

11 Transport and Access

11.1 Introduction

- 11.1.1 This chapter reports the outcome of the assessment of likely significant effects arising from the traffic and movement associated with the Proposed Development during construction and operation. Chapter 3 of this ES provides a summary of the development proposals.
- 11.1.2 Specifically, the chapter considers environmental effects associated with severance of communities, road vehicle driver and passenger delay, non-motorised user delay, non-motorised amenity, fear and intimidation on and by road users, and road user and pedestrian safety. There will be no hazardous loads associated with the construction or operation of the Proposed Development. Any mitigation measures required to prevent, reduce, or offset any significant adverse effects and the likely residual or cumulative effects following the implementation of these have also been identified.
- 11.1.3 This chapter (and its associated figures and appendices) is intended to be read as part of the wider Environmental Statement, with particular reference to Chapter 6: Air quality, Chapter 10: Noise and Vibration, and the Transport Assessment (TA) which supports the planning application.
- 11.1.4 The analysis presented in this Chapter is supported by:
- Appendix 11.1: Transport Assessment
 - Appendix 11.2: Outline Construction Management Plan
 - Appendix 11.3: Wokingham Strategic Model Outputs

Relevant legislation

- 11.1.5 There is no specific legislation in regard to the assessment of traffic and transport matters.

11.2 Assessment methodology

Applicable guidance

- 11.2.1 The assessments in this Chapter have been carried out in accordance with the Institute of Sustainability and Environmental Professionals (ISEP, formerly ISEP) Guidelines: Environmental Assessment of Road Traffic and Movement (Davis, S. et. al., 2023) (from here on in referred to as the 'ISEP Guidelines')

Data sources to inform the EIA baseline characterisation

- 11.2.2 The following data sources have been used to inform the baseline characterisation:
- A site visit undertaken in September 2025 to review the surrounding walking and cycling environment, public rights of way, public transport services and facilities and traffic conditions.
 - Desktop review of the local geography, transport networks and public transport services in 2025.

- Desktop study of Personal Injury Accident (PIA) Data in the study area, sourced from Wokingham Borough Council for the most recently available 5 year period.
- Engagement with WBC as the local highway authority.

Surveys to inform the EIA baseline characterisation

11.2.3 The following surveys have been used to inform the baseline characterisation:

- Traffic surveys undertaken in July 2024 in the study area, including 8 x Automatic traffic counts (ATCs) on the following links:
 - Langley Common Road
 - Biggs Lane
 - Barkham Road (west of Barkham Street junction)
 - Barkham Road (east of Barkham Street junction)
- 5 x Manual classified counts (MCCs) at the following junctions:
 - A327 Observer Way/ A327 Eversley Road roundabout
 - Eversley Road/ Langley Common Road roundabout
 - Langley Common Road/ Biggs Lane roundabout
 - Barkham Road/ Barkham Street mini roundabout
- Additional traffic surveys undertaken in November 2025 on further roads in the study area, including:
 - 1 x ATC on Langley Common Road.
 - 2 x MCCs at Biggs Lane / Baston Road junction and Biggs Lane / Princess Marina Drive roundabout.

Predicting Effects

Scoping

- 11.2.4 Although not a formal Scoping Opinion, guidance on the scope of the EIA was sought from WBC through the pre-application process and agreed at the 'Pre-Application 01 Meeting' on 10 September 2025.
- 11.2.5 WBC requested that the traffic changes arising from the Proposed Development should be assessed through use of the updated Local Plan traffic model (WSTM4) so that the predicted traffic flows can be provided in suitable formats for the EIA assessment. This modelling has been undertaken (and agreed with WBC), with modelling completed in accordance with WBC's Highway use of Highway Model Protocol.
- 11.2.6 The extent of the study area and identification of sensitive receptors is based on site visit observations, professional opinion/experience, traffic surveys, and the scoping and pre-application feedback from the relevant planning and highway authorities.

11.2.7 The baseline year of 2025 was used for non-vehicular modes, based on site observations and desktop studies. A 2024 base was utilised for vehicular flows, which utilises both 2025 and 2024 traffic flows but has been factored where necessary to reflect a 2024 baseline to align with the baseline data of the air quality assessment.

Assessment Scenarios

11.2.8 The traffic flows for the future year assessments have been extracted from the WSTM4 as agreed with WBC.

11.2.9 The following scenarios have been assessed:

- 2040 – Future baseline without Proposed Development (including Local Plan and Background Traffic Growth)
- 2040 – Future baseline with Proposed Development

11.2.10 The 2040 future baseline without development includes all development outlined within the emerging Local Plan Regulation 19 Submission in addition to sites with planning permission in Wokingham Borough. This includes Barkham Square, located directly north of the Proposed Development, at 600 dwellings.

11.2.11 The 2040 future baseline with development scenarios includes the Proposed Development at 330 dwellings, and also includes an uplift in Barkham Square development quantum to include a further 60 dwellings and a 50-bed care home.

Assessment methodology

11.2.12 An assessment of the traffic impact of the development has been undertaken in accordance with ISEP guidelines (Davis, S. et. al., 2023). This includes analysis of:

- traffic volumes
- traffic speeds
- traffic composition.

11.2.13 The environmental effects included in this chapter are:

- severance of communities
- road vehicle driver and passenger delay
- non-motorised user delay
- non-motorised amenity
- fear and intimidation on and by road users
- road user and pedestrian safety.

11.2.14 All of the above environmental effects are considered within this Chapter with the exception of Hazardous Loads, which have been scoped out as it is not expected that the development would result in the need to transport hazardous loads either during construction or operation.

11.2.15 The determination of the significance of each effect considers the existing transport conditions as a baseline and provides a prediction of the future effect on the transport network for the construction and the completed Proposed Development.

Severance of communities

11.2.16 The ISEP Guidelines defines severance at paragraph 3.13 as:

“...the perceived division that can occur within a community when it becomes separated by major transport infrastructure.”

11.2.17 The ISEP Guidelines acknowledge that the measurement and prediction of severance is extremely difficult. Factors which need to be considered when determining whether severance is likely to be an important issue at the sensitive receptors include: road width, traffic flow and composition, traffic speeds, the availability of crossing facilities, and the number of movements that are likely to cross an affected route.

11.2.18 Changes of 30% in traffic are considered to produce a slight change in any existing severance effect an existing route may have, in accordance with ISEP Guidelines. It is this threshold that is used to assess the extent of any change in severance effect along with a qualitative assessment of the existing situation particularly in terms of the number of affected parties.

11.2.19 Importantly, the ISEP guidelines also note that *“very low baseline flows are unlikely to experience severance impacts even with high percentage changes in traffic.”*

Driver delay

11.2.20 The ISEP guidelines states that *‘assessment of driver delay will normally be based on the technical work reported within the Transport Assessment, which generally focuses on conditions in the network peak periods, with highway mitigation defined to ensure conditions with the development are not materially worse than would otherwise have been the case without the development and mitigation. The driver delay assessment should clearly present the ‘with’ and ‘without’ mitigation effects.’*

11.2.21 Delays to road vehicles and drivers/passengers occur principally at junctions where vehicles are performing conflicting manoeuvres. The ISEP guidelines sets out that the assessment of driver delay is usually determined by the use of industry standard junction assessment packages (e.g. Junctions 11 and LinSig). Each package produces estimates of vehicle time and delay through the junction.

11.2.22 This assessment is carried out for the network peak periods, which are the times when the local highway network is at its busiest and so impacts of the Proposed Development on driver delay would be greatest.

11.2.23 To inform the assessment Table 11.1 below sets out the magnitude scale which has been applied.

Table 11.1 Scale of Magnitude for Driver Delay

Magnitude	Description
High	Average vehicle delay changes of more than 60 seconds as a result of the Proposed Development during the peak hour periods
Medium	Average vehicle delay changes of 30 – 60 seconds as a result of the Proposed Development during the peak hour periods
Low	Average vehicle delay changes of 20 – 30 seconds as a result of the Proposed Development during the peak hour periods
Negligible	Average vehicle delay changes of less than 20 seconds as a result of the Proposed Development during the peak hour periods

Non-motorised user delay

11.2.24 Non-motorised user amenity (used as a proxy for pedestrian amenity within the ISEP Guidelines) can be defined as the relative pleasantness of a journey and is affected by traffic composition and speed as well as separation from traffic, and the pedestrian experience along the route (which can include factors as diverse as landscaping, areas of interest, rest facilities, protection from the elements, etc.). This also includes fear and intimidation.

11.2.25 Pedestrian delay generally results where traffic flows are sufficient to increase the time taken in crossing roads, or indeed result in pedestrians altering their route to avoid heavily trafficked roads or to use formal crossing facilities. Research has shown that pedestrian delay of 8 seconds occurs at flows of 1,000 vehicles per hour and increases to 20 seconds at 2,000 vehicles per hour for various types of uncontrolled crossings. A two-way flow of 1,400 vehicles per hour has therefore been adopted as a lower threshold for assessment (i.e negligible magnitude) which broadly equates to a mean 10 second delay for a link with no controlled pedestrian crossing facilities. For the purposes of assessment the scale of magnitude beyond this initial threshold is set out in Table 11.2 and will be used to categorise and assess the impact on pedestrian delay, taking account of the characteristics of the link-receptor and professional judgement.

Table 11.2 Scale of magnitude of non-motorised user delay

Magnitude	Description
High	Link subject to a two-way traffic flow of more than 5,600 vehicles per hour
Medium	Link subject to a two-way flow of 3,500 – 5,600 vehicles per hour
Low	Link subject to a two-way flow of 1,400 – 3,000 vehicles per hour
Negligible	Link subject to a two-way flow of less than 1,400 vehicles per hour

Non-motorised user amenity

11.2.26 The term non-motorised amenity is broadly defined as the relative pleasantness of a journey and is considered to be affected by traffic flow, traffic composition and footway width and separation from traffic. The ISEP guidance refers to a tentative threshold for judging the significance of changes in pedestrian amenity where the traffic flow (or its HGV component) is halved or doubled.

Fear and intimidation

11.2.27 The assessment applies the criteria applied in the ISEP Guidelines which provide a formula for determining levels of fear and intimidation on and by road users, based on average traffic flow, the Heavy Goods Vehicle (HGV) flows, and average vehicle speed. This approach is used to quantify the level of fear and intimidation in both base and future scenarios, and from there identify the magnitude of impact based on the overall change between scenarios.

11.2.28 The relevant tables from the ISEP Guidelines are reproduced in Table 11.3, Table 11.4 and Table 11.5.

Table 11.3 Fear and intimidation degree of hazard

Average traffic flow over 18-hour day – all vehicles-way (a)	Total 18-hour heavy vehicle flow (b)	Average vehicle speed (c)	Degree of hazard score
+1,800	+3,000	->40	30
1,200-1,800	2,000-3,000	30-40	20
600-1,200	1,000-2,000	20-30	10
<600	<1,000	<20	0

11.2.29 The criteria above define the degree of hazard to pedestrians by average traffic flow, 18-hour HGV flow and average vehicle speed over an 18-hour day in miles/hour. The total score from all three elements is combined to provide a 'level' of fear and intimidation for all three elements as per Table 11.2.

Table 11.4 Level of fear and intimidation

Level Of Fear and Intimidation	Combined Hazard Score
Extreme	>71
Great	41-70
Moderate	21-40
Small	<20

11.2.30 The magnitude of impact is approximated with reference to the changes in the level of fear and intimidation from baseline conditions using Table 11.5.

Table 11.5 Fear and intimidation magnitude of impact

Magnitude	Change in step/traffic flows (AADT) from baseline conditions
High	Two step changes in level
Medium	One step change in level, but with >400 vehicle increase in average 18hr average two-way all vehicle flow; and/or >500 HGV increase in total 18hr HGV flow
Low	One step change in level, with <400 vehicle increase in average 18hr average two-way all vehicle flow; and/or <500 HGV increase in total 18hr HGV flow
Negligible	No step change in level

11.2.31 It should, however, be reasserted that whilst quantitative thresholds are suggested, the experience of road users is dependent on qualitative factors such as the availability of pedestrian facilities. These thresholds also do not take into consideration how change in traffic flow is perceived by road users; for example, a small rise in flows on a link already experiencing higher traffic volumes is unlikely to correspond with higher levels of fear and intimidation as it is likely to be in line with the existing perception of the road.

11.2.32 In light of this, the guidance relating to the percentage change in traffic flow will additionally be utilised to understand higher trafficked roads (those with 'Medium' or 'High' baseline levels) where the perception of the road and therefore the levels of fear and intimidation is unlikely to be impacted.

Road Safety

11.2.33 ISEP Guidelines do not include any definition of significance in relation to accidents and safety, suggesting that professional judgement would be needed to assess the implications of local circumstance, or factors which may increase or decrease the risk of accidents.

11.2.34 There can be some small changes in prevailing road safety conditions arising simply as a result of having a greater number of journeys being made on a network; very simply, the more people that are travelling, the more people that may become involved in an accident. However, consideration needs to be given to other factors including changes in vehicle speed. For example, lower speed limits play a critical role in reducing the severity of collisions. The full results of the accident analysis are reported in the TA and are summarised in this ES chapter.

11.2.35 The assessment has been informed by historic accident data (Personal Injury Data) and predicted traffic flows from the 'with the Proposed Development' scenario.

Significance criteria

11.2.36 The following section sets out how impacts have been identified and assessed.

Sensitivity of receptor

11.2.37 In the context of this chapter, receptors are considered to be users of the transport networks to whom the transport effects of the Proposed Development from its construction and operation would be perceptible. These include: non-motorised users using the highway network (including pedestrians, cyclists, and equestrians), and drivers/passengers of motorised vehicles using the highway network (private cars and public transport).

11.2.38 All receptors will exhibit a greater or lesser degree of sensitivity to the changes brought about by the Proposed Development. The sensitivity of a receptor is a function of its capacity to accommodate change.

11.2.39 The extent of the study area and identification of sensitive receptors is based on site visit observations, professional opinion/experience, and the scoping and pre-application feedback from the relevant planning and highway authorities.

11.2.40 The criteria used to establish the sensitivity is based on the ISEP Guidelines are shown in Table 11.6 and have been informed by professional judgement.

Table 11.6 Receptor Sensitivity Descriptors

Receptor value / sensitivity	Receptor type
High	Receptors of greatest sensitivity to traffic flow: schools, colleges, playgrounds, accident clusters, retirement homes, roads without footways that are used by pedestrians and highway safety concerns.
Medium	Receptors with medium sensitivity to traffic flow include: congested junctions, doctors' surgeries, hospitals, shopping areas with roadside frontage, roads with narrow footways, unsegregated cycleways, community centres, parks, and recreation facilities
Low	Receptors with low sensitivity to traffic flow include: places of worship, public open space, nature conservation areas, listed buildings, tourist attractions, and residential areas with adequate footway provision
Negligible	Receptors with no measurable sensitivity to change in traffic flows, sufficiently distant from affected roads and junction

Magnitude of Impact

11.2.41 The magnitude criteria for all environmental impacts are based on the broad significance thresholds contained within the ISEP Guidelines (Davis, S. et. al., 2023). These have been used to determine magnitude, although in addition as recommended by the ISEP Guidelines a qualitative approach has also been adopted for individual criteria, where appropriate. The ISEP Guidelines recommend that highway links should be separately assessed when traffic flows have increased by more than 30%. In sensitive areas effects could be significant when traffic increases are 10% or more. These thresholds principally apply to total traffic although similar changes to the total percentage of HGV flows equally warrant appropriate assessment

11.2.42 The following magnitude criteria for all environmental effects are based on the broad significance thresholds contained within the ISEP Guidelines. These have been used to determine magnitude alongside the individual effect criteria where appropriate. In addition as recommended by the ISEP Guidelines (and as explained for each effect above) a qualitative approach has also been adopted for individual effects, where appropriate. Table 11.7 sets out the magnitude criteria applied in the assessment.

Table 11.7 Magnitude of impact

Magnitude	Description
High	Over 60% change in traffic volume or composition
Medium	Between 30% and 60% change in traffic volume or composition
Low	Between 10% and 30% change in traffic volume or composition
Negligible	Less than 10% change in traffic volume or composition

11.2.43 Therefore, in locations without highly sensitive receptors, the assessment of effects is only necessary where traffic flows or composition changes by plus or minus greater than 30%, and where receptors are more sensitive, only where the flows or composition changes by plus or minus more than 10%.

11.2.44 The predicted level of effect is based upon the consideration of magnitude of impact and sensitivity of the resource/receptor to determine the significance. This is set out in Table 11.8.

Table 11.8 Level of effect

Receptor Sensitivity	Magnitude of Impact			
	High	Medium	Low	Negligible
High	Substantial	Major	Moderate	Negligible
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Minor	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

11.2.45 The determination of predicted level of effects considers the existing transport conditions as a baseline and will provide a prediction of the future effect on the transport network for the construction and the complete and occupied phases of the Proposed Development.

11.2.46 In accordance with the methodology set out within Chapter 5: Approach to EIA, the following criteria are applied to determine whether each effect is either significant or not significant:

- 'moderate' or 'major' are deemed to be 'significant'
- 'minor' are considered to be 'not significant', although they may be a matter of local concern
- 'negligible' effects are considered to be 'not significant'

11.2.47 In accordance with the ISEP Guidelines (Davis, S. et. al., 2023), professional judgement is also applied where appropriate as well as consideration of absolute levels of traffic and the percentage change in traffic. Paragraph 1.11 of the ISEP Guidelines states that *"the guidelines are intended to complement professional judgement and the experience of trained assessors"* and goes on to state that *"the experience and expertise of the assessor will remain of prime importance in conducting an environmental assessment."* The ISEP Guidelines also state at paragraph 4.2 that *"the assessment of impacts will need to determine both the change in magnitude of the impacts as well as their absolute levels"*.

11.2.48 If adverse or beneficial effects are identified, their significance may either be:

- Minor significance: Typically, a slight, very short term or highly localised effect.
- Moderate significance: Typically, a limited effect (by extent, duration or magnitude) which may be considered significant.
- Major significance: Typically, a considerable effect (by extent, duration or magnitude) of more than local significance or in breach of recognised acceptability, legislation, policy of standards.

11.2.49 In each case, impacts are considered as follows:

- Direct or indirect.
- Short to long term impacts.
- Permanent and temporary impacts.

11.2.50 Impact significance is quantified without mitigation (with the exception of embedded mitigation) and subsequently with mitigation to establish the residual impact.

Geographic Scope

11.2.51 The Institute of Sustainability and Environmental Professionals (ISEP) Guidelines (Davis, S. et. al., 2023) do not provide a clear definition of what a relevant study area should be. Instead, professional judgement is applied across the range of specialisms covered by the EIA to determine where receptors sensitive to changes in traffic flow terms are located. Following this determination, and in accordance with the ISEP Guidelines, two broad rules for assessing the threshold at which a change in traffic flows should be considered were applied to assist in delimiting the scales and extent of the environmental assessment. These are either:

- highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%) are anticipated (Rule 1)
- highway links of high sensitivity where traffic flows have increased by 10% or more (Rule 2).

11.2.52 The study area is consistent with that assessed in the TA. The extent of highway network study area was discussed with WBC and includes the following links:

- Princess Marina Drive
- Baston Road
- Biggs Lane
- Langley Common Road
- Observer Way
- Eversley Road
- Barkham Road
- Bearwood Road

11.2.53 Traffic counts and junction turning counts have been used to form the baseline traffic conditions. Junction analysis of the completed Proposed Development traffic has also been undertaken as part of the TA at all the controlled locations within the study area.

Temporal Scope

11.2.54 The baseline year of 2025 was used for non-vehicular modes, based on site observations and desktop studies. A 2024 base was utilised for vehicular flows, which utilises both 2025 and 2024 traffic flows but has been factored where necessary to reflect a 2024 baseline to align with the baseline data of the air quality assessment.

11.2.55 All buildings will be demolished and the Site remediated before construction of the residential development commences. This is expected to commence in 2027 with a 6 year build programme. Completion and full occupation of the site is therefore expected to occur in 2033.

11.2.56 Only 2032 and 2040 years are available for the Strategic Highway Model and as such 2040 has been used for all future scenarios, which aligns with the assessment scenarios of the neighbouring Barkham Square site.

Consultation

11.2.57 Pre-application scoping has been undertaken with WBC to agree the parameters of the transport assessment associated with the planning application. This included agreement on the traffic modelling study area. To ensure consistency, the study area assessed within this assessment reflects the agreed study area of the TA.

Assumptions and Limitations

11.2.58 The following assumptions have been made and are considered to give a conservative approach to the assessment:

- The future year assessments use the Wokingham Strategic Transport Model (WSTM) to provide future year traffic flows. There are in-built assumptions into the WSTM which guides the future traffic patterns and congestion.
- The quantum of Proposed Development included in the WSTM is 330 dwellings. The actual quantum of development proposed is 295 dwellings, and therefore the development traffic generation is likely be slightly lower than the WSTM modelling outputs. This ensures a worst-case scenario.
- Traffic generation estimates for the construction of the Proposed Development are based on assumptions on matters such as materials quantities, number of workers, indicative construction programme etc. However, worst case assumptions have been applied to determine the likely peak period and highest traffic generation which has been used to determine the associated effects.
- The construction and operational traffic data is not simultaneous – they are assessed separately, but data is robust as no phasing or build-up of operations is built into the datasets.
- No vehicular access is proposed between the Site and Barkham Square, and this is reflected in the traffic modelling used in this assessment.

11.3 Baseline conditions

Current Baseline

11.3.1 This section provides a summary of the baseline conditions with respect to transport and traffic within the site and its surroundings, including an overview of the local transport networks.

Site location and existing use

11.3.2 The site is located at Arborfield Studios, Langley Common Road, Arborfield. The site is bordered by Langley Common Road to the west and pasture land to the northeast (land which is a draft allocation to deliver Barkham Square). The Site falls within the wider Arborfield Garrison SDL (Policy CP18) which sought to deliver 3,500 dwellings including affordable homes in accordance with Policy CP5.

11.3.3 The site is the former Arborfield Studios which has been used as film studios since 2017 under a temporary planning permission, which is due to expire in 2028.

11.3.4 The former studios are accessed by an historic vehicular access on Langley Common Road on the northwestern site frontage. There are no other access points into the Arborfield Studios site.

11.3.5 The wider Arborfield Green site (in which the Proposed Development sits) is currently under construction. The development proposals (including the outline application and various subsequent Reserved Matters applications) include:

- Up to 2,137 homes
- District centre (including local supermarket, shops and pub/restaurant);
- Two primary schools (Farley Hill Primary and one under construction);
- A secondary school (Bohunt Wokingham);
- Youth football club;
- Green open space (Hazebrouck Meadows);
- Leisure centre;
- Community Centre;
- Play areas;
- Allotments and community gardens;
- Village Green; and
- Sports pitches

11.3.6 See Chapter 2 Site and Local Context for additional context.

Local highway conditions

Princess Marina Drive

11.3.7 Princess Marina Drive is a two-way single-carriageway road. Historically, it only routed southwest to Baird Road from a roundabout with Biggs Lane, but since the construction of various development parcels of Arborfield Garrison it now continues northeast from the roundabout with Biggs Lane to serve these parcels, as per the parameter plans of the Arborfield Garrison application. It currently terminates at the southeastern corner of the site boundary.

11.3.8 To the north of the roundabout, Princess Marine Drive is circa 6.5m in width with a number of bus stops. An off-carriageway shared footway/cycleway routes on the north side of the carriageway, with a footway provided on the south side.. Princess Marina Drive is street lit and subject to a 30mph speed limit.

Bridle Road

11.3.9 Bridle Road is a two-way single carriageway road that routes from a priority junction with Princess Marina Drive and serves a small residential development parcel of the Arborfield Garrison development, terminating at the southern boundary of the Proposed Development site. It is 5.5m in width and footways are provided on both sides of the road.

Baston Road

11.3.10 Baston Road is a two-way single carriageway road that routes north from a simple priority junction with Biggs Lane and serves a small residential development parcel of the Arborfield Green development and Farley Hill Primary School. It terminates Baston Road along the southern boundary of the Proposed Development. It is circa 6.0m in width and is subject to a 30mph speed limit, reducing the 20mph during school opening and closing times. A footway is

provided on the west side of the carriageway and a shared footway/cycleway is provided on the east side.

Biggs Lane

11.3.11 Biggs Lane operates as a local distributor road for Arborfield Green routing from a roundabout with Langley Common Road to the west to a priority junction with Commonfield Lane, beyond which Biggs Lane becomes Park Lane which routes away from the Arborfield Green settlement south and provides access to the B343.

11.3.12 Biggs Lane is in good condition having been resurfaced alongside the construction of various parcels of the Arborfield Green development. The road is subject to a 30mph speed limit, has wide footways on both sides of the road which are segregated within large and well landscaped verges creating a very pleasant pedestrian environment. A shared footway/cycleway routes parallel to Biggs Lane to the north.

11.3.13 Biggs Lane provides the main distributor access route to several residential plots via simple priority junctions. There are no driveways or minor accesses along the route and there are double yellow line restrictions along its extent. Pedestrian footways on the south side of the road cease towards the junction with Oak Drive. Segregated provision continues to the junction with Commonfield Lane when Biggs Lane becomes Park Lane which is more rural in character.

Langley Common Road

11.3.14 Langley Common Road borders the site to the west and runs from the roundabout junction with Eversley Road and Baird Road to the southwest to a simple priority junction with School Road to the northeast. Beyond the junction with School Road, Langley Common Road becomes Barkham Road which continues northeast and retains a similar character.

11.3.15 Langley Common Road provides an existing access to Arborfield Studios. This access is opposite a couple of small businesses (vehicle sales and vehicle servicing) with short and long term onsite parking provision. Langley Common Road provides direct access to driveways for residential properties predominantly fronting the west side of the carriageway along with a small number of properties on the east side of the road.

11.3.16 Footway provision runs along the full extent of Langley Common Road on the northwestern kerbside providing continuous access south to the Arborfield Green residential area with further provision along the southeastern kerbside along the extent of the parcel of dwellings. There is no formal crossing provision connecting the footways however very good visibility exists in both directions.

11.3.17 The speed limit increases from 30mph from the roundabout junction with Eversley Road and Baird Road to 40mph as it continues west. The road is in good condition with good forward visibility and is lit.

Public rights of way network

11.3.18 There are no public rights of way (PROW) within the site, although there are some within close proximity.

11.3.19 There is a network of public rights of way (PRoW) to the north, west and east of the site. BARK15 / ARBO14 is a footpath that routes north-south from Langley Common Road just west of the Langley Common Road / Biggs Lane roundabout towards Arborfield Cross. BARK14 is a Bridleway that routes east-west from Commonfield Lane to Barkham Ride. BARK7 is a footpath which routes south of Barkham, connecting Langley Common Road to Barkham Street.

Pedestrian and cycle network

- 11.3.20 Much of the area has been recently built-out under previous reserved matters applications associated with the wider Arborfield Green outline planning consent (*planning reference: O/2014/2280*). The area therefore benefits from high-quality walking and cycling infrastructure that has been designed in line with WBC highway design guide for new developments.
- 11.3.21 On Princess Marina Drive, a shared footway/cycleway is provided on the northeastern side of the road between Biggs Lane and Martingale Grove before switching to the other side of the road and terminating at the Site boundary. A footway is provided on the opposite section of the road to the footway/cycleway over narrower sections (yet still providing 2.0m footway throughout). Dropped kerbs and tactile paving are provided at junctions and crossing points along the route. The footway is street lit and a grassed verge is present on the north side of the carriageway.
- 11.3.22 Baston Road provides a footway on the western side of the carriageway and a shared footway/cycleway on the eastern side. Dropped kerbs and tactile paving where appropriate are provided and the road is street lit.
- 11.3.23 Biggs Lane provides a footway on both sides of the carriageway between Langley Common Road / Biggs Lane Roundabout and Princess Marina Drive / Biggs Lane Roundabout. The wide footways are segregated within large and well-landscaped verges creating a pleasant pedestrian environment, and a shared footway/cycleway is provided on the north side of the carriageway enabling off-carriageway cycling.
- 11.3.24 A footway is provided along the full extent of the western side of Langley Common Road, providing continuous provision between School Lane to the north and Arborfield Green residential area to the south. There is no pedestrian provision on the eastern side of the road.
- 11.3.25 The outline planning consent required a network of footways and cycleways throughout the wider Arborfield Green SDL. An array of active travel routes and green corridors have thus been built-out through reserved matters applications to connect neighbourhoods and to the local centre further south of the site.
- 11.3.26 WBC's 'Greenways Project' will deliver several routes around Barkham and Arborfield Green. Greenways are largely traffic-free routes connecting the major Strategic Development Locations (SDLs) and key destinations in the borough for pedestrians, cyclists and, in some cases, equestrians. The first phase, known as California Way, links Arborfield Green and Finchampstead, via California Country Park, and is already built and in use.
- 11.3.27 The internal walking and cycling routes within Arborfield Green will connect to the Greenway routes.

Public transport network

Bus

- 11.3.28 The closest bus stop to the site is Langley Common Road bus stop located north of the existing site access. This bus stop serves bus number 145. Further bus stops are available along Biggs lane circa 450m south of the site and served by bus number Leopard 3. The bus stops are equipped with a flagpole and timetable information.
- 11.3.29 The Leopard 3 offers a 15-minute service to Arborfield Green, routing from Reading, Shinfield, Arborfield Cross to Langley Common Road, Biggs Lane and then right to Princess Marina Drive

southwards to Bohunt School. The Leopard 3 also offers a 30-minute service to Wokingham, Arborfield and Reading which has recently been increased from an hourly service.

11.3.30 A summary of the current Leopard 3 services is provided below:

- One service per hour between Arborfield and Reading;
- Two services per hour between Reading and Wokingham via Arborfield;
- One service per hour between Reading and Bracknell via Arborfield; and
- Term time service Reading to Bohunt Secondary school (1 no. AM service; 2 no. PM services)

Rail

11.3.31 The nearest railway station is Wokingham, circa 4km northeast of the site. The station can be accessed by cycling or the Leopard 3 bus service which offers two buses per hour. The Leopard 3 bus service also serves Reading Station, which is a circa 35 minute journey. Reading offers direct services to a large range of destinations and also Elizabeth Line tube services to London.

11.3.32 The rail services available from Wokingham and Reading are summarised in Table 11.9.

Table 11.9 Rail frequency

Destination	Average journey times	Typical frequency of service	
		Peak	Off-peak
Wokingham Station			
Reading	10 minutes	4 per hour	4 per hour
London Waterloo	1 hr 10 minutes	2 per hour	1-2 per hour
Gatwick Airport	1 hr 22 minutes	2 per hour	2 per hour
Reading Station			
London Paddington	25 minutes	14 per hour	13 per hour
Oxford	25 minutes	2 per hour	2 per hour
Basingstoke	20 minutes	4 per hour	2 per hour
Newbury	20 minutes	3 per hour	2 per hour
Bristol Temple Meads	1 hr 10 minutes	2 per hour	2 per hour
Bournemouth	1 hr 40 minutes	1 per hour	1 per hour
Cardiff	1 hr 45 minutes	1 per hour	1 per hour

Road Safety

11.3.33 Personal Injury Collision (PIC) data has been obtained from Wokingham Borough Council for the latest five-year period between July 2020 and July 2025.

11.3.34 In total, there were five PICs recorded in the study area over the past five years, one of which resulted in serious injuries.

- One PIC involved a driver under the influence of alcohol and driving too fast for the conditions;
- One PIC involved a vehicle attempting to overtake at speed, resulting in serious injuries;
- One PIC involved a loss of control of the vehicle due to tiredness; and
- There was no information provided on the cause of the collision for two PICs.

Traffic conditions

11.3.35 The surveys undertaken to obtain baseline traffic data are set out at Section 11.2. The surveys recorded vehicle speeds and volume data along key links and junction near the site.

11.3.36 Average Annual Daily Traffic (AADT) flows have been calculated based on the observed traffic data at the location identified in Section 11.2. The baseline traffic flows are shown in Table 11.10.

Table 11.10 Summary of AADT flows (2024 baseline)

Location no.	Site name	Direction	2024 baseline flows		
			Total vehicles	HDV*	HDV %
1	Princess Marina Drive (north)	Two-way	1,389	6	<1%
2	Princess Marina Drive (south)	Two-way	3,068	157	5%
3	Biggs Lane (east of PMD)	Two-way	4,552	174	4%
4	Biggs Lane (west of PMD)	Two-way	7,427	299	4%
5	Baston Road	Two-way	1,199	0	0%
6	Biggs Lane (west of Baston Road)	Two-way	7,848	352	5%
7	Observer Way	Two-way	15,831	624	4%
8	Eversley Road (east of Observer Way)	Two-way	15,550	531	3%
9	Eversley Road (north of Langley Common Road)	Two-way	15,312	624	4%
10	Langley Common Road (west of Biggs Lane)	Two-way	13,332	721	5%
11	Langley Common Road (east of Biggs Lane)	Two-way	10,489	404	4%
12	B3349 Barkham Road (West of Barkham Street)	Two-way	10,269	374	4%
13	B3349 Barkham Road (East of Barkham Street)	Two-way	12,528	452	4%

*HDV = Heavy Duty Vehicle (more than 3.5tonnes)

Summary of Receptors and Sensitivity

11.3.37 Based on a review of baseline conditions, Table 11.11 presents the receptors likely to be affected by the Proposed Development, and their sensitivity. This takes into account the location of the receptor and its relationship with the Site. The sensitivity of the receptor does not change in the future baseline or between the future years. However, the sensitivity does not apply uniformly to all effects and where relevant this is explained.

Table 11.11 Sensitive receptors

Link	Road speed	Specific receptors	Sensitivity
Princess Marina Drive (north)	30mph	- Access to residential properties - Bus stops	Low
Princess Marina Drive (south)	30mph	- Hazebrouck Day Nursery and Pre-School - Arborfield Green Community centre - St Eligius Church - Playing fields	High
Biggs Lane (east of PMD)	30mph	Access to residential properties	Low
Biggs Lane (west of PMD)	30mph	- Access to residential properties - Bus stops	Low
Baston Road	30mph	- Farley Hill Primary School - Residential properties	High
Biggs Lane (west of Baston Road)	30mph	- Access to residential properties - Bus stops	Low
Observer Way	50mph	- Observer Way Bridge - Shared footway/cycleway	Low
Eversley Road (east of Observer Way)	40mph	None	Negligible
Eversley Road (north of Langley Common Road)	40mph	- Bus stops - Vehicle storage / repair shop - Ducks Nest Farmhouse – Grade II listed - Access to listed buildings within Arborfield Village	Low
Langley Common Road (west of Biggs Lane)	40mph	- Bus stops - Footways - Access to Rickman Close	Low
Langley Common Road (east of Biggs Lane)	40mph	- Access to Arborfield Studios - Footway - Access to residential driveways	Low
B3349 Barkham Road (West of Barkham Street)	40mph	- Bus stops - Footways	Low
B3349 Barkham Road (East of Barkham Street)	30mph	- Bus stops - Footway provision - Wall to Barkham Manor – Grade II listed	Low

Future Baseline

- 11.3.38 The Site benefits from temporary planning permission for film studios. In the 2040 future baseline in the absence of the Proposed Development it is assumed the Site will continue to be retained as a film studios or similar use. Thus, it would continue to generate traffic associated with such a use and the existing access from Langley Common Road would be retained and in general use.
- 11.3.39 The development parcels of the wider Arborfield Green SDL are broadly expected to be built-out well before 2040 through reserved matters applications under the 2015 outline planning consent. The area predominantly to the south of the Site will therefore have more housing and larger populations than the current 2025 baseline. The Arborfield Green District Centre is also expected to be built-out by 2040.
- 11.3.40 Once non-residential elements have been finished and are occupied, it is anticipated that many trips that are currently made by car to nearby schools, shops and leisure facilities will be internalised within the Site, reducing the need to travel by car due to the network of walking and cycling infrastructure and facilities all within a comfortable walking and cycling distance of homes.
- 11.3.41 The Future Local Plan Scenarios include all developments outlined within the emerging Local Plan Regulation 19 Submission in addition to sites with planning permission in Wokingham Borough. This includes Barkham Square at 600 dwellings.
- 11.3.42 The Greenways project that is inherent to the Arborfield Green scheme is also expected to be completed, providing green corridors through the wider SDL.

11.4 Inherent design mitigation

- 11.4.1 There are a number of mitigation measures inherent to the Proposed Development design, and/or required by way of planning policy or guidance.

Construction Phase

- 11.4.2 The application is supported by an Outline Construction Traffic Management Plan (CTMP) (provided at Appendix 11.2) which confirms the measures to be identified within a Full CTMP. It is expected that the planning permission will include a condition for a full CTMP to be submitted to and agreed with WBC which aligns with the Outline CTMP. The CTMP will set out the Site's management practices to control construction traffic vehicle routing to avoid local residential roads and ensure sufficient driver awareness training is provided.
- 11.4.3 Construction traffic will be required to route to and from the Site via a specific and agreed route, expected to be via the existing former Arborfield Studios access on Langley Common Road. All site traffic will be required to turn right-in from the south and left-out to the south, routing towards the strategic road network.
- 11.4.4 The chosen construction contractor will be required to sign up to and adhere to the Considerate Constructors Scheme.
- 11.4.5 The Outline CTMP includes measures to minimise disturbance which could potentially arise from traffic generated by the Proposed Development. The key elements are:
- Deliveries will be limited to working hours, and where possible would not arrive during peak hours

- Deliveries will be phased and controlled on a 'just in time' basis to minimise travel time around the Site, stock piling of materials and any associated noise and dust impacts. Consideration will be given to the use of a vehicle booking and management system in order to minimise peaks and increase opportunities for consolidated deliveries
- Scheduling of construction traffic movements (equipment and materials), when possible, to avoid the peak traffic periods at the beginning and end of each working day and other sensitive periods, in order to minimise potential disturbance to local residents, users, or safety impacts at junctions;
- HGV drivers will have to attend an HGV Cycle Awareness sessions to ensure they are aware of and understand (and look-out for) cyclists on the roads;
- Wheel washing and road cleaning facilities will be provided at a sufficient level to ensure the surrounding road network is kept clear of spoil and debris;
- The provision of internal roads and designated areas within the Site for key activities such as storage and preassembly to minimise the impact on the road network;
- The Site's labour force will be encouraged to walk, cycle or use public transport to travel to and from the Site and a Travel Plan will be in place to ensure sustainable travel modes are promoted. No parking on public roads will be allowed and the Contractor/Construction Manager in conjunction with Wokingham BC should enforce this. Provision will be made within the Site for essential on-site parking. Site personnel will access the Site via security control gates, which will be segregated from vehicular access;
- Appropriate signage will be in place to identify access routes and to inform motorists that the local roads are accommodating construction traffic;
- The main contractor will be responsible for liaison with stakeholders prior to commencing construction of the Proposed Development and throughout work on-site.

Operational Phase (Completed Development)

- 11.4.6 The Proposed Development will include various measures to ensure sustainable travel opportunities are promoted to all. This includes maximising active travel and public transport connections to the surrounding communities. These points are addressed in more detail in Section 4 and 5 of the TA, and are summarised below.

Access Strategy

- 11.4.7 The proposed access strategy seeks to align with the approved parameter plan as far as possible, and to encourage and prioritise the movements of active travel across the site and into Arborfield Green. There were some minor changes to the original parameter plans through S73 applications and what has been consented via subsequent Reserved Matters applications has been built-out substantially in accordance with the general principles agreed at outline stage.

11.4.8 The access strategy includes:

- Primary site accesses from Baston Road and Princess Marina Drive.
- Vehicular accesses from Princess Marina Drive (on the eastern boundary of the site).
- A bus loop/corridor along the secondary street loop through the site via Baston Road and Princess Marina Drive.
- Closure of the Arborfield Studios vehicular access from Langley Common Road, and replacement with an active travel access on completion of development.
- Reinstatement of a minor vehicular access from Langley Common Road at the listed farmhouse building in the northern corner of the site to serve four dwellings.
- Greenway links, mostly aligned with those proposed as part of the outline planning consent.

11.4.9 Vehicular access into the site will be in the form of extensions of the existing roads of Baston Road and Princess Marina Drive. This is in accordance with the Access and Movement parameter plan of the outline planning consent. The extensions will be designed with the same geometric principles of the existing road network, which are also designed in accordance with WBCs highway design guide for developers.

11.4.10 The existing vehicular access from Langley Common Road into the former Arborfield Studios will be closed to vehicular traffic and provided as an active travel access.

11.4.11 Two all-modes accesses are proposed at Baston Road and Princess Marina Drive (south) to provide and enable the delivery of a bus corridor through the site. The access road will be 6.5m in width to connect to the existing roads.

11.4.12 A vehicular access (excluding buses but including walking and cycling) is proposed to Princess Marina Drive (east) to connect to Sherman Drive and Oak Drive, to the east of the site.

Pedestrian and Cycle access

11.4.13 The masterplan seeks to prioritise active travel both into and through the site. There are therefore numerous active travel options available to future residents to enter/exit the site from east, south and west. Multiple walking and cycling connections are proposed to link to existing routes to form a network through the site connecting Baston Road, Bridle Road, Princess Marina Drive and Langley Common Road. These will connect to the wider greenway network across Arborfield Green to provide for safe and convenient travel on foot or by cycle.

11.4.14 To the east, walking and cycling access will be provided between the site and the built-out development parcels along Princess Marina Drive, Sherman Avenue and Oak Drive, connecting to the existing network of footways.

11.4.15 To the south, active travel links are proposed to connect to existing footways on Bridle Road and Martingale Grove, and the shared footway/cycleway on Baston Road is proposed to continue into the site.

11.4.16 To the west, the existing vehicular access onto Langley Common Road will be closed to vehicular traffic and replaced with an active travel access on completion of the development.

11.4.17 A shared footway / cycleway will route through the site and connect to the existing provision at Baston Road to the west and Princess Marina Drive to the east. The shared route will route eastward through the site from Baston Road along the Secondary Street, continuing towards

the centre of the site and also branching off to the north towards Langley Common Road. Once in the centre of the site, it will divert north for a short extent before continuing eastward and connecting with the existing provision on Princess Marina Drive.

11.4.18 Within the Site, the street hierarchy has been designed in accordance with WBC design standards, and therefore a network of active travel routes will be provided through the site to connect neighbourhoods and play areas within the site, and connect to existing routes to neighbourhoods nearby and to key destinations such as Farley Hill Primary School and local playing fields.

11.4.19 Uncontrolled pedestrian crossings will be provided at appropriate locations throughout the development to enable connections between neighbourhoods.

11.4.20 At Langley Common Road, the shared footway / cycleway will separate to provide separate provision. An uncontrolled pedestrian crossing with dropped kerbs and tactile paving is proposed across Langley Common Road. For cyclists, bollards are proposed on the approach to the carriageway.

Green Corridors

11.4.21 The Proposed Development will also accommodate the green corridors that will connect to the existing greenways included as part of the outline planning consent. Whilst there is some variation to the alignment of the green corridor from the parameter plan, the green corridor will continue to connect from Langley Common Road in the north, through the site and the built-out parcels, and will continue south to the wider SDL.

Bus Strategy

11.4.22 The Proposed Development proposes a bus corridor along the main secondary street route of the development forming a loop road between Princess Marina Drive and Baston Road through the site. Two pairs of bus stops in both directions will be provided along the secondary street, which ensures that all dwellings within the Proposed Development will be within 400m of bus stops in accordance with WBC guidance, and providing good access to frequent public transport services.

11.4.23 The development proposals would divert the Leopard 3 bus into the site via Baston Road and Princess Marina Drive, routing along the bus corridor through the site. The provision of this route would also enable the existing bus stops on Princess Marina Drive that have been constructed as part of neighbouring built-out parcels to be served by bus services. The bus corridor will also uplift the accessibility to bus services for neighbouring development parcels on Princess Marina Drive, Oak Drive and Baston Road.

MyJourney Wokingham

11.4.24 My Journey is a Wokingham-wide initiative designed to inspire residents, visitors, schools, and businesses to explore active, sustainable travel options. It is funded through S106 developer funding as well as successful funding bids from HM Government and supports the Council's Local Transport Plan.

11.4.25 The Proposed Development will actively support the objectives of MyJourney Wokingham, by prioritising walking, cycling and public transport use and by encouraging behaviour change among residents and visitors. This will be supported by a S106 contribution in accordance with the Council's Local Transport Plan.

11.5 Potential effects prior to additional mitigation

Construction Phase

- 11.5.1 A detailed construction programme is not available at this stage. However, an assessment has been undertaken based on information available. This includes a reasonable worst case estimate of demolition, spoil removal, import of materials, site operatives and construction methods. This information has been used to derive, an indication of potential vehicle movements throughout the construction period. These are presented in Table 11.12.

Table 11.12 Peak Annual Average Weekday Traffic Construction vehicle trips

AAWT	Arrivals	Departures	Two-way
Light vehicles	94	94	188
HGVs	28	28	56
Total	122	122	244

- 11.5.2 Demolition and construction would generate short term increases in vehicle movements on the highway in the vicinity of the site. It should also be noted that these increases are not constant throughout the overall construction period. As set out in the CTMP construction vehicles will use the existing Site access from Langley Common Road and will route to and from the south to the wider road network. Thus, construction traffic would not affect most of the study network.
- 11.5.3 The estimated construction trip generation outlined in Table 11.12 result in the following AAWT construction flows across the study area presented in Table 11.13. The full AADT and AAWTs for the construction trip scenario is included as Appendix 11.3, which includes all HGV trips.
- 11.5.4 This seeks to determine whether each link in this scenario respectively satisfies Rules 1 and 2 of the ISEP Guidelines (as defined in paragraph 1.29) for further detailed assessment.

Table 11.13 Summary of AAWT Flows (Construction Traffic)

Link	Direction	2040 w/o development	2040 with Construction Traffic	% change in flows	% change in HGV flows
Princess Marina Drive (north)	EB/NB	1039	1039	0.0%	0.0%
	WB/SB	1188	1188	0.0%	0.0%
	Two-way	2227	2227	0.0%	0.0%
Princess Marina Drive (south)	EB/NB	2358	2358	0.0%	0.0%
	WB/SB	2258	2258	0.0%	0.0%
	Two-way	4615	4615	0.0%	0.0%
Biggs Lane (east of PMD)	EB/NB	2664	2664	0.0%	0.0%
	WB/SB	3397	3397	0.0%	0.0%
	Two-way	6060	6060	0.0%	0.0%
Biggs Lane (west of PMD)	EB/NB	4990	4990	0.0%	0.0%
	WB/SB	4350	4350	0.0%	0.0%
	Two-way	9341	9341	0.0%	0.0%
Baston Road	EB/NB	2202	2202	0.0%	0.0%
	WB/SB	1860	1860	0.0%	0.0%
	Two-way	4062	4062	0.0%	0.0%

Biggs Lane (west of Baston Road)	EB/NB	4769	4769	0.0%	0.0%
	WB/SB	4302	4302	0.0%	0.0%
	Two-way	9071	9071	0.0%	0.0%
Observer Way	EB/NB	12551	12673	1.0%	11.5%
	WB/SB	9773	9895	1.2%	16.2%
	Two-way	22324	22568	1.1%	13.4%
Eversley Road (east of Observer Way)	EB/NB	10769	10891	1.1%	16.7%
	WB/SB	11332	11454	1.1%	25.4%
	Two-way	22101	22345	1.1%	20.2%
Eversley Road (north of Langley Common Road)	EB/NB	4562	4562	0.0%	0.0%
	WB/SB	4912	4912	0.0%	0.0%
	Two-way	9474	9474	0.0%	0.0%
Langley Common Road (west of Biggs Lane)	EB/NB	10094	10216	1.2%	18.6%
	WB/SB	9917	10039	1.2%	29.9%
	Two-way	20011	20255	1.2%	22.9%
Langley Common Road (east of Biggs Lane)	EB/NB	8164	8286	1.5%	24.8%
	WB/SB	7062	7184	1.7%	44.3%
	Two-way	15226	15470	1.6%	31.8%
B3349 Barkham Road (West of Barkham Street)	EB/NB	8474	8474	0.0%	0.0%
	WB/SB	7339	7339	0.0%	0.0%
	Two-way	15814	15814	0.0%	0.0%
B3349 Barkham Road (East of Barkham Street)	EB/NB	10873	10873	0.0%	0.0%
	WB/SB	8882	8882	0.0%	0.0%
	Two-way	19754	19754	0.0%	0.0%

11.5.5 Table 11.11 shows that the number of HGVs could increase beyond 30% on Langley Common Road (east of Biggs Lane) during the Construction phase of development. Further assessment of Langley Common Road during construction phase is therefore required in accordance with ISEP Guidelines Rule 1. Other links exceed the 10% threshold of Rule 2 but, as they are not sensitive links, they do not require further assessment.

Severance of communities

11.5.6 With reference to the criteria for measuring severance set out in the assessment methodology outlined in paragraph 11.2.18 and the proportional increase in AAWT flows above, the construction phase of the Proposed Development is likely to have a negligible effect in terms of community severance on all links except Langley Common Road, where the changes in two-way HGV% flow is 31.8%.

11.5.7 In accordance with Table 11.5, the magnitude of severance on Langley Common Road is 'Medium'. The sensitivity of Langley Common Road east of Biggs Lane is 'Low' due to the limited residential properties, speed and volume of traffic. It should also be noted that construction vehicles will only route on Langley Common Road between the roundabout and the site access, where it will encounter only one receptor (residential driveway).

11.5.8 The nature of the effect will also be short-term and temporary. Therefore, the level of effect on severance on Langley Common Road is **minor adverse** and therefore, **not significant** in EIA terms.

Driver delay

11.5.9 No specific modelling has been undertaken on the construction phase of the development. However, it should be noted the development vehicle trips associated with the construction phase are far lower than those associated with the operational phase of development (2040 with development) and, as is demonstrated below (paragraphs 11.5.36-11.5.42), the significance of the effects on driver delay during the operational phase is not significant. Clearly, with lower traffic in the construction phase of development, the effects on driver delay would be not significant.

11.5.10 Further, construction traffic will be managed through the CTMP which includes measures to manage the timing of construction vehicles to avoid peak periods on the road network as well as avoiding roads which are sensitive to changes in traffic flow such as Baston Road. The CTMP also includes monitoring protocol to ensure if any effects arise changes to management of construction vehicles can be implemented accordingly.

11.5.11 Therefore, (as per the operational phase) the effect on driver delay during construction would be **Negligible** and **not significant** in EIA terms.

Non-motorised user delay

11.5.12 As previously detailed, where two-way traffic flows on a road exceed 1,400 vehicle movements per hour, then a pedestrian seeking to cross that road would perceive a delay.

11.5.13 The traffic flows on Langley Common Road would total 15,226 per day during the construction phase. During the busiest hour, the 2040 baseline scenario could result in 1,269 vehicles per hour.

11.5.14 The total number of two-way development construction vehicle trips routing on Langley Common Road is 244 per day. Split hourly across the day, this would result in circa 24 trips associated with the construction phase per hour.

11.5.15 Therefore, during the busiest hour, the 2040 construction phase could result in 1,293 vehicles per hour. Thus, the level of traffic would remain below the level at which there would be a perceptible delay to pedestrians crossing. On the low sensitivity receptor of Langley Common Road, the magnitude of impact is negligible. Accordingly, the level of effect on pedestrian delay would be **negligible** and **not significant**.

Non-motorised user amenity

11.5.16 The ISEP guidance refers to a tentative threshold for judging the significance of changes in pedestrian amenity where the traffic flow (or its HGV component) is halved or doubled.

11.5.17 The increases in total vehicle and HGV movements as a result of the construction phase for Langley Common Road is 1.6% and 31.8% respectively.

11.5.18 The above traffic increases due to the construction traffic is less than 100%. Thus, the magnitude of impact would be **negligible** and effect on non-motorised amenity is **not significant**.

Fear and intimidation

11.5.19 The criteria used to define the degree of hazard to pedestrians is average peak hour traffic flow, 18-hour HGV flow and average vehicle speed along each considered link.

11.5.20 Each threshold across the criteria represents a degree of hazard score, the sum of which determines the Level of Fear and Intimidation. This has been assessed for all the links in both Scenario 2 (Do Something) and Scenario 3 (Do Something with Development) to understand the Magnitude of Impact across the links assessed for Fear and Intimidation.

Table 11.14 Fear and Intimidation (2040)

Link ref	AAWT 18hr/hourly two-way	Total 18hr HGV	Vehicle speeds (mph)	A score	B score	C score	Total hazard
2040 Future baseline							
Langley Common Road (east of Biggs Lane)	1,281	176	36.4	20	0	20	40 (moderate)
2040 Future baseline with development							
Langley Common Road (east of Biggs Lane)	1,316	232	36.4	20	0	20	40 (moderate)

11.5.21 The assessment demonstrates that there is no change in the levels of fear and intimidation between Scenario 2 (without development) and Scenario 3 (with development) showing that all links can be considered to have a 'Negligible' Magnitude of Impact.

11.5.22 Langley Common Road is a low sensitivity receptor. The effect on fear and intimidation would therefore be **negligible**, and **not significant**.

Accident and Road Safety

11.5.23 Accident data has been obtained from Wokingham Borough Council for the previous 5 years. This showed that there have been 7 recorded collisions within the study area during that 5 year period, 6 of which were slight, and one was serious.

11.5.24 There was one recorded accident on Langley Common Road. A 'slight' collision occurred at the Langley Common Road/Biggs Lane roundabout where a LGV entered the roundabout and collided with a cyclist.

11.5.25 This therefore does not indicate an underlying issue with road safety (relating to personal injuries) in the surrounding area, with a relatively low number of recorded incidents in a range of locations.

11.5.26 Whilst the addition of any amount of traffic can increase the risk of accidents, it is considered that the low level of construction traffic associated with the Proposed Development is unlikely to materially affect safety on the links in the study area, irrespective of percentage changes in traffic flows. Therefore, the effects on road user and pedestrian safety from the Proposed Development's construction phase will be **negligible** and **not significant**.

Operational Phase

11.5.27 Operational trips would generate permanent increases in vehicle movements on the highway in the vicinity of the site. Table 11.13 demonstrates the comparison between Scenario 1 (without development) and 3 (with development) AAWT. The full AADT and AAWTs for the Operational scenario is included as Appendix 11.3.

Table 11.15 Summary of AAWT Flows (Operational Phase)

Link	Direction	2040 without Development	2040 with Development	% change in flows	% change in HGV flows
Princess Marina Drive (north)	EB/NB	1039	1161	11.8%	1.7%
	WB/SB	1188	1490	25.4%	0.0%
	Two-way	2227	2651	19.0%	0.8%
Princess Marina Drive (south)	EB/NB	2358	2551	8.2%	0.0%
	WB/SB	2258	2547	12.8%	1.0%
	Two-way	4615	5098	10.5%	0.6%
Biggs Lane (east of PMD)	EB/NB	2664	2796	5.0%	2.7%
	WB/SB	3397	3532	4.0%	-0.3%
	Two-way	6060	6328	4.4%	1.2%
Biggs Lane (west of PMD)	EB/NB	4990	5468	9.6%	-0.2%
	WB/SB	4350	4808	10.5%	1.9%
	Two-way	9341	10276	10.0%	0.9%
Baston Road	EB/NB	2202	2900	31.7%	1.1%
	WB/SB	1860	2492	34.0%	0.0%
	Two-way	4062	5392	32.7%	0.7%
Biggs Lane (west of Baston Road)	EB/NB	4769	4769	0.0%	-0.2%
	WB/SB	4302	4302	0.0%	1.9%
	Two-way	9071	9071	0.0%	0.9%
Observer Way	EB/NB	12551	12692	1.1%	1.0%
	WB/SB	9773	9823	0.5%	1.1%
	Two-way	22324	22515	0.9%	1.0%
Eversley Road (east of Observer Way)	EB/NB	10769	10824	0.5%	-0.4%
	WB/SB	11332	11434	0.9%	0.2%
	Two-way	22101	22258	0.7%	-0.2%
Eversley Road (north of Langley Common Road)	EB/NB	4562	4701	3.0%	0.0%
	WB/SB	4912	5005	1.9%	2.3%
	Two-way	9474	9706	2.5%	1.1%
Langley Common Road (west of Biggs Lane)	EB/NB	10094	10289	1.9%	0.3%
	WB/SB	9917	10039	1.2%	-0.1%
	Two-way	20011	20327	1.6%	0.2%
Langley Common Road (east of Biggs Lane)	EB/NB	8164	8316	1.9%	-0.3%
	WB/SB	7062	7242	2.5%	0.0%
	Two-way	15226	15558	2.2%	-0.2%
B3349 Barkham Road (West of Barkham Street)	EB/NB	8474	8619	1.7%	-0.3%
	WB/SB	7339	7511	2.3%	1.5%
	Two-way	15814	16130	2.0%	0.3%

B3349 Barkham Road (East of Barkham Street)	EB/NB	10873	11101	2.1%	-0.2%
	WB/SB	8882	9045	1.8%	3.5%
	Two-way	19754	20146	2.0%	1.2%

11.5.28 In terms of total vehicle flows, Baston Road could experience increases in two-way traffic of 32.7%. In accordance with Rule 1 of the ISEP guidelines, further assessment of Baston Road is required.

11.5.29 However, the percentage increases need to be viewed in the context of the very low baseline flows on Baston Road. The percentage increases may exceed the 30% threshold however the absolute volume of traffic would remain at low levels (in comparison with the majority of other links) even following the increases resulting from the Proposed Development. Nevertheless, further assessment is undertaken of Baston Road.

11.5.30 On Princess Marina Drive (south) there is a 10.5% increase in two-way traffic flows which is a low magnitude of impact, but there are receptors of high sensitivity in this link as set out in Table 11.9. In accordance with the ISEP guidelines, further assessment is therefore warranted however it should once again be noted that the percentage increases need to be viewed in the context of the low baseline flows on Princess Marina Drive (south), which the Proposed Development may only increase a modest amount.

11.5.31 The magnitude of impact is deemed to be low or negligible on all other links, which would all experience increase change of less than 30% or have low / negligible sensitivity. Thus, with the exception of Baston Road and Princess Marina Drive (south), the environmental effects of traffic would be not significant and no further assessment of those links has been undertaken.

Severance of communities

Baston Road

11.5.32 The two-way vehicle flow on Baston Road would increase by 32.7% with the Proposed Development, which would result in a 'medium' magnitude of impact. Baston Road is considered to be high sensitivity for the reasons set out above. As such, this would result in a major adverse level of effect, which would be significant in EIA terms.

11.5.33 However, the 2040 baseline flows on Baston Road are very low even with the addition of the Proposed Development traffic. Severance is only likely to occur on highly trafficked roads, resulting from the perceived division the road and traffic creates between communities on either side of the carriageway. The ISEP guidelines state that "*very low baseline flows are unlikely to experience severance impacts even with high percentage changes in traffic*". Therefore, based on professional judgement, the percentage increase needs to be viewed in the context of the very low baseline flows on Baston Road. In other words in terms of severance Baston Road has Low not High sensitivity. Thus, with a Medium magnitude impact and Low sensitivity there will be a **minor adverse** effect which is **not significant** in EIA terms.

Princess Marina Drive (south)

11.5.34 On Princess Marina Drive (south), the change in flow is 10.5% and the magnitude of impact is therefore, Low. Princess Marina Drive (south) is considered to be high sensitivity due to presence of sensitive receptors as set out above. As such, in accordance with Table 11.6, this could result in a moderate adverse level of effect which is significant in EIA terms.

11.5.35 However, for the same reasons outlined for Baston Road above the absolute volume of traffic would remain at modest levels which means there would be Low sensitivity to any severance

effect. Thus, with a Low magnitude impact and Low sensitivity there will be a **minor adverse** effect which is **not significant** in EIA terms.

Driver delay

11.5.36 As set out previously, driver delay has been derived from the individual junction modelling undertaken as part of the Transport Assessment. It considers highway capacity and undertakes operational assessments at the Baston Road / Biggs Lane junction and the Princess Marina Drive / Biggs Lane roundabout during the network peak hours (0800-0900 and 1700-1800).

Baston Road

11.5.37 For Baston Road / Biggs Lane, the operational assessments conclude that between the 2040 without development (Scenario 1) and 2040 with development (Scenario 2) there could be an increase in driver delay of up to 26 seconds during the morning peak hour, and the Ratio to Flow Capacity (RFC) of the junction reaches 0.94 which suggests that the junction will be nearing operational capacity (an RFC of 1.00 indicates the junction is fully saturated). The increase in delay is lower than 20 seconds in the evening peak hour. Outside of the peak hour periods the increase delay is well below 20 seconds. When considered against the criteria set out in Table 11.** the magnitude is negligible across the majority of the day other than in the morning peak hour when it is Low.

11.5.38 The outputs present the worst-case 15-minute time period across the peak hour. In this particular instance, the 26 second delay is experienced between 0830-0845. This is in large part due to the school drop-off period during the morning peak hour, which surveys demonstrate peaks between 0830-0845. Either side of this 15-minute period, the junction operates with increases in delay of less than 20 seconds.

11.5.39 Baston Road is identified as of High sensitivity. However, this relates to the presence of activity surrounding the primary school rather than driver delay. Thus, with respect to Driver Delay the sensitivity is Medium. Further, the magnitude of the impact is generally at Negligible levels with the exception of a 15 minute period when it is at Low Levels.

11.5.40 Therefore, with, at worst, a Low magnitude impact and Medium sensitivity, the effect would be **minor adverse** and **not significant** in EIA terms.

Princess Marina Drive (South)

11.5.41 The operational assessments at the Princess Marina Drive / Biggs Lane roundabout conclude that the impact of the increased traffic flows would be a negligible magnitude of impact between Scenario 1 (2040 baseline without development) and Scenario 2 (with development), with the junction predicted to operate well within capacity and changes in delay well below 20 seconds as set out in the TA.

11.5.42 Whilst the sensitivity of Princess Marina Drive is high, when taken with the negligible magnitude of impact, the effect on driver delay at this junction is **negligible** and **not significant**.

Non-motorised user delay

11.5.43 As previously detailed, where two-way traffic flows on a road exceed 1,400 vehicle movements per hour, then a pedestrian seeking to cross that road would perceive a delay. Where flows are below 1,400 vehicles per hour the magnitude of impact would be negligible.

11.5.44 The traffic flows on Baston Road could total at 5,392 vehicles per day once the development is fully operational. During the busiest hour, the Strategic Highway Model outputs demonstrate the 2040 With Development scenario could result in 599 two-way peak hour traffic flows on

Baston Road. The same can be said for Princess Marina Drive (South), which could experience peak hour traffic flows of 448 vehicles.

11.5.45 Thus, the level of traffic would remain below the level at which there would be a perceptible delay to pedestrians crossing. As such, the magnitude of impact on the high sensitivity receptors of both Baston Road and Princess Marina Drive (south) are negligible. Accordingly, the level of effect on pedestrian delay would be **negligible** and therefore, **not significant** in EIA terms.

Non-motorised user amenity

11.5.46 The ISEP guidance refers to a tentative threshold for judging the significance of changes in pedestrian amenity where the traffic flow (or its HGV component) is halved or doubled.

11.5.47 The increases in total vehicle and HGV movements as a result of the Development for Baston Road and Princess Marina Drive (south) are as follows:

- Baston Road: Total vehicle increase of 32.7% and HGV of 0.7%
- Princess Marina Drive (south): Total vehicle increase of 10.5% and HGV of 0.6%

11.5.48 The above traffic increases due to the Development traffic are all less than 100%. The absolute level of traffic flows are low in the future baseline and would remain at modest levels following the addition of Development related traffic. Thus, the magnitude of impact would be negligible.

11.5.49 The sensitivity of Baston Road and Princess Marina Drive is high, but due to the low absolute traffic flows the effect on non-motorised amenity the level of effect is **negligible** and therefore, **not significant** in EIA terms.

Fear and intimidation

11.5.50 The criteria used to define the degree of hazard to pedestrians is average peak hour traffic flow, 18-hour HGV flow and average vehicle speed along each considered link.

11.5.51 Each threshold across the criteria represents a degree of hazard score, the sum of which determines the Level of Fear and Intimidation. This has been assessed for all the links in both without development and with development scenarios to understand the Magnitude of Impact across the links assessed for Fear and Intimidation.

Table 11.16 Fear and Intimidation (2040 with development)

Link ref	AAWT 18hr/hourly two-way	Total 18hr HGV	Vehicle speeds (mph)	A score	B score	C score	Total hazard
2040 Future baseline							
Baston Road	488	2	30	0	0	10	10 (small)
Princess Marina Drive (south)	408	1	30	0	0	10	10 (small)
2040 Future baseline with development							
Baston Road	599	2	30	0	0	10	10 (small)
Princess Marina Drive (south)	447	1	30	0	0	10	10 (small)

11.5.52 The assessment demonstrates that there is no change in the Levels of fear and intimidation between Scenario 2 (without development) and Scenario 3 (with development) showing that all links can be considered to have a negligible magnitude of impact, which when taken with both of the high sensitivity receptors is a **negligible** level of effect which is **not significant** in EIA terms.

Accident and Road Safety

11.5.53 As set out previously, the ISEP Guidelines are clear that an assessment on road safety is based on professional judgement.

11.5.54 Accident data has been obtained from Wokingham Borough Council for the previous 5 years. This showed that there have been 7 recorded collisions within the study area during that 5 year period, 6 of which were slight, and one was serious. This therefore does not indicate an underlying issue with road safety (relating to personal injuries) in the surrounding area, with a relatively low number of recorded incidents in a range of locations.

11.5.55 There were no recorded accidents on Baston Road. Whilst the Development results in an uplift in traffic flows, the existing structure for vehicles, pedestrians, and cyclists would maintain current acceptable levels of road safety. Therefore, there will be a negligible magnitude of impact on road user and pedestrian safety on Baston Road.

11.5.56 There was one recorded accident on Princess Marina Drive. However, the recorded severity was 'slight' and one accident does not indicate any particular highway safety issue. The Development will result in a 10.5% increase of traffic on Princess Marina Drive (south) but this is low in relative terms. Therefore, there will be a negligible magnitude of impact on road user and pedestrian safety on Princess Marina Drive (south).

11.5.57 Whilst the sensitivity with regards to accidents is high on both Baston Road and Princess Marina Drive (south), the level of effect will be **negligible** and therefore effect on road user and pedestrian safety on both links is **not significant** in EIA terms.

11.6 Additional Mitigation

Construction Phase

11.6.1 The construction phase of development includes embedded mitigation of an outline construction traffic management plan, which includes vehicle routing plans and measures to reduce construction impacts.

11.6.2 No significant effects have been identified throughout the entire study network as a result of the construction of the Development and therefore there is no requirement for additional mitigation.

Operational Phase

11.6.3 No significant effects have been identified throughout the entire study network as a result of the operation of the Development and therefore there is no requirement for additional mitigation.

11.7 Residual effects

Construction Phase

11.7.1 The residual effects for construction will remain the same as the assessment, i.e. a temporary, direct, and not significant in effect.

Operational Phase

11.7.2 The residual effects during operation will remain the same as the assessment.

11.8 Implications of Climate Change

11.8.1 The potential impacts of climate change on the transport related effects arising from the proposed housing development in 2040 are anticipated to be negligible when assessed against baseline conditions, for the following reasons

11.8.2 Firstly, forecast climate projections for the study area indicate incremental changes in temperature and precipitation patterns. These are not expected to materially alter travel behaviour and demand, trip distribution, or the performance of the surrounding highway network. Established design standards and drainage strategies will account for projected weather variability, ensuring continued network resilience and accessibility.

11.8.3 Furthermore, any minor changes in travel behaviour associated with climatic factors are likely to be gradual and embedded within the future baseline, and therefore would not give rise to discernible additional effects attributable to the development.

11.8.4 Overall, the effects assessed in this Chapter will not materially alter as a consequence.

11.9 Cumulative effects

Barkham Square

11.9.1 Barkham Square is located directly north of the Proposed Development. It is included in the emerging Local Plan Regulation 19 Submission, and includes 600 dwellings.

11.9.2 The WSTM provides traffic flows that include all Local Plan growth within the 2040 future baseline without development assessment scenario, including Barkham Square at 600 dwellings. The cumulative effects of Barkham Square (as per the Local Plan) are therefore accounted for in the 2040 future baseline without development scenario.

11.9.3 However, it is understood that the planning application for Barkham Square will include 660 dwellings and a 50-bed care home.

11.9.4 To accommodate this within this assessment of traffic and transport, the additional 60 homes and care home have been included within the 2040 future baseline with the Proposed Development scenario. The cumulative effects of the Barkham Square planning application including 660 dwellings and a care home are therefore embedded into the 2040 future baseline with development assessment scenario, and no further cumulative assessment is required.

Wider Committed Development

11.9.5 The WSTM also includes all local plan growth and background traffic growth, including all planned developments with planning permission in Wokingham.

11.9.6 Therefore, all committed developments are included within all modelled scenarios, and no further assessments of the committed developments are required.

11.10 Summary

11.10.1 Construction of the development would result in temporary increases in traffic, primarily from construction workers and delivery vehicles. At peak activity, around 244 two way vehicle trips per weekday are forecast, including a limited number of HGVs. All construction traffic would use the existing Langley Common Road access, with routing controlled through a Construction Traffic Management Plan (CTMP) secured by planning condition.

11.10.2 The assessment concludes that:

- Traffic increases would be small, short term and temporary.
- A short term increase in HGV activity on Langley Common Road would be limited in extent and affect very few receptors.
- Traffic levels would remain below thresholds at which pedestrian delay, severance, reduced amenity, or fear and intimidation would be noticeable.
- No material effects on driver delay or junction operation are predicted.
- Road safety impacts would be negligible, with no evidence of existing safety issues that would be worsened by construction traffic.

11.10.3 Overall, construction phase impacts are assessed as minor or negligible and not significant in EIA terms.

11.10.4 Once the development is complete and occupied, traffic levels would increase permanently. However, on most surrounding roads the increase would be less than 10%, which is considered negligible in environmental assessment terms.

11.10.5 Two links were assessed in more detail:

- Baston Road, where percentage traffic increases are higher but absolute traffic volumes remain low; and
- Princess Marina Drive (south), where there are more sensitive community receptors.

11.10.6 The assessment shows that:

- Traffic flows would remain well below levels at which pedestrian delay or community severance would occur.
- Junction modelling indicates that the highway network would continue to operate within capacity, with only very short lived and minor increases in delay.
- Pedestrian amenity, fear and intimidation, and road safety conditions would not materially change from the future baseline.
- No significant adverse effects are predicted for any transport related environmental topic.

11.10.7 Taking into account built-in mitigation such as access arrangements, active travel routes, a bus corridor through the site, and integration with the Greenway network, no additional mitigation is required. All operational effects are not significant in EIA terms.

11.10.8 All residual effects remain minor adverse to negligible and not significant.

11.10.9 A summary of the assessment is set out in Table 11.18 overleaf.

11.11 References

- Institute of Sustainability and Environmental Professionals (ISEP) (2023) 'Guidelines: Environmental Assessment of Road Traffic and Movement'.

11.12 Assessor information

Table 11.17 Assessor Information

Chapter	Responsibility	Name	Qualifications	Assessor information
Transport and Access	i-Transport LLP	Ronan Wilson	BSc (Hons), MSc. MCIHT	Principal Consultant 8 years' experience working on the transport impact of development projects across the UK
		Phil Hamshaw	BA (Hons), MSc, MCIHT, MCILT	Partner 30 years' experience assessing the transport impacts of development projects

Table 11.18 Summary of effects

Receptor	Receptor sensitivity	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Construction Phase					
Princess Marina Drive (north)	Low	None	None	Negligible	Not significant
Princess Marina Drive (south)	High	None	None	Negligible	Not significant
Biggs Lane (east of PMD)	Low	None	None	Negligible	Not significant
Biggs Lane (west of PMD)	Low	None	None	Negligible	Not significant
Baston Road	High	None	None	Negligible	Not significant
Biggs Lane (west of Baston Road)	Low	None	None	Negligible	Not significant
Observer Way	Low	None	None	Negligible	Not significant
Eversley Road (east of Observer Way)	Low	None	None	Negligible	Not significant
Eversley Road (north of Langley Common Road)	Low	None	None	Negligible	Not significant
Langley Common Road (west of Biggs Lane)	Low	None	None	Negligible	Not significant
Langley Common Road (east of Biggs Lane)	Low	Severance – Minor Adverse impact. Short term and temporary.	None	Minor Adverse	Not significant
B3349 Barkham Road (West of Barkham Street)	Low	Negligible impact	None	Negligible	Not significant
B3349 Barkham Road (East of Barkham Street)	Low	Negligible impact	None	Negligible	Not significant

Receptor	Receptor sensitivity	Description of potential impact	Proposed mitigation	Residual effect	Significant / not significant
Operational Phase					
Princess Marina Drive (north)	Low	Negligible impact	None	Negligible	Not significant
Princess Marina Drive (south)	High	Severance - Minor Adverse	None	Minor Adverse	Not significant
Biggs Lane (east of PMD)	Low	Negligible impact	None	Negligible	Not significant
Biggs Lane (west of PMD)	Low	Negligible impact	None	Negligible	Not significant
Baston Road	High	Severance & Driver delay (limited time period)	None	Minor Adverse	Not significant
Biggs Lane (west of Baston Road)	Low	Negligible impact	None	Negligible	Not significant
Observer Way	Low	Negligible impact	None	Negligible	Not significant
Eversley Road (east of Observer Way)	Low	Negligible impact	None	Negligible	Not significant
Eversley Road (north of Langleigh Common Road)	Low	Negligible impact	None	Negligible	Not significant
Langleigh Common Road (west of Biggs Lane)	Low	Negligible impact	None	Negligible	Not significant
Langleigh Common Road (east of Biggs Lane)	Low	Negligible impact	None	Negligible	Not significant
B3349 Barkham Road (West of Barkham Street)	Low	Negligible impact	None	Negligible	Not significant
B3349 Barkham Road (East of Barkham Street)	Low	Negligible impact	None	Negligible	Not significant

11.13 Mitigation commitments Summary

Table 11.19 Summary for Securing Mitigation

Identified receptor	Type and purpose of additional mitigation measure (prevent, reduce, offset, enhance)	Means by which mitigation may be secured (e.g. planning condition / legal agreement)	Delivered by	Auditable by
Construction Phase				
N/A over and above inherent mitigation				
Operation Phase				
N/A over and above inherent mitigation				