview of the development vision for the site, including the transport hierarchy, the proposed access arrangements for all modes, parking provision and delivery and servicing arrangements;
- **Chapter 4: Site, Surroundings and Connectivity –** Provides an overview of how people of all abilities are currently able to move around the site, including an assessment of the key routes for sustainable transport modes, before outlining the proposed access arrangements for all modes;
- **Chapter 5: Oaklands Blossom Detailed Development Proposals –** Analysis of the detailed development proposals in respect of parking arrangements and servicing;
- **Chapter 6: Oaklands College Detailed Development Proposals –** Analysis of the detailed development proposals in respect of parking arrangements and servicing;
- **Chapter 7: Proposed Trip Generation and Distribution** – Sets out the level of trips that are likely to be generated by all modes of travel for the development;
- **Chapter 8: Existing Network Traffic –** Details the base flows and future year flows along with the associated methodology in obtaining the data;
- **Chapter 9**: **Development Impact** – Assesses the impact of the proposed development on the existing transport networks through local junction modelling;
- **Chapter 10: Mitigation –** Outlines the detailed mitigation measures that will be implemented as part of the proposals; and
- **Chapter 11**: **Summary –** Summary of the findings of this Transport Assessment.

2. Policy Context

2.1.1. A review of the relevant national, regional and local transport policies, guidance and other authority or community produced documentation has been undertaken to ensure that the proposals are consistent with these.

2.1.2. The Transport Assessment includes reference to:

National Policy and Guidance

- National Planning Policy Framework (NPPF) (December 2024);
- Planning Practice Guidance (PPG) – Travel Plans, Transport Assessments and Statements in Decision Taking (March 2014);

Regional and Local Policy Guidance

- HCC Local Transport Plan (LTP4) 2018-2031;
- SACDC District Local Plan Review 1994. Saved and Deleted Policies Version (2020);
- SACDC Revised Parking Policies and Standards (2002);
- SACDC Draft Local Plan 2041. Regulation 19 Publication (2024);
- SACDC Draft Local Plan 2041. Evidence Base Transport Impact Assessment (TIA);
- SACDC Local Cycling and Walking Infrastructure Plan (LCWIP) (2023);
- Sandridge Parish Neighbourhood Plan 2019-2036 (2020);

Design Guidance

- National Design Guide (October 2019);
- Design Manual for Roads and Bridges (DMRB);
- Manual for Street (MfS 2007) and Manual for Streets 2 (MfS2 2010);
- Inclusive Mobility – A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure; and
- HCC Place & Movement Planning and Design Guidance (PMPDG).

2.1.3. Table 1 summarises the key policy objectives and development-related planning requirements and how this TA complies.

Table 1 – Key Policy and Development Compliance

	Key Policy / Objectives	Compliance
Thresholds for Development	The NPPF states at paragraph 118 that all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored. HCC's PMPDG outlines that Transport Assessments are required for larger scale development.	A Transport Assessment and various Travel Plans have been produced to support the application.
Principle of Development	Oaklands Blossom is identified as a draft allocation site within the SACDC Draft Local Plan as Site B4. The key development requirements outlined within the Draft Local Plan Part B have been reproduced below in Table 2, along with how the site complies.	The proposals involve all key requirements outlined within the draft allocation, with proposals including key improvements to improve and enhance the sustainability of the site, as demonstrated throughout this report.

	Key Policy / Objectives	Compliance
Sustainable Development	At the heart of the NPPF is a presumption in favour of sustainable development, with significant development focused in locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes (para 110). As outlined in the National Design Guide, Sustainable Development is considered to take account of the diverse needs of all potential users and give a genuine choice of sustainable transport modes (National Design Guide). Compact forms of development make destinations 'easily accessible to walking or cycling' and 'help to reduce dependency on the private car.' Policy 1 of the HCC LTP4 outlines the transport user hierarchy, which HCC will in the design of any scheme consider in the following order: ➢ Opportunities to reduce travel demand and the need to travel ➢ Vulnerable road user needs (such as pedestrians and cyclists) ➢ Passenger transport user needs ➢ Powered two wheeler (mopeds and motorbikes) user needs ➢ Other motor vehicle user needs. The SACDC Local Plan TIA documents have a key theme of the enhanced role of sustainable travel and the delivery of active travel infrastructure for existing settlements and future communities. Furthermore, the draft LP is seeking to support a modal shift which encourages some existing car trips and potential future trips from new development to switch to sustainable modes (walking, cycling or public transport). Within the document, the site is located within the area 'East St Albans City', which is noted as having the highest opportunity and potential for car trips to shift to sustainable modes. The date indicates there is limited potential use of public transport, suggesting the current public transport network needs to be improved. However, cycling is identified as the highest potential mode shift.	The site is well positioned in relation to a range of services and amenities that accommodate for the daily needs of residents within walking and cycling distance of the site. The proposals support opportunities for reducing the need to travel through providing a local centre on site with key amenities reducing the need for residents to travel outside of the site. In addition, the proposals involve active travel routes on the key desire lines to services, amenities, public transport connections as well as connections to the public right of way network. These connections provide a permeable network for future site users, ensuring that travel by foot or by cycle is convenient, direct and accessible. Further information in relation to site accessibility and the development proposals is provided in Section 4.

	Key Policy / Objectives	Compliance
Walking and Cycling	In line with the National Design Guide, a destination is considered 'walkable' if it is located within an approximate 10-minute walk (800m radius). Paragraph 117 of the NPPF states that applications for development should give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas. Policy 7 of HCC's LTP4 focuses on encouraging and promoting walking by: ➢ Implementing measures to increase the priority of pedestrians relative to motor vehicles, especially in town centres, and creating walking friendly town and neighbourhood centres. ➢ Delivering infrastructure to provide safer access to key services, and pedestrian facilities to enable and encourage walking. ➢ Supporting the implementation of the Rights of Way Improvement Plan. Policy 8 of HCC's LTP4 aims to deliver a step change in cycling through infrastructure improvements, especially within major urban areas to enable and encourage more cycling, and facilitating provision of secure cycle parking. Strategic Policy SP8 of the draft SACDC Local Plan states the Council will prioritise protecting, adding to and improving existing rights of ways, walking and cycling networks and equestrian access and, should diversion be unavoidable, require replacement routes to the satisfaction of the Council and the highway authority.	Section 4 of this report outlines the range of services and amenities which are located within walk and cycle distance of the site. High quality cycle routes are accessible from the site providing direct and convenient access by active travel modes. The proposals involve enhancing walking and cycling opportunities through increasing pedestrian and cycle connectivity to existing infrastructure through new and improved access routes and providing high quality cycle parking. The proposals will ensure walking and cycling opportunities are prioritised and inclusive for all users. Further information in relation to site accessibility and the development proposals is provided in Section 3.
Public Transport	Paragraph 117 of the NPPF states that applications for development should give priority to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use. Policy 2 of HCC's LTP4 states that the county council will encourage the location of new development in areas served by, or with the potential to be served by, high quality passenger transport facilities so they can form a real alternative to the car, and where key services can be accessed by walking and cycling. Policy TRA1 of the draft SACDC Local Plan outlines that major proposals must demonstrate as appropriate how the proposed scheme would be served by public transport and would not have a detrimental impact to any existing or planned public transport provision.	For Oaklands Blossom, the internal road layout has been designed to accommodate two-way bus access along the main spine road. The proposals involve significant contributions to bus improvements to fund a new/extended bus route that will serve Oaklands Blossom. This will significantly enhance the bus provision in close proximity to the site. For Oaklands College, the proposals involve improving the existing bus stops on Hatfield Road, providing new and improved waiting facilities for existing and future users. Further information in relation to site accessibility is contained in Section 4, with further detail on the proposed mitigation measures outlined in Section 10.

	Key Policy / Objectives	Compliance
Access	Policy D7 of the Sandridge Parish Neighbourhood Plan states that development proposals should provide safe access for pedestrians, cyclists and road users, especially for students attending local schools and Oaklands College and users of the community facilities. Policy 5 of HCC's LTP4 ensures that access arrangements are safe, suitable for all people, built to an adequate standard and adhere to the county council's Highway Design Standards. Policy TRA1 of the draft SACDC Local Plan states that proposals must demonstrate that safe and suitable access can be provided for walking, cycling and vehicles, accommodating equestrians where appropriate, and that development would not lead to highway safety problems or cause unacceptable impacts upon the transport network.	The proposals prioritise pedestrian and cycle access, ensuring safe, suitable and attractive routes to the Site and internally. Two new vehicular accesses are proposed off the southern side of Sandpit Lane to access Oaklands Blossom. The accesses have been designed in accordance with MfS, DMRB and HCC's PMPDG and ensure that safe and suitable access to the site can be achieved for all users. Further description of the access arrangements, their design and compliance is set out in Section 3.6.
Car Parking	The NPPF states that parking provision should consider site accessibility, type, mix and use, availability of public transport, car ownership, and the provision of electric vehicles. SACDC's 2002 Parking Standards document outlines the parking standards for non-residential developments and cycle parking requirements for residential development. Policy 40 of the SACDC adopted Local Plan provides the latest adopted residential parking standards. Appendix 1 of the Draft SACDC Local Plan (Reg 19 document) outlines the new car and cycle parking standards. Developments should meet these standards, whilst taking into account the accessibility of the site to public transport and the nature of the use.	The detailed car parking provision for the detailed development is included in Section 5 and 6. For the remainder of the site, the parking will be the subject of a Reserved Matters application. The development will provide car parking in accordance with SACDC's parking standards. Further description of the key policy considerations is set out in Section 3.8.1.
Electric Vehicle Charging	Policy TRA4 (f) of the draft SACDC Local Plan outlines that electric vehicle charging points or the infrastructure to ensure their future provision within a development, in addition to meeting Building Regulations standards, should seek to accord with up to date guidance from the Local Highway Authority (Hertfordshire County Council), where proportionate. Policy TRA1 of the draft SACDC Local Plan outlines that major proposals must demonstrate as appropriate how the charging of plug-in and other ultra-low emission vehicles will be enabled in safe, accessible and convenient locations.	Electric vehicle charging will be provided in accordance with HCC's standards with each dwelling provided with a socket. New electric vehicle charging points will be provided within the new Oaklands College car park.
Disabled Parking	The NPPF requires that applications should address the needs of people with disabilities and reduced mobility (para 117). Policy TRA1 of the draft SACDC Local Plan outlines that major proposals must demonstrate as appropriate how the needs of people with disabilities and reduced mobility will be addressed.	The disabled parking provision for the detailed development is included in Section 5 and 6. For the remainder of the site, the parking will be the subject of a Reserved Matters application. Further description of the key policy considerations is set out in Section 3.8.1.
Cycle Parking	HCC's PMPDG states that it is critical that safe, secure and convenient cycle parking facilities are provided as an integral part of new developments.	The cycle parking provision for the detailed development is included in Section 5 and 6. For the remainder of the site, the cycle parking will be the subject of a Reserved Matters application. The development will provide cycle parking in accordance with SACDC's parking standards. Further description of the key policy considerations is set out in Section 3.8.1.

	Key Policy / Objectives	Compliance
Mobility Hubs / Car Clubs	Strategic Policy SP8 of the draft SACDC Local Plan states the Council will support a network of mobility hubs at suitable locations. The scale and nature of proposals must be appropriate to the size and function of the centre or station and proposals should contribute towards the vitality of a centre. A mobility hub should support sustainable travel and can include: a local bus service, car club facilities, bike repair service, e-bike charging, bike share facilities, ride hailing & ride sharing stop, real time and digital travel information, Wi-Fi and phone charging, parcel delivery storage lockers and public realm improvements. Mobility hubs should be supported by online presence and digital functionality. Policy TRA4 (f) of the draft SACDC Local Plan outlines that the Council supports provision for car clubs to help reduce the need for private car parking. Provision of suitable onsite car club facilities is required for development of 100 or more dwellings. The Council will seek appropriate financial contributions from all major developments to car club facilities and schemes. Policy TRA4 (g) states the Council supports provision for bike share schemes to help reduce car journeys. The Council will seek appropriate financial contributions from all major developments to Bike Share facilities and schemes.	The proposals involve a mini mobility hub at the local centre within Oaklands Blossom. The mini mobility hub will include new bus stops equipped with digital travel information, cycle parking, potential car club vehicle and potential parcel lockers, which will support and encourage sustainable transport use. Further detail on the proposed mitigation measures outlined in Section 10.
Mitigation	Paragraph 115 requires, in assessing planning applications, it should be ensured that, 'any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach'. Policy TRA1 of the draft SACDC Local Plan outlines that major proposals must demonstrate suitable mechanisms will be provided to secure sustainable transport measures, including delivery of schemes identified in the LCWIP, Bus Service Improvement Plan, Growth & Transport Plan and IDP and improvements to the existing highway network and other appropriate transport mitigations, including as identified in Supporting Documents to the Local Transport Plan. Paragraph 58 of the NPPF requires that planning obligations must only be sought where they meet all of the following tests: ➢ Necessary to make the development acceptable in planning terms; ➢ Directly related to the development; and ➢ Fairly and reasonably related in scale and kind to the development.	The proposals involve a comprehensive package of improvement measures to mitigate the proposed development's impact. Further information on the mitigation measures proposed is outlined in Section 10.

	Key Policy / Objectives	Compliance
Compliance with NPPF Key Test	The NPPF states that development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios (Para 116). Within this context, applications should: ➢ Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use; ➢ Address the needs of people with disabilities and reduced mobility; ➢ Create safe, secure, attractive places; ➢ Allow for the efficient delivery of goods and access by service and emergency vehicles; and ➢ Be designed to enable electric vehicle charging in safe, accessible and convenient locations (Para 117).	The proposals provide priority first to pedestrian and cycle movements through the provision of direct and permeable active travel routes through the development, before enhancing connections to existing infrastructure surrounding the site. The provision of new routes throughout the development and off-site connections ensures that routes are suitable for all users. The internal road network have been designed to accommodate all vehicles.

Draft SACDC Local Plan Site Allocation Development Requirements

2.1.4. As aforementioned, the site is identified as a draft allocation site within the SACDC Draft Local Plan as Site B4. The key development requirements outlined within the Draft Local Plan Part B have been reproduced below in Table 2, along with the site compliance.

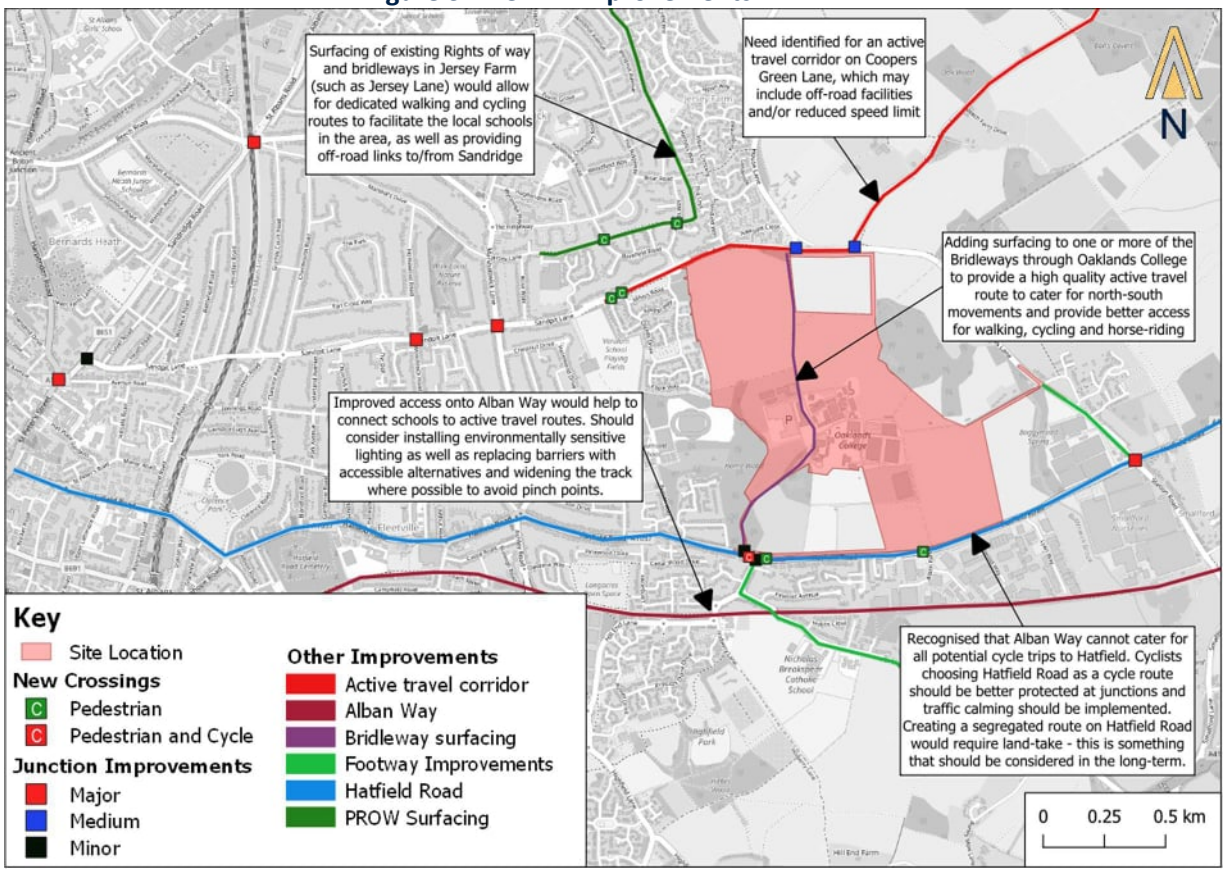
Table 2 – Draft Site Allocation Key Development Requirements

	Local Plan Requirement	Development Provision	Compliance
Land Uses	Primarily residential – indicative 472 units, including 70-80 extra-care self-contained units	Proposals are residential-led comprising 472 residential units and up to 80 extra care homes	☑
	A 2FE primary school, including Early Years provision	2FE primary school proposed in the northern side	☑
	A site for, and appropriate contribution towards, an 8FE secondary school within nearby Oaklands land ownership	Land safeguarded for secondary school, however proposals exclude this provision	☑
	Investment / reinvestment in improved education and training provision and facilities at Oaklands College	Refurbishment and new buildings and facilities included for the College	☑
	New local centre to provide local services, including commercial development opportunities	New local centre included within masterplan along site frontage on Sandpit Lane	☑
Sustainable Transport	Contributions / enhancements to support relevant schemes in the LCWIP and GTPs as indicated in the TIA	Various improvements and enhancements are proposed, which all align with the LCWIP and GTP	☑
	Support for measures to ensure high quality access and connectivity to St Albans centre, station and education, aligned to schemes in the GTPs and LCWIP are required. In particular, measures to access the Alban Way route to the south will be required	The proposals include improvements to the bus service provision to improve connectivity to St Albans centre and station, in addition to cycle improvements to the access routes for Alban Way and Jersey Lane	☑
	Particular focus on the existing Rights of Way within and surrounding the site will be required, also including a link to Jersey Lane	Proposals involve improvements to PRoW and new active travel routes, as well as improvements to links to Jersey Lane and Alban Way	☑

	Local Plan Requirement	Development Provision	Compliance
	Support for footpath 004 Colney Heath (East Drive) to be upgraded to bridleway status and improved to enable active travel to Hatfield, the University of Hertfordshire and Ellenbrook Fields	Proposals involve a new route along East Drive for pedestrians, cyclists and equestrian use, significantly improving the existing Bridleway provision	☑
	Support for a link for active travel from upgraded Footpath 004 to the Hatfield Road (Boggymead Springs)	A footpath via Boggymead Springs is already provided within Oaklands College land	☑
	Support for provision of an E/W route for pedestrians, cyclists and horse riders between BR 051 Sandridge and Central Drive, St Albans	Connection route provided through Oaklands Blossom and Oaklands Grange, with outstanding link within HCC ownership and subject to HCC delivering	☑

2.1.5. Within the Local Cycling and Walking Infrastructure Plan (LCWIP) for St Albans City, numerous infrastructure improvements are outlined that are relevant to and surrounding the site. These have been reproduced below.

Figure 3 – LCWIP Improvements



Source: QGIS

2.1.6. Within the South Central Hertfordshire Growth and Transport Plan, the following relevant packages are identified:

- Package 9: St Albans – Welwyn Garden City Connectivity
  - Development of cycling and walking infrastructure along Coopers Green Lane and Sandpit Lane, integrated with development along the corridor
  - Reduced speed limit along Coopers Green Lane

Sandridge Neighbourhood Plan 2019-2036 (2020)

2.1.7. The Sandridge Neighbourhood Plan is an adopted policy document and outlines a number of highways and public transport enhancements the Parish would seek to be considered as part of the master planning process for developments. These have been summarised below in Table 3, along with the site's compliance.

Table 3 – Sandridge Neighbourhood Plan – East St Albans Highways Improvements

	Measure	Development Provision	Compliance
Site Allocation	Provide safe access for pedestrians, cyclists and road users, especially for students attending local schools and Oaklands College and users of the community facilities, including drop off and pick up provision.	Safe access provided for all users of the Site, with priority provided for pedestrians and cyclists	☑
	Provide multiple access points to the development for motor vehicles to ensure traffic is dispersed proportionately across surrounding roads and neighbourhoods and in accordance with local traffic surveys carried out during the master planning process and the Hertfordshire Highways Design Guide and Policy.	Multiple access points provided to Oaklands Blossom and Oaklands College	☑
	All roads within the development shall be built to adoptable standard and the developer shall provide every assistance to facilitate the adoption of the roads by Hertfordshire County Council.	All roads will be built to adoptable standards	☑
	Provide fully operational electric vehicle charging points for each new home either individually or communally.	All dwellings will be provided with active EV provision	☑
	Within the master planning process, provide a Parking Strategy for the development considering the needs of residents, their visitors, staff and students of education establishments, taking into account the Parish Council's Transport and Parking Plan in the 5 Year Forward Action Plan Appendix 2, Annex A.	Parking strategy outlined within this document	☑
Highway Improvements	Improve junction at Sandpit Lane/Beechwood Avenue/Marshalswick Lane (possible re-design of junction corners and tree removal).	Impact on the junction has been assessed. It is proposed that mitigation measures are focused on sustainable transport as opposed to junction improvements, as discussed with HCC	☒
	Off-site improvements to junction of Hatfield Road/Beechwood Avenue/Ashley Road.	No assessment undertaken, however potential contribution to fund improvement scheme may be provided.	?
	Intersections of residential roads with Sandpit Lane to be reviewed and adapted as necessary e.g. installation of mini roundabouts and adjustment to speed limit.	Proposals do not involve adapting existing junctions.	☒
	At least three pedestrian/cycle crossing points to be provided on Sandpit Lane between House Lane and Marshalswick Lane.	Partially delivered - The development proposes a new crossing and a contribution to upgrading the House Lane / Sandpit Lane crossing.	☑
	Traffic calming measures to be installed on Barnfield Road, Sandringham Crescent and other roads affected by increased traffic.	Proposed mitigation on Barnfield Road will bring traffic calming benefits.	☑
	Improve pedestrian/cyclist crossing point between the verge on the north site of Sandpit Lane (adjacent to the entrance to House Lane) and North Drive.	The development will provide a contribution to HCC to improve this crossing for pedestrians and cyclists	☑
	Install additional street lighting along the service road on north side of Sandpit Lane (opposite the development site).	Enhanced streetlighting will be agreed with HCC and SACDC if considered necessary	?
	With the development, a new through route to be designed through the development between Hatfield Road and Sandpit Lane in such a way as to discourage use as a cut through and minimise risks for students using the college campus.	A new pedestrian and cycle through route will be provided which will benefit from natural surveillance and lighting	☑

	Measure	Development Provision	Compliance
	Construction traffic for the development to be routed via Oaklands Lane and, initially, follow the line of the current East Drive (while providing a bridleway segregated from the carriageway).	It is likely that the construction traffic for the College proposals will use East Drive. The construction traffic for Oaklands Blossom will use Sandpit Lane. However, subject to CTMP which will be conditioned	☑
	If a new school is part of the development, ample drop off/pick up parking facilities and secure cycle storage areas must be provided on-site as an integral part of the scheme.	Subject of RMA applications to be prepared by HCC	?
Public Transport Improvements	A bus service running along Sandpit Lane at least half hourly during the day with services extending through the evening and at weekends to connect residents directly to/from St Albans City railway station, city centre and hospital	Proposals involve a contribution to improve bus services along Sandpit Lane. Nature and frequency of the route to be confirmed by HCC.	☑
	All weather shelters at bus stops along this route as it fronts a busy road.	All new bus stops within Oaklands Blossom and on Hatfield Road will provide enhanced waiting facilities	☑
	At least one bus stop along Sandpit Lane fitted with a display of real-time information to promote the convenient use of bus transport	Bus stops within Oaklands Blossom will be provided with real-time information	☑
	A bus service running through the development between Hatfield Road and Sandpit Lane at least every 20 minutes during the day, with services extending throughout the evening and at weekends to connect residents via Sandpit Lane directly to/from St Albans City railway station, city centre and hospital.	A through route cannot be provided. However routes will be provided within the residential site with an interchange at the south-eastern end of the residential site to improve access to the college. Furthermore enhanced stops will be provided for the college on Hatfield Road	☑
Walking, Cycling, Recreational Travel Improvements	A bridleway, of a suitable width and surface for cycle and pedestrian access, all along the northerly edge of the development parallel to Sandpit Lane, with an appropriate crossing facility at the site exit and continuing at least as far as the existing footway by the entrance to Verulam School playing fields as part of a planned route in line with the HCC Rights of Way Improvement Plan.	Provided as part of the proposals	☑
	A dedicated public right of way (bridleway) access at the south westerly point of the residential development extending to the boundary. This is to enable a connecting bridleway route of at least 3m width to schools situated in Oakwood Road/Central Drive.	Provided as part of the proposals	☑
	A direct multi-user route, suitably surfaced for cycles and mobility scooters, across Oaklands College land between Sandpit Lane and Hatfield Road.	Provided as part of the proposals	☑
	A direct multi-user route from the development with a suitable road crossing of Sandpit Lane adjacent to the path through to Wheatleys to access The Quadrant facilities.	Already delivered, with crossings provided as part of Oaklands Grange development	☑
	A link for cyclists and pedestrians with appropriate road crossing points to provide a convenient linkage between Jersey Lane and the Alban Way (See Policy T3). Part of this could be incorporated into the design of the proposed road linking Sandpit Lane and Hatfield Road through the site.	Provided as part of the proposals	☑
	Bridleways/footways of a suitable width for multi-user access from the westerly and easterly developments to the College facilities, shop, health and other facilities.	Provided as part of the proposals	☑
	There should be segregated non-motorised bridleways alongside all public highways running through or serving the site. Additionally, there should be rural bridleway routes with greater amenity value through the College site for non-motorised users, building upon the current RoWIP provision.	Provided as part of the proposals	☑

2.2. Summary

2.2.1. Transport policy at local, regional and national level promote a move away from the reliance on the private car as the only realistic mode of transport for the majority of journeys, placing greater emphasis on more effective and sustainable use of transport infrastructure resource.

2.2.2. In particular the Government policy framework set out above emphasises the benefits that limiting the distances between where people live and the facilities and amenities that they need to access can have on reducing car borne trips. Where distances are too great to reasonably walk or cycle, public transport services can provide an attractive alternative to the private car.

2.2.3. For developments that generate high levels of traffic, a Travel Plan should be produced with a Transport Assessment, to reduce the impact of the development. Safe vehicular, pedestrian and cycle access is required for all new development and sufficient car and cycle parking should also be provided. The following sections of this report consider the development proposals against national, regional and local policy and demonstrate compliance with the key objectives.

3. Development Vision

3.1. Context

3.1.1. This Chapter of the TA outlines details of the proposed development in terms of the overall vision for the site, access arrangements, car and cycle parking provision, delivery and servicing and construction traffic.

3.2. Proposed Development

3.2.1. This application is submitted as a hybrid application, comprising:

- Full Detail application for:
  - 167 residential dwellings;
  - A children's home;
  - New local centre comprising:
    - Up to 578sqm of commercial floorspace (Use Classes E (a to f)); and
    - Approximately 100sqm of community floor space (Use Class F);
  - Provision of open space
  - Demolition works and renovation of existing Oaklands College buildings;
  - Construction of new buildings education facilities for Oaklands College; and
  - With the following matters to be approved – access, layout, scale, appearance and landscape;
- Outline application for:
  - Up to 305 residential homes;
  - Up to 70 extra care homes;
  - Land for two form entry primary school, anticipated to provide 420 pupil spaces.

3.2.2. Proposed layout plans are attached at **Appendix A**.

3.3. Transport Hierarchy

3.3.1. The preliminary masterplan, including access, on-site and off-site highway considerations have been prepared with the transport hierarchy at the forefront in accordance with local and national policy; placing priority first on a reduced need to travel and travel by active modes (walking and cycling) and public transport.

3.3.2. The following sections demonstrate that suitable access to the site can be achieved for all potential future site users and shows that the proposed development would enable supporting off-site improvements which would provide wider benefits to the surrounding local community.

3.4. Pedestrian and Cycle Access Arrangements

3.4.1. The site provides an opportunity to improve active travel links in all directions as well as enhancing existing Public Rights of Ways. Within the draft allocation for the site, a number of key development requirements are outlined, which have been considered and incorporated as part of the development proposals.

3.4.2. It is proposed that the following pedestrian and cycle infrastructure is provided as part of the development:

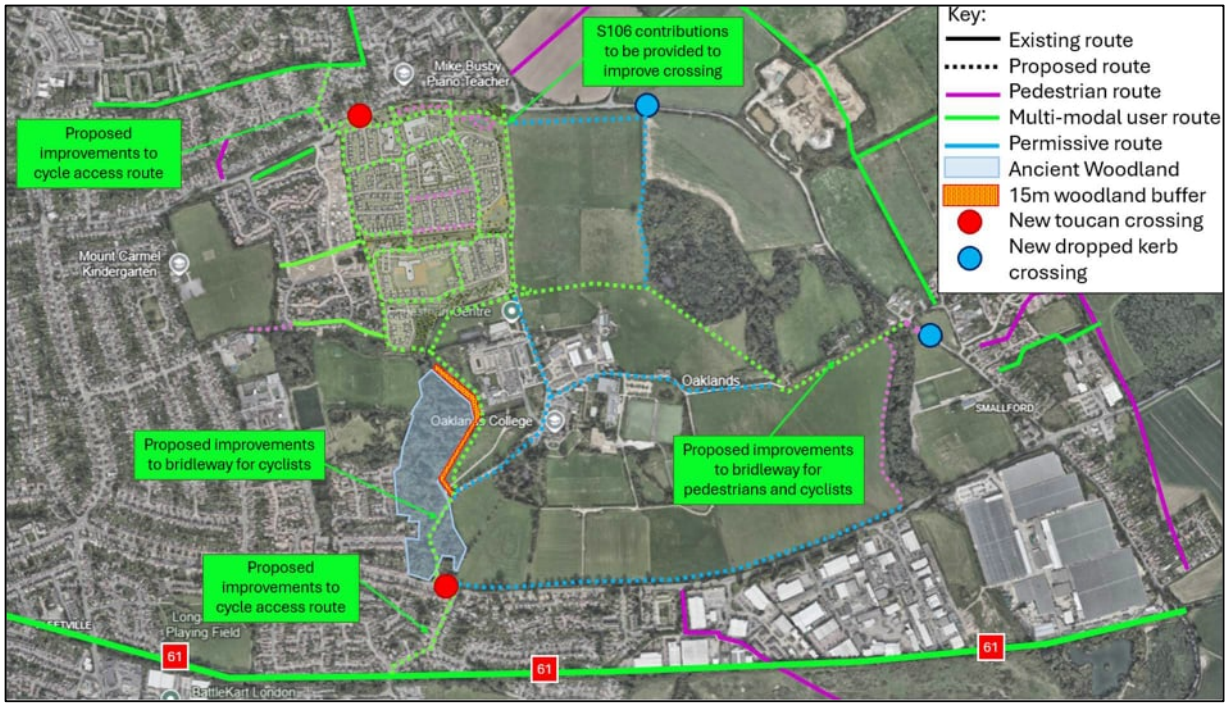
- New 3m wide shared cycle/footway on the southern side of Sandpit Lane, connecting with the existing infrastructure to the west at Oaklands Grange. The shared cycle/footway will be

provided adjacent to Sandpit Lane's carriageway to the west of the primary access, with an alternative route offset to the south within the proposed development site to retain the existing vegetation along the carriageway, as provided for the neighbouring Oaklands Grange site;

- New active travel routes and connections provided internally within the site, which will provide improved non-motorised users routes;
- Existing bridleways within the Site improved to provide enhanced and separate pedestrian, cycle and equestrian routes;
- New toucan crossing across Sandpit Lane in the north-western corner of the development to connect with existing infrastructure on the northern side;
- New toucan crossing across Hatfield Road to the east of South Drive to provide new cycle crossing;
- New 2m wide footway on western side of Oaklands Lane south of East Drive to connect to a new dropped kerb pedestrian crossing equipped with dropped kerbs and tactile paving across Oaklands Lane to connect with existing infrastructure on the eastern side;
- Contribution to upgrade existing dropped kerb crossing on Sandpit Lane at North Drive to provide a Toucan crossing delivered by HCC;
- Improvements to the cycle route to Jersey Lane via Barnfield Lane and Ardens Way, through new shared cycle/footway on Barnfield Road, improved signage and road markings and improved crossing facilities;
- Improvements to the cycle route to Alban Way via Colney Health Lane and Hill End Lane, through new crossings, alterations to the existing highway layout to provide priority to cyclists over vehicles and traffic calming measures to improve the street scene for cyclists.

3.4.3. The proposed improvements are demonstrated in Figure 4.

Figure 4 – Active Travel Routes and Connections Improvements



Source: Google Earth

3.4.4. As such, it is evident that the proposals involve extensive improvements to the local walking and cycling infrastructure, prioritising these users, in accordance with local policy and guidance. The majority of improvements accord with the requirements outlined within the LCWIP, Sandridge Parish Neighbourhood Plan and the draft site allocation.

3.5. Public Transport Access Arrangements

3.5.1. The proposals incorporate a bus improvement scheme for Oaklands Blossom. The residential internal layout has been designed to accommodate bus access for the spine road loop, with the intention for the proposals to accommodate a bus route to/from St Albans City Centre.

3.5.2. Bus stops will be provided throughout the site to ensure all future end users of the site, including residents, staff, pupils and parents and visitors have access to bus services within a 400m distance, as referred within the 'Bus Services & New Residential Developments' guidance (January 2025).

3.5.3. The internal loop road route for buses has been designed with a minimum clear carriageway width of 6.5m wide with the whole route designed to permit two buses to pass in opposing directions, in accordance with the above guidance. The development will provide a public transport contribution to HCC to fund a diverted/extended route or a new route.

3.5.4. The proposals also involve improvements to the existing bus stops on Hatfield Road, which serve Oaklands College. The proposals involve shifting the westbound bus stop to the east of Colney Heath Lane, the removal of the eastbound bus layby and subsequent widening of the existing footway to provide enhanced waiting facilities and areas for bus users. In addition, both stops will be provided with shelter and real-time information to improve further improve the facilities.

3.5.5. It is noted that throughout the PPA process, HCC expressed interest in a bus service through both sites, however as previously advised, this is not feasible due to the safeguarding concerns and traffic free aspirations for the College campus centre.

3.6. Oaklands College Vehicular Access Arrangements

3.6.1. Access to Oaklands College will be retained as existing off Hatfield Road and Oaklands Lane. The existing East Drive access off Oaklands Lane will be improved through widening the southern kerb radii to be 17m to accommodate two-way minibus access.

3.6.2. For East Drive internally, the proposals involve a new westbound carriageway to the south of the existing route to provide sufficient space for two-way vehicle movements, providing a significant betterment to the existing provision. In addition, the proposals involve a new passing place along one section of the retained carriageway to accommodate two-way vehicle movements.

3.6.3. For South Drive, the proposals involve minor amendments to the junction with Hatfield Road to accommodate widening the footway on the eastern side to provide an active travel route.

3.6.4. Access arrangement drawings demonstrating existing visibility splays from both access points, as well as the improvements to East Drive are attached at **Appendix D.**

3.7. Oaklands Blossom Vehicular Access Arrangements

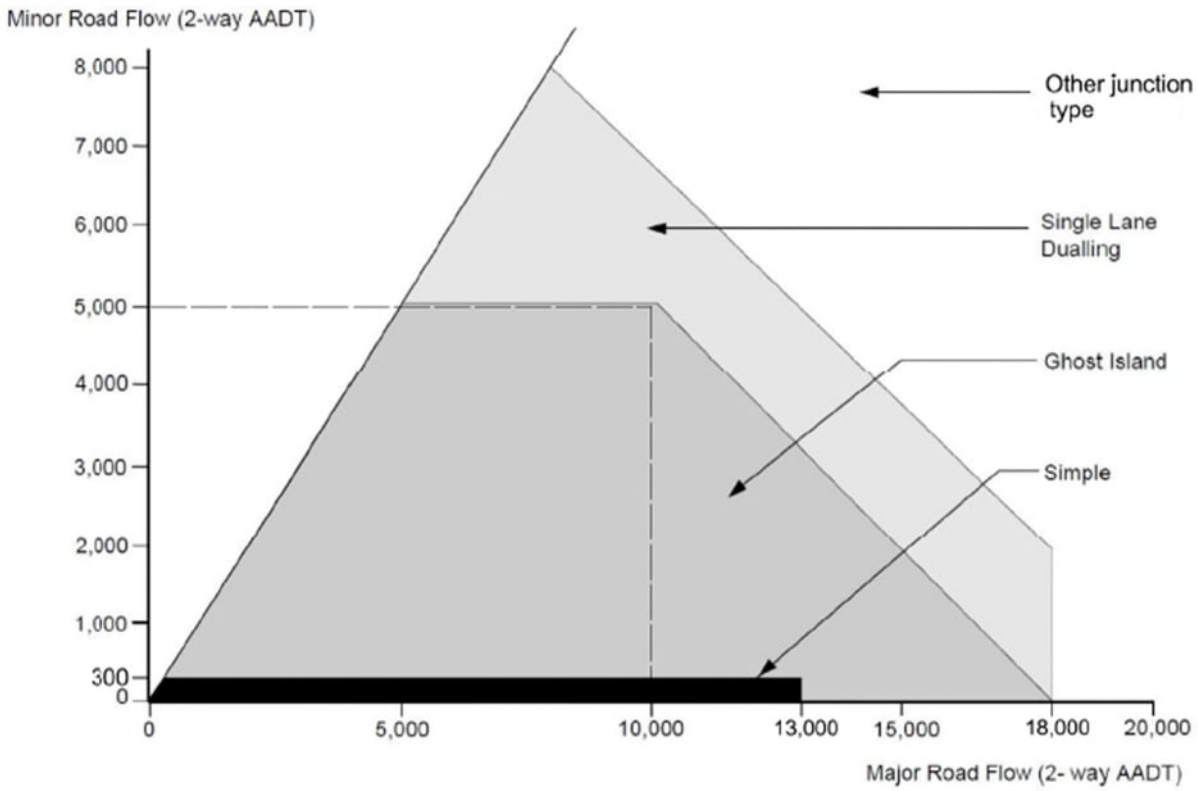
3.7.1. Access to Oaklands Blossom is proposed off Sandpit Lane, discussed below.

Access Type Requirements

3.7.2. Within the PMPDG for Hertfordshire, P2/M1 Streets (defined as suburban residential streets) are suitable to serve up to 300 dwellings and are to be designed with a carriageway width of 5.5m, with segregated active travel link and sustainable travel link provision. Therefore, the proposals involve two access points.

3.7.3. DMRB CD123: Geometric Design of At-Grade and Signal Controlled Junctions (Version 2.1.0) provides guidelines on the type of junction that may be required based upon flows along major and minor roads involved. This is reproduced in Figure 5.

Figure 5 – DMRB Guidance on Junction Type



Source: DMRB CD123 Figure 2.3.1

3.7.4. The ATC on Sandpit Lane recorded an average daily two-way vehicle movement of 16,861 over a 5-day average period. Considering the DRMB guidance, the major road flows would result in the need for a Ghost Island junction type to be provided for the access(es) to the development. It is worth noting that during the PPA process, HCC flagged that with future growth on Sandpit Lane, the requirements would exceed a ghost island right turn lane junction. When applying a TEMPRO growth rate factor for average weekday car driver trips from 2025 to a future year of 2030 (calculated at 1.05), the total movements on Sandpit Lane are anticipated to be 17,765. As such, it is evident that these flows in 2030 are not anticipated to exceed the ghost island requirements. Furthermore, of note, within the neighbouring Oaklands Grange Transport Assessment, the 2016 base flows obtained from HCC's DIAMOND model, anticipated flows on Sandpit Lane during the peak hour periods which are higher than those recorded within the ATC survey undertaken as part of this application, demonstrating that vehicle flows on Sandpit Lane have not historically increased in accordance with predicted growth.

3.7.5. There are other junction types that could also be considered, including a compact roundabout or a signal controlled priority junction, for example. Within the PPA process, HCC also flagged single lane dualling as a potential junction type.

3.7.6. To ascertain the most appropriate junction type to serve this development, various considerations have been made, including:

- Two compact roundabouts are provided either end of the site along Sandpit Lane and therefore providing a third compact roundabout within a 500m stretch is not considered the most appropriate provision, as it may lead to driver confusion;
- The alignment of Sandpit Lane across the site frontage is relatively straight, although has a very slight curvature within the centre of the site frontage. Whilst this does not affect the junction type

as it is slight in nature, it means that visibility across the frontage needs to be considered carefully in relation to the location of any junction and to minimise the existing vegetation removal;

- A ghost island junction would require a deceleration/capacity length of around 40m and a taper of 1:20. The location of this junction needs to be sited to ensure that widening capacity can be achieved within land under control of the local highway authority or the site boundary;
- Any junction will need to suitably consider the needs of pedestrians and cyclists, with new infrastructure required on the southern side of Sandpit Lane;
- A signal controlled crossing, potentially including right turn waiting facilities, should also be considered in order to prioritise pedestrians and cyclists, but with care to ensure that the operation of Sandpit Lane roundabouts remains unaffected;
- Single lane dualling is not a favourable design for active modes and often encourages speeds. This junction design is out of kilter with the remainder of Sandpit Lane, with no other junctions having this provision.

3.7.7. Considering all of the above, it is concluded that the most appropriate forms of access would be to provide a ghost island right turn lane. This provision is in accordance with what was deemed as suitable and delivered for the neighbouring Oaklands Grange development. It is proposed that the development would be served by two points of access – the eastern access in the form of a ghost island right turn lane serving the residential development, extra care units and the primary school, with the western access in the form of a simple priority bellmouth serving the local centre. The operation of this junction in the future year scenario with the addition of development has been assessed in Table 39, which has been demonstrated to operate within capacity.

Access Design: Ghost Island Right Turn Lane

3.7.8. An access design has been undertaken along Sandpit Lane, accommodating a ghost island right turn lane designed in accordance with the current speed limit of 40mph. It therefore provides a deceleration/capacity length of 40m, turning length of 10m and a taper length of 60m, with 3.5m wide through and right turn lanes. A 3m wide shared cycle/footway is proposed on the western side.

3.7.9. The access itself has been designed with a two lane exit arm, with a wide taper on the western side, to accommodate two lanes of traffic exiting allowing for vehicles to simultaneously exit to the left and right. The wide taper on the western side of the access has been designed to ensure a bus and refuse vehicle can exit the site to the left, without overrunning the right turn lane pocket.

3.7.10. The junction would be located 155m from the House Lane roundabout. To accommodate the right turn lane, Sandpit Lane will be widened into the site, with existing trees and hedges along the site frontage cleared to accommodate the access and visibility.

3.7.11. As part of this proposed development, there is potential for the speed limit on Sandpit Lane along the site frontage to be reduced to 30mph. The benefits of reducing the speed limit along Sandpit Lane would include establishing entry into the newly built-up area and reducing vehicle speeds to improve safety for all users. A reduction in the speed limit would specifically benefit pedestrians and cyclists; allowing opportunities for these movements to be maximised, as well as increasing attractiveness of the routes for pedestrians and cyclists.

3.7.12. Should HCC support a reduction in speed limit to 30mph from the roundabout, and a TRO be granted (which is subject to a separate process to a planning application, though the developer could contribute to its implementation), the reduction in deceleration requirements from 40m to 25m and reduction in required visibility splays would reduce the tree removal required along the site frontage.

Secondary Access Design

3.7.13. A second access is proposed to the west of the site which will take the form of a simple priority bellmouth junction. The access is to be designed at 6m wide with 8m turning radii to accommodate all vehicles. This access will predominantly accommodate pedestrian and cycle movements, with a 3m wide shared cycle/footway provided on the western side. Only vehicles associated with the local centre will utilise this access, as well as emergency vehicles if the primary access is blocked.

3.7.14. Sandpit Lane along the site frontage is subject to a 40mph speed limit, however the ATC recorded vehicle speeds of 38-mph westbound and 39mph eastbound. Visibility splays have therefore been shown in accordance with DMRB requirements equating to 2.4m x 95m to the east and 2.4m x 100m to the west from both proposed access points. To accommodate the accesses, existing vegetation on Sandpit Lane will be cleared. These access designs are included at **Appendix D**.

3.7.15. To ensure that both access designs would provide suitable capacity for their intended future use, capacity assessments have been undertaken of the access designs in Section 9, demonstrating both accesses are anticipated to operate suitably in all future year scenarios.

3.7.16. In accordance with the NPPF, the site ensures that a safe, suitable and satisfactory access for the quantum of the development can be achieved. As such the development would not result in an unacceptable impact on highway safety or a severe impact on the surrounding highway network.

3.8. Internal Layout

3.8.1. The proposed internal layout has been designed in accordance with the Place and Movement Planning and Design Guidance for Hertfordshire (PMPDG). New pedestrian and cycle routes into and throughout the development site will be prioritised, enhancing safety and accessibility to and from the site for pedestrians and cyclists. Further detail on the internal layout for Oaklands Blossom is described in Section 5, and in Section 6 for Oakland College.

3.9. Car and Cycle Parking Standards

3.9.1. Adopted residential car and cycle parking standards are provided within SACDC's Local Plan (1994), with Policy 40 providing C3 residential standards. For all other uses, parking standards are outlined within SACDC's Revised Parking Policies and Standards guidance (2002). The relevant car parking standards for various land uses have been reproduced below.

3.9.2. Of note, Appendix One of the SACDC Draft Local Plan 2041 Regulation 18 Public Consultation Document provides updated car parking standards, which have also been reproduced below.

Table 4 – Adopted Parking Standards

Use Class	Car Parking Standards		Cycle Parking Standards	
	Adopted Standards	Draft Standards	Adopted Standards	Draft Standards
C3 Residential				
1-bed	1.5 spaces per dwelling	1.5 spaces	1 l/t space per unit if no garage or shed is provided	1 l/t space per unit if no garage or shed is provided. 1 s/t space per 3 units plus 1 l/t space per 5 units
2-bed	2.5 spaces per dwelling	2 spaces		
3-bed	2.5 spaces per dwelling	2.5 spaces		
4+ bed	3.5 spaces per dwelling	3.5 spaces		

Use Class	Car Parking Standards		Cycle Parking Standards	
	Adopted Standards	Draft Standards	Adopted Standards	Draft Standards
C2 Residential Institutions				
Residential home with care staff working on premises	Residents: 1 space per 5 beds Staff living on site: C3 standards apply Staff living elsewhere: 1 space per 2 staff	Residents: 1 space per 5 beds Staff living on site: C3 standards apply Staff living elsewhere: 1 space per 2 staff	1 s/t space per 20 beds plus 1 l/t space per 10 staff on duty at any one time	1 s/t space per 20 beds plus 1 l/t space per 10 staff on duty at any one time
D1 Non-residential institutions H) Educations establishments				
Schools and higher and further education	1 space per 2 staff, plus 1 space per 15 students	1 space per 2 staff plus 1 space per 15 students	1 l/t space per 10 f/t staff plus Primary school: 1 l/t space per 15 students Further education: 1 l/t space per 5 students	Separate provision for staff and students. Based on Travel Plan mode share targets, minimum: Staff: 1 per 20 staff Students; 1 per 10 students
Local Centre Potential Uses				
Retail Food stores	1 space per 30sqm GFA	1 space per 30sqm GFA	1 s/t space per 150 sqm plus 1 l/t space per 10 maximum staff on site at any one time	Small (<200sqm): 1 s/t space per 100sqm. 1 l/t space per 100sqm Medium (200-1,000sqm): 1 s/t space per 200sqm. 1 l/t space per 200sqm
Non-food retail	1 space per 30sqm GFA	1 space per 30sqm GFA	1 s/t space per 350 sqm plus 1 1/t space per 10 maximum staff on site at any one time.	
Financial & professional services)	1 space per 30sqm GFA	1 space per 30sqm GFA	1 s/t space per 200 sqm plus 1 l/t space per 10 f/t staff	1 s/t space per 100sqm. 1 l/t space per 200sqm
Restaurants and cafes	1 space per 5sqm of floorspace of dining area	1 space per 5sqm of floorspace of dining area	1 s/t space per 350 sqm plus 1 1/t space per 10 maximum staff on site at any one time.	As above for retail
Community Centre				
Community centre	1 space per 9sqm GFA plus 1 space per full-time staff member of equivalent	1 space per 9sqm GFA plus 1 space per full-time staff member of equivalent	1 s/t space per 2000sqm GFA plus 1 l/t space per 10 staff on duty at any one time	1 s/t space per 50sqm 1 l/t space per 5 employees

Disabled Parking Provision

3.9.3. SACDC's adopted parking standards require disabled parking at the following rates for each aspect of the development:

- **Residential**: One space for every dwelling built to mobility standards (such as Lifetime Homes);
- **Elderly persons dwellings**: up to 10 spaces: 3 spaces;
- **Elderly persons dwellings**: more than 10 spaces: 1 space per 4 spaces;
- **Employment**: up to 200 space car park: Individual spaces for each disabled employee, plus 2 spaces or 5% of total capacity, whichever is greater;
- **Employment**: more than 200 space car park: 6 spaces plus 2% of total capacity;
- **Shops/ premises to which the public have access/recreation**: up to 200 space car park: 3 spaces or 6% of total capacity, whichever is greater;
- **Shops/ premises to which the public have access/recreation**: more than 200 space car park: 4 spaces plus 4% of total capacity.

3.9.4. The same standards as above are provided within the Draft Local Plan.

Electric Vehicle Charging Provision

3.9.5. In accordance with Approved Document S, all dwellings will be provided with one active EV charging space. For new buildings, which are not residential or mixed-use, that has more than 10 parking spaces, one of those spaces must have access to one electric vehicle charge points and cable routing must be installed in a minimum of 20% of the remaining parking spaces.

Car Parking Design

3.9.6. HCC's PMPDG outlines the following car parking dimensions:

- Disabled bays: 5.5m long x 2.9m + 1.0m wide
- Parallel spaces: 6m long x 2.5m wide
- Commercial vans: 7.5m long x 3.5m wide
- Rigid HGV: 12m long x 3.5m wide

3.9.7. For dwellings, car parking will be provided either in driveways or in small parking courtyards, with spaces measuring 2.5m x 5m, in accordance with HCC's PMPDG. Within driveways, an additional space of at least 0.9m will be provided, which allows for loading/unloading. Garages will be designed in excess of the dimensions outlined within Hertfordshire's PMPDG.

3.10. Proposed Parking Provision

3.10.1. The exact parking provision and overall layout has been considered for the development uses applied for in full within Section 5.7 for Oaklands Blossom and Section 6.2 for Oaklands College.

3.10.2. For the remaining aspects of the site this will be considered as part of future reserved matters applications and will not be fixed as part of this outline planning application.

4. Site, Surroundings and Connectivity

4.1. Introduction

4.1.1. This section of the TA considers how people of all abilities will be able to move around the site, including an assessment of existing walking and cycling infrastructure, public transport accessibility and condition of the local highway network.

4.1.2. This chapter also explains how these baseline transport conditions will be impacted before and after the proposed development is constructed, including an explanation of the pedestrian and cycle arrangements, vehicle access arrangements, servicing arrangements, and car and cycle parking provision. Detailed descriptions of the proposed mitigation measures are outlined in Section 10.

4.2. Neighbouring Application Context

4.2.1. Oaklands Blossom is bordered to the west by the recently completed development, known as Oaklands Grange, which was delivered by Taylor Wimpey and is fully occupied.

4.2.2. The application was submitted in 2013 (Application Ref: 5/2013/2589) for the comprehensive redevelopment to provide new and refurbished college buildings and an enabling residential development of 348 dwellings. From a Highways perspective, the development involved the following:

- Main vehicular access in the form of a priority ghost island right turn lane, with a separate emergency access;
- Improvement scheme to Sandpit Lane through introduction of two new mini roundabouts either side of the site to reduce speeds along the site frontage;
- Improvement scheme designed for Sandpit Lane/Marshalswick Lane crossroad junction to mitigate development impact;
- Public transport contributions to improve bus services;
- Public Rights of Way improvements, including route realignments, widths and surface treatment.

4.2.3. Extensive discussions with HCC were had regarding implementing speed reduction measures to successfully lower average vehicle speeds, negating the requirement for formally reducing the speed limit. The introduction of mini roundabouts either side of the site frontage (c. 450m separation) was deemed a suitable scheme to reduce vehicle speeds.

4.3. Existing Oaklands College

4.3.1. The southern parcel of the site comprises Oaklands College. The College currently has 3,650 pupils and 450 staff.

4.3.2. The college accommodates a number of additional uses outside of the educational use, including regular and irregular uses, which have been summarised below:

- Regular Use
  - Hockey Club: regular usage for weekday evenings and weekends
  - Zoo/farm/stables restaurant: weekend and Thursday evenings. Approximately 50-100 guests per week;
  - Regular sports facility use, in evenings, on weekends and in school holidays. Between 1400-2000 attendees per week;
- Irregular Use
  - Lambing: 2 day event 10am -10pm. 3000-6000 attendees per day;

- OaktoberFeast: 1 day event. 10000 attendees
- Oakfest: 1 day event. 3000-5000 attendees per day;
- FE Games: 1 day event. 2000-3000 attendees per day;
- Foodies Festival: 3 day event. 5000-6000 attendees per day;
- Nashville Event: 3 day event. 5000-6000 attendees per day.

4.3.3. Further information on existing access arrangements and car and cycle parking provision within the College are provided within this section of the report.

4.4. Existing Pedestrian and Cycle Access

4.4.1. The Chartered Institute for Highways and Transport (CIHT) guidance, 'Planning for Walking' (2015) states that 'walkable neighbourhoods are typically characterised as having a range of facilities within 10 minutes' walking distance (around 800m) with the Guidelines for Providing for Journeys on Foot (2000), stating in paragraph 3.32 that the preferred maximum walking distance to facilities and local services is two kilometres (around 25 minutes).

4.4.2. Further CIHT guidance which also notes that 'the propensity to walk or cycle is not only influenced by distance but also the quality of the experience; people may be willing to walk or cycle further where their surroundings are more attractive, safe and stimulating.'

Pedestrian Infrastructure

4.4.3. Sandpit Lane is provided with a continuous footway on at least one side of the carriageway, with the footway along the site frontage provided on the northern side measuring between 1.5 and 2.0m wide. An uncontrolled pedestrian crossing, equipped with dropped kerbs, tactile paving and a refuge island is provided on the western arm of the roundabout with Barnfield Road, providing a safe crossing point to access infrastructure on the southern side. The neighbouring Oaklands Grange scheme includes a traffic free 3m wide route along its frontage, offset from Sandpit Lane, which provides an alternative route to the west.

4.4.4. Hatfield Road is provided with continuous footways on both sides of the carriageway, varying in width between 1.3-3.7m wide. Directly to the west of the Oaklands College South Drive access, a signalised pelican crossing equipped with dropped kerbs and tactile paving is provided for pedestrians to cross Hatfield Road. Other key crossing points benefit from dropped kerbs, tactile paving and refuge islands for wider crossing points, such as Colney Heath Lane.

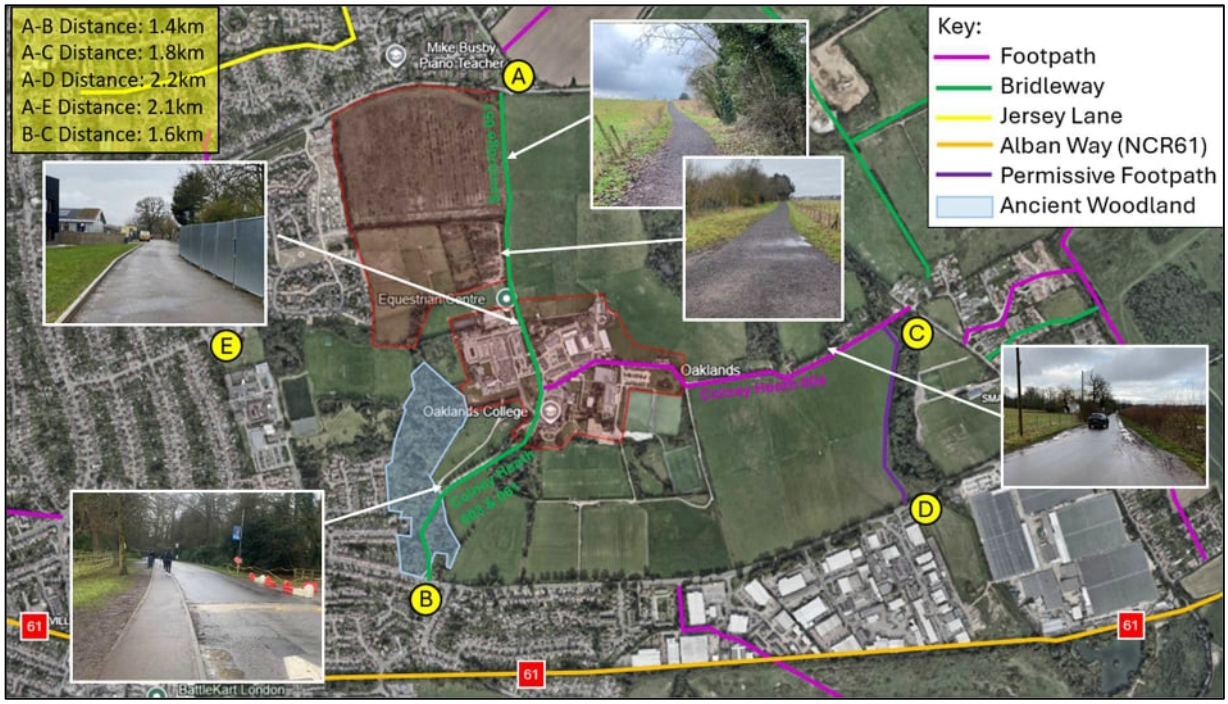
4.4.5. Oaklands Lane to the south of the East Drive access with Oaklands College is provided with a footway on the eastern side of the carriageway, measuring approximately 1.5m in width. The footway provides a continuous route south to pedestrian infrastructure on Hatfield Road.

4.4.6. All other roads surrounding the site, including Colney Heath Lane, Barnfield Road and Hill End Lane, are provided with footways on both sides of the carriageway, with crossing points equipped with dropped kerbs and tactile paving.

Public Rights of Way Network

4.4.7. Within and surrounding the site there is an extensive PRoW network. The network within the development site is shown in Figure 6, with further information on each route provided below. In addition, mapping of the wider PRoW network is shown in Figure 1.

Figure 6 – Existing PRoW Network



Source: Google Maps
**Note: East Drive to be upgraded to a bridleway and Boggymead Spring upgraded to a footpath under the Oaklands Grange S106*

4.4.8. Bridleway Sandridge 051, known as North Drive, borders Oaklands Blossom to the east and connects into the northern part of Oaklands College. North Drive provides a key connection through Oaklands College to Sandpit Lane and takes the form of gravel route measuring 2.2-3m wide, with grass verges on either side. This section of the route has no lighting.

4.4.9. North Drive once within Oaklands College becomes Bridleway Colney Heath 003, known as South Drive. Within the centre of the college campus, the route is a shared surface road measuring approximately 4.9-6.7m wide. Further south of the college campus centre, the route becomes Colney Heath 061 and takes the form of a 1.4m wide footway, with a 5m wide carriageway and grass verges on either side. South Drive is one of two vehicular access points for Oaklands College and therefore experiences a modest level of vehicle movements during the peak hour periods. This section of the route is lit.

4.4.10. Finally, Footpath Colney Heath 004, known as East Drive, routes from the centre of Oaklands College campus east to Oaklands Lane. East Drive is the second vehicular access point for Oaklands College and therefore also experiences a modest level of vehicle movements. This route takes the form of a shared surface arrangement, measuring between 3.6-3.8m wide, with passing places recently installed along the route. This route is also lit. It is noted that this route is to be upgraded to a Bridleway in accordance with the S106 for the Oaklands Grange development.

4.4.11. Route A to B (Sandpit Lane to Hatfield Lane) via North Drive and South Drive is considered to be a key 'utility' route, providing the existing community with routes to/from Oaklands College from key residential areas to the north and south, as well as a through link. The route is approximately 1.4km long.

4.4.12. East Drive is considered to be more of a leisure route, with Smallford not likely to be a significant origin/destination area.

4.4.13. Currently there is no dedicated route to Oakwood Primary School, with the current route via Sandpit Lane and residential dwellings to the west, meaning the route is over 2km long.

4.4.14. Photos of the existing routes within the site are shown below in Figure 7.

Figure 7 – Existing PRoW Context

4.4.15. Surveys were undertaken by HCC recording the existing PRoW usage within the site. The surveys were undertaken between Thursday 3rd and Sunday 6th July 2026 with surveys recording pedestrians, cyclists and equestrians accessing and egressing the three PROW survey points between 06:00-21:00. The weekday average daily flows are summarised in Figure 8, with the weekend daily average flows shown in Figure 9. Of note, no horses were recorded during the survey period and therefore have not been shown below.

Figure 8 – PROW Weekday Average Daily Flows

Source: Google Maps

4.4.16. As demonstrated above, the South Drive Bridleway has the highest level of usage during the weekday, with an average of 830 two-way pedestrian movements and 71 cycle movements. The North Drive Bridleway experienced an average of 121 pedestrian movements and 66 cycle movements. East Drive experienced the lowest level of usage with only 33 pedestrian movements daily and 32 cycle movements.

Figure 9 – PROW Weekend Average Daily Flows

Source: Google Maps

4.4.17. As demonstrated above, the South Drive Bridleway has the highest level of usage during the weekend, with an average of 162 two-way pedestrian movements and 75 cycle movements, however it is evident that this is a significant reduction compared to the weekday movements, particularly for pedestrians demonstrating that South Drive primarily accommodates college and commuter movements. The North Drive Bridleway experienced an average of 95 pedestrian movements and 75 cycle movements. East Drive experienced the lowest level of usage with only 26 pedestrian movements daily and 22 cycle movements.

4.4.18. It can therefore be concluded from the PROW usage surveys that South Drive has the highest usage of all the PROW routes within the site, with 92% of weekday movements undertaken on-foot. North Drive and East Drive experience a more even split between pedestrian and cycle movements, with 65% and 51% of weekday movements undertaken by pedestrians, respectively. The flows on East Drive confirm that East Drive is more of a leisure route and is not considered a key 'utility route'.

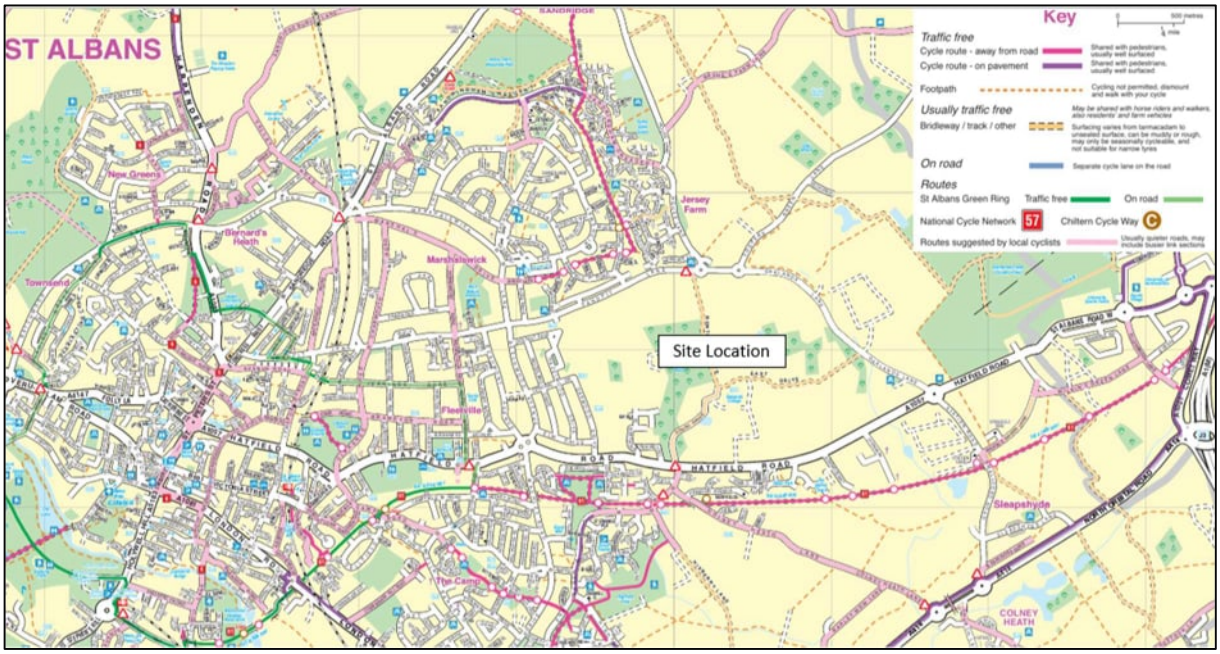
4.4.19. No equestrian movements were recorded during the surveys and therefore it is evident there is limited use and demand for horses on all routes.

Cycle Network

4.4.20. Cycling is also considered an important mode of sustainable travel, and five miles (8km) is generally considered an 'achievable' cycle distance for most people (source: LTN 1\20, Cycle Infrastructure

design). St Albans local cycle routes map is shown in Figure 10, which demonstrates there is a network of cycle routes in and around the site.

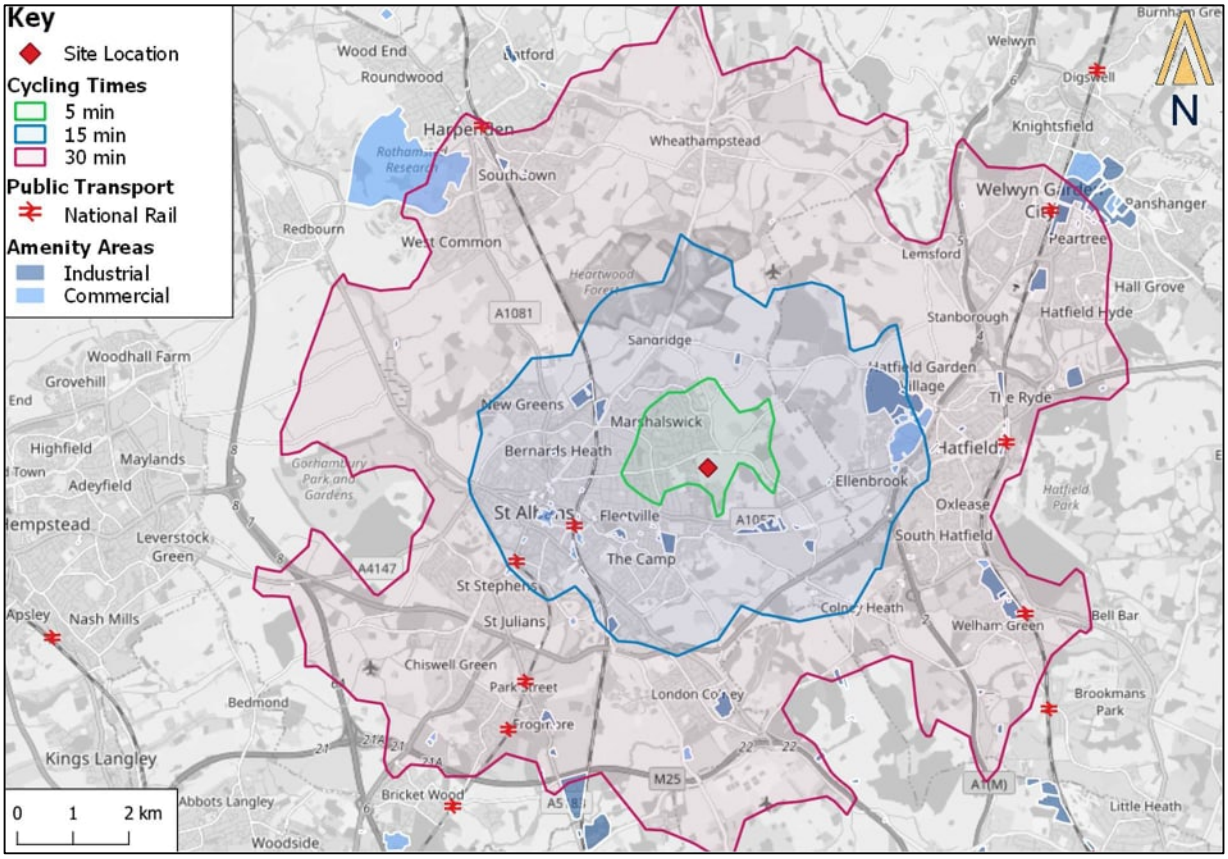
Figure 10 – Local Cycle Routes



Source: St Albans Cycle Map

4.4.21. Figure 11 demonstrates the areas accessible within a 30-minute cycle of the site, showing that St Albans City Centre and Railway Station are accessible within a 10-minute cycle of the site. In addition, key employment destinations of Welwyn Garden City, Harpenden and Hatfield are accessible within a 30-minute cycle. As such, it is evident that travel to and from the site by cycle is a viable mode of travel.

Figure 11 – Cycle Isochrone



Source: QGIS and OpenStreetMap

4.5. Proposed Pedestrian and Cycle Access

4.5.1. The development has been designed with a focus on prioritising pedestrian and cycle access to and from the site in order to encourage walking and cycling for all users, regardless of age, health and mobility impairments.

Pedestrian and Cycle Infrastructure

4.5.2. As aforementioned in Section 3.4, the development proposals involve a host of improvements to the pedestrian and cycle networks within the site, as well as on the surrounding network, which will provide significant benefits for future end users of the development, as well as existing residents and communities within St Albans. The key infrastructure improvements have been outlined below:

- New 3m wide shared cycle/footway on the southern side of Sandpit Lane, connecting with the existing infrastructure to the west at Oaklands Grange. The shared cycle/footway will be provided adjacent to Sandpit Lane's carriageway to the west of the primary access, with an alternative route offset to the south within the proposed development site to retain the existing vegetation along the carriageway, as provided for the neighbouring Oaklands Grange site;
- New active travel routes and connections provided internally within the site, which will provide improved non-motorised users routes;
- Existing bridleways within the Site improved to provide enhanced and separate pedestrian, cycle and equestrian routes;
- New toucan crossing across Sandpit Lane in the north-western corner of the development to connect with existing infrastructure on the northern side;

- New toucan crossing across Hatfield Road to the east of South Drive to provide new cycle crossing;
- New 2m wide footway on western side of Oaklands Lane south of East Drive to connect to a new dropped kerb pedestrian crossing equipped with dropped kerbs and tactile paving across Oaklands Lane to connect with existing infrastructure on the eastern side;
- Contribution to upgrade existing dropped kerb crossing on Sandpit Lane at North Drive to provide a Toucan crossing delivered by HCC;
- Improvements to the cycle route to Jersey Lane via Barnfield Lane and Ardens Way, through new shared cycle/footway on Barnfield Road, improved signage and road markings and improved crossing facilities;
- Improvements to the cycle route to Alban Way via Colney Health Lane and Hill End Lane, through new crossings, alterations to the existing highway layout to provide priority to cyclists over vehicles and traffic calming measures to improve the street scene for cyclists.

4.5.3. Further information on the above proposed schemes are provided below, with detailed information in Section 10. The proposed infrastructure improvements will significantly increase the active travel connections and opportunities surrounding the site, further enhancing the sustainability credentials of the development. These improvements have been considered and discussed with HCC, and are proposed in accordance with the requirements of the draft Local Plan allocation for the site, whilst having consideration to the schemes identified within the LCWIP and GTPs.

Public Rights of Way Network

4.5.4. The proposals involve improvements to the PROW network within the site. The proposals involve:

- Upgrading the northern section of North Drive to provide a 6m wide route, with 3m of hardstanding and 3m of soft verge to accommodate equestrian use, in accordance with HCC's PMPDG requirements for a bridleway;
- New active travel route provided to the west of the College that will provide an alternative section of North Drive/South Drive. This route will be provided as a 6m wide route, with 3m of hardstanding and 3m of verge to accommodate equestrian use, and will be lit;
- Provision of new cycle route along western side of South Drive to upgrade and improve existing Bridleway for cyclists;
- New active travel route provided to the east of the College that will provide an alternative section of North Drive/East Drive. This route will be provided as a 6m wide route, with 3m of hardstanding and 3m of verge to accommodate equestrian use;
- New section of East Drive providing a segregated shared cycle/footway from existing carriageway to upgrade and improve existing Bridleway for pedestrian and cycle use; and
- Three new permissive routes, one running parallel along Hatfield Road within College land, one running parallel with Sandpit lane and one providing a southern route connecting to the new active travel route to East Drive.

4.5.5. The infrastructure improvement and enhancement schemes identified above have been demonstrated on the non-motorised users route map, which shows the existing and proposed walking and cycling networks, demonstrating the proposals will have significant improvements to permeability and connectivity within the site, as required by the national and local policy, in particular the draft Local Plan allocation for the site and the LCWIP.

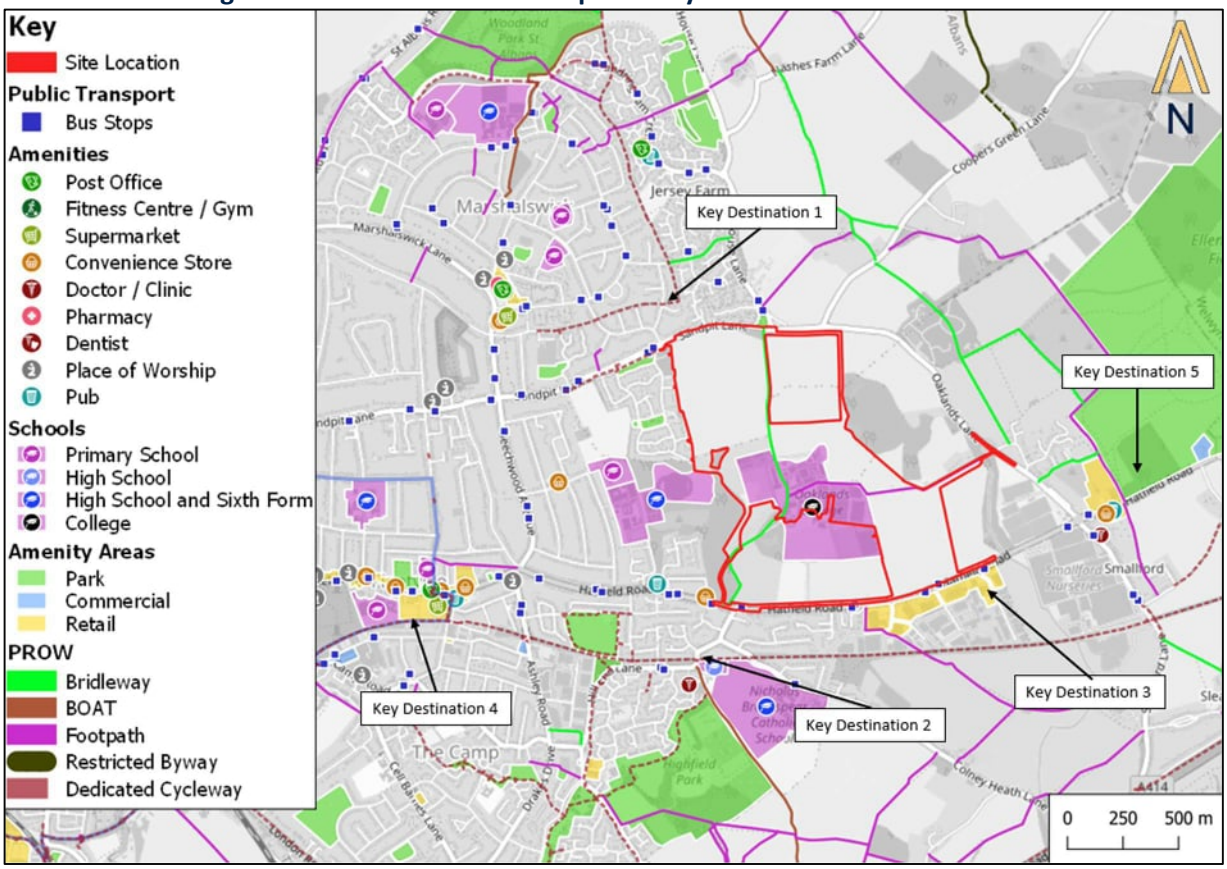
4.5.6. It is to be noted, however, the Applicant is mindful that these public paths permit the public unfettered access through the campus which, as the planning application proposes, is to be enlarged and improved to provide for an increased future number of pupils including SEND students. The Applicant has a legal duty to protect pupils and staff whilst on College property and considers the increased numbers of pupils and staff consequently increases the need for enhanced measures to safeguard all from

inappropriate and unwanted attentions. This application for planning permission is, therefore, submitted without prejudice to the College seeking to mitigate the safeguarding hazard by means of formal diversion(s) of PRoW to the new ATRs and, given the procedure for PRoW diversion is separate to that of planning permission, a separate application(s) may be made in due course. Further information on the proposed PROW strategy is included within a separate Technical Note attached at **Appendix E.**

4.6. Assessment of Local Amenities and Key Destinations Active Travel Routes Analysis

4.6.1. Figure 12 demonstrates the area that can be reached within walk distance of the centre of the two sites and the various amenities and facilities accessible, including convenience stores, public houses, schools and a supermarket.

Figure 12 – Local Amenities Map and Key Local Destinations



Source: QGIS and OpenStreetMap

4.6.2. From the above analysis of the amenities surrounding the site, five key destinations have been identified, as shown above, with more information on each below:

- **Key Destination 1 – Jersey Lane cycleway:** Routes via the nearest bus stops on Sandpit Lane, and facilitates access to Jersey Lane cycleway, which provides a route west to local amenities in Marshalswick and a route north-east to education facilities and parks north of Marshalswick;
- **Key Destination 2 – Alban Way cycleway:** Routes via the nearest bus stops on Hatfield Road, and facilitates a route to Alban Way which is a key traffic-free route to St Albans City Centre to the west and to Hatfield to the east;
- **Key Destination 3 – Alban Park Estate:** Routes to key retail, industrial and employment area to the south-east of the site;

- **Key Destination 4 – Fleetville:** Routes to a large selection of amenities and facilities, including key retail areas including a supermarket and primary school;
- **Key Destination 5 – Smallford and University:** Routes to wider PRoW network, University of Hertfordshire, Ellenbrook Fields and Hatfield.

4.6.3. An assessment of the routes to each of the key destinations is included below, with the distance's measured from the centre of the two sites.

Table 5 – Key Destination Route Distances

Key Destination	Route	Distance	Journey Times (Minutes)	
			Walk	Cycle
1 – Jersey Lane	Via Ardens Way	950m	12	4
	Via Broomleys	980m	12	4
	Via Fernleys	1.1km	14	4
	Via Barnfield Road	1.1km	14	4
2 – Alban Way	Via Colney Health Lane and Hill End Lane	1.2km	15	5
	Via Alban Park Estate	1.8km	23	7
3 – Alban Park Estate	Via South Drive and Hatfield Road	1.7km	21	6
4 – Fleetville	Via South Drive and Hatfield Road	2.1km	26	8
5 – University of Hertfordshire de Havilland Campus	Via East Drive and Hatfield Road	4.1km	51	15
	Via Bridleways	3.3km	41	12

Route One

4.6.4. Key destination one is the Jersey Lane cycleway, which is accessed from Sandpit Lane and Barnfield Road. Various access points are achieved off Barnfield Road, Ardens Way, Broomleys and Fernleys, which have varying types of connection points with Barnfield Road and Ardens Way benefiting from level access. All routes are provided with footways on at least one side of the carriageway, however no dedicated cycle infrastructure is provided, with cycle access currently shared with vehicle movements. Pictures of the route at numerous intervals are shown in Figure 13.

Figure 13 – Route One Pictures: Jersey Lane Access Routes

4.6.5. The proposals involve improvements to the existing access routes to Jersey Lane via Barnfield Road and Ardens Way, through a new shared cycle/footway within the site and adjacent to Sandpit Lane, a new Toucan crossing on Sandpit Lane, a shared cycle/footway on the western side of Barnfield Road connecting with a new crossing on Ardens Way with the route continuing on street along Ardens Way to access Jersey Lane, via a new parallel crossing. This will have significant improvements for cyclists to access Jersey Lane, providing a safe and direct route. In addition, the proposals involve new street signs at key interchanges and on-route cycle markings to direct cyclists to the Jersey Lane route.

Route Two

4.6.6. Key destination two is the Alban Way cycleway, which is accessed from Hatfield Road in three locations close to the site. Colney Heath Lane provides two access routes from Hatfield Road, with one route south-west via Hill End Lane and the second route continuing south-east on Colney Heath Lane. Neither route provides dedicated cycle infrastructure, with Hill End Lane having a narrow footway (c. 1m wide) and narrow carriageway limiting the potential for width increases.

4.6.7. The route to Alban Way via Colney Heath Lane has an increased width along the carriageway and footway, however the actual access point has significant level differences and is restricted in width. The third access point is located further east on Hatfield Road via a footpath off Ryecroft Court and a segregated pedestrian route provided to the south via Alban Park, therefore limiting access by cycle.

4.6.8. Pictures of the route at numerous intervals are shown in Figure 14.

Figure 14 – Route Two Pictures: Alban Way Access Routes

4.6.9. The proposals involve improvements to the existing access routes to Alban Way via Colney Heath Lane and Hill End Lane, through a new cycle route and new dropped kerb crossing along South Drive within the site. A new Toucan crossing is proposed on Hatfield Road, along with widening the existing footways to 3m, changes to the Colney Heath Lane to tighten the kerb radii and reducing the crossing distance for pedestrians and cyclists.

4.6.10. Along Colney Heath Road and Hill End Road, the proposals involve altering the existing highway layout to remove roundabouts, providing priority to cyclists over vehicles and installing traffic calming measures to improve the street scene for cyclists.

4.6.11. A new parallel crossing is proposed at the access to Alban Way. In addition, the proposals involve new street signs at key interchanges and on-route cycle markings to direct cyclists between the Alban Way and the Jersey Lane route.

Route Three

4.6.12. The third identified key destination is the various employment, retail and industrial land uses on Hatfield Road to the south-east of the site. Access to these uses is achievable via Hatfield Road, which benefits from a continuous footway on both sides of the carriageway, with the northern footway measuring approximately 1.3-1.4m wide separated by a grass verge from the carriageway. The footway on the southern side measures 1.4-1.5m wide and terminates past the Alban Park access. No dedicated cycle infrastructure is provided on Hatfield Road. Pictures of the route at numerous intervals are shown in Figure 15.

Figure 15 – Route Three Pictures: Hatfield Road Employment / Industrial Uses Access Route

4.6.13. The proposals involve a new footpath within the site running parallel to Hatfield Road, providing an alternative traffic-free walking route. The proposals involve widening the footways along Hatfield Road to the west of the South Drive to provide new wider routes to the relocated bus stops. No off-site formal cycle infrastructure improvements are proposed for this route however the enhanced access to Alban Way provides an alternative route via the Alban Way and Colney Heath 011.

Route Four

4.6.14. The fourth key destination is the local centre in Fleetville where numerous retail and education facilities are provided. Notably the desire for the local centre is likely to be limited given the proposals involve an on-site local centre and primary school.

4.6.15. The route travels along Hatfield Road, which is provided with continuous footways on at least one side. Various formal pedestrian crossing points are provided along Hatfield Road in the form of zebra crossings and signal controlled toucan crossings, including at the double roundabout junction, facilitating the safe movement of pedestrians.

4.6.16. Cycle infrastructure is provided in sections along the route in the form of on-carriageway cycle lanes and advanced cycle stop lines at signalised junctions. Pictures of the route at numerous intervals are shown in Figure 16.

Figure 16 – Route Four Pictures: Hatfield Road Retail / Education Uses Access Route

Source: Google Maps

4.6.17. The proposals involve no direct improvements to this route, given the existing provision is deemed suitable and of good quality and given the on site provision. Improvements have been focused on Alban Way, providing a more attractive, traffic-free route to St Albans City centre, which is of a similar journey time.

Route Five

4.6.18. The final key route is to destinations to the east, including Smallford, the University of Hertfordshire (UoH) and Hatfield, as well as the wider PROW network. The route involves travelling along East Drive and travelling on Oaklands Lane to connect either with Bridleway 63 or with Hatfield Road to the south for onward connections.

Figure 17 – Route Five Pictures: Smallford, UoH and Hatfield Access Route

4.6.19. The proposals involve a new pedestrian and cycle route on the southern side of East Drive, providing a segregated route from vehicles on East Drive. This will continue as a new 2m wide footway on the western side of Oaklands Lane for approximately 30m to the south of the junction, which will connect with a new pedestrian crossing equipped with dropped kerbs and tactile paving across Oaklands Lane that connects with existing infrastructure on the eastern side. This will provide a dedicated, safe crossing point for existing and future end users to enhance permeability to the existing infrastructure for onward travel.

Active Travel Route Analysis Summary

4.6.20. It is therefore evident that the site is well placed within walk and cycle distance of key areas and destinations, where numerous amenities can be accessed. The routes surrounding the site and to key destinations are of good standard and have suitable pedestrian infrastructure, which ensures travel on foot is a viable and attractive method of travel for future end users.

4.6.21. The proposals involve enhancements to identified routes, primarily through improvements to cycle infrastructure through new routes, the provision of new crossing points and improved signage and lining of key access routes to ensure existing and future end users are provided with enhanced opportunities to travel by active modes of transport to these identified key destinations.

4.6.22. The proposals will not adversely alter the journey times, however, will improve the attractiveness and safety of these key roues. These proposed active travel improvements will further enhance the sustainability credentials of the site and encourage future end users to travel sustainability to and from the site, over the private car.

4.7. Existing Public Transport Accessibility

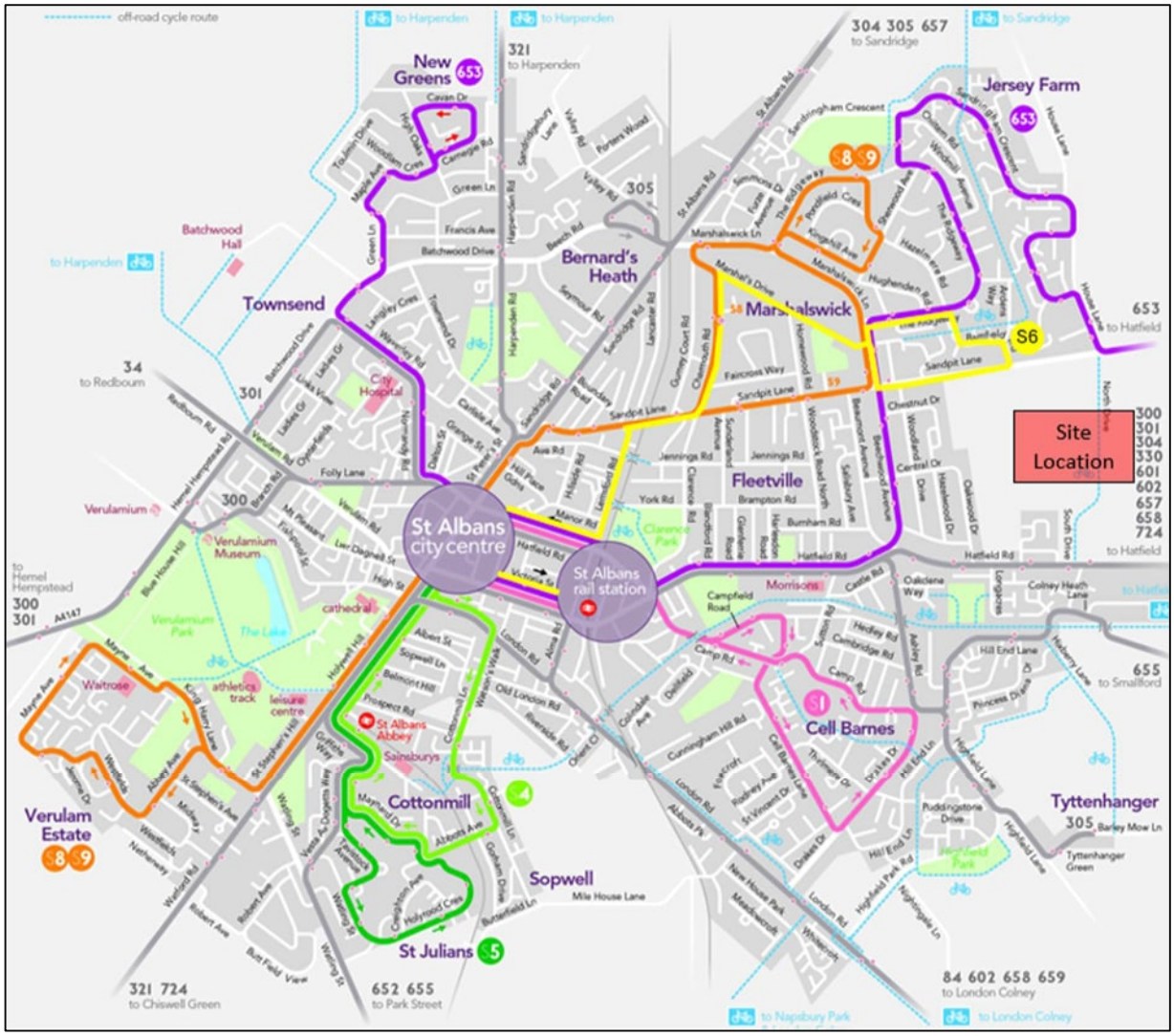
Bus Access

4.7.1. The nearest bus stops to Oaklands Blossom are located on Sandpit Lane, to the west of the roundabout junction with Barnfield Road, which are served by the S6 bus route providing a half hourly service to St Albans City centre. Additional bus stops are accessible on House Lane, which are served by the 653 Tigermoth service providing a half hourly service between New Greens, St Albans, Hatfield and Welwyn Garden City.

4.7.2. The nearest bus stops to Oaklands College are located on Hatfield Road to the east and west of the College access (South Drive). The stops are served by a total of nine bus routes on a frequent basis and benefit from seating, shelter and real-time travel information.

4.7.3. St Albans bus map is reproduced below in Figure 18 with the addition of the S6 bus.

Figure 18 – Local Bus Services



Source: SACDC with S6 added

4.7.4. As demonstrated, the services to the north of the site provide a longer detour route through Jersey Farm residential area before travelling to St Albans, which is likely to result in an increased journey time. The bus stops from Hatfield Road provide access to a greater number of bus services, providing connections to numerous additional destinations on a frequent basis. Currently the bus stops are approximately 1.5km from Sandpit Lane and therefore in excess of typical travel distance for residents to bus stops (cited as 400m) and therefore are unlikely to be used by the majority of residents. As part of the development proposals, a key focus is improving public transport access for existing and future residents.

4.7.5. In addition, from a review of the existing Oaklands College Travel Plan, surveys undertaken at the college demonstrate that a very high proportion of students (60%) travel to and from the college by public transport, predominantly by bus. This results in the bus stops on Hatfield Road having a high demand for pupils waiting and exiting buses and it is understood that the footways on Hatfield Road do

not have sufficient width to accommodate this high level of pedestrian movements, raising safety concerns. As part of the development proposals, the Travel Plan will further aim to increase public transport use by pupils and staff, and therefore the proposals also involve improvements to public transport access for existing and future pupils and staff at the College.

Rail Access

4.7.6. St Albans City Railway Station is located 3.1km to the south-west of the site, accessible by an 11-minute cycle or by existing bus services. Services from St Albans City Railway Station run between Bedford, Luton, Sutton, Brighton and Three Bridges at a frequency of approximately two services per hour in each direction. The station provides step free access to all platforms.

4.7.7. The station is provided with a 1,150 cycle stands which are covered by CCTV. Alban Way routes in close proximity to the station with a cycle route provided along Charrington Place up to the station.

4.8. Proposed Public Transport Accessibility

Bus Access

4.8.1. The proposals incorporate a bus improvement scheme for Oaklands Blossom. The residential internal layout has been designed to accommodate bus access for the spine road loop, with the intention for the proposals to accommodate a bus route to/from St Albans City Centre. Bus stops will be provided throughout the site to ensure all future end users of the site, including residents, staff, pupils and visitors have access to bus services within a 400m distance, as referred within the 'Bus Services & New Residential Developments' guidance (January 2025). The internal loop road route has been designed with a minimum clear carriageway width of 6.5m wide with the whole route designed to permit two buses to pass in opposing directions, in accordance with the above guidance. The development will provide a public transport contribution to HCC to fund a diverted/extended route or a new route, to be agreed with HCC.

4.8.2. The proposals involve improvements to the existing bus stops on Hatfield Road, which serve Oaklands College. The proposals involve shifting the westbound bus stop to the east of Colney Heath Lane, the removal of the eastbound bus layby and subsequent widening of the existing footway to provide enhanced waiting facilities and areas for bus users. In addition, both stops will be provided with shelter and real-time information to further improve the facilities.

Rail Access

4.8.3. The proposed bus route within Oaklands Blossom is anticipated to provide a more direct and quicker route to St Albans City Centre and Railway Station, enhancing the opportunities for onward travel via rail services. Furthermore the enhanced route to the Alban Way ensures that there is a direct cycle link to the station.

Public Transport Accessibility Summary

4.8.4. It is evident that the sites are provided with connections to existing bus and rail services, with bus services used by the majority of existing Oaklands College pupils, demonstrating that existing services provide a viable means of transport for existing users. It is acknowledged that existing services for Oaklands Blossom are limited/constrained and therefore the proposals involve a new or diverted/extended bus route that will serve all residents and end users of the site, providing a significant betterment to the existing provision and ensuring future end users are provided with realistic opportunities to travel by public transport.

4.9. Access to Other Sustainable Modes of Transport

Existing Car Club Access

4.9.1. Car clubs provide a cost-effective and flexible alternative to owning a car and can help tackle the challenges of climate change and congestion. Car clubs provide the convenience of owning a car without the hassle or costs of repairs, servicing or parking. Members can book cars locally for just an hour or longer periods. They reduce the need for people to own their own cars by providing access to conveniently located high-quality vehicles on an affordable 'pay-as-you drive' basis.

4.9.2. Car clubs present a cost-efficient way for residents to have the benefits of a car without the need for owning one. Not only does this provide a mode of transport for residents to travel to and from work but car clubs provide a viable option for short trips whereby residents can use a car club for leisure trips or to transport heavy items for example.

4.9.3. Enterprise currently operate two car club vehicles within St Albans City Centre, approximately 4km west of the site, which is accessible by bus or cycle. The distance to the existing car club vehicle means it is unlikely to realistically be used frequently by future end users of the site.

Proposed Car Club Access

4.9.4. Policy TRA4 (f) of the draft SACDC Local Plan outlines that the Council supports provision for car clubs to help reduce the need for private car parking. Provision of suitable onsite car club facilities is required for development of 100 or more dwellings. The Council will seek appropriate financial contributions from all major developments to car club facilities and schemes.

4.9.5. It is proposed that car club vehicles could be provided as part of the development on site. Enterprise anticipate that up to four vehicles could be viable at the development on a phased delivery, with two vehicles provided initially with the others added based on demand. All future residents would be provided with 3 years free membership of the car club and £50 drive time credit to encourage future residents to utilise these vehicles. Enterprises proposal is attached at **Appendix F.**

4.9.6. The provision of car club vehicles on site would provide future end users of the site, as well as existing residents surrounding the site, the opportunity to rent a car on the short-term, reducing the need for residents to own a car, or reducing the number of vehicles required at households. This on site provision further enhances the sites sustainability credentials, providing future end users with alternative opportunities for travel other than the private car.

Proposed Transport Hub

4.9.7. In accordance with HCC's PMPDG, a Transport Hub should be designed to be a recognisable and easily accessible place which integrates different transport modes and supplements them with enhanced facilities, services and information aimed at encouraging more sustainable travel, creating sense of place and improving journeys and travel choices.

4.9.8. The proposals involve the provision of an on-site mini transport hub, which would comprise a Central Hub in the proposed local centre area. The transport hub will provide various travel options, information and support to residents, employees and site visitors, in addition to day-to-day facilities such as convenience store, potential café and/or co-working space to accommodate the likely high-level of existing and future residents working from home. The on-site transport hub could include parcel lockers which will help to reduce last-mile deliveries by freight.

4.9.9. The proposed car club bays would be located near to the transport hub as would the local centre bus stops. In addition cycle parking spaces and information on nearby bus and rail services (including

timetable information and directions) would be provided to ensure a central area with access to all potential travel modes.

4.9.10. The provision of the on-site transport hub (Figure 19) further supports the sustainability credentials of the development.

Figure 19 – Transport Hub

4.10. Vehicular Access and Highway Layout

Existing Vehicular Access and Highway Layout

4.10.1. No vehicular access is currently provided to Oaklands Blossom.

4.10.2. Vehicular access to Oaklands College is obtained in two locations – the primary access off the northern side of Hatfield Road and the secondary access off the western side of Oaklands Lane.

Sandpit Lane

4.10.3. Oaklands Blossom fronts onto Sandpit Lane; a single carriageway road running between the B651 within St Albans city centre to the west and the A1057 to the south-east. In the vicinity of the site, Sandpit Lane has a carriageway width of 6.6-7m with a mostly straight alignment with a curve in the centre of the site. The carriageway is subject to a 40mph speed limit, with two compact roundabouts provided to the east and west of the site, with a separation of approximately 480m. A further compact

roundabout is provided a further 240m east, in between which the speed limit of Sandpit Lane increases to national speed limit.

4.10.4. The conditions on Sandpit Lane along the site frontage are demonstrated in Figure 20.

Figure 20 – Sandpit Lane Carriageway Conditions

Source: Google Maps

4.10.5. An Automatic Traffic Counter (ATC) was placed on Sandpit Lane along the site frontage for a 7-day period between 25th-31st March 2025 to record vehicle flows and speeds. The results of the ATC have been shown below. All surveys results can be provided if requested by HCC.

Table 6 – Sandpit Lane ATC Summary

Date	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily		
	EB	WB	Two Way	EB	WB	Two Way	EB	WB	Two Way
Tuesday	897	710	1607	699	765	1464	8,550	8,228	16778
Wednesday	815	738	1553	754	688	1442	8,719	8,036	16755
Thursday	806	748	1554	728	719	1447	8,523	8,377	16900
Friday	721	695	1416	738	656	1394	8,770	8,426	17196
Saturday	375	341	716	603	523	1126	7,824	7,294	15118
Sunday	237	181	418	410	398	808	5,945	5,664	11609
Monday	833	748	1581	719	728	1447	8,287	8,391	16678
5 Day Average	**814**	**728**	**1542**	**728**	**711**	**1439**	**8570**	**8292**	**16861**
Average Day	**669**	**594**	**1264**	**664**	**640**	**1304**	**8088**	**7774**	**15862**
Average Mean Speed							**34.1**	**33.6**	**33.8**
85th Percentile Speeds							**39.1**	**38.0**	**38.6**

4.10.6. As demonstrated above, the ATC recorded a five-day average of 1,542 two-way vehicle movements in the AM peak hour on Sandpit Lane and average of 1,439 movements in the PM peak hour. Over a 24-hour period, an average of 16,861 two-way vehicle movements were recorded on Sandpit Lane.

4.10.7. With regards to speeds, an 85th percentile speed of 39.1mph was recorded for vehicles travelling eastbound and 38mph for vehicles traveling westbound. As such, it is evident that vehicles are travelling within the posted speed limit of 40mph. The average mean speeds was recorded lower with an average speed of 34mph.

Oaklands Lane

4.10.8. To the east of the junction between Sandpit Lane and Coopers Green Lane, Sandpit Lane transitions to Oaklands Lane, which continues south-east where it adjoins the A1057 and Station Road by a four-arm

roundabout. Oaklands Lane takes a similar form as Sandpit Lane and is subject to a 60mph speed limit, reducing to 40mph approximately 380m north of the junction with East Drive.

Hatfield Road

4.10.9. The site's southern boundary is formed by the A1057 Hatfield Road, which takes the form of a single carriageway road providing a main east to west route between Hatfield and St Albans City Centre and is a key bus route. In the vicinity of the site, Hatfield Road has a carriageway width of 6.6-7.4m with a mostly straight alignment and sections of hatched central reservations along its extent. The carriageway outside the South Drive access is subject to a 30mph speed limit which continues west to St Albans City Centre. Approximately 700m east of the college access, the speed limit increases to 40mph.

4.10.10. An Automatic Traffic Counter (ATC) was placed on Hatfield Road to the east of the Alban Park access, centrally along the site frontage for a 7-day period, over the same period as the survey for Sandpit Lane, to record vehicle flows and speeds. The results of the ATC have been shown below.

Table 7 – Hatfield Road ATC Summary

Date	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily		
	EB	WB	Two Way	EB	WB	Two Way	EB	WB	Two Way
Tuesday	615	664	1279	496	423	919	6,577	6,392	12,969
Wednesday	569	564	1133	497	481	978	6,701	6,252	12,953
Thursday	621	696	1317	504	499	1003	6,753	6,760	13,513
Friday	618	562	1180	413	455	868	6,702	6,596	13,298
Saturday	276	294	570	318	331	649	5,459	5,309	10,768
Sunday	130	121	251	190	184	374	3,930	3,760	7,690
Monday	607	589	1196	482	459	941	6,501	6,179	12,680
5 Day Average	**606**	**615**	**1221**	**478**	**463**	**942**	**6647**	**6436**	**13083**
Average Day	**491**	**499**	**989**	**414**	**405**	**819**	**6089**	**5893**	**11982**
Average Mean Speed							**32.6**	**34.2**	**33.4**
85th Percentile Speeds							**38.2**	**39.9**	**39.0**

4.10.11. As demonstrated above, the ATC recorded a five-day average of 1,221 two-way vehicle movements in the AM peak hour on Hatfield Road and average of 942 movements in the PM peak hour. Over a 24-hour period, an average of 13,083 two-way vehicle movements were recorded on Sandpit Lane.

4.10.12. With regards to speeds, the ATC was placed within the 40mph speed limit section of Hatfield Road. The ATC recorded an 85th percentile speed of 38mph was recorded for vehicles travelling eastbound and 40mph for vehicles traveling westbound. As such, it is evident that vehicles are travelling within the posted speed limit of 40mph. The average mean speeds was recorded lower with an average speed of 33mph.

Proposed Vehicular Access and Highway Layout

4.10.13. Oaklands Blossom is proposed to be accessed in two locations off the southern side of Sandpit Lane, with the primary access taking the form of a ghost island right turn lane. In order to accommodate the central hatching and right turn lane pocket, Sandpit Lane is proposed to be widened to the south within the red line boundary of the site. The proposed widening works comprise the provision of 3.5m wide through lanes and a 3.5m wide right turn lane pocket.

4.10.14. It is understood that there are aspirations from the Parish Council and local residents to reduce the speed limit on Sandpit Lane to 30mph. The applicant is willing to fund the Traffic Regulation Order (TRO) consultation for reduction of the speed limit on Sandpit Lane to 30mph, if HCC wish to reduce the speed

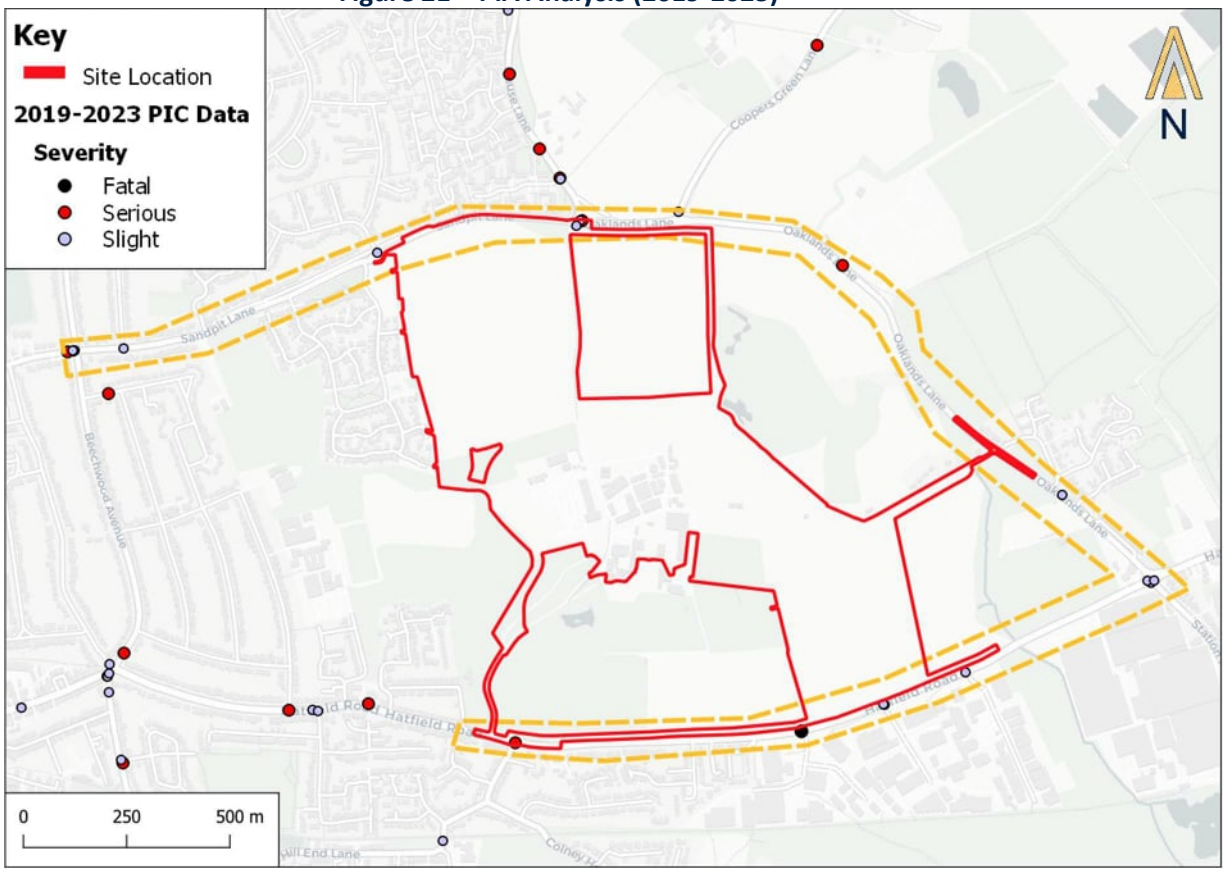
limit. A reduction in speed limit would enhance the attractiveness of Sandpit Lane for pedestrians and cyclists and would reduce the tree removal requirement for the site access points.

4.10.15. Access to Oaklands College will be retained as existing off Hatfield Road and Oaklands Lane. The existing East Drive access off Oaklands Lane will be improved through widening the southern kerb radii to accommodate two-way minibus access. For South Drive, the proposals involve minor amendments to the junction with Hatfield Road to accommodate widening the footway on the eastern side.

4.11. Existing Road Safety Analysis

4.11.1. A review of the most recently available five years of injury collision data has been undertaken for the most recently available five year period (2019-2023) using data obtained from the Department of Transport (DfT). The results of this are shown below, with the study area agreed with HCC during the PPA process.

Figure 21 – PIA Analysis (2019-2023)



Source: Google Maps

4.11.2. As shown in Figure 21, over the most recently available five-year period, a total of 20 incidents have been recorded within the study area surrounding the site, of which one was fatal, four were classified as 'serious' and 15 were classified as 'slight'. The incidents within the study area classified as serious and fatal, and any clusters of three or more incidents, have been summarised below.

Table 8 – Personal Injury Accident Data Summary

Location	Severity	Date	Time	Weather Conditions	Vehicles Involved	Casualties	Summary of incident
Junction of Hatfield Road	Fatal	11/09/ 2021	15:45	Fine, no high winds	1 mobility scooter & 1 HGV	Mobility scooter driver	HGV turning into Alban Park collided with mobility scooter

Location	Severity	Date	Time	Weather Conditions	Vehicles Involved	Casualties	Summary of incident
and Alban Park							
Junction of Hatfield Road and Coley Heath Lane	Serious	02/12/2020	16:52	Wet and dark, but lights lit	2 cars	1 driver	Vehicle turning right out of Colney Heath Lane collided with vehicle continuing straight
Oaklands Lane	Serious	29/02/2020	21:45	Wet and dark, no lights	2 cars	2 drivers & 1 passenger	Vehicles in opposing directions collided head on. No causation factors provided
Junction of Sandpit Lane and House Lane	Serious	13/04/2021	05:30	Dry and light	1 cyclist & 1 LGV	1 cyclist	Vehicle collided into the back of the cyclist
	Slight	14/11/2022	14:30	Dry and light	3 cars	1 driver	Vehicle skidded and collided with another vehicle, 3rd vehicle collided into back of 2nd vehicle
	Slight	28/03/2023	07:40	Wet and light	1 motorcycle & 1 car	1 motorcycle driver	Car collided into the back of motorcycle when moving off
Hatfield Road / Station Road / Oaklands Lane Roundabout	Slight	01/03/2019	19:05	Dry and dark	2 cars	1 driver	Vehicle moving off and skidded into another vehicle
	Slight	29/12/2022	11:00	Wet and light	1 cyclist & 1 car	1 cyclist	Car collided into the side of the cyclist
	Slight	21/10/2023	06:30	Wet and dark, but lights lit	1 taxi & 1 cyclist	1 cyclist	Unknown

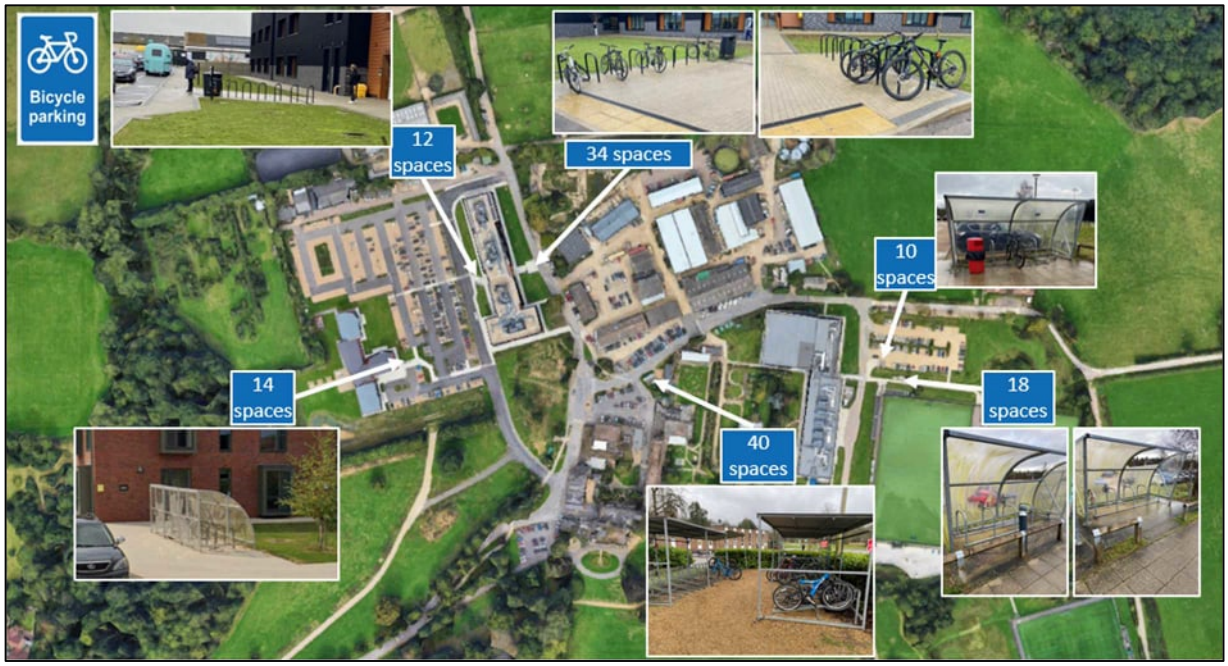
4.11.3. Whilst a number of incidents have occurred across the study area over the five-year period, the number of incidents is not considered to be high, given the size of the study area and the number of junctions included. Whilst any incident is regrettable, the inconsistent, unconcentrated, and unrelated nature of these incidents suggests that there are no existing safety issues present on the network in the immediate vicinity of the site.

4.12. Parking

Existing Cycle Parking

4.12.1. Cycle parking is currently provided across the Oaklands College campus in various locations, as shown in Figure 22. This demonstrates that a total of 114 formal cycle parking spaces are provided across the campus, of which 82 spaces benefit from shelter. Existing sports changing rooms provide staff and students with opportunities for showering and changing facilities for when travelling to the College by active modes of transport.

Figure 22 – Existing Oaklands College Cycle Parking



Source: Google Earth

Proposed Cycle Parking

4.12.2. The proposals at Oaklands College involve the provision of 164 new cycle parking spaces, of which 108 spaces are to be provided within three secure and sheltered cycle stores, and the remaining 56 spaces as short-stay Sheffield stands distributed across the campus. Further detail on the proposed provision is outlined in Section 6.

4.12.3. For Oaklands Blossom, cycle parking provision for the detailed element is proposed in accordance with SACDC's draft standards. Further detail on the proposed provision is outlined in Section 5.

Existing Car Parking

4.12.4. Within the previous Oaklands College Travel Plan, it was stated that the total parking provision across the College was 589 spaces. As part of the recent changes to the campus to create a car free centre, all parking within the centre of the campus has already been removed, with a new informal overflow car park provided on the northern side of East Drive, as shown in Figure 23 below.

Figure 23 – Existing Parking Provision across Oaklands College

Source: Google Earth

4.12.5. Car ownership data has been analysed for the existing resident population in St Albans 008D Lower Layer Super Output Area (LSOA), in which the Oaklands Blossom site is located, to determine the likelihood of future residents having to own a car. Both of the last two census' were used in order to take account of the appreciable impact caused by COVID. The data for both Censuses is summarised in Table 10.

Table 9 – Census Car Ownership Data

No. of Cars	2011 Data			2021 Data		
	Number of households	Percentage of Total	Potential Parking Demand	Number of households	Percentage of Total	Potential Parking Demand
No cars or vans in household	109	15%	0	108	13%	0
1 car or van in household	345	47%	345	397	47%	397
2 cars or vans in household	229	31%	458	262	31%	524
3 cars or vans in household*	43	6%	129	73	9%	256
4 or more cars or vans in household (only available for 2011 dataset)	12	1%	48	-	-	-
TOTAL	**738**	**100%**	**980**	**840**	**100%**	**1,177**
Parking Demand per Dwelling	**1.3**			**1.4**		
Parking Demand (472 Dwellings)	**614**			**661**		

** 3.5 parking demand applied to 2021 3 or more cars category*

4.12.6. As demonstrated in Table 10, since the 2011 census the average car ownership has marginally increased, with an average of 1.4 cars owned by each dwelling. Relating this to the proposed residential development of in the region of 472 dwellings, would equate to a parking demand for 661 vehicles.

Proposed Car Parking

4.12.7. The proposals at Oaklands College involve re-providing the existing parking spaces on East Drive within a new car park which will be located further east. A total of 153 car parking spaces are proposed within the new car park, including eight disabled spaces and 31 spaces equipped with active electric vehicle charging provision, as well as seven new coach spaces.

4.12.8. In addition, the proposals involve the provision of four new disabled parking spaces adjacent to the new Gateway building, and six minibus drop off bays by the new High Needs building. As such, the development proposals will retain parking at the previous levels, whilst improving the provision for disabled users, minibuses and coaches. Further detail on the proposed provision is outlined in Section 6.

4.12.9. For Oaklands Blossom, parking provision for the detailed element is proposed broadly in accordance with SACDC's draft standards. Further detail on the proposed provision is outlined in Section 5

4.13. Existing Travel Modes

Residential

4.13.1. The 2011 and 2021 method of travel to work data for the existing resident population has been analysed for the St Albans 008D Lower Layer Super Output Area (LSOA), in which the site is located. Both of the last two census' were used in order to take account of the appreciable impact caused by COVID. The result of this analysis is presented in Table 10.

Table 10 – Census 2011 and 2021 Method of Travel to Work Resident Population

Mode	2011	2021
Work from Home	6%	48%
Train	15%	2%
Bus	3%	1%
Taxi	1%	0%
Motorcycle	1%	0%
Car Driver	60%	38%
Car Passenger	4%	2%
Bicycle	3%	2%
On foot	7%	6%
Other	0%	1%
TOTAL	**100%**	**100%**

4.13.2. Table 10 shows that 60% of journeys from the 2011 resident population are undertaken by private car, with an additional 4% as car passengers. A total of 28% of journeys are undertaken by sustainable modes of transport, with 6% of residents working from home.

4.13.3. The 2021 census revealed a decrease in journeys undertaken by private car to 38%. The number of journeys undertaken by sustainable modes of transport has decreased to 11%. The greatest change was experienced for those working from home, which increased to 48%.

4.13.4. As evident, the recent changes in travel habits as a result of the COVID-19 pandemic have evidently resulted in a shift away from travel. However, it is important to note that the 2021 census took place in the immediate aftermath of COVID, and so it is possible that the 'work from home' has been slightly overinflated compared to what the local demographics/working patterns would be now.

Oaklands College

4.13.5. Within the Travel Plan produced in December 2024 to support the BREEAM Assessment at the College, the document involved existing pupil mode share information, which has been reproduced below. The previous Travel Plan included census mode share for staff and therefore to calculate an accurate existing mode share, a travel survey was undertaken for existing staff of Oaklands College in March 2025. A total of 419 staff responses were received, equating to a 74% response rate. The resulting modal share for existing pupils and staff are summarised below in Table 11.

Table 11 – Existing Oaklands College Mode Share (2024/2025)

Mode	Pupils	Staff
Train	60%	2.4%
Bus		4.8%
Taxi	0%	0%
Motorcycle	0%	0%
Car Driver	4%	78.2%
Car Passenger	0%	5.1%
Bicycle	1%	1.3%
On foot	35%	7.8%
Other	0%	0.4%
TOTAL	**100%**	**100%**

4.13.6. Table 11 shows that the majority (60%) of pupils arrive to the college by public transport, with the majority anticipated to be by bus. A total of 36% of pupils travel by active modes of transport, with 35% on-foot. Only 4% of pupils arrive by private car.

4.13.7. With regards to staff, 78% of journeys are undertaken by private car, with an additional 5% as car passengers. A total of 16% of journeys are undertaken by sustainable modes of transport, with the majority (8%) undertaken on-foot.

4.14. Deliveries and Servicing

4.14.1. Details on the proposed delivery and servicing requirements for the detail elements are outlined in Section 5 for Oaklands Blossom and Section 6 for Oaklands College.

4.15. Construction

4.15.1. The details of construction for the proposed development (number of staff, length of works, operational hours etc) are yet to be finalised. It is considered that a Construction Traffic Management Plan could be conditioned as part of any planning consent and therefore no dedicated CTMP has been produced to support this application.

4.15.2. The proposed construction access routes will be agreed with SACDC and HCC in advance of construction works being carried out.

4.15.3. The proposed routing strategy will be finalised with SACDC and HCC prior to initiation of the construction programme, to minimise disruption to the road and pedestrian network. It is anticipated that the strategic road network will be used as far as possible to access the site particularly for HGVs, with use of the A1057 and A1001 to access the A1(M) and the A414. It is envisaged that for Oaklands College, HGVs will utilise East Drive. For Oaklands Blossom, it is envisaged that all construction traffic will utilise Oaklands Lane/Coopers Green Lane and Sandpit Lane to access the site.

4.15.4. The developer will aim to employ local companies and workers to further reduce the impact of construction on the highway network, as well as providing economic benefits to the local area. Construction workers will be encouraged to travel to the site via sustainable means. Positive action would be taken to reduce the number of heavy construction vehicles entering and exiting the site. These include:

- ‘Backloading’ vehicle operation, where site delivery vehicles are utilised to remove waste materials from the site as part of the same trip;
- Practical re-use of any aggregates on site and recycling of material; and
- Liaising with neighbouring construction sites to share.

4.15.5. The above measures help to ensure that construction works are organised and delivered in a manner that minimises the impact of the construction traffic on the local highway network in terms of highway safety and amenity. Controls can be placed on the times at which construction activities are permitted on the site. The movement of abnormal loads can also be restricted to avoid travel on the adjacent highway network during peak hours.

4.15.6. Through liaison with neighbouring construction sites and contractors it is hoped that the cumulative impact on the surrounding road network can be minimised.

4.16. Summary

4.16.1. This chapter has demonstrated the site is located in a sustainable edge of town location, with a detailed assessment of how people of all abilities will be able to move around the site, including an assessment of existing walking and cycling infrastructure, public transport accessibility and condition of the local highway network. It has been demonstrated that the site is well located in relation to a range of services and amenities which cater for the daily needs of residents and future end users.

4.16.2. In addition, this chapter has outlined how the proposed mitigation measures prioritising sustainable modes of transport will further enhance the accessibility credentials of the site and improve connections for existing and future end users.

4.16.3. A review of PIA incidents indicates that no incidents have occurred on the road from which access to the site will be taken, and the incidents which have occurred nearby are not considered to represent a trend in data.

5. Oaklands Blossom Detailed Development Proposals

5.1. Development Proposals

5.1.1. The detailed aspect of the Oaklands Blossom development comprises 167 residential dwellings, a 4-bed children's home and a new local centre.

Residential

5.1.2. The detailed residential phase comprises 167 residential dwellings, comprising of the following:

- 57 flats, comprising;
  - 39 x one-bedroom; and
  - 18 x two-bedroom flats;
- 110 dwellings, comprising;
  - 15 x two- bedroom;
  - 45 x three- bedroom;
  - 33 x four- bedroom; and
  - 17 x five-bedroom.

Children's home

5.1.3. A 4-bedroom children's home, operating under Use Class C2, will be delivered by the applicant and managed by HCC.

Local Centre

5.1.4. The proposals involve a new local centre comprising:

- Up to 578sqm of commercial floorspace (Use Classes E (a to f)); and
- Approximately 100sqm of community floor space (Use Class F);

5.2. Internal Road Layout

5.2.1. The main spine loop road has been designed with a carriageway width of 6.5m wide and 3m wide share cycle/footway on one side of the carriageway and a 2m wide footway on the other side. The carriageway has been designed to accommodate two-way bus movements in accordance with the new 'Bus Services and New Residential Developments' guidance (2025).

5.2.2. Through the remainder of the site, various road types are provided, including:

- 5.5m wide carriageways, with one of the following:
  - 3m wide shared cycle/footway on one side and 2m wide footway on the other side;
  - 3m wide shared cycle/footway offset on one side;
  - 2m wide footways on both sides of the carriageway;
- 4.1m wide carriageway acting as access road to communal rear parking.

5.2.3. Shared surface arrangements are proposed within the site. The longest shared surface arrangement provides access to a maximum of 18 dwellings with 46 parking spaces. As outlined within MfS guidance, shared surface streets are likely to work well:

- In short lengths, or where they form cul-de-sacs;
- Where the volume of traffic is below 100 vehicles per hour;

- Where parking is controlled, or it takes place in designated areas.

5.2.4. In accordance with MfS, the proposed shared surface arrangements have been designed where the volume of traffic will be significantly lower than 100 vehicles per hour and where parking is designated within parking spaces. The shared surface encourages low vehicle speeds, with raised tables either end of the access road, and therefore the provision of a shared surface arrangement for pedestrian and cycle access to these parts of the site is considered to be safe and suitable and in accordance with national design guidance.

5.2.5. Furthermore, HCC's Highways Place and Movement Planning and Design Guide states that shared surface access roads are suitable to accommodate 50 residential dwellings and should be designed with a minimum carriageway width of 5m, with an unobstructed width of 3.7m. The provision of a shared access arrangement to serve a maximum of 18 properties, with a carriageway width of 5m is therefore considered to be safe and suitable and in accordance with local design guidance.

5.2.6. In accordance with the road design speed of 20mph, 2.4m x 25m visibility splays are provided at all junctions within the site, as demonstrated in **Appendix G**. It is of note that parking bays are located within a number of the visibility splays, however as noted within MfS, parking bays are not considered a permanent obstruction to visibility and therefore the visibility is considered suitable to reduce vehicle speeds throughout the site.

5.2.7. Forward visibility of 33m, in accordance with HCC's guidance for a P2/M1 Street, is provided at key bends in the carriageways throughout the development.

5.2.8. For other minor road junctions, reduced forward visibility is provided to control traffic speeds, which is considered desirable in accordance with MfS. As noted above, at all key junctions, junction visibility splays are provided in accordance with requirements.

Pedestrian/Cycle Routes

5.2.9. Along the main internal active travel routes, 3m wide shared cycle/footways are provided on at least one side of the carriageway and as separate routes throughout the site, providing connections in all directions.

5.2.10. Throughout the remainder of the site, footways are provided on the majority of carriageways on at least one side of the carriageway, measuring 2m wide, providing sufficient width for mobility impaired users, in accordance with the DfT's Inclusive Mobility guidance. Where no dedicated footway is provided, the carriageways have been designed as a shared surface arrangement, which is considered to be safe and suitable and in accordance with national and local design guidance, as demonstrated above.

5.2.11. Internal road layout geometries are demonstrated in **Appendix G**, showing that geometries are suitably achieved in accordance with HCC's PMPDG.

5.3. Residential Delivery and Servicing Arrangements

5.3.1. Deliveries to the residential units will primarily consist of the following:

- Refuse vehicles;
- Post, parcel and mail deliveries and collections;
- Ad-hoc grocery deliveries / other courier services;
- Occasional Maintenance vehicles; and
- Removals vehicles.

5.3.2. It is of note that the types of delivery and servicing trips outlined above are already likely to be operating in the surrounding area. All delivery and servicing vehicles associated with the residential element will access the site from the primary access off Sandpit Lane, except for refuse collection for the flats above the local centre that will access via the secondary access. The internal site has been predominantly designed as looped through-roads to reduce the requirement for reversing vehicles, however where cul-de-sacs are provided, turning heads will be provided to accommodate turning movements to ensure all vehicles can enter and exit in forward gear.

Refuse Vehicle Access

5.3.3. As required through SACDC's 'Waste and Recycling; Storage and Collection Guidance' document (2023), a refuse vehicle measuring 10.1m in length and 2.55m in width has been subject to swept path analysis across the site, with the full swept path analysis contained within **Appendix H.**

5.3.4. Refuse collection will generally be kerbside, with residents required to take their bins to kerbside on collection day for emptying. Where required, storage points will be provided to amalgamate collection. In accordance with SACDC's 'Waste and Recycling; Storage and Collection Guidance' (2023), BS5906-2005 Waste Management, Manual for Streets and Building Regulations Approved Document H Guidance, residents will not be required to carry their waste more than 30m (horizontal distance) to the storage area or take their waste receptacles more than 25m to a collection point/kerbside. Bins will be located within the maximum 10m drag distance, in accordance with SACDC guidance.

5.3.5. Routes to collection points should be level, and a minimum of 2m in width for two wheeled bins. Gradients do not exceed 1:14 across the site. Where distances to the kerbside exceed 10m, bin collection points have been provided. This will ensure that collection vehicles can get directly to the kerbside/collection point, without the need to reverse more than 12m.

Emergency Vehicle Access

5.3.6. The internal layout has also been assessed to ensure that fire tenders are able to get to within 45m of each dwelling in accordance with Paragraph 13.1 of Approved Document B – Fire Safety. Swept path analysis has been undertaken for a 10m aerial ladder as required by HCC throughout the site, demonstrating that the vehicle can suitably access all parts of the site within the maximum 45m hose distance and ensuring the vehicles can enter, turn and egress in forward gear. This is provided in **Appendix H.**

5.4. Children's Home Delivery and Servicing Arrangements

5.4.1. The children's home will primarily generate similar delivery and servicing movements as the residential units. The home is located within the residential development and will therefore be serviced with similar arrangements as the remainder of the site.

5.5. Local Centre Delivery and Servicing Arrangements

5.5.1. Deliveries to the local centre will primarily consist of the following:

- Private refuse vehicles;
- Post, parcel and mail deliveries and collections;
- Product/supply deliveries for the commercial uses;
- Occasional Maintenance vehicles; and
- Removals vehicles.

5.5.2. All delivery and servicing vehicles will access the local centre via the secondary access off Sandpit Lane. Vehicles would then utilise the access road to the rear of the local centre, which will be provided with retractable bollards, to access the loading bays. Vehicles would then continue south and exit via the

primary site access to Oaklands Blossom. This arrangement ensures that servicing vehicles are not reversing on site and loading and unloading movements are segregated from other users, reducing the potential for conflict.

5.6. Waste Management Strategy

5.6.1. A detailed Recycling and Waste Management Strategy has been produced by Taylor Wimpey North Thames and is submitted alongside this application and includes detailed information on the proposed strategy.

Residential

5.6.2. SACDC's 'Waste and Recycling; Storage and Collection Guidance' document (2023) outlines that the Council operates the following service for domestic properties:

Houses

- **Residual Waste:** 180L bin. Collected fortnightly;
- **Cans, Plastic and Glass:** 240L bin. Collected fortnightly;
- **Paper and Cardboard:** 55L box. Collected fortnightly;
- **Food Waste:** 23L caddy. Collected weekly; and
- **Garden Waste:** 240L bin (opt-in subscription service, collected fortnightly).

5.6.3. Each house will therefore be provided with a 180 litre wheeled bin for refuse, a separate 240 litre wheeled bin for cans, plastic and glass, a 55 litre box for paper and cardboard and a 23 litre caddy for food waste. Space will be available to store an additional 240 litre bin if residents decide to sign up for the garden waste service. All houses will be provided with bin stores within rear gardens, ensuring residents can transport their bins on collection day within the maximum 25m carry distance. As such, it is considered that all houses have sufficient refuse storage and collection arrangements.

Flats

- **Residual Waste:** 90L per flat. Collected weekly;
- **Recycling:** 2 x 360L bins for every three flats, equating to 240L per flat. Collected fortnightly;
- **Food Waste:** 1 x 240L bin for every 10 flats, equating to 24L per flat. Collected weekly; and
- **Garden Waste:** no provision.

5.6.4. The following bin sizes are available for the three waste streams:

- Refuse: 180L, 240L, 360L, 660L and 1,1100L bins;
- Recycling: 180L, 240L and 360L bins; and
- Food: 180L and 240L bins.

5.6.5. Table 12 outlines each blocks waste requirements and provision.

Table 12 – Residential Flats Refuse Capacity and Provision

Block	No Dwellings	Waste Generated (L)			Bin Requirement		
		Refuse	Recycling	Food	Refuse	Recycling	Food
Block A	9	810	2160	216	1 x 1100L Eurobin	6 x 360L bins	1 x 240L bin
Block B	48	4320	11520	1152	4 x 1100L Eurobins	32 x 360L bins	5 x 240L bins

5.6.6. All blocks have refuse, recycling and food waste provision in accordance with SACDC's capacity requirements, with bin stores located within the maximum 10m drag distance for waste operatives.

Local Centre

5.6.7. The local centre comprises up to 578sqm of flexible Use Class E space within three units. The largest unit measures 300sqm and is anticipated to be occupied by a convenience store.

5.6.8. The refuse and recycling requirements of the proposed development have been estimated utilising the guidance contained within the 'British Standards BS5906 – Waste Management in Buildings code of practice' document.

5.6.9. To calculate the waste arising from the proposed local centre units, the guidance provides an 'equation of weekly waste arising' expressed in litres which in this instance can then be applied to the floorspace for a supermarket and number of covers for a café. The recommended split between refuse and recycling is established in the BS guidance and establishes that 75% of the total litres of waste generated should be provided for refuse and 50% for recycling. The calculations for the proposed local centre units are summarised in the below.

- Convenience Store: Small supermarket calculation = volume per sqm of sales area [100L] x sales area
  - Assumed that 70% of proposed floorspace will be sales area equating to 210sqm
  - Resulting total waste generated: 21,000L
  - General Refuse: 15,750L
  - Recycling: 10,500L
- Café: Restaurant calculation = volume per number of covers [75L]
  - Assumed that 60% of proposed floorspace will be front of house equating to 167sqm. Based on the provision of 1.5sqm of floorspace per person this would equate to 111 covers;
  - Resulting total waste generated: 8,340L
  - General Refuse: 6,255L
  - Recycling: 4,170L

5.6.10. No specific waste calculation has been undertaken for the community centre given this is unlikely to generate a large amount of waste and can be accommodated within the above robust calculations for the two smaller local centre units. The total combined waste required for the local centre have been demonstrated below.

Table 13 – Local Centre Units Refuse Capacity and Provision

Total Waste (L)	Waste Generated (L)		Bin Requirement (weekly collection)		Bin Requirement (3 times a week collection)	
	Refuse	Recycling	Refuse	Recycling	Refuse	Recycling
29,340	22,2005	14,670	20 x 1100L Eurobins	14 x 1100L Eurobins	7 x 1100L Eurobins	5 x 1100L Eurobins

5.6.11. For the local centre, it is proposed that collection will be undertaken three times a week by a private operator to minimise the build-up of any food waste. As such, it is proposed that for a three-times a week collection, 12 x 1,100L Eurobins will be required.

5.6.12. The frequency of refuse collection for the local centre units will be monitored after the initial occupancy of the development and if the waste volumes are not as high as calculated, then the frequency of collections may be reduced.

5.6.13. A communal refuse store is provided at ground floor level to accommodate the above bin requirements for the local centre. The use of private collections ensures the maximum flexibility for the operator to manage the frequency of collections to avoid inefficiencies.

Children's Home

5.6.14. The children's home will be provided waste storage in accordance with refuse requirements for typical residential dwellings.

5.7. Car Parking Provision

Residential

5.7.1. Appendix 2 of the Draft Local Plan 2041 Regulation 19 Publication outlines the latest parking standards, which have been reproduced in Table 4. When applying the standards with the higher level of allocated space to the proposed accommodation schedule, the resulting parking requirement is demonstrated in Table 14.

Table 14 – Required Parking Provision

Dwellings		No. Dwellings	Parking Standards Requirement		Proposed Parking Provided	
			Total Parking	Assigned Parking	Assigned	Visitor
Flats	1-bed	39	58.5	39	39	58
	2-bed	18	45	36	18	
Flats Total		**57**	**103.5**	**75**	**55**	
Houses	2-bed	15	37.5	30	27	
	3-bed	45	112.5	90	90	
	4+ bed	50	125	100	152	
Houses Total		**110**	**275**	**220**	**269**	
TOTAL		**167**	**378.5**	**295**	**324**	
					382	

5.7.2. As demonstrated, when applying SACDC's parking standards to the proposed development, a total of 379 parking spaces could be provided for the site, of which 295 spaces are to be allocated to units.

5.7.3. The development proposals involve a total of 382 parking spaces across the site, including garage provision across the site. Parking is to be provided at a rate of one space per 1-bed and 2-bed flats, one or two spaces per 2-bed houses, two spaces per 3-bed houses, 2-3 spaces per 4-bed houses and 3-6-spaces per 5-bed houses, equating to a total of 324 allocated parking spaces. A total of 58 visitor, unallocated parking spaces are proposed across the site.

5.7.4. As such, the proposals are providing parking broadly in accordance with SACDC's draft standards, with the provision higher due to the inclusion of garage spaces within the parking provision and the overprovision of spaces for the larger 4+ bed dwellings. Nevertheless, the provision is deemed suitable and broadly in accordance with standards.

Disabled Parking Provision

5.7.5. SACDC's parking standards require disabled parking at a rate of one space for every dwelling building to mobility standards (such as Lifetime Homes). All units built to M4(3) standards have been provided with dedicated disabled parking spaces, ensuring compliance with the standards. In addition, numerous spaces throughout the site, including all driveway spaces, benefit from an adjacent 0.9m buffer to allow for ease of access.

Electric Vehicle Charging Provision

5.7.6. In accordance with Approved Document S, all dwellings will be provided with one active EV charging space.

Car Parking Design

5.7.7. For each dwelling, car parking is provided either in driveways or in small parking courtyards, with each space measuring 2.5m x 5m, in accordance with HCC's PMPDG. Within driveways, an additional space of at least 0.9m is provided, which allows for loading/unloading. All spaces will be provided with a minimum 6m aisle distance behind bays.

5.7.8. Garages have been designed at 3m x 6.1m, which is in excess of the garage dimensions outlined within Hertfordshire's PMPDG.

5.7.9. It is considered that the proposed car parking provision across the site is suitably provided and designed in accordance with SACDC and HCC's requirements. Swept path analysis of car parking spaces is included at **Appendix H**.

Local Centre

5.7.10. The relevant local centre draft local plan parking standards have been applied to the proposed local centre units as shown in Table 15. As shown, the flexible potential Use Class E uses for the local centre could generate a varying parking requirement. It is proposed that a total of 20 parking spaces are provided for the local centre, with an additional 11 spaces provided for the community centre. This provision is deemed to be suitable and provide sufficient flexibility to accommodate all potential future uses, whilst encouraging future end users to travel to and from the local centre by sustainable modes of transport.

Table 15 – Local Centre Parking Requirements

Unit	Floor Area	Draft Standards Resulting Requirement					Proposed Provision
		Retail Food stores	Non-food retail	Financial & professional services	Restaurants and cafes	Community centre	
Local Centre 1	299sqm	10	-	-	-	-	20
Local Centre 2	90sqm	-	3	3	21	-	
Local Centre 3	90sqm	-	3	3	21	-	
Local Centre 4	90sqm	-	3	3	21	-	
Community Centre	100sqm	-	-	-	-	11	11

5.7.11. All spaces have been designed at 2.5m x 5m for perpendicular bays and 2m x 6m for parallel bays.

5.7.12. A total of three disabled parking spaces have been provided for the local centre, in accordance with SACDC's standards, with two spaces provided in the northern car park and one space within the dedicated community centre spaces.

5.7.13. Approved Document S states that for non-residential new buildings, a minimum of one active electric vehicle charging point is required, with passive provision for the remaining 20%. As such, in accordance with the requirements, one active electric vehicle charging point is proposed within the local centre car park.

Children's Home

5.7.14. For the children's home, SACDC's draft standards require 1 space per 5 bedspaces for residents and 1 space per 2 staff if living off-site. The proposed children's home is to be provided with two designated parking spaces to accommodate staff and visitor requirements, in accordance with the standards.

Summary

5.7.15. It is therefore evident that car parking provision across the Oaklands Blossom detailed phase is proposed in accordance with SACDC draft standards and in accordance with requirements outlined within national and local policy. The provision is deemed suitable to accommodate proposed future demand, whilst encouraging future end users to travel by sustainable modes of transport and not prioritising the private car.

5.8. Cycle Parking Provision

Residential

5.8.1. SACDC's draft cycle parking standards require one cycle parking space per bedroom, with 5% of spaces to be provided as adapted bays to accommodate all types of cycles.

5.8.2. All houses will accommodate cycle parking within rear gardens within sheds/garages. All dwellings have rear access, with the path measuring a minimum of 0.9m wide, to ensure residents do not have to wheel bikes through houses.

5.8.3. The resulting cycle parking requirement for each block is:

- Block A: 18 spaces
- Block B: 57 spaces

5.8.4. Cycle parking is proposed for each block in excess of the standards in designated cycle stores.

5.8.5. All cycle parking is provided within secure and sheltered stores, with sufficient space for users to manoeuvre cycles in and out of dedicated spaces.

5.8.6. A total of 5% of cycle parking spaces, equating to one space within Block A and three spaces within Block B, are provided as adaptive bays, with dimensions of 2.8m x 1.2m to accommodate all types of cycles. These spaces are provided within the communal cycle stores for the flat blocks and is provided in accordance with the requirements.

5.8.7. It is therefore evident that cycle parking is proposed in excess of cycle parking requirements for all dwellings, which further emphasises the developments sustainability credentials.

Local Centre

5.8.8. SACDC's draft cycle parking standards outline the following standards for retail units (medium sized 200-1,000sqm):

- Short stay: 1 space per 200sqm
- Long stay: 1 space per 200sqm

5.8.9. The total local centre, including the community centre, would require a total of four short-stay and four long-stay spaces. A separate cycle store for the local centre has been provided at ground floor level, accommodating a total of seven two-tier stackers, providing 14 cycle parking spaces. In addition, five short stay cycle stands will be provided near the entrance to the local centre entrance to accommodate visitor requirements. As such, it is evident that cycle parking for the local centre is proposed in excess of the standards.

Children's Home

5.8.10. The same residential standards are applied to the children's home, resulting in a requirement for four cycle parking spaces. These space will be accommodated within a dedicated shed within the rear garden of the children's home.

Summary

5.8.11. It is therefore evident that cycle parking provision across the Oaklands Blossom detailed phase is proposed as a minimum in accordance with SACDC draft standards. The provision is deemed suitable to accommodate proposed future demand, whilst encouraging future end users to travel by sustainable modes of transport.

6. Oaklands College Detailed Development Proposals

6.1. Development Proposals

6.1.1. The detailed aspect of the Oaklands College development comprises demolition works and renovation of existing buildings as well as the construction of new buildings education facilities in the following zones:

- Creative Gateway
- Animal Management
- High Needs Centre
- Propellor Stage Studio
- Sports Hall & Martial Arts Centre
- Refectory and kitchen
- Estates and deliveries
- Improvements to the Mansion house
- Improvements to the Construction zone
- Improved pedestrian and vehicular routes, car park
- External learning and recreation landscaping

6.2. Internal Road Layout

6.2.1. The proposals involve improvements to the existing East Drive route, through providing a new westbound carriageway to the south of the existing route to provide sufficient space for two-way vehicle movements and a new shared cycle/footway for pedestrians and cyclists and a new soft route for equestrians. In addition, to the north of the new car park, a passing bay is proposed on the southern side of East Drive to accommodate two-way vehicle movements if required. This provides a significant betterment to the existing provision for all users.

6.2.2. In addition, the proposals involve a new vehicle access route along the north-eastern boundary of the College campus measuring 6m wide, which will provide a new access loop road primarily to the high needs building and for estate delivery and servicing movements. In the north-western corner of the new access road, a drop off area is provided to the north of the new high needs building to accommodate mini buses. This provision involves a loop arrangement to accommodate the turning manoeuvres and six mini bus parking bays to accommodate drop off and pick up movements. The new access road will provide sufficient space to accommodate any stacking / queueing of mini buses waiting to access the mini bus bays.

6.2.3. Swept path analysis of the new internal road network for Oaklands College is attached at **Appendix I.**

6.3. Proposed Vehicle Parking Provision

6.3.1. The proposed pitches/courts for the new development are to be located on the existing East Drive car park. As such, the proposals involve re-providing these spaces.

6.3.2. As aforementioned, the previous Travel Plan produced outlined that the College has a total of 589 parking spaces across the site. However, since the production of this document, the College has shut a number of car parks within the centre of the campus, aiming to create a traffic free centre of the campus, with a new temporary car park provided on East Drive. This has reduced the number of available spaces currently to 582 car parking spaces.

6.3.3. To accommodate the proposed uplift in pupil and student numbers, it is proposed that the replacement car park on East Drive is provided with 153 spaces to increase the total on-site parking numbers in accordance with the previous provision. Of the 153 spaces, eight are proposed to be designated

disabled parking bays with larger dimensions. In addition, within the new car park, space for seven coaches have been provided. In addition, the proposals involve the provision of four new disabled parking spaces adjacent to the new Gateway building, and six minibus drop off bays by the new High Needs building.

6.3.4. Building Regulations Approved Document S states the following: "*Where a new building which is not a residential building, or a mixed-use building has more than 10 parking spaces-*

- *One of those parking spaces must have access to one electric vehicle charge point; and*
- *Cable routes for electric vehicle charge points must be installed in a minimum of one fifth of the total number of remaining parking spaces."*

6.3.5. Given there are currently limited EV chargers within the college, it is proposed that 20% of the total new car parking spaces within the East Drive car park are provided with active electric vehicle charging provision. As such 31 spaces will be provided with charging points. This provision is in accordance with HCC's EV Charging Strategy future assumptions for workplaces, and to accommodate demand across the whole college.

6.3.6. As such, the development proposals will retain parking at the previous levels, whilst improving the provision for disabled users, electric vehicles, minibuses and coaches. This provision is deemed suitable to accommodate all existing and future demand.

6.3.7. All spaces have been designed with the following dimensions, in accordance with HCC's requirements:

- Perpendicular bays: 2.5m x 5m;
- Disabled bay minimum dimensions: 3.6m x 6m;
- Coaches: 4m x 15m.

6.3.8. With regards to the parking for events/other uses, information has been obtained from the College with regards to existing frequency and typical attendance at events, and likely changes as a result of the proposals. The majority of the regular uses (sports uses, zoo, farm, etc) occur outside of key operational hours for the college (weekday evenings and weekends) and therefore users would utilise staff/student parking outside of the college peak demand times. The relevant D2 parking standards have been reproduced below:

- Indoor uses - entertainment / leisure uses and indoor sport uses: 1 space per 22sqm gfa
- Stadia: 1 space per 15 seats and standing spaces
- Outdoor sports grounds with football pitches: 20 spaces per pitch
  - without football pitches 50 spaces per hectare
- Outdoor tennis: 4 spaces per court

6.3.9. The proposals currently comprise a 5,500sqm large sports hall with up to 3,000 seats, covered cricket lanes and a cricket pavilion (total floor area of 1,595sqm), and sports pitches and courts.

6.3.10. Based on these proposed uses, the following maximum parking numbers could be provided:

- Sports hall: 250 spaces based on indoor uses or 200 based on 3,000 seat stadia
- Indoor cricket uses: 73 spaces
- Sports pitches / courts – numbers/size unknown, however, would be between 4-20 spaces per pitch/court or 50 spaces per hectare.

6.3.11. Based on the proposed reprovision of 589 spaces across the college, it is unlikely that the additional uses together would exceed this demand, with the regular sports facility use generating approximately 300 attendees per day. Given these uses would occur outside of peak college hours, it is considered that the existing parking provision would be suitable to accommodate the additional uses demand.

6.3.12. With regards to coach parking, St Albans standards for stadia states that coach parking is to meet likely demand. Based on the likely use of the facilities on site, five dedicated coach bays will be provided within the new East Drive car park. In addition, the tandem central spaces within the new car park, could be used as coach parking if demand is high for a specific event.

6.4. Proposed Cycle Parking Provision

6.4.1. SACDC standards outline the following cycle parking requirements for schools and higher and further education:

- Adopted Standards: 1 space per 2 staff plus 1 space per 15 students
- Draft Standards: Separate provision for staff and students. Based on Travel Plan mode share targets, minimum: Staff: 1 per 20 staff Students; 1 per 10 students

6.4.2. As aforementioned, the development proposals are anticipated to result in an increase in 548 students and 45 staff at the College. When applying these increases to the standards, the total development would require the following cycle parking numbers:

- Adopted Standards: 5 staff and 110 student spaces;
- Draft Standards: 3 staff and 5 student spaces.

6.4.3. It is proposed that a total of 164 new cycle parking spaces are provided distributed throughout the college campus. Of these spaces, 108 are proposed to be provided within three secure and sheltered cycle stores across the campus. The remaining 56 spaces are to be provided as short-stay Sheffield stands distributed outside key entrances to new buildings across the campus. The significant increase in cycle parking across the campus from the development proposals will benefit existing and future students and staff, further encouraging end users to travel to and from the college by cycle.

6.5. Delivery and Servicing Arrangements

6.5.1. The new loop road along the north-eastern boundary of the College will provide access for college estate delivery and servicing movements. It is proposed that a new refuse and recycling store will be provided in the north-eastern corner of the site, which will provide a consolidated area for refuse and recycling to be stored for the college. Swept path analysis of a refuse vehicle accessing this store has been included at **Appendix I**.

6.5.2. Fire access to all buildings is achievable in accordance with the maximum 45m hose distance to all building entrances.

7. Trip Generation

7.1.1. This chapter of the TA provides an overview of the trip generation and potential travel patterns that are anticipated to occur as a result of the proposed development.

7.2. Existing Trip Generation

7.2.1. The existing Oaklands Blossom parcel comprises agricultural land and is subject to ad-hoc vehicle movements. However, given that the agricultural use does not currently generate frequent and scheduled trips, to provide a robust, worst-case it has been assumed that the site currently generates zero trips.

7.2.2. The southern parcel of the site comprises Oaklands College. The College currently has 3,650 pupils and 450 staff. The existing mode share has been reproduced below, which has been applied to the existing staff and pupil numbers to calculate the existing trip generation.

Table 16 – Existing Oaklands College Staff and Pupil Mode Share and Resulting Trip Generation

Mode	Pupils		Staff	
	Mode Share	Resulting Trip Generation	Mode Share	Resulting Trip Generation
Walking	35%	1267	8%	54
Cycling	2%	66	1%	14
Public Transport	60%	2190	7%	23
Car Driver	4%	127	78%	315
Passenger	-	-	5%	22
Other	-	-	0%	22
TOTAL	**100%**	**3,650**	**100%**	**450**

7.2.3. As demonstrated, the existing College currently has a total of 442 staff and pupils arriving to and from the site by car. The majority of remaining movements are anticipated to be undertaken by public transport and on foot.

7.3. Proposed Trip Generation

7.3.1. The indicative development proposals comprise:

- Up to 472 residential units;
- Up to 70 extra care units;
- 4-bed children's home;
- Local centre;
- Safeguarded Primary School land; and
- Renovation and construction of new facilities at Oaklands College, resulting in uplifts in staff and pupil numbers.

7.3.2. To ascertain the proposed development's trip generation potential, the TRICS database (Version 7.11.4) has been interrogated for various elements of the proposal. The following comments were received from HCC Highways:

- "*The Transport Scoping report states that no trip generation is proposed to be undertaken for the Primary School, given that it is not part of the application, but generous calculations have been made regarding the proportion of internal education trips. These should be reviewed.*
- *Similarly, no trip generation is proposed to be undertaken for the local centre. Any future TA would be expected to undertake a full trip generation assessment for all uses proposed within the Local Centre*".

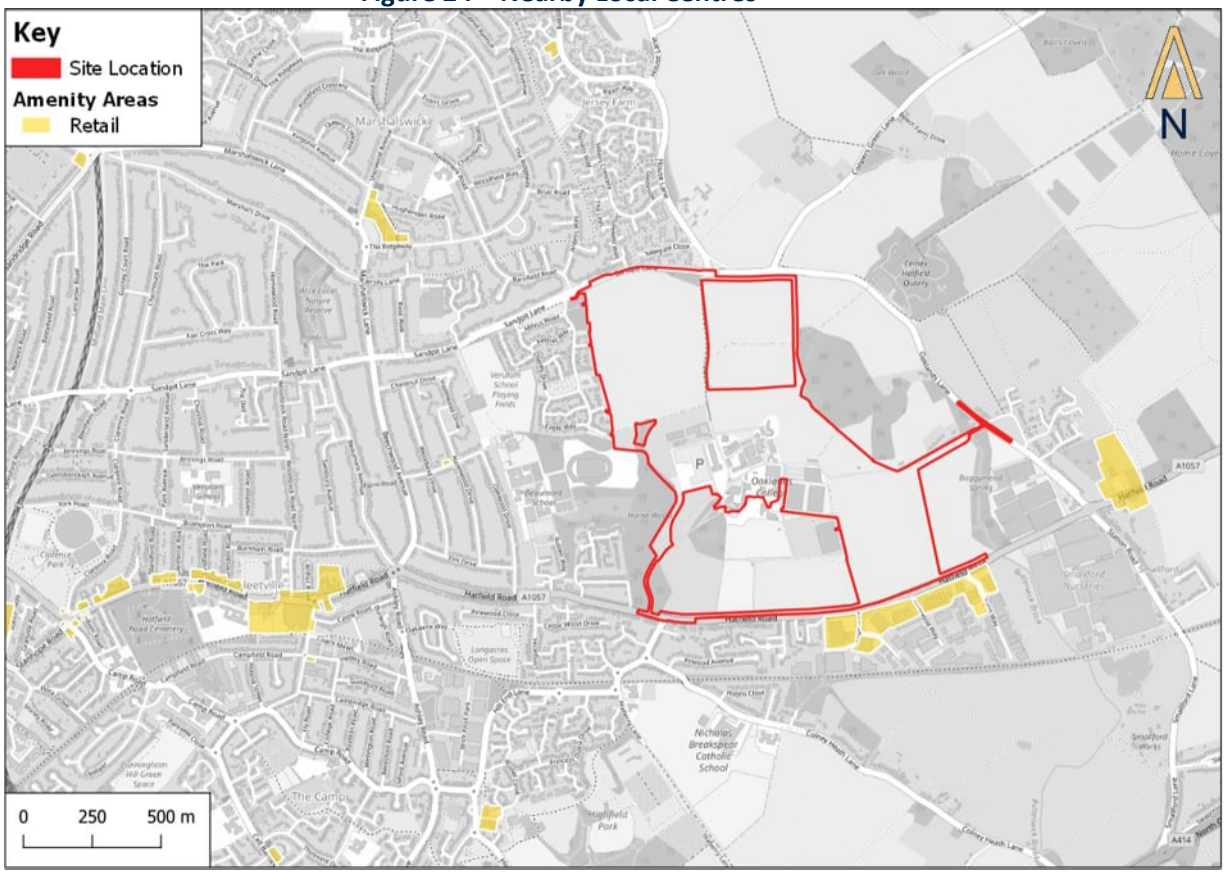
7.3.3. Following submission of the initial scoping report, the strategy for the primary school has changed, with the primary school now included within the outline application, as opposed to the previous strategy of providing the land as safeguarded. As such, a trip generation assessment has been undertaken below, including an allowance for internal and external trips. The appointed education consultant on the scheme has confirmed that 210 pupils (50%) are expected to come from the proposed residential development.

7.3.4. With regards to the local centre, following receipt of the initial comments from HCC, a Teams meeting was held on 29th May 2025. Evoke provided further clarification on the scale of the local centre – which is proposed as 550sqm of floor space, with three/four units, including a small convenience store (such as a Nisa Local), and two/three smaller units such as a café and barber.

7.3.5. The local centre will primarily serve the future end users of the site and local residents and therefore the majority of trips will be undertaken by sustainable modes of transport. For vehicle trips, the local centre will generate minimal 'new' trips on the external highway network with a large proportion of these trips as 'pass by trips' by existing vehicles travelling along Sandpit Lane and therefore the impact of these trips will be focused on the site access.

7.3.6. It is evident from Figure 24 that numerous other larger local centres are located in close proximity to the site serving other residential populations in the area, further supporting that the proposed local centre will not be a primary trip generator.

Figure 24 – Nearby Local Centres



Source: QGIS

7.3.7. Furthermore the provision of an on-site local centre will help to reduce the number of external trips on the network by residents and therefore the residential trip generation is considered already to be a robust assessment. The local centre is proposed to be accessed separately from the secondary access

and therefore it is proposed that the impact on the secondary access will be assessed, however, no further off-site impact will be assessed for the local centre. As such, a trip generation assessment has been undertaken below that will inform the junction capacity assessment for the secondary access only. It is noted that NH agreed that the local centre proposals were small-scale in nature and will produce low external trips.

7.3.8. The Oaklands College proposals are anticipated to result in an uplift in staff and pupil numbers. The existing trip generation for the College has been pro-rataed for the uplift to calculate the proposed development flows.

7.3.9. Full TRICS outputs are attached at **Appendix J.**

7.4. Scenarios

7.4.1. In accordance with national guidance that requires vision-led transport planning and for developments to assess various trip generation scenarios, moving away from the traditional 'decide and provide' approach and instead utilising the 'predict and provide' approach, it is proposed that two development scenarios are assessed. These were outlined within the initial scoping report, reproduced below:

- Scenario 1: With Development (Plausible) – this assumes the development is implemented as proposed with limited further interventions or mitigation delivered to enhance sustainable travel;
- Scenario 2: With Development (Preferred) – this assumes the development is implemented as proposed but that further measures are implemented, primarily through a comprehensive travel plan to support sustainable travel to and from the Site.

7.4.2. HCC Highways provided the following comments in response:

- *"It is unclear why Scenario 1 is being considered, given the rural location of the site with no viable options for sustainable travel to the nearest key destinations without further interventions. This scenario is therefore rejected as it is contrary to the adopted national and local transport policies which look to maximise sustainable travel.*
- *The assumption that 63% of education trips will be internal to the application site is unrealistically high, given there is no Primary and Secondary school assumed within the application.*
- *There should be more discussion regarding the residential mode share assumptions, rather than just adjusting the Census 2021 mode shares. Consideration/ comparison should be made with the 2011 mode shares. The 5% rail mode share needs to be justified, given the residential site is at least 3km from St Albans City rail station."*

7.4.3. Within the meeting with HCC, the need to assess the development using a minimum of two scenarios was stressed by Evoke, providing further clarity on the proposed scenarios. Evoke consider the site to be in a sustainable edge of town location, with a number of amenities and employment destinations in close proximity, which will be increasing further as part of the proposals. Scenario One was focused on applying reductions to the residential trip rates based on internalisation assumptions due to the mixed-use development proposals, assuming that future residents would stay within the site and travel sustainably to these uses. As such, scenario one is considered to be in accordance with national and local transport policies to reduce the need to travel and encourage sustainable modes of travel. An updated Scenario One has been provided below, which responds to comments regarding the education trip internalisation rate.

7.4.4. In addition, further commentary on the residential mode share assumption has been provided below in the updated Scenario Two. It is noted that a comparison of 2011 and 2021 Census data was undertaken within the initial scoping note. With regards to rail mode share, the 2011 Census showed

16% of residents living within the LSOA in which the residential development is situated in, travelled to work by train, which reduced to 5% in 2021. Despite the site being located circa 3km from St Albans City rail station, it is evident that existing residents do utilise rail as frequent mode of transport and therefore applying the Census mode share from 2021 is considered appropriate. Within Scenario Two mode share adjustments, the anticipated increase in public transport is predominantly focused on bus use.

7.4.5. No further confirmation or acceptance of the trip rates has been received from HCC. It is noted that a latest version of TRICS has since been released, however for consistency the same trip rates has been utilised within this report as previously provided to HCC, utilising the previous version of TRICS.

7.5. Scenario 1 (Plausible)

Residential

7.5.1. The proposed development comprises a residential development of up to 472 dwellings, with a mix of affordable and private housing, and a combination of flats and houses. Given the accommodation schedule and internal layout design are not yet finalised for the whole site and will mostly be the subject of a reserved mattes application, a worst case robust assessment has been undertaken assuming all dwellings are privately owned.

7.5.2. The TRICS database has been interrogated to obtain trip rates for this type of residential development in locations with similar characteristics. The following parameters were used:

- Residential – Mixed Private Housing (Flats and Houses);
- Multi-Modal Surveys;
- Sites in England and Wales only (excluding Greater London)
- 100-700 units;
- Weekday Surveys only;
- 'Edge of Town', 'Neighbourhood Centre' and 'Suburban Locations' only.

7.5.3. The following comments were received from HCC on the previously proposed residential trip rates as part of the PPA process:

- *The site selection size range for the residential trip rates needs to be more robust and changed from 100 - 700 to 350-650 units. The "suburban" sites should not be used. The date range spanning 14 years should also be changed to the last 5-7 years. It is recommended that TRICS sites are agreed with HCC Highways before re-examining traffic impact further.*

7.5.4. Following the comments, the TRICS database was analysed to reflect the above comments. It is noted that there are only two sites within the database of between 350-650 units, with both surveys undertaken in 2018. As such, it is not possible to undertake a revised trip generation based on the above two comments. The previously provided trip generation was compared with the MCC survey undertaken at the neighbouring Oaklands Grange site, which showed very comparable trip rates.

7.5.5. However to reflect the comments regarding using recent surveys, the previous parameters for development size have been reused, with only sites selected from 2018 onwards. To provide a comparison, both person trip rates have been outlined in Table 17.

Table 17 – Proposed Residential Person Trips

Trip Rates	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Previous Person Trip Rate (per dwelling)	0.231	0.656	0.887	0.481	0.262	0.743	3.556	3.616	7.172
Person Trips (472 dwellings)	109	310	419	227	124	351	1678	1707	3385
Revised Person Trip Rate	0.224	0.632	0.856	0.454	0.251	0.705	3.405	3.473	6.878
Person Trips (472 dwellings)	106	298	404	214	118	332	1607	1639	3246

7.5.6. Table 17 demonstrates that the revised trip rates demonstrate a reduced person trip rate compared to the previously provided trip rate. The updated trip rates are anticipated to generate 404 person trips in the AM peak period and 332 person trips in the PM peak hour period, with a total of 3,246 two-way trips across the daily period.

7.5.7. The Census 2021 method of travel to work data for the LSOA in which the site lies has been applied to calculate the multi-modal trip generation of the development proposals. Those who worked from home were excluded from this analysis as they will not be making commuting trips and to provide a robust, worst case assessment. The resultant multi-modal trip generation is outlined in Table 23.

Table 18 – Proposed Residential Multi-Modal Trip Generation

Mode	Resident Population	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
		In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	5%	5	14	19	10	6	16	78	80	158
Bus	3%	3	8	11	6	3	9	43	44	87
Taxi	0%	0	1	1	0	0	0	3	3	6
Motorcycle	1%	1	2	3	1	1	2	9	9	18
Car Driver	72%	76	215	291	155	86	241	1164	1187	2351
Car Passenger	4%	4	11	15	8	4	12	58	59	117
Bicycle	3%	4	10	14	7	4	11	55	56	111
On Foot	11%	11	32	43	23	13	36	171	174	345
Other	2%	2	5	7	3	2	5	26	27	53
TOTAL	**100%**	**106**	**298**	**404**	**214**	**118**	**332**	**1607**	**1639**	**3246**

7.5.8. The proposed residential development is anticipated to produce a total of 404 two-way person trips during the AM peak period, of which 291 would be undertaken by private car and 87 by sustainable modes of transport. During the PM peak period, a total of 332 person trips are anticipated, including 241 by private car and 72 by sustainable modes of transport.

7.5.9. A Manual Classified Count (MCC) survey was undertaken at the existing Oaklands Grange neighbouring residential development on Wednesday 26th March 2025 between 07:00-19:00 to calculate a site specific trip generation. The recorded in and out vehicle movements have been outlined below, with the site trip generation calculated based on the 348 dwellings. This has been cross-referenced with the above vehicle trip rates calculated using TRICS and census data.

Table 19 – Site Specific Residential Vehicle Trip Generation

Mode	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
TRICS & Census Vehicle Trip Rate	0.167	0.475	0.642	0.350	0.191	0.540	2.576	2.621	5.197
TRICS & Census Development Trips (472 dwellings)	79	224	303	165	90	255	1216	1237	2453
Oaklands Grange Trips (348 dwellings)	81	187	268	121	102	223	869	921	1790
Oaklands Grange Trip Rate (per dwelling)	0.233	0.537	0.770	0.348	0.293	0.641	2.497	2.647	5.144
Development Trips (472 dwellings)	110	254	364	164	138	302	1,179	1.249	2,428

7.5.10. As demonstrated, the Oaklands Grange and TRICS trip rates are comparable, with the Oaklands Grange trip rates slightly higher in the AM and PM peak periods, but slightly lower over the daily period. It is therefore proposed that the Oaklands Grange local trip rates will be applied to the development proposals. The Census 2021 modal share for the existing resident population has been applied to the site specific vehicle trips to calculate the person and multi-modal trips.

7.5.11. Given the presence of a primary school, College and local centre at the site, with potential retail facilities, it would be reasonable to assume that a proportion of Person Trips will take place within the site. As such, the following internal / external split has been assumed by time period:

- AM Peak: 25% Internal / 75% External
- PM Peak: 5% Internal / 95% External
- Daily: 10% Internal / 90% External

7.5.12. This assumption is considered robust based on the following evidence:

- Education: Data from the National Travel Survey (2023) indicates that 53% of trips in the AM Peak (0800-0900), 5% of trips in the PM Peak (1700-1800) and 18% trips daily are Education or Education Escort related. The appointed education consultant for the scheme has confirmed that the proposed two form entry primary school at the site would accommodate 420 pupils. Based on HCC's child yield, it is anticipated that 210 primary school pupils would live within the residential development. The potential population of the site assuming 472 homes and average occupancy of 2.6 people per home (based on St Albans 008 MSOA average household size from Census 2021) would be 1,227, of which 26 (2%) would of an early years nursery age (1-2), 29 would be of a pre-school nursery age (2%), 84 would be of a primary age (7%), 96 would be of secondary school age (8%) and 49 would attend college (4%) based on *'Population estimates - local authority based by single year of age'* from Nomis for St Albans in 2023. It would be reasonable to assume that early years and primary school age pupils would attend the new primary school with early years provision. As such 48% of education and education escort trips would be internal, which is equivalent to c. 25% of journeys in the AM peak, 2% in the PM peak and 9% daily. This assessment doesn't account for the potential for future residents to attend Oaklands College.
- Commuting: Data from the National Travel Survey (2023) indicates that 16% of trips in the AM Peak (0800-0900), 26% of trips in the PM Peak (1700-1800) and 16% of trips daily are commuting related. The development proposals will generate employment opportunities for example approximately 30 staff at the Primary School, 45 new employees at Oaklands College, 11 employees at the Care Home (assuming 1 member of staff per 7 residents), and employees at each of the units within the Local Centre, and as such it would be reasonable to assume that some

commuting trips will be internalised / localised. This is supported by Travel to Work Census data for the MSOA St Albans 008, which indicates that 3% of total journeys remained within the MSOA in 2011.

- Visiting friends, entertainment and sport: Data from the National Travel Survey (2023) indicates that 4% of trips in the AM Peak (0800-0900), 21% of trips in the PM Peak (1700-1800) and 18% of trips daily are related to this purpose. It would be reasonable to assume that some of these trips will take place within the Site visiting neighbours, the local centre and public facilities within Oaklands College.

7.5.13. The above does not include for 'Shopping' and 'Personal Business' which also form trip purposes in each time period within the NTS. With the provision of convenience it would be expected that more trips than outlined would remain internal to the Site.

7.5.14. The resultant internal and external person trip rates are therefore as follows:

Table 20 – Residential Internal / External Person Trips

Trip Rates	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Total Person Trip Rate (per dwelling)	0.322	0.742	1.064	0.479	0.403	0.881	3.447	3.650	7.097
Internal Person Trip Rate (per dwelling)	0.081	0.185	0.266	0.024	0.020	0.044	0.345	0.365	0.710
External Person Trip Rate (per dwelling)	0.242	0.556	0.319	0.455	0.382	0.319	3.102	3.285	6.388
Internal Person Trips	38	88	126	11	10	21	163	172	335
External Person Trips	114	263	377	215	181	396	1464	1551	3015

7.5.15. Any internal trips would typically be expected to be completed on foot or by cycle given the distances involved, or be part of a linked trip e.g. picking up a child from school on the way home from work. The resulting external multi-modal trip generation has been outlined below.

Table 21 – Proposed Site Specific External Residential Multi-Modal Trip Generation

Mode	Resident Population	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
		In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	5%	6	13	19	11	9	20	71	75	146
Bus	3%	3	8	11	6	5	11	39	42	81
Taxi	0%	0	0	0	0	0	0	3	3	6
Motorcycle	1%	1	1	2	1	1	2	8	8	16
Car Driver	72%	82	191	273	156	131	287	1061	1124	2185
Car Passenger	4%	4	9	13	8	7	15	53	56	109
Bicycle	3%	4	9	13	7	6	13	50	53	103
On Foot	11%	12	28	40	23	19	42	155	165	320
Other	2%	2	4	6	3	3	6	24	25	49
TOTAL	**100%**	**114**	**263**	**377**	**215**	**181**	**396**	**1464**	**1551**	**3015**

Extra Care Units

7.5.16. The proposed development comprises an extra care home containing up to 70 new dwellings (Use Class C2). In addition, the proposals involve a four-bedroom children's home, operating under Use Class C2. Given the same use class, these two uses have been combined from a trip generation perspective, with

a total of 74 beds proposed. No comments were received from HCC on the trip rates for the extra care units during the pre-application and therefore no changes have been made since the initial scoping note.

7.5.17. The TRICS database has been interrogated to obtain trip rates for extra care units in locations with similar characteristics. The following parameters were used:

- 03 – Residential – O – Retirement and Care Community;
- Multi-modal surveys;
- Sites in England (with sites in Greater London excluded);
- Surveys undertaken Monday to Friday only;
- 30-150 Units;
- Edge of Town, Suburban Area and Neighbourhood Centre locations only;
- Surveys which did not occur during COVID.

7.5.18. The multi-modal trip rates obtained from TRICS for the proposed extra care are outlined in Table 22.

Table 22 – Proposed Extra Care Units Multi-Modal Trip Rates

Trip Rates	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	0.007	0.000	0.007	0.000	0.003	0.003	0.010	0.006	0.016
Bus	0.026	0.000	0.026	0.013	0.003	0.016	0.218	0.189	0.407
Taxi	0.003	0.003	0.006	0.000	0.000	0.000	0.158	0.158	0.316
Motorcycle	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Car Driver	0.165	0.073	0.238	0.076	0.125	0.201	1.991	2.008	3.999
Car Passenger	0.033	0.003	0.036	0.043	0.027	0.070	0.180	0.191	0.371
Bicycle	0.003	0.000	0.003	0.000	0.000	0.000	0.026	0.029	0.055
On foot	0.040	0.033	0.073	0.033	0.026	0.059	0.618	0.667	1.285
Other	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**0.277**	**0.112**	**0.389**	**0.165**	**0.185**	**0.350**	**3.202**	**3.248**	**6.450**

7.5.19. The resultant multi-modal trip generation for the proposed 74 units is outlined in Table 23.

Table 23 – Proposed Extra Care Units Multi-Modal Trip Generation

Mode	AM Peak (0900-1000)			PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	1	0	1	0	0	0	1	0	1
Bus	2	0	2	1	1	2	16	14	30
Taxi	0	0	0	0	0	0	12	12	24
Motorcycle	0	0	0	0	0	0	0	0	0
Car Driver	12	5	17	6	9	15	147	149	296
Car Passenger	2	1	3	3	2	5	13	14	27
Bicycle	0	0	0	0	0	0	2	2	4
On Foot	3	2	5	2	2	4	46	49	95
Other	0	0	0	0	0	0	0	0	0
TOTAL	**20**	**8**	**28**	**12**	**14**	**26**	**237**	**240**	**477**

7.5.20. The proposed extra care units and children's home are anticipated to produce a total of 28 two-way person trips during the AM peak period, of which 17 would be undertaken by private car, five on-foot, three as car passengers, two by bus and one by train. During the PM peak period, a total of 26 person trips are anticipated, including 15 by private car, four on-foot, five car passengers and two by bus.

Primary School

7.5.21. The proposals involve a two-form entry (2FE) primary school, which is anticipated to accommodate 420 pupils. A trip generation assessment has been undertaken for this element as requested by HCC. The TRICS database has been interrogated to obtain trip rates for primary schools in locations with similar characteristics. The following parameters were used:

- 04 – Education – A – Primary;
- Multi-modal surveys;
- Sites in England (with sites in Greater London excluded);
- Surveys undertaken Monday to Friday only;
- 200-550 pupils;
- Edge of Town, Suburban Area and Neighbourhood Centre locations only;
- Surveys which did not occur during COVID.

7.5.22. The multi-modal trip rates obtained from TRICS for the proposed primary school are outlined in Table 22. It is noted that there are negative trip rates associated with the car passenger mode this is as a result of how TRICS calculates car passenger trips for primary schools with regards to parents and pupils.

Table 24 – Proposed Primary School Multi-Modal Trip Rates

Trip Rates	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	0.003	0.009	0.012	0.007	0.001	0.008	0.043	0.044	0.087
Bus	0.118	0.053	0.171	0.001	0.005	0.006	0.196	0.196	0.392
Taxi	0.006	0.006	0.012	0.000	0.000	0.000	0.010	0.011	0.021
Motorcycle	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Car Driver	0.292	0.250	0.542	0.015	0.033	0.048	0.773	0.763	1.536
Car Passenger	0.099	-0.213	-0.114	-0.002	0.012	0.010	-0.094	-0.097	-0.191
Bicycle	0.051	0.005	0.056	0.004	0.004	0.008	0.070	0.069	0.139
On foot	0.656	0.254	0.910	0.010	0.027	0.037	1.116	1.115	2.231
Other	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**1.225**	**0.364**	**1.589**	**0.035**	**0.082**	**0.117**	**2.114**	**2.101**	**4.215**

7.5.23. The resultant multi-modal trip generation for the proposed 420 pupil primary school is outlined in Table 23.

Table 25 – Proposed Primary School Multi-Modal Trip Generation

Mode	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	1	4	5	3	0	3	18	18	36
Bus	49	22	71	0	2	2	82	82	164
Taxi	2	2	4	0	0	0	4	5	9
Motorcycle	0	0	0	0	0	0	0	0	0
Car Driver	123	105	228	6	13	19	325	320	645
Car Passenger	42	-89	-47	-1	5	4	-39	-41	-80
Bicycle	22	2	24	2	2	4	29	29	58
On Foot	276	107	383	5	12	17	469	469	938
Other	0	0	0	0	0	0	0	0	0
TOTAL	**515**	**153**	**668**	**15**	**34**	**49**	**888**	**882**	**1770**

7.5.24. The proposed primary school is anticipated to produce a total of 668 two-way person trips during the AM peak period, of which 228 would be undertaken by private car, 383 on-foot, 71 by bus and 24 by cycle. During the traditional PM peak period, a total of 49 two-way person trips are anticipated to be generated, of which 19 would be undertaken by private car, 17 on-foot, two by bus and four by cycle.

7.5.25. As aforementioned, the appointed education consultant for the scheme has calculated based on HCC's child yield that 210 (50%) of pupils at the primary school would come from the proposed residential development. This is consistent with other applications within HCC and has been broadly agreed with HCC's education officer.

7.5.26. As such, based on this, 50% of pupils and parents to the primary school would remain within the site to undertake drop off and pick up trips to the primary school. It is therefore considerate appropriate to apply a 50% internalisation rate to the primary school trip generation. The resultant external trips are demonstrated in Table 23.

Table 26 – Proposed Primary School Multi-Modal External Trip Generation

Mode	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	1	2	3	2	0	2	9	9	18
Bus	25	11	36	0	1	1	41	41	82
Taxi	1	1	2	0	0	0	2	3	5
Motorcycle	0	0	0	0	0	0	0	0	0
Car Driver	61	53	114	3	6	9	162	160	322
Car Passenger	21	-45	-24	-1	3	2	-20	-21	-41
Bicycle	11	1	12	1	1	2	15	15	30
On Foot	138	54	192	3	6	9	235	234	469
Other	0	0	0	0	0	0	0	0	0
TOTAL	**258**	**77**	**335**	**8**	**17**	**25**	**444**	**441**	**885**

7.5.27. The proposed primary school is anticipated to produce a total of 335 external two-way person trips during the AM peak period, of which 114 would be undertaken by private car. During the traditional PM peak period, a total of 25 external two-way person trips are anticipated to be generated, of which nine would be undertaken by private car.

Proposed Oaklands College Improvements

7.5.28. The proposals at Oaklands College are anticipated to result in a 15% uplift in pupils to 4,198 (net increase of 548 pupils), and a 10% uplift in staff to 495 (net increase of 45 staff).

7.5.29. The existing pupil mode share taken from the TP produced in December 2024 and the mode share for staff from the survey undertaken in March 2025 has been applied to the proposed net increases to calculate the likely additional movements generated by the College students and staff.

7.5.30. For a robust assessment it has been assumed that all students and staff will arrive between 08:00-09:00. Whilst the majority of pupils are anticipated to have departed by 17:00, for a robust worst case assessment it has been assumed that all staff and pupils would depart between 17:00-18:00. The resulting trip generation is outlined in Table 23.

Table 27 – Proposed Oaklands College Net Increased Trip Generation

Mode	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily Two-Way Movements		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Public Transport	331	0	**331**	0	331	**331**	331	331	**662**
Car Driver	51	0	**51**	0	51	**51**	51	51	**102**
Car Passenger	2	0	**2**	0	2	**2**	2	2	**4**
Bicycle	11	0	**11**	0	11	**11**	11	11	**22**
On Foot	195	0	**195**	0	195	**195**	195	195	**390**
Other	0	0	**0**	0	0	**0**	0	0	**0**
TOTAL	**590**	**0**	**590**	**0**	**590**	**590**	**590**	**590**	**1180**

7.5.31. As demonstrated, the proposed net impact of the Oaklands College proposals are anticipated to produce a total of 590 two-way person trips during both the AM and PM peak periods, of which 51 would be undertaken by private car, 331 by public transport, 195 on-foot and 11 by cycle.

Scenario One Total Development

7.5.32. The multi-modal trip generation of the total proposed development for Scenario One, when accounting for internalisation of residential trips and primary school trips, is summarised in Table 28.

Table 28 – Total Proposed Development Multi Modal Trip Generation: Scenario One

Mode	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-2200)		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Public Transport	369	34	403	20	347	367	508	512	1020
Taxi	1	1	2	0	0	0	17	18	35
Motorcycle	1	1	2	1	1	2	8	8	16
Car Driver	206	249	455	165	197	362	1421	1484	2905
Car Passenger	29	-35	-6	10	14	24	48	51	99
Bicycle	26	10	36	8	18	26	78	81	159
On Foot	348	84	432	28	222	250	631	643	1274
Other	2	4	6	3	3	6	24	25	49
TOTAL	**982**	**348**	**1330**	**235**	**802**	**1037**	**2735**	**2822**	**5557**

7.5.33. The total proposed development is anticipated to produce a total of 1,330 two-way person trips during the AM peak period, of which 455 would be undertaken by private car, 432 on-foot and 403 by public transport.

7.5.34. During the PM peak period, a total of 1,037 person trips are anticipated, including 362 by private car, 367 by public transport and 250 on-foot.

7.6. Scenario 2 (Preferred)

7.6.1. Scenario 1 allows for planned infrastructure to be delivered, including the sustainable travel improvements and land uses that support the internalisation of trips e.g. Primary School. This is considered a conservative estimate of what the Proposed Development may achieve in terms of sustainable travel, with the implementation of further measures, delivered principally through a Travel Plan, having the opportunity to deliver improved sustainable mode shares in terms of walking, cycling, car sharing and in particular public transport use.

7.6.2. In particular, through the proposed bus improvements, it is considered there is strong potential to promote further bus use, and also through improvements to the local walking / cycling network support travel to and from neighbouring areas on foot or by bicycle.

7.6.3. As requested by HCC and the Local Plan draft allocation, a series of sustainable measures will be delivered through a future travel plan. For Scenario 2, preliminary targets have been set out below for the residential element of the Proposed Development, which aim to achieve a 15% reduction in car driver trips from the 2021 Census, with the resultant increase primarily focused on bus travel, cycle and pedestrians. The mode share targets are considered on the basis that the following is delivered:

- The offer of a voucher or financial contribution to the first occupant of each household to support sustainable travel (e.g. purchase of a bicycle or use of rail/bus);
- Delivery of mobility hub within the local centre;
- Potential delivery of a car club to reduce the need for car ownership and to ensure a low emission vehicle is being used where needed for travel by car;
- Regular monitoring of the scheme in accordance with HCC guidance
- Comprehensive package of walking and cycling improvements, including contributions.

Table 29 – Proposed Amended Modal Share

Mode	Baseline Mode Share	Amended Modal Share
Train	5%	7%
Bus	3%	8%
Taxi	0%	0%
Motorcycle	1%	1%
Car Driver	72%	57%
Car Passenger	4%	4%
Bicycle	3%	6%
On Foot	11%	15%
Other	2%	2%
TOTAL	**100%**	**100%**

7.6.4. Based on the above amended mode share for residents, the resultant amended external residential trip generation would be as follows:

Table 30 – Proposed External Residential Multi-Modal Trip Generation (Scenario Two)

Mode	Mode Share	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily (0700-1900)		
		In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	7%	8	18	26	15	13	28	102	109	211
Bus	8%	9	21	30	17	14	31	117	124	241
Taxi	0%	0	0	0	0	0	0	0	0	0
Motorcycle	1%	1	3	4	2	2	4	15	15	30
Car Driver	57%	65	150	215	123	103	226	834	884	1718
Car Passenger	4%	5	11	16	9	7	16	59	62	121
Bicycle	6%	7	16	23	13	11	24	88	93	181
On Foot	15%	17	39	56	32	27	59	220	233	453
Other	2%	2	5	7	4	4	8	29	31	60
TOTAL	**100%**	**114**	**263**	**377**	**215**	**181**	**396**	**1464**	**1551**	**3015**

7.6.5. The overall external trip generation would therefore be as follows:

Table 31 – Total Proposed Development Multi Modal Trip Generation: Scenario Two

Mode	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Public Transport	374	44	418	30	354	384	574	583	1157
Taxi	1	1	2	0	0	0	15	16	31
Motorcycle	1	3	4	2	2	4	15	16	31
Car Driver	195	221	416	141	178	319	1274	1327	2601
Car Passenger	31	-34	-3	11	14	25	55	58	113
Bicycle	28	14	42	12	21	33	101	105	206
On Foot	352	94	446	36	229	265	685	700	1385
Other	2	5	7	4	4	8	29	31	60
TOTAL	**984**	**348**	**1332**	**235**	**802**	**1037**	**2748**	**2836**	**5584**

7.6.6. This Scenario 2 demonstrates the potential reduced trip generation for the site that could occur as a result of the mitigation improvements proposed and the implementation of the Residential Travel Plan. It is noted that through the various Framework Travel Plans provided for the other land uses, it will be possible to influence travel to the other land uses including for example employees on site and adjacent to the Site and existing residents of Oaklands Grange, which will further help lower the number of car trips to/from the area.

7.7. Local Centre Trip Generation

7.7.1. As aforementioned, the proposals involve a local centre, which is proposed as 678sqm of floor space, with five units, including a small convenience store (such as a Nisa Local), three smaller units such as a café and a barber, and a 100sqm community centre. The local centre will primarily serve the future end users of the site and local residents and therefore the majority of trips will be undertaken by sustainable modes of transport. For vehicle trips, the local centre will generate minimal 'new' trips on the external highway network with a large proportion of these trips as 'pass by trips' by existing vehicles travelling along Sandpit Lane and therefore impact of these trips will be focused on the site access.

7.7.2. Following initial comments from HCC, it is proposed that a trip generation assessment is undertaken for the local centre to undertake a junction operational assessment of the secondary access, which serves the local centre only. However, it is not considered necessary to include the local centre trip generation within the wider development impact or modelling works as the local centre is not considered to be a vehicle trip generator in its own right.

7.7.3. The TRICS database has been interrogated to obtain trip rates for local centres in locations with similar characteristics. The TRICS Local Shops shopping centre category was considered most suitable for the development given the flexible use classes of the future units. The following parameters were used:

- 01 – Retail – I – Shopping Centre – Local Shops;
- Multi-modal surveys;
- Sites in England (with sites in Greater London excluded);
- Surveys undertaken Monday to Friday only;
- 200-1,000sqm;
- Edge of Town, Suburban Area and Neighbourhood Centre locations only;
- Surveys which did not occur during COVID.

7.7.4. The multi-modal trip rates obtained from TRICS for the proposed local centre are outlined in Table 22.

Table 32 – Proposed Local Centre Multi-Modal Trip Rates

Trip Rates	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	0.073	0.073	0.146	0.000	0.000	0.000	0.806	0.806	1.612
Bus	0.586	0.659	1.245	0.879	0.586	1.465	11.405	9.992	21.397
Taxi	0.293	0.293	0.586	0.073	0.147	0.220	2.419	2.420	4.839
Motorcycle	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Car Driver	4.835	4.103	8.938	4.616	5.494	10.110	71.991	71.990	143.981
Car Passenger	1.465	1.025	2.490	1.245	2.784	4.029	21.073	21.265	42.338
Bicycle	0.220	0.220	0.440	0.073	0.220	0.293	3.265	3.399	6.664
On foot	7.253	7.839	15.092	8.938	8.938	17.876	127.035	129.586	256.621
Other	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**14.725**	**14.212**	**28.937**	**15.824**	**18.169**	**33.993**	**237.994**	**239.458**	**477.452**

7.7.5. The resultant multi-modal trip generation for the total proposed local centre is outlined in Table 23.

Table 33 – Proposed Local Centre Multi-Modal Trip Generation

Mode	AM Peak (0800-0900)			PM Peak (1700-1800)			Daily		
	In	Out	Two-Way	In	Out	Two-Way	In	Out	Two-Way
Train	0	0	0	0	0	0	5	5	10
Bus	4	4	8	6	4	10	77	68	145
Taxi	2	2	4	0	1	1	16	16	32
Motorcycle	0	0	0	0	0	0	0	0	0
Car Driver	33	27	60	31	37	68	488	488	976
Car Passenger	10	7	17	8	19	27	143	144	287
Bicycle	1	2	3	1	1	2	23	23	46
On Foot	50	54	104	61	61	122	862	879	1741
Other	0	0	0	0	0	0	0	0	0
TOTAL	**100**	**96**	**196**	**107**	**123**	**230**	**1614**	**1623**	**3237**

7.7.6. The proposed local centre is anticipated to produce a total of 196 two-way person trips during the AM peak period, of which 60 would be undertaken by private car, 104 on-foot, eight by bus and three by cycle. During the PM peak period, a total of 230 person trips are anticipated, including 68 by private car, 122 on-foot, 10 by bus and two by cycle.

7.7.7. It is noted that within correspondence from HCC, it was stated that a worst case scenario of a GP surgery or similar high traffic attractor use should be undertaken. From a review of the TRICS database, a GP surgery is anticipated to generate a person trip rate of 3.885 in the AM peak and 3.158 in the PM peak, per 100sqm. It is therefore evident that the above local shop trip generation anticipates a much higher trip generation than a GP surgery and therefore the local shops trip generation has been utilised below.

7.7.8. It is proposed that the local centre trips are distributed onto Sandpit Lane utilising the recorded eastbound and westbound movements from the ATC, as demonstrated below.

Table 34 – Sandpit Lane ATC Summary and Resultant Split

	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	EB	WB	Two Way	EB	WB	Two Way
5 Day Average	814	728	1542	728	711	1439
% Split	53%	47%	100%	51%	49%	100%

7.8. Trip Distribution

Residential

7.8.1. Distribution of residential vehicular trips from the site has been established through an analysis of 2011 Census data (W03EW). It is of note that at the time of writing this report, the same 2021 dataset was not yet available. Following a review of the strategic vehicle trips of all residents within the St Albans 008 MSOA, an online journey planner (Google Maps) was used to determine the quickest journey times and routes between the site and each of the work destinations for the AM and PM peak period. Where multiple route options were available with similar journey times, an equal split will be assumed.

7.8.2. The resultant distribution from the site access is summarised below:

- 58% Sandpit Lane West;
- 42% Sandpit Lane East.

7.8.3. In addition, an assessment of the vehicle distribution associated with the neighbouring Oaklands Grange site has been undertaken for a site-specific distribution, utilising the results of the MCC survey. This showed the following distribution from the site access:

- 68% Sandpit Lane East;
- 32% Sandpit Lane West.

7.8.4. As evident, the site specific distribution from the site access is quite different from the census data analysis. As discussed with HCC during the PPA process, it is proposed that the residential distribution from the primary site access is distributed onto Sandpit Lane utilising the site-specific distribution from the neighbouring site. Following this initial distribution, the wider flows have been distributed cross-referencing the site specific distribution from the site access via the census data. A comparison of the resulting distributions on the nearest junctions to the site is shown in Table 35, which demonstrates a comparable assessment. This is considered to be the most realistic and robust assessment accounting for the age of census data.

Table 35 – Residential Distribution on Key Junctions

Movement	Census 2011 Data	Census data cross-referenced with site specific data
Sandpit Lane / Barnfield Road Junction		
North	10%	17%
West	31%	52%
Sandpit Lane / Beechwood Avenue / Marshalswick Lane		
South	7%	12%
West	24%	40%
Sandpit Lane / House Lane		
North	9%	5%
East	49%	26%
Sandpit Lane / Coopers Green Lane / Oaklands Lane		
North	19%	10%
East	31%	16%
A1057 / Station Road/ Oaklands Lane		
East	3%	2%
South	24%	13%
West	3%	1%

Movement	Census 2011 Data	Census data cross-referenced with site specific data
A414 North Orbital / Smallford Lane / High Street / Colney Heath Lane		
East	3%	2%
South	2%	1%
West	19%	10%

Other Uses

7.8.5. All other development uses have been distributed onto the network utilising each individual junctions turning counts from the surveys undertaken in March 2025. The distributions have been applied to the AM and PM peak trip generation.

8. Existing Network Traffic

8.1. Context

8.1.1. This section considers the base and future year traffic flows for the local highway network and the associated growth factors.

8.2. Traffic Flows

8.2.1. Traffic surveys were undertaken at all junctions on Wednesday 26th March 2025, with the surveys undertaken at 15-minute intervals between 07:00-19:00. Of note, the survey at the Ancient Britton junction was undertaken on Wednesday 30th April 2025. In addition, ATC's were placed on key roads in the vicinity of the MCC surveys for a 7-day period between 25th and 31st March 2026.

8.3. Committed Developments

8.3.1. HCC advised during meetings that no committed developments need to be accounted for within the assessment and therefore none have been included within the baseline flows.

8.4. Assessment Years

8.4.1. Assessment scenarios have been developed for the AM (08:00-09:00) and PM (17:00-18:00) peak periods in the following assessment years:

- 2025 Base Year (Survey and Application Year);
- 2025 Base + Development;
- 2030 Baseline (Five Years after application);
- 2030 Baseline + Development; and
- 2030 Baseline + Development 'Do Something' Scenario.

8.4.2. TEMPRO growth rates have been applied to determine future traffic growth for 2030 assessment years, which have been averaged across the 2 MSOAs in which both sites lie. TEMPRO Dataset 8 'Core' Scenario adjusted using NTM for all areas in St Albans has been utilised, with the resultant growth rates applied:

- AM Peak:
  - St Albans 008 MSOA: 1.0409
  - St Albans 015 MSOA: 1.0415
  - Average: 1.0412
- PM Peak:
  - St Albans 008 MSOA: 1.0433
  - St Albans 015 MSOA: 1.0475
  - Average: 1.0454

8.4.3. Traffic flows for the AM and PM peak periods for all scenarios have been attached at **Appendix K.**

9. Development Impact

9.1. Context

9.1.1. This section of the TA assesses the impact of the proposed development on the existing transport networks using the methodology outlined within the chapters above.

9.2. Walking and Cycling Impact

9.2.1. Section 4 of this TA describes the provision of existing walking and cycling facilities within close proximity to the site and the internal and off-site improvements that are proposed to be delivered as part of the development, which will significant improve the infrastructure and connections in and around the site.

9.2.2. The development proposals are anticipated to generate between 372-536 pedestrian trips within the network peak hours within scenario one and when accounting for the local centre trips. In addition, the development is anticipated to generate 28-39 cycle movements within the peak periods. Within the Scenario 2 assessment, the level of pedestrian and cycle trips is anticipated to be even higher.

9.2.3. It is considered that the existing and future pedestrian and cycle infrastructure within and surrounding the site can suitably accommodate the proposed increase in pedestrian and cycle movements from the development.

9.2.4. Furthermore, through the implementation of Travel Plans at the site, provision of high quality cycle parking and improvements to key active travel routes and connections, this will further encourage active travel use.

9.2.5. It is therefore concluded that the proposed development would have a betterment on the existing active travel network through the provision of significant improvements to infrastructure in the vicinity of the site.

9.3. Public Transport Impact

9.3.1. Table 28 demonstrates that the development proposals are anticipated to generate between 367-403 public transport trips within the network peak hours within scenario one, of which 331 would be associated with Oaklands College and 36-72 associated with Oaklands Blossom. Within the Scenario 2 assessment, the level of public transport is anticipated to be even higher.

9.3.2. As outlined within Section 4 of this TA, Oaklands College is well served by a number of frequent bus services, with a high number of existing pupils currently travelling by bus to and from the College. The proposals involve improving the existing waiting facilities on Hatfield Road, through providing increased waiting space and real time information. This will further improve and enhance the use of bus services to and from the College site, and is considered to suitably accommodate the additional demand likely generated by the proposals.

9.3.3. Oaklands Blossom currently has limitations with regards to bus services, however the proposals involve a contribution to a new/extended bus route which will serve the site, providing a direct service to St Albans city centre and railway station. The contributions provided by the applicant to the provision of this service will accommodate the additional demand generated by the proposals.

9.3.4. In addition, a key aim of the Travel Plans is to encourage future end users to utilise sustainable modes of transport rather than the private car, which would result in a further increase in public transport users as opposed to private car use. It is considered that the potential increases in public transport users could be accommodated on the existing and proposed services and network and therefore the

proposed development would have a negligible impact on public transport services in the vicinity of the site.

9.4. Vehicle Impact

9.4.1. The development proposals are anticipated to generate between 326-495 two-way vehicle trips within the network peak hours onto Sandpit Lane within the worst-case scenario and between 51-52 two-way vehicle trips from Oaklands College onto South Drive and East Drive within the worst case scenario. The developments impact on the local highway network has been assessed and discussed in greater detail below, with operational assessments undertaken on key junctions around the site.

9.4.2. It is noted that the trip generation and base flows assessed within the junction modelling, do not account for increased levels of working from home, internalisation of residential trips within the development and the proposed sustainable transport improvements and therefore this is a robust, worst case assessment. Within the preferred scenario which accounts for internalisation of residential trips and amendments to the mode share to reflect sustainable transport improvements, the impact of Oaklands Blossom is anticipated to be reduced to 250-346 vehicle trips in the peak period onto Sandpit Lane, demonstrating there is potential for vehicle trips to be reduced significantly from the worst case scenario.

9.4.3. Furthermore, within the Draft SACDC Local Plan Transport Impact Assessment, Appendix 1 outlines the modelling results for the draft allocation (Site B4). The Comet Model Forecast shows that traffic impacts generated from the site and cumulative traffic in the area can be mitigated to a degree that can be acceptable regarding the NPPF test of 'severe' regarding congestion and safety. Overall there are 'no showstoppers'. Further information regarding the proposed assessment for the development impact is included below.

9.5. Scope of Assessment

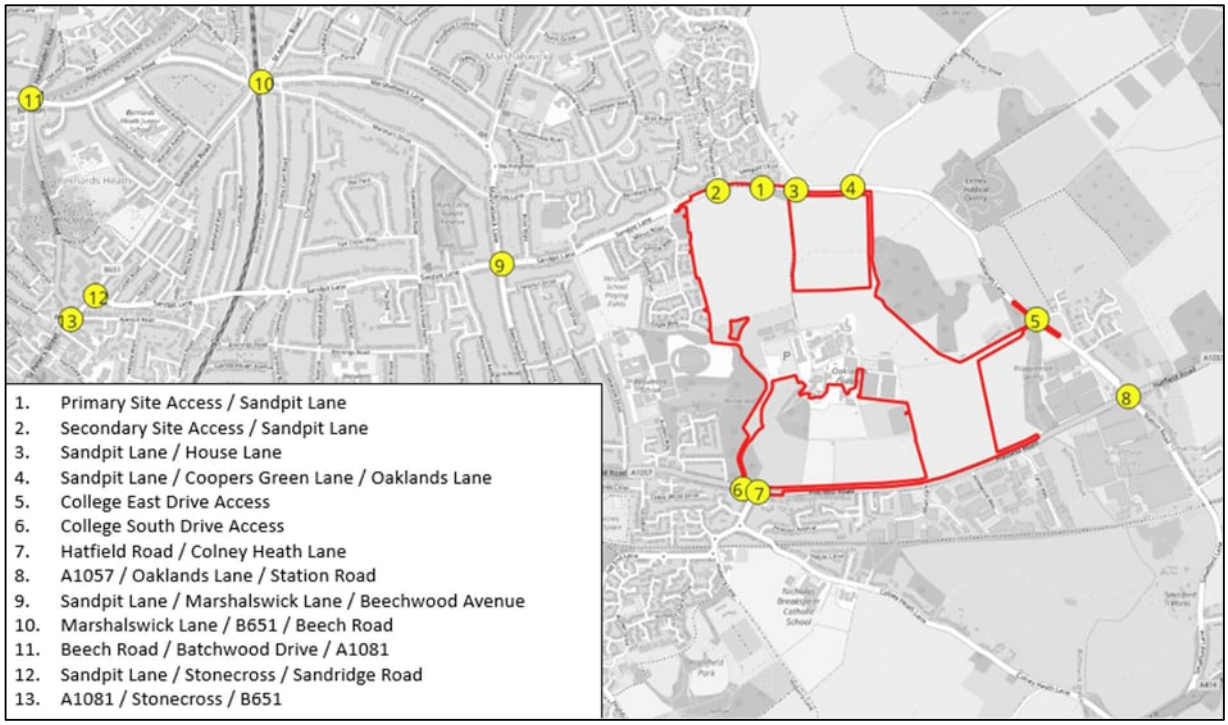
9.5.1. Within the scoping note produced to support the PPA process with HCC, Evoke undertook a distribution analysis of development traffic on the local highway network based on census data. HCC do not provide thresholds for the requirements for local junction modelling based on vehicle impact, and therefore as a proxy to assess the required extent of junction modelling required for the proposals, a typically used figure of over 30 additional movements across a junction in an hourly period was used. The Scoping Note demonstrated that of the 15 junctions assessed, nine of these junctions were anticipated to exceed the 30 additional vehicle threshold, with the remaining junctions anticipated to result in an immaterial increase in vehicle flows during the peak hours. As such, it was proposed that the local junction modelling scope is limited to nine junctions.

9.5.2. However, as part of the PPA process, HCC requested that all junctions outlined in the scoping note are to be modelled, as well as the junction of Hatfield Road / Colney Heath Lane. The need for the A1(M) junction modelling was queried, and as aforementioned, a separate pre-application consultation was undertaken with NH. As part of this consultation, it was agreed by NH that no further assessment of the developments impact on the A1(M) junctions is required to support the planning application as NH were satisfied that the anticipated vehicle movements are unlikely to cause any adverse safety implications or material increase in queues and delays at J3 and J4 of the A1(M).

9.5.3. Furthermore, no detailed junction modelling has been undertaken of the North Orbital Road junctions to the south-east of the site due to the complexities of the junction. A quantitative assessment has been undertaken of these junctions below in Table 37 to demonstrate the development would have a minimal impact on the number of vehicles travelling through these junctions and therefore further junction modelling would not be of use.

9.5.4. As such, the modelled junctions are limited to those locally to the site and has been agreed with HCC. The locations of the 13 modelled junctions are shown in Figure 25 whilst a summary of the number of site vehicles reaching each junction during the peak hour periods is provided in Table 38.

Figure 25 – Assessed Junctions



Source: QGIS

Table 36 – Development Junction Impact

Scenario			Junction												
			1	2	3	4	5	6	7	8	9	10	11	12	13
Baseline	2025	AM	1542	1542	2337	2291	1201	1286	1457	2346	2141	2286	1879	1410	2140
		PM	1439	1439	2132	2036	1055	1095	1356	2306	2251	1560	1879	1486	2051
	2030	AM	1606	1606	2434	2385	1252	1340	1517	2443	2229	2381	1956	1469	2225
		PM	1504	1504	2228	2129	1102	1145	1418	2410	2354	1630	1956	1553	2144
Proposed Development		AM	500	316	193	166	105	40	39	105	240	55	39	112	110
		PM	332	220	122	106	76	35	30	82	164	43	25	71	71
% Increase	2025	AM	32%	20%	8%	7%	9%	3%	3%	4%	11%	2%	2%	8%	5%
		PM	23%	15%	6%	5%	7%	3%	2%	4%	7%	3%	1%	5%	3%
	2030	AM	31%	20%	8%	7%	8%	3%	3%	4%	11%	2%	2%	8%	5%
		PM	22%	15%	5%	5%	7%	3%	2%	3%	7%	3%	1%	5%	3%

9.5.5. As demonstrated above, of the 13 modelled junctions, only eight of these junctions are anticipated to experience over a 5% increase in vehicle movements during the peak hour periods. As such, it is considered that the proposals are having an immaterial impact on the operation of the following junctions:

- Hatfield Road / South Drive Access
- Hatfield Road / Colney Heath Lane
- A1057 / Oaklands Lane / Station Road
- Marshalswick Lane / B651 / Beech Road

- Beech Road / Batchwood Drive / A1081

9.5.6. Nevertheless, junction capacity assessments have been undertaken at all of the above junctions, to determine the performance of the surrounding highway network and its ability to accommodate the proposed additional peak hour traffic flows. The junctions to be included within the assessment are in line with those requested by HCC within the pre-application correspondence.

9.5.7. With regards to the impact on the wider highway network and the strategic highway network, a similar assessment has been undertaken on the impact of development trips on the A414 junction and the nearest A1 (M) junctions. Base traffic flows for the A414 were obtained from surveys undertaken in March 2025, with the A1(M) flows obtained from the DfT count point on the A1(M).

Table 37 – Development Strategic Highway Junction Impact

Scenario			Strategic Highway Junctions					
			A414 / Colney Heath Lane	A414 / Smallford Lane	A414 / High Street	A1(M) Junction 3	A1(M) Junction 4	A1(M) Junction 5
Baseline	2025	AM	4291	4603	4782	7028	7028	7028
		PM	4026	4443	4733	7295	7295	7295
	2030	AM	4468	4793	4978	7318	7318	7318
		PM	4209	4645	4948	7626	7626	7626
Proposed Development		AM	49	62	56	7	0	23
		PM	35	46	43	5	0	19
% Increase	2025	AM	1%	1%	1%	0%	0%	0%
		PM	1%	1%	1%	0%	0%	0%
	2030	AM	1%	1%	1%	0%	0%	0%
		PM	1%	1%	1%	0%	0%	0%

9.5.8. As demonstrated, the development is anticipated to have a negligible, immaterial impact on the flows along the A414 junctions and on the A1(M) junctions, with a maximum anticipated increase of 1% compared to existing flows. As such, the proposals are not considered to have a significant impact and therefore no further analysis or assessment of these junctions is required. This approach was agreed with National Highways for the M1 junctions.

9.5.9. The potential increase in traffic flows generated by the proposed development has been assessed for the year of application submission of 2025. Operational assessments have also been undertaken in 2030, being five years after the application year as agreed with HCC. Operational assessments have been undertaken for the various scenarios and junctions outlined in Table 38.

Table 38 – Junctions Assessed

	Junction Name	2025 Survey Peak Hour	2025 Baseline	2025 Baseline + Development	2030 Baseline	2030 Baseline + Development
1	Primary Site Access / Sandpit Lane	AM: 08:00-09:00 PM: 17:00-18:00	PICADY: Modelled proposed junction layout using Junctions 11 PICADY			
2	Secondary Site Access / Sandpit Lane	AM: 08:00-09:00 PM: 17:00-18:00	PICADY: Modelled proposed junction layout using Junctions 11 PICADY			
3	Sandpit Lane / House Lane	AM: 07:45-08:45 PM: 16:45-17:45	ARCADY: Modelled existing junction layout using Junctions 11 ARCADY			
4	Sandpit Lane / Coopers Green Lane / Oaklands Lane	AM: 07:45-08:45 PM: 17:00-18:00	ARCADY: Modelled existing junction layout using Junctions 11 ARCADY			
5	East Drive / Oaklands Lane	AM: 08:00-09:00 PM: 17:00-18:00	PICADY: Modelled existing junction layout using Junctions 11 PICADY			
6	South Drive / Hatfield Road	AM: 08:00-09:00 PM: 15:00-16:00	PICADY: Modelled existing junction layout using Junctions 11 PICADY			
7	Hatfield Road / Colney Heath Road	AM: 08:00-09:00 PM: 17:00-18:00	PICADY: Modelled existing and proposed junction layout using Junctions 11 PICADY			
8	A1057 Hatfield Road / Oaklands Lane / Station Road	AM: 07:45-08:45 PM: 17:00-18:00	ARCADY: Modelled existing junction layout using Junctions 11 ARCADY			
9	Sandpit Lane / Marshalswick Lane / Beechwood Avenue	AM: 08:00-09:00 PM: 17:15-18:15	LINSIG: Modelled existing junction layout using LINSIG Version 3			
10	Marshalswick Lane / B651 St Albans Road / Sandridge Road / Beech Road	AM: 07:45-08:45 PM: 16:15-17:15	LINSIG: Modelled existing junction layout using LINSIG Version 3			
11	A1081 / Batchwood Drive / Beech Road	AM: 07:00-08:00 PM: 16:15-17:15	LINSIG: Modelled existing junction layout using LINSIG Version 3			
12	Sandpit Lane / Stonecross / Sandridge Road	AM: 07:45-08:45 PM: 16:45-17:45	PICADY: Modelled existing junction layout using Junctions 11 PICADY			
13	A1081 / Stonecross / B651	AM: 07:45-08:45 PM: 16:45-17:45	ARCADY: Modelled existing junction layout using Junctions 11 ARCADY			

9.5.10. As detailed above the operational assessments have been undertaken using the Transport Research Laboratory (TRL) modelling software Junctions 11 PICADY and ARCADY and the JCT Consultancy Ltd software LinSig V3.

9.6. Strategic Modelling

9.6.1. The SACDC Local Plan Transport Impact Assessment documents have a key theme of the enhanced role of sustainable travel and the delivery of active travel infrastructure for existing settlements and future communities. Within the document, the '*COMET Model Forecast shows that traffic impacts generated from the site and cumulative traffic in the area can be mitigated to a degree that can be acceptable regarding the NPPF test of 'severe' regarding congestion and safety. Overall there are 'no showstoppers'*.

9.6.2. Within the Scoping Notes submitted as part of the PPA, Evoke requested HCC to confirm whether the proposals need to be modelled using HCC's strategic modelling. No response was received and given the development was modelled within the COMET strategic model as part of the Draft Local Plan works, which concluded there are no showstoppers and the development can be mitigated, it is not considered necessary to undertake this wider strategic modelling as part of this planning application.

9.6.3. Extensive local junction modelling has been undertaken below, which is considered sufficient for the development proposals.

9.7. Junctions 11 (ARCADY and PICADY)

9.7.1. Junctions 11 produces three main indicators of junction capacity and operation, which are 'Traffic Intensity (RFC)', 'Queue Length' and 'Delay' and these are discussed below:

Traffic Intensity (RFC)

9.7.2. The RFC (ratio to flow capacity) is the primary measure of capacity within junction and is reported for each entry arm. If the RFC exceeds 1.0, the arm is considered to be operating over capacity, resulting in queuing occurring. An RFC value of less than 0.85 is generally considered acceptable, although an RFC of 1.0 indicates the junction being at capacity.

Queue Length

9.7.3. Queue length gives an indication of how the junction as a whole may impact the adjacent junctions within the highway network.

Delay

9.7.4. The delay output is represented in seconds and describes the maximum value of average delay per arriving vehicles.

9.8. LINSIG

9.8.1. The outputs of LINSIG include the Degree of Saturation (% Sat), Mean Maximum Queue (MMQ) and the Practical Reserve Capacity (PRC).

Degree of Saturation (% Sat)

9.8.2. The % Sat is a ratio of demand to capacity for each traffic phase with a value of 100%, indicating that traffic demand and capacity are equal. Although not specified within any recognised guidance, it is often preferable to keep the % Sat below 90% to allow a level of confidence that the junction will operate within capacity even if day-to-day traffic flows vary. If the % Sat does exceed 100% then queues will build up during the red periods, be unable to fully dissipate within the next green period and will gradually become longer during subsequent cycles.

Practical Reserve Capacity (PRC)

9.8.3. The PRC is calculated from the maximum % Sat and is a measure of how much additional traffic could pass through the junction whilst maintaining a maximum % Sat of 90% on all links. Given that the PRC is relative to a maximum % Sat of 90% means that it is not relative to the true capacity (100%) of the junction it is only relative to maintaining a maximum % Sat of 90%.

Mean Max Queue (MMQ)

9.8.4. The MMQ represents the maximum queue within a typical cycle, averaged over all the cycles within the modelled time period. The MMQ provides an indication of how the overall junction performance may affect adjacent junctions on the highway network.

Delay

9.8.5. The delay figure represents the maximum value of average delay per arriving vehicles and is represented in seconds.

9.9. Junction Modelling Results

9.9.1. The results for each junction are outlined below, with all outputs attached at **Appendix L**.

9.9.2. Following an assessment of the junction turning counts surveys at the House Lane / Sandpit Lane roundabout directly east of the proposed Oaklands Blossom primary access, it was identified that across the peak hour periods, flows along Sandpit Lane are equally distributed across the hourly period, with flows in each 15-minute period very comparable. As such, to provide a realistic assessment, all priority junctions and scenarios have been modelled using a 'flat' demand profile, which assumes all traffic is distributed equally across the assessed period.

9.9.3. As aforementioned, all junctions have been modelled as a robust assessment, accounting for no internalisation of residential trips and no modal shift changes. However, to provide a realistic assessment, an additional 'do something' scenario has been undertaken which demonstrates the impact of Scenario 2. The results of this scenario on the assessed junctions improves the operation of all junctions, through reducing the number of development trips at each junction in the peak hour periods.

9.10. Junction 1 – Primary Site Access

9.10.1. The proposed primary site access for Oaklands Blossom comprises a ghost island right turn lane junction, with a two lane approach for the minor arm. The access will accommodate the majority of vehicle movements associated with the Oaklands Blossom development and has been assessed using PICADY for all the development scenarios. The results of the baseline and future year scenarios with development are summarised below in Table 39.

Table 39 – Junction Capacity Assessment: Junction 1 – Primary Site Access

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline + Development							
B-A	Site Access – Sandpit Lane East	0.4	1	14.95	0.21	0	9.30
B-C	Site Access – Sandpit Lane West	0.55	1	39.95	0.24	0	21.09
C-AB	Sandpit Lane West	0.22	0	8.74	0.22	0	8.48
2030 Baseline + Development							
B-A	Site Access – Sandpit Lane East	0.47	1	15.81	0.21	0	9.55
B-C	Site Access – Sandpit Lane West	0.59	1	46.88	0.25	0	22.92
C-AB	Sandpit Lane West	0.22	0	8.93	0.22	0	8.67
2030 Baseline + Development 'Do Something' Scenario							
B-A	Site Access – Sandpit Lane East	0.29	0	11.00	0.16	0	8.68
B-C	Site Access – Sandpit Lane West	0.38	1	28.94	0.19	0	19.97
C-AB	Sandpit Lane West	0.16	0	8.12	0.17	0	8.06

9.10.2. Table 39 demonstrates that the proposed site access will operate within its theoretical capacity in the future year scenario with the proposed development. A maximum RFC of 0.59 is experienced on the site access arm in the AM Peak in 2030, with an anticipated queue of one vehicle. It is therefore evident that the proposed site access junction will have sufficient capacity to accommodate the proposed development and its associated traffic.

9.11. Junction 2 – Secondary Site Access

9.11.1. The proposed secondary site access for Oaklands Blossom comprises a simple priority junction. The access will accommodate vehicle movements associated with the local centre only. Within the PPA process, HCC raised concerns with whether this junction would operate suitably with the development. As such, an assessment of this junction has been undertaken for the local centre movements only, with all other development traffic continuing on Sandpit Lane past the junction (these flows have been

accounted for within the Sandpit Lane through movements). The proposed secondary site access priority junction has been assessed using PICADY for all the with development scenarios. The results of the baseline and future year scenarios with development are summarised below in Table 40.

Table 40 – Junction Capacity Assessment: Junction 2 – Secondary Site Access

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline + Development							
B-AC	Site Access – Sandpit Lane East	0.12	0	18.74	0.14	0	15.28
C-AB	Sandpit Lane West	0.10	0	3.60	0.07	0	3.68
2030 Baseline + Development							
B-AC	Site Access – Sandpit Lane East	0.13	0	20.39	0.14	0	16.30
C-AB	Sandpit Lane West	0.10	0	3.55	0.08	0	3.63

9.11.2. Table 40 demonstrates that the proposed secondary site access will operate within its theoretical capacity in the future year scenario with the addition of the proposed local centre flows. A maximum RFC of 0.14 is experienced on the site access arm in the PM Peak in 2030, with no anticipated queue and an average delay of 16 seconds. It is therefore evident that the proposed secondary site access junction will have sufficient capacity to accommodate the proposed development local centre and its associated traffic.

9.12. Junction 3 – Sandpit Lane / House Lane Roundabout

9.12.1. The Sandpit Lane / House Lane priority roundabout has been assessed using ARCADY for all the scenarios. The results of the baseline and future year scenarios with and without development are summarised below in Table 41.

Table 41 – Junction Capacity Assessment: Junction 3 – Sandpit Lane / House Lane Roundabout

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
A	Sandpit Lane East	0.71	3	10.17	0.80	4	14.40
B	House Lane	0.79	4	15.95	0.83	5	21.91
C	Sandpit Lane West	0.65	2	10.90	0.33	1	5.30
2025 Baseline + Development							
A	Sandpit Lane East	0.76	3	12.12	0.85	5	18.67
B	House Lane	0.89	8	30.01	0.89	7	32.58
C	Sandpit Lane West	0.71	2	13.81	0.35	1	5.59
2030 Baseline							
A	Sandpit Lane East	0.75	3	11.44	0.84	5	17.82
B	House Lane	0.82	5	19.36	0.87	7	29.92
C	Sandpit Lane West	0.69	2	12.47	0.35	1	5.57
2030 Baseline + Development							
A	Sandpit Lane East	0.79	4	14.01	0.89	8	24.77
B	House Lane	0.93	11	43.58	0.93	12	52.06
C	Sandpit Lane West	0.75	3	16.55	0.37	1	5.89
2030 Baseline + Development 'Do Something' Scenario							
A	Sandpit Lane East	0.78	4	13.28	0.88	7	22.81
B	House Lane	0.89	8	31.27	0.92	10	45.14

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
C	Sandpit Lane West	0.74	3	15.18	0.37	1	5.80

9.12.2. Table 41 demonstrates that in the base and future year scenarios, the junction is anticipated to operate within its theoretical capacity, with a maximum RFC of 0.87 anticipated on the House Lane arm in 2030 in the PM peak period, resulting in a 7 vehicle queue and 30 second delay.

9.12.3. With the addition of the proposed development, the junction is expected to continue to operate within its theoretical capacity, with the proposals resulting in an increase in the maximum RFC to 0.93 on the House Lane arm in the PM peak period, resulting in a 12 vehicle queue and 52 second delay. It is therefore evident that the Sandpit Lane / House Lane roundabout can suitably accommodate the proposed development flows within the future year scenarios.

9.13. Junction 4 – Sandpit Lane / Coopers Green Lane / Oaklands Lane Roundabout

9.13.1. The Sandpit Lane / Coopers Green Lane / Oaklands Lane priority roundabout has been assessed using ARCADY for all the scenarios. The results of the baseline and future year scenarios with and without development are summarised below in Table 42.

Table 42 – Junction Capacity Assessment: Junction 4 – Sandpit Lane / Coopers Green Lane / Oaklands Lane Roundabout

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
A	Oaklands Lane	0.51	1	9.33	0.71	2	15.94
B	Sandpit Lane	1.00	39	115.44	0.70	2	9.98
C	Coopers Green Lane	0.91	9	50.82	0.75	3	16.82
2025 Baseline + Development							
A	Oaklands Lane	0.56	1	10.58	0.77	3	20.81
B	Sandpit Lane	1.08	160	433.93	0.74	3	11.41
C	Coopers Green Lane	0.97	18	99.42	0.78	4	20.03
2030 Baseline							
A	Oaklands Lane	0.54	1	10.05	0.76	3	19.33
B	Sandpit Lane	1.04	90	251.94	0.74	3	11.27
C	Coopers Green Lane	0.95	15	80.11	0.79	4	20.52
2030 Baseline + Development							
A	Oaklands Lane	0.58	1	11.4	0.82	4	25.74
B	Sandpit Lane	1.12	234	632.07	0.77	3	13.12
C	Coopers Green Lane	1.00	34	171.47	0.83	5	25.48
2030 Baseline + Development 'Do Something' Scenario							
A	Oaklands Lane	0.57	1	11.07	0.81	4	25.10
B	Sandpit Lane	1.10	194	524.70	0.77	3	12.70
C	Coopers Green Lane	0.99	29	148.75	0.82	5	24.11

9.13.2. Table 42 demonstrates that in the base and future year scenarios, the junction is anticipated to operate in excess of its theoretical capacity, with a maximum RFC of 1.04, anticipated on the Sandpit Lane arm in 2030 in the AM peak period, resulting in a 90 vehicle queue and 252 second delay.

9.13.3. With the addition of the proposed development, the junction is expected to continue to operate in excess of its theoretical capacity, with the proposals resulting in an increase in the maximum RFC to 1.12 on the Sandpit Lane arm in the AM peak period, resulting in a 234 vehicle queue and 630 second delay. It is generally acknowledged in Junctions 11 that once RFC's exceed 1.0, the queue and delay are exceptionally compounded.

9.13.4. From a review of the queue surveys undertaken as part of the junction turning counts, which recorded a maximum queue of nine vehicles on the Sandpit Lane arm in a 15-minute period, it is evident that the above junction modelling results anticipate a much higher level of vehicle queueing on the Sandpit Lane arm in the 2025 AM peak period. As such, the junction has been calibrated utilising the queue survey results. The calibrated results are outlined in Table 43.

Table 43 – Junction Capacity Assessment: Junction 4 – Sandpit Lane / Coopers Green Lane / Oaklands Lane Roundabout Queue Calibrated Results

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
A	Oaklands Lane	0.68	2	18.94	0.95	14	9646
B	Sandpit Lane	0.90	9	26.70	0.64	2	7.39
C	Coopers Green Lane	0.93	11	61.23	0.76	3	17.63
2025 Baseline + Development							
A	Oaklands Lane	0.74	3	23.81	1.04	51	317.85
B	Sandpit Lane	0.98	28	78.77	0.67	2	8.11
C	Coopers Green Lane	1.02	39	204.12	0.79	4	21.19
2030 Baseline							
A	Oaklands Lane	0.72	3	21.91	1.02	38	239.25
B	Sandpit Lane	0.94	14	41.60	0.67	2	8.05
C	Coopers Green Lane	0.98	23	124.50	0.80	4	21.74
2030 Baseline + Development							
A	Oaklands Lane	0.77	3	26.51	1.11	96	581.68
B	Sandpit Lane	1.02	66	172.49	0.70	2	8.87
C	Coopers Green Lane	1.07	76	381.65	0.84	5	27.36
2030 Baseline + Development 'Do Something' Scenario							
A	Oaklands Lane	0.75	3	25.27	1.10	89	542.21
B	Sandpit Lane	1.00	42	113.15	0.69	2	8.69
C	Coopers Green Lane	1.05	64	322.82	0.83	5	25.80

9.13.5. As demonstrated within the calibrated results, the junction is anticipated to operate within theoretical capacity in the future year scenario in the AM peak, however is anticipated to operate in excess of capacity within the PM Peak. With the addition of development traffic, the junction is anticipated to exceed capacity in the AM peak, with the RFCs only marginally exceed 1. During the PM peak, the junction is anticipated to continue to operate in excess of theoretical capacity, with the RFC increased to 1.11 on Oaklands Lane.

9.13.6. It is therefore evident that the development will impact on the operation of the Sandpit Lane / Coopers Green Lane / Oaklands Lane roundabout junction, however this is anticipated to be operating close / in excess of capacity in the future year scenarios without the addition of development. It is generally acknowledged in Junctions 11 that once RFC's exceed 1.0, the queue and delay are exceptionally compounded. However, it is considered that the development will not have a severe impact on the operation of this junction, with only a 5-7% increase in traffic anticipated at this junction, with the

proposals providing a comprehensive package of mitigation measures focused on sustainable modes of transport which will help to encourage a modal shift away from private car.

9.14. Junction 5 – East Drive / Oaklands Lane Junction

9.14.1. The East Drive / Oaklands Lane priority junction has been assessed using PICADY for all the scenarios. The results of the baseline and future year scenarios with and without development are summarised below in Table 44.

Table 44 – Junction Capacity Assessment: Junction 5 – East Drive / Oaklands Lane Junction

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
B-AC	East Drive	0.08	0	10.81	0.15	0	11.36
C-AB	Oaklands Lane	0.21	1	4.55	0.12	0	4.89
2025 Baseline + Development							
B-AC	East Drive	0.08	0	11.43	0.20	0	12.40
C-AB	Oaklands Lane	0.26	1	4.67	0.12	0	4.84
2030 Baseline							
B-AC	East Drive	0.09	0	11.15	0.15	0	11.69
C-AB	Oaklands Lane	0.23	1	4.57	0.13	0	4.88
2030 Baseline + Development							
B-AC	East Drive	0.09	0	11.81	0.21	0	12.87
C-AB	Oaklands Lane	0.28	1	4.73	0.13	0	4.84
2030 Baseline + Development 'Do Something' Scenario							
B-AC	East Drive	0.09	0	11.64	0.21	0	12.77
C-AB	Oaklands Lane	0.27	1	4.74	0.13	0	4.86

9.14.2. Table 44 demonstrates that in the base and future year scenarios, the junction is anticipated to operate within its theoretical capacity, with a maximum RFC of 0.23 anticipated on the Oaklands Lane northern arm in 2030 in the AM peak period, resulting in a 1 vehicle queue and 5 second delay.

9.14.3. With the addition of the proposed development, the junction is expected to continue to operate within its theoretical capacity, with the proposals resulting in an increase in the maximum RFC to 0.28 on the Oaklands Lane northern arm in 2030 in the AM peak period, with no impact on vehicle queues or delay. It is therefore evident that the East Drive / Oaklands Lane junction can suitably accommodate the proposed development flows within the future year scenarios.

9.15. Junction 6 – South Drive / Hatfield Road Junction

9.15.1. The South Drive / Hatfield Road priority junction has been assessed using PICADY for all the scenarios. The results of the baseline and future year scenarios with and without development are summarised below in Table 45.

Table 45 – Junction Capacity Assessment: Junction 6 – South Drive / Hatfield Road Junction

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
B-AC	South Drive	0.22	0	9.83	0.23	0	9.84
C-AB	Hatfield Road	0.39	1	10.36	0.11	0	7.68
2025 Baseline + Development							
B-AC	South Drive	0.23	0	10.01	0.30	0	10.86
C-AB	Hatfield Road	0.44	1	11.14	0.11	0	7.68
2030 Baseline							
B-AC	South Drive	0.24	0	10.23	0.25	0	10.19
C-AB	Hatfield Road	0.41	1	10.74	0.12	0	7.83
2030 Baseline + Development							
B-AC	South Drive	0.24	0	10.44	0.32	1	11.29
C-AB	Hatfield Road	0.47	1	11.56	0.12	0	7.83
2030 Baseline + Development 'Do Something' Scenario							
B-AC	South Drive	0.24	0	10.44	0.32	1	11.29
C-AB	Hatfield Road	0.47	1	11.56	0.12	0	7.83

9.15.2. Table 45 demonstrates that in the base and future year scenarios, the junction is anticipated to operate within its theoretical capacity, with a maximum RFC of 0.41 anticipated on the Hatfield Road arm in 2030 in the AM peak period, resulting in a 1 vehicle queue and 11 second delay.

9.15.3. With the addition of the proposed development, the junction is expected to continue to operate within its theoretical capacity, with the proposals resulting in an increase in the maximum RFC to 0.47 on the Hatfield Road arm in 2030 in the AM peak period, with no impact on vehicle queues and a one second increase in delay. It is therefore evident that the South Drive / Hatfield Road junction can suitably accommodate the proposed development flows within the future year scenarios.

9.16. Junction 7 – Hatfield Road / Colney Heath Lane Junction

9.16.1. The Hatfield Road / Colney Heath Lane Junction priority T-junction has been assessed using PICADY for all the scenarios. The results of the baseline and future year scenarios with and without development are summarised below in Table 46.

Table 46 – Junction Capacity Assessment: Junction 7 – Hatfield Road / Colney Heath Lane Junction

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
B-C	Colney Health Lane – Hatfield Road West	0.67	2	23.71	0.42	1	12.98
B-A	Colney Health Lane – Hatfield Road East	0.62	2	33.32	0.44	1	22.83
C-AB	Hatfield Road West	0.34	1	9.88	0.32	1	10.00
2025 Baseline + Development							
B-C	Colney Health Lane – Hatfield Road West	0.71	3	27.38	0.42	1	13.07
B-A	Colney Health Lane – Hatfield Road East	0.64	2	35.66	0.46	1	23.81
C-AB	Hatfield Road West	0.35	1	10.00	0.33	1	10.23
2030 Baseline							
B-C	Colney Health Lane – Hatfield Road West	0.72	3	27.85	0.45	1	13.88
B-A	Colney Health Lane – Hatfield Road East	0.66	2	38.59	0.48	1	25.09

C-AB	Hatfield Road West	0.36	1	10.17	0.33	1	10.34
2030 Baseline + Development							
B-C	Colney Health Lane – Hatfield Road West	0.76	3	33.10	0.45	1	14.00
B-A	Colney Health Lane – Hatfield Road East	0.68	2	41.76	0.49	1	26.29
C-AB	Hatfield Road West	0.36	1	10.30	0.35	1	10.58
2030 Baseline + Development 'Do Something' Scenario							
B-C	Colney Health Lane – Hatfield Road West	0.76	3	32.89	0.45	1	14.00
B-A	Colney Health Lane – Hatfield Road East	0.68	2	41.25	0.49	1	26.29
C-AB	Hatfield Road West	0.36	1	10.29	0.35	1	10.58

9.16.2. Table 46 demonstrates that in the base and future year scenarios, the junction is anticipated to operate within its theoretical capacity, with a maximum RFC of 0.72 anticipated on the Colney Heath Lane left turn arm in 2030 in the AM peak period, resulting in a 3 vehicle queue and 28 second delay.

9.16.3. With the addition of the proposed development, the junction is expected to continue to operate within its theoretical capacity, with the proposals resulting in an increase in the maximum RFC to 0.76 on the Colney Heath Lane left turn arm in the AM peak period, resulting in a 3 vehicle queue and 33 second delay. It is therefore evident that the Hatfield Road / Colney Heath Lane junction will continue to operate within its theoretical capacity in the future year scenarios with and without the addition of the proposed development traffic.

9.17. Junction 8 – Oaklands Lane / A1057 / Station Road Roundabout

9.17.1. The Oaklands Lane / A1057 / Station Road priority roundabout has been assessed using ARCADY for all the scenarios. The results of the baseline and future year scenarios with and without development are summarised below in Table 47.

Table 47 – Junction Capacity Assessment: Junction 8 – Oaklands Lane / A1057 / Station Road Roundabout

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
A	A1057 East	0.76	3	16.25	0.72	3	11.95
B	Station Road	0.49	1	7.82	0.49	1	7.01
C	A1057 West	0.46	1	5.94	0.58	1	8.20
D	Oaklands Lane	0.78	4	19.25	0.59	1	11.36
2025 Baseline + Development							
A	A1057 East	0.80	4	20.04	0.73	3	12.71
B	Station Road	0.53	1	8.55	0.51	1	7.39
C	A1057 West	0.48	1	6.20	0.60	2	8.79
D	Oaklands Lane	0.84	5	26.92	0.64	2	13.03
2030 Baseline							
A	A1057 East	0.80	4	19.79	0.76	3	13.84
B	Station Road	0.52	1	8.56	0.52	1	7.60
C	A1057 West	0.49	1	6.29	0.62	2	9.14
D	Oaklands Lane	0.82	5	24.03	0.63	2	12.91
2030 Baseline + Development							
A	A1057 East	0.85	5	25.66	0.77	3	14.87
B	Station Road	0.56	1	9.43	0.54	1	8.06
C	A1057 West	0.50	1	6.56	0.64	2	9.89

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
D	Oaklands Lane	0.89	8	37.87	0.68	2	15.10
2030 Baseline + Development 'Do Something' Scenario							
A	A1057 East	0.84	5	24.11	0.77	3	14.65
B	Station Road	0.55	1	9.24	0.54	1	7.94
C	A1057 West	0.50	1	6.53	0.64	2	9.78
D	Oaklands Lane	0.87	6	32.41	0.67	2	14.73

9.17.2. Table 47 demonstrates that in the base and future year scenarios, the junction is anticipated to operate within its theoretical capacity, with a maximum RFC of 0.82 anticipated on the Oaklands Lane arm in 2030 in the AM peak period, resulting in a 5 vehicle queue and 24 second delay.

9.17.3. With the addition of the proposed development, the junction is expected to continue to operate within its theoretical capacity, with the proposals resulting in an increase in the maximum RFC to 0.89 on the Oaklands Lane arm in the AM peak period, resulting in an 8 vehicle queue and 38 second delay. It is therefore evident that the Oaklands Lane / A1057 / Station Road roundabout will continue to operate within its theoretical capacity in the future year scenarios with and without the addition of the proposed development traffic.

9.18. Junction 9 – Sandpit Lane / Marshalswick Lane / Beechwood Avenue Crossroads

9.18.1. The Sandpit Lane / Marshalswick Lane / Beechwood Avenue Signal Crossroads has been assessed using LINSIG v3 for all the scenarios. The operation is based on the Signal Layout Drawing (SLD) and specification provided by HCC and observations of staging and cycle times. An average cycle time of approximately 130 seconds was observed in the AM peak and 300 seconds in the PM peak. Pedestrian crossings were observed to be called regularly (nearly every cycle) in the AM and every three cycles in the PM peak; the staging and cycle times for the AM and PM peak therefore reflect this. The results of the baseline and future year scenarios with and without development are summarised below in Table 48.

Table 48 – Junction Capacity Assessment: Junction 9 – Sandpit Lane / Marshalswick Lane / Beechwood Avenue Crossroads

Arm / Lane	Description	AM Peak		PM Peak	
		Deg Sat (%) (DoS)	Mean Max Queue (pcu) (MMQ)	DoS	MMQ
2025 Base					
1/1	Sandpit Lane E Left Ahead Right	81.9%	23	79.1%	15
2/1	Beechwood Avenue Right Left Ahead	72.4%	13	72.1%	12
3/2+3/1	Sandpit Lane W Ahead Right Left	73.3%	18	79.9%	17
4/1+4/2	Marshalswick Lane Left Ahead Right	80.3%	18.5	80.4%	17
Cycle Time (secs)		130		300	
Practical Reserve Capacity (PRC) (%)		10%		12%	
2025 Base + Development					
1/1	Sandpit Lane E Left Ahead Right	91.9%	32	87.5%	20
2/1	Beechwood Avenue Right Left Ahead	111.0%	43	87.1%	21
3/2+3/1	Sandpit Lane W Ahead Right Left	103.6%	38	86.4%	20
4/1+4/2	Marshalswick Lane Left Ahead Right	90.2%	22	83.1%	18
Cycle Time (secs)		130		300	
Practical Reserve Capacity (PRC) (%)		-23.3%		2.9%	

Arm / Lane	Description	AM Peak		PM Peak	
		Deg Sat (%) (DoS)	Mean Max Queue (pcu) (MMQ)	DoS	MMQ
2030 Base					
1/1	Sandpit Lane E Left Ahead Right	84.4%	24	84.2%	21
2/1	Beechwood Avenue Right Left Ahead	84.1%	15	81.6%	19
3/2+3/1	Sandpit Lane W Ahead Right Left	75.1%	19	83.2%	22
4/1+4/2	Marshalswick Lane Left Ahead Right	85.5%	21	84.3%	24
	Cycle Time (secs)	130		300	
	Practical Reserve Capacity (PRC) (%)	5.3%		6.8%	
2030 Base + Development					
1/1	Sandpit Lane E Left Ahead Right	89.6%	31	94.8%	27
2/1	Beechwood Avenue Right Left Ahead	124%	65	95.6%	25
3/2+3/1	Sandpit Lane W Ahead Right Left	94.3%	25	91.7%	27
4/1+4/2	Marshalswick Lane Left Ahead Right	103.2%	39	85.7%	23
	Cycle Time (secs)	130		300	
	Practical Reserve Capacity (PRC) (%)	-37.8%		-6.2%	
2030 Baseline + Development 'Do Something' Scenario					
1/1	Sandpit Lane E Left Ahead Right	91.3%	30	93.7%	26
2/1	Beechwood Avenue Right Left Ahead	113.4%	48	93.7%	24
3/2+3/1	Sandpit Lane W Ahead Right Left	105.7%	43	87.2%	22
4/1+4/2	Marshalswick Lane Left Ahead Right	91.9%	24	87.8%	23
	Cycle Time (secs)	130		300	
	Practical Reserve Capacity (PRC) (%)	-26.0%		-4.2%	

9.18.2. Table 48 demonstrates that the base and future year scenarios, the junction is anticipated to operate within the optimum capacity threshold (<=90% Degree of Saturation (DoS)) within both peak hour periods without development.

9.18.3. With the addition of the proposed development, during the AM peak hour, two lanes of the junction are expected to continue to operate within the theoretical maximum capacity (<100% DoS), with two lanes anticipated to exceed maximum capacity. During the PM peak hour, with the addition of the development proposals, the junction is anticipated to continue to operate within its theoretical maximum capacity.

9.18.4. Whilst the development is anticipated to result in a negative impact in the operation of two lanes during the AM peak period, the development mitigation is centred and focused on prioritising sustainable modes of transport, in accordance with national and local guidance. The proposals involve a comprehensive package of mitigation measures to improve travel on foot, by cycle and by public transport to access key destinations from the site, including St Albans City Centre. This improvements will not only benefit the proposed residents, staff and students but also the existing community and therefore will help to facilitate a modal shift.

9.18.5. It is therefore anticipated that the future number of vehicles travelling through this junction would be reduced with users instead travelling by sustainable modes of transport, which will have benefits on the operation of this junction.

9.19. Junction 10 – Marshalswick Lane / B651 / Beech Road Junction

The Marshalswick Lane / B651 / Beech Road signal junction, also known as King William IV junction, has been assessed using LINSIG v3 for all the scenarios. The operation is based on the SLD and specification provided by HCC and observations of staging and cycle times. An average cycle time of approximately 180 seconds in the AM peak and 150 seconds in the PM peak was observed. Pedestrian crossings were called regularly in the AM peak but less frequently in the PM peak; the cycle times for the AM and PM peak therefore reflect this with greater average green time for traffic stages in the PM peak. The results of the baseline and future year scenarios with and without development are summarised below in Table 49.

Table 49 – Junction Capacity Assessment: Junction 10 – Marshalswick Lane / B651 / Beech Road Junction

Arm / Lane		Description	AM Peak		PM Peak	
			DoS	MMQ	DoS	MMQ
2025 Base						
Junction 1	2/1	St Albans Rd SB Ahead Right	80.8%	1	88.9%	17
	4/1	St Albans Road L Slip Left	17.8%	0	21.0%	0
	5/1+5/2	Marshalswick Lane Right Left Ahead	80.8%	30	72.5%	21
	8/1	Sandridge Rd NB Ahead Right	80.4%	14	88.1%	15
	10/1+10/2	Beech Rd Left Ahead Right	78.6%	27	88.7%	28
	12/1	Sandridge Rd L Slip Ahead	6.3%	1	5.6%	0
Junction 2	2/1	Valley Rd Right Left	34.1%	4	30.0%	2
	4/1	Beech Rd WB Right Ahead	19.7%	0	12.2%	0
	6/1	Sandridge Rd L Right Ahead	30.6%	3	26.8%	2
Cycle Time (secs)			180		150	
Practical Reserve Capacity (PRC) (%)			11.4%		1.2%	
2025 Base + Development						
Junction 1	2/1	St Albans Rd SB Ahead Right	80.8%	19	88.9%	17
	4/1	St Albans Road L Slip Left	18.0%	0	21.3%	0
	5/1+5/2	Marshalswick Lane Right Left Ahead	84.9%	33	74.9%	22
	8/1	Sandridge Rd NB Ahead Right	80.8%	14	88.1%	15
	10/1+10/2	Beech Rd Left Ahead Right	80.1%	30	90.7%	29
	12/1	Sandridge Rd L Slip Ahead	6.3%	1	5.6%	0
Junction 2	2/1	Valley Rd Right Left	36.4%	4	31.8%	3
	4/1	Beech Rd WB Right Ahead	21.0%	0	13.1%	0
	6/1	Sandridge Rd L Right Ahead	32.2%	3	27.7%	2
Cycle Time (secs)			180		150	
Practical Reserve Capacity (PRC) (%)			6.0%		-0.8%	
2030 Base						
Junction 1	2/1	St Albans Rd SB Ahead Right	84.1%	21	92.8%	19
	4/1	St Albans Road L Slip Left	18.6%	0	22.2%	0
	5/1+5/2	Marshalswick Lane Right Left Ahead	84.2%	33	75.9%	23
	8/1	Sandridge Rd NB Ahead Right	83.7%	15	92.2%	17
	10/1+10/2	Beech Rd Left Ahead Right	81.7%	30	92.7%	31
	12/1	Sandridge Rd L Slip Ahead	6.5%	1	5.9%	1
Junction 2	2/1	Valley Rd Right Left	36.4%	4	31.8%	3
	4/1	Beech Rd WB Right Ahead	21.1%	0	13.1%	0

	6/1	Sandridge Rd L Right Ahead	34.2%	3	30.4%	2
Cycle Time (secs)			180		150	
Practical Reserve Capacity (PRC) (%)			6.9%		-3.1%	
2030 Base + Development						
Junction 1	2/1	St Albans Rd SB Ahead Right	84.1%	21	92.8%	19
	4/1	St Albans Road L Slip Left	18.8%	0	22.5%	0
	5/1+5/2	Marshalswick Lane Right Left Ahead	88.3%	36	78.2%	24
	8/1	Sandridge Rd NB Ahead Right	84.0%	15	92.2%	17
	10/1+10/2	Beech Rd Left Ahead Right	83.2%	33	94.7%	34
	12/1	Sandridge Rd L Slip Ahead	6.5%	1	5.9%	1
Junction 2	2/1	Valley Rd Right Left	38.9%	5	33.7%	3
	4/1	Beech Rd WB Right Ahead	22.4%	0	14.0%	0
	6/1	Sandridge Rd L Right Ahead	36.0%	3	31.5%	2
Cycle Time (secs)			180		150	
Practical Reserve Capacity (PRC) (%)			1.9%		-5.2%	
2030 Base + Development 'Do Something' Scenario						
Junction 1	2/1	St Albans Rd SB Ahead Right	84.1%	21	92.8%	19
	4/1	St Albans Road L Slip Left	18.8%	0	22.5%	0
	5/1+5/2	Marshalswick Lane Right Left Ahead	87.0%	35	77.7%	23
	8/1	Sandridge Rd NB Ahead Right	84.0%	15	92.2%	17
	10/1+10/2	Beech Rd Left Ahead Right	82.8%	32	94.2%	34
	12/1	Sandridge Rd L Slip Ahead	6.5%	1	5.9%	1
Junction 2	2/1	Valley Rd Right Left	37.9%	4	33.3%	3
	4/1	Beech Rd WB Right Ahead	21.9%	0	13.8%	0
	6/1	Sandridge Rd L Right Ahead	35.4%	3	31.2%	2
Cycle Time (secs)			180		150	
Practical Reserve Capacity (PRC) (%)			3.5%		-5.2%	

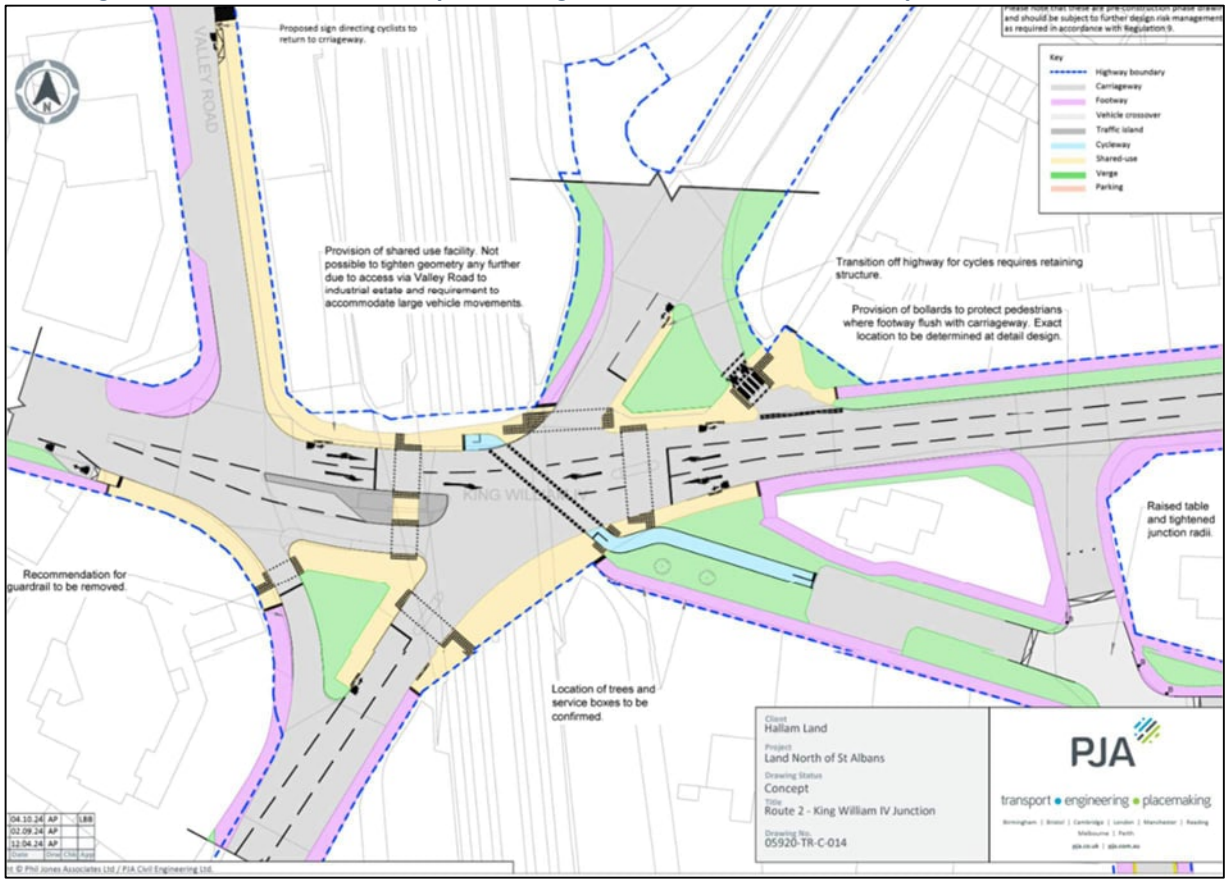
9.19.1. Table 49 demonstrates that in that the base and future year scenarios, the junction is anticipated to operate within the optimum capacity threshold (<=90% DoS) within the AM peak. During the PM peak within the future year scenario, all lanes of the junction are anticipated to operate within the theoretical maximum capacity (<100% DoS).

9.19.2. With the addition of the proposed development, the junction is expected to continue to operate within the optimum capacity threshold in the AM peak, with a resultant PRC of 1.9%. During the PM peak with the addition of development traffic, the junction is expected to continue to operate within the theoretical maximum capacity (<100% DoS), with a maximum queue increase of three PCUs observed on the Beech Rd 'Left Ahead Right' arm. It is therefore evident that this junction is capable of accommodating the increase in traffic flows associated with the development flows. Furthermore, it is noted that the development is anticipated to have a maximum 3% increase in traffic flows through the junction in the AM peak periods, with a 2% increase in the PM peak periods and therefore the realistic impact of the development is considered to be minimal.

9.19.3. It is noted that a mitigation scheme has been designed by the Woollam Park development, which is a current live application within SACDC (Ref: 5/2024/2271) for a mixed-use residential-led scheme, comprising up to 1,000 new homes. The mitigation scheme at this junction involves prioritising active travel over the private car, through designing improvements to the junction to better accommodate cyclists. The scheme produced to support the application has been reproduced below, with the

modelling undertaken as part of the Woollam Park application demonstrating that the revised layout is not forecast to have an unacceptable impact on the operation of the junction. The application is still pending a decision and therefore these improvements are not consented/delivered and therefore have not been modelled as part of this assessment. Nonetheless it is considered that these improvements will further encourage a modal shift in favour of sustainable modes.

Figure 26 – Woollam Park Proposed King William IV Active Travel Improvements



Source: PJA Drawing No. 05920-TR-C-014

9.20. Junction 11 – Beech Road / Batchwood Drive / A1081 Crossroads

9.20.1. The Beech Road / Batchwood Drive / A1081 crossroad signal junction, also known as the Ancient Britton junction, has been assessed using LINSIG v3 for all the scenarios. The operation is based on the SLD and specification provided by HCC and observations of staging and cycle times. An average cycle time of approximately 180 seconds in the AM peak and 320 seconds in the PM peak was observed.

9.20.2. Pedestrian crossings were called regularly in the AM peak and generally every other cycle in the PM peak; the staging sequence and cycle time for the AM and PM peak therefore reflect this. The results of the baseline and future year scenarios with and without development are summarised below in Table 50.

Table 50 – Junction Capacity Assessment: Junction 11 – Beech Road / Batchwood Drive / A1081 Crossroads

Arm / Lane	Description	AM Peak		PM Peak	
		Deg Sat (%) (DoS)	Mean Max Queue (pcu) (MMQ)	DoS	MMQ
2025 Base					
1/1+1/2	Harpenden Rd N Left Ahead Right	95.5%	37	90.3%	30
2/1+2/2	Beech Rd Right Left Ahead	64.5%	29	90.1%	22
3/1+3/2	Harpenden Rd S Ahead Right Left	55.1%	14	76.1%	20
4/1	Batchwood Drive Left Ahead Right	95.8%	27	89.4%	23
	Cycle Time (secs)	180		320	
	Practical Reserve Capacity (PRC) (%)	-6.4%		-0.3%	
2025 Base + Development					
1/1	Sandpit Lane E Left Ahead Right	96.9%	39	91.1%	30
2/1	Beechwood Avenue Right Left Ahead	97.2%	33	91.0%	22
3/2+3/1	Sandpit Lane W Ahead Right Left	56.1%	14	76.6%	20
4/1+4/2	Marshalswick Lane Left Ahead Right	96.7%	28	91.3%	24
	Cycle Time (secs)	180		320	
	Practical Reserve Capacity (PRC) (%)	-8.0%		-1.5%	
2030 Base					
1/1	Sandpit Lane E Left Ahead Right	99.6%	44	94.6%	34
2/1	Beechwood Avenue Right Left Ahead	100.0%	37	94.3%	26
3/2+3/1	Sandpit Lane W Ahead Right Left	57.5%	15	79.8%	22
4/1+4/2	Marshalswick Lane Left Ahead Right	97.7%	30	93.6%	26
	Cycle Time (secs)	180		320	
	Practical Reserve Capacity (PRC) (%)	-11.1%		-5.1%	
2030 Base + Development					
1/1	Sandpit Lane E Left Ahead Right	100.9%	31	95.4%	35
2/1	Beechwood Avenue Right Left Ahead	101.1%	65	95.2%	27
3/2+3/1	Sandpit Lane W Ahead Right Left	58.5%	25	80.3%	22
4/1+4/2	Marshalswick Lane Left Ahead Right	101.1%	39	95.5%	28
	Cycle Time (secs)	180		320	
	Practical Reserve Capacity (PRC) (%)	-12.3%		-6.2%	
2030 Baseline + Development 'Do Something' Scenario					
1/1	Sandpit Lane E Left Ahead Right	100.8%	47	95.2%	34
2/1	Beechwood Avenue Right Left Ahead	100.3%	39	95.0%	27
3/2+3/1	Sandpit Lane W Ahead Right Left	58.1%	15	80.3%	22
4/1+4/2	Marshalswick Lane Left Ahead Right	101.1%	34	95.3%	27
	Cycle Time (secs)	180		320	
	Practical Reserve Capacity (PRC) (%)	-12.3%		-5.9%	

9.20.3. Table 50 demonstrates that in that the base and future year scenarios, the junction is anticipated to operate within the theoretical maximum capacity (<100% DoS) within both the AM and PM peaks.

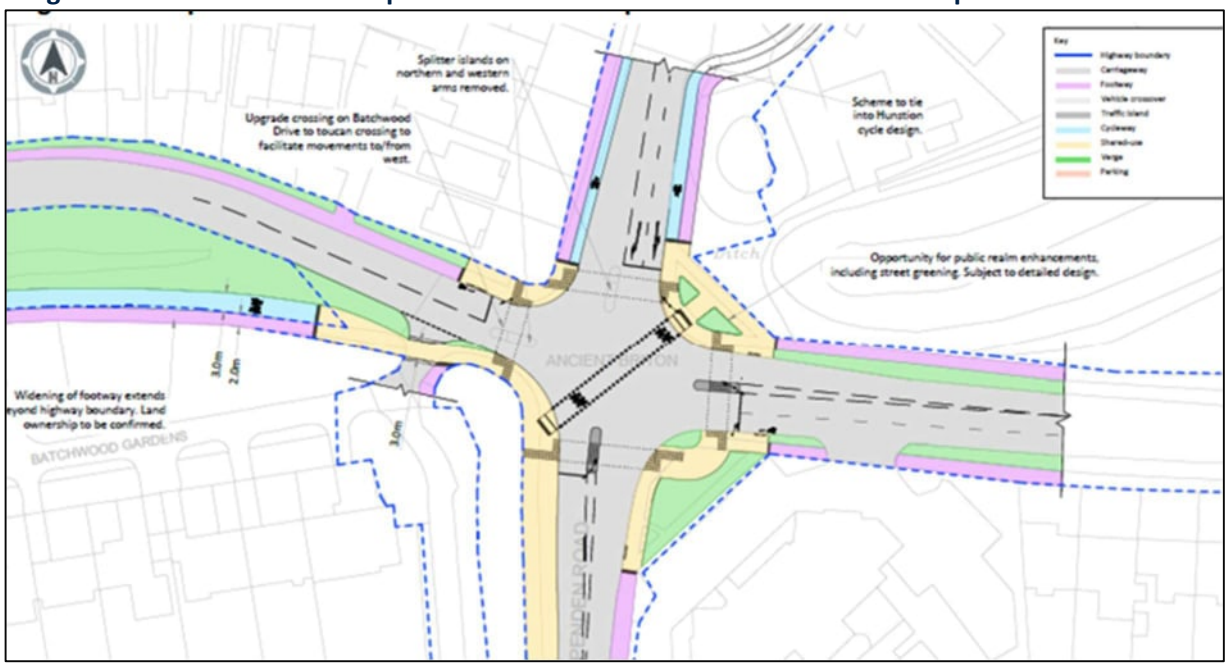
9.20.4. With the addition of the proposed development, three lanes of the junction are expected to exceed theoretical capacity in the AM peak, with a resultant maximum queue increase of 28 PCUs on the Beechwood Avenue arm. During the PM peak, all arms of the junction are expected to continue to operate within the theoretical maximum capacity threshold in the AM peak.

9.20.5. It is therefore evident that the operation of the junction in the AM peak is slightly worsened with the addition of development traffic in the future year scenarios, however the junction is able to accommodate the increase in traffic flows associated with the development flows in the PM peak. It is noted that the development is anticipated to have a maximum 2% increase in traffic flows through the junction in the AM peak periods, with a 1% increase in the PM peak periods and therefore the realistic impact of the development is considered to be minimal.

9.20.6. It is noted that a mitigation scheme was designed for this junction as part of the consented Sewell Park development for the erection of 150 dwellings. The proposals involved the provision of cycle lanes on both sides of the A1081 northern arm extending further north. No works have been started at the junction.

9.20.7. An additional mitigation scheme was designed by the Woollam Park development. which also included improvements to the junction to better accommodate cyclists. The scheme produced to support the application has been included below, with the modelling undertaken as part of the Woollam Park application demonstrating that the revised layout is forecast to have a material impact on the operation of the junction, with significant worsening forecast in terms of queues and delays across all arms. It is noted that this scheme involved performance benefits for vehicle movements over the scheme put forward by Sewell Park. The application is still pending a decision and therefore these improvements are not consented/delivered and therefore have not been modelled as part of this assessment. Nonetheless it is considered that these improvements will further encourage a modal shift in favour of sustainable modes.

Figure 27 – Woollam Park Proposed Ancient Briton Junction Active Travel Improvements



Source: PJA Drawing

9.21. Junction 12 – Sandpit Lane / Stonecross / Sandridge Road Junction

9.21.1. The Sandpit Lane / Stonecross / Sandridge Road priority T-junction has been assessed using PICADY for all the scenarios. The results of the baseline and future year scenarios with and without development are summarised below in Table 51.

Table 51 – Junction Capacity Assessment: Junction 12 – Sandpit Lane / Stonecross / Sandridge Road Junction

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
B-AC	Sandpit Lane	0.64	2	18.90	0.79	4	28.44
C-AB	Stonecross	1.08	96	459.66	0.97	24	118.13
2025 Baseline + Development							
B-AC	Sandpit Lane	0.94	8	70.05	0.86	6	43.18
C-AB	Stonecross	1.16	176	840.77	1.04	61	288.58
2030 Baseline							
B-AC	Sandpit Lane	0.75	3	29.14	0.84	5	37.92
C-AB	Stonecross	1.13	144	684.36	1.02	49	234.71
2030 Baseline + Development							
B-AC	Sandpit Lane	2.96	88	1360.03	0.94	10	75.56
C-AB	Stonecross	1.21	227	1081.79	1.08	105	482.89
2030 Baseline + Development 'Do Something' Scenario							
B-AC	Sandpit Lane	1.44	39	335.48	0.91	8	62.65
C-AB	Stonecross	1.20	211	1005.06	1.07	91	422.13

9.21.2. Table 51 demonstrates that in the base and future year scenarios, the junction is anticipated to operate in excess of its theoretical capacity, with a maximum RFC of 1.13, anticipated on the Stonecross arm in 2030 in the AM peak period, resulting in a 144 vehicle queue and 694 second delay.

9.21.3. With the addition of the proposed development, the junction is expected to continue to operate in excess of its theoretical capacity, with the proposals resulting in an increase in the maximum RFC to 2.96 on the on the Stonecross arm in the AM peak period. It is generally acknowledged in Junctions 11 that once RFC's exceed 1.0, the queue and delay are exceptionally compounded.

9.21.4. From a review of the queue surveys undertaken as part of the junction turning counts, it is evident that the above junction modelling results anticipate a much higher level of vehicle queueing on the Stonecross arm in the 2025 AM and PM peak periods. As such, the junction has been calibrated utilising the queue survey results. The calibrated results are outlined in Table 52.

Table 52 – Junction Capacity Assessment: Junction 12 – Sandpit Lane / Stonecross / Sandridge Road Junction Calibrated Results

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2025 Baseline							
B-AC	Sandpit Lane	0.81	4	44.37	0.92	10	79.85
C-AB	Stonecross	0.88	8	37.09	0.78	4	19.49
2025 Baseline + Development							
B-AC	Sandpit Lane	1.13	56	511.85	1.01	32	233.98
C-AB	Stonecross	0.96	20	86.96	0.84	6	27.30
2030 Baseline							
B-AC	Sandpit Lane	0.95	11	121.74	1.00	26	197.28
C-AB	Stonecross	0.93	14	60.32	0.83	6	24.68
2030 Baseline + Development							
B-AC	Sandpit Lane	2.33	223	3818.13	1.12	85	608.78
C-AB	Stonecross	1.00	38	162.84	0.89	9	38.90
2030 Baseline + Development 'Do Something' Scenario							
B-AC	Sandpit Lane	1.57	145	1799.65	1.09	69	495.34
C-AB	Stonecross	0.99	30	132.82	0.88	8	34.54

9.21.5. As demonstrated within the calibrated results, the junction is anticipated to operate within theoretical capacity in the future year scenario in the AM peak, however is anticipated to operate in excess of capacity within the PM Peak. With the addition of development traffic, the junction is anticipated to exceed capacity in both the AM and PM peak.

9.21.6. Notably the development traffic will only result in a 5-8% increase in traffic at the junction, which is considered to be within the day to day variation of traffic. It is therefore evident that the development will impact on the operation of the Sandpit Lane / Stonecross / Sandridge Road Junction, however this is anticipated to be operating close / in excess of capacity in the future year scenarios without the addition of development. It is generally acknowledged in Junctions 11 that once RFC's exceed 1.0, the queue and delay are exceptionally compounded.

9.21.7. However, it is considered that the development will not have a severe impact on the operation of this junction, with the proposals provide a comprehensive package of mitigation measures focused on sustainable modes of transport.

9.22. Junction 13 – A1081 / Stonecross / B651 Junction

9.22.1. The A1081 / Stonecross / B651 priority junction has been assessed using PICADY for all the scenarios, with the three junctions linked within Junctions 11. It is noted that Junctions 11 recommends PICADY junctions to be modelled using lane simulation, however this is not possible with cross road junctions. As such, it is recommended that these results are interpreted with caution, however provide a base overview of the junction operation. Queue surveys were undertaken in 5-minute intervals as part of the junction turning counts and therefore the junction model has been calibrated utilising the results of these queue surveys. The results of the baseline and future year scenarios with and without development are summarised below in Table 53.

Table 53 – Junction Capacity Assessment: Junction 13 – A1081 / Stonecross / B651 Junction

Junction	Arm	Arm Name	AM Peak			PM Peak		
			RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
	2025 Baseline							
1	B-C	Stonecross – A1081 South	0.91	8	55.93	0.91	8	53.79
	B-A	Stonecross – A1081 North	0.00	0	0.00	0.00	0	0.00
	C-AB	A1081 South	0.74	3	15.77	0.72	3	14.54
2	B-AC	B651 Avenue Road – A1081	0.93	8	102.85	1.04	17	178.42
	C-AB	A1081 North	0.00	0	0.00	0.00	0	0.00
3	B-ACD	Avenue Road	0.94	8	105.02	1.18	18	264.85
	A-BCD	Stonecross North	0.73	5	20.56	1.01	28	119.51
	D-ABC	B651 Avenue Road	0.53	1	15.70	0.41	1	12.81
	C-ABD	Stonecross South	0.03	0	4.50	0.02	0	4.59
	2025 Baseline + Development							
1	B-C	Stonecross – A1081 South	1.01	19	113.85	0.96	12	78.26
	B-A	Stonecross – A1081 North	0.00	0	0.00	0.00	0	0.00
	C-AB	A1081 South	0.79	4	18.96	0.76	3	16.85
2	B-AC	B651 Avenue Road – A1081	0.96	10	124.15	1.06	20	197.86
	C-AB	A1081 North	0.00	0	0.00	0.00	0	0.00
3	B-ACD	Avenue Road	1.17	23	283.71	1.55	32.7	511.29
	A-BCD	Stonecross North	0.85	9	34.93	1.06	41	167.75
	D-ABC	B651 Avenue Road	0.56	1	17.37	0.42	1	13.50
	C-ABD	Stonecross South	0.03	0	4.46	0.02	0	4.56
	2030 Baseline							
1	B-C	Stonecross – A1081 South	0.95	11	75.26	0.96	12	75.38
	B-A	Stonecross – A1081 North	0.00	0	0.00	0.00	0	0.00
	C-AB	A1081 South	0.77	4	17.60	0.75	3	16.35
2	B-AC	B651 Avenue Road – A1081	0.98	11	138.58	1.11	25.4	248.35
	C-AB	A1081 North	0.00	0	0.00	0.00	0	0.00
3	B-ACD	Avenue Road	1.06	1	187.04	1.61	37	563.94
	A-BCD	Stonecross North	0.79	7	26.21	1.06	41	169.42
	D-ABC	B651 Avenue Road	0.56	1	17.15	0.44	1	13.89
	C-ABD	Stonecross South	0.03	0	4.47	0.02	0	4.58
	2030 Baseline + Development							
1	B-C	Stonecross – A1081 South	1.05	28	152.65	1.01	19	111.29
	B-A	Stonecross – A1081 North	0.00	0	0.00	0.00	0	0.00
	C-AB	A1081 South	0.82	5	21.77	0.80	4	19.37
2	B-AC	B651 Avenue Road – A1081	1.02	14	167.21	1.13	28	272.19
	C-AB	A1081 North	0.00	0	0.00	0.00	0	0.00
3	B-ACD	Avenue Road	1.43	41	499.47	3.09	65	2079.93
	A-BCD	Stonecross North	0.91	14	55.16	1.12	59	237.68
	D-ABC	B651 Avenue Road	0.59	1	19.25	0.46	1	14.85
	C-ABD	Stonecross South	0.03	0	4.43	0.03	0	4.64
	2030 Baseline + Development 'Do Something' Scenario							
1	B-C	Stonecross – A1081 South	1.02	20	119.60	1.00	17	102.75
	B-A	Stonecross – A1081 North	0.00	0	0.00	0.00	0	0.00
	C-AB	A1081 South	0.81	5	20.67	0.79	4	18.62

Junction	Arm	Arm Name	AM Peak			PM Peak		
			RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2	B-AC	B651 Avenue Road – A1081	1.01	13	371.16	2.52	56	1011.31
	C-AB	A1081 North	0.00	0	0.00	0.00	0	0.00
3	B-ACD	Avenue Road	1.27	31	371.16	2.52	56	1011.31
	A-BCD	Stonecross North	0.87	11	41.85	1.11	55	223.29
	D-ABC	B651 Avenue Road	0.59	1	18.64	0.45	1	14.63
	C-ABD	Stonecross South	0.03	0	4.42	0.03	0	4.63

9.22.2. Table 53 demonstrates that in the base scenario in the AM peak, the junction operates within its theoretical capacity with a maximum RFC of 0.94 recorded on the Avenue Road arm. In the PM peak, the junction is anticipated to currently operate in excess of its theoretical capacity, with a maximum RFC of 1.18 anticipated on the Avenue Road arm in the PM peak period, resulting in an 18 vehicle queue and 265 second delay. The operation of this junction is anticipated to worsen in the future year scenario, operating in excess of capacity in both peak periods, but particularly in the PM peak period.

9.22.3. It is generally acknowledged in Junctions 11 that once RFC's exceed 1.0, the queue and delay are exceptionally compounded. With the addition of the proposed development, the junction is expected to continue to operate in excess of its theoretical capacity, with the queues and delay exceptionally compounded. Notably the development traffic will only result in a 3-5% increase in traffic at the junction, which is considered to be within the day to day variation of traffic.

9.22.4. It is therefore evident that the junction will continue to operate in excess of its theoretical capacity in the future year scenarios with and without the addition of the proposed development traffic, however the level of impact demonstrated in the results is not considered to be realistic. In reality, the development is anticipated to have a maximum 5% increase in traffic in the AM peak periods, with a 3% increase in the PM peak periods and therefore the realistic impact of the development is considered to be minimal.

9.23. Summary

9.23.1. In accordance with discussions with HCC, the development proposals involve a package of mitigation focussed on sustainable transport improvements rather than improving highway capacity which would be counter to policy objectives which focus on a modal shift to active travel modes and public transport.

9.23.2. The proposed mitigation coupled with the existing infrastructure, are considered to suitably accommodate the proposed increases in pedestrian, cycle and public transport trips to and from the site.

9.23.3. As such, the proposals are not considered to have a material impact on the surrounding sustainable transport network, with the proposals having a betterment on the existing situation.

9.23.4. A number of junctions in the vicinity of the site have been assessed to determine the impact of the proposed development. These assessments have included existing junctions as well as the new proposed site access points. From these assessments, it can be concluded that:

- **Site Accesses:** Will operate within theoretical capacity in all future year scenarios with the addition of development traffic;
- Site Accesses: Will operate within theoretical capacity in all future year scenarios with the addition of development traffic;
- **Sandpit Lane / House Lane roundabout**: Will continue to operate within theoretical capacity in all future year scenarios with the addition of development traffic;

- **Sandpit Lane / Coopers Green Lane / Oaklands Lane roundabout**: Is anticipated to operate in excess of theoretical capacity in all future year scenarios with and without the addition of development traffic;
- **East Drive / Oaklands Lane junction**: Will continue to operate within theoretical capacity in all future year scenarios with the addition of development traffic;
- **South Drive / Hatfield Road junction**: Will continue to operate within theoretical capacity in all future year scenarios with the addition of development traffic. Increase in traffic flows at the junction falls below 5% and therefore impact on the junction is considered negligible;
- **Colney Heath Lane / Hatfield Road junction**: Will continue to operate within theoretical capacity in all future year scenarios with the addition of development traffic. Increase in traffic flows at the junction falls below 5% and therefore impact on the junction is considered negligible;
- **Oaklands Lane / A1057 / Station Road Roundabout**: Will continue to operate within theoretical capacity in all future year scenarios with the addition of development traffic. Increase in traffic flows at the junction falls below 5% and therefore impact on the junction is considered negligible;
- **Sandpit Lane / Marshalswick Lane / Beechwood Avenue Crossroads**: During the AM peak, two lanes are anticipated to exceed maximum capacity with the addition of development traffic. During the PM peak, the junction is anticipated to operate within its theoretical capacity;
- **King William IV junction**: Will continue to operate within theoretical capacity in all future year scenarios with the addition of development traffic. Increase in traffic flows at the junction falls below 5% and therefore impact on the junction is considered negligible;
- **Ancient Briton crossroads**: Increase in traffic flows at the junction falls below 5% and therefore impact on the junction is considered negligible;
- **Sandpit Lane / Stonecross / Sandridge Road Junction**: Is anticipated to operate in excess of theoretical capacity in all future year scenarios with and without the addition of development traffic;
- **A1081 / Stonecross / B651 Junction:** Anticipated to operate in excess of theoretical capacity in all future year scenarios with and without the addition of development traffic. Increase in traffic flows at the junction is a maximum of 5% and therefore impact on the junction is considered negligible.

9.23.5. The proposals impact has been assessed as a worst case, robust assessment and is not considered to severely impact the operation of the assessed junctions compared to the existing operations. This impact is considered to fall below the severe threshold outlined within the NPPF, with the package of mitigation measures anticipated to further offset this impact through sustainable travel enhancements. The focus on sustainable travel measures over highway capacity improvements fully accords with the LTP4 policies which prioritise access by walking, cycling and public transport and mitigation measures aimed at maximising the mode share by sustainable transport.

10. Mitigation

10.1. Context

10.1.1. This section describes the mitigation measures that will be implemented as part of the proposed development, subject to the tests within the NPPF.

10.2. Walking and Cycling Measures

10.2.1. The development proposals involve an extensive package of walking and cycling improvements, in accordance with SACDC's LCWIP and GTP. The mitigation measures have been discussed at length with HCC and the detailed design of the schemes have been developed in coordination with the LHA. The proposed mitigation measures have been discussed in greater detail below.

Internal Routes

- New active travel routes and connections are provided internally throughout the site, which will provide improved non-motorised users routes;
- The northern section of North Drive is proposed to be upgraded to provide a 6m wide route, with 3m of hardstanding and 3m of soft verge to accommodate equestrian use, in accordance with HCC's PMPDG requirements for a bridleway
- Provision of new 3m wide cycle route along western side of South Drive to upgrade and improve the existing Bridleway for cyclist use. A new dropped kerb crossing is proposed on South Drive for cyclists to continue on the eastern side on Hatfield Road, with the southern section of footway on South Drive widened to 3m wide;
- A new section of East Drive is proposed on the southern side of the existing route to provide a segregated shared cycle/footway from existing carriageway to upgrade and improve the existing Bridleway for pedestrian and cycle use.
- Drawings of the proposed mitigation scheme are attached at **Appendix M.**

Sandpit Lane

- New 3m wide shared cycle/footway on the southern side of Sandpit Lane, connecting with the existing infrastructure to the west within the neighbouring consented development. The shared cycle/footway will be provided adjacent to Sandpit Lane's carriageway to the west of the secondary access, with an alternative route offset to the south within the proposed development site to retain the existing vegetation along the carriageway, as provided for the neighbouring Oaklands Grange site;
- New toucan crossing across Sandpit Lane in the north-western corner of the development to connect with existing infrastructure on the northern side;
- Furthermore, the proposals will provide a contribution to upgrade the existing dropped kerb crossing on Sandpit Lane at North Drive to provide a Toucan crossing which will be delivered by HCC;
- Drawings of the proposed mitigation schemes are attached at **Appendix M**.

Oaklands Lane

- New 2m wide footway on western side of Oaklands Lane south of East Drive for 30m to connect to a new dropped kerb pedestrian crossing equipped with dropped kerbs and tactile paving across Oaklands Lane to connect with existing infrastructure on the eastern side;
- A drawing of the proposed mitigation scheme is attached at **Appendix M**.

Access to Alban Way

- Improvements to the existing access route to Alban Way via Colney Heath Lane and Hill End Lane are proposed to provide a safe and direct route to this key cycle route, as per the LCWIP and draft site allocation requirements;
- The proposals involve a new 3m wide cycle route along the western side of South Drive, with a new dropped kerb crossing for cyclists to continue on the eastern side on Hatfield Road;
- A new toucan crossing is proposed across Hatfield Road to the east of South Drive to provide a new cycle crossing, with all footways in this area widened to 3m;
- At the junction of Colney Heath Lane, the proposals involve narrowing the existing carriageway to provide a one lane approach and tightening the existing kerb radii to reduce the dominance of vehicles at the junction. This allows for widening the existing footways to 3m and reducing the crossing distance for pedestrians and cyclists;
- Along Colney Heath Road and Hill End Road, the proposals involve altering the existing highway layout to remove roundabouts and replacing these with priority T-junctions. These amendments will provide priority to cyclists over vehicles through removing potential conflict points, as well as installing traffic calming measures in the form of raised table junctions and speed humps to reduce vehicle speeds and improve the street scene for cyclists;
- A new parallel crossing is proposed at the access to Alban Way on Hill End Lane, equipped with dropped kerbs, tactile paving and a raised table;
- New street signs will be provided at key interchanges along with on-route cycle markings to direct cyclists to the Alban Way route and to /from the site and onward connections;
- A drawing of the proposed mitigation scheme is attached at **Appendix M**.

10.2.2. The impact of the proposed layout amendments to the Colney Heath Lane / Hatfield Road junction have been modelled using Junctions 11 to assess the residual impact on vehicular traffic. The results for the future year scenario with and without development are outlined below.

Table 54 – Junction Capacity Assessment: Junction 7 – Hatfield Road / Colney Heath Lane Junction Mitigation

Arm	Arm Name	AM Peak			PM Peak		
		RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2030 Baseline							
B-AC	Colney Health Lane – Hatfield Road	1.14	98	738.45	0.79	4	38.53
C-AB	Hatfield Road West	0.36	1	10.17	0.33	1	10.34
2030 Baseline + Development							
B-AC	Colney Health Lane – Hatfield Road	1.18	127	956.37	0.80	4	41.26
C-AB	Hatfield Road West	0.36	1	10.30	0.35	1	10.58

10.2.3. Table 54 demonstrates that the mitigation scheme is forecast to have a material impact on the operation of the junction with a resultant increase in queues and delays across the junction.

10.2.4. The proposed active travel scheme involves significant benefits for pedestrians and cyclists in terms of safety and convenience, with these users prioritised over the private car, in accordance with national and local guidance. The scheme has been designed in conjunction with HCC and therefore the active travel benefits are considered to outweigh the impacts on the junction operation.

Access to Jersey Lane

- Improvements to the existing access route to Jersey Lane via Sandpit Lane, Barnfield Road and Ardens Way are proposed to provide a safe and direct route to this key cycle route, as per the LCWIP and draft site allocation requirements;

- The improvements involve a new 3m wide shared cycle/footway within Oaklands Blossom and running adjacent to Sandpit Lane from the secondary site access to the existing infrastructure to the west at Oaklands Grange;
- The proposals involve a new 4m wide Toucan crossing on Sandpit Lane to access the existing infrastructure on the northern side
- Cyclists would continue on street along the 60m section of the Sandpit Lane service road to access the new proposed shared cycle/footway on the western side of Barnfield Road. A new parallel crossing is proposed on Barnfield Road to assist pedestrians and cyclists travelling to/from the west of Sandpit Lane;
- The route continues on Ardens Way via a new raised table crossing, with cyclists continuing on street along Ardens Way to access Jersey Lane;
- A new parallel crossing is proposed at the access to Jersey Lane, equipped with dropped kerbs, tactile paving and a raised table;
- New street signs will be provided at key interchanges along with on-route cycle markings to direct cyclists to the Jersey Lane route and to /from the site and onward connections;
- A drawing of the proposed mitigation scheme is attached at **Appendix M.**

Summary

10.2.5. As such, it is evident the proposals involve a comprehensive package of improvements for active travel, which will be a significant benefit for existing users and will encourage future end users of the development to travel sustainable to and from the site. The proposals have been discussed at length with HCC Highways and are in accordance with key requirements of the draft Local Plan, LCWIP and GTP.

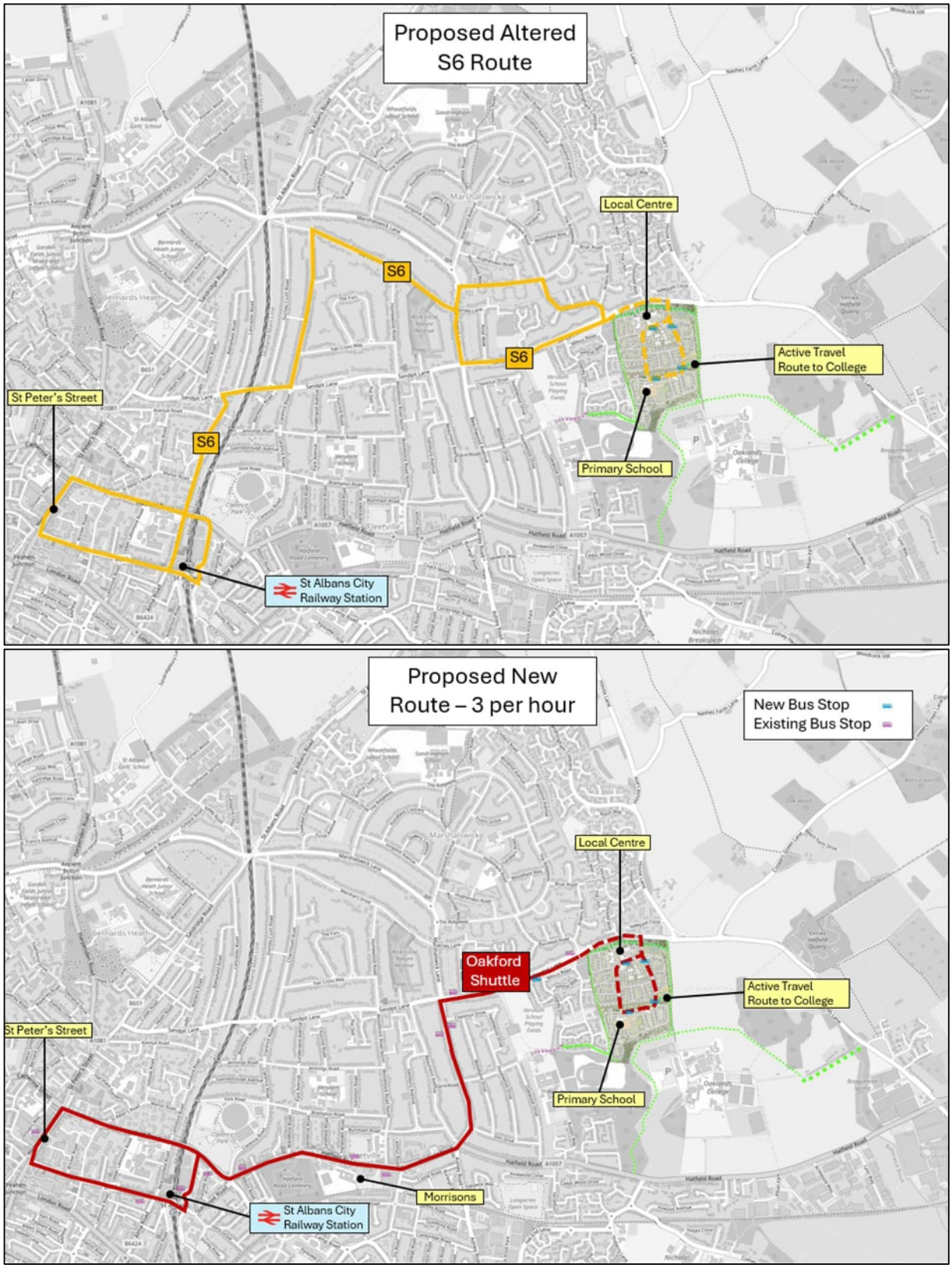
10.3. Public Transport Measures

10.3.1. In addition to the active travel improvements, the proposals involve a package of public transport mitigation measures.

10.3.2. The proposals incorporate a bus improvement scheme for Oaklands Blossom. The residential internal layout has been designed to accommodate bus access for the spine road loop, with the intention for the proposals to accommodate a bus route to/from St Albans City Centre. Bus stops will be provided throughout the site to ensure all future end users of the site have access to bus services within a 400m distance, as referred within the 'Bus Services & New Residential Developments' guidance (January 2025). These stops will be provided with seating, shelter and real-time information.

10.3.3. The internal loop road route for buses has been designed with a minimum clear carriageway width of 6.5m wide with the whole route designed to permit two buses to pass in opposing directions, in accordance with the above guidance. The development will provide a public transport contribution to HCC to fund a diverted/extended route or a new route. The potential routing options are shown below.

Figure 28 – Proposed Potential Bus Route Options



10.3.4. The proposals involve improvements to the existing bus stops on Hatfield Road, which serve Oaklands College. The proposals involve shifting the westbound bus stop to the east of Colney Heath Lane, the removal of the eastbound bus layby and subsequent widening of the existing footway to provide

enhanced waiting facilities and areas for bus users. In addition, both stops will be provided with shelter and real-time information to improve further improve the facilities. A drawing of the proposed mitigation scheme is attached at **Appendix M**.

10.4. Other Mitigation Measures

10.4.1. Other mitigation measures involve:

- Implementation of a Travel Plan to encourage sustainable modes of transport;
- Dwellings designed for flexible working and work from home, encouraging virtual mobility and online shopping to reduce the need to travel. Potential on-site delivery lockers for ease of use for residents and to reduce on-site delivery vehicle traffic;
- Electric car and cycle charging on-site to reduce carbon emissions generated by future end users;
- Potential mobility hub at Oaklands Blossom, including car club, bus stop, cycle parking, potential parcel lockers, etc;
- Potential reduction of speed limit on Sandpit Lane to 30mph to reduce vehicle speeds and increase attractiveness of the route for pedestrians and cyclists.

10.5. Travel Plans

10.5.1. Travel Plans (TP) have become an important tool for the delivery of national, regional and local transport policy and commonly play an integral aspect within the planning process, fulfilling a role in encouraging more sustainable development. A Residential Travel Plan has been produced by Evoke to be submitted with the application, alongside an updated Travel Plan for Oaklands College and a Framework Travel Plan for the Primary School, as requested within the pre-application conversations with HCC.

10.5.2. TPs are a strategy for managing multi-modal access to a site or development, focusing on promoting and incentivising access by sustainable modes. A successful TP will provide a choice of travel options and encourage more sustainable ones.

10.5.3. The TP sets out how a range of measures would be introduced at the development to actively encourage future end users to use sustainable modes of travel. The overarching objectives which underpin the Travel Plan are to:

- Reduce the traffic generated by the development to a lower level than would normally be predicted without the implementation of a TP, in order to further increase the benefits along the local highway network;
- Encourage those travelling to and from the development to use public transport, cycle or walk in a safe and secure manner; and
- Promote healthy lifestyles and sustainable, vibrant local communities.

10.5.4. The approach and measures set out in the TP accord with national, regional and local Government objectives and seek to:

- Achieve further reductions in traffic on surrounding roads;
- Promote equal opportunities to future end users by offering wider travel choices;
- Develop places for people that encourage community interaction and avoid a car-dominated environment;
- Reduce the cost of personal travel and saving household's money through promoting opportunities for cost savings such as car-sharing;
- Improve personal and wider community health; and
- Reduce air and noise pollution.

10.5.5. Information for residents of Oaklands Blossom would be prepared prior to the sales of properties and sales/marketing staff will be encouraged to promote sustainable travel and sell the TP aspect of the development to potential buyers. Before residents have started to occupy the development, a Travel Plan Coordinator (TPC) will be in place and henceforth will work alongside any emerging residents' group. The Travel Plans will bring forward an array of measures to encourage sustainable travel together with financial commitments. The Travel Plan will be secured via a Condition and a financial sum will be provided to HCC for their monitoring of the TP via a S106.

10.6. Construction Traffic Management Plan (CTMP)

10.6.1. Indicative information on the proposed construction traffic management has been provided in Section 4.15, however key aspects will need to be agreed with SACDC and HCC in advance of construction works being carried out and once a contractor is on board. As such, it is considered that a CTMP is not required at application stage and can be conditioned as part of any planning approval.

10.7. Summary

10.7.1. It is evident that the proposals involve an extensive and comprehensive package of improvement schemes to mitigate the impact of the development. These measures have prioritised sustainable modes of transport over the private car, in accordance with national and local planning policy and guidance. It is therefore concluded that the proposals would not have an unacceptable impact on highway safety, or a severe residual cumulative impact on the road network following mitigation and taking into account all reasonable future scenarios and therefore the development should not be prevented or refused on highways grounds, in accordance with Paragraph 116 of the NPPF.

11. Summary

11.1. Context

11.1.1. Evoke Transport Planning Consultants Limited (Evoke) has been commissioned by Taylor Wimpey North Thames and Oaklands College to produce a Transport Assessment (TA) to support a hybrid planning application for the mixed-use residential-led development comprising up to 472 residential dwellings, a children's home, local centre, construction of new buildings and facilities within Oaklands College, up to 70 extra care homes and a primary school, on land to the north-east of St Albans between Sandpit Lane and Hatfield Road.

11.1.2. The application site forms a draft allocation for a mixed-use residential-led development within the Draft St Albans City District Council Local Plan. To support the potential allocation, the site was tested as part of the Transport Impact Assessment which concluded that the impacts from the development can be mitigated to a degree that is acceptable regarding the NPPF test of 'severe' regarding congestion and safety and that there are 'no showstoppers'. Given the proposals involve the same quantum of development that was assessed within the allocation, it is considered that the conclusions are still valid and the development can be accommodated on the local transport network.

11.1.3. The development scheme has been designed and developed following discussions and formal scoping with HCC Highways and National Highways. In particular, involves prioritising sustainable transport movements, in accordance with HCC's Transport User Hierarchy, whilst ensuring that all vehicles anticipated to access the site can do safely.

11.2. Vision

11.2.1. The overriding principle of the indicative masterplan is to create a neighbourhood that contains high quality landscaping, including green open spaces and play spaces, in addition to strategic planting to soften the visual impact of the internal road network and built up areas. The proposals will provide safe and suitable vehicular access, however active travel routes and permeability for pedestrians and cyclists has been prioritised at the core of the development, including connections to both formal active travel routes in addition to leisure routes in accordance with HCC's transport user hierarchy.

11.2.2. The proposals involve a comprehensive package of improvements schemes prioritising active travel and public transport over the private car. These improvements involve new active travel routes within the site and enhancing and improving routes and connections to existing infrastructure, as per the draft site allocation, LCWIP and GTP.

11.2.3. Vehicular access to Oaklands Blossom is proposed to be achieved from two new access points off Sandpit Lane. The access points have been designed in accordance with MfS, DMRB and HCC's PMPDG and have been demonstrated to suitably accommodate the development vehicular flows, as well as ensuring pedestrians and cyclists are fully accommodated. In accordance with the NPPF, the site ensures that a safe, suitable and satisfactory access for the quantum of the development can be achieved. As such the development would not result in an unacceptable impact on highway safety or a severe impact on the surrounding highway network.

11.3. Site Accessibility

11.3.1. The site is well located in relation to a number of established services and amenities within St Albans which accommodate the daily needs of future end users within walking and cycling distance of the site. Further to this, for those trips that cannot be undertaken on foot or by cycle, the site is served by frequent bus services which provide suitable options for travel for leisure and commuting and can form part of a sustainable multi-modal trip. In addition, St Albans Railway Station is accessible by cycle and

by bus providing additional opportunities for travel by sustainable modes to a greater number of destinations.

11.3.2. This report has demonstrated the site is located in a sustainable edge of town location, with a detailed assessment of how people of all abilities will be able to move around the site, including an assessment of existing walking and cycling infrastructure, public transport accessibility and condition of the local highway network.

11.3.3. In addition, it has been outlined how the proposed mitigation measures prioritising sustainable modes of transport will further enhance the accessibility credentials of the site and improve connections for existing and future end users.

11.3.4. A review of PIA incidents indicates that no incidents have occurred on the road from which access to the site will be taken, and the incidents which have occurred nearby are not considered to represent a trend in data.

11.4. Oaklands Blossom Detailed Element

11.4.1. The detailed element of Oaklands Blossom comprises 167 residential dwellings, a 4-bed children's home and a new local centre.

11.4.2. The internal layout with regards to vehicular, pedestrian and cycle access, delivery and servicing arrangements and car and cycle parking provision has been assessed, and it is considered that the detailed element has been suitably designed in accordance with SACDC and HCC's requirements.

11.5. Oaklands College Detailed Element

11.5.1. The detailed aspect of the Oaklands College development comprises demolition works and renovation of existing buildings as well as the construction of new buildings education facilities in various zones.

11.5.2. The internal layout with regards to vehicular, pedestrian and cycle access, delivery and servicing arrangements and car and cycle parking provision has been assessed, and it is considered that the detailed element has been suitably designed in accordance with SACDC and HCC's requirements.

11.6. Trip Generation

11.6.1. A trip generation assessment was undertaken for each aspect of the development using the TRICS database, in accordance with HCC's pre-application comments. Two scenarios have been developed for the trip generation for the proposals, in accordance with national guidance that requires vision-led transport planning and for developments to assess various trip generation scenarios, moving away from the traditional 'decide and provide' approach and instead utilising the 'predict and provide' approach. The following scenarios were undertaken:

- Scenario 1: With Development (Plausible) – this assumes the development is implemented as proposed with limited further interventions or mitigation delivered to enhance sustainable travel;
- Scenario 2: With Development (Preferred) – this assumes the development is implemented as proposed but that further measures are implemented, primarily through a comprehensive travel plan to support sustainable travel to and from the Site.

11.6.2. Scenario One is anticipated to produce a total of 1,330 two-way person trips during the AM peak period, of which 455 would be undertaken by private car, 432 on-foot and 403 by public transport. During the PM peak period, a total of 1,037 person trips are anticipated, including 362 by private car, 367 by public transport and 250 on-foot.

11.6.3. Scenario Two demonstrates the potential reduced trip generation for the site that could occur as a result of the mitigation improvements proposed and the implementation of the Residential Travel Plan. It is noted that through the various Framework Travel Plans provided for the other land uses, it will be possible to influence travel to the other land uses including for example employees on site and adjacent to the Site and existing residents of Oaklands Grange, which will further help lower the number of car trips to/from the area.

11.7. Development Impact

11.7.1. It is considered that the existing and future pedestrian and cycle infrastructure within and surrounding the site can suitably accommodate the proposed increase in pedestrian and cycle movements from the development. It is therefore concluded that the proposed development would have a betterment on the existing active travel network through the provision of significant improvements to infrastructure in the vicinity of the site.

11.7.2. The proposed public transport improvements will enhance and improve access to public transport for Oaklands Blossom and Oaklands College and will suitably accommodate the additional demand for public transport generated by the proposals.

11.7.3. Within the Draft SACDC Local Plan Transport Impact Assessment, Appendix 1 outlines the modelling results for the draft allocation (Site B4). The Comet Model Forecast shows that traffic impacts generated from the site and cumulative traffic in the area can be mitigated to a degree that can be acceptable regarding the NPPF test of 'severe' regarding congestion and safety. Overall there are 'no showstoppers'. Further information regarding the proposed assessment for the development impact is included below.

11.7.4. 13 junctions were assessed as part of this TA, with 10 of the junctions predicted to continue operating within their theoretical capacity in all future year scenarios and with the addition of development traffic. Three of these junctions are anticipated to operate in excess of their capacity in the future year scenarios with the addition of the development, with the development anticipated to result in a negative impact in the operation of these junctions.

11.7.5. Nevertheless, the development mitigation is centred and focused on prioritising sustainable modes of transport, in accordance with national and local guidance. The proposals involve a comprehensive package of mitigation measures to improve travel on foot, by cycle and by public transport to access key destinations from the site, including St Albans city centre. The proposed mitigation is therefore considered to suitably mitigate the impact of the development, and therefore the proposals are not considered to result in a severe impact as outlined within the NPPF.

11.8. Mitigation

11.8.1. The proposals involve an extensive and comprehensive package of improvement schemes to mitigate the impact of the development. These measures have prioritised sustainable modes of transport over the private car, in accordance with national and local planning policy and guidance, and are in accordance with the key improvements identified within the draft site allocation and the LCWIP and GTP.

11.8.2. It is therefore concluded that the proposals would not have an unacceptable impact on highway safety, or a severe residual cumulative impact on the road network following mitigation and taking into account all reasonable future scenarios and therefore the development should not be prevented or refused on highways grounds, in accordance with Paragraph 116 of the NPPF.

11.9. Policy Compliance

11.9.1. As demonstrated throughout this report, the proposed development has been designed in accordance with the relevant national and local planning policy and design guidance. A summary of compliance has been outlined below:

National Planning Policy

- Paragraph 118: Application has been supported by a vision-led Transport Assessment and Travel Plan to assess the likely impacts of the proposal;
- Paragraph 115: The development proposals ensure that safe and suitable access to the site can be achieved for all users, with sustainable transport modes prioritised taking account of the vision for the site;
- Paragraph 116: This TA has demonstrated that the proposed development would not have an unacceptable impact on highway safety, or a severe residual impact on the road network, following mitigation and taking into account all reasonable future scenarios;

Manual for Streets and MfS2 and DMRB

- The proposed access arrangements and internal road network has been designed in accordance with the key principles within the MfS and DMRB documents;

Hertfordshire Local Transport Plan 4

- Policy 1 Transport User hierarchy: The proposals support opportunities for reducing the need to travel through providing a local centre on site with key amenities reducing the need for residents to travel outside of the site. In addition, the proposals involve a package of mitigation which focus on prioritising active travel and public transport.

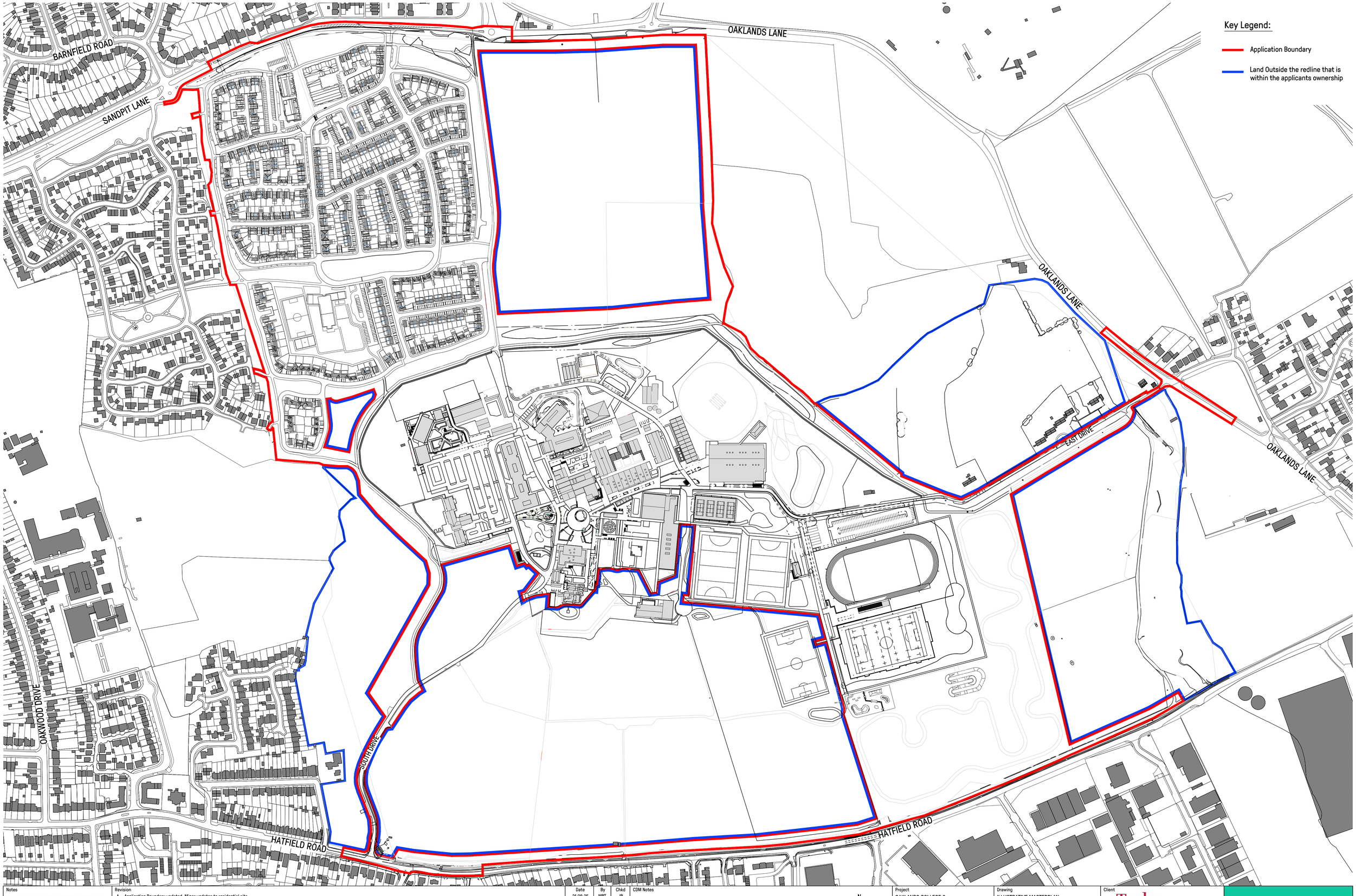
SACDC's Draft Local Plan (2041)

- Draft Allocation Site B4: The proposals involve all key requirements outlined within the draft allocation, with proposals including key improvements to improve and enhance the sustainability of the site.
- Appendix One: The detailed elements of the proposed development will provide car, cycle and electric vehicle charging provision in accordance with SACDC's guidance.

11.10. Conclusions

11.10.1. With the site having been designed in accordance with both local and national guidance and being located in a sustainable and accessible location the development the residual trips will not have a 'severe' or unacceptable highway safety impact on the network as set out in NPPF. The site is compliant with local policy.

Appendix A – Proposed Masterplan



Notes

— Copyright in this drawing remains the property of BM3 Architecture Limited.

— Contractors and consultants are to advise BM3 Architecture Limited of any discrepancies.

Revision

A - Application Boundary updated. Minor updates to residential site.
B - Minor updates to residential site.
C - Minor updates to College Site.
D - Minor updates to Residential Site (B4, Oaklands Blossom).

Date	By	Chkd
21.08.25	MBT	JB
04.09.25	MBT	JB
10.09.25	MBT	JB
01.10.25	MBT	JB

CDM Notes

0m 50m 100m 150m 200m 250m
1:2500 Scale Bar

N

Project: OAKLANDS COLLEGE & OAKLANDS BLOSSOM ST. ALBANS

Drawing: ILLUSTRATIVE MASTERPLAN

Client: Taylor Wimpey

Scale	Dated	Job No.	Drawing No.	Drawn by	Checked	CiSfb Element	Revision
1:2500@A1	10-25	72223	D-150	MBT	JB	PLANNING	D

BM3

Y:\Dwgs\72223 - Sandpit Lane, St Albans\01 WIP\02 CAD\10 DETAILED PLANNING\Proposed Site Layout_Outline area_Rev K.dwg plotted on 01.10.2025 by Monica Tanaka

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