

## 9. Transport and Access

### 9.1. Introduction

- 9.1.1. This Chapter identifies and assesses the likely significant environmental effects of the Proposed Development on Traffic and Transport.
- 9.1.2. The Chapter describes the methods used to assess the likely significant effects, the baseline conditions currently existing at the Site and surroundings, the potential direct, indirect and cumulative effects of the development, the mitigation measures which seek to prevent, reduce, or offset the identified significant effects and the residual effects. It has been written by Eddisons.
- 9.1.3. This chapter is supported by the following appendices and/or figures:
- **Appendix 9.1** – Transport Assessment
  - **Appendix 9.2** – Travel Plan
- 9.1.4. This Chapter, and its associated appendices, is intended to be read as part of the wider Environmental Statement (ES) with particular reference to the introductory chapters (Chapter 1 to Chapter 4).

### 9.2. Assessment Approach

#### Methodology

#### Identification of the Study Area and Site Surveys

- 9.2.1. The study area has been defined by reference to other recent applications in the vicinity of the Site. Classified junction turning counts and other survey source information, journey time information has been obtained from surveys undertaken on 19 June 2024, and comprises the following junctions:
- Windy Arbor Road/Lickers Lane/Willis Lane staggered T- junction;
  - Dragon Lane/Stoney Lane/Meadway signalised junction;
  - Stoney Lane/Cumber Lane signalised junction;
  - Lickers Lane/Fox's Bank signalised junction; and
  - A5080 Cronton Road/Fox's Bank Lane roundabout.
- 9.2.2. With regard to the potential impact at the Tarbock Island junction, an improvement scheme was developed for the junction to accommodate the growth on the highway network associated with Halsnead Garden Village; this has commenced on site.
- 9.2.3. As the Site forms part of Halsnead Garden Village, the impact of the proposals and mitigation at Tarbock Island has already been considered and no detailed assessments at this junction are considered necessary (as agreed with National Highways).

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### Desk-based Data

- 9.2.4. A review of personal injury collision data has been undertaken by reference to information available on the CrashMap website.

### Assessment scenarios

- 9.2.5. It is anticipated that the Proposed Development will have a completion year of 2031. The surveyed traffic data has been factored to the future year using TEMPro version 7.2. The Site falls within the Middle Super Output Area (MSOA) E02001339: Knowsley 013.

- 9.2.6. The resulting growth factors are as follows:

- 2024 to 2031 AM Peak – 1.0616 and
- 2024 to 2031 PM Peak – 1.0545.

### Enabling and Construction Phase – Vehicular Traffic

- 9.2.7. It is anticipated that the Proposed Development will be completed in 2031, though the timing and generation of construction traffic is not yet fully known and will depend upon the contractors appointed for the delivery of each phase, once the phasing strategy is confirmed. However, in the absence of a phasing strategy at this stage, for the purpose of the assessment, a continuous enabling and construction phase has been assumed.
- 9.2.8. During the enabling and construction works, HGVs and other small site / plant vehicles together with construction workers will undertake trips to and from the site. Table 9.1 shows the estimated average daily vehicle trips that could be generated during this stage. It has been estimated based on Eddison's experience of other similar residential developments.

**Table 9.1 Estimated Average Daily Construction Vehicles**

| Arrivals  |       | Departures |       |
|-----------|-------|------------|-------|
| Cars/Vans | HGVs  | Cars/Vans  | HGVs  |
| 150       | 14-16 | 150        | 14-16 |

### Completed and Operational Development

#### *Residential*

- 9.2.9. In order to establish the trip rates for the Proposed Development, reference has been made to the latest TRICS database. The parameters used to ascertain the vehicular trip rates for the Proposed Development are as follows:
- O3-A Residential, houses Privately Owned,
  - 100 – 600 units,
  - Greater London and Republic of Ireland sites excluded, and
  - Weekday surveys only.

- 9.2.10. A summary of the resulting trip rates and the likely level of trips that would occur as a result of the Proposed Development are included in Table 9.2 below.

**Table 9.2 Proposed Development Trip Rates and Trips**

| Mode              | Trip Rate |       |         |       | Trip Generation |     |         |     |
|-------------------|-----------|-------|---------|-------|-----------------|-----|---------|-----|
|                   | AM Peak   |       | PM Peak |       | AM Peak         |     | PM Peak |     |
|                   | Arr       | Dep   | Arr     | Dep   | Arr             | Dep | Arr     | Dep |
| Total Vehicles    | 0.138     | 0.354 | 0.262   | 0.153 | 26              | 67  | 50      | 29  |
| Taxis             | 0.007     | 0.006 | 0.003   | 0.003 | 1               | 1   | 1       | 1   |
| Total People      | 0.210     | 0.752 | 0.510   | 0.262 | 40              | 143 | 50      | 147 |
| Total People      | 0.210     | 0.752 | 0.510   | 0.262 | 40              | 143 | 2       | 4   |
| Cyclists          | 0.005     | 0.016 | 0.014   | 0.008 | 1               | 3   | 0       | 0   |
| OGVs              | 0.002     | 0.002 | 0.001   | 0.001 | 0               | 0   | 41      | 121 |
| Vehicle Occupants | 0.163     | 0.605 | 0.421   | 0.216 | 31              | 115 | 7       | 18  |
| Pedestrians       | 0.038     | 0.101 | 0.059   | 0.036 | 7               | 19  | 0       | 3   |
| Bus               | 0.003     | 0.022 | 0.013   | 0.002 | 1               | 4   | 0       | 1   |
| Rail              | 0.000     | 0.008 | 0.003   | 0.000 | 0               | 2   | 25      | 70  |
| Cars              | 0.114     | 0.318 | 0.233   | 0.134 | 22              | 60  | 3       | 7   |
| LGVs              | 0.015     | 0.026 | 0.023   | 0.014 | 3               | 5   | 0       | 1   |

#### Proposed Development Trip Distribution

- 9.2.11. The directional distribution of the traffic associated with the proposals has been assigned to the local highway network using National Travel Survey Travel to Work Census Data for the Knowsley O13 MSOA in which the application sites are located.
- 9.2.12. The 2011 distribution has been used as the basis for the development distribution calculation as this data pre-dates the Covid travel restrictions in place during the 2021 National Census.
- 9.2.13. The distribution was calculated using Google drive-time mapping. The Google software identified the fastest route between the application site and the place of work destination zone.

#### Climate Change

- 9.2.14. The IEMA document 'Environmental Assessment of Traffic and Movement' in relation to climate change, recommends users to refer to IEMA's 'Environmental Impact Assessment Guide to: Climate Change Resilience and Adaptation' and IEMA's 'Environmental Impact Assessment Guide: Assessing Greenhouse Gas Emissions and Evaluation their Significance'. A review of both documents confirms that there are no climate change criteria to be considered for the transport impacts of the Proposed Development. As such, it is not considered further in this Chapter.

#### Assumptions and Limitations

- 9.2.15. In undertaking the transportation assessment of the Site and wider surrounding area, there are a number of limitations and constraints, which include:

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- The data used in this assessment is from observed traffic flows. This data is all collected and collated by 3rd party specialists. This follows standard industry practice, and it is assumed that these data sources are accurate;
- The committed development traffic flows used within this assessment have been obtained from the TAs undertaken by 3rd party specialists. This follows standard industry practice, and it is assumed that these data sources are accurate;
- Baseline conditions have been established from a variety of sources which are the most up-to-date data available at the time. However, due to the dynamic nature of certain aspects of the environment and the lengthy time for the implementation of the Proposed Development, conditions may change during the construction and operation of the Proposed Development;
- The Proposed Development traffic flows used within this assessment have been obtained based on trip rates at other, similar developments. It is assumed that these will be representative of the traffic flows that will occur at the application site;
- The Proposed Development trips have been assigned to the network based on the existing distribution of traffic. It is assumed that this will be representative of the traffic distribution that will occur at the site; and
- It is assumed that all the principal existing land uses and transport infrastructure in the vicinity of the site, other than those specifically identified in the TA, remain substantially unaltered.

### Assessment of Significance

9.2.16. The Institute of Environmental Management and Assessment (IEMA) guidelines 'Environmental Assessment of Traffic and Movement' was published in July 2023 form the basis for the assessment of the effects of the Proposed Development on traffic and movement, including the consideration of the following potential impacts:

- 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; and
- Hazardous/large loads.

9.2.17. Dangerous / hazardous loads are not generally associated with the construction of residential-led developments and, due to the uses proposed, the operation of the Proposed Scheme would not require the transportation of dangerous or hazardous loads.

9.2.18. Therefore, effects related to hazardous loads have been scoped out.

### *Severance*

- 9.2.19. Severance is defined in the IEMA Guidelines as a term used to describe a complex series of factors that separate people from places and other people. Although generally applied to people on foot, severance can also apply to all forms of transport.

### *Driver Delay*

- 9.2.20. The IEMA Guidelines advise that delays to non-development traffic can occur at several points on the network surrounding a development site, though delays are only likely to be significant when the traffic on the network surrounding the development is already at, or close to, the capacity of the system; values for delay due to these elements can be determined by the use of proprietary software packages.

### *Non-Motorised User Amenity*

- 9.2.21. Pedestrian amenity is defined in the IEMA Guidelines as the relative pleasantness of a journey; this is considered to be affected by traffic flow. Similarly, the IEMA Guidelines point out changes in the volume, composition, or speed of traffic may affect the ability of people to cross the road.

### *Non-Motorised User Delay*

- 9.2.22. The IEMA Guidelines advise that the assessment of pedestrian delay serves as a proxy for the delay that other modes of non-motorised users may experience when crossing roads, and that changes in the volume, composition or speed of traffic may affect the ability of people to cross roads, though delays will also depend on the general level of pedestrian activity.

### *Fear and Intimidation*

- 9.2.23. A further environmental impact that affects people is the fear and intimidation created by all moving objects.
- 9.2.24. The IEMA Guidelines set out a degree of hazard, based on 'Average traffic flow over 18-hour day (all vehicles/hour 2-way)', 'Total 18-hour heavy vehicle flow' and 'Average vehicle Speed'. From this, a total hazard score can be determined and the impact of the Development determined by the change in step / traffic flows from the baseline condition.

### *Road Safety*

- 9.2.25. The IEMA Guidelines advise that, whilst the 1993 Guidelines advocated the calculation of road accident rates, it is more common for stakeholders to request a 'collision cluster' assessment to identify potential impacts at a more detailed level; collision clusters are identified by a detailed review of the baseline characteristics to determine the road safety sensitivity of discrete areas of the highway network.
- 9.2.26. The potential groups and special interests that may be affected by the Proposed Development have been considered and the following list of 'receptors' has been identified:
- Vulnerable groups including children, elderly and disabled;

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- Accident 'black spots';
- Vehicle Drivers – Highway corridors / junctions identified from scoping discussions ;
- Pedestrians;
- Cyclists; and
- Schools/Hospitals.

### Characterisation of Effect

9.2.27. The Environmental Effects from the Proposed Development have been assessed in the following terms:

- Beneficial – Meaning that they produce environmental benefits in transportation terms, i.e. where overall traffic flows or percentage HGV decrease, or there are improved facilities for pedestrians, cyclists, or public transport users;
- Negligible – Meaning that changes are too small to meaningfully measure;
- Adverse – Meaning that they produce environmental disbenefits in transportation terms, i.e. where overall traffic flows or percentage HGV increase, or there are reductions in facilities for pedestrians, cyclists, or public transport users;

9.2.28. Beneficial and adverse effects are further characterised as:

- Negligible – changes in traffic flows/patterns of less than 10%;
- Minor – highly localised changes in traffic flows/patterns of between 10% and 30%;
- Moderate – Limited change where, changes in traffic flows/patterns are between 30% and 60%; and
- Major – Considerable change, where changes in traffic flows/patterns are greater than 60%.

### Significance Criteria

9.2.29. The IEMA guidelines, outlined above, suggest two broad rules-of-thumb as criteria to assist in delimiting the scale and extent of the environmental assessment:

- Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
- Include highway links of high sensitivity where traffic flows have increased by 10% or more.

9.2.30. However, it adds that *'It should be noted that the Rule 1 and Rule 2 'criteria' process may not be appropriate for some impacts, and it is generally accepted by regulators and practitioners that it should not be applied to assessments of air quality, noise, road safety and driver delay.*

*For these impacts, a separate study area and assessment criteria should be agreed with the relevant stakeholders.'*

- 9.2.31. The assessment methodology on identifying and applying receptor sensitivity, effect magnitude and how these combine to establish the significance of effects is set out below.

*Receptor Sensitivity*

- 9.2.32. The sensitivity of receptors is described in **Table 9.3**.

**Table 9.3 Receptor Sensitivity**

| Receptor value / sensitivity | Receptor type                                                                                                                            |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>High</b>                  | Sensitive groups, including children, elderly and disabled.<br>Sensitive locations, e.g. hospitals and schools<br>Accident 'black-spots' |
| <b>Medium</b>                | People walking<br>People cycling                                                                                                         |
| <b>Low</b>                   | Vehicle drivers                                                                                                                          |
| <b>Negligible</b>            | n/a                                                                                                                                      |

*Impact Magnitude*

- 9.2.33. The degree of magnitude of impacts that the Proposed Development would have upon the resource/receptor is considered within the range of high, medium, low and negligible. Consideration is given to scale, duration of impact/effect (e.g., for construction, short-term for 1-2 years, medium-term for 3-5 years, long-term for 5 years and greater, and permanent, dependent upon project timeframes) and extent of Proposed Development with reference to the definitions in **Table 9.4**.

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Table 9.4 Magnitude of Impact

| Magnitude         | Potential Impact                                            |                               |                                                             |                                                                                                                                                                                                                                                                              |                                                                  |
|-------------------|-------------------------------------------------------------|-------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
|                   | Severance                                                   | Driver Delay                  | Pedestrian Delay and Non-motorised User Amenity             | Fear and Intimidation                                                                                                                                                                                                                                                        | Road Safety                                                      |
| <b>High</b>       | Change in highway link traffic flow of over 60%             | Substantial increase in delay | Change in highway link traffic flow of over 60%             | Two step changes in level                                                                                                                                                                                                                                                    | Personal injury accident rate changed and above national average |
| <b>Medium</b>     | Change in highway link traffic flow of 30% to less than 60% | Moderate increase in delay    | Change in highway link traffic flow of 30% to less than 60% | One step change in level, but with <ul style="list-style-type: none"> <li>• &gt;400 veh increase in average 18hr AV two-way all vehicle flow; and/or</li> <li>• &gt;500 HV increase in total 18hr HV flow</li> </ul>                                                         | Personal injury accident rate changed but below national average |
| <b>Low</b>        | Change in highway link traffic flow of 10% to less than 30% | Slight increase in delay      | Change in highway link traffic flow of 10% to less than 30% | One step change in level, with <ul style="list-style-type: none"> <li>• &lt;400 veh increase in average 18hr AV two-way all vehicle flow; and/or</li> <li>• &lt;500 HV increase in total 18hr HV flow</li> </ul> Change in highway link traffic flow of 10% to less than 30% | Slight change to personal injury accident rate                   |
| <b>Negligible</b> | Change in highway link traffic flow of less than 10%        | No change in delay            | Change in highway link traffic flow of less than 10%        | No change in step changes                                                                                                                                                                                                                                                    | No change to personal injury accident rate                       |

**Effect Significance**

- 9.2.34. The assessment of effects is based upon the assessments of magnitude of impacts and sensitivity of the resource/receptor to come to a transparent conclusion of how important or significant this effect is. This is shown in **Table 9.5**, although professional judgement can also be used to adjust the significance of an effect.

**Table 9.5 Significance of Effect**

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

- 9.2.35. All effects moderate and major are considered significant.
- 9.2.36. To assess the likely significant effects of the Proposed Development in transportation terms, the following scale set out in **Table 9.6** has been used. The significance scale is derived from the interaction of receptor sensitivity and magnitude of change of effect but can be adjusted based on professional judgement.

**Table 9.6 Significance Scale**

| Significance Scale  | Description                                                                                                               |
|---------------------|---------------------------------------------------------------------------------------------------------------------------|
| Major beneficial    | Change that would delay the need for planned modification to off-site infrastructure.                                     |
| Moderate beneficial | Increased perception of changing conditions that may delay the need for planned modifications to off-site infrastructure. |
| Minor beneficial    | Perception of changing conditions e.g. reduction in delay                                                                 |
| Negligible          | No perceptible change                                                                                                     |
| Minor adverse       | Perception of changing conditions e.g. increase in delay                                                                  |
| Moderate adverse    | Increased perception of changing conditions that may require modifications to off-site infrastructure                     |
| Major adverse       | Change requiring modifications to off-site infrastructure                                                                 |

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### Legislative and Policy Framework

9.2.37. The following sets out relevant transport policy and guidance.

#### National Planning Policy

#### **National Planning Policy Framework**

9.2.38. The latest version of the National Planning Policy Framework was updated in December 2024<sup>1</sup>. The presumption in favour of sustainable development is a central theme running through the Framework, which states at paragraph 109 that *'Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places. This should involve:*

- a) making transport considerations an important part of early engagement with local communities;*
- b) ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;*
- c) understanding and addressing the potential impacts of development on transport networks;*
- d) realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;*
- e) identifying and pursuing opportunities to promote walking, cycling and public transport use; and*
- f) identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.'*

9.2.39. Paragraph 110 of the NPPF 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.'*

9.2.40. Similarly, paragraph 115 of the NPPF states that:

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

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<sup>1</sup> Ministry of Housing, Communities and Local Government (2024). *National Planning Policy Framework (NPPF) December 2024.*

- a) *sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*
- b) *safe and suitable access to the site can be achieved for all users;*
- c) *the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code<sup>48</sup>; and*
- d) *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach.'*

9.2.41. It is worth noting that policies 110 and 115 are referred to within footnote 9 of paragraph 11, which states '*Plans and decisions should apply a presumption in favour of sustainable development*' and that '*For decision-taking this means... where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date<sup>8</sup>, granting permission unless:*'

*'ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole, having particular regard to key policies for directing development to sustainable locations, making effective use of land, securing well-designed places and providing affordable homes, individually or in combination<sup>9</sup>. Para 118 states that 'All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.'*

9.2.42. The provision of a Travel Plan as part of the Proposed Development is in accordance with the guidance.

### Planning Practice Guidance

9.2.43. The Government has produced the National Planning Practice Guidance to supplement the NPPF. Within the guidance, there is a specific section clarifying the over-arching principles on Travel Plans, Transport Assessments and Transport Statements. There are also sections advising further on each of the three documents discussed.

9.2.44. The guidance advises that in determining whether a TA or Statement will be needed for a proposed development, local planning authorities should take into account a number of considerations. It is considered that the size and nature of this development requires a full TA.

9.2.45. The guidance on Travel Plans reinforces the benefits a Travel Plan, the scope of the document, and need for monitoring to continue the strategy into the future.

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### The Development Plan

#### **Knowsley Local Plan Core Strategy<sup>2</sup>**

- 9.2.46. The Knowsley Local Plan Core Strategy was adopted in January 2016, setting the strategic framework for the growth and development of Knowsley up to 2028 and beyond.
- 9.2.47. Strategic Objective 6 Sustainable Transport states:
- 'To ensure new development in Knowsley encourages a reduction in the overall need to travel, and prioritises sustainable transport such as walking, cycling and public transport. This will help to ensure accessibility and linkage between housing areas and employment locations, shopping, leisure, culture, health care, education, community and sporting facilities, green spaces and other services.'*
- 9.2.48. Policy CS7 'Transport Networks' goes on to specify how local planning powers will be used to support the economy by facilitating the efficient movement of people and goods throughout the borough to Liverpool City Centre and other destinations in the surrounding area and also ensure people can travel to destinations by a choice of walking, cycling and public transport.
- 9.2.49. Policy SUE2 'Sustainable Urban Extensions – Development Principles, Application of the Development Principles' advises extensions must:
- 'f) include appropriate provision for public open space (POS), walking and cycling routes as part of the Green Infrastructure network integrating with existing POS, recreational assets and areas of ecological value (see Policy CS8: Green Infrastructure and Policy CS21: Greenspaces and Trees);*
- g) provide good transport linkages within the relevant Sustainable Urban Extension and with surrounding areas (see Policy CS7: Transport Networks);'*
- 9.2.50. Policy SUE2c 'Sustainable Urban Extension – South of Whiston and Land South of M62' specifically covers area in which the application site is located. 'Specific Development Requirements' of the policy specifies:
- '2) In addition to meeting the generic guidance in Policy SUE2, proposals for residential and/or employment development at South Whiston and Land South of the M62 should deliver (in no order of priority):*
- a) Safe and convenient highways access for the sites together with a well-connected internal road system and traffic mitigation measures, including any measures needed to address the impact of the development on traffic generation in the wider area;*
- b) Provision for public transport, walking and cycling, which enhance linkages within the area and surrounding areas including linkages to the former mineral railway line linking Cronton Colliery and Stadt Moers Park and to Whiston railway station;'*

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<sup>2</sup> Knowsley Borough Council (2016). *Knowsley Local Plan Core Strategy*, Adopted January 2016.

**Knowsley Replacement Unitary Development Plan<sup>3</sup>**

9.2.51. The Knowsley UDP was adopted in June 2006, covering the period up to 2016. In the transition to the Local Plan system, seventy-eight out of the original eighty-two UDP policies were saved by the Secretary of State on 12th June 2009. Three additional UDP policies were replaced upon the adoption of the Merseyside and Halton Joint Waste Local Plan. Subsequently, thirty-six policies were deleted with the adoption of the Local Plan Core Strategy. As a result, thirty-nine UDP Policies remain in effect. Appendix C of the Local Plan Core Strategy provides a comprehensive list of the UDP Policies that continue to be saved.

9.2.52. The saved UDP policies include the following transport policies:

- T5 Location of Major Traffic Generating New Development,
- T6 Ensuring Choice of Travel to Serve New Developments (edited),
- T7 New Development and Walking & Cycling Routes,
- T8 Transport Assessments,
- T9 Travel Plans,
- T10 Access for the Less Mobile, and
- T11 Taxi Facilities.

**Ensuring a Choice of Travel<sup>4</sup>**

9.2.53. The Ensuring a Choice of Travel SPD was adopted by the Council in September 2010 to provide detailed guidance about the council's transport policies. The main objective of the SPD is to ensure a good choice of travel modes to all new developments in Knowsley.

9.2.54. The saved UDP policies T6, T7, T8, T9, T10 and T11 are taken forward in the SPD.

9.2.55. Policy T6 'Ensuring Choice of Travel to serve new Developments (edited)' states:

*'Proposals for new development should provide or be served by a good choice of modes of travel appropriate to the scale and nature of the development, as follows:*

- *Cycle parking facilities in accordance with the Council's minimum standards*
- *Car parking facilities which do not exceed the Council's maximum standards*
- *Parking facilities for the less mobile, delivery and other service vehicles within the site in accordance with the Council's minimum standards*
- *Safe and convenient vehicular access to and from the highway and within the site.'*

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<sup>3</sup> Knowsley Borough Council (2006). *Knowsley Replacement Unitary Development Plan*, Adopted June 2006.

<sup>4</sup> Knowsley Borough Council (2010). *Ensuring a Choice of Travel Supplementary Planning Document (SPD)*, Adopted September 2010.

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9.2.56. Policy T7 'New Development and Walking and Cycling Routes (edited)' goes on to state:

*'New development should preserve and where possible enhance the walking and cycling network.'*

9.2.57. Policy T8 'Transport Assessments' states:

*'Development proposals that would prejudice the primary function of any part of the highway network (i.e. the motorway, trunk road, primary and local highway network) by generating a material increase in traffic, which would overload the access to, or any part of the network, will not be permitted, unless the necessary mitigation measures required are undertaken.'*

*Planning applications for the following forms of development will be required to be accompanied by a Transport Assessment:*

- a) Major traffic generating development proposals;*
- b) Proposals which, either by themselves or in conjunction with wider proposals of which the development forms a part, are likely to cause significant harm as a result of existing road capacity or safety problems in the area;*
- c) Proposals which are likely to significantly increase pollution and/or noise as a result of traffic generation; or cause pollution levels in Air Quality Management areas to exceed guideline levels;*
- d) Proposals that would generate a material increase in traffic entering or using any motorways, trunk roads or other primary routes; and*
- e) Proposals that would impact on the bus network.'*

9.2.58. Policy T9 'The following forms of development will require the submission and implementation of a Travel Plan: (edited)' related to the following:

*'a) Major traffic generating development*

*b) Smaller development proposals which, either by themselves or in conjunction with other proposals, would generate significant amounts of vehicular traffic in or near Air Quality Management Areas; or exacerbate an existing traffic problem in the surrounding area which would otherwise justify a refusal of planning permission.'*

9.2.59. Policy T10 Access for the Less Mobile (edited) states:

*'All proposals will be required to have adequate access for the less mobile or those who have sensory impairment and shall have adequate adaptability to meet lifetime design standards for homes and inclusive design standards for all other buildings.'*

**Adopted Halsnead Garden Village Masterplan<sup>5</sup>**

- 9.2.60. Knowsley Council has adopted the Halsnead Garden Village Masterplan Supplementary Planning Document (SPD) following Cabinet approval in June 2017.
- 9.2.61. The Masterplan is a clear statement of the council's ambitions for Knowsley's largest development site. It sets out the vision and objectives for a vibrant, new settlement, including a new residential community, a large employment area, a new country park, a new primary school, and early years provision and other new or improved outdoor community facilities.

Other Relevant Policy, Standards and Guidance**IEMA Guidelines 'Environmental Assessment of Traffic and Movement'**

- 9.2.62. The Institute of Environmental Management and Assessment (IEMA) guidelines 'Environmental Assessment of Traffic and Movement' was published in July 2023 and will form the basis for the assessment of the effects of the Proposed Development on traffic and movement.
- 9.2.63. As advised within the document:

*'The purpose of these updated and replacement Guidelines remains unchanged from the 1993 Guidelines, i.e. to provide practitioners with good practice advice on how to carry out the assessment of traffic and movement of people as part of a statutory EIA or non-statutory environmental assessment.'*

**EIA Scoping Process**

- 9.2.64. As discussed in Chapter 2, a request for a Scoping Opinion was submitted on behalf of the Applicant to Knowsley Metropolitan Borough Council (KMBC) on 30<sup>th</sup> January 2025, which set out the proposed scope of assessment (see **Appendix 2.1**). KMBC issued their Scoping Opinion on 27<sup>th</sup> March 2025 and is summarised in Chapter 2 and included in full at **Appendix 2.2**. At that time, the intention was to submit one planning application for 2 parcels of land, referred to as Phase 2b and Phase 3. However, the planning application, which this ES supports, is now seeking planning permission in relation to Phase 3 only at this time.
- 9.2.65. It is considered that the Scoping Opinion provides relevant information to ensure a robust assessment in relation to the Phase 3 site, and has therefore been used to guide the scope of this chapter and ES as a whole.
- 9.2.66. With regards to transport matters, relevant responses were received from the consultees including National Highways and Local Highways Authority which inputted into the formal EIA Scoping Opinion from Knowsley Council and comments have been addressed accordingly, as follows in Table 9.7 below.

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<sup>5</sup> Knowsley Borough Council (2017). *Halsnead Garden Village Masterplan Supplementary Planning Document (SPD)*, Adopted June 2017.

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Table 9.7: Relevant EIA Scoping Consultation Comments

| Consultee                            | Summary of Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Response or location within the ES where comments are addressed                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| National Highways                    | <p>National Highways has confirmed that the Traffic Assessment submitted with the application will need to consider how the site sits within Halsnead Garden Village and the contribution of the site towards the junction improvement at Tarbock Island.</p> <p>The ES and the TA proposes to include detailed analysis of accessibility and will assess the likely change in traffic flows for the following junctions:</p> <ul style="list-style-type: none"> <li>• Windy Arbor Road/Lickers Lane/Willis Lane staggered T-junction;</li> <li>• Dragon Lane/Stoney Lane/Medway signalised junction;</li> <li>• Stoney Lane/Cumber Lane signalised junction;</li> <li>• Lickers Lane/Fox's Bank Lane signalised junction;</li> <li>• A5080 Cronton Road/Fox's Bank Lane roundabout.</li> </ul> <p>National Highways agree that these should be assessed but have stated that Tarbock island junction should also be included.</p> | <p>An improvement scheme was developed for the junction to accommodate the growth on the highway network associated with Halsnead Garden Village; this has commenced on site.</p> <p>As the Site forms part of Halsnead Garden Village, the impact of the proposals and mitigation at Tarbock Island has already been considered and no detailed assessments at this junction are considered necessary.</p> <p>This was subsequently accepted by National Highways in an email dated 18/07/25.</p> |
| Local Highways Authority             | <p>The Local Highways Authority has confirmed that they are satisfied with the scope of assessment for the EIA and have asked that the scope for the Transport Assessment, which will form an appendix to the EIA, should be agreed with Highways in advance of production.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>The scope of the TA is as per that agreed as part of other applications within Halsnead Garden Village.</p>                                                                                                                                                                                                                                                                                                                                                                                     |
| Knowsley Council EIA Scoping Opinion | <p>The LPA agrees that Traffic and Access should be scoped in the ES and makes reference to the above comments.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>Traffic and Access is considered.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### 9.3. Baseline Conditions

#### Site Description and Context

##### *Local Highway Network*

- 9.3.1. The Site is situated in Whiston around 1-kilometre to the south of Whiston town centre. The site forms the southern (Phase 3) portion of the site known as 'Fox Wood Garden Village'.
- 9.3.2. The Site will be accessed via an extension to the under construction Phase 2a scheme (ref: 20/00417/FUL) spine road and site access junction off Fox's Bank Lane. In the vicinity of the proposed site access, Fox's Bank Lane is approximately 6.5-metres-wide, with no footways or street lighting.
- 9.3.3. Fox's Bank Lane follows a roughly north-south alignment, connecting with the A5080 Cronton Road and Prescott Road approximately 1.5-kilometres to the south of the proposed site access. Fox's Bank Lane continues north for around 450-metres from the proposed site access, becoming Cumber Lane and continuing northwards for a further 1.1-kilometres to its signalised junction with Stoney Lane in Whiston.

##### *Baseline Traffic*

- 9.3.4. In order to establish the existing levels of traffic on the highway network, reference has been made to the 2024 traffic count data.
- 9.3.5. Table 9.8 includes a summary of the Baseline Flows at key links in the vicinity of the site, in line with the defined Study Area. These flows are considered to be an accurate reflection of the baseline as it operates under normal conditions.

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Table 9.8 Baseline Flows

| Road               | Section                                        | 2024 Baseline Flows |     |       |
|--------------------|------------------------------------------------|---------------------|-----|-------|
|                    |                                                | Total AADT          | HDV | HDV % |
| Windy Arbor Road   | Tarbock Interchange to Lickers Lane/Wills Lane | 1290                | 30  | 2.3%  |
| Wills Lane         | West of Windy Arbor Road                       | 121                 | 3   | 2.5%  |
| Lickers Lane       | East of Windy Arbor Road                       | 1216                | 19  | 1.6%  |
| Windy Arbor Road   | North of Wills Lane/Lickers Lane               | 1099                | 27  | 2.5%  |
| Windy Arbor Road   | South of Meadway/Stoney Lane                   | 1366                | 22  | 1.6%  |
| Meadway            | West of Windy Arbor Road                       | 22                  | 0   | 0.0%  |
| Stoney Lane        | East of Windy Arbor Road                       | 1437                | 21  | 1.5%  |
| Dragon Lane        | North of Meadway/Stoney Lane                   | 2363                | 31  | 1.3%  |
| A5080 Cronton Road | West of Fox's Bank Lane                        | 1306                | 44  | 3.4%  |
| A5080 Cronton Road | East of Fox's Bank Lane                        | 1073                | 25  | 2.3%  |
| Prescot Road       | South of A5080 Cronton Road                    | 771                 | 20  | 2.6%  |
| Fox's Bank Lane    | North of A5080 Cronton Road                    | 726                 | 9   | 1.2%  |
| Fox's Bank Lane    | South of Site Access                           | 726                 | 9   | 1.2%  |
| Fox's Bank Lane    | North of Site Access                           | 1014                | 5   | 0.5%  |
| Fox's Bank Lane    | South of Lickers Lane                          | 1014                | 5   | 0.5%  |
| Lickers Lane       | West of Fox's Bank Lane                        | 991                 | 13  | 1.3%  |
| Fox's Bank Lane    | North of Lickers Lane                          | 1011                | 18  | 1.8%  |
| Cumber Lane        | South of Stoney Lane                           | 933                 | 15  | 1.6%  |
| Stoney Lane        | West of Cumber Lane                            | 1372                | 19  | 1.4%  |
| Stoney Lane        | East of Cumber Lane                            | 921                 | 9   | 1.0%  |

*Highway Safety*

9.3.6. In order to consider the potential impact of the development on road safety, a review of the Crashmap website ([www.crashmap.co.uk](http://www.crashmap.co.uk)) has been undertaken. The information provided on the website covered the most recent five-year period available (2020 to 2024) in the vicinity of the development site.

9.3.7. The results are summarised in Table 9.9, below.

Table 9.9 Accident Summary

| Date       | Severity | Light Conditions     | Weather | Road Conditions | Manoeuvre                                                                                                                  |
|------------|----------|----------------------|---------|-----------------|----------------------------------------------------------------------------------------------------------------------------|
| 17/01/2020 | Slight   | Dark:<br>Streets lit | Fine    | Dry             | Right-turning vehicle struck front of oncoming vehicle                                                                     |
| 03/12/2020 | Slight   | Dark:<br>Streets lit | Fine    | Dry             | Vehicle struck nearside of second vehicle                                                                                  |
| 12/01/2021 | Slight   | Daylight             | Fine    | Dry             | Right-turning vehicle struck front of oncoming LGV                                                                         |
| 27/03/2021 | Slight   | Dark:<br>Streets lit | Fine    | Dry             | Vehicle struck pedestrian crossing carriageway over 50m from nearest crossing                                              |
| 28/08/2021 | Slight   | Daylight             | Fine    | Dry             | Rear shunt                                                                                                                 |
| 08/10/2021 | Slight   | Daylight             | Fine    | Dry             | Vehicle lost control on right-hand bend, striking Bollard/refuge and wall or fence                                         |
| 23/12/2021 | Slight   | Daylight             | Fine    | Dry             | Right-turning vehicle struck nearside of oncoming vehicle, which also struck front of second vehicle waiting to turn right |
| -/-/2021   | Slight   | Daylight             | Fine    | Dry             | Rear shunt                                                                                                                 |
| 31/08/2022 | Serious  | Daylight             | Fine    | Dry             | Vehicle struck pedestrian crossing carriageway over 50m from nearest crossing                                              |
| 31/08/2022 | Serious  | Daylight             | Fine    | Dry             | Other type of vehicle struck pedestrian on footway/verge                                                                   |
| 25/11/2022 | Slight   | Daylight             | Fine    | Dry             | Right-turning LGV struck front of oncoming LGV                                                                             |
| 24/02/2023 | Serious  | Dark:<br>Streets lit | Fine    | Dry             | Overtaking motorcycle struck offside of car waiting to turn right                                                          |
| 18/03/2023 | Slight   | Daylight             | Rain    | Wet/damp        | Vehicle moving off struck passing cycle on nearside                                                                        |
| 14/06/2023 | Slight   | Daylight             | Fine    | Dry             | Car struck rear of cycle                                                                                                   |
| 24/06/2023 | Slight   | Daylight             | Fine    | Dry             | Right-turning LGV struck pedestrian in carriageway over 50-metres from nearest crossing                                    |
| 07/08/2023 | Slight   | Daylight             | Fine    | Dry             | Car struck pedestrian crossing carriageway over 50-metres from nearest crossing point                                      |

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|            |         |          |      |          |                                                                                       |
|------------|---------|----------|------|----------|---------------------------------------------------------------------------------------|
| 19/12/2023 | Slight  | Daylight | Rain | Dry      | Car struck pedestrian crossing carriageway over 50-metres from nearest crossing point |
| 06/05/2024 | Slight  | Daylight | Fine | Dry      | Car struck front of three other cars                                                  |
| 13/06/2024 | Slight  | Daylight | Fine | Wet/damp | Offside of right-turning car struck front of unknown vehicle                          |
| 26/08/2024 | Slight  | Daylight | Fine | Dry      | Right-turning car struck front of motorcycle                                          |
| 23/09/2024 | Serious | Daylight | Rain | Wet/damp | Car struck pedestrian crossing from nearside during pedestrian phase at crossing      |
| 09/11/2024 | Serious | Daylight | Fine | Dry      | Car reversed into front of second car                                                 |
| 20/12/2024 | Slight  | Daylight | Fine | Dry      | LGV moving off struck nearside of car                                                 |

9.3.8. The data reviewed has not identified any accident clusters.

9.3.9. The evidence shows that there are no particular engineering issues or problems with the road network or junction layouts. The data reviewed has demonstrated that there are no particular road safety issues in the vicinity of the Site.

### *Walking Links*

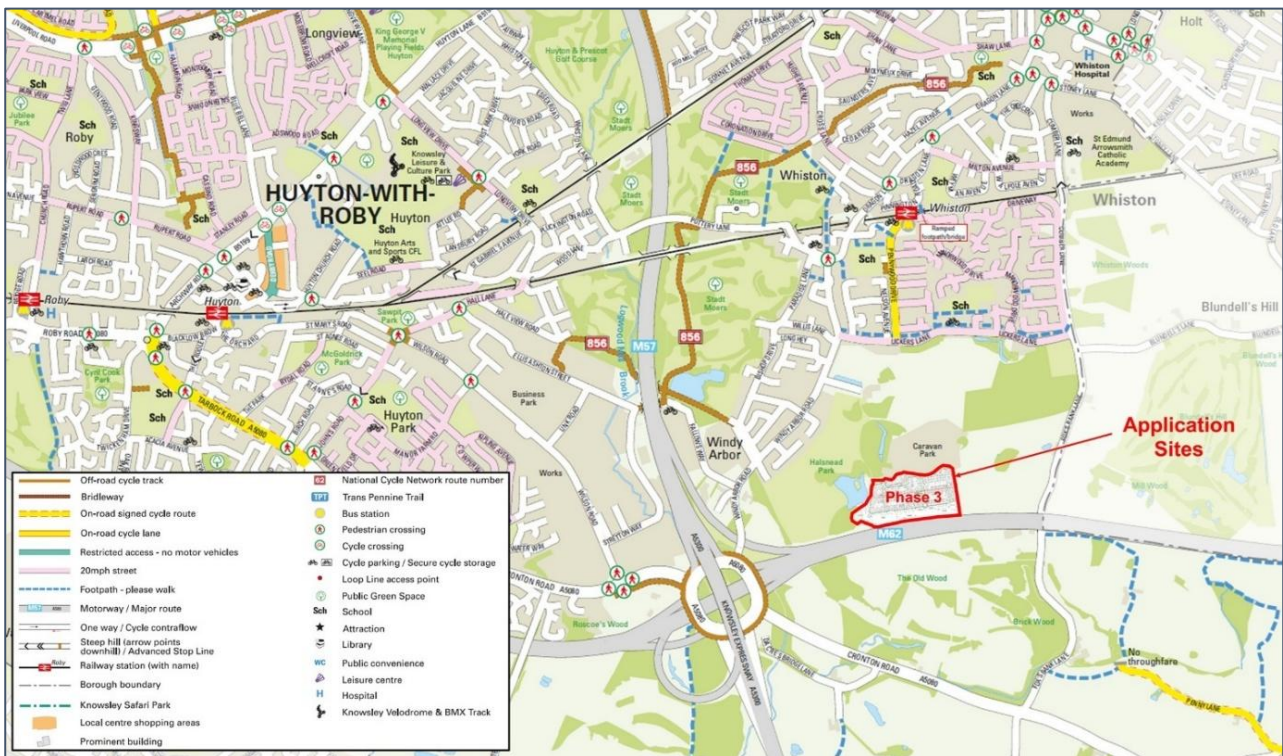
9.3.10. Footway are provided throughout the Phase 2a development, which ensure the safe movement of pedestrians and cyclists around the Site and surrounding area.

### *Cycle Links*

9.3.11. A series of 20mph roads are located to the north of Lickers Lane, approximately 500-metres to the north of the Site.

9.3.12. The local cycle network is shown in Figure 9.1, below.

Figure 9.1 Local Cycle Routes



9.3.13. As can be seen from the above, a number of local cycle tracks are located within the vicinity of the site.

#### Public Transport

- 9.3.14. The nearest bus stops to the Site are located along Windy Arbor Road (St Nicholas Parish Church) Bus Stops approximately 800-metres (around 11-minutes walking time) from the centre of the Site. These stops consist of a steel and glass cantilevered shelter, flag with passing service and timetable information and seating at both the northbound and southbound stops.
- 9.3.15. Additional bus stops are located along Lickers Lane (Fisher Avenue) approximately 1,100m (around 16-minutes walking time) from the centre of the Site.
- 9.3.16. The nearest bus stops to the Site provide three services every hour throughout the day to destinations such as Whiston, Prescot, Huyton, Liverpool and Runcorn.
- 9.3.17. It is noted that the above services provide a choice of how people travel with the bus services operating from around 05:42 to around 19:38, making travel by public transport a real alternative to travelling by car for commuting trips.
- 9.3.18. The nearest railway station located to the site is Whiston, which can be accessed via an 1,800-metre (around 26-minute) walk from the centre of the Site. Alternatively, the station can be accessed via a 21-minute bus journey, including 19-minute walking time, on the 61-bus service or a 27-minute bus journey on the 239-bus service, including 21-minute walking time.

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- 9.3.19. This station is managed by Northern and has two platforms, providing an hourly service to Liverpool Lime Street and Manchester Airport. There is a daily train to Wigan Northwestern, and some peak hour services to Manchester Victoria. On Sundays, trains run hourly between Liverpool Lime Street and Wilmslow via Manchester Airport.

### 9.4. Assessment of Likely Significant Effects

- 9.4.1. The following details the potential likely effects of the Proposed Development and their significance (taking into account embedded mitigation where appropriate).

#### Construction

- 9.4.2. It is important to consider that the construction period is temporary in its effects.
- 9.4.3. The works will be served by the existing highway network, although at this stage it is not possible to definitively predict the routing that construction traffic will take.
- 9.4.4. Fox's Bank Lane will represent the most likely route into the Site from the highway network.
- 9.4.5. Increases in traffic along this route as a result of the enabling and construction works will be lower than those associated with the completed and operational development and minimal compared to base levels of traffic on the highway network.
- 9.4.6. The effects of the construction with respect to Severance, Driver Delay, Non-Motorised User Amenity and Delay, Fear and Intimidation, and Road Safety at all receptors will be negligible in the long term at the local level, which is **not significant**.

#### Operation

- 9.4.7. **Table 9.10** sets out the 2031 base flows, the number of trips associated with the Proposed Development and the resulting percentage change.

Table 9.10 2031 Baseline and Proposed Development Flows

| Road               | Section                                        | 2031 Flows    |                   |          |
|--------------------|------------------------------------------------|---------------|-------------------|----------|
|                    |                                                | Baseline Flow | Development Trips | % Change |
| Windy Arbor Road   | Tarbock Interchange to Lickers Lane/Wills Lane | 1220          | 24                | 2.0%     |
| Wills Lane         | West of Windy Arbor Road                       | 114           | 0                 | 0.0%     |
| Lickers Lane       | East of Windy Arbor Road                       | 1150          | 24                | 2.1%     |
| Windy Arbor Road   | North of Wills Lane/Lickers Lane               | 1039          | 0                 | 0.0%     |
| Windy Arbor Road   | South of Meadway/Stoney Lane                   | 1292          | 0                 | 0.0%     |
| Meadway            | West of Windy Arbor Road                       | 21            | 0                 | 0.0%     |
| Stoney Lane        | East of Windy Arbor Road                       | 1359          | 200               | 14.7%    |
| Dragon Lane        | North of Meadway/Stoney Lane                   | 2234          | 200               | 9.0%     |
| A5080 Cronton Road | West of Fox's Bank Lane                        | 1235          | 320               | 25.9%    |
| A5080 Cronton Road | East of Fox's Bank Lane                        | 1015          | 8                 | 0.8%     |
| Prescot Road       | South of A5080 Cronton Road                    | 729           | 24                | 3.3%     |
| Fox's Bank Lane    | North of A5080 Cronton Road                    | 686           | 352               | 51.3%    |
| Fox's Bank Lane    | South of Site Access                           | 686           | 352               | 51.3%    |
| Fox's Bank Lane    | North of Site Access                           | 959           | 449               | 46.8%    |
| Fox's Bank Lane    | South of Lickers Lane                          | 959           | 449               | 46.8%    |
| Lickers Lane       | West of Fox's Bank Lane                        | 937           | 24                | 2.6%     |
| Fox's Bank Lane    | North of Lickers Lane                          | 956           | 256               | 26.8%    |
| Cumber Lane        | South of Stoney Lane                           | 882           | 256               | 29.1%    |
| Stoney Lane        | West of Cumber Lane                            | 1297          | 248               | 19.1%    |
| Stoney Lane        | East of Cumber Lane                            | 871           | 0                 | 0.0%     |

9.4.8. Following the implementation of the Proposed Development, no links are predicted to experience a change in flow greater than 60%. Four links are predicted to experience a change in flow of between 30% and 60%, though these are in the immediate vicinity of the Site access onto Fox's Bank Lane, which is currently lightly trafficked.

9.4.9. Five links are predicted to experience an increase of traffic between 10% and 30%, with the remaining links experiencing a change in flow of less than 10%.

#### Severance

9.4.10. Based on the changes in traffic, the Proposed Development would have a negligible to low impact on severance on all receptors across the network, resulting in a minor adverse effect in the long term at the local level which is **not significant**.

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### *Driver Delay*

- 9.4.11. Capacity assessments of each junction are included within the TA (see **Appendix 9.1**). All junctions are predicted to work within capacity, the exception being the Windy Arbor Road/Lickers Lane/Willis Lane junction, which operates at capacity during both the base and 'with development' scenarios.
- 9.4.12. However, based on the changes in delay across the network, the Proposed Development would have a negligible to low impact on driver delay on all receptors across the network, resulting in a minor adverse effect in the long term at the local level which is **not significant**.

### *Non-Motorised User Amenity*

- 9.4.13. Given the predicted increases in traffic identified, it is concluded the Proposed Development would have a negligible to low impact on non-motorised user amenity on all receptors across the network, resulting in a minor adverse effect in the long term at the local level, which is **not significant**.

### *Non-Motorised User Delay*

- 9.4.14. The IEMA Guidelines advise that the assessment of pedestrian delay serves as a proxy for the delay that other modes of non-motorised users may experience when crossing roads. Based on the predicted increases in traffic identified, it is concluded the Proposed Development would have a negligible to low impact on non-motorised user delay on all receptors across the network, resulting in a minor adverse effect in the long term at the local level, which is **not significant**.

### *Fear and Intimidation*

- 9.4.15. Given the Proposed Development is a predominantly residential scheme, it will not generate any meaningful HGV numbers.
- 9.4.16. On Fox's Bank Lane, where the Proposed Development's trips will be most concentrated, the average traffic flow will increase, though this is not predicted to result in a step change in the level of fear and intimidation.
- 9.4.17. As such, it is concluded the Proposed Development would have negligible impact on fear and intimidation on all receptors across the network, resulting in a minor adverse effect in the long term at the local level, which is **not significant**.

### *Road Safety*

- 9.4.18. Consideration has been given to historical accident statistics in the vicinity of the Site. From the review it has been concluded that the local highway network in the vicinity of the Site does not have an unduly poor safety record or experience collision clusters given the levels of traffic that it carries. As such, the network is essentially operating safely bearing in mind the volumes of traffic the local highway network accommodates and there are no reasons to assume that this situation should be significantly worsened as a consequence of the Proposed Development.
- 9.4.19. It is therefore concluded the Proposed Development would have a negligible impact on road safety for all receptors (and their corresponding sensitivity), resulting in a negligible effect in the long term at the local level, which is **not significant**.

## 9.5. Mitigation, Enhancement and Residual Effects

### Mitigation by Design

- 9.5.1. This section describes the measures which have been 'embedded' into the Proposed Development and taken into account in the above assessment of effects.

### Enabling and Construction Phase

- 9.5.2. There are no measures that have been embedded into the design that would mitigate for impacts relating to transport and access during the enabling and construction phase.

### Completed and Operational Development

- 9.5.3. Pedestrian and cycle access is proposed throughout the Site and pedestrian and cycle routes across the Site will generally be lit, surfaced, overlooked and be of high quality to ensure access on foot and by cycle is maximised.

### Additional Mitigation.

- 9.5.4. The following details additional mitigation measures.

### Enabling and Construction Phase

#### *Construction Environmental Management Plan (CEMP)*

- 9.5.5. Mitigation measures will be implemented during construction in the form of controls imposed by planning conditions, health and safety legislation requirements and construction site practices.
- 9.5.6. Management of construction effects will form part of a comprehensive and auditable Construction Environmental Management Plan (including a Construction Traffic Plan) (CEMP). The CEMP will include control measures, including robustly enforced traffic management measures, to protect the environment, amenity and safety of local residents, businesses, and the general public in the vicinity of the Proposed Development.
- 9.5.7. As part of a CEMP, a construction vehicle routing regime for access to the construction site will be identified and agreed with the local and strategic highway authorities, to ensure that drivers of construction related vehicles do not use inappropriate routes, which are unsuitable due to their width, alignment or character. The regime will ensure that construction vehicles avoid residential and other sensitive areas wherever possible.
- 9.5.8. In addition, the CEMP could include details of any:
- Access arrangements to the Site;
  - The estimated number of vehicles per day / week;
  - Details of the vehicle holding areas;
  - Wheel washing facilities;
  - Estimates for the number and type of parking suspensions that will be required;

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- Details of any diversion, disruption or other abnormal use of the public highway during demolition, excavation and construction works;
- A strategy for coordinating the connection of services on site with any programmed work to utilities upon adjacent land; and
- Work programme and / or timescale for each phase of the demolition, excavation and construction works.

### Completed and Operational Development

#### *Framework Travel Plan*

- 9.5.9. In order to manage the travel by residents of the Proposed Development, a Travel Plan will be implemented based on the Framework Travel Plan (see **Appendix 9.2**).
- 9.5.10. The objective of the Travel Plan is the delivery of the objectives of National Planning Policy, i.e. to encourage residents to travel by non-car modes of travel. The Travel Plan outlines physical and management measures that are designed to achieve this objective.
- 9.5.11. The following Travel Plan measures will be considered:
- Appointment of Travel Plan Co-ordinator;
  - Residents' Travel Pack;
  - Residents' Travel survey;
  - Travel Awareness and Information;
  - Promotion of Lift Share Scheme; and
  - Encouraging Walking / cycling.
- 9.5.12. The Site benefits from good non-car accessibility and it is, therefore, expected that the adoption of a Travel Plan will be effective.
- 9.5.13. A summary of the mitigation measures and the mechanism by which they would be secured is provided in **Table 9.11**.

**Table 9.11: 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   | Pedestrian and cycle routes across the Site                                                      | X                            |          |              |
| 2   | Construction Environmental Management Plan (including Construction Traffic Management Plan CTMP) |                              |          | X            |
| 3   | Travel Plan                                                                                      |                              |          | X            |

**Residual Effects****Enabling and Construction Phase**

- 9.5.14. There would be no change in the effects of the Proposed Development during the enabling and construction phase with respect to Severance, Driver Delay, Non-Motorised User Amenity and Delay, Fear and Intimidation, and Road Safety following the implementation of additional mitigation measures. All considered to be negligible (not significant).

**Completed and Operational Development**

- 9.5.15. There would be no change in the effects of the Proposed Development during the completed and operational development with respect to Severance, Driver Delay, Non-Motorised User Amenity and Delay, Fear and Intimidation, and Road Safety following the implementation of additional mitigation measures. All considered to be either minor adverse or negligible (not significant).

**9.6. Cumulative and In-Combination Effects**

- 9.6.1. Account has been taken of the 'other sites' set out in Chapter 2 (Table 2.5 and Figure 2.1), though given the land use type, scale and location, though not all developments have been considered cumulatively in transport terms.

- 9.6.2. The following sets out what has been considered

**Table 9.12: Cumulative sites considered**

|   | Planning Reference Number                                    | Considered within Cumulative Transport Assessment?           |
|---|--------------------------------------------------------------|--------------------------------------------------------------|
| 1 | 20/00417/FUL                                                 | Yes                                                          |
| 2 | 20/00399/OUT<br>Varied under 23/02755/FUL<br>RM 23/02378/REM | Yes                                                          |
| 3 | 18/00283/HYB<br>RM 22/00213/REM                              | Yes                                                          |
| 4 | 22/00600/FUL                                                 | Yes                                                          |
| 5 | 20/00494/HYB<br>22/00162/REM<br>23/01949/REM<br>24/00145/REM | Yes                                                          |
| 6 | 22/00587/FUL                                                 | Yes                                                          |
| 7 | 20/00329/FUL<br>S73 Application (23/01417/FUL)               | No – No transport submission as traffic impact imperceptible |
| 8 | 23/02782/FUL                                                 | Yes                                                          |

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|    |                                         |                                                                                                           |
|----|-----------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 9  | 15/00022/OUT<br>20/00767/REM            | No – Study areas do not overlap and mostly built out in any case, so will be included in survey flow data |
| 10 | 20/00789/FUL                            | No – Falls under 15/00022/OUT (see above)                                                                 |
| 11 |                                         | Application of background growth will account for planned development                                     |
| 12 | 19/00651/FUL                            | No – No associated traffic impact                                                                         |
| 13 | 20/00578/FUL<br>related to 20/00494/HYB | No – No associated traffic impact                                                                         |
| 14 | 22/00195/KMBC1                          | No – No associated traffic impact                                                                         |
| 15 | 20/00767/REM                            | No – Falls under 15/00022/OUT (see above)                                                                 |
| 16 | 20/00576/FUL                            | No – study areas do not overlap                                                                           |

9.6.3. **Table 9.13** sets out the 2031 base flows, the number of trips associated with the Proposed Development, the number of trips associated with the Cumulative Development and the resulting percentage change.

Table 9.13 2031 Baseline, Proposed Development Flows and Cumulative Development Flows

| Road               | Section                                        | 2031 Flows    |          |                |          |
|--------------------|------------------------------------------------|---------------|----------|----------------|----------|
|                    |                                                | Baseline Flow | Prop Dev | Cumulative Dev | % Change |
| Windy Arbor Road   | Tarbock Interchange to Lickers Lane/Wills Lane | 1220          | 24       | 4474           | 368.8%   |
| Wills Lane         | West of Windy Arbor Road                       | 114           | 0        | 0              | 0.0%     |
| Lickers Lane       | East of Windy Arbor Road                       | 1150          | 24       | 5604           | 489.5%   |
| Windy Arbor Road   | North of Wills Lane/Lickers Lane               | 1039          | 0        | 4183           | 402.5%   |
| Windy Arbor Road   | South of Meadway/Stoney Lane                   | 1292          | 0        | 4028           | 311.9%   |
| Meadway            | West of Windy Arbor Road                       | 21            | 0        | 18             | 84.6%    |
| Stoney Lane        | East of Windy Arbor Road                       | 1359          | 200      | 900            | 81.0%    |
| Dragon Lane        | North of Meadway/Stoney Lane                   | 2234          | 200      | 3801           | 179.1%   |
| A5080 Cronton Road | West of Fox's Bank Lane                        | 1235          | 320      | 1038           | 110.0%   |
| A5080 Cronton Road | East of Fox's Bank Lane                        | 1015          | 8        | 1084           | 107.6%   |
| Prescot Road       | South of A5080 Cronton Road                    | 729           | 24       | 342            | 50.2%    |
| Fox's Bank Lane    | North of A5080 Cronton Road                    | 686           | 352      | 1053           | 204.8%   |
| Fox's Bank Lane    | South of Site Access                           | 686           | 352      | 1053           | 204.8%   |
| Fox's Bank Lane    | North of Site Access                           | 959           | 449      | 2273           | 368.8%   |
| Fox's Bank Lane    | South of Lickers Lane                          | 959           | 449      | 2293           | 283.9%   |
| Lickers Lane       | West of Fox's Bank Lane                        | 937           | 24       | 1237           | 285.9%   |
| Fox's Bank Lane    | North of Lickers Lane                          | 956           | 256      | 1056           | 134.6%   |
| Cumber Lane        | South of Stoney Lane                           | 882           | 256      | 1014           | 137.2%   |
| Stoney Lane        | West of Cumber Lane                            | 1297          | 248      | 711            | 144.0%   |
| Stoney Lane        | East of Cumber Lane                            | 871           | 0        | 256            | 74.0%    |

- 9.6.4. Given the levels of background traffic on links within the study area are low, the predicted percentage increases in traffic associated with the cumulative development, much of which relates to previous phases of the Halsnead Garden Village development, are relatively high.
- 9.6.5. However, as set out in Key Requirement HSPD6 of the Halsnead Garden Village Masterplan SPD, *'Developers will be expected to contribute to the off-site highway works listed... (together with any additional necessary measures identified through Transport Assessments) and public transport infrastructure, to enable accessibility and mitigate highways impacts arising from the development.'*
- 9.6.6. Table 6.4 of the SPD sets out junctions where improvements will be required and most of these works have already been implemented. These are summarised below:
- Windy Arbor Road/Lickers Lane Junction – a two lane approach on Lickers Lane, a right turn pocket on Windy Arbor Lane northbound and the introduction of controlled pedestrian crossing facilities on two arms of the junction [implemented];

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- Lickers Lane/Fox's Bank Lane – the introduction of traffic signals to allow the controlled movement of traffic out of Lickers Lane, and also the controlled movement of pedestrians on two arms of the junction [implemented];
- Windy Arbor Road/Dragon Lane – Windy Arbor Road approach to Dragon Lane widened to accommodate a two-lane approach [implemented];
- Stoney Lane/Dragon Lane/Meadway – two lanes on each of the Dragon Lane approaches to the junction [implemented];
- Stoney Lane/Cumber Lane – provision of traffic signals and controlled pedestrian crossing facilities on all arms of the junction [implemented]; and
- Cronton Road/Fox's Bank Lane – realignment of Prescott Road to the south to opposite Fox's Bank Lane to provide a new roundabout arrangement with uncontrolled pedestrian crossing facilities, and relocation of the existing bus stops to the west of the junction [implemented].

9.6.7. In addition, there are major improvements proposed to the following locations:

- Improvements to M62 Junction 6 (Tarbock Island) [under construction]; and
- Former Mineral Railway.

9.6.8. Clearly, therefore, the effects of the cumulative development following mitigation with respect to Severance, Driver Delay, Non-Motorised User Amenity and Delay, Fear and Intimidation, and Road Safety will be minor adverse to negligible and **not significant**.

## 9.7. Summary

### Introduction

9.7.1. This Chapter has identified and assessed the significant environmental effects of the Proposed Development on Transport and Access.

### Baseline Conditions

9.7.2. In order to establish the existing levels of traffic on the highway network, reference has been made to 2024 survey data.

9.7.3. In order to consider the potential impact of the development on road safety, a review of the Crashmap website ([www.crashmap.co.uk](http://www.crashmap.co.uk)) has been undertaken for the most recent five-year period available (2020 to 2024) in the vicinity of the Site.

9.7.4. Consideration has also been given to walking, cycling and public transport links in the vicinity of the Site.

**Likely Significant Effects****Enabling and Construction Phase**

- 9.7.5. The effects of the construction with respect to Severance, Driver Delay, Non-Motorised User Amenity and Delay, Fear and Intimidation, and Road Safety at all receptors will be negligible in the long term at the local level, which is not significant.

**Completed and Operational Development**

- 9.7.6. The effects of the completed and operational development with respect to Severance, Driver Delay, Non-Motorised User Amenity and Delay and Fear and Intimidation at all receptors will be minor adverse in the long term at the local level, which is not significant. The effects of the completed and operational development with respect to Road Safety at all receptors will be negligible in the long term at the local level, which is not significant.

**Mitigation and Enhancement****Enabling and Construction Phase**

- CEMP – secured by condition.

**Completed and Operational Development**

- Pedestrian and cycle routes – secured by design;
- Travel Plan – secured by condition.

**Conclusion**

- 9.7.7. This Chapter has identified and assessed the significant environmental effects of the Proposed Development on Transport and Access.
- 9.7.8. The effects of the Proposed Development with respect to Severance, Driver Delay, Non-Motorised User Amenity and Delay, Fear and Intimidation, and Road Safety at all receptors during both the construction and operational phase is not significant.
- 9.7.9. **Table 9.14** provides a summary of effects, mitigation and residual effects.

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Table 9.14: Summary of Effects, Mitigation and Residual Effects

| Receptor /<br>Receiving<br>Environment | Description<br>of Effect          | Nature of<br>Effect | Sensitivity<br>Value | Magnitude of<br>Effect | Geographical<br>Importance | Significance<br>of Effects | Mitigation /<br>Enhancement<br>Measures | Residual<br>Effects                    |
|----------------------------------------|-----------------------------------|---------------------|----------------------|------------------------|----------------------------|----------------------------|-----------------------------------------|----------------------------------------|
| <b>Construction</b>                    |                                   |                     |                      |                        |                            |                            |                                         |                                        |
| Pedestrians<br>and other<br>road users | Severance                         | Temporary           | Medium               | Negligible             | Local                      | Negligible                 | CEMP                                    | Negligible<br><br>(Not<br>significant) |
| Drivers of<br>vehicles                 | Driver Delay                      | Temporary           | Low                  | Negligible             | Local                      | Negligible                 | CEMP                                    | Negligible<br><br>(Not<br>significant) |
| Pedestrians<br>and cyclists            | Non-<br>Motorised<br>User Amenity | Temporary           | Medium               | Negligible             | Local                      | Negligible                 | CEMP                                    | Negligible<br><br>(Not<br>significant) |
| Pedestrians<br>and cyclists            | Non-<br>Motorised<br>User Delay   | Temporary           | Medium               | Negligible             | Local                      | Negligible                 | CEMP                                    | Negligible<br><br>(Not<br>significant) |
| Pedestrians<br>and cyclists            | Fear and<br>Intimidation          | Temporary           | Medium               | Negligible             | Local                      | Negligible                 | CEMP                                    | Negligible<br><br>(Not<br>significant) |

|                                  |                            |           |        |                  |       |               |                                      |                                    |
|----------------------------------|----------------------------|-----------|--------|------------------|-------|---------------|--------------------------------------|------------------------------------|
| Road users                       | Road Safety                | Temporary | Medium | Negligible       | Local | Negligible    | CEMP                                 | Negligible<br>(Not significant)    |
| <b>Operation</b>                 |                            |           |        |                  |       |               |                                      |                                    |
| Pedestrians and other road users | Severance                  | Permanent | Medium | Negligible – low | Local | Minor adverse | Pedestrian and cycle infrastructure; | Minor adverse<br>(Not significant) |
| Drivers of vehicles              | Driver Delay               | Permanent | Low    | Negligible – low | Local | Minor adverse | Travel Plan                          | Minor adverse<br>(Not significant) |
| Pedestrians and cyclists         | Non-Motorised User Amenity | Permanent | Medium | Negligible – low | Local | Minor adverse | Pedestrian and cycle infrastructure; | Minor adverse<br>(Not significant) |
| Pedestrians and cyclists         | Non-Motorised User Delay   | Permanent | Medium | Negligible – low | Local | Minor adverse | Travel Plan                          | Minor adverse<br>(Not significant) |
| Pedestrians and cyclists         | Fear and Intimidation      | Permanent | Medium | Negligible – low | Local | Minor adverse | Pedestrian and cycle infrastructure; | Minor adverse<br>(Not significant) |
| Road users                       | Road Safety                | Permanent | Medium | Negligible       | Local | Negligible    | Travel Plan                          | Negligible<br>(Not significant)    |

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| Cumulative and In-Combination    |                            |           |        |                  |       |               |                                            |                                 |
|----------------------------------|----------------------------|-----------|--------|------------------|-------|---------------|--------------------------------------------|---------------------------------|
| Pedestrians and other road users | Severance                  | Permanent | Medium | Negligible – low | Local | Minor adverse | Highway works and sustainable improvements | Minor adverse (Not significant) |
| Drivers of vehicles              | Driver Delay               | Permanent | Low    | Negligible – low | Local | Minor adverse | Highway works and sustainable improvements | Minor adverse (Not significant) |
| Pedestrians and cyclists         | Non-Motorised User Amenity | Permanent | Medium | Negligible – low | Local | Minor adverse | Highway works and sustainable improvements | Minor adverse (Not significant) |
| Pedestrians and cyclists         | Non-Motorised User Delay   | Permanent | Medium | Negligible – low | Local | Minor adverse | Highway works and sustainable improvements | Minor adverse (Not significant) |
| Pedestrians and cyclists         | Fear and Intimidation      | Permanent | Medium | Negligible – low | Local | Minor adverse | Highway works and sustainable improvements | Minor adverse (Not significant) |
| Road users                       | Road Safety                | Permanent | Medium | Negligible       | Local | Negligible    | Highway works and sustainable improvements | Negligible (Not significant)    |