

## **12 TRANSPORT AND ACCESS**

### **12.1 INTRODUCTION**

12.1.1 This Chapter has been prepared by PJA and sets out the results of an assessment of the traffic related environmental effects of the development Land North of Thompsons Farm, Keresley (the 'Proposed Development'). The purpose of this chapter is to assess those environmental affects that are potentially significant under the EIA Regulations where a development is likely to give rise to changes in traffic flows.

12.1.2 Data used within this assessment has been drawn from the Transport Assessment (TA) and Travel Plan (TP) for the Proposed Development, contained within **Appendix 12.1** and **12.2** respectively.

12.1.3 A description of the Proposed Development is presented in **Chapter 3** of this Environmental Statement (ES). An assessment has been undertaken of the likely effects that may occur as a result of the Proposed Development, specifically in relation to severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and accidents and safety. Consideration has also been given to the implementation of a number of mitigation measures.

12.1.1 The approach to the assessment has been based on the 1993 Institute of Environmental Assessment (now the Institute of Environmental Management and Assessment - IEMA) publication Guidance Notes No. 1: Guidelines for the Environmental Assessment of Road Traffic, and the 2007 Welsh Assembly Government, Department for Communities and Local Government (DCLG) and the Department for Transport (DfT) publication Guidance on Transport Assessment. Reference has also been made within this assessment to the National Planning Policy Framework (NPPF) as well as other relevant local planning policy documents.

### **12.2 ASSESSMENT APPROACH**

#### **Methodology**

12.2.1 The approach to the assessment has been based upon best practice guidance from the Institute of Environmental Management and Assessment's (IEMA) note 'Guidelines for the Environmental Assessment of Road Traffic'.

12.2.2 The IEMA document sets out a list of likely environmental effects which could be considered as potentially significant whenever a Proposed Development is likely to give rise to changes in traffic flows. The following effects have been included in the scope of assessment:

- Potential effects on local roads and the users of these roads, including public transport users, pedestrians and cyclists; and
- Potential effects on land uses and environmental resources fronting those roads, including the relevant occupiers and users.

12.2.3 The IEMA guidelines also identify groups, locations and areas which may be sensitive to changes in traffic conditions and which should be considered for assessment. The particularly affected parties are summarised in **Table 12.1**.

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**Table 12.1: Sensitive Groups, Locations and Areas**

<b>People</b>	<b>Places</b>
People at home	Hospitals
People in work places	Churches
Pedestrians	Schools
Cyclists	Historical buildings
Children	Open spaces
Elderly	Recreational sites
Disabled	Shopping areas
	Sites of ecological/nature conservation value
	Sites of visitor/tourist attraction
	Accident hotspots

12.2.4 **Table 12.2** sets out the sensitivity criteria for the highway links, based upon the adjacent land uses.

**Table 12.2: Sensitivity Criteria**

<b>Sensitivity</b>	<b>Definition</b>
High	Road near hospital, school, residential street
Medium	Residential distributor road
Low	Road fronting retail, office, leisure or rural
Negligible	Access to warehouse, factory or farmland

Potentially Significant Effects

12.2.5 The IEMA guidelines also recommend that the following environmental effects may be considered potentially important when considering traffic from an individual development. These are set out in **Table 12.3**, however, note that some of these effects are considered in chapters elsewhere within this Environmental Statement.

**Table 12.3: Potentially Significant Effects**

<b>Considered in this Chapter</b>	<b>Considered in this ES</b>
Severance	Noise
Driver Delay	Vibration
Pedestrian Delay	Air Pollution
Pedestrian Amenity	Dust and Dirt
Fear and Intimidation	Visual Effects
Accidents and Safety	Ecological Effects
	Heritage and Conservation

12.2.6 The relevant effects considered in this chapter are defined and discussed below.

- Potential effects on the community, associated with severance, caused by an increase in traffic levels during construction and occupation of the Proposed Development.

- Potential effects on drivers, associated with driver delay, caused by additional traffic generated by the Proposed Development.
- Potential effects on pedestrians, associated with delays caused by changes in traffic volume or speed of traffic.
- Potential effects on pedestrian amenity, caused by the increase in traffic flow, traffic composition and pavement width/separation from traffic.
- Potential effects on pedestrians, associated with fear and intimidation caused by the increase in volume or composition of traffic.
- Potential effects of highway safety caused by the increase in traffic flow as a result of the Proposed Development.

12.2.7 The following effects have been excluded from the scope of the assessment:

- Potential effects on sensitive receptors associated with hazardous loads. Hazardous loads are not expected during the construction or post construction phases; therefore, this potential effect has been scoped out;
- Potential effects of additional traffic on the highway network further afield than the defined study area of the Site. Effects are likely to be negligible as development traffic becomes diluted by other traffic flows and is dispersed through a variety of locations. The extent of the highway network considered has been informed by the Transport Assessment and agreed with Coventry City Council as Local Highway Authority. The extent of the network assessed is set out later in this chapter.

12.2.8 Each of the above environmental effects will be considered in relation to anticipated changes in traffic volume and composition during both the construction and operational phases of the Proposed Development.

12.2.9 The significance of each effect will be considered against the criteria within the IEMA Guidelines, where possible. However, the IEMA Guidelines state that:

**“For many effects there are no simple rules or formulae which define the thresholds of significance and there is, therefore, a need for interpretation and judgement on the part of the assessor, backed-up by data or quantified information wherever possible. Such judgements will include the assessment of the numbers of people experiencing a change in environmental impact as well as the assessment of the damage to various natural resources.”**

12.2.10 The IEMA Guidelines also state that:

**“...the detailed assessment of impacts is...likely to concentrate on the period during which the absolute level of an impact is at its peak, as well as the hour at which the greatest level of change is likely to occur.”**

12.2.11 The magnitude of each potentially significant effect has also been considered and an assessment has been made as to whether the Proposed Development would result in minor adverse, moderate adverse, major adverse or beneficial effects. The criteria used to determine the significance and magnitude of each of the traffic-related environmental effects is based on the advice given in the IEMA Guidelines and is summarised below.

#### Severance

12.2.12 Severance is the perceived division that can occur within a community when it becomes separated by a major traffic artery and is used to describe the factors that separate people from other people and places. For example, severance may result

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from the difficulty of crossing a heavily trafficked road or a physical barrier created by the road itself. It can also relate to quite minor traffic flows if they impede pedestrian access to essential facilities.

- 12.2.13 The effects of severance can be applied to motorists, pedestrians or residents. The IEMA Guidelines suggest that changes of traffic flow of 30%, 60% and 90% are regarded as producing 'minor', 'moderate' and 'major' changes in severance respectively. These changes in severance can be defined as being 'low', 'medium' or 'high' in magnitude respectively. However, there are no predictive formulae which give simple relationships between traffic factors and levels of severance.
- 12.2.14 The IEMA Guidelines state that marginal changes in traffic flow are unlikely to create or remove severance, but that consideration in determining whether severance is likely to be an important issue should be given to factors such as road width, traffic flow and composition, traffic speeds, the availability of crossing facilities and the number of movements that are likely to cross the affected route. Consideration should also be given to different groups such as the elderly and young children.

#### Driver Delay

- 12.2.15 Delays to traffic can occur at several points on the local highway network as a result of the additional traffic that would be generated by a proposed development.
- 12.2.16 The IEMA Guidelines state that delays are only likely to be significant when the traffic on the network surrounding the Proposed Development is already at, or close to, the capacity of the system.

#### Pedestrian & Cycle Delay

- 12.2.17 Changes in the volume, composition or speed of traffic may affect the ability of people and cyclists to cross roads, and therefore, increases in traffic levels are likely to lead to greater increases in delay. Delays will also depend upon the general level of pedestrian activity, visibility and general physical conditions of the crossing location.
- 12.2.18 Given the range of local factors and conditions which can influence pedestrian any cycling delay, the IEMA Guidelines do not recommend that thresholds be used as a means to establish the significance of pedestrian delay but recommend that reasoned judgements be made instead. However, the IEMA Guidelines do note that, when existing traffic flows are low, increases in traffic of around 30% can double the delay experienced by pedestrians attempting to cross a road.

#### Pedestrian & Cycle Amenity

- 12.2.19 Pedestrian and cycle 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/separation from traffic.
- 12.2.20 The IEMA Guidelines note that changes in pedestrian amenity may be considered significant where the traffic flow is halved or doubled, with the former leading to a beneficial effect and the latter an adverse effect.

#### Fear and Intimidation

- 12.2.21 The scale of fear and intimidation experienced by pedestrians is dependent on the volume of traffic, its HGV composition, its proximity to people or the lack of protection caused by factors such as narrow footway widths, as well as factors such as the speed and size of vehicles.

12.2.22 There are no commonly agreed thresholds by which to determine the significance of the effect. However, the IEMA Guidelines note previous work that has been undertaken which puts forward thresholds that define the degree of hazard to pedestrians by average traffic flow; heavy vehicle flow and average speeds over an 18-hour day (06:00 – 00:00h).

12.2.23 The IEMA Guidelines also note that special consideration should be given to areas where there are likely to be particular problems, such as high-speed sections of road, locations of turning points and accesses. Consideration should also be given to areas frequented by school children, the elderly and other vulnerable groups.

Highway Safety

12.2.24 Where a proposed development is expected to produce a change in the character of the traffic on the local road network, as a result of increased HGV movements for example, the IEMA Guidelines state the implications of local circumstances or factors which may elevate or lessen risks of accidents, such as junction conflicts, would require assessment in order to determine the potential significance of accident risk.

Impact Magnitude

12.2.25 The magnitude of the impact on a highway link and its associated sensitive receptors is addressed and set out in **Table 12.4**. The effect can be adverse or beneficial in its magnitude.

**Table 12.4: Definition of Magnitude**

<b>Magnitude Classification</b>	<b>Definition</b>
High	The Proposed Development will affect conditions for all receptors and will significantly affect the highway network.
Medium	The Proposed Development will affect conditions for some receptors and will affect the highway network in the local area.
Low	The Proposed Development will affect conditions for some receptors but will only affect a very small area, and only slightly affect the highway network in the local area.
Negligible	No change in conditions for receptors, nor effects on the highway network in the area based upon the thresholds set out in the assessment criteria as discussed under impacts.

Assessment of Significance

12.2.26 The assessment of environmental effects as a result of the Proposed Development takes into account both the construction phase and the operational phase. The significance level attributed to each effect has been assessed based on the magnitude of change due to the Proposed Development (as per Table 12.4), and the sensitivity of the affected receptor to these changes (as per Table 12.2). The magnitude of change and the sensitivity of the affected receptor are both assessed on a scale of high, medium, low and negligible.

12.2.27 Impacts will be considered in relation to the significance matrix summarised in **Table 12.5**.

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**Table 12.5: Matrix for Determining the Significance of Effects**

		Sensitivity of receptor/receiving environment to change/effect			
		High	Medium	Low	Negligible
Magnitude of change/effect	High	Major	Moderate to Major	Minor to Moderate	Negligible
	Medium	Moderate to Major	Moderate	Minor	Negligible
	Low	Minor to Moderate	Minor	Negligible to Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

12.2.28 The following bullets provide a description of the terms used in **Table 12.5** to define the significance of the effects identified:

- **Major effect:** where the Proposed Development could be expected to have a very significant effect (either positive or negative) on the surrounding highway network;
- **Moderate effect:** where the Proposed Development could be expected to have a noticeable effect (either positive or negative) on the surrounding highway network;
- **Minor effect:** where the Proposed Development could be expected to result in a small, barely noticeable effect (either positive or negative) on the surrounding highway network; and
- **Negligible:** where no discernible effect is expected as a result of the Proposed Development on traffic volumes on the surrounding highway network.

12.2.29 For the purposes of this assessment the receptor is highway users (pedestrians, cyclists, motorists. etc) on or adjacent to each highway link. An assessment of the sensitivity of each link, based upon the adjacent land uses, is provided.

12.2.30 The significance assessment will also consider whether effects are direct or indirect; temporary or permanent; and short, medium or long-term. **Effects that are predicted to be moderate or major are considered to be significant for the purpose of this assessment.**

Methodology for Prediction of Effects

12.2.31 The impact of construction and operational traffic will be considered using a comparison of the baseline and baseline + Proposed Development traffic scenarios, in order to determine the percentage increase in traffic on each link within the study area.

12.2.32 The IEMA Guidelines suggest the following rules should be applied to delimit the scope and extent of assessment:

- Rule 1: Include in the EIA highway links where traffic flows will increase by more than 30% (or the number of Heavy Goods Vehicles (HGVs) will increase by more than 30%); and
- Rule 2: Include in the EIA any other especially sensitive areas where traffic flows will increase by 10% or more.

12.2.33 The majority of links included within this assessment (as discussed below in 'Extent of Study Area') represent major arterial routes, or connector roads, therefore, the assessment for these shall be based on Rule 1 (i.e. a 30% change threshold). Two links (Links 5 (Thompsons Road) and 13 (Sandpits Lane)) however are considered to be more sensitive given that a number of residential properties have frontage access

and or/ there is pedestrian access to a school. Therefore, the assessment for these links will be based on Rule 2 (i.e. a 10% change threshold).

- 12.2.34 An assessment of road links included where traffic flows are forecast to change has been undertaken in relation to forecast two-way 24-hour Annual Average Daily Traffic (AADT).

### **Legislative and Policy Framework**

#### National Planning Policy and Guidance

##### Revised National Planning Policy Framework (2019)

- 12.2.35 The Revised National Planning Policy Framework (NPPF) was published in February 2019 and sets out the Government's planning policies for England and how these are expected to be applied to achieve sustainable development.

- 12.2.36 Policies aimed at promoting sustainable transport are covered within Section 9, Paragraphs 102 to 111 of the NPPF, with Paragraph 102 stating that:

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

- the potential impacts of development on transport networks can be addressed;
- 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;
- opportunities to promote walking, cycling and public transport use are identified and pursued;
- 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
- patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.”

- 12.2.37 Paragraph 103 states:

**“The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.”**

- 12.2.38 Paragraph 109 states:

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

- 12.2.39 Paragraph 111 states:

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**“All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.”**

*Planning Practice Guidance (PPG) 2014*

12.2.40 PPG 2014 stipulates that the scope and level of detail in a Transport Assessment or Statement will vary from site to site but the following should be considered when settling the scope of the proposed assessment:

- “Information about the proposed development, site layout, (particularly proposed transport access and layout across all modes of transport);
- Information about neighbouring uses, amenity and character, existing functional classification of the nearby road network;
- Data about existing public transport provision, including provision/ frequency of services and proposed public transport changes;
- A qualitative and quantitative description of the travel characteristics of the proposed development, including movements across all modes of transport that would result from the development and in the vicinity of the site;
- An assessment of trips from all directly relevant committed development in the area (i.e. development that there is a reasonable degree of certainty will proceed within the next three years);
- Data about current traffic flows on links and at junctions (including by different modes of transport and the volume and type of vehicles) within the study area and identification of critical links and junctions on the highways network;
- An analysis of the injury collision records on the public highway in the vicinity of the site access for the most recent three-year period, or five-year period if the proposed site has been identified as within a high collision area;
- An assessment of the likely associated environmental impacts of transport related to the development, particularly in relation to proximity to environmentally sensitive areas (such as air quality management areas or noise sensitive areas);
- Measures to improve the accessibility of the location (such as provision/ enhancement of nearby footpath and cycle path linkages) where these are necessary to make the development acceptable in planning terms;
- A description of parking facilities in the area and the parking strategy of the development;
- Ways of encouraging environmental sustainability by reducing the need to travel; and
- Measures to mitigate the residual impacts of development (such as improvements to the public transport network, introducing walking and cycling facilities, physical improvements to existing roads.”

12.2.41 The PPG also states:

**“in general, assessments should be based on normal traffic flow and usage conditions (e.g. non-school holiday periods, typical weather conditions) but it may be necessary to consider the implications for any regular peak traffic and usage periods (such as rush hours). Projections should use local traffic forecasts such as TEMPRO drawing where necessary on National Road Traffic Forecasts for traffic data.”**

12.2.42 This report accords with the principles of the Planning Practice Guidance (2014) set out above. In addition, the implementation of the movement and highway strategies

maximise the opportunities for sustainable travel and reduce the impact of the development on existing users.

### Regional/Local Policy and Guidance

#### The West Midlands Strategic Transport Plan

12.2.43 The WSMTTP provides the transport strategy for the West Midlands Metropolitan Area. The document represents the long-term strategy guiding improvements to the transport network over the next 20-year period.

12.2.44 The document outlines 15 transport policies, each of which has been designed to support core objectives for the West Midlands Metropolitan Area. The transport policies are as follows:

- “Policy 1 - To accommodate increased travel demand by existing transport capacity and new sustainable transport capacity;
- Policy 2 - To use existing transport capacity more effectively to provide greater reliability and average speed for the movement of people and goods;
- Policy 3 - To maintain existing transport capacity more effectively to provide greater resilience and greater reliability for the movement of people and goods;
- Policy 4 - To improve connections to new economic development locations to help them flourish, primarily through sustainable transport connections;
- Policy 5 - To help make economic centres attractive places where people wish to be;
- Policy 6 - To improve connections to areas of deprivation;
- Policy 7 - To ensure the affordability of public transport for people accessing skills and entering employment;
- Policy 8 - To improve connections to new housing development locations to help them flourish, primarily through sustainable transport connections;
- Policy 9 - To significantly improve the quality of the natural and historic environment and create attractive local environments;
- Policy 10 - To help tackle climate change by ensuring a large decrease in greenhouse gases from the West Midlands Metropolitan Area’s transport system;
- Policy 11 - To significantly increase the amount of active travel in the West Midlands Metropolitan Area;
- Policy 12 - To significantly reduce road traffic casualty numbers and severity;
- Policy 13 - To assist with the reduction of health inequalities in the West Midlands Metropolitan Area.
- Policy 14 - To increase the accessibility of shops, services and other desired destinations for socially excluded people; and
- Policy 15 - To ensure the affordability of public transport for socially excluded people through concessionary travel schemes for groups such as elderly people and disabled people.”

#### Coventry Local Plan 2016

12.2.45 The Coventry Local Plan considers a range of economic, social and environmental factors to influence growth and development in Coventry. Adopted in December 2017, the Local Plan reflects Coventry councils’ vision, “**Coventry – A top ten city that is globally connected and locally committed**”.

12.2.46 The document outlines a number of core objectives as follows:

- Supporting businesses to grow;
- Enabling the right infrastructure for the city to grow and thrive;
- Developing a dynamic 21st century city centre;

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- Raising the profile of Coventry;
  - Creating an attractive, cleaner and greener city;
  - Maintaining and enhancing an accessible transport network;
  - Housing that meets the needs of all people;
  - Improve the health and wellbeing of local residents; and
  - Support safer communities.
- 12.2.47 The following transport related sub objectives are identified within the Local Plan:
- Making the city more accessible for business, visitors and local people through better road, rail, bus, Rapid Transit and digital connections;
  - Improve city centre accessibility and connectivity;
  - Provide a high-quality public transport network which integrates with walking and cycling routes;
  - Protect and conserve the irregular pattern of the public footpath network and characteristic feature of roads and lanes;
  - Providing a transport network that enhances the city's accessibility, efficiency, safety and sustainability; and
  - Encouraging walking and cycling.
- 12.2.48 The proposed development site is allocated within the Local Plan, under policy H2:1. The site sits within an allocation for a sustainable urban extension at Keresley, comprising 3,100 homes, new education facilities, two local centres and accompanying green, blue and highway infrastructure. Transport specific requirements for the allocation area comprise:
- A Distributor link road connecting Long Lane and Winding House Lane to be fully operational prior to the full completion of the SUE; and
  - Surrounding junction improvements as appropriate and identified through a robust TA.
- 12.2.49 The development has been designed in such a way to reflect the core principles included within the Strategic Transport Plan and Local Plan.

#### **Scoping Criteria**

- 12.2.50 EIA Scoping was undertaken with Coventry City Council (CCC) prior to writing this Environmental Statement. With regards to transport, the EIA scoping report set out the proposed methodology and likely potential effects to be assessed, for the construction and operation phases, as follows:
- Severance
  - Driver Delay
  - Pedestrian Delay
  - Pedestrian Amenity
  - Fear and Intimidation
  - Accidents and Safety
- 12.2.51 CCC's formal Scoping Opinion confirmed they had regard to the suggested scope and agreed the ES should address the matters stated, in addition to ensuring that the "impact upon local rural highway network and Fillongley crossroads [is] to be considered".

#### **Extent of Study Area**

- 12.2.52 A desktop study has been undertaken to establish the transport features in the vicinity of the site. This includes roads that development traffic is expected to utilise, sensitive receptors and scoping discussions that took place with CCC as the Local Highway Authority.

- 12.2.53 The study area incorporates the highway links set out in **Table 12.6** and illustrated in **Figure 12.1**, overleaf. The extent of each link is defined by the changes in traffic flows associated with the Proposed Development, for example Bennetts Road North is divided into two links either side of the site access.

**Table 12.6: Study Area Links**

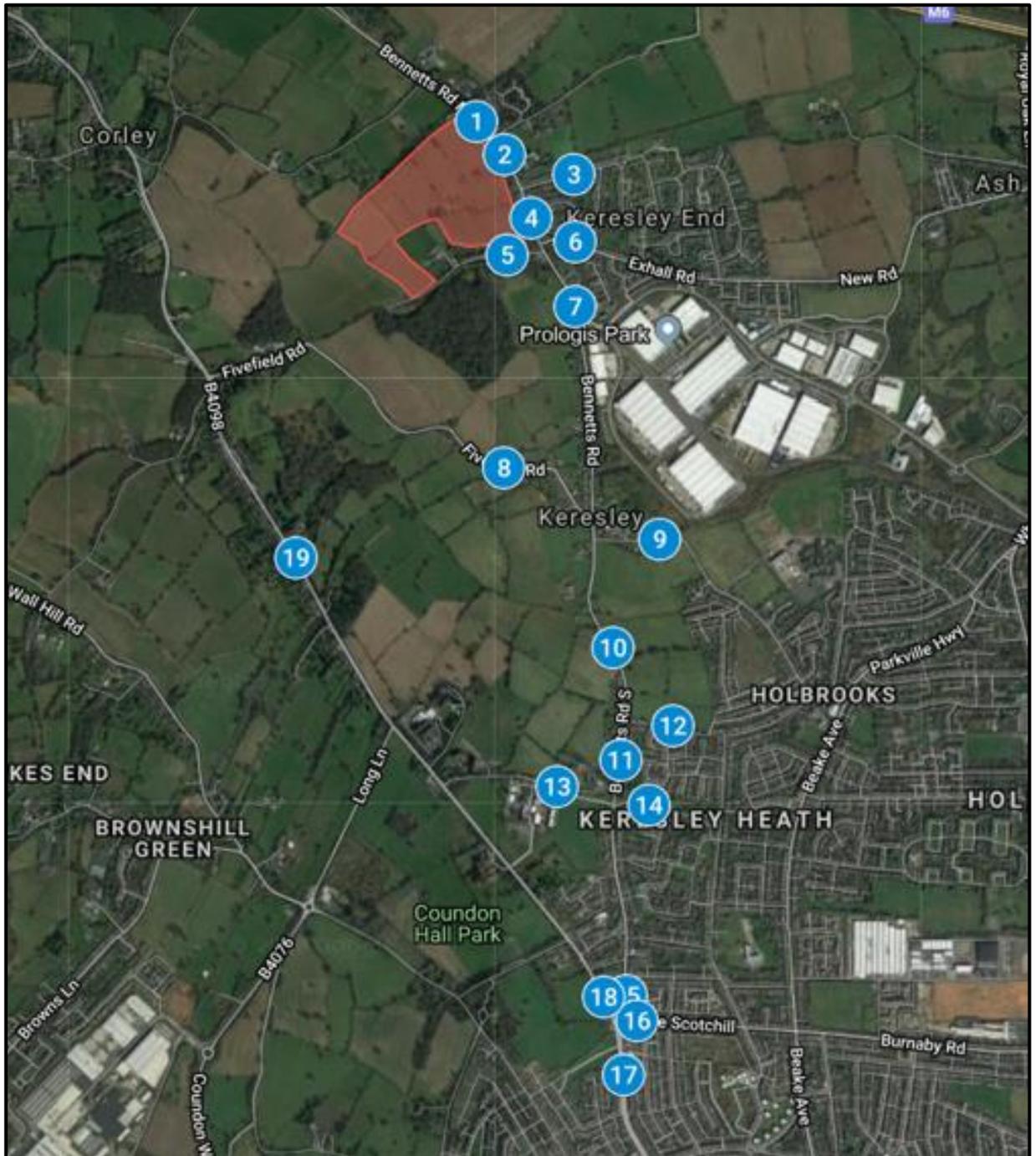
Link No.	Link Description
1	Bennetts Road N (North of Site Access)
2	Bennetts Road N (South of Site Access)
3	Howat Road
4	Bennetts Road N (between Howat Road and Exhall Road)
5	Thompsons Road
6	Exhall Road
7	Bennetts Road N (between Thompsons Road and Fivefield Road)
8	Fivefield Road
9	Watery Lane
10	Bennetts Road S (between Watery Lane and Penny Park Lane)
11	Bennetts Road S (between Penny Park Lane and Sandpits Lane)
12	Penny Park Lane
13	Sandpits Lane
14	Keresley Brook Road
15	Keresley Green Road (between Benson Road and Scotchill Roundabout)
16	The Scotchill
17	Kersley Road
18	Tamworth Road (between Waste Lane and Scotchill Roundabout)
19	Tamworth Road (between Fivefield Road and Long Lane)

#### **Limitations to the Assessment**

- 12.2.54 The assessment is based upon traffic flows that have been calculated from data extracted from the Coventry Area Strategic Model (CASM). Given that this is a strategic model, a level of uncertainty is acknowledged as the traffic flows within the model are forecast rather than recorded. However, utilising data from a strategic model is a recognised and approved method of assessment. It should be noted that given the strategic nature of the model used, the traffic flows produced do not necessarily incrementally increase for each scenario assessed. The model reacts and redistributes traffic onto the network and therefore, increases in traffic flows on links may vary between scenarios, as a result of background reassignment.

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Figure 12.1: Study Area Link Diagram



**12.3 BASELINE CONDITIONS****Site Description and Context**Local Highway NetworkBennetts Road North

- 12.3.1 Bennetts Road North is a single carriageway road, operating in a north/south alignment. The road is approximately 6m in width and is subject to a 30mph speed limit. This speed limit increases to 40mph to the north of the Bennetts Road North/Grove Lane priority junction. Bennetts Road North meets Thompsons Lane to the south by means of a priority junction.

Grove Lane

- 12.3.2 Grove Lane is a single carriageway road, operating in an east/west alignment. The road is approximately 6m in width and is subject to a 30mph speed limit. Grove Lane serves as access to approximately 75 residential dwellings, the Keresley Newland Primary School and a farmhouse only.

Thompsons Road

- 12.3.3 Thompsons Road is a single carriageway road, operating in an east/west alignment. The road is approximately 6m in width and is subject to a 30mph speed limit. The initial 280m of Thompsons Road is adopted highway, it then forms Thompsons Lane, a private drive and footpath/track (not officially designated as a Public Right of Way).

Highway Safety

- 12.3.4 Personal Injury Collision Data (PIC) has been obtained from Transport for West Midlands (TfWM) and Warwickshire County Council (WCC) for the most recent five-year period for which data is available (05/12/2013-05/12/2018 and 04/04/2013-30/03/2018 respectively). The full collision records are provided within Appendix B of the TA (**Appendix 12.1**).
- 12.3.5 A total of 38 collisions have occurred within the vicinity of the Proposed Development, within the most recent five-year period. These are summarised in **Table 12.7**.
- 12.3.6 It is recognised that there is a cluster of collisions at the New Road/Ash Green Lane/Vicarage Road/Royal Oak Lane and Bennetts Road North/Sandpits Lane and Keresley Green Road/Tamworth Road/The Scotchill junctions, which are described in further detail below.

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**Table 12.7: Summary of PICs**

Junction/Link	Accident Severity			Sensitive Road Users		
	Slight	Serious	Fatal	Pedestrian	Cycle	Motorcycle
Bennetts Road North/Howat Road Junction	1	-	-	-	-	-
New Road/Ash Green Lane/Vicarage Lane/Royal Oak Lane Junction	9	1	-	1	1	-
Exhall Road/Parkfield Road Junction	1	-	-	-	-	-
Bennetts Road /Herders Way Junction	1	-	-	-	-	-
Bennetts Road/Watery Lane Junction	1	-	-	-	-	-
Bennetts Road South/Sandpits Lane Junction	6	1	-	2	-	2
Bennetts Road South/Kersley Brook Road Junction	1	-	-	-	-	-
Bennetts Road South/High Street Junction	1	-	-	-	-	-
Bennetts Road South/Keresley Green Road/New Road Junction	1	-	-	-	-	-
Keresley Green Road/The Scotchill/Tamworth Road Junction	4	3	-	2	1	-
Bennetts Road North (north of Burrow Hill Lane) Link	-	1	-	-	-	-
Bennetts Road South (between Sandpits Lane and Penny Park Lane) Link	-	1	-	-1	-	-
Bennetts Road South (between Watery Lane and Penny Park Lane) Link	1	-	-	-	-	-
Sandpits Lane Link	1	-	-	-	-	-
Bennetts Road South Link	2	-	-	1	-	-
New Road Link	-	1	-	1	-	-
<b>Total</b>	<b>30</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>2</b>	<b>2</b>

Bennetts Road North/Howat Road

12.3.7 One collision occurred at this junction, which was slight in severity. No sensitive road users were involved.

New Road/Ash Green Lane/Vicarage Lane/Royal Oak Lane

12.3.8 A total of ten collisions occurred at this junction, nine of which were slight in severity and one serious. Of the nine slight collisions, one involved a pedestrian and one a pedal cycle. The collision involving a pedestrian was the result of a pedestrian on the footway being clipped by a wing mirror and the collision involving a cyclist was the result of the cyclist entering the carriageway into the path of a vehicle. The serious

collision was the result a driver overshooting the junction. No sensitive road users were involved.

- 12.3.9 It is recognised that there is a cluster of collisions at this junction, however the majority of collisions are considered to be a result of driver error with drivers failing to give way at the junction or turning into the path of an oncoming vehicle. Therefore, there is not considered to be a highway safety issue at this junction which would need to be addressed as part of the development.

*Exhall Road/Parkfield Road Junction*

- 12.3.10 One collision occurred at this junction which was slight in severity and did not involve any sensitive road users. The collision was the result of a driver turning into the path of an oncoming vehicle.

*Bennetts Road/Herders Way Junction*

- 12.3.11 One collision occurred at this junction, which was slight in severity. The collision was the result of driver error as a driver failed to judge the path and speed of a vehicle in front waiting to turn right. No sensitive road users were involved.

*Bennetts Road/Watery Lane Junction*

- 12.3.12 One collision occurred at this junction, which was slight in severity. The collision was the result of driver error as a driver failed to judge the path and speed of a vehicle in front waiting to turn. No sensitive road users were involved.

*Bennetts Road South/Sandpits Lane Junction*

- 12.3.13 A total of seven collisions occurred at this junction, six of which were slight in severity and one serious. Of the slight collisions, two involved pedestrians and were the result of pedestrians failing to cross on the crossing or with the pedestrian phase. One slight collision involved a motorcyclist and was the result of the motorcycle skidding in the rain. The serious collision involved a motorcyclist and was the result of a vehicle failing to judge its speed. Whilst it is recognised that there is a cluster of collisions at this junction, it should be noted that a series of improvements are planned at this junction as a result of the approved 800 dwelling scheme to the south of the allocation (OUT/2014/2282). Therefore, there is not considered to be an issue that would need to be addressed within this assessment.

*Bennetts Road South/Kersley Brook Road Junction*

- 12.3.14 One collision occurred at this junction, which was slight in severity. The collision was the result of a vehicle overshooting the junction, and no sensitive road users were involved.

*Bennetts Road South/High Street Junction*

- 12.3.15 One collision occurred at this junction, which was slight in severity. The collision was the result of reckless driving.

*Bennetts Road South/Keresley Green Road/New Road Junction*

- 12.3.16 One collision occurred at this junction, which was slight in severity. The collision was the result of a speeding driver.

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#### Keresley Green Road/The Scotchill/Tamworth Road Junction

- 12.3.17 A total of seven collisions occurred at this junction, four of which were slight in severity and three serious. Of the slight collisions, one involved a pedestrian, and another involved a pedal cycle, both of which were the result of vehicles failing to give way. Of the serious collisions, one involved a pedestrian crossing in front of an oncoming vehicle. The other serious collisions did not involve any sensitive road users and were the result of driver error.

#### Bennetts Road North (north of Burrow Hill Lane) Link

- 12.3.18 One collision occurred on this link, which was serious in severity. The collision was the result of a driver turning onto the main road into the path of an oncoming vehicle. No sensitive road users were involved.

#### Bennetts Road South (between Sandpits Lane and Penny Park Lane) Link

- 12.3.19 One collision occurred on this link, which was serious in severity and involved a pedestrian. The collision was the result of a vehicle failing to stop for a pedestrian crossing the road, not at a designated crossing.

#### Bennetts Road South (between Watery Lane and Penny Park Lane) Link

- 12.3.20 One collision occurred on this link, which was slight in severity and involved no sensitive road users. The collision was considered to be the result of a poor road surface and masked signage.

#### Sandpits Lane Link

- 12.3.21 One collision occurred on this link, which was slight in severity. No sensitive road users were involved. The collision was the result of driver error as a driver failed to judge the path and speed of a vehicle in front waiting to turn into the petrol station forecourt.

#### Bennetts Road South Link

- 12.3.22 A total of two collisions occurred on this link, both of which were slight in severity. One collision involved an incident with a bus passenger whilst the bus was stationary. The other collision was the result of a pedestrian not crossing on the designated crossing.

#### New Road Link

- 12.3.23 One collision occurred on this link, which was serious in severity. The collision was the result of a piece of wood falling from the rear of a goods vehicle onto a pedestrian.

#### Highway Safety Summary

- 12.3.24 Overall, the level of collisions is not considered to be significant, and therefore there are not considered to be any undue safety concerns on the local highway network.

#### Sustainable Travel

##### Bus Services

- 12.3.25 The nearest bus stops are located on Howat Road, Exhall Road and Bennetts Road, approximately 250m, 400m and 500m from the site access point respectively.

Several of the services available from these stops call at Bedworth and Coventry stations, therefore enabling connections to further afield destinations by rail. **Table 12.8** summarises the existing services, routes and frequencies.

**Table 12.8: Bus Services Summary**

<b>Route No.</b>	<b>Operator</b>	<b>Route</b>	<b>Peak Hour Frequency</b>	<b>Days of Operation</b>
55	Stagecoach Warwickshire	Nuneaton – Coventry via Bedworth	1 per day	Mon – Sat
57	Stagecoach Warwickshire	Hinckley – Coventry via Nuneaton	1 per hour	Mon – Sat
16	National Express Coventry	Warwickshire Shopping Park to Keresley Village via City Centre	3 per hour	Mon - Sun

Rail Services

12.3.26 The closest railway station, Bedworth, is approximately 5.2km to the northeast of the site. The station is served by West Midlands Trains services between Nuneaton and Coventry. The station is served by one service per hour in each direction.

12.3.27 Coventry station is located approximately 6.8km to the south of the site. Although located further from the site, Coventry station offers a wider range of services including:

- West Midlands Trains and West Midlands West Coast services between London Euston and Birmingham New Street, Wolverhampton and Edinburgh;
- CrossCountry services between Bournemouth and Manchester Piccadilly; and
- West Midlands Trains services between Coventry and Nuneaton.

12.3.28 Coventry station has 270 cycle parking spaces, 120 of which are bicycle racks, and 150 of which are located within a secure Bike Hub and three car parks with a total of 860 car parking spaces (including 16 accessible spaces). Coventry station is well served by bus with a Rail Interchange stop located within 100m of the station entrance.

Pedestrian and Cycle Facilities

12.3.29 Lit footways, approximately 1.5-2m in width are provided on both sides of Bennetts Road North to the south of the site. Approximately 100m to the north of the Bennetts Road North/Howat Road junction, the footway on the western edge of Bennetts Road North ends.

12.3.30 There are a number of Public Rights of Way (PROWs) in the vicinity of the site. Public Footpath No. M310b runs along the northern edge of the proposed development site, in an east to west alignment. There are also a series of footpaths to the south of the site within and around Bunsons Wood.

12.3.31 The Coventry Local Cycle Route 1 starts approximately 1km to the southeast of the development site, within Prologis Park. This route provides a mixture of on and off-road cycle sections from Keresley (Prologis Park) to Coventry City Centre, serving the Arena Shopping Park, Ricoh Arena and Coventry Area station. The route provides connections onto Local Cycle Route 2 in the vicinity of the Arena Shopping Park.

Link Sensitivity

12.3.32 The sensitivity of each link has been determined using the methodology outlined previously and is summarised in **Table 12.9**.

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**Table 12.9: Link Sensitivity**

<b>Link No.</b>	<b>Link Description</b>	<b>Character</b>	<b>Sensitivity</b>
1	Bennetts Road N (North of Site Access)	Rural road with limited access to residential properties	Low
2	Bennetts Road N (South of Site Access)	Rural/urban road with access to business units and residential properties	Medium
3	Howat Road	Urban road with access to residential properties	Medium
4	Bennetts Road N (between Howat Road and Exhall Road)	Urban road with some access to residential properties	Medium
5	Thompsons Road	Residential street	High
6	Exhall Road	Urban road with some access to residential properties	Medium
7	Bennetts Road N (between Thompsons Road and Fivefield Road)	Urban road with some access to residential properties	Medium
8	Fivefield Road	Rural road with limited access to residential properties	Low
9	Watery Lane	Rural road with limited access to residential properties	Low
10	Bennetts Road S (between Watery Lane and Penny Park Lane)	Rural/urban road with limited frontage access	Low
11	Bennetts Road S (between Penny Park Lane and Sandpits Lane)	Urban road with frontage access to residential properties	Medium
12	Penny Park Lane	Urban road with frontage access to residential properties	Medium
13	Sandpits Lane	Urban road with access to a secondary school	High
14	Keresley Brook Road	Urban residential distributor road	Medium
15	Keresley Green Road (between Benson Road and Scotchill Roundabout)	Urban road with frontage access to residential properties	Medium
16	The Scotchill	Urban road with frontage access to residential properties	Medium
17	Kersley Road	Urban road with frontage access to shops and residential properties	Medium
18	Tamworth Road (between Waste Lane and Scotchill Roundabout)	Urban road with limited frontage access to residential properties	Low
19	Tamworth Road (between Fivefield Road and Long Lane)	Urban road with frontage access to shops and residential properties	Medium

Committed Infrastructure

12.3.33 It should be noted that as part of the approved 800 dwelling scheme to the south of the allocation (OUT/2014/2282) a number of junction improvements are planned. The committed improvements have been included within the assessment, and are as follows:

- Tamworth Road/Long Lane – New roundabout junction and toucan crossing;
- Coundon Wedge Drive/Holyhead Road Roundabout corridor – partial signalisation;
- Long Lane – segregated footway/cycleway;
- Tamworth Road/Sandpits Lane – new signal junction;
- Sandpits Lane/Bennetts Road South – signal upgrades;
- Radford Road/Beake Avenue/Engleton Road – signal upgrades;
- Radford Road/Lydgate Road/Laurence Saunders Road – signal upgrades;

- Sandpits Lane – toucan crossing and traffic calming;
- Bennetts Road South/Penny Park Lane – junction widening and dropped kerb pedestrian crossings; and
- Parkville Highway/Parkgate Road/Beake Avenue/Penny Park Lane – signal upgrades.

12.3.34 A number of additional committed developments and highway schemes within Coventry and neighbouring authority areas have been included within the Do Minimum baseline flows. A full list is included within Appendix F of the TA (**Appendix 12.1**).

**Baseline Survey Information**

Existing Traffic Flows

12.3.35 The existing and future base flows on the local network in the vicinity of the Proposed Development have been considered. Annual Average Daily Traffic (AADT) base flows have been extracted from the Coventry Area Strategic Model (CASM) for the 2026 Do Minimum future year. It should be noted that the Do Minimum flows include the committed infrastructure as listed above. However, they do not include the Keresley Link Road.

**Table 12.10: Baseline 24hr AADT Flows (Two-way Total)**

Link No.	Link Description	2026 Do Minimum	
		Total Vehicles	HGVs
1	Bennetts Road N (North of Site Access)	2363	520
2	Bennetts Road N (South of Site Access)	2363	520
3	Howat Road	5242	621
4	Bennetts Road N (between Howat Road and Exhall Road)	7605	1141
5	Thompsons Road	645	65
6	Exhall Road	6419	1220
7	Bennetts Road N (between Thompsons Road and Fivefield Road)	5017	602
8	Fivefield Road	2462	1477
9	Watery Lane	2068	1075
10	Bennetts Road S (between Watery Lane and Penny Park Lane)	3959	195
11	Bennetts Road S (between Penny Park Lane and Sandpits Lane)	10089	303
12	Penny Park Lane	7621	0
13	Sandpits Lane	7619	0
14	Keresley Brook Road	4550	0
15	Keresley Green Road (between Benson Road and Scotchill Roundabout)	11819	591
16	The Scotchill	12463	125
17	Keresley Road	26790	2679
18	Tamworth Road (between Waste Lane and Scotchill Roundabout)	13314	2130
19	Tamworth Road (between Fivefield Road and Long Lane)	13446	2559

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**12.4 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS**

**Construction – Screening**

12.4.1 The increase in traffic that would be required to trigger an assessment of the potentially significant environmental effects during the construction phase has been calculated by increasing the 2026 Do Minimum flows detailed in **Table 12.10** by 30% (10% on those links highlighted as being highly sensitive in **Table 12.9** above). The resultant HGV volumes that would be required to trigger a detailed assessment of the impact of construction vehicles are therefore set out in the last column of **Table 12.11**.

**Table 12.11: Increase in Daily Construction Traffic Required to Exceed Thresholds of Assessment – 2026 Do Minimum**

Link No.	2026 Do Minimum (Total Vehicles)	2026 Do Minimum (Total Vehicles + 30%)	Increase in traffic to require detailed assessment	2026 Do Minimum (HGVs)	2026 Do Minimum (HGVs + 30%)	Increase in traffic to require detailed assessment
1	2363	3072	709	520	676	156
2	2363	3072	709	520	676	156
3	5242	6814	1573	621	807	186
4	7605	9887	2282	1141	1483	342
5	645	710	65	65	71	6
6	6419	8345	1926	1220	1585	366
7	5017	6522	1505	602	783	181
8	2462	3201	739	1477	1920	443
9	2068	2688	620	1075	1398	323
10	3959	5147	1188	198	257	59
11	10089	13116	3027	303	393	91
12	7621	9907	2286	0	0	0
13	7619	8381	762	0	0	0
14	4550	5915	1365	0	0	0
15	11819	15364	3546	591	768	177
16	12463	16202	3739	125	162	37
17	26790	34827	8037	2679	3483	804
18	13314	17308	3994	2130	2769	639
19	13466	17506	4040	2559	3326	768

12.4.2 The information contained within **Table 12.11** indicates that a large increase in development related traffic would be required during the construction phase to exceed the IEMA thresholds to trigger the need for a detailed assessment. Increases in traffic of this magnitude are considered to be highly unlikely during the construction phases, thus the Proposed Development is considered to have a **negligible impact**.

12.4.3 It is recognised that the assessment threshold of increases in HGVs on Thompsons Road and The Scotchill are relatively low, as Links 5 and 16 are relatively lightly trafficked in comparison to the surrounding network. Construction will be managed by a construction management plan which will define the hours during which deliveries and construction vehicles can access the Site along with an identification of suitable routes. It is considered that construction vehicles will primarily route along Keresley Green Road and Bennetts Road.

12.4.4 It is recognised that the sensitivity of Links 5 and 13 (Thompsons Road and Sandpits Lane) are high, and therefore there is potential for minor adverse effects during the construction phase. A construction management plan will be in place to ensure that no construction vehicles use these sensitive links.

**Operation – Screening**

12.4.5 Full details of the predicted trip generation and proposed mitigation measures that will be implemented as part of the Proposed Development are contained within the TA, **Appendix 12.1**. These are integral to the Proposed Development, include the provision of a site access junction and a fully integrated pedestrian and cycle strategy and have been included within the assessment. Further details regarding the mitigation measures are included within Section 12.5.

12.4.6 It is considered that the majority of vehicular trips to and from the Proposed Development would be by light vehicles as the residential land uses proposed would not be significant generators of HGVs. Therefore, only the total increase in vehicles has been considered.

12.4.7 **Table 12.12** and **12.13** compare the 2026 Do Minimum flows with the Proposed Development (DS1) and Cumulative Development (DS2) scenarios. An overview of the elements included within each scenario has been provided below, and full details can be found within the TA (**Appendix 12.1**).

12.4.8 The DS1 scenario comprises the following elements:

- The 2026 'Do Minimum' base model; and
- The Proposed Development only.

12.4.9 The DS2 scenario comprises the following elements:

- All that is included within DS1; plus
- Two forthcoming developments within the Keresley SUE (Bellway c.500 dwellings and David Wilson Homes c.450 dwellings which are discussed within Chapter 2 and associated appendices); and
- The Keresley Link Road.

## ENVIRONMENTAL STATEMENT

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**Table 12.12: Increase in Daily Traffic Resulting from Proposed Development – 2026 Do Minimum**

Link No.	Link Description	2026 Do Minimum (Total Vehicles)	2026 DS1 (+Proposed Development) (Total Vehicles)	% Change
1	Bennetts Road N (North of Site Access)	2363	2329	-1%
2	Bennetts Road N (South of Site Access)	2363	5474	132%
3	Howat Road	5242	5242	0%
4	Bennetts Road N (between Howat Rd & Exhall Rd)	7605	11077	46%
5	Thompsons Road	645	645	0%
6	Exhall Road	6419	7420	16%
7	Bennetts Road N (between Thompsons Rd & Fivefield Rd)	5017	7436	48%
8	Fivefield Road	2462	2934	19%
9	Watery Lane	2068	2569	24%
10	Bennetts Road S (between Watery Lane & Penny Park Lane)	3959	5474	38%
11	Bennetts Road S (between Penny Park Lane & Sandpits Lane)	10089	10315	2%
12	Penny Park Lane	7621	7631	0%
13	Sandpits Lane	7619	7706	1%
14	Keresley Brook Road	4550	4868	7%
15	Keresley Green Road (between Benson Road & Scotchill Roundabout)	11819	12400	5%
16	The Scotchill	12463	12549	1%
17	Kersley Road	26790	27204	2%
18	Tamworth Road (between Waste Lane and Scotchill Roundabout)	13314	13276	0%
19	Tamworth Road (between Fivefield Road & Long Lane)	13446	13471	0%

**Table 12.13: Increase in Daily Traffic Resulting from Cumulative Development Scenario – 2026 Do Minimum**

Link No.	Link Description	2026 Do Minimum (Total Vehicles)	2026 DS2 (+Cumulative Development) (Total Vehicles)	% Change
1	Bennetts Road N (North of Site Access)	2363	2295	-3%
2	Bennetts Road N (South of Site Access)	2363	5436	130%
3	Howat Road	5242	5242	0%
4	Bennetts Road N (between Howat Road & Exhall Rd)	7605	11082	46%
5	Thompsons Road	645	664	3%
6	Exhall Road	6419	7886	23%
7	Bennetts Road N (between Thompsons Rd & Fivefield Rd)	5017	10323	106%
8	Fivefield Road	2462	3699	50%
9	Watery Lane	2068	9317	351%
10	Bennetts Road S (between Watery Lane & Penny Park Lane)	3959	6325	60%
11	Bennetts Road S (between Penny Park Lane & Sandpits Lane)	10089	8646	-14%
12	Penny Park Lane	7621	5053	-34%
13	Sandpits Lane	7619	3800	-50%
14	Keresley Brook Road	4550	3367	-26%
15	Keresley Green Road (between Benson Road & Scotchill Roundabout)	11819	12473	6%
16	The Scotchill	12463	12626	1%
17	Kersley Road	26790	28320	6%
18	Tamworth Road (between Waste Lane and Scotchill Roundabout)	13314	13131	-1%
19	Tamworth Road (between Fivefield Road & Long Lane)	13446	14390	7%

- 12.4.10 The results indicate that when compared with the baseline data, only four low or medium sensitivity links experience a traffic increase of greater than 30% (Links 2, 4, 7 and 10 – all of which are on Bennetts Road N). In accordance with the IEMA thresholds, therefore the impact is considered to be **negligible**.
- 12.4.11 Regarding the sensitive links, Link 5 (Thompsons Road) and 13 (Sandpits Lane), traffic flows are predicted to increase by 0% and 1% respectively in the 2026 DS1 future year scenario. This level of increase is lower than the 10% threshold for sensitive links, therefore the impact is considered to be **negligible**.
- 12.4.12 It should be noted that in the 2026 DS2 scenario (the Cumulative Development scenario), Link 9 (Watery Lane) forms part of the Keresley Link Road and therefore, as a result, experiences a significant increase in traffic flows. Additionally, in the 2026 DS2 scenario a number of links (Links 11, 12, 13 & 14) experience a significant reduction in trips as a result of the inclusion of the Keresley Link Road.

### Severance

- 12.4.13 In accordance with the IEMA guidelines, receptors are likely to experience 'minor' changes in severance when traffic flows change by 30% or more (10% where the link is sensitive) with changes in traffic flows of 60% and 90% producing 'moderate' and 'major' changes in severance. These changes in severance can be defined as being 'low', 'medium' or 'high' in magnitude respectively. As detailed in the tables above, only four links (Links 2,4,7 and 10) experience changes in flow above this threshold.
- 12.4.14 Traffic flows on Link 2 would increase by 132% and 130% based on 2026 DS1 and DS2 flows. This would equate to an effect of **high** magnitude in accordance with the guidance.
- 12.4.15 Traffic flows on Link 4 would increase by 46% based on both 2026 DS1 and DS2 flows. This would equate to an effect of **low** magnitude in accordance with the guidance.
- 12.4.16 Traffic flows on Link 7 would increase by 48% and 106% based on 2026 DS1 and DS2 flows. This would equate to an effect of **low to high** magnitude in accordance with the guidance.
- 12.4.17 Traffic flows on Link 10 would increase by 38% and 60% based on both 2026 DS1 and DS2 flows. This would equate to an effect of **low to medium** magnitude in accordance with the guidance.
- 12.4.18 However, pedestrian demand to cross Bennetts Road (links 2,4,7 and 10) is low. There is currently a limited footway provision on these links, and limited trip attractors in the vicinity of the links. As part of the Proposed Development, central refuge crossing points will be provided at the Site access junction. As a result, there is considered to be an effect of **low to high** magnitude on **low to medium** sensitivity links, resulting in an effect of **negligible to moderate adverse** significance on the severance as a result of the Proposed Development.

### Driver Delay

- 12.4.19 Delays to non-development traffic can occur on the network due to the additional traffic generated by the Proposed Development. The IEMA guidelines note that these additional delays are only likely to be significant when traffic on the network surrounding the Proposed Development is already at, or close to capacity.

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- 12.4.20 The TA includes capacity assessments of local junctions during the network peak hours of 08:00-09:00h and 17:00-18:00h. The TA compares four scenarios:
- 2013 Base;
  - 2026 Do Minimum;
  - 2026 Do Something 1 (DS1); and
  - 2026 Do Something 2 (DS2);
- 12.4.21 The TA found that the development would have a negligible impact on driver delay each of the junctions assessed. The junctions included:
- B4098 Tamworth Road/Fivefield Road;
  - Bennetts Road/Sandpits Lane;
  - Bennetts Road South/Penny Park Lane;
  - B4098 Tamworth Road/Green Road/The Scotchill/B409 Keresley Road;
  - Parkville Highway/Parkgate Road/Beake Avenue/Penny Park Lane; and
  - Long Lane/Brownhill Green Road/Wall Hill Road/Coundon Wedge Drive.
- 12.4.22 Based upon an effect of negligible magnitude, on receptors which are mostly low or medium in sensitivity, the Proposed Development can be described as having a **negligible effect** on driver delay.
- Pedestrian Delay
- 12.4.23 In accordance with the IEMA guidelines, pedestrian delay is likely to occur when traffic affects the ability of people to cross roads. The guidelines indicate that increases in traffic of 30% (10% on sensitive links) can double the delay experienced by pedestrians attempting to cross the road as there would be fewer gaps in traffic.
- 12.4.24 As detailed in the tables above, only four links (Link 2, 4, 7 and 10) experience changes in flow above this threshold within the Proposed Development only scenario (DS1).
- 12.4.25 There are existing pedestrian footways on both sides of Bennetts Road North (Link 2), although it is recognised that the eastern footway stops to the north of the local facilities. There is a zebra crossing point on Link 2 which provides a sufficient crossing point between existing residents and the local facilities. Additionally, the Proposed Development incorporates measures to allow pedestrians to safely cross Bennetts Road North on Link 2. It is considered that these measures reduce the delay incurred due to increased traffic volumes and will provide sufficient pedestrian crossing points. As a result, the increase in traffic is considered to have a minor impact of low magnitude.
- 12.4.26 Links 4 and 7 have existing footways on both sides of Bennetts Road North. Additionally Link 7 has a central refuge crossing point which provides a safe pedestrian crossing point in the vicinity of the Prologis Park. Given that most of the pedestrian trip attractors (residential dwellings and Prologis Park) are both located on the eastern side of Bennetts Road, there is unlikely to be a significant number of pedestrians crossing the road. As a result, the increase in traffic is considered to have a minor impact of low magnitude.
- 12.4.27 Link 10 has a limited footway provision. However, there is not considered to be a significant number of trip attractors in the vicinity of the link. Therefore, the number of pedestrians likely to be crossing Bennetts Road on link 10 is unlikely to be significant. As a result, the increase in traffic is considered to be negligible.
- 12.4.28 On balance, it can be concluded that the effect can be classified as low in magnitude on receptors that are mostly of low and medium sensitivity, and therefore the

Proposed Development would have an effect of **negligible to minor adverse** significance on pedestrian delay.

#### Pedestrian Amenity

- 12.4.29 The IEMA guidelines note that changes in pedestrian amenity may be considered significant where the traffic flow is halved or doubled. With the addition of the Proposed Development only (DS1), only Link 2 (Bennetts Road North, between the Site access and Grove Lane) experiences a doubling of traffic flows.
- 12.4.30 The mitigation measures embedded as part of the scheme are considered to provide a betterment to the pedestrian environment surrounding the Site:
- Pedestrian footways to be provided in the vicinity of the Site access junction;
  - Central refuge and informal crossing points to be provided as part of the Site access junction; and
  - An additional pedestrian/cycle access onto Thompsons Road.
- 12.4.31 When considering the Cumulative Development scenario (DS2) links 2 (Bennetts Road North - South of Site Access), 7 (Bennetts Road between Thompsons Road and Fivefield Road) and 9 (Watery Lane) experience a doubling of traffic flows, whilst link 13 (Sandpits Lane) experiences a halving of traffic flows. As detailed above, the significant increases and decreases on traffic flows within the DS2 scenario is the result of the inclusion of the Keresley Link Road.
- 12.4.32 On balance, the Proposed Development will incorporate a number of measures to improve pedestrian amenity, including central refuge crossing points on three of the four access roundabout arms and additional pedestrian access points. It is considered that these measures will provide a betterment to pedestrian amenity in the vicinity of the site, outweighing the impact of increased traffic flows on Link 2 and 7.
- 12.4.33 Overall, it can be concluded that the effect can be classified as **low** in magnitude on receptors that are of **low and medium** sensitivity, and therefore the Proposed Development would have an effect of **negligible to minor adverse** significance on pedestrian amenity.

#### Fear and Intimidation

- 12.4.34 Levels of fear and intimidation experienced by pedestrians are dependent on the volume of traffic, its HGV composition and factors such as speeds, size and proximity of vehicles.
- 12.4.35 Each of the links within the assessment area are subject to a 30mph speed limit, with the exception of the following:
- Link 1 (Bennetts Road N – North of Site Access) - 40mph limit; and
  - Link 9 (Watery Lane) - national speed limit (60mph).
- 12.4.36 Given that the main pedestrian desire lines from the Site are south towards the Prologis Park and Coventry city centre, away from those roads with a higher speed limit, speed is unlikely to cause fear and intimidation.
- 12.4.37 The mitigation measures embedded as part of the scheme are considered to provide a betterment to the pedestrian environment surrounding the Site:
- Pedestrian footways to be provided in the vicinity of the Site access junction;
  - Installation of pedestrian tactile crossing points and central refuges at the site access junction; and
  - An additional pedestrian/cycle access onto Thompsons Road.

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- 12.4.38 In addition, it should be noted that the Proposed Development will not generate a significant number of additional HGV movements during the operational stage.
- 12.4.39 Overall, it can be concluded that the Proposed Development would have a **negligible** impact on fear and intimidation.

#### Accidents and Safety

- 12.4.40 The review of PIC data undertaken as part of the TA identified a total of 38 collisions recorded on the highway network in proximity to the Site between 2013 and 2018 respectively inclusive.
- 12.4.41 All collisions were considered to be the result of error on behalf of drivers and other road users, with causation factors including a lack of observation and poor judgement. A particular cluster of collisions was identified at the New Road/Ash Green Lane/Vicarage Road/Royal Oak Lane and Bennetts Road North/Sandpits Lane and Keresley Green Road/Tamworth Road/The Scotchill junctions. Collisions within these clusters were primarily the result of drivers failing to give-way.
- 12.4.42 Additional traffic on the highway network will statistically increase the risk of accidents occurring. Driver frustration due to delay and queuing could result in a greater risk at junctions. Notwithstanding this, junction assessments undertaken within the TA identified that the Proposed Development would have a negligible impact on driver delay.
- 12.4.43 However, a number of measures are included as part of the Proposed Development to reduce the risk of accidents:
- Provision of a suitably designed Site access junction will allow vehicles to enter and exit the Site safely.
- 12.4.44 Overall, the introduction of the Proposed Development is considered to have a **negligible** effect on accidents and safety.

### 12.5 MITIGATION, ENHANCEMENT AND RESIDUAL EFFECTS

- 12.5.1 This section details the mitigation and residual effects of the development during both its construction and operation phases, much of which is considered integral to the Proposed Development.

#### Mitigation by Design

- 12.5.2 The following mitigation measures are considered integral to the Proposed Development and have been considered within the assessment above:

#### Site Access Junction

- 12.5.3 One vehicle access is proposed via a new four arm roundabout with Bennetts Road North and Grove Lane. In addition, an emergency only access point will be provided to the south of the main access junction on Bennetts Road North.
- 12.5.4 Provision of a roundabout in this location will form a gate-way feature for vehicles travelling into Keresley. The roundabout will also act as a traffic calming measure, ensuring a reduction in the speed of oncoming vehicles.

*Pedestrian/Cycle Strategy*

12.5.5 It is proposed to improve the safety, attractiveness and accessibility of pedestrian and cycle movement by the measures outlined below:

- The principal street within the Proposed Development will incorporate a shared footway/cycleway.
- Within the proposed access junction with Bennetts Road North and Grove Lane, a series of central refuges and tactile crossing points will be provided.
- An additional pedestrian/cycle only access point will be provided at the southwestern most corner of the Proposed Development, connecting onto the existing pedestrian facilities on Thompsons Road.

**Additional Mitigation**Construction*Wheel Wash*

12.5.6 A wheel wash facility will prevent vehicles leaving mud on the local highway network which could impact upon highway safety.

*Implementation of a Construction Traffic Management Plan*

12.5.7 A Construction Traffic Management Plan should be in place to define the hours during which deliveries and construction vehicles can access the site along with an identification of suitable routes. This should ensure that the increase in traffic is spread throughout the day, avoiding excess impacts on the peak hours. This will reduce the impact on driver delay, pedestrian delay and the potential for fear and intimidation caused by HGV's and the increased traffic. Given that HGV's will primarily use the strategic highway network and key local highway network routes (B4098 and Bennetts Road North), the impact of construction vehicles is not considered severe. Any Construction Traffic Management Plan could be secured by condition.

Operation*Implementation of a Travel Plan*

12.5.8 The Travel Plan which has also been prepared for the site (**Appendix 12.2**) sets out a package of measures aimed at promoting sustainable travel behaviour. This includes measures to encourage an increase in the journeys undertaken on foot, by bicycle, use of public transport as well as promoting smarter travel patterns. Examples include the distribution of local walking and cycling routes, public transport timetables and the encouragement of car-sharing.

*Keresley Link Road*

12.5.9 As part of the wider strategic allocation, the development of a link road connecting between Long Lane and Winding House Lane is required. As detailed within Policy H2:1 of the Coventry Local Plan, the link road is to be fully operational prior to the full completion of the allocation. Every developer within the allocation is responsible for contributing towards the development of the link road, by either delivering the extent which runs through their site or providing a financial contribution. Given the location of the Proposed Development, a financial contribution will be provided towards the Keresley Link Road.

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12.5.10 It is anticipated that these measures are likely to reduce the volume of vehicular traffic generated by the development and additionally, reduce the intimidation effect of increased traffic volumes on pedestrians and cyclists.

12.5.11 The following table summarises the mitigation measures and how these will be secured.

**Table 12.14: Mitigation**

Ref	Measure to avoid, reduce or manage any adverse effects and/or to deliver beneficial effects	How measure would be secured		
		By Design	By S.106	By Condition
1	Provision of site access point	X		
2	Delivery of Pedestrian and Cycle Strategy	X		
3	Construction Management Plan			X
4	Further highway mitigations		X	
5	Implementation of a Travel Plan			X
6	Contribution to Keresley Link Road		X	

**Residual Effects**

12.5.12 The potential transport and traffic impact of the Proposed Development has been assessed across the defined study area.

12.5.13 Taking into consideration the mitigation proposed, the assessment has found that during the construction phase, the Proposed Development would have a **negligible** effect which is not considered to be significant under the EIA regulations.

12.5.14 During the operational phase, the relevant effects resultant from the Proposed Development after the implementation of the suggested mitigation (albeit most of these mitigation measures were considered as part of the development), can be summarised as follows:

- A **negligible to moderate adverse** effect on severance;
- A **negligible effect** on driver delay;
- A **negligible to minor adverse** effect on pedestrian delay;
- A **negligible to minor adverse** effect on pedestrian amenity;
- A **negligible** effect on fear and intimidation; and
- A **negligible** effect on accidents and safety.

12.5.15 These residual impacts are not considered to be significant in EIA terms.

**12.6 CUMULATIVE AND IN-COMBINATION EFFECTS**

12.6.1 The 2026 DS2 flows used within this study include growth and cumulative development assumptions. As such, any cumulative effects have been integrated into the model and thus are inherent throughout. The assessments within this report therefore consider the Proposed Development in relation to the cumulative baseline.

**12.7 SUMMARY****Introduction**

12.7.1 This chapter has been prepared to assess the potentially significant environmental effects that could arise from the change in traffic flows during the construction and operation of the Proposed Development on Land North of Thompsons Farm, Keresley. The assessment has been undertaken in accordance with the 1993 Institute of Environmental Assessment (now the Institute of Environmental Management and Assessment - IEMA) publication Guidance Notes No. 1: Guidelines for the Environmental Assessment of Road Traffic and specifically considers impacts in relation to severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and accidents and safety.

**Baseline Conditions**

12.7.2 A full description of the Proposed Development is presented in **Chapter 3** of this ES.

12.7.3 A full audit of the highway network surrounding the site has been undertaken as part of the assessment, the purpose of which was to identify land uses and locations that should be considered sensitive in accordance with the IEMA guidelines. As a result, links along Thompsons Road and Sandpits Lane were identified as being sensitive due to their nature as lightly trafficked, residential streets or having access to a school.

12.7.4 Traffic count data for 24hr AADT was obtained for a total of 19 links in proximity to the Proposed Development to provide a 2026 Do Minimum baseline. The existing sustainable transport situation was analysed, finding that the site is well served by public transport services and has a good pedestrian and cycling environment. Personal Injury Collision data for the most recent five-year period (2013 to 2018 inclusive) has been analysed for the site, finding no highway safety concerns that would need to be addressed as part of the Proposed Development.

**Likely Significant Effects**

12.7.5 The assessment of the impact of construction traffic concluded that construction traffic is unlikely to exceed IEMA thresholds and thus is anticipated to have a negligible impact on the local highway network.

12.7.6 The assessment of operational impacts included the consideration of two 'with development' scenarios; Do Something 1 (DS1) and Do Something 2 (DS2). The DS1 scenario included the Proposed Development only, whereas the DS2 scenario represented a cumulative development scenario which accounted for two additional forthcoming development sites within the Keresley SUE alongside the Proposed Development.

12.7.7 The assessment found that significant traffic increases (by IEMA guidelines i.e. changes of traffic flow by 30%) are only predicted on one link (Link 2) for the Proposed Development only scenario (DS1) and four links (Link 2, 4, 7 and 10) for the Cumulative Development scenario (DS2).

12.7.8 A detailed assessment of the links, assessing the likely impact on severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and accidents and safety has been undertaken. The detailed assessment identified that the Proposed Development would have an impact of negligible to moderate adverse significance on severance, and an impact of negligible to minor adverse significance on all other criteria.

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#### **Mitigation and Enhancement**

- 12.7.9 A number of mitigation measures have been identified to address any potentially significant traffic related effects resulting from the additional vehicle movements generated by the Proposed Development. For the construction phase, these mitigation measures include a Wheel Wash and the implementation of a Construction Traffic Management Plan.
- 12.7.10 A number of mitigation measures for the operational phase are integral to the Proposed Development. These include the provision of a site access junction and a fully integrated pedestrian and cycle strategy. Further measures also include the implementation of a Travel Plan and a contribution to the development of the Keresley Link Road.

#### **Conclusion**

- 12.7.11 The results of this assessment indicate that the potential environmental effects as a result of increased traffic generated by the Proposed Development are predicted to have a negligible to minor impact, which are not considered significant in EIA terms.
- 12.7.12 **Table 12.15** provides a summary of effects, mitigation and residual effects.

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**Table 12.15: Summary of Effects, Mitigation and Residual Effects**

Receptor / Receiving Environment	Description of Effect	Nature of Effect	Sensitivity Value	Magnitude of Effect	Geographical Importance	Significance of Effects	Mitigation / Enhancement Measures	Residual Effects
<b>Construction</b>								
Severance	Severance is the perceived division that can occur within a community when it becomes separated by a major traffic artery and is used to describe the factors that separate people from other people and places.	Temporary	N/A	N/A	Local	Negligible to Minor Adverse	Construction Traffic Management Plan and Wheel Washing	Negligible
Driver Delay	Delays to traffic which occur on the local highway network as a result of the additional traffic that would be generated by a proposed development.	Temporary	N/A	N/A	Local	Negligible to Minor Adverse	Construction Traffic Management Plan and Wheel Washing	Negligible
Pedestrian Delay	Delays to a pedestrian as they try to cross roads, as a result of increases in traffic volumes. Delays will also depend upon the general level of pedestrian activity, visibility and general physical conditions of the crossing location.	Temporary	N/A	N/A	Local	Negligible to Minor Adverse	Construction Traffic Management Plan and Wheel Washing	Negligible
Pedestrian Amenity	Pedestrian amenity is broadly defined as the relative pleasantness of a journey, and is considered to be affected by traffic	Temporary	N/A	N/A	Local	Negligible to Minor Adverse	Construction Traffic Management Plan	Negligible

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	flow, traffic composition and footway width/separation from traffic.						and Wheel Washing	
Fear and Intimidation	The scale of fear and intimidation experienced by pedestrians is dependent on the volume of traffic, its HGV composition, its proximity to people or the lack of protection caused by factors such as narrow footway widths, as well as factors such as the speed and size of vehicles.	Temporary	N/A	N/A	Local	Negligible to Minor Adverse	Construction Traffic Management Plan and Wheel Washing	Negligible
Accidents and Safety	Where a proposed development is expected to produce a change in the character of the traffic on the local road network, there may be an impact on the likelihood of accidents and as a result a reduction in safety.	Temporary	N/A	N/A	Local	Negligible to Minor Adverse	Construction Traffic Management Plan and Wheel Washing	Negligible
<b>Operation and Cumulative</b>								
Severance		Permanent	Low to Medium	to Low to High	Local	Moderate Adverse	Site Access Junction, Pedestrian/Cycle Strategy, Travel Plan	Minor to Moderate Adverse
Driver Delay		Permanent	Low to Medium	to Negligible	Local	Negligible	Site Access Junction, Pedestrian/Cycle Strategy, Travel Plan	Negligible

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Pedestrian Delay		Permanent	Low to Medium	Low	Local	Negligible to Minor Adverse	Site Access Junction, Pedestrian/Cycle Strategy, Travel Plan, Keresley Link Road Contribution	Negligible to Minor Adverse
Pedestrian Amenity		Permanent	Low to Medium	Low	Local	Negligible to Minor Adverse	Site Access Junction, Pedestrian/Cycle Strategy, Travel Plan, Keresley Link Road Contribution	Negligible to Minor Adverse
Fear and Intimidation		Permanent	Low to Medium	Negligible	Local	Negligible	Site Access Junction, Pedestrian/Cycle Strategy, Travel Plan	Negligible
Accidents and Safety		Permanent	Low to Medium	Negligible	Local	Negligible	Site Access Junction, Pedestrian/Cycle Strategy, Travel Plan	Negligible