Proposed Residential Development
Land at Downlands Farm, Uckfield

Transport Assessment

For

Gleeson Land

motion

Document Control Sheet

Proposed Residential Development

Land at Downlands Farm, Uckfield

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1.0 Introduction

1.1 This Transport Assessment has been prepared to accompany a planning application by Gleeson Land (the Applicant) for development of land at Downlands Farm, Uckfield (the site) with 424 dwellings.

1.2 The site is located to the north-west of Uckfield and east of the A22 and lies within the administration boundaries of Wealden District Council (WDC) and East Sussex County Council (ESCC).

1.3 The hybrid application proposals (the proposed development) comprise:

- Outline Application (with all matters reserved except for access) for the erection of up to 424 residential dwellings including affordable housing, the provision of vehicular, pedestrian and cycle access and separate emergency access from the Uckfield Bypass (A22), pedestrian and cycle access from Snatts Road, open spaces including children's play space, sustainable urban drainage systems, associated landscaping, infrastructure and earthworks; and
- Full Application comprising creation of a Strategic SANG (suitable alternative natural green space), associated landscaping and car parking, and demolition of existing residential property and other buildings and provision of pedestrian and cycle access from Rocks Road, associated landscaping, infrastructure and earthworks.

1.4 Vehicle access to site will be taken from a new access to the A22 via a conventional roundabout arrangement. This access will also provide pedestrian and cycle access to the development, along with two further points of pedestrian/cycle access to Rocks Road and Snatts Road.

1.5 Pre-application liaison with ESCC as local highway authority commenced in 2020 on the application proposals and content of this Transport Assessment. Pre-application discussions have also been held with WDC as local planning authority.

1.6 This Transport Assessment has been prepared having regard to advice received at pre-application stage as well as relevant national and local transport/highway guidance, such as 'Transport Assessments, Transport Statements and Transport Reports: Guidance for Development Proposals in East Sussex' (October 2009). The report considers the highways and transport matters associated with the proposed development and, in particular, the effect of the proposed development on the highway network local to the site. The Transport Assessment should be read in conjunction with the Framework Travel Plan, submitted as part of the application. In summary, this report demonstrates:

- The proposals accord with national and local policies relevant to transport;
- A review of personal injury accident information has identified no significant issues associated with the local highway network that are detrimental to the existing standard of road safety;
- There are a range of services and facilities within circa 2 kilometres of the site, including employment, education, health and leisure amenities as well as Uckfield town centre.
- Safe and suitable vehicular access to the site can be achieved from the A22 in accordance with relevant design guidance;
- Pedestrian and cycle links are provided to connect the site to existing networks to ensure safe and suitable access for active travel;
- Appropriate provision can be made for car parking, including for disabled persons and electric vehicles, having regard to ESCC's parking calculator;
- Each residential dwelling will benefit from secure cycle parking provided in accordance with local guidance and secured by planning condition;
- The proposals include appropriate access for servicing and delivery vehicles;

- A package of measures to support and encourage more sustainable forms of travel are included as part of the proposals and a Framework Travel Plan has been submitted as part of the application;
- The proposed development is estimated to result in circa 225 vehicle movements during the weekday morning and afternoon peak hours;
- An assessment of a number of junctions during peak hours using modelling software, demonstrates that these junctions will continue to operate within capacity following implementation of the proposed development. On this basis, it is considered the proposals will not interfere with the operation of the adjoining highway network; and
- The assessment also considers the cumulative impact of three further development proposals and demonstrates that all but two of the assessed junctions are able to support the additional traffic generated by these schemes. Mitigation works may be required to support all four developments, should they all be approved. Illustrative mitigation schemes have been presented which can be delivered within the adopted public highway.

1.7 Following this introduction, the remainder of this report comprises the following:

- **Section 2** – outlines the transport planning policies that are considered to be relevant to the application;
- **Section 3** – provides information on the site and surrounding area, including a review of the local highway network, accessibility of the site by all modes of transport and road safety;
- **Section 4** – sets out the application proposals, including details of the proposed access, parking and servicing arrangements;
- **Section 5** – outlines to sustainable transport strategy of the proposed development;
- **Section 6** – presents the anticipated trip generation and methodology upon which this is based;
- **Section 7** – considers the potential impact of traffic on the local highway network, based on the results of junction modelling; and
- **Section 8** – summarises the key findings and conclusions of this report.

2.0 Policy Context

Overview

2.1 There are a number of documents that contain planning policies relevant to transport. The key policy documents that set the context for the development proposals include:

- National Planning Policy Framework – July 2021;
- National Planning Practice Guidance – March 2014;
- East Sussex Local Transport Plan 2011-2026 – June 2011;
- East Sussex Local Cycling Walking Infrastructure Plan 2021-2031 – September 2021;
- Wealden Core Strategy Local Plan – February 2013;
- Saved policies of the Wealden Local Plan – December 1998; and
- Emerging Wealden Local Plan 'Direction of Travel Consultation' – November 2020.

National Policy

2.2 The National Planning Policy Framework (NPPF) was first published in July 2018 and updated in February 2019 (with additional amendments to relating to on-shore oil and gas exploration in May 2019). The NPPF was further revised in July 2021.

2.3 The document sets out a presumption in favour of sustainable development that recognises the importance of transport policies in facilitating sustainable development. It also indicates that planning decisions should have regard to local circumstances.

2.4 Paragraph 104 states:

"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

a) The potential impacts of development on transport networks can be addressed;

b) Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;

c) Opportunities to promote walking, cycling and public transport use are identified and pursued;

d) The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects and for net environmental gains; and

e) Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."

2.5 With regard to car parking, the NPPF does not refer to maximum or minimum standards for new development, and instead promotes a flexible approach to car parking provision having regard to the accessibility of a development by non-car modes, local car ownership and the need to ensure adequate provision for 'plug-in' and other ultra-low emission vehicles. Paragraph 108 states:

"Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport."

2.6 Paragraph 110 of the NPPF states that:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) Safe and suitable access to the site can be achieved for all users; and

c) 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."

2.7 Paragraph 111 continues to state:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impact on the road network would be severe."

2.8 The NPPF also outlines that Transport Assessments and Travel Plans are necessary where development will generate significant amounts of movement. Planning Practice Guidance, which supplements policy outlined in the NPPF, provides further information on Transport Assessments and Travel Plans, recognising that these documents,

"…can positively contribute to:

- *Encouraging sustainable travel;*
- *Lessening traffic generation and its detrimental impacts;*
- *Reducing carbon emissions and climate impacts;*
- *Creating accessible, connected, inclusive communities;*
- *Improving health outcomes and quality of life;*
- *Improving road safety; and*
- *Reducing the need for new development to increase existing road capacity or provide new roads."*

Local Policy

East Sussex County

2.9 The East Sussex Local Transport Plan is in its third iteration and outlines the priorities for planning the County's transport infrastructure and services to support sustainable economic growth and to guide investment in the period 2011 to 2026. The approach for Uckfield states:

"We will deliver housing development and sustainable economic growth in Uckfield by:

- *investigating and advising on potential town centre traffic improvement options to accommodate the additional traffic from committed and planned development in Uckfield, without prejudicing the future reinstatement of the Uckfield to Lewes rail line,*
- *investigating transport measures associated with future development which reduce the levels of background pollution that could be damaging to human and environmental health,*

- *focusing on improvements to and safety of key walking and cycling routes to reduce community severance and provide access to schools, local facilities, employment, health facilities, open space, train station and the town centre,*
- *focusing on measures which improve access to bus stops on key routes in the town, in particular the Brighton – Lewes – Uckfield – Tunbridge Wells service, in and around the town centre and to the hospital,*
- *continuing support and lobbying for electrification, dual tracking, and in the short term, increased capacity on the Uckfield line,*
- *continuing to support and lobby for the reinstatement of the Uckfield to Lewes railway line, and the Eridge to Tunbridge Wells railway line, as part of wider rail capacity improvements in the county, and*
- *working with our partners including public transport providers, Job Centres and GP consortia to deliver actions which improve accessibility to key facilities in the town".*

2.10 In October 2020 ESCC opened a consultation on its Local Cycling Walking Infrastructure Plan (LCWIP). The document identified route improvement works for key settlements in the county to support more active travel by walking and cycling and outlined priorities for funding. Appendix 5I of the consultation included a document prepared by Sustrans in June 2018, which provided a detailed audit of key pedestrian and cycle links to local amenities around Uckfield and identified enhancement works along these routes to support existing and future communities. The 'proposed cycle network' plan for Uckfield contained within the final version of the LCWIP (September 2021) summarises these routes. Further reference to the Sustrans review is made in section 3 of this report.

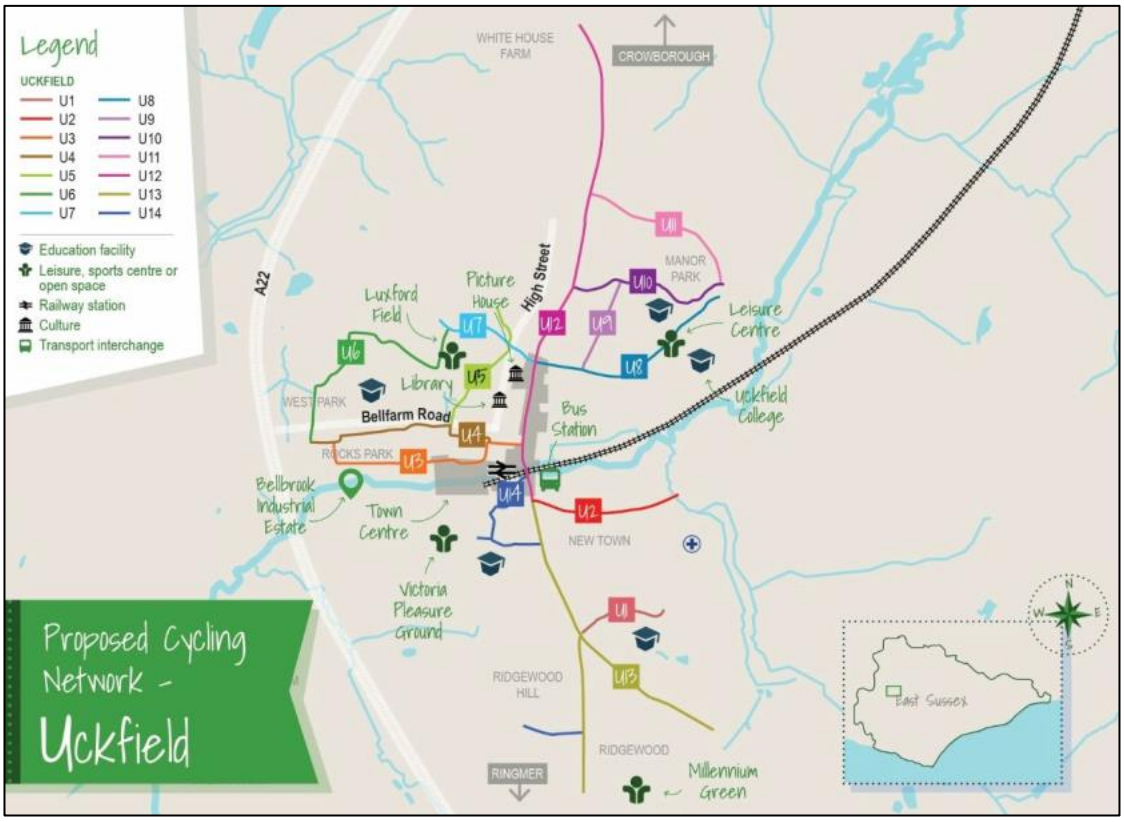


Figure 2.1 - Extract of East Sussex LCWIP, September 2021 (Source: Figure 11 Uckfield Proposed Cycle Network)

Wealden District

Overview

2.11 Local planning policy is provided by the adopted core strategy and saved policies of the 1998 Local Plan. A new Local Plan for Wealden is at an early stage of preparation and a Direction of Travel consultation commenced in November 2020. Once adopted, the new Local Plan will replace the current policies outlined in the 1998 Plan and core strategy.

Adopted Policy

2.12 The adopted policies of relevance to the site in respect of transport and highways include:

- Core Strategy Policy WCS7 – Effective Delivery of Infrastructure: *"The release of land for development will be conditional upon there being sufficient capacity in the existing local infrastructure to meet the requirements generated by the proposed development. Where development would create the need to provide additional or improved community facilities, services and infrastructure to mitigate its impact, a programme of delivery must be agreed with the relevant infrastructure providers which will ensure that these improvements are provided at the time they are needed"*;
- Core Strategy Policy WCS14 – Presumption in Favour of Sustainable Development: This policy indicates that the Council will adopt a positive approach when considering development proposals, in line with the presumption of sustainable development outlined in national policy;
- Saved Policy HG6 – Crime Prevention: The design and layout of large residential development should have regard to crime prevention, such as street lighting, security of property, surveillance of access roads, footpaths and amenity space, parking areas and landscaping;
- Saved Policy TR2 – Environment and Landscape Impact: "In considering detailed road proposals, the Council will seek to ensure that the relevant highway authority undertakes measures to minimise the degree of visual and noise intrusion through sensitive overhead lighting where this is required, and appropriate landscaping, including earth mounding, contouring and planting";
- Saved Policy TR3 – Traffic Impact of New Development: Outlines a number of criteria to be met for planning applications to be permitted, including provision of satisfactory access for vehicles, cycle and pedestrians; development proposals not creating or exacerbating unacceptable traffic conditions, and provision of appropriate public transport facilities, where appropriate;
- Saved Policy TR9 – Traffic Management: Where appropriate and necessary, provision of traffic calming measures will be sought for new housing proposals;
- Saved Policy TR11 – Cycling: Major development should provide secure and covered cycle parking;
- Saved Policy TR12 – Cycling: Indicates that the Cycling Strategy for East Sussex will be considered in dealing with proposals for development;
- Saved Policy TR13 – Footpaths & Bridleways: Safe and convenient pedestrian routes that connect to existing footpath networks (where appropriate) will be sought in proposals for new development;
- Saved Policy TR16 – Car Parking Standards in New Development: On-site vehicle parking and servicing will be required in accordance within Appendix 6 of the Local Plan;
- Saved Policy CS4 – Recycling: Residential developments of more that 40 dwellings should include provision for containment of recycling facilities, accessed directly of the main estate road, with safe and convenient access.

2.13 Uckfield is identified in the core strategy as a District Centre:

"An accessible settlement by road and public transport containing a range of shops, employment opportunities and facilities including secondary school. Not reliant upon other centres within the District to meet day to day needs, but required support from other secondary or primary centres to meet the needs of the residents."

Emerging Policy

2.14 As identified above, a new Local Plan is currently under preparation. The new Local Plan is at an early stage of preparation and the 2020 consultation sought views on several topics related to the built and natural environment as well as issues such as tackling climate change, infrastructure to support growth and design. A summary of the direction of travel policy options upon which views were sought related to transport matters include:

- Tackling climate change:
  - Encouraging active and sustainable transport to improve air quality and reduce carbon emissions including the provision of walking and cycling infrastructure within major developments and implementing parking standards for development;
- Infrastructure to support growth:
  - To help create sustainable communities and reduce the need to travel by private motor vehicle, planning policies will support development by ensuring the right infrastructure is provided in sustainable locations at the appropriate time;
  - Planning policies will seek to direct new development allocations to sustainable locations and to be designed to support sustainable modes of transport, as well as provide suitable vehicular accesses and parking;
- Health and well-being:
  - Ensure the location of new housing development is situated on land and in areas accessible to employment, services and facilities (including healthcare and community), public transport, open space, walking and cycling routes in order to create walkable neighbourhoods;
  - Provide policies that support and encourage active travel choices including walking, cycling and public transport. Ensure that distances needed to travel to access recreational facilities and open space are minimal and that access to these is via walking and/or cycling;
  - Consider opportunities to design in safe and accessible walking and cycling networks to developments. This could help support and encourage the proportion of residents who walk and cycle in the District. This could have beneficial impacts on health, obesity, reducing emissions and sustainable transport.

2.15 The Direction of Travel document also set out a number of options for growth, such as focused growth and large extensions to existing settlements, semi-dispersed growth to existing sustainable settlements and larger villages, dispersed growth and new settlements. Given the emerging Local Plan is at an early stage (with the Regulation 18 consultation currently scheduled for spring 2022), the proposals subject of this report are considered against the adopted policies of the core strategy and saved policies of the 1998 Local Plan.

Parking

2.16 In relation to saved policy TR16, parking standards for new development in the District are outlined within guidance published by ESCC, 'Guidance for Parking at New Development' (October 2017). In relation to residential developments, car parking provision is established with reference to a parking calculator.

2.17 The calculation tool applies Census data to predict parking demand based on site-specific information, such as the site location, as well as information on the nature of the proposals (e.g. type and size of dwellings and type of parking proposed, for example). The tool should be used as a guide to establish parking provision for vehicles, although some flexibility (+/- 5%) is permitted in determining actual provision, although this should be supported by appropriate justification. In addition, provision should also be made for cycle and blue badge parking, as well as for charging electric vehicles. The table below summarises provision in respect of these:

Type of Parking	Standard
Cycle	Houses: 2 spaces per unit
Electric Vehicle Charging	Provision at all properties with off-street parking
Blue Badge	To be provided in accordance with guidance contained in Manual for Streets
Powered Two-Wheelers	

Table 2.1 – Summary of East Sussex Parking Guidance (October 2017)

2.18 In relation to blue badge and provision for motorcycles, Manual for Streets (MfS) states:

"In the absence of any specific local policies, it is recommended that 5% of residential car-parking spaces are designated for use by disabled people. Ahigher percentage is likely to be necessary where there are proportionally more older residents. Local authorities should provide spaces on the basis of demand." (paragraph 8.3.26)

"*In planning for private residential parking, in most situations motorcycles will be able to use car parking spaces, but in some situations it will be appropriate to provide designated motorcycle parking areas, particularly:*

- *Where there is a high density of development and where car parking is likely to be intensively used; and*
- *Where demand for motorcycle parking is expected to be significant."* (paragraph 8.4.6)

Summary

2.19 On the basis of the above policy review, it is evident that development should support objectives to reduce the need to travel and minimise the distances involved, particularly by private car. Proposals should include safe means of access as well as measures to mitigate the negative impacts of development. The policies outline that appropriate provision should be made for facilitating access by more sustainable forms of travel by providing connections to existing networks and parking appropriate to the location of the site and surrounding conditions.

2.20 The next section of this report outlines the existing/baseline conditions surrounding the site, against which to consider the policies outlined in this section, e.g. relating to accessibility and traffic conditions. The development proposals are described in section 4 and a sustainable transport strategy is outlined in section 5. An assessment of trip attraction is outlined in section 6, with consideration of the impact of the proposals on the local highway network set out in section 7.

3.0 Baseline Conditions

Overview

3.1 This section sets the context for the application proposals, providing information on the application site and surrounding area in respect of accessibility to more sustainable forms of travel and local amenities, baseline traffic conditions and road safety.

The Site & Surrounding Area

3.2 The site is located to the north-west of Uckfield and east of the A22 within the administration boundary of Wealden District Council (WDC) and East Sussex County Council (ESCC). The site in relation to the local area is illustrated on the location plan below.

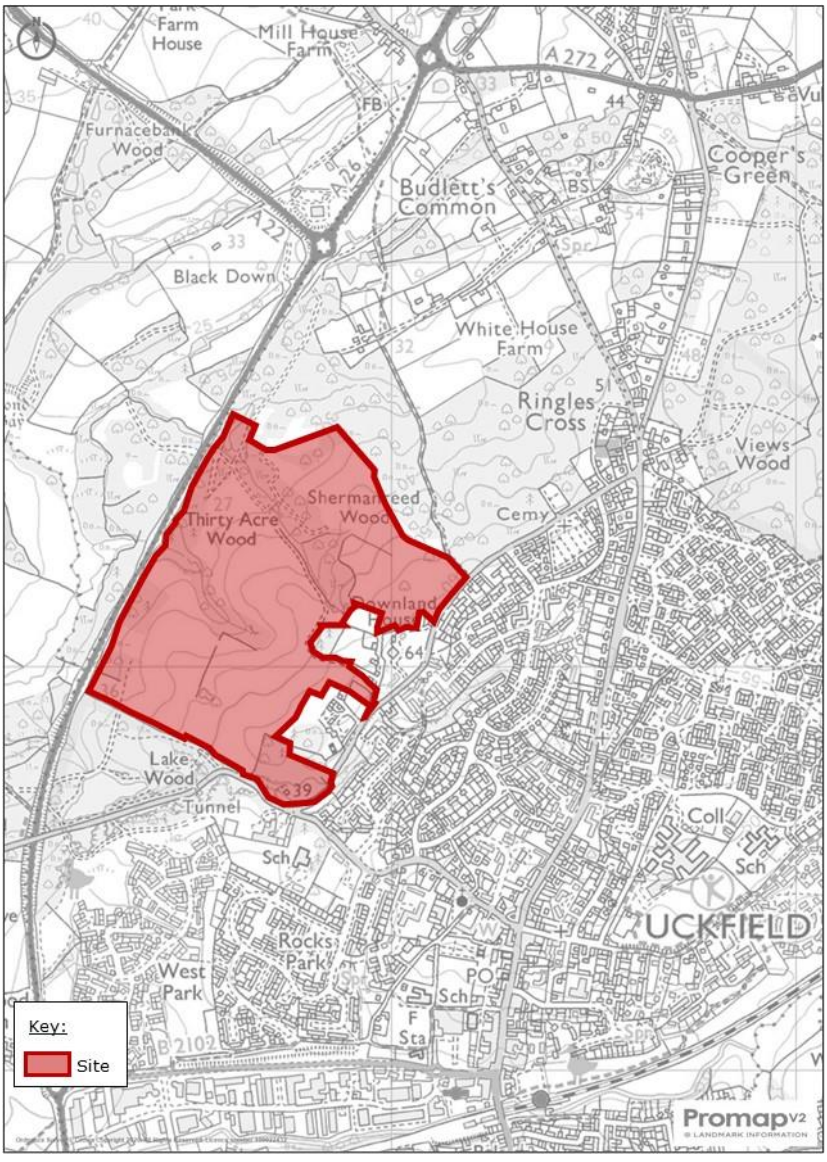


Figure 3.1 - Site Location Plan

3.3 Land to the south-east of the site is characterised by existing residential development, within the built-up area of Uckfield. There is an existing nature reserve (around Lake Wood) located to the south-west, with a residential area beyond and the A22 adjoins the site to the west.

Planning Background

3.4 An application for development of land at Downlands Farm with approximately 750 dwellings including a neighbourhood centre, employment and community uses as well as a primary school, was refused in November 2006 (planning reference: WD/2006/2855/MEA). In respect of highway/transport matters, the cited reasons for refusals included:

- *The proposals does not satisfactorily demonstrate that adequate provision will be made to facilitate walking and cycling and reduce dependency on the private car* (reason 4);
- *The proposals does not satisfactorily demonstrate that there would be an acceptable impact on the surrounding highway network, particularly in Uckfield town centre which is already heavily congested at peak times* (reason 5); and
- *The applicant has failed to demonstrate to the satisfaction of the district planning authority that the proper provision and delivery of the necessary infrastructure improvements can be secured to meet the additional needs arising from the proposed development* (reason 6);

3.5 The application was subject of a conjoined public inquiry with two other sites (known as Bird In Eye North and Bird In Eye South), all of which were dismissed in November 2008. The decision was subsequently considered by the Secretary of State in February 2009, who agreed with the original Inspector's decision to dismiss the appeals.

3.6 The main access to the site was originally proposed via Black Down roundabout (A22/A26 junction). However, it is understood this was rejected due to the impact on ancient woodland. The position of the main vehicular access was amended during the appeal process, with the proposed access positioned approximately 1 kilometre to the south of Black Down roundabout.

3.7 In terms of the appeal decision, the Inspector's report identifies ESCC objection to the principle of a new roundabout on the A22 (para 773). However, the Inspector agreed with the appellants, "*that there is no clear-cut policy objection derived either from nation or local policy, which would in principle prelude such a junction*". The Inspector further comments that the A22 is not a trunk road or motorway, or part of a properly defined strategic route.

3.8 An emergency/bus only and pedestrian/cycle access was proposed from Snatts Road. The proposals also included provision of pedestrian/cycle link along Snatts Road/Rocks Road/Church Street, known as the 'Snatts Road Link' as well as a cycle link along the A22/Bellfarm Road into the town. The issue considered at Inquiry appears to focus on the deliverability of the Snatts Road Link (in terms of land control and the impact on ancient woodland), as well as general unsuitability of other existing routes to the town centre. In terms of the cycle link along the A22/Bellfarm Road, this was considered to be long and indirect.

Highway Network

3.9 The A22 adjoins the site to the west and provides a bypass around Uckfield to the west and south. The section of the A22 between the Black Down and Copwood roundabouts is single lane carriageway in each direction and subject of the national speed limit (60 miles per hour, mph). The A22 provides connections between Croydon and the M25 to the north to Eastbourne to the south-east.

3.10 At Batts Bridge roundabout (in the vicinity of Ashdown Business Park), the A22 connects with the A272, which leads south-west towards Newick and west onto Haywards Heath. The A22 leads north to connect with the A26 at Black Down roundabout. The A26 leads north-east from the Black Down roundabout towards Crowborough and Tunbridge Wells.

3.11 The site in relation to the wider highway network is shown on the map below.

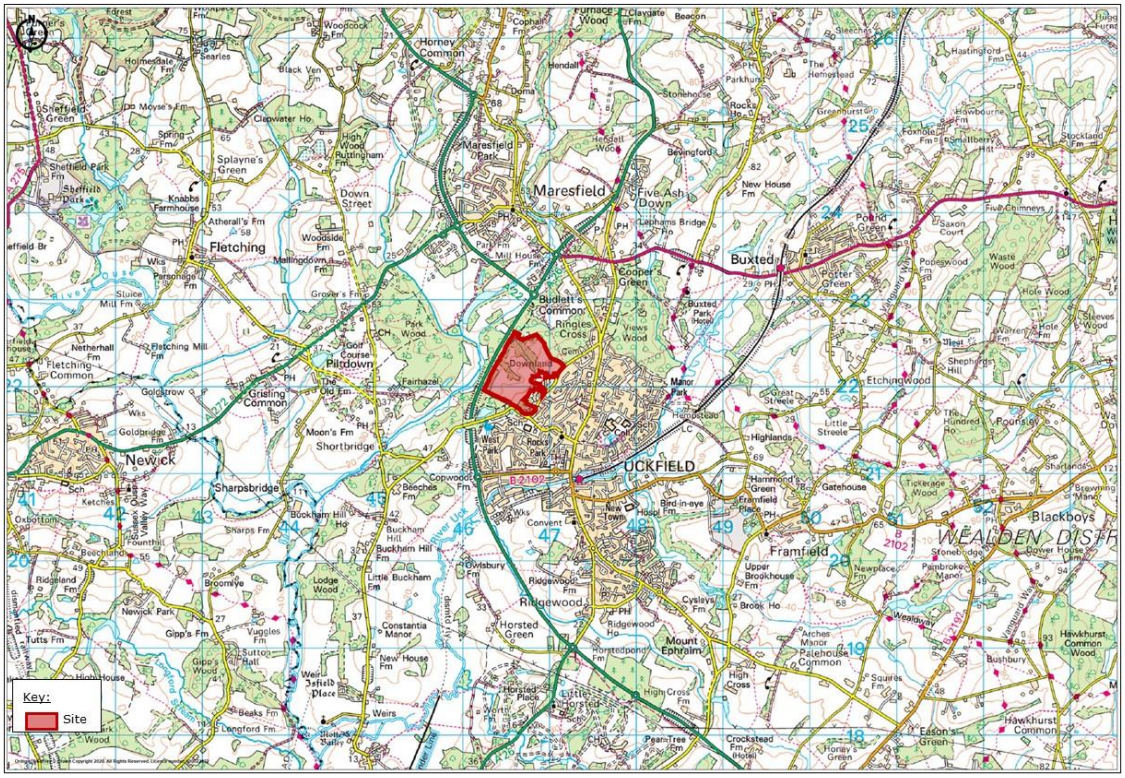


Figure 3.2 - Site Location in relation to the Wider Highway Network

3.12 Snatts Road is located to the south-east of the site and runs between London Road and Rocks Road. The northern section of the road is subject of a 30 mph speed limit, which increases to the national speed limit close to the site and beyond towards Rocks Road.

3.13 London Road leads south from Budletts roundabout towards Uckfield High Street. The road is subject to a 40 mph speed limit in the vicinity of Snatts Road, which reduces to 30 mph towards the town. Rocks Road, which leads south-east towards the town centre, is subject to a 7.5 tonne weight restriction and 60 mph speed limit in the vicinity of Snatts Road. The speed limit reduces to 30 mph on the approach to the built-up area and the road becomes Church Street into Uckfield.

Traffic Flows

3.14 When assessing the impacts of a development, such as that proposed, it is generally accepted that the critical periods in terms of traffic impact are the weekday morning (07:00-10:00) and evening (16:00-19:00) periods. It is during these periods that traffic flows associated with a development of this type, and those on the adjacent highway network are likely to be at their greatest. In this regard, it is considered that the focus of the traffic impact assessments associated with the proposals should be during these time periods. Base traffic flow data has been obtained from the Uckfield Saturn Model for a number of junctions including, Copwood, Black Down, Budletts, Batts Bridge and Little Horsted roundabouts, through discussion with ESCC and WDC. The Saturn model is considered necessary by ESCC to assess the cumulative impact of this and other nearby development proposals. Further information on this data and traffic modelling is outlined in section 6.

Committed Development

3.15 Section 6 of this report outlines the methodology applied to assess the impact of development, which is considered in section 7. To ensure an assessment of cumulative impact is completed, this assessment takes account of relevant committed development in the area. Please refer to section 6 for additional information on the sites included as 'committed'.

Road Safety Review

Overview

3.16 To consider the existing standard of road safety on the local highway network in the vicinity of the site, personal injury accident (PIA) information was obtained from Sussex Safer Road Partnership (SSRP) for the 5-year period ending 31st March 2022. The study area included the residential estate to the south east of the site including Rocks Road, the A22 between the Copwood roundabout and the Budletts roundabout, London Road between Church Road and the Budletts roundabout and the B2102 Bellfarm Road, as illustrated on the plan in **Appendix A**.

3.17 The information received from SSRP identified a total of 44 incidents within the study area, during the defined period. In terms of severity, 31 of these incidents were classified as slight, 12 were classified as serious and there was one incident resulting in a fatality. The following paragraphs provide a summary of the recorded incidents that occurred within the major corridors/junctions surrounding the site and the residential estate to the south east.

Residential Estate and Rocks Road

3.18 Five incidents were recorded within the residential estate to the south-east of the site and one incident was recorded on Rocks Road. Three incidents (two classified as slight and one serious) occurred on Manor Way. Of the incidents classified as slight, the first occurred following a young child running into the path of a moving vehicle from an alleyway and the second involved a delivery vehicle colliding with a car that had its door open. The serious incident, which occurred in daylight with dry conditions, involved a child running across the road between parked vehicles and into the path of an oncoming car.

3.19 A further slight incident involving a goods vehicle occurred at the junction of Snatts Road with Claremont Rise, where the vehicle was traveling down Claremont Rise and the brakes failed. A serious incident occurred along The Drive near the junction with Cambridge Way where a passenger fell whilst getting into a taxi.

3.20 The incident on Rocks Road, classified as serious in severity and taking place in light and wet/damp conditions, involved a collision following a domestic incident in the vehicle.

A22 between Copwood roundabout and including Budletts roundabout

3.21 A total of 11 incidents occurred along the A22 between Copwood Roundabout and Budletts Roundabout. One incident resulted in a fatality, one resulted in serious injury and the remaining 9 incidents resulted in slight injuries. Two of these incidents occurred close to Budletts roundabout, one at Blackdown roundabout and the remaining on the A22 between Blackdown roundabout and Copwood roundabout (see summary under Bellfarm Road for incidents recorded at Copwood roundabout). A further two slight incidents occurred on Maresfield bypass, east of the Blackdown roundabout.

3.22 The causation factors cited in association with the incidents classified as slight in severity along the A22 typically related to human/driver error, including for example sudden braking, inexperienced driver, loss of control, distraction, careless/reckless driving, fatigue, travelling too fast for conditions or too close, failing to judge another vehicles path or speed or look properly. A couple of incidents referenced a slippery road surface (due to weather) or rain, sleet, snow of fog as a potential causation factor. None of the recorded incidents involved vulnerable road users.

3.23 The serious incident occurred in daylight hours and dry conditions just south of the Budletts roundabout involved a bucket falling off a goods vehicle and hitting a motorcycle travelling in the opposite. The incident resulting in a fatality occurred at Black Down roundabout (junction of A22 with the A26) in dark (streetlights) and dry conditions and involved a car travelling northbound along the A22 entering the roundabout going off the road (for unknown reasons) and into trees. The cited causation factors were identified as careless/reckless/in a hurry, poor turn or manoeuvre, fatigue and impaired by alcohol.

London Road/High Street between Budletts roundabout and Church Street

3.24 A total of 9 incidents were identified along London Road/High Street between Budletts roundabout and Church Street. Six of the incidents were classed as slight with three resulting in serious injury. A few incidents were clustered at junctions along the corridor, which is not uncommon.

3.25 Four incidents were clustered on London Road around Ringles Cross/Snatts Road (two classified as slight in severity and two as serious). Two of these incidents relate to turning movements at the nearby junctions as a result of drivers failing to judge the path or speed of other vehicles, or failing to look properly, with one incident involving a vehicle crossing into the opposing carriageway for unknown reasons and another entering into the path of a motorcycle.

3.26 Two incidents were recorded close to the London Road junction with Browns Lane, including a car pulling out of the junction into the path of the cyclist (classified as slight) and another where a vehicle exited Browns Lane without giving way (classified as serious).

3.27 The remaining incidents, involved vehicles pulling out into the path of another vehicle, one close to Budletts roundabout between two cars and a second on the High Street involving a car and a motorcycle. The final incident occurred on London Road close to North Row following a child running out in front of a car. These incidents were classified as slight in severity.

B2102 Bellfarm Road including Copwood roundabout and junction with High Street

3.28 A total of 16 incidents were recorded along the B2102 Bellfarm Road between Copwood roundabout and the junction with the High Street. Five of the incidents resulted in serious injury and the remaining incidents were classified as slight in severity.

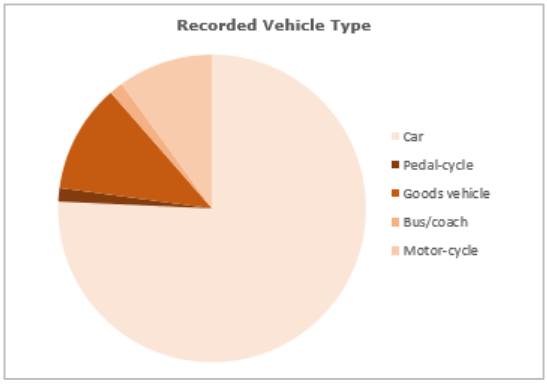
3.29 Three slight incidents occurred close to the Copwood roundabout involving two vehicles colliding on the roundabout, a car hitting the concrete island and then shunting into the rear of another stationary vehicle and the third where a vehicle entered the roundabout and lost control colliding with a barrier on the opposite side of the road. Two further slight incidents were related to turning movements at the junction with Brookside, both involving goods vehicles.

3.30 At the eastern end of this corridor, a further four incidents occurred in the vicinity of the superstore/Bell Lane junction, including a pedestrian (child) entering the path of a car (slight severity), a collision between a car and a motorcycle at the entry/exit of Bell Lane Industrial Estate (serious severity), a car travelling right of a 'keep left' sign onto the roundabout (slight severity) and an incident involving aggressive driving resulting in serious injury. A further incident resulting in slight injury occurred a short distance to the east of this junction and involved a rear-end shunt.

3.31 Five personal injury accidents occurred on the High Street in the vicinity of the junctions with the B1202 and River Way. Three serious incidents were recorded clustered near the B1202 junction with the High Street, two relating to pedestrians crossing against traffic light control, with the third involving a pedestrian intentionally entering the road. Two incidents occurred north of River Way, both classified as slight in severity. The first involved a rear-end shunt after a vehicle stopped to let pedestrians cross the road and the second occurred after a pedestrian crossed the road without looking and was struck by a car. Both incidents occurred in daylight and dry conditions.

Incidents based on Vehicle Type

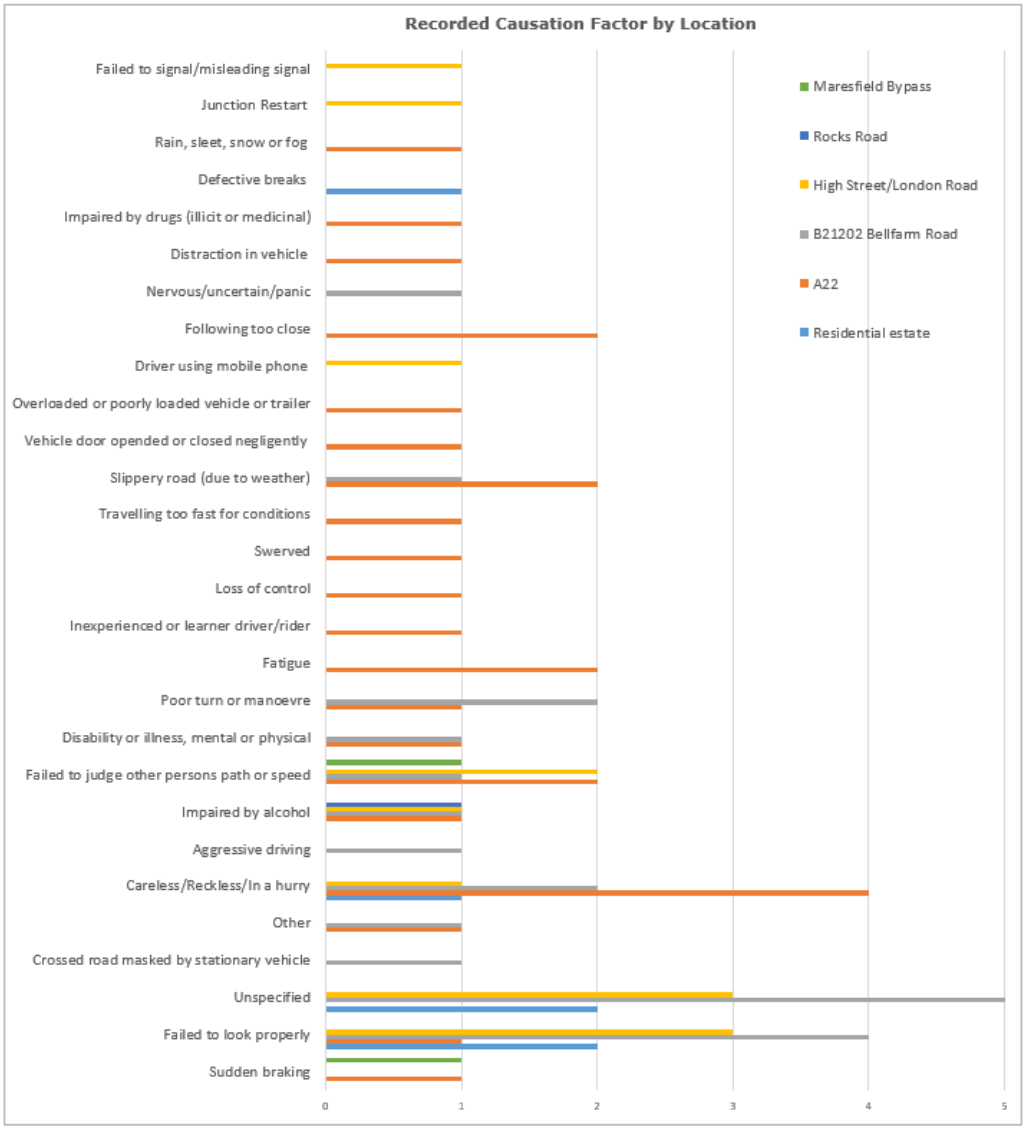
3.32 The types of vehicles involved in the incidents is shown in the graph below. It should be noted that more than one vehicle is typically involved in each incident.



Graph 3.1 – Summary of Recorded Vehicle Types

Incidents based on Causation Factors

3.33 The graph below summarises the causation factors cited for the recorded PIAs by location, as described above. It should be noted that more than one factor can be identified for each incident.



Graph 3.2 – Summary of Recorded Causation Factors by Location

Road Safety Summary

3.34 On the basis of the information received from SSRP, it appears that the incidents summarised in this section occurred typically as a result of driver/human error rather than defects associated with the highway. As indicated above, it is not uncommon from accidents to be clustered at junctions. It is therefore considered that there are no significant safety issues associated with the local highway network that contribute to the identified incidents, which are detrimental to the standards of road safety.

Access by Sustainable Transport

Overview

3.35 It is generally accepted that walking and cycling provide important alternatives to the private car and should also be encouraged to form part of longer journeys via public transport. The Chartered Institution of Highways and Transportation (CIHT) has prepared several guidance documents that provide advice with respect to the provision of sustainable travel in conjunction with new developments. Within these documents it is suggested that:

- Most people will walk to a destination that is less than one mile (circa 1.6 kilometres) - Planning for Walking, 2015;
- The bicycle is a potential mode of transport for all journeys under five miles (circa 8 kilometres) - Planning for Cycling, 2015; and,
- Walking distances to bus stops should not exceed 400 metres, whilst people are prepared to walk twice as far to rail stations - Planning for Walking, 2015.

3.36 The Department for Transport's 'Manual for Streets' (MfS, March 2007) identifies 'walkable neighbourhoods' as being "characterised by having a range of facilities within 10 minutes (up to about 800 metres) walking distance of residential area which residents may access comfortably on foot". However, MfS does not consider 800 metres to be a maximum walking distance and the publication contends that walking can be used to access a variety of destinations within a range of up to 2 kilometres.

3.37 The following paragraphs outline the existing opportunities to travel to the site via more sustainable forms of transport, including on-foot, by cycle and public transport. It is recognised that existing provision is limited reflecting the undeveloped nature of the site. A sustainable transport strategy has been developed to support the application proposals, which includes provision of new pedestrian and cycle connections as well as a community bus service. These are further described in section 5.

Walking & Cycling

3.38 The maps below illustrate the existing walking (25 minutes/approximate 2 kilometre) and cycling (5 kilometre) catchment of the site.

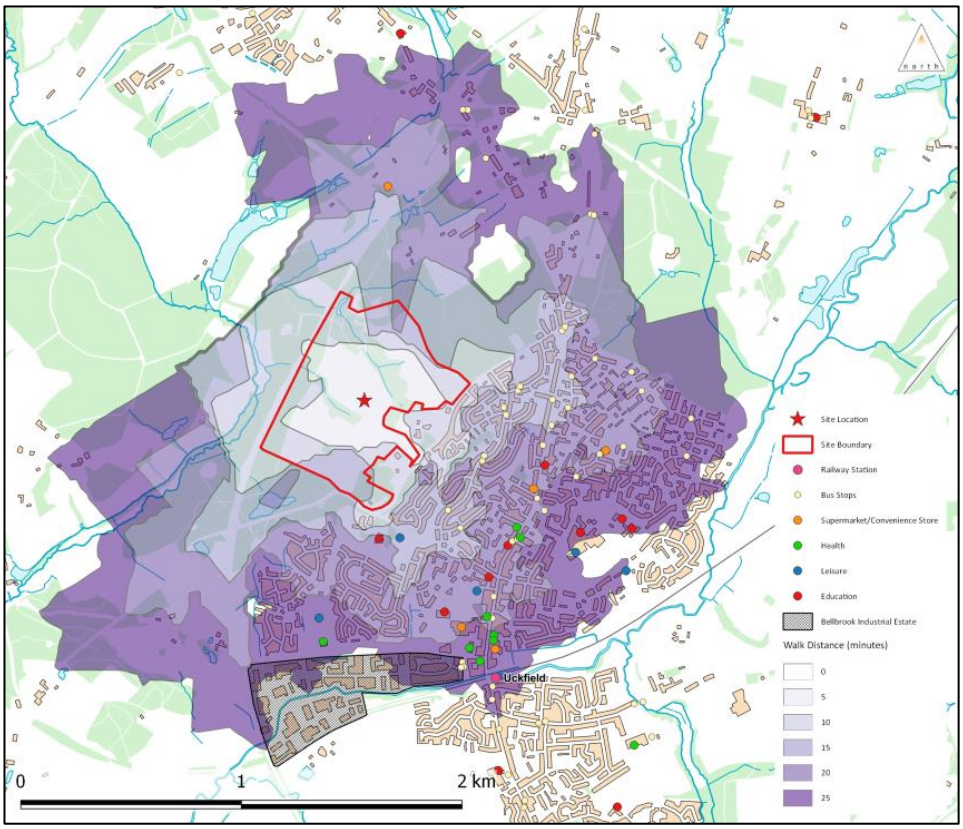


Figure 3.3 - Walk Isochrones

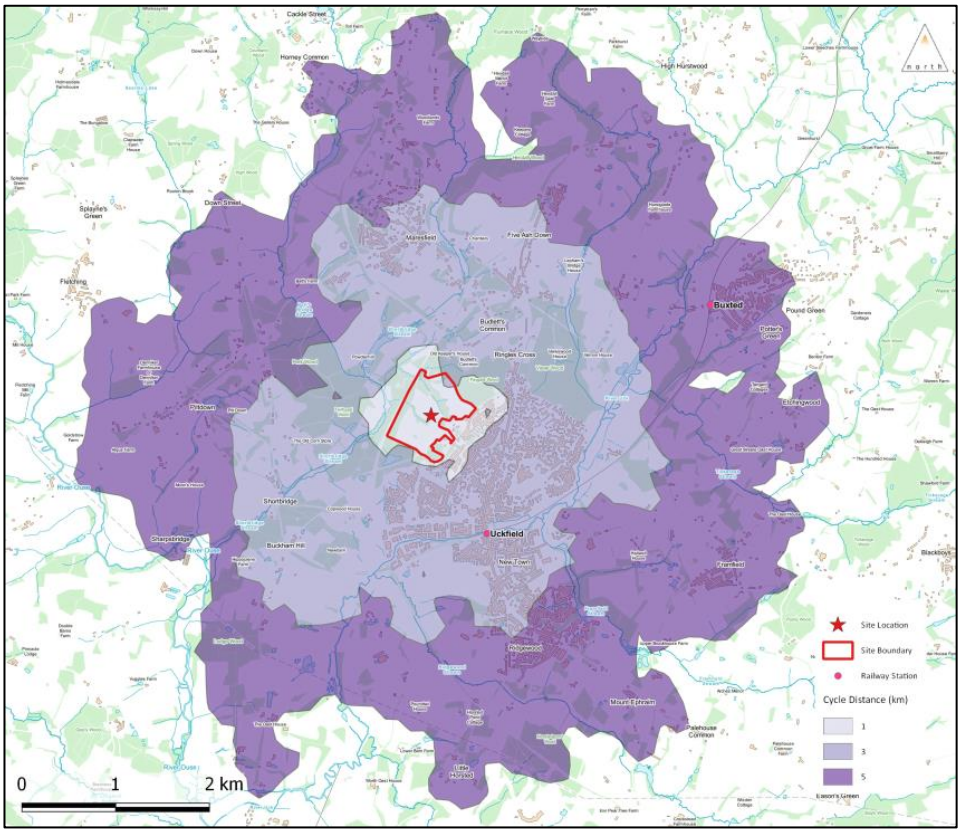


Figure 3.4 - Cycle Isochrones

3.39 To consider the quality of existing pedestrian and cycle routes between the site and core amenities within 2 kilometres, a non-motorised user (NMU) audit was completed. The key desire lines for pedestrians and cyclists are considered to be between the site and Uckfield town centre and railway station to the south, as well as other employment, educational, health and recreational/leisure amenities. As such, the audit reviewed several routes between the site and the town centre, railway station, Bellbrook Industrial Estate and Meads Medical Centre and Uckfield College and Leisure Centre. This NMU audit is included in **Appendix B**.

3.40 The audit has also been used to develop the sustainable transport strategy (section 5) in terms of provision of new and improvements to existing pedestrian and cycle routes to existing local services and facilities to ensure continuous pedestrian and cycle routes are provided. Any suggested enhancement works have been made in reference to the Uckfield LCWIP introduced in section 2.

3.41 There are also a number of public rights of way (PRoW) in the vicinity of the site, including:

- Footpath (Uckfield 1) running along the eastern boundary/through the site between Snatts Road and the A22 and continuing north towards Maresfield (Maresfield 66a, 67a, 72 80); and
- Footpath (Uckfield 3a/b) between Downland Copse and The Drive (considered in the NMU audit).

3.42 There are further recreational routes to the south of the site in the vicinity of Lake Wood and West Park Nature Reserve, managed by The Woodland Trust.

3.43 There are no existing cycle routes within the immediate vicinity of the site and so cyclists would likely use the existing road network, although it is acknowledged that the topography of routes to the east include a general downhill gradient towards the town. The roads to the west and south (namely the A22 and Bellfarm Road) are generally flat. There is a shared pedestrian/cycle route along a section of Bellfarm Road, and advance stop lines at the Church Road junction with the High Street in the town centre. The town centre is also subject to a 20 mph speed limit, which provides a slower speed environment.

Bus

3.44 The nearest bus stops to the site are located within the residential area to the south-east of the site, shown on **Figure 3.3**. These stops are circa 650 metres 'as the crow flies' from the centre of the site and approximately 1 kilometre by existing pedestrian routes described earlier in this section (as well as new links into/through the site). Stops within the residential estate include simple flag and post stops with timetable information. Additional stops are available on London Road, close to the junction with Snatts Road (known as 'Ringles Cross'). London Road bus stops are provided with timetable information, the southbound stop includes a bus shelter and seating, whilst the northbound stop is provided with a bench. The stops through the residential estate are served by route 248/249, with a greater number of services available from the London Road stops. Local bus services available at these stops are summarised in the table below, based on information available online (ESCC, Traveline and bus operator websites).

Service	Destinations Served	Approximate Frequency		
		Monday - Friday	Saturday	Sunday
28/29	Brighton – Lewes – Uckfield – Crowborough – Tunbridge Wells	Hourly	Hourly	Hourly
31/31A	Uckfield – Newick – North Chailey – Haywards Heath – Cuckfield	Every 1-2 hours	Every 2 hours	No service
121	Lewes - Newick	One outbound, one inbound service	No Service	No Service
246	Uckfield – Maresfiled - Chelwood Gate – Sheffield Park – Fletching – Uckfield	One service each direction on Thursdays	No Service	No service
248	Uckfield – Buxted – Hadlow Down	Two services each direction (not Tuesday/Thursday)	No Service	No service
249	Uckfield – Buxted – Crowborough		No Service	No service
261	Uckfield – East Grinstead	Every 2 hours	No Service	No service
262	Hartfield – Nutley – Uckfield – Heathfield	No Service	Every 2 hours (daytime)	No service

Table 3.1 – Local Bus Services

3.45 Only one bus service (29X) travels along the A22 and stops at Uckfield bus station, providing connections between Brighton and Tunbridge Wells. However, the route operates a limited frequency (one Brighton-bound service in the morning and one Tunbridge Wells-bound service in the evening on weekdays, with the evening service also operating on Saturdays).

Rail

3.46 The nearest railway station to the site is located in the town centre (Uckfield), approximately 1.6 kilometres to the south-east of the site via Rocks Road/Church Street or Rocks Road/Rocks Park Road (including the proposed routes through the site). The location of the railway station in relation to the site is shown on **Figure 3.3** and **3.4**.

3.47 The station forms part of the Southern network and benefits from regular services to London Bridge and Oxted, as well as East Croydon, Crowborough and Edenbridge. The station benefits from 20 cycle parking spaces to the front and rear of the ticket office and chargeable parking. The table below summarises rail services available from Uckfield station.

Service	Destinations	Approximate Frequency		
		Morning Peak	Afternoon Peak	Daytime
London Bridge	Uckfield – Buxted – Crowborough – Eridge – Ashurst (Kent) – Codwen (Kent) – Hever – Edenbridge Town – Hurst Green – Oxted – East Croydon – London Bridge	Hourly	Hourly	Hourly

Table 3.2 – Local Rail Services

Census Data

3.48 In order to assess the relative attractiveness of the sustainable modes of transport that the site has access to, the 2011 Census associated with residents living in the Output Layer E00107814, which incorporates the application site, has been interrogated. Information is also provided for the adjacent output area covering Ringles Cross (Output Layer E00107812). The data extracted from the 2011 Census is summarised in the table below and provided in **Appendix C**.

Mode	Output Layer E00107814 (the site)	Output Layer E00107812 (Ringles Cross)	Wealden District
Underground, metro, light rail, tram	0%	0%	0%
Train	2%	6%	8%
Bus, minibus or coach	2%	3%	2%
Taxi	0%	0%	0%
Motorcycle, scooter or moped	0%	1%	1%
Car/van driver	81%	77%	74%
Car/van passenger	9%	3%	5%
Bicycle	0%	2%	1%
On foot	5%	8%	8%
Other	0%	0%	1%
TOTAL	**100%**	**100%**	**100%**

Table 3.3 – Method of Travel to Work Data (2011 Census)

3.49 The table above indicates the predominant mode of travelling to work amongst existing residents is the private car. It is noticeable that circa 18% of people travel to work via sustainable modes of transport (i.e. public transport, car sharing, walking and cycling). The proportions for those travelling to work by active and sustainable means are higher in the adjacent output area (22%), and the wider District (24%).

3.50 It is considered that the sustainable transportation options reviewed above provide existing residents of this area of Uckfield with the potential to travel to work in more sustainable ways. It is acknowledged that the share of travel by more sustainable modes is lower than for the District and adjacent output area, although this is to be expected given the site currently comprises largely undeveloped land.

Access to Local Amenities

3.51 The site is located within 1.1 kilometres of Uckfield town centre (via Rocks Road/Church Street), which provides a range of local services and facilities, including a selection of places to eat and drink, shops and banks.

3.52 The 'walk isochrones' plan (**Figure 3.3**) included earlier in this section identifies the proximity of the site to key local services, including education, shops, leisure and health facilities, for example as well as public transport (Uckfield railway station and nearby bus stops). Access to these amenities will be achieved for pedestrians and cyclists through provision of new routes through the site connecting to existing routes/networks, as described in section 5. The distances referenced below therefore include these new routes and are measured from the centre of the site.

3.53 The nearest medical centre is located off Bellfarm Road to the south (Meads Medical Centre) approximately 1.5 kilometres via Rocks Park Road/Bellfarm Road. Bellbrook Industrial Estate, providing further employment opportunities is located to the south of Bellfarm Road. There are also a number of schools within 2 kilometres of the site, including Rocks Park Primary (circa 1 kilometre), Holy Cross CE Primary (circa 1.1 kilometres), Manor Primary and Uckfield College (circa 1.8 kilometres). The college is a comprehensive school for children aged between 11 and 18. Uckfield Leisure Centre is located to the south of Uckfield College and includes a pool with sports pitches, hall and fitness studios.

3.54 In this regard, it is considered the site is well located with respect to proximity to a range of key services and facilities.

Summary

3.55 The information provided in this section identifies the existing opportunities to travel to the site on foot, by cycle and public transport. There are a range of amenities in Uckfield town centre and within 2 kilometres of the site. The quality of the existing pedestrian and cycle links to these amenities has been considered within a NMU audit. The sustainable transport strategy set out within section 5 of this report identifies the enhancements proposed to integrate the site with the surrounding area and provide suitable connections to existing nearby amenities to meet the objectives of national and local policy outlined in section 2 of this report.

3.56 A review of PIA information has identified no significant issues associated with the local highway network that are detrimental to the existing standard of road safety. The next section of this Transport Assessment outlines the development proposals subject of the application.

4.0 Proposed Development

Overview

4.1 The proposals that are the subject of the outline planning application consist of development of up to 424 dwellings (including circa 35% affordable units) on land at Downlands Farm, located to the north-west of Uckfield and east of the A22. Access to the site for vehicles is proposed from the A22, which also provides pedestrian and cycle links into the development. Further pedestrian and cycle links are proposed to Rocks Road and Snatts Road. The illustrative masterplan is included in **Appendix D**. Whilst the application is in outline form, the indicative schedule of development is summarised in the table below.

Unit Size	Private	Affordable	Total
1 bedroom apartment	28	74	102
2 bedroom apartment	26	38	64
2 bedroom house	80	16	96
3 bedroom house	98	15	113
4 bedroom house	28	5	33
5 bedroom house	16	0	16
TOTAL	**276**	**148**	**424**

Table 4.1 – Indicative Schedule of Development

4.2 A full planning application has also been submitted in relation to the proposed Suitable Alternative Natural Greenspace (SANG) provision associated with the residential development proposals.

4.3 The remainder of this section provides information on the pre-application discussions with the Highway Authority, along with further detail on the proposed access, parking and servicing arrangements having regard to the principles agreed at pre-application stage. Section 5 sets out more information on the proposed sustainable transport strategy.

Pre-Application Advice

4.4 The proposals have been subject to pre-application discussions with the District and County Councils, as the relevant local planning and highway authorities, from mid-2020. This Transport Assessment has been prepared having regard to advice received at pre-application stage and relevant guidance. The pre-application meetings and liaison have been a key part in developing the proposals for the site and ensuring the assessment of the proposals is appropriate in view of the current planning context.

4.5 In summary the following comments were made by ESCC at pre-application stage:

- A proposed roundabout off the A22 would to the most appropriate type of junctions to serve the proposed quantum of development and the position of the junction should consider the distance between other junctions and carriageway features;
- An emergency access to the A22 should include a left-in/left-out arrangement and central reservation to prevent opposing carriageway movements and acceleration/deceleration lanes;
- A sustainable transport strategy was suggested on the basis that the site is detached from the town and required non-motorised routes;
- A NMU audit should be prepared to identify strengths and weaknesses of existing routes to inform any off-site improvement works to encourage non-car journeys;

- Provision of a community bus service should consider suitable access arrangements, ongoing funding, provision of high quality, accessible waiting facilities and turning arrangements at termination points (e.g. the railway station). Also, any new bus service should be established before the 50th dwelling were occupied; and
- A Travel Plan would draw from the sustainable transport strategy and include realistic targets.

4.6 Further information on measures to encourage more sustainable forms of travel are set out in the next section of this Transport Assessment.

4.7 Finally, it was advised during pre-application discussions that the impact of the development on the A22/A26 corridor as well as Uckfield town centre should be modelled using the ESCC Saturn model. This approach is detailed further at Section 6 of this Transport Assessment.

Access Strategy

Overview

4.8 The proposed development will be served via a main roundabout access located off the A22 to the south-west corner of the site. The proposals also include an emergency access to the north of the new roundabout. Pedestrian and cycle access is proposed via the main site access, as well as to Rocks Road and Snatts Road. A new access to Snatts Road serving a small area of parking associated with the strategic SANG is also proposed. These access arrangements are described further below.

Site Access Roundabout

4.9 Access to the proposed development will be via creation of a new roundabout junction with the A22 located north of Lake Wood and approximately 1 kilometre to the north of Copwood roundabout and 1.2 kilometres south-west of Black Down roundabout. The access arrangement, shown on the drawing in **Appendix E**, has been designed in accordance with relevant standards outlined in the Design Manual for Roads and Bridges (DMRB) and includes 215 metre forward visibility splays along the A22 based on the 60 mph speed limit. A shared foot/cycleway extends into the site on the southern side of the access road and leads south along the A22 towards Uckfield. Further information on the proposed foot/cycle route, and wider access arrangements for more active and sustainable forms of travel is set out in the next section.

Emergency Access

4.10 An emergency access has also been provided, illustrated on the drawing in **Appendix E**. The emergency access is located off an existing layby, positioned circa 700 metres to the south-west Black Down roundabout and 500 metres north-east of the proposed site access. Due to the position of the access (off the layby) the arrangement is for left in/left out movements only. Use of the access will be controlled by removable barrier/bollard, appropriately secured to prevent use by unauthorised vehicles. Should it be desirable, it is considered the access could also be used by the proposed community minibus, details of which are outlined in the next section of this Transport Assessment. Suitable arrangements for access for any community bus could be considered as part of detailed design.

Pedestrian & Cycle Access

4.11 Pedestrian and cycle access to the site is proposed via the main access off the A22 (as described above), Rocks Road and Snatts Road, as illustrated on the drawings in **Appendix E** and shown on the illustrative masterplan. These links have been designed to connect to existing networks and take account of the NMU audit introduced in section 3 to ensure continuous links between the site a number of nearby amenities. The sustainable transport strategy presented in the next section of this report provides further information on these proposed connections.

SANG Car Park Access

4.12 The proposals include creation of a new vehicular access to Snatts Road to serve a small parking area associated with the strategic SANG. A plan showing visibility splays of 2.4 metres by 43 metres in each direction from this new access is included in **Appendix E**.

Road Safety Audit

4.13 The proposed access arrangements described above have been subject to a Stage 1 Road Safety Audit (RSA). In summary the RSA recommended:

- Swept path analysis for side-by-side turning movements at the proposed site access roundabout should be carried out;
- Sufficient clearance of trees/foliage to provide adequate visibility at the roundabout junction and emergency access should be complete to ensure that visibility will not be compromised in future due to regrowth;
- An edge restraint should be provided along the back of the new Snatts Road footway and lighting extended along its length;
- Foliage should be cut back as far as possible along the public footpath route between Downland Copse and The Drive;
- A vehicle restraint system should be installed between the A22 carriageway and share cycleway/footway, as a minimum where the verge narrows;
- Visibility on the north-west corner of the junction between Batchelor Way and Bellfarm Road should be improved by cutting back foliage;
- The bus stop or the pedestrian crossing on London Road should be relocated to ensure suitable visibility and than existing gully should be positioned away from the pedestrian crossing point on Southview Drive;
- A suitable restraint system and appropriate lighting should be used along the Rocks Road foot/cyclepath;
- Visibility should be improved at the Rocks Road crossing point (to the north-west) by cutting back foliage; and
- An existing lighting column on Rocks Road near Hunters Way should be relocated to maintain a suitable footway width on the southwest side of Rock Road.

4.14 A copy of the RSA and Designer's Response is included in **Appendix F**.

Parking Provision & Arrangements

Cycle Parking

4.15 Section 2 indicates that provision should be made for 2 cycle parking spaces per unit for all houses. Whilst the residential element of the application is in outline form, it is intended that cycle parking will be provided in accordance with local guidance. Appropriate space can be accommodated within the curtilage of each dwelling, such as in garages or rear garden stores/sheds. Provision for cycle parking can be secured through appropriate planning condition.

Car Parking

4.16 Having regard to the parking calculator explained in section 2, which is used to establish provision for future residential development, the site should include 746 allocated and 142 unallocated parking spaces, based on the anticipated schedule of accommodation. The unallocated provision is in line with advice received from the District Council at pre-application stage (November 2020), which indicates provision should be made for visitor parking on the basis of 1 space per 3 dwellings. The illustrative masterplan has been designed to accommodate car parking in accordance with this guidance. The final quantum and mix of parking (allocated/unallocated) will be determined through a reserved matters application.

4.17 In terms for provision for electric vehicle charging, section 2 outlines that:

"The Council encourages developers to include charging facilities for electric vehicles at all properties with off-street parking."

4.18 It is intended that each dwelling with on plot parking will benefit from an electric vehicle charging point, in line with current ESCC guidance.

Infrastructure for Car Club

4.19 It is envisaged that a car club will be located at the site, with a dedicated space including electric vehicle charging capability located in a prominent position. This would be available for a car club operator to site a vehicle within the development, should it be considered there is sufficient demand in this location. It is understood Enterprise and Co-Wheels operate in/around this area.

Servicing Strategy

4.20 Whilst the application is made in outline form, the illustrative masterplan layout has been designed to take account of relevant Building Regulations principles (as referred to in the Department for Transport's MfS) to cater for service and delivery vehicles likely to access the site on a regular basis. Swept path analysis of refuse, emergency and delivery vehicles have been completed and are included in **Appendix G**. This analysis demonstrates that these vehicles are able to use the main site access, turn within the site, and exit in a forward gear. The specification of the refuse vehicle is taken from 'Good Practice Guidance for Property Developers: Refuse & Recycling Storage at new Residential Developments within the Eastbourne, Hastings, Wealden and Rother Council Areas (August 2015).

4.21 The site layout will be designed to accord with relevant Building Regulations in respect of provision for waste/recycling collection and access for emergency vehicles, including ensuring:

- Residents do not have to carry waste more than 30 metres to a collection point;
- Refuse operatives do not have to transport 4-wheeled containers more than 10 metres, or walk more than 25 metres to a collection point for household collections;
- Refuse vehicles do not have to reverse more than 12 metres;
- Fire appliances can get within 45 metres of the entrance of each dwelling; and
- Fire appliances do not need to reverse more than 20 metres.

Summary

4.22 This section demonstrates that:

- Safe and suitable vehicular access to the site can be achieved via the A22 and the access arrangements have been designed to reflect current design guidance and subject of a Stage 1 RSA;
- The proposed layout provides convenient routes and links for pedestrians and cyclists through the site and to existing networks and amenities in Uckfield;
- Appropriate provision can be made for car and cycle parking, having regard to relevant parking guidance and in view of the site location and supporting measures to reduce the demand for parking and encourage more sustainable travel; and
- The proposals include appropriate access for delivery and servicing vehicles.

5.0 Sustainable Transport Strategy

Overview

5.1 The site is located to the north-west of Uckfield and east of the A22. Uckfield provides a good range of local amenities, a railway station, as well as employment and leisure opportunities, as described in section 3. The proposed sustainable transport links between the site and town, to assist future residents in making more active and sustainable transport choices, are set out in this strategy.

5.2 The strategy has been developed having regard to the non-motorised user (NMU) audit, introduced in section 3, which provides a review of a number of pedestrian and cycle route options between the site and core amenities (including the town centre and railway station) within 2 kilometres. It also considers existing access to bus services in terms of the location of existing bus stops and maximum walk-distances outlined in section 3.

5.3 In this regard, the NMU audit has been used to inform the provision of new connections to existing networks and identify potential enhancement works to existing pedestrian and cycle routes to existing local amenities to ensure continuous routes are provided for future residents. Any suggested enhancement works have been made in reference to the Uckfield LCWIP introduced in section 2.

5.4 The diagram below illustrates the proposed sustainable transport strategy related to development of the site.

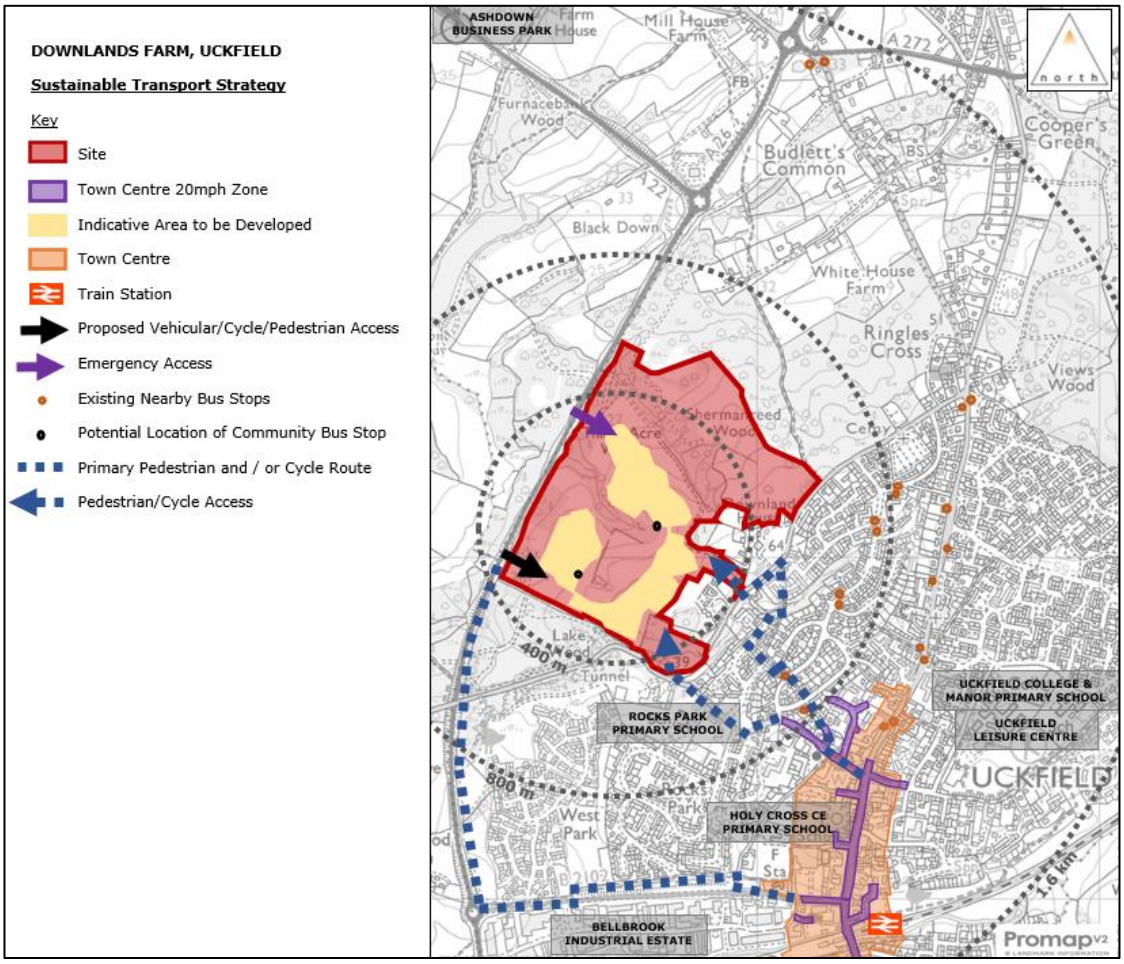


Figure 5.1 - Sustainable Transport Strategy

Walking & Cycling

5.5 As identified in section 3 of this report, it is recognised that existing provision for pedestrians and cyclists is limited reflecting the undeveloped nature of the site. Pedestrian and cycle access to the site is proposed via the main access off the A22, Rocks Road and Snatts Road, as shown on the illustrative masterplan included in **Appendix D**.

5.6 The approach to supporting active modes of travel seeks to provide a number of options for future residents, depending on their location within the development, level of mobility and destination. The strategy seeks to integrate the site with the wider area by providing and enhancing existing pedestrian routes, as well as creating pedestrian/cycle connections to Rocks Road and Snatts Road, and a new strategic link for pedestrians and cyclists along the A22 and Bellfarm Road. These links have been designed to take account of issues identified within the NMU audit to ensure continuous links between the site and nearby amenities. In this regard, the NMU audit (**Appendix B**), identified the following key issues to be addressed:

- Gaps and narrow sections of footway along existing pedestrian and/or cycle routes between the site and the town, railway station and industrial estate;
- Poor, or no crossing provision on desire lines between the site and core destinations that are suitable for intended user groups;
- Short sections of existing routes with steep gradients, overgrown paths and unmade surfacing; and
- Poor pedestrian and cycle priority on the approaches to the town.

5.7 To address these issues, the NMU audit recommends a series of improvements, focusing on enhancing the most direct and common routes between the site and the identified core destinations. It is important to note that there may be several design solutions to address the identified points. In summary, the recommended works include:

- Provision of new pedestrian and/or cycle infrastructure to connect the site to existing networks (e.g. along Rocks Road, Snatts Road and the proposed vehicular access off the A22) where there is no existing provision;
- Installation of appropriate crossing facilities for pedestrians and/or cyclists on Rocks Road (to aid connections to the town, railway station, and industrial estate), Snatts Road (to link to existing footways/paths), London Road (to assist movements towards Uckfield college and leisure centre) and Bellfarm Road (to enhance provision to the industrial estate);
- Replacement of existing steps at the end of Downland Copse (along footpath 3a) and surfacing of public footpath between steps and Hunters Way;
- Widening existing pedestrian/cycle routes where currently not suitable for intended user groups (e.g. along sections of Rocks Road, Church Street, and the existing foot/cycle path along Bellfarm Road);
- Installing measures to reduce vehicle speeds on the approach to the town and enhance pedestrian and cycle priority at junctions;
- Installation of suitable signage along existing public footpaths to core destinations; and
- Ensuring appropriate lighting of any new connections/routes.

5.8 The drawings in **Appendix E** outline a series of proposed off-site highway works, which seek to address the identified issues and recommendations of the NMU audit. The proposed works are all deliverable within the public highway or land forming part of the application site. It is anticipated that the works related to direct access to the site and connecting to existing pedestrian/cycle networks i.e. the access points to the A22 (including the new pedestrian/cycle route to Bellfarm Road), Rocks Road and Snatts Road and subject of the RSAs outlined in section 4, will be completed under a Section 278 Agreement.

5.9 The wider off-site highway works could either be secured under the same agreement, or a contribution could be secured as part of any planning permission granted to be used by WDC or ESCC towards any pedestrian/cycle improvements planned to enhance routes to the town centre and other amenities, such as those outlined in the LCWIP introduced in section 2. As such, it is considered appropriate mitigation works can be secured by appropriate legal mechanism to deliver enhanced walking and cycling provision to support development of the site.

5.10 The residential estate to the south-east of the site includes good quality, lit footways and a network of pedestrian routes (including alleyways and shared surfaces) that provide numerous links for pedestrians to the town, existing bus stops and other local amenities. The residential roads through this estate are also considered suitable for cyclists travelling to/from the town.

Bus

5.11 It is recognised that existing bus stops are outside the walk distance of 400 metres referred to in CIHT guidance. Whilst there are several existing bus services local to the site, these serve existing communities south-east of the site and there are no existing services stopping on the A22. As such, it is not considered appropriate or desirable to divert existing services through the site, in view of the proposed site access arrangements. As part of the sustainable transport strategy therefore, a new community bus service is proposed to serve the development, providing connections to the rail station, local employment, schools and the town, for example.

5.12 It is envisaged that the route will be informed by the residents, in liaison with ESCC and the bus operator, following occupation of the development to ensure that it is an attractive option that meets the needs of residents. At this stage it is anticipated that the route would include a core service, supplemented by additional school services at the beginning and end of the school day serving Bellbrook Industrial Estate, Uckfield railway station, the town centre, Uckfield College (including Leisure Centre and Manor Primary School), Rocks Park Primary School, Holy Cross Primary School and Ashdown Business Park.

5.13 The timetable would also be determined in liaison with the residents and ESCC. It is intended that a core service would operate approximately every 30 minutes during peak travel times Monday to Friday (e.g. 06:30 to 10:30 and 15:30 to 19:30 hours). The timetable would also be scheduled to enable the service to be utilised for commuter trips and coordinate with train services to London Bridge and Oxted, where possible. Services between the peak travel periods could run at hourly intervals, subject to demand. Similarly an hourly service could operate on Saturdays. In relation to the school service, it is anticipated that this would operate at the beginning and end of the school day to coordinate with school start and finish times.

5.14 A technical note setting out more information on how a community bus service would be operated, managed and funded, picking up the feedback received at pre-application stage, is included in **Appendix H**. The note also considers estimated demand for the service, potential routeing and frequency, as well as areas for picking-up/setting down passengers and turning where appropriate. It is anticipated that provision of the community bus service could be secured through appropriate planning obligation.

Rail

5.15 Uckfield station forms part of the Southern network and provides regular services to London Bridge via Oxted and the station includes cycle storage and car parking. The strategy seeks to ensure suitable connections to the railway station for pedestrians and cyclists, as well as by bus, as outlined above, to enable rail to form part of a linked trip.

5.16 To this end, Uckfield railway station is located within 1.6 kilometres of the centre of the site via Rocks Road/Church Street or Rocks Park Road, and 2.7 kilometres via the proposed strategic pedestrian/cycle link along the A22/Bellfarm Road. The station is therefore within the distance recognised by MfS where walking can be used to access destinations (up to 2 kilometres) and CIHT guidance identifies the bicycle is a potential mode of transport (8 kilometres). It is also proposed that the community bus service will provide regular services to the railway station during peak travel periods.

Encouraging Sustainable Travel Choices

5.17 A residential Framework Travel Plan has been prepared and forms part of the planning application. This Plan brings together the infrastructure measures proposed as part of the development (e.g. cycle parking, pedestrian/cycle route enhancements, provision of community shuttle bus) along with a number of softer measures (including provision of Travel Information Packs) and outlines an action plan for implementation and monitoring the effectiveness of the Plan against objectives and targets.

5.18 It is anticipated that a Full Travel Plan will be secured by suitably worded planning condition and be subject to regular monitoring and review. A Travel Plan Coordinator will be appointed to implement the measures set out in the Plan and complete the monitoring programme in liaison with ESCC to achieve the objectives and final targets set out in the approved Full Travel Plan.

Summary

5.19 A sustainable transport strategy has been developed to ensure suitable access to the site is provided to support active and more sustainable travel among future residents of the development. This includes connecting the site to existing pedestrian and cycle routes to core amenities, delivery of wider off-site highway works and provision of a community bus service to serve key destinations (including employment and schools).

5.20 The highway works are deliverable on land within the public highway and application site, and information on how a community bus service could be managed, operated and funded has been presented. A Travel Plan will be implemented to bring together the infrastructure measures and provide information to residents to raise awareness of the opportunities available to travel in more sustainable ways. These aspects can be secured by planning condition and/or appropriate legal agreement. The strategy outlined in this section is therefore considered to be appropriate to aid future residents in making more sustainable travel choices.

6.0 Assessment Methodology and Trip Attraction

6.1 This section of the report set outs the methodology that has been utilised to assess the baseline and future baseline traffic flows on the highway network local to the Site, the expected trip generation of the Proposed Development and the distribution of vehicle trips on the local road network.

Development Trip Generation

6.2 The TRICS database is an industry standard database of traffic survey at development sites across the UK. The TRICS database has been interrogated in order to identify comparable sites and the following search parameters have been used:

- Land Use – Houses, Privately Owned;
- Unit Number – 200 to 1,000;
- Region – England, excluding Greater London;
- Location – Edge of Town Centre, Edge of Town, Suburban Area; and
- Selected Days – Weekdays.

6.3 The full TRICS output report is attached at **Appendix I**, and as presented within the Pre-Application report submitted to ESCC in September 2020.

6.4 The Proposed Development will likely include a proportion of residential apartments and a proportion of affordable housing. It is generally acknowledged that residential apartments and affordable housing will generate trips at a lower rating than private housing. The trip rates established from the TRICS database and presented at Table 6.1 below are based on private housing and therefore provide a robust assessment of the likely vehicle trip generation of the Proposed Development.

6.5 Table 6.1 below summarises the vehicle trip rates and vehicle trips, established from the TRICS database, for the weekday morning and evening peak periods. This is based on a development of up to 430 dwellings.

Time Period	Vehicle Trip Rate (per unit)			Vehicle Movements (430 units)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak 0800-0900	0.137	0.386	0.523	59	166	225
PM Peak 1700-1800	0.359	0.164	0.523	154	71	225

Table 6.1 Preliminary Trip Generation Analysis

6.6 Table 6.1 demonstrates that Proposed Development could generate 225 vehicle movements during both the morning and evening peak hours.

Scope of Assessment

6.7 A Scoping Report issued to ESCC in September 2020 detailed the scope of junctions to be considered as part of this Transport Assessment and this comprises the following six junctions:

- Site access roundabout junction with the A22;
- A22 roundabout junction with Bell Farm Road (Copwood roundabout);
- A22 roundabout junction with A26 (Black Down roundabout);
- A26 roundabout junction with A272 (Budletts roundabout);

- A22 roundabout junction with A272 (Batts Bridge roundabout); and
- A22 roundabout junction with A26 (Little Horsted roundabout).

6.8 In addition, the scope of assessment has been extended to include the recently constructed access to the Ridgewood Farm development will is located on the A22 between the Copwood and Little Horsted junctions.

Saturn Modelling

6.9 During pre-application scoping discussions, Officers at ESCC requested that the assessment of the highway network local to the Site be undertaken using the Uckfield Saturn Model (USM). The USM is maintained by Jacobs on behalf of ESCC. Motion have been liaising with ESCC and WDC since September 2020 regarding Saturn modelling, along with consultants representing three other planned developments as follows:

- Bird in Eye (North);
- Bird in Eye (South); and,
- Land at Horsted Pond Farm.

6.10 Motion provided ESCC details of the expected traffic generation of the current development proposals, consistent with the data presented at Table 6.1 above, to be incorporated within the USM. Traffic associated with the Downlands Farm has been distributed on the local road network as part of the Saturn Modelling undertaken by Jacobs on behalf of ESCC.

6.11 The USM is based on a baseline year of 2018 and a future assessment year of 2039 including any relevant committed and planned developments. ESCC/Jacobs provided Motion with traffic data from the USM for the following scenarios

- Baseline Year 2018;
- Do Minimum – 2039 Without Development;
- Do Something 1 – 2039 with Bird in Eye North development only;
- Do Something 2 – 2039 with Bird in Eye South development only;
- Do Something 3 – 2039 with Downlands Farm development only;
- Do Something 4 – 2039 with Horsted Pond Farm development only; and,
- Do Something 5 – 2039 with All 4 developments.

6.12 The traffic data provided by ESCC/Jacobs is attached at **Appendix J**.

6.13 For the purpose of this Transport Assessment the scenarios which are relevant and have been considered within the junction capacity modelling at the 'Do Minimum 2039 Without Development' and the 'Do Something 3 2039 with Downlands Farm development only'. However, consideration has also been given at a strategic level of the scenario in which all four developments occur, 'Do Something 5 – 2039 with All 4 developments'.

6.14 The effect of the development on the scope of junctions within the assessment scope is detailed in the next section of this report.

7.0 Effect of Development

7.1 This section of the report considers the effect of the development on the highway network local to the Site based on traffic data provided from the USM by ESCC/Jacobs for the highway network local to the site and utilising individual junction capacity modelling.

7.2 As detailed in Section 6 of this Transport Assessment, the scope of junctions being assessed is as follows:

- Site access roundabout junction with the A22;
- A22 roundabout junction with A272 (Batts Bridge roundabout);
- A26 roundabout junction with A272 (Budletts roundabout);
- A22 roundabout junction with A26 (Black Down roundabout);
- A22 roundabout junction with Bell Farm Road (Copwood roundabout);
- A22 Ridgewood Farm site access junction roundabout; and,
- A22 roundabout junction with A26 (Little Horsted roundabout).

7.3 Junction capacity modelling has been undertaken using the industry standard modelling package for each junction type. All the junctions within the study area are roundabouts and have therefore been modelled using ARCADY (Assessment of Roundabout Capacity and Delay).

7.4 The ARCADY software reports the Ratio of Flow to Capacity (RFC) of an approach to a give-way controlled junction (priority junction or roundabout junction). The RFC is a ratio of the theoretical capacity of a road link in comparison with the demand for vehicles using that link. An RFC of 1 would suggest that demand for vehicles using that link is equal to the theoretical capacity of that link. However, an RFC of 0.85 is typically regarded as the practical capacity of a give-way link to ensure efficient operation.

Site access roundabout junction with the A22

7.5 The proposed site access roundabout from the A22 has been modelled using ARCADY and based on the proposed access junction layout presented at **Appendix E**. Table 7.1 below shows the results of the junction capacity modelling for the weekday morning and evening peak hours. Model output files are attached at **Appendix K**.

	AM Peak		PM Peak	
	RFC	**Queue**	**RFC**	**Queue**
A22 North	0.68	2.1	0.82	4.3
Site Access	0.19	0.2	0.09	0.1
A22 South	0.64	1.8	0.76	3.2

Table 7.1: Site Access Junction – 2039 Do Something with Downlands Farm

7.6 The analysis demonstrates that the proposed site access junction will operate within capacity and without significant queuing or vehicle delay in 2039 with the proposed development in place.

A22 roundabout junction with A272 (Batts Bridge roundabout)

7.7 The A22/ A272 (Batts Bridge) roundabout has been modelled using ARCADY. Table 7.2 below shows the results of the junction capacity modelling for the 2039 Do Minimum scenario for the weekday morning and evening peak hours, with model output files attached at **Appendix K**.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Batts Bridge Road	0.09	0.1	0.05	0.1
A22 (East)	0.78	3.4	0.57	1.3
A272	0.43	0.8	0.52	1.1
A22 (West)	0.46	0.8	0.63	1.7

Table 7.2: Batts Bridge Roundabout – 2039 Do Minimum

7.8 The analysis presented at Table 7.2 demonstrates that Batts Bridge roundabout is expected to operate within capacity and without significant queuing or vehicle delay in the 2039 Do Minimum scenario.

7.9 Table 7.3 below shows the results of the junction capacity modelling for the 2039 With Downlands Farm development scenario for the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Batts Bridge Road	0.08	0.1	0.05	0.1
A22 (East)	0.79	3.6	0.57	1.3
A272	0.42	0.7	0.52	1.1
A22 (West)	0.47	0.9	0.62	1.6

Table 7.3: Batts Bridge Roundabout – 2039 Do Something with Downlands Farm

7.10 The analysis demonstrates that the Batts Bridge junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with the proposed development in place. No mitigation measure or highway works are considered necessary at the Batts Bridge junction to support the development proposals.

A26 roundabout junction with A272 (Budletts roundabout)

7.11 The A22/ A272 (Budletts) roundabout has been modelled using ARCADY. Table 7.4 below shows the results of the junction capacity modelling for the 2039 Do Minimum scenario for the weekday morning and evening peak hours. Model output files are attached at **Appendix K**.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A26 (North)	0.55	1.2	0.64	1.8
London Road (East)	0.70	2.3	0.34	0.5
A26 (South)	0.41	0.7	0.52	1.1
London Road (West)	0.42	0.7	0.93	9.9

Table 7.4: Budletts Roundabout – 2039 Do Minimum

7.12 The analysis demonstrates that three arms of the junction are expected to operate within capacity and without significant queuing or vehicle delay in the 2039 Do Minimum scenario. The London Road (west) arm of the junction is shown to operate at an RFC of 0.93, which is within theoretical capacity (an RFC of less than 1) but exceeds an RFC of 0.85 which is typically regarded as the practical capacity of a give-way link to ensure efficient operation.

7.13 Table 7.5 below shows the results of the junction capacity modelling for the 2039 With Downlands Farm development scenario for the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A26 (North)	0.57	1.3	0.69	2.1
London Road (East)	0.75	2.9	0.35	0.5
A26 (South)	0.45	0.8	0.53	1.1
London Road (West)	0.42	0.7	0.97	13.9

Table 7.5: Budletts Roundabout – 2039 Do Something with Downlands Farm

7.14 The analysis demonstrates that the three arms of the Budletts roundabout will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with the proposed development in place.

7.15 The modelling indicates that the London Road (west) arm of the junction will operate at an RFC of 0.97 with the proposed development place, an increase from 0.93 in the Do Minimum scenario. Whilst one arm of the junction is shown to operate over a theoretical threshold of 0.85 RFC, the proposed development will not result in a significant change in the RFC of the arm and the impact of the development is not considered to be severe. As such, no mitigation measure or highway works are considered necessary at the Budletts roundabout to support the development proposals.

A22 roundabout junction with A26 (Black Down roundabout)

7.16 The A22/ A26 (Black Down) roundabout has been modelled using ARCADY. Table 7.6 below shows the results of the junction capacity modelling for the 2039 Do Minimum scenario for the weekday morning and evening peak hours. Model output files are attached at **Appendix K**.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A26	0.85	5.2	0.69	2.2
A22 (South)	0.63	1.7	0.58	1.4
A22 (West)	1.09	71.3	1.18	134.4

Table 7.6: Black Down Roundabout – 2039 Do Minimum

7.17 The analysis demonstrates that A22 (west) arm of the junction is shown to operate at an RFC of 1.09 in the morning peak hour and 1.18 in the evening peak hour which is in excess of the theoretical capacity of the link. In addition, the A26 arm of the junction is shown to operate with an RFC of 0.85.

7.18 Table 7.7 below shows the results of the junction capacity modelling for the 2039 With Downlands Farm development scenario for the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A26	0.88	6.2	0.71	2.4
A22 (South)	0.63	1.7	0.59	1.4
A22 (West)	1.09	68.9	1.18	134.5

Table 7.7: Black Down – 2039 Do Something with Downlands Farm

7.19 The modelling indicates that the A22 (west) arm of the junction will operate at an RFC of 1.09 in the morning peak hour and 1.18 in the evening peak hour with the proposed development place. Whilst this is over the theoretical capacity of that arm, the RFC of the arm is unchanged between the Do Minimum and Do Something scenarios.

7.20 The modelling indicates that the A26 arm of the junction will operate at an RFC of 0.87 with the proposed development place, an increase from 0.85 in the Do Minimum scenario. Whilst this junction is shown to operate over a theoretical threshold of 0.85 RFC, the proposed development will not result in a significant change in the RFC of the arm and the impact of the development is not considered to be severe. As such, no mitigation measure or highway works are considered necessary at the Black Down roundabout to support the development proposals.

A22 roundabout junction with Bell Farm Road (Copwood roundabout)

7.21 The A22/ Bell Farm Road (Copwood) roundabout has been modelled using ARCADY. Table 7.8 below shows the results of the junction capacity modelling for the 2039 Do Minimum scenario for the weekday morning and evening peak hours. Model output files are attached at **Appendix K**.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A22 (North)	0.68	2.1	0.68	2.1
Bellfarm Road	0.32	0.5	0.57	1.3
A22 (South)	0.80	3.8	0.72	2.6

Table 7.8: Copwood Roundabout – 2039 Do Minimum

7.22 The analysis presented at Table 7.8 demonstrates that Copwood roundabout is expected to operate within capacity and without significant queuing or vehicle delay in the 2039 Do Minimum scenario.

7.23 Table 7.9 below shows the results of the junction capacity modelling for the 2039 With Downlands Farm development scenario for the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A22 (North)	0.70	2.3	0.68	2.1
Bellfarm Road	0.33	0.5	0.57	1.3
A22 (South)	0.80	3.8	0.75	2.9

Table 7.9: Copwood Roundabout – 2039 Do Something with Downlands Farm

7.24 The analysis demonstrates that the Copwood junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with the proposed development in place. No mitigation measure or highway works are considered necessary at the Copwood junction to support the development proposals.

A22 Ridgewood Farm Site Access

7.25 The A22/ Ridgewood Farm site access roundabout has been modelled using ARCADY. Table 7.10 below shows the results of the junction capacity modelling for the 2039 Do Minimum scenario for the weekday morning and evening peak hours, with model output files attached at **Appendix K**.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A22 (North)	0.53	1.1	0.68	2.1
Ridgewood Farm Site Access	0.49	0.9	0.45	0.8
A22 (South)	0.63	1.7	0.54	1.2

Table 7.10: Ridgewood Farm Roundabout – 2039 Do Minimum

7.26 The analysis presented at Table 7.10 demonstrates that Copwood roundabout is expected to operate within capacity and without significant queuing or vehicle delay in the 2039 Do Minimum scenario.

7.27 Table 7.11 below shows the results of the junction capacity modelling for the 2039 With Downlands Farm development scenario for the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A22 (North)	0.55	1.2	0.68	2.1
Ridgewood Farm Site Access	0.50	1.0	0.45	0.8
A22 (South)	0.62	1.6	0.56	1.3

Table 7.11: Ridgewood Farm Roundabout – 2039 Do Something with Downlands Farm

7.28 The analysis demonstrates that the Ridgewood Farm junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with the proposed development in place. No mitigation measure or highway works are considered necessary at the Ridgewood Farm junction to support the development proposals.

A22 roundabout junction with A26 (Little Horsted roundabout)

7.29 The A22/ A26 (Little Horstead) roundabout has been modelled using ARCADY. Table 7.12 below shows the results of the junction capacity modelling for the 2039 Do Minimum scenario for the weekday morning and evening peak hours. Model output files are attached at **Appendix K**.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Lewes Road	0.61	1.6	0.31	0.4
A22 (South)	0.63	1.7	0.57	1.3
A26	0.47	0.9	0.46	0.8
A22 (North)	0.61	1.6	0.70	2.3

Table 7.12: Little Horsted Roundabout – 2039 Do Minimum

7.30 The analysis presented at Table 7.12 demonstrates that Little Horsted roundabout is expected to operate within capacity and without significant queuing or vehicle delay in the 2039 Do Minimum scenario.

7.31 Table 7.13 below shows the results of the junction capacity modelling for the 2039 With Downlands Farm development scenario for the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Lewes Road	0.64	1.7	0.34	0.5
A22 (South)	0.63	1.7	0.58	1.4
A26	0.46	0.9	0.48	0.9
A22 (North)	0.63	1.7	0.70	2.3

Table 7.13: Little Horsted Roundabout – 2039 Do Something with Downlands Farm

7.32 The analysis demonstrates that the Little Horsted junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with the proposed development in place. No mitigation measure or highway works are considered necessary at the Little Horsted junction to support the development proposals.

Strategic Modelling

7.33 The analysis presented above, has demonstrated that the proposed Downlands Farm development will not have a material effect on the highway network local to the site. As previously noted, consideration has also been given at a strategic level of the scenario in which all four developments occur, 'Do Something 5 – 2039 with All 4 developments' and this includes the addition of traffic associated with the following developments:

- Bird in Eye (North);
- Bird in Eye (South); and,
- Land at Horsted Pond Farm.

7.34 The analysis is provided solely for strategic purposes and to give the local authority and local highway authority an indication of the local network will operate should all four developments be granted planning permission. Model output files are attached at **Appendix K**.

Site access roundabout junction with the A22

7.35 Table 7.14 below shows the results of the junction capacity modelling for the site access roundabout for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A22 North	0.68	2.1	0.82	4.3
Site Access	0.19	0.2	0.09	0.1
A22 South	0.64	1.8	0.77	3.2

Table 7.14: Site Access Junction – 2039 Do Something with All 4 Developments

7.36 The analysis shows that the proposed site access junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with all four developments in place.

A22 roundabout junction with A272 (Batts Bridge roundabout)

7.37 Table 7.15 below shows the results of the junction capacity modelling for the Batts Bridge junction for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Batts Bridge Road	0.09	0.1	0.05	0.1
A22 (East)	0.80	3.9	0.57	1.3
A272	0.42	0.7	0.52	1.1
A22 (West)	0.47	0.9	0.62	1.6

Table 7.15: Batts Bridge Roundabout – 2039 Do Something with All 4 Developments

7.38 The analysis demonstrates that the Batts Bridge junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with all four developments in place. No mitigation measure or highway works are considered necessary at the Batts Bridge junction to support the development proposals.

A26 roundabout junction with A272 (Budletts roundabout)

7.39 Table 7.16 below shows the results of the junction capacity modelling for the Budletts roundabout for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A26 (North)	0.58	1.4	0.72	2.5
London Road (East)	0.77	3.3	0.34	0.5
A26 (South)	0.45	0.8	0.53	1.1
London Road (West)	0.41	0.7	1.01	20.7

Table 7.16: Budletts Roundabout – 2039 Do Something with All 4 Developments

7.40 The analysis demonstrates that three arms of the junction are expected to operate within capacity and without significant queuing or vehicle delay in the 2039 Do Minimum scenario. The London Road (west) arm of the junction is shown to operate at an RFC of 1.01, which is over theoretical capacity.

7.41 As Table 7.16 indicates the junction operating over theoretical capacity with all four developments in place consideration has been given to an illustrative mitigation scheme at the junction. An illustrative mitigation scheme is shown at Drawing 2001061-SK18, attached at **Appendix L**, which can be delivered within the adopted public highway.

7.42 Table 7.17 below shows the results of the junction capacity modelling for the Budletts roundabout for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours, inclusive of the illustrative mitigation scheme shown at Drawing 2001061-SK18.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A26 (North)	0.58	1.4	0.73	2.6
London Road (East)	0.77	3.3	0.34	0.5
A26 (South)	0.45	0.8	0.53	1.1
London Road (West)	0.27	0.4	0.66	1.9

Table 7.17: Budletts Roundabout – 2039 Do Something with All 4 Developments (Illustrative Mitigation)

7.43 The analysis demonstrates that with the illustrative mitigation scheme in place all arms of the junction operate within capacity and without significant queuing or vehicle delay.

7.44 As detailed earlier in this report, the proposed Downlands Farm development will not have a material effect on the operation of this junction and therefore a mitigation scheme at this junction is not considered necessary as part of the planning application. However, the applicant is willing to provide an appropriate and fair contribution, alongside other developments, towards a mitigation scheme at the junction, which could be similar to that shown that shown illustratively on Drawing 2001061-SK18.

A22 roundabout junction with A26 (Black Down roundabout)

7.45 Table 7.18 below shows the results of the junction capacity modelling for the Black Down roundabout for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A26	0.89	7.0	0.70	2.3
A22 (South)	0.63	1.7	0.59	1.4
A22 (West)	1.09	71.8	1.18	138.3

Table 7.18: Black Down Roundabout – 2039 Do Something with All 4 Developments

7.46 The analysis demonstrates that the A22 (west) arm of the junction is shown to operate at an RFC of 1.09 in the morning peak hour and 1.18 in the evening peak hour which is in excess of the theoretical capacity of the link. In addition, the A26 arm of the junction is shown to operate at an RFC of 0.89 in the morning peak hour with all four developments in place.

7.47 A comparison of the operate the junction in the 3029 Do Something with all four developments scenario with the Do Minimum scenario (as presented at Table 7.6) shows that there is no change in the report RFC the A22 (west) arm between the two scenarios. Furthermore, the comparison shows that on the A26 am of the junction RFC increases from 0.85 to 0.89 between the Do Minimum and Do Something with all four developments scenarios. As such, the change in RFC is not considered to be significant and the delivery of all four developments will not have a material effect on the operation of the junction.

7.48 However, as Table 7.18 indicates the junction operating over theoretical capacity with all four developments in place consideration has been given to an illustrative mitigation scheme at the junction. An illustrative mitigation scheme is shown at Drawing 2001061-SK19, attached at **Appendix L**, which can be delivered within the adopted public highway.

7.49 Table 7.19 below shows the results of the junction capacity modelling for the Black Down roundabout for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours, inclusive of the illustrative mitigation scheme shown at Drawing 2001061-SK19.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A26	0.46	0.9	0.38	0.6
A22 (South)	0.63	1.7	0.59	1.4
A22 (West)	0.55	1.2	0.60	1.5

Table 7.19: Black Down – 2039 Do Something with All 4 Developments (Illustrative Mitigation)

7.50 The analysis demonstrates that with the illustrative mitigation scheme in place all arms of the junction operate within capacity and without significant queuing or vehicle delay.

7.51 As detailed earlier in this report, the proposed Downlands Farm development will not have a material effect on the operation of this junction and therefore a mitigation scheme at this junction is not considered necessary as part of the planning application. However, the applicant is willing to provide an appropriate and fair contribution, alongside other developments, towards a mitigation scheme at the junction, which may be similar to that shown that shown illustratively on Drawing 2001061-SK19.

A22 roundabout junction with Bell Farm Road (Copwood roundabout)

7.52 Table 7.20 below shows the results of the junction capacity modelling for the Copwood roundabout for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A22 (North)	0.70	2.3	0.68	2.1
Bellfarm Road	0.35	0.5	0.57	1.3
A22 (South)	0.79	3.7	0.75	3.0

Table 7.20: Copwood Roundabout – 2039 Do Something with All 4 Developments

7.53 The analysis demonstrates that the Copwood junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with all four developments in place. No mitigation measure or highway works are considered necessary at the Copwood junction to support the development proposals.

A22 Ridgewood Farm Site Access

7.54 Table 7.21 below shows the results of the junction capacity modelling for the Ridgewood Farm roundabout for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
A22 (North)	0.55	1.2	0.66	2.0
Ridgewood Farm Site Access	0.50	1.0	0.44	0.8
A22 (South)	0.61	1.6	0.55	1.2

Table 7.21: Ridgewood Roundabout – 2039 Do Something with All 4 Developments

7.55 The analysis demonstrates that the Ridgewood Farm junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with all four developments in place. No mitigation measure or highway works are considered necessary at the Ridgewood Farm junction to support the development proposals.

A22 roundabout junction with A26 (Little Horsted roundabout)

7.56 Table 7.22 below shows the results of the junction capacity modelling for the Little Horsted roundabout for the 2039 Do Something strategic assessment with all four developments in place during the weekday morning and evening peak hours. The traffic flows provided by ESCC for the Little Horsted roundabout for the scenario with all four developments in place did not include turning flows to and from the Lewes Road arm of the junction. Traffic flows from the Lewes Road arm of the junction have been taken from the 'Do Something 3' scenario with Downlands Farm in place and this is considered an appropriate assessment.

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Lewes Road	0.38	0.6	0.36	0.6
A22 (South)	0.59	1.5	0.35	0.6
A26	0.36	0.6	0.38	0.6
A22 (North)	0.46	0.9	0.68	2.3

Table 7.22: Little Horsted Roundabout – 2039 Do Something with All 4 Developments

7.57 The analysis demonstrates that the Little Horsted junction will continue to operate within capacity and without significant queuing or vehicle delay in 2039 with all four developments in place. No mitigation measure or highway works are considered necessary at the Little Horsted junction to support the development proposals.

Summary

7.58 The effect of the Proposed Development on the local highway network has been assessed at the following junctions:

- Site access roundabout junction with the A22;
- A22 roundabout junction with A272 (Batts Bridge roundabout);
- A26 roundabout junction with A272 (Budletts roundabout);
- A22 roundabout junction with A26 (Black Down roundabout);
- A22 roundabout junction with Bell Farm Road (Copwood roundabout);
- A22 Ridgewood Farm site access junction roundabout; and,
- A22 roundabout junction with A26 (Little Horsted roundabout).

7.59 The detailed capacity assessment demonstrates that the proposed development will not result in a severe impact, as defined by the NPPF and outlined in Section 2 of this report, on the operation of any of the junctions within the scope of assessment and no mitigation measures or highway works are necessary as part of the planning application.

7.60 The strategic assessment has identified two junctions, Budletts roundabout and Black Down roundabout, where mitigation highway works may be required to support all four developments, should they all be approved. An illustrative mitigation scheme has been presented at each of these junctions which can be delivered within the adopted public highway.

7.61 The proposed Downlands Farm development will not have a material effect on the operation of this junction and therefore a mitigation scheme at this junction is not considered necessary as part of the planning application. However, the applicant is willing to provide an appropriate and fair contribution, alongside other developments, towards a mitigation scheme at these two junctions.

8.0 Summary and Conclusions

8.1 This Transport Assessment has been prepared to accompany a planning application by Gleeson Land for a residential development comprising up to 424 dwellings on land at Downlands Farm, Uckfield.

8.2 Development of the site has been subject of pre-application discussions with ESCC as local highway authority, which has sought to agree inter alia core infrastructure required to support future residential development of the site and assessment principles.

8.3 This Transport Assessment, which has been prepared having regard to relevant guidance prepared by ESCC and advice received at pre-application stage, demonstrates that:

- The proposals accord with national and local policies relevant to transport;
- A review of personal injury accident information has identified no significant issues associated with the local highway network that are detrimental to the existing standard of road safety;
- There are a range of services and facilities within circa 2 kilometres of the site, including employment, education, health and leisure amenities as well as Uckfield town centre;
- Safe and suitable vehicular access to the site can be achieved from the A22 in accordance with relevant design guidance;
- Pedestrian and cycle links are provided to connect the site to existing networks to ensure safe and suitable access for active travel;
- Appropriate provision can be made for car parking, including for disabled persons and electric vehicles, having regard to ESCC's parking calculator;
- Each residential dwelling will benefit from secure cycle parking provided in accordance with local guidance and secured by planning condition;
- The proposals include appropriate access for servicing and delivery vehicles;
- A package of measures to support and encourage more sustainable forms of travel are included as part of the proposals and a Framework Travel Plan has been submitted as part of the application;
- The proposed development is estimated to result in circa 225 vehicle movements during the weekday morning and afternoon peak hours;
- An assessment of a number of junctions during peak hours using modelling software, demonstrates that these junctions will continue to operate within capacity following implementation of the proposed development. On this basis, it is considered the proposals will not interfere with the operation of the adjoining highway network; and
- The assessment also considers the cumulative impact of three further development proposals and demonstrates that all but two of the assessed junctions are able to support the additional traffic generated by these schemes. Mitigation works may be required to support all four developments, should they all be approved. Illustrative mitigation schemes have been presented which can be delivered within the adopted public highway.

8.4 On the basis of the above it is considered there is no reason why the proposals should be resisted on traffic or transportation grounds.