Transport Assessment

Land North of Southdean Road, Knowsley

Client: Breck Homes Ltd

Document Control		
Report Reference	P25075 - Land North of Southdean Road, Knowsley	
Document Version	Final	
File Reference	Prime Transport Planning\PrimeSharepoint - Documents\Projects 2025\P25075 - Land North of Southdean Road, Knowsley\7.Reports\TA	
Date	September 2025	
Client	Breck Homes Ltd	
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APPENDICES

1 INTRODUCTION

1.1 Purpose of Report

1.1.1 This Transport Assessment (TA) considers the highways and transportation implications associated with a proposed residential development comprising 136 affordable dwellings, located to the north of Southdean Road, Stockbridge, Knowsley.

1.1.2 It is important to note that the site falls within the Knowsley Metropolitan Borough Council (KMBC) *North Huyton Action Area*, as shown on the boundary map in Figure 4.2 of its Supplementary Planning Document (SPD), which was adopted in February 2007. The land located directly to the north of the site also forms part of the *North Huyton Action Area*, which is known as *North Huyton Phase 5*.

1.1.3 The site itself sits within the boundary of KMBC, however, parts of the local highway network surrounding the site are under the jurisdiction of Liverpool City Council (LCC). As such, KMBC is both the Local Planning Authority (LPA) and Local Highway Authority (LHA) for the area, though due to the site's proximity to the boundary of LCC, the neighbouring LHA has also been consulted at the pre-application stage.

1.1.4 This TA has been produced by Prime Transport Planning (Prime) and forms part of the documentation produced to support the full planning application by Breck Homes Ltd (Breck).

1.1.5 This document has been prepared in accordance with the Government's *Planning Practice Guidance: Transport evidence bases in plan making and decision taking* (2014) and *Travel Plans, Transport Assessments and Statements* (2015), as well as the Department for Transport's (DfT) *Guidance on Transport Assessment* (GTA) (2007).

1.1.6 The conclusions and recommendations contained herein have been drawn based on information available and obtained in advance of the planning submission to which this report relates.

1.1.7 Reasonable checks have been carried out on any third-party information used in the preparation of this report but, nonetheless, Prime accepts no liability for the accuracy or otherwise of this data.

1.1.8 Third-party rights are excluded for the use of information contained within this report.

1.2 Scope of Report

1.2.1 As mentioned above, this report has been prepared in accordance with *Transport evidence bases in plan making and decision taking*, which replaced the DfT's GTA in 2014. However, the new document is not a like-for-like replacement for GTA, providing no guidance on the production of Transport Assessments to accompany developments. The latest guidance instead helps local planning authorities assess strategic transport needs to reflect and, where appropriate, mitigate these in their Local Plan.

1.2.2 More relevant information is provided within the PPG under *Travel Plans, Transport Assessments and Statements*, however, this also does not provide the level of detailed guidance that was contained within DfT's GTA.

1.2.3 Given that GTA was in place for 7-years, Prime believe that assessment in-line with the document still represents industry best-practice, particularly for aspects where the current guidance lacks the necessary detail to form a robust assessment.

1.2.4 Given the proximity of the administrative boundary between KMBC and LCC, an email-based scoping exercise was undertaken with both LHAs, with an initial Scoping Note (SN) highlighting the proposed methodology being submitted to the highway officers at KMBC and LCC on 31st July 2025, and the latter responding on 11th August 2025. At the time of writing this report, Prime are still waiting to receive comments on the SN from KMBC, though we understand that KMBC will only be advising on live planning applications.

1.2.5 The original SN and LCC Highways response are provided in Appendix A.

1.2.6 Furthermore, it should be noted that the original SN was based on the proposed development comprising up to 141 affordable dwellings, thus, the quantum has since reduced by five dwellings.

1.2.7 The remainder of this report is structured as follows:

- Section 2 describes the relevant local and national transport policy and guidance;
- Section 3 describes the existing situation in terms of the site, local highway network and traffic conditions, whilst also reviewing the collision records for the local highway network;
- Section 4 details the development proposal;
- Section 5 details access to the site by sustainable modes of travel, which includes walking, cycling and public transport and provides a Minimum Accessibility Standards Assessment (MASA);
- Section 6 discusses the trip generation and traffic impact of the site; and
- Section 7 concludes the findings of the report.

2 TRANSPORT POLICY AND GUIDANCE

2.1 Introduction

2.1.1 It is important that any new developments conform to and complement national and local planning policy. This section details the policies that are relevant to this development.

2.1.2 As mentioned above, the site sits within the boundary of KMBC, however, due to its proximity to the LCC administrative area relevant policies from each authority have been included below.

2.2 National Planning Policy Framework

2.2.1 The current *National Planning Policy Framework* (NPPF) was published in December 2024, with slight amendments on 7th February 2025, and sets out the Government's current planning policies. At the heart of the NPPF is '*a presumption in favour of sustainable development*' as detailed in paragraphs 10 and 11.

2.2.2 Section 9 of the NPPF, *Promoting sustainable transport*, outlines the important role that the planning system has in facilitating sustainable development. It states in paragraph 110 that:

> *'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.'*

2.2.3 The document offers guidance for planning policies including:

- supporting appropriate mixes of land uses;
- minimising the number and length of journeys;
- actively involving local highway authorities, transport infrastructure providers and operators and neighbouring councils in order to align strategies and investments for supporting sustainable travel; and
- providing high quality walking and cycling networks and associated supporting facilities such as cycle parking.

2.2.4 Paragraph 115 of the NPPF provides direction for the assessment of sites for development, stating:

> *'…it should be ensured that:*
>
> *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; *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.'

2.2.5 In determining planning applications, paragraph 116 states that:

'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.'

2.2.6 Paragraph 117 continues:

'Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.'

2.3 Planning Practice Guidance

2.3.1 The theme of sustainable development runs throughout *Planning Practice Guidance*, with the detailed elements regarding transport being focussed in the following sections:

- Transport evidence bases in plan making and decision taking; and
- Travel Plans, Transport Assessments and Statements.

2.3.2 Both sections of the Guidance provide significant amounts of detail on the information types and sources that are appropriate for helping LPAs to take forward their Local Plan with an appropriate evidence base. The Guidance is also a useful reference for assessing schemes such as the development which this report accompanies.

2.4 Manual for Streets

2.4.1 *Manual for Streets* (MfS) was published on behalf of the DfT and Communities and Local Government in March 2007 and provides advice for the design of residential streets in England and Wales.

2.4.2 The focus of MfS is to demonstrate the:

> *'benefits that flow from good design and assigns a higher priority to pedestrians and cyclists, setting out an approach to residential streets that recognises their role in creating places that work for all members of the community. MfS refocuses on the place function of residential streets, giving clear guidance on how to achieve well-designed streets and spaces that serve the community in a range of ways' (MfS page 7).*

2.4.3 The guidance addresses many common design principles and discusses detailed design issues, often presenting recommended design criteria. Some of the key principles of MfS include:

- The need to shift from focusing on designing for motor vehicles to designing streets around the needs of pedestrians, cyclists and public transport users which in turn enhances safety;
- Good design can help to create and strengthen a sense of place and community;
- Creating streets that are permeable and offer good quality connections to main destinations for all road users;
- Inclusive design that recognises the needs of people of all ages and abilities; and
- Cost-effective construction often by avoiding over-designing.

2.4.4 In September 2010 a companion document *Manual for Streets 2 - wider application of the principles* (MfS2) was published. This document expands on some of the design principles of MfS and provides examples of places where designs based on these principles have been implemented.

2.5 Ensuring a Choice of Travel SPD

2.5.1 The *Ensuring a Choice of Travel* SPD was originally developed in partnership with the Merseyside Local Authorities and Merseytravel in order to provide consistent guidance to developers on access and transport requirements for new developments across the wider Merseyside area.

2.5.2 Within the SPD, its states the following:

> *'The Council has published this guidance as a Supplementary Planning Document (SPD) to show how development can satisfy the requirements of accessibility policies contained within Knowsley's Development Plan. It will assist developers in ensuring that their*

proposals are accessible, promote sustainable travel patterns and minimise the congestion and pollution caused by vehicles.'

2.5.3 Furthermore, the main objective of the SPD is '*to ensure a good choice of travel modes to all new development'.*

2.5.4 Among the transport requirements set out in the SPD are a 'Minimum Accessibility Standards Assessment' (MASA), which is a scoring system for new developments based on their land use type, scale, location, and facilities provided.

2.6 Liverpool City Region 4th Local Transport Plan: Developing a Vision for Local Transport to 2040

2.6.1 The *Local Transport Plan 4* (LTP4) is due to be adopted by the Liverpool City Region Combined Authority in 2025 and will provide the statutory framework for transport strategy and plans across Merseyside.

2.6.2 At the time of writing this TA, a consultation version of the LTP4 is the most recently available document and sets out the following vision:

'Clean, safe and accessible transport for moving people and goods.'

2.6.3 To achieve its vision, the consultation version of the LTP4 sets out the following goals:

- Goal 1 - Support good, clean job growth and opportunity for all;
- Goal 2 - Achieve net-zero carbon and an improved environment;
- Goal 3 - Improve health and quality of life;
- Goal 4 - Transport that's well maintained and tough; and
- Goal 5 - Plan and respond to uncertainty and change and be innovative.

2.6.4 A move away from car dependency and towards active travel and public transport use is a key theme of LTP4 with plans in place to create and re-open bus lanes, as well as create active travel routes and low-traffic streets.

2.7 Knowsley Local Plan Core Strategy

2.7.1 The Knowsley *Local Plan Core Strategy* (LPCS) was adopted in January 2016 and sets out the vision, objectives and policies which will guide development within the Borough up to 2028.

2.7.2 The LPCS sets out a list of Strategic Objectives, which those of relevance to this report as follows:

- Strategic Objective 2 - Well-Balanced Housing Market; and
- Strategic Objective 6 - Sustainable Transport.

2.7.3 In addition, the LPCS sets out a list of Policies, with Policy CS7 dedicated to 'Transport Networks', which focuses on the 'Overall Transport Strategy' and 'Location, Design and Management of New Development' within the Borough.

2.8 Knowsley Unitary Development Plan

2.8.1 The Knowsley *Unitary Development Plan* (UDP) was adopted in June 2006 and sets out '*the Council's strategy for the physical development of the Borough'* and '*where development is likely to take place, and which areas are to be protected from development'.*

2.8.2 The UDP sets out a list of Strategic Objectives, with those of relevance to this report as follows:

- Strategic Objective 2 - To provide a better choice of housing in terms of tenure, type and market sector which will meet the needs and aspirations of the community;
- Strategic Objective 8 - To locate major new development where it is accessible by a choice of walking, cycling and public transport, thereby minimising the need to travel by car; and
- Strategic Objective 19 - To ensure that the design of new development provides a good level of accessibility to the whole community (including the less mobile) making appropriate and safe provision for vehicle parking, walking, cycling and public transport.

2.8.3 Chapter 8 of the UDP is dedicated to 'Transport' and presents a list of Core Policies, which those of relevance to this report as follows:

- Policy T1 - An integrated transport system;
- Policy T6 - Ensuring choice of travel to serve new development;
- Policy T7 - New development and walking and cycling routes; and
- Policy T8 - Transport Assessments.

2.9 Liverpool Local Plan

2.9.1 The Liverpool *Local Plan* (LP) was adopted in January 2022 but covers the period from 2013 to 2033, and '*provides a long-term spatial vision, strategic priorities and policies for future development in the City over the next 15-20 years*'. The document continues by stating that transport is one of the topics that will be specifically focussed on.

2.9.2 The vision of the document is set out in Chapter 4, with part of it being as follows:

> *'By 2033 Liverpool will be a sustainable, vibrant and distinctive and inclusive global city at the heart of the City Region. Fairness and inclusivity will be at the heart of the City's growth. Development opportunities will have been maximised to create an economically prosperous city with sustainable communities and an outstanding and high quality natural and built environment'.*

2.9.3 Chapter 14 of the LP is titled 'Sustainable Transport and Accessibility', which provides numerous policies and those relevant to this site are as follows:

- Policy TP1 - Improving Accessibility and Managing Demand for Travel;
- Policy TP5 - Cycling;
- Policy TP6 - Walking and Pedestrians;
- Policy TP8 - Car Parking and Servicing; and
- Policy TP9 - Public Transport.

2.10 Summary

2.10.1 This section has outlined national and local transport policies and guidance which are applicable to the development site. How the site conforms to and complements these policies and guidance will be discussed in the following sections of this report, where relevant.

3 EXISTING SITUATION

3.1 Site Description

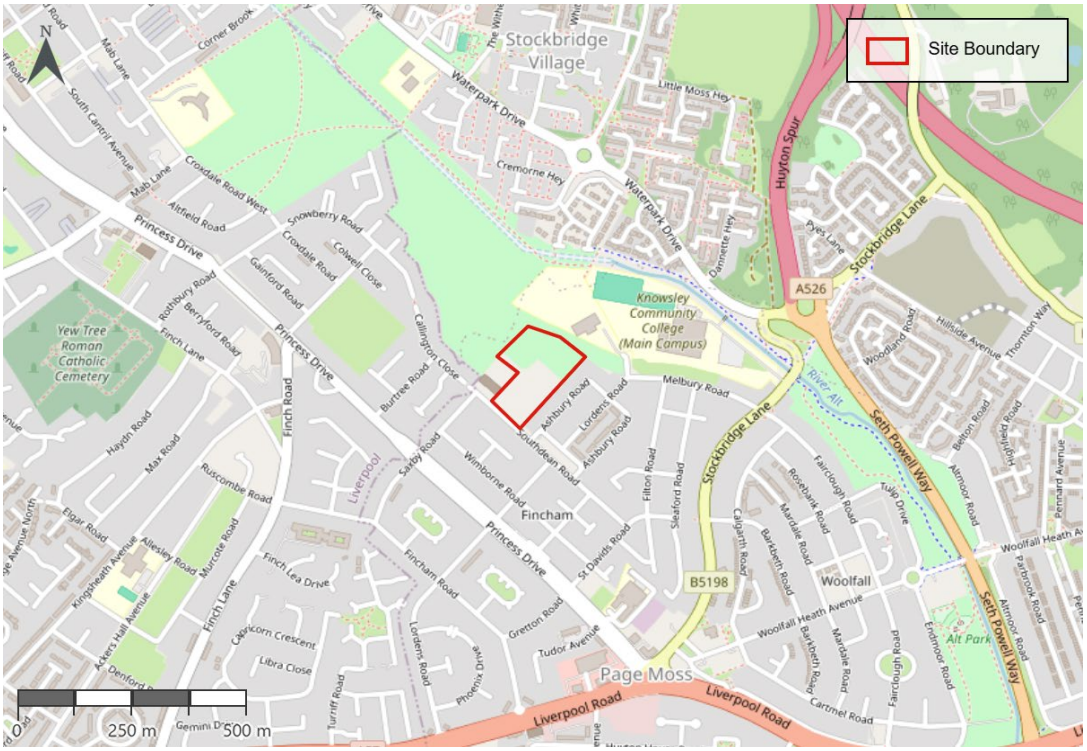
3.1.1 The application site is located in the Stockbridge ward of Knowsley, north of Huyton, and currently comprises a combination of archdiocese land and agricultural land. Historically, the site was occupied by St Dominic's R.C Junior School, which was permanently closed and demolished in 2011.

3.1.2 Southdean Road forms the southern boundary of the site, with this frontage measuring circa 85m in length, the rear gardens of residential properties which front Ashbury Road form the eastern boundary and agricultural land forms the northern boundary. A combination of agricultural land and St Dominic's R.C Church form the western boundary of the site.

3.1.3 The application site is located circa 3km to the north-west of Huyton town centre, 6km to the west of Prescot, 10km to the north-east of Liverpool city centre and 10km to the south-east of Kirkby.

3.1.4 The location of the site, in the context of the local highway network, is illustrated in Image 3.1 below.

Image 3.1: Site Location and Local Highway Network



Source: https://www.openstreetmap.org/

3.2 Pedestrian & Cycle Facilities

Pedestrian Facilities

3.2.1 As the site is located within an established urban area, the surrounding area has an extensive network of pedestrian infrastructure in the form of good quality footways, street lighting and uncontrolled and controlled crossings.

3.2.2 The site also benefits from being located in proximity to Mab Lane Community Woodland, which comprises a network of footpaths that provide a connection between Croxdale Road West and Stockbridge Village.

3.2.3 The Mab Lane Community Woodland footpaths also provide a connection to a shared foot/cycle path, which is located a short distance to the north of the site.

Cycle Facilities

3.2.4 Image 3.2, an extract from the 'Knowsley Network' cycle map provided on the Merseytravel website, shows the local cycle network in proximity to the site, with on-road signed cycle routes highlighted in yellow with dashed red outer lines, off-road cycle routes highlighted in brown with dashed black outer lines and streets subject to a 20mph speed limit highlighted in pink.

Image 3.2: Local Cycle Network (Knowsley)

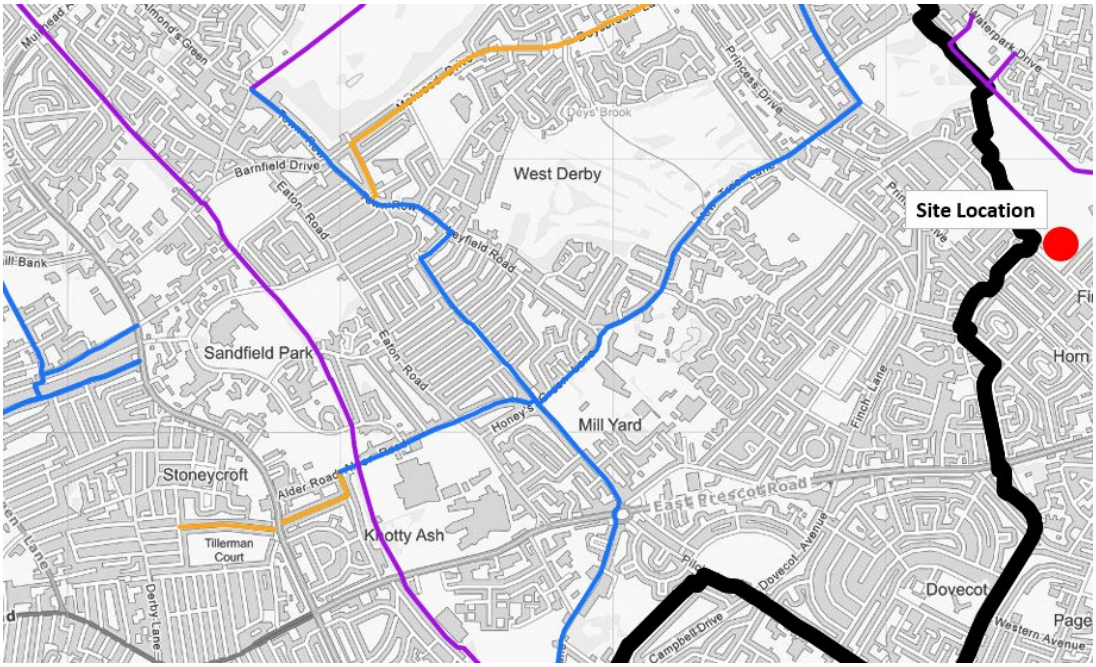
Source: https://www.merseytravel.gov.uk/active-travel/cycling/

3.2.5 It is evident from viewing Image 3.2 that the majority of the local roads are subject to a 20mph speed limit, thus, creating a safer and more supportive environment for cyclists navigating these roads.

3.2.6 To the south-east of the site, Endmoor Road and Altmoor Road form part of on-road signed cycle routes, while numerous off-road cycle routes are provided in the local area.

3.2.7 Image 3.3, an extract from the 'Liverpool Network' cycle map provided on the Merseytravel website, shows the local cycle network in proximity to the site, with on-road signed cycle routes highlighted in blue and off-road cycle routes highlighted in purple. The administrative boundary between Knowsley and Liverpool is shown by the thick black line.

Image 3.3: Local Cycle Network (Liverpool)



Source: https://www.merseytravel.gov.uk/active-travel/cycling/

3.2.8 It is evident from viewing Image 3.3 that to the west of the site Yew Tree Lane and Mab Lane form part of an on-road signed cycle route.

3.2.9 An off-road cycle route is located to the north of the site, which can be accessed from Lordens Road. This same route is also shown in Image 3.2 and highlighted in brown with dashed black outer lines.

3.2.10 The off-road cycle route shown south-west of the site represents National Cycle Route (NCR) 62 and forms part of the Trans Pennine Trail, which runs along the Liverpool Loop Line and can be accessed from the A57 East Prescot Road, a circa 15-minute cycle ride from the site. NCR 62 provides connections from areas of the wider north Merseyside conurbation such as Southport, Maghull and Aintree to areas of the wider south Merseyside conurbation such as Childwall, Woolton and Halewood.

3.3 Local Highway Network

Southdean Road

3.3.1 As mentioned above, Southdean Road forms the southern boundary of the site, with this frontage measuring circa 85m in length.

3.3.2 Southdean Road is a residential street that has a two-way single carriageway. It provides a connection to Saxby Road to the north-west via a priority-controlled junction and to St David's Road to the south-east via a priority-controlled junction. Circa equidistant between these junctions, it provides a connection to Lordens Road via a priority-controlled junction, with dropped kerbs and tactile paving provided.

3.3.3 Saxby Road, St David's Road and Lordens Road all provide a connection between Southdean Road and Princess Drive.

3.3.4 To the north-west of its junction with Saxby Road, Southdean Road continues for a short distance before terminating for vehicular traffic. At its point of termination, a modal filter, in the form of a raised kerbed platform and bollards, is provided, which enables pedestrians and cyclists to continue to navigate the carriageway in both directions. To the north-west of the modal filter, Southdean Road changes to Callington Close.

3.3.5 Adjacent to the site frontage, Southdean Road measures circa 5.0m in width, while circa 2.0-3.0m wide footways are provided on both sides of the carriageway.

3.3.6 Southdean Road is subject to a 20mph speed limit, with speed humps provided along the carriageway in its entirety. Street lighting is provided.

3.3.7 The road was previously in regular use by school traffic. Several features from when St Dominic's R.C Junior School was open remain on the highway network, particularly sections of redundant guardrails at the former pedestrian access to the school.

3.3.8 In relation to the aforementioned Saxby Road, St David's Road and Lordens Road, all comprise footways on both sides of the carriageway, street lighting and are subject to a 20mph speed limit, with speed humps, cushions or raised tables provided.

Princess Drive

3.3.9 As mentioned above, Princess Drive is connected to Southdean Road via Saxby Road, St David's Road and Lordens Road.

3.3.10 Princess Drive operates as both a single carriageway and dual carriageway, providing a connection to Deysbrook Lane and Croxteth Hall Lane to the north-west via a signalised junction and to the A57 Liverpool Road and Stockbridge Lane to the south-east via a signalised junction. Where it forms a dual

carriageway, footpaths are provided across the central reserve, which enable pedestrians to cross the carriageway in a safe and convenient manner.

3.3.11 Its junction with the A57 Liverpool Road and Stockbridge Lane comprises pedestrian facilities (dropped kerbs, tactile paving, red and green men, pedestrian islands and guard railing), which aids the movement of people across all arms of the junction.

3.3.12 Circa 2.0-3.0m wide footways are provided on both sides of the carriageway, with wide grass verges providing separation between the two.

3.3.13 Princess Drive is subject to a 30mph limit, while street lighting is provided.

3.3.14 Bus stops are provided on Princess Drive, with further details regarding these stops and their associated services provided in Section 5.

Strategic Highway Network

3.3.15 As mentioned above, Princess Drive provides a connection to the A57 Liverpool Road.

3.3.16 To the north-east of its junction with Princess Drive and Stockbridge Lane, the A57 Liverpool Road provides a connection to junction 2 of the M57 and beyond to Prescot. It also provides a connection to junction 3 of the M57 via the A526 Seth Powell Way. The M57 itself provides a connection to the M58 and M62 to the north-west of south-east respectively.

3.3.17 To the south-west, it changes to the A57 East Prescot Road and facilitates connections between Liverpool city centre and the areas of Huyton, Dovecot and Knotty Ash.

3.4 Existing Traffic Conditions

3.4.1 A site visit was undertaken in September 2025, which has aided in the compilation of this TA.

3.4.2 During the site visit, the local roads directly surrounding the site were very lightly trafficked with little in the way of vehicular activity being witnessed, while Princess Drive was busier but with no queues observed.

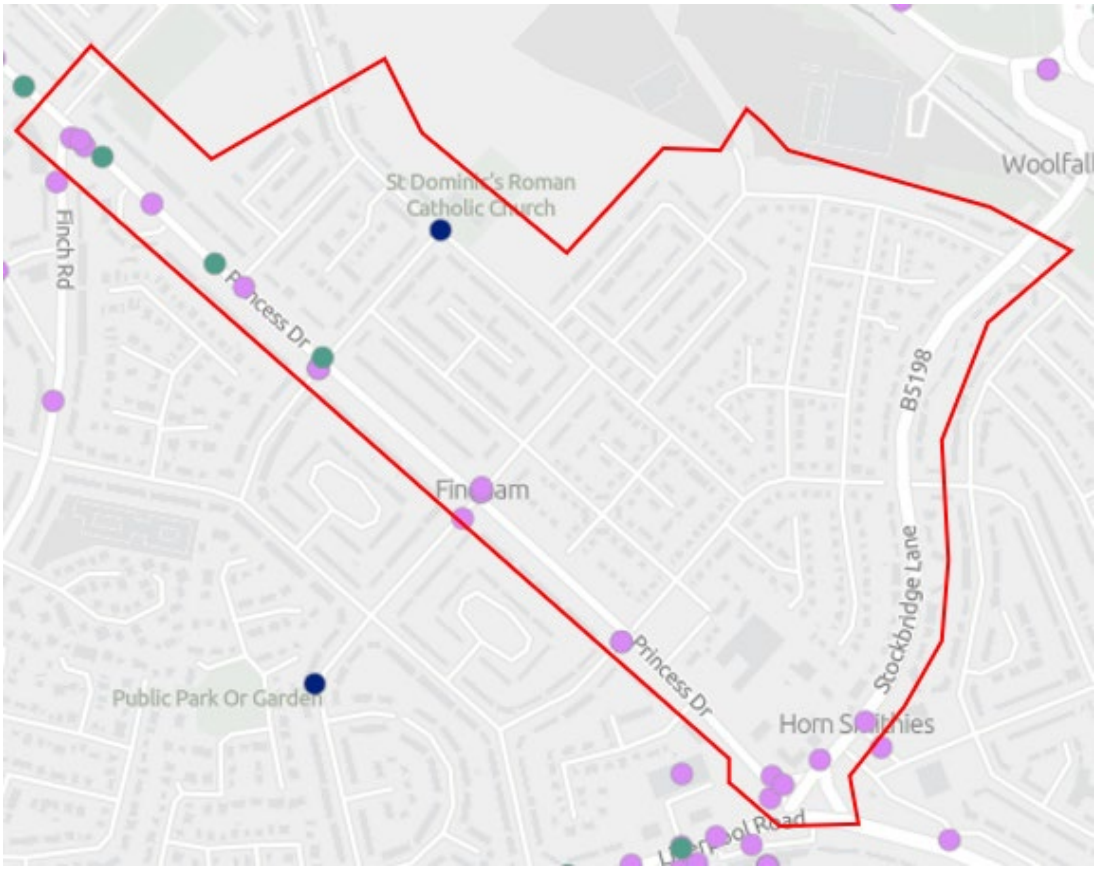
3.4.3 It is known that Lordens Road and Melbury Road experience high levels of on-street parking during the drop-off and pick-up times of Hope Primary School, as observed during a site visit for another local development in 2024, though this parking tends to only last for around 20-30 minutes in the morning and afternoon during school term time.

3.5 Road Safety

3.5.1 A review of the DfT 'Mapping Application for Visualising Road Injury Casualties' (MAVRIC), for the most recent five-year period available (2019-2023), has been undertaken.

3.5.2 Image 3.4 shows the recorded collisions in proximity to the site, this being an annotated extract from MAVRIC, with slight collisions highlighted in pink, serious collisions highlighted in green and fatal collisions highlighted in blue.

Image 3.4: MAVRIC Extract showing Collisions in the Vicinity of the Site



Source: https://www.arcgis.com/apps/dashboards/ea3b071df62a434aa21ed80a6214d690

3.5.3 Image 3.4 illustrates that during the five-year period, 19 collisions have occurred within the study area, 15 of which were classed as 'slight' in terms of severity and three classed as 'serious'.

3.5.4 There was one fatal collision within the study area, which occurred on 8th November 2023.

3.5.5 As MAVRIC provides a limited level of collision details, information relating to the fatal collision has been obtained from CrashMap. The CrashMap report is provided in Appendix B.

3.5.6 Within the CrashMap report, it states that the fatal collision involved a 'car' and 'other vehicle', with the 'car' turning right from Saxby Road on to Southdean Road and colliding with the nearside of the 'other vehicle', which had been navigating along Southdean Road. As a result of the collision, the teenager who had been driving/riding the 'other vehicle' sustained fatal injuries.

3.5.7 Prime have further investigated the fatal collision and discovered an article on the Merseyside Police website[1], which states that the collision was between a police vehicle and electric bike. The article continues by stating that the rider of the electric bike sustained a serious leg injury with no mention of a fatality.

3.5.8 It is important to note that given the extent of the study area, the number of collisions is not considered to be high, with an average of 3.8 collisions per year.

[1] https://www.merseyside.police.uk/news/merseyside/news/2023/november/appeal-following-road-traffic-collision-on-southdean-road-dovecot/ accessed 15/09/25

4 DEVELOPMENT PROPOSAL

4.1 Development Description

4.1.1 Breck is seeking full planning permission for the construction of 136 affordable dwellings, located to the north of Southdean Road, Stockbridge, Knowsley.

4.1.2 The proposed schedule of accommodation is as follows:

- 30 x 1 bed apartments;
- 9 x 1 bed bungalows;
- 26 x 1 bed maisonettes;
- 6 x 2 bed apartments;
- 2 x 2 bed bungalows;
- 18 x 2 bed houses;
- 37 x 3 bed houses; and
- 8 x 4 bed houses.

4.1.3 The proposed site layout (PSL) has been prepared by Breck and forms part of the supporting documentation for the planning application.

4.2 Access Strategy

4.2.1 The site will be served by a single priority-controlled junction on Southdean Road, which will be located at the north-western end of the site frontage.

4.2.2 The proposed vehicular access will comprise a 5.5m wide carriageway, 6m corner radii and 2 x 2m wide footways which will connect to the existing footway provision on the northern side of Southdean Road. Dropped kerbs and tactile paving will also be provided on both sides of the access road where it connects with Southdean Road.

4.2.3 To the north and south of the proposed vehicular access, visibility splays of 2.4m and 43m have been provided, this being MfS compliant for roads subject to a 30mph speed limit. It is important to note that Southdean Road is subject to a 20mph speed limit, thus, the visibility splays should be considered to be robust. Any vegetation encroaching on the visibility splays will be removed or cut-back.

4.2.4 The main access road will extend to the northern boundary of the site, with this envisaged to provide secondary access to the *North Huyton Phase 5* scheme. The access road has been located close to the St Dominic's R.C Church car park as this location allows a fairly direct alignment to the *North Huyton Phase 5* scheme. The proximity to the church car park's access will not pose any issues given that the use of the church car park is understood to be occasional and it only provides access to 7 car parking spaces. Furthermore, as part of the access strategy, the proposed footway on the northern side of the

access will be extended across the church car park access, while a dropped kerb will also be provided, thereby forming a vehicular crossover to the church car park.

4.2.5 The existing speed hump on Southdean Road close to the proposed site access will be removed and replaced with the same feature to the north-west of the access.

4.2.6 The proposed access strategy is shown on Drawing P25075-001A in Appendix C.

4.3 Internal Layout

4.3.1 From the proposed vehicular access on Southdean Road, the 5.5m wide access road will extend through the site in its entirety and provide access to the majority of the proposed dwellings.

4.3.2 Internal secondary roads and shared drives will be provided off the main access road, enabling vehicular access to a number of houses and all maisonettes, while the two car parks associated with the apartment blocks will also be provided off the main access road.

4.3.3 A total of 9 houses will front and have direct driveway access from Southdean Road.

4.3.4 Traffic calming will be provided throughout the site in the form of raised tables.

4.3.5 The 5.5m carriageway width and 2.0m wide footways will be provided throughout the majority of the site with the internal residential road layout offered for adoption.

4.4 Off-Site Pedestrian/Cycle Improvements

4.4.1 Within its scoping response, LCC Highways stated that:

> *'Drop kerbs and tactile paving should be introduced at Seacroft Road and Burtree Road, and at Burtree Road (inset crossing) with Princess Drive. This improves the walking routes to the west of the site.'*

4.4.2 The Applicant is willing to provide the requested off-site pedestrian improvements at the Princess Drive/Burtree Road junction (inset crossing). However, it is questionable as to whether residents of the site would cross at the Burtree Road/Seacroft Road junction as residents of the site are likely to be travelling along the footway on the eastern side of Burtree Road, not the western side, so they would not actually cross Seacroft Road. Furthermore, they are more likely to travel along Saxby Road to/from Princess Drive than along Burtree Road.

4.4.3 Within its scoping response, LCC Highways also stated that:

> *'A modal filter for pedestrian and cycle movements should be considered and could therefore be introduced at the northernmost point of the site, which can connect to the wider North Huyton Phase 5 scheme. This would in turn improve connections to wider*

bus services. In addition, the existing closure between Callington Close and Snowberry Road can be upgraded into a modal filter also.'

4.4.4 Since the submission of the SN, the PSL has been updated and currently shows the main access road, including its footways, extending to the northern boundary of the site, with this envisaged to provide access to the *North Huyton Phase 5* scheme. As such, a modal filter at this location is not considered necessary.

4.4.5 The Applicant is willing to upgrade the existing closure between Callington Close and Snowberry Road to a modal filter, which will be beneficial for existing residents of the local area, as well as future residents associated with the proposed development, particularly for trips to/from Mab Lane Primary School. The improvement may be as simple as removing the wall and railings. Prime are happy to discuss this improvement in more detail with LCC.

4.5 Access for Commercial Vehicles

4.5.1 The dimensions suggested for the proposed vehicular access point will ensure an allowance is made for the largest vehicles expected to regularly access the site, such as refuse collection vehicles.

4.5.2 To demonstrate that the proposed vehicular access point will be safe and suitable for larger vehicles but without overdesigning, a swept path analysis has been undertaken for a typical non-commercial refuse collection vehicle, which is the largest vehicle expected to regularly access the site. The swept path analysis for the refuse collection vehicle has been illustrated in Drawing P25075-002A in Appendix C, which demonstrates that the vehicle can safely access and egress the site in forward gear.

4.5.3 Refuse collection for the 9 houses which front Southdean Road will take place from Southdean Road, as per the existing arrangement in the surrounding area.

4.6 Car Parking Provision

4.6.1 The maximum parking standards for C3 residential developments are set out in KMBC's *Ensuring a Choice of Travel* SPD. For 'other areas' - which includes the application site, the relevant standards are as follows:

- 1 bed dwellings - 1 parking space;
- 2-3 bed dwellings - 2 parking spaces; and
- 4+ bed dwellings - 3 parking spaces.

4.6.2 Applying the above maximum parking standards to the proposed development results in the below listed maximum parking provision:

- 30 x 1 bed apartments - 30 parking spaces;
- 9 x 1 bed bungalows - 9 parking spaces;
- 26 x 1 bed maisonettes - 26 parking spaces;

- 6 x 2 bed apartments - 12 parking spaces;
- 2 x 2 bed bungalows - 4 parking spaces;
- 18 x 2 bed houses - 36 parking spaces;
- 37 x 3 bed houses - 74 parking spaces;
- 8 x 4 bed houses - 24 parking spaces; and
- Total - 215 parking spaces.

4.6.3 The proposed development will provide 195 formal car parking spaces, distributed across private driveways and car parks. While this is slightly below the KMBC maximum standards, it aligns with the flexibility permitted under the SPD, which states:

> *'In all areas there may be instances where provision should be less than the maximum specified for example where a site is particularly accessible by modes of transport other than the private car.'*

4.6.4 As highlighted in Section 5 below, the proposed development is located in a sustainable location in terms of public transport and the accessibility of local amenities.

4.6.5 For the apartments, 10% of the overall spaces in each car park will be allocated as accessible spaces, thus, the 24-space car park will comprise two accessible spaces and the 12-space car park will comprise one accessible space. Both car parks for the apartments will have 6.0m wide aisles, 2.5m x 5.0m wide spaces and 1.2m wide safety zones on one side and one end of the accessible spaces.

4.7 Cycle Parking Provision

4.7.1 For the proposed houses, secure and sheltered bicycle storage areas will be provided in the rear gardens of each property, which will be able to accommodate at least two bicycles.

4.7.2 For the proposed maisonettes, one space per property will be provided, with all 26 bicycles spaces to be provided in two secure and sheltered bicycle storage areas.

4.7.3 Similarly, for the proposed apartments, one cycle space per property will be provided. All 36 bicycle spaces will be provided in three secure and sheltered bicycle storage areas.

4.7.4 Also, two Sheffield stands will be located at the front of each apartment block, providing 12 naturally overlooked cycle parking spaces for visitors.

4.8 Electric Vehicle Charging

4.8.1 The Applicant will provide an appropriate level of electric vehicle charging facilities within the site, compliant with the Building Regulations Approved Document S *Infrastructure for the charging of electric vehicles*.

4.9 Summary

4.9.1 As described in this section, the development proposals will conform to national and local policy guidance, with the design of the access road conforming to the guidance of MfS, while also meeting Strategic Objectives 2 and 6 of the Knowsley LPCS, Strategic Objectives 2, 8 and 19 of the Knowsley UDP and conforming to the policies associated with the Liverpool LP.

4.9.2 The design principles help the site to conform to NPPF guidance including paragraph 115 in terms of creating *'safe and suitable access',* paragraph 117 in giving priority to pedestrian and cycle movements and creating safe and attractive places which minimise conflicts between traffic and cyclists or pedestrians.

5 ACCESS BY SUSTAINABLE MODES

5.1 Introduction to Sustainable Modes of Transport

5.1.1 National and local transport planning policy centres on the importance of sustainable development, meaning that new developments should be located in areas where there is access to sustainable modes of travel, or where sustainable modes of travel can be introduced. *NPPF* defines sustainable transport modes as:

> *'Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, ultra-low and zero emission vehicles, car sharing and public transport.'*

5.1.2 Walking, cycling and public transport are commonly regarded to be the most sustainable modes of transportation. This section of the report will describe how the site can be accessed by these modes.

5.2 Access on Foot

5.2.1 The site is located within an established urban area in the Stockbridge ward of Knowsley adjacent to Page Moss and Liverpool's Yew Tree ward. As such, the surrounding area has an extensive network of pedestrian infrastructure in the form of good quality footways, street lighting and uncontrolled and controlled crossings, all of which create an environment conducive to walking and should help encourage future residents to travel to and from the site via foot.

5.2.2 As mentioned in Section 4, dropped kerbs and tactile paving will be provided at the Burtree Road/Seacroft Road junction and Princess Drive/Burtree Road junction, while the existing closure between Callington Close and Snowberry Road will be upgraded to a modal filter. These off-site pedestrian/cycle improvements will be beneficial for existing residents of the local area and future residents associated with the proposed development.

5.2.3 Research has indicated that acceptable walking distances depend on a number of factors, including the quality of the development, the type of amenity offered, the surrounding area, and other local facilities. The Chartered Institution of Highways and Transportation (CIHT) document entitled *Providing for Journeys on Foot* (2000) suggests walking distances which are relevant to this application. These distances are shown in Table 5.1.

Table 5.1: Suggested Acceptable Walking Distances

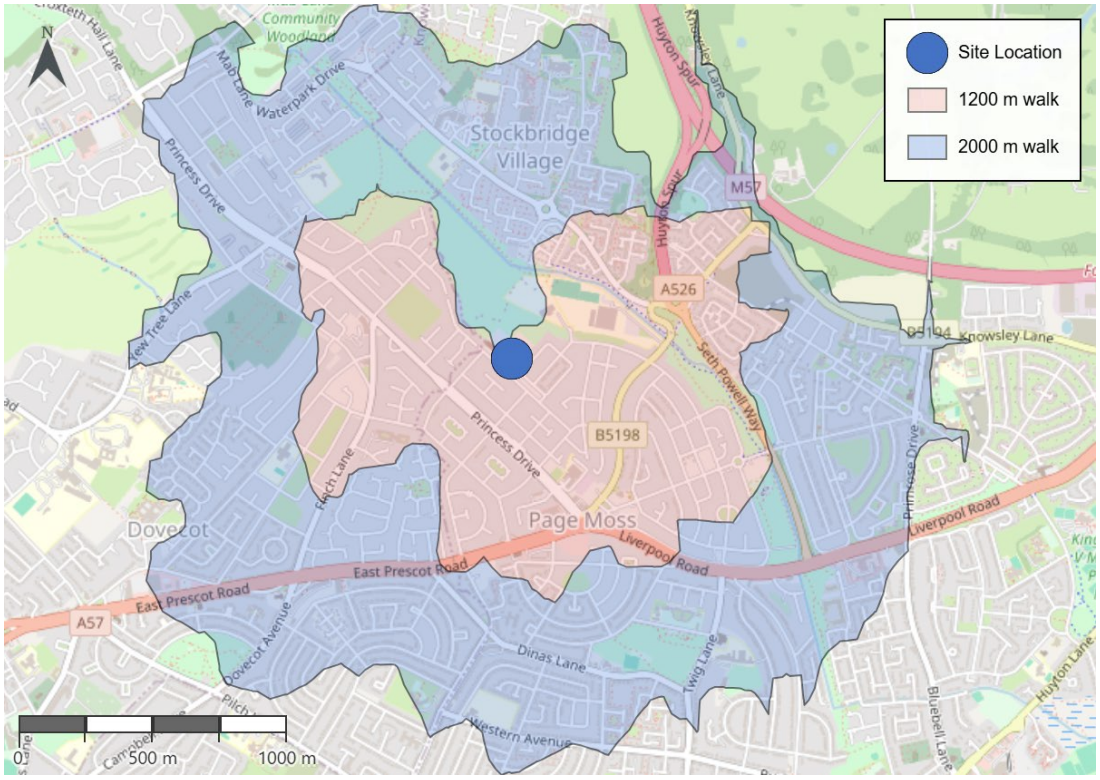
Criteria	Town Centres (m)	Commuting/School/ Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred Maximum	800	2000	1200

Source: CIHT Document 'Providing for Journeys on Foot' (2000)

5.2.4 In order to highlight the site's accessibility on foot, an indicative walking isochrone has been produced using Geographic Information System (GIS) software.

5.2.5 Figure 5.1 represents the site's walking catchment with the CIHT's *'Preferred Maximum'* distance of 1,200m for local services trips and *'Preferred Maximum'* distance of 2,000m for commuting/school trips illustrated.

Figure 5.1: Walking Isochrone



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5.2.6 The site is located within an established urban area, so as expected a very good range of amenities and services can be reached via foot.

5.2.7 As mentioned in Section 3, St Dominic's R.C Church is located directly to the west of the site.

5.2.8 From the site, the CIHT's '*Preferred Maximum*' walking distance of 1,200m for local service trips includes Princess Drive/Finch Road shops, Liverpool Road Retail Park and Liverpool Road shops, thus, one or more of a supermarket, newsagent, Post Office, takeaway, health centre, dental practice, pharmacy, barber shop and more are within a reasonable walking distance from the site. In addition, numerous bus stops are also located in proximity to the site on Princess Drive and Stockbridge Lane.

5.2.9 From the site, the CIHT's '*Preferred Maximum*' walking distance of 2,000m for commuting and school trips includes a Nisa Extra and Aldi supermarket, while a Tesco supermarket is located just outside of this catchment, all of which may provide employment opportunities for future residents of the site. A number of primary schools are located within the 2,000m catchment including the nearby Hope

Primary School and Mab Lane Primary School, as well as Playtots Pre School and Knowsley Community College.

5.2.10 Given the evidence presented above, walking can be considered to be a realistic and viable method of travel indicating that the site's location is accessible via this sustainable mode.

5.3 Access by Cycle

5.3.1 It is widely recognised that cycling can offer an attractive alternative to short car trips, particularly those under 8km, but also as part of longer journeys by public transport.

5.3.2 The CIHT document *Cycle Friendly Infrastructure* (2004) states in paragraph 2.3 that:

> *'Three quarters of journeys by all modes of travel are less than five miles (8km) and half under two miles (3.2km) (DoT 1993, table 2a). These are distances that can be cycled comfortably by a reasonably fit person.'*

5.3.3 Local Transport Note 1/20 *Cycle Infrastructure Design* states similar, that:

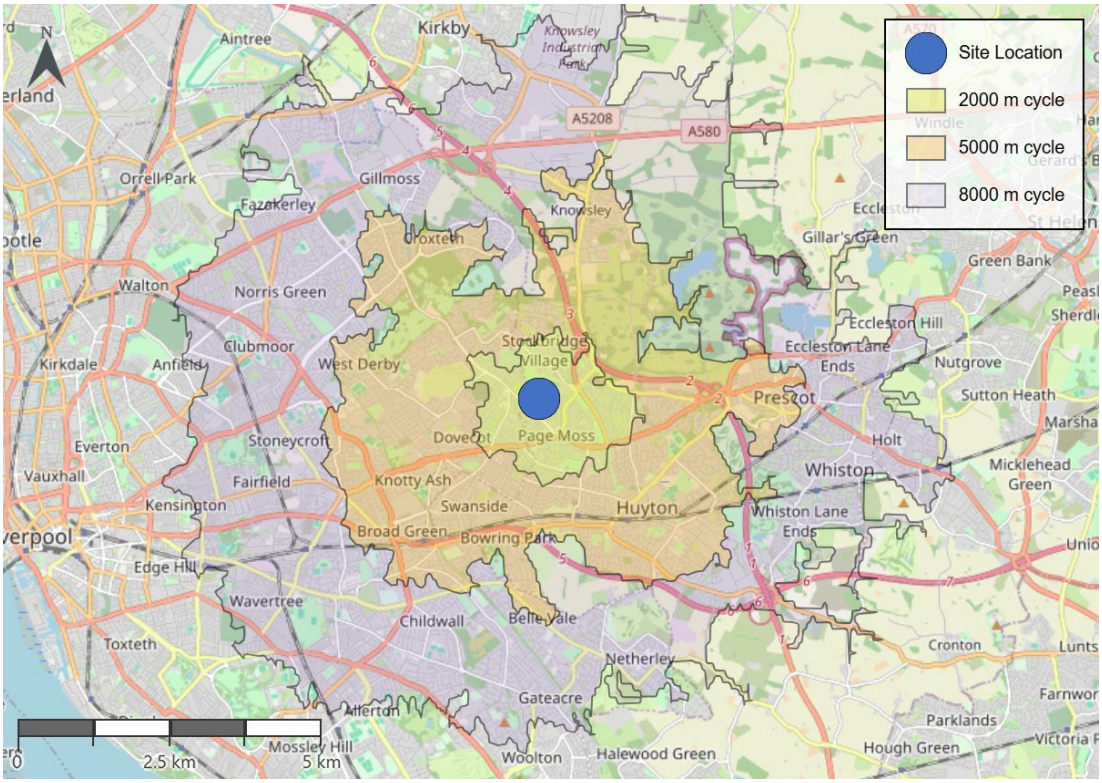
> *'Two out of every three personal trips are less than five miles [8km] in length - an achievable distance to cycle for most people'.*

5.3.4 As shown in Image 3.2 and 3.3 in Section 3, many of the local roads are subject to a 20mph speed limit with traffic calming, thus, creating a safer and more supportive environment for cyclists navigating these roads. Furthermore, some of the local roads form part of on-road signed cycle routes and off-road cycle routes.

5.3.5 Also, as mentioned throughout this report, the existing closure between Callington Close and Snowberry Road will be upgraded to a modal filter, which will be beneficial for existing residents of the local area and future residents associated with the proposed development who choose to travel via cycle along this route.

5.3.6 Figure 5.2 represents the site's cycling catchment.

Figure 5.2: Cycling Isochrone



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5.3.7 Figure 5.2 illustrates that almost the entirety of Huyton, the settlements of Prescot and Knowsley Village and a large section of north Liverpool are within a 5,000m cycle ride from the site. Also, both Roby train station and Huyton train station are located within the 5,000m catchment and can be reached within a circa 8-minute and 11-minute cycle ride from the site respectively.

5.3.8 The 8,000m catchment includes as far as Aintree to the north, Kensington to the west and Gateacre to the south. Also located within this catchment are Whiston and Kirkby, as well as Knowsley Industrial Park.

5.3.9 It is evident that there is a considerable range of local amenities, places of employment, places of education, towns and district centres within the cycle catchment.

5.3.10 Given the evidence presented above, cycling can be considered a realistic and viable method of travel indicating that the site's location is accessible via this sustainable mode.

5.3.11 Clearly the site location and the surrounding infrastructure will mean that travel on foot and by cycle will be realistic and convenient modes of travel for future residents of the site. The potential numbers of walking and cycling trips that the site will generate will be discussed in Section 6, but clearly the scale of the site is not such that it will disadvantage existing pedestrians and cyclists.

5.4 Access by Local Bus Services

5.4.1 The CIHT document '*Planning for Public Transport in Developments*' (1999) recommends a walking distance of up to 400m to bus waiting facilities from new developments, which is equivalent to a five-minute walk based on circa 1.4m/s walking speed.

5.4.2 As mentioned throughout this report, there are bus stops provided on Princess Drive, with the nearest stops located adjacent to its junction with Lordens Road, both of which are located circa 300m from the site.

5.4.3 Further bus stops, which provide access to additional services, are provided on Stockbridge Lane, both of which are located circa 500m from the site.

5.4.4 The nearest Princess Drive bus stops provide flag and timetable information, a raised boarding area, with the north-westbound stop also comprising seating and shelter to protect waiting passengers from inclement weather.

5.4.5 In relation to the Stockbridge Lane bus stops, both stops comprise timetables, seating and shelter, with the northbound stop also comprising a raised boarding area and a bus cage.

5.4.6 Within its scoping response, LCC Highways stated that *'the closest bus stops at Princess Drive should also be upgraded with accessible kerbs installed to their footprints'*. As mentioned above, the nearest Princess Drive bus stops, which are located adjacent to Lordens Road, currently comprise accessible kerbs, thus, the Applicant is willing to upgrade the north-westbound 'Burtree Road' bus stop and south-eastbound 'Saxby Road' bus stop to include accessible kerbs. These improvements will be beneficial for existing residents of the local area, as well as future residents associated with the proposed development.

5.4.7 Table 5.2 summarises the services that can be accessed at these bus stops. The information below has been obtained from Traveline (https://www.traveline.info).

Table 5.2: Summary of Bus Services

Service	Route	Weekday			Weekend	
		AM	Inter	PM	Saturday	Sunday
3/3A	Huyton - Liverpool John Lennon Airport	2 morning services	No service	No service	1 morning service	No service
12/13	Liverpool City Centre - Liverpool City Centre (Circular)	3-4/hr	3-4/hr	3-4/hr	3-4/hr	2-3/hr
102	Aintree University Hospital - Huyton	1/hr	1/hr	1/hr	1/hr	No service
217	Bootle - Halewood	1-3/hr	2/hr	2/hr	1-2/hr	1/2hr
258	Stockbridge Village - Stockbridge Village (Circular)	1-2/hr	1-2/hr	1-2/hr	1-2/hr	No service
898	Huyton - Huyton (Circular)	1/hr	1/hr	1/hr	1/hr	1/hr
899	Huyton - Huyton (Circular)	1/hr	1/hr	1/hr	No service	No service

5.4.8 The above table demonstrates that the bus services which run in proximity to the site provide convenient, frequent connections to destinations across Liverpool in its entirety, including Liverpool city centre.

5.4.9 The 611 Dixons Broadgreen Academy and 698 St John Bosco Arts College school bus services also operate at the aforementioned bus stops located on Princess Drive and Stockbridge Lane.

5.4.10 Given the proximity of the bus stops and the high frequency of the services, bus travel is therefore considered to be a viable mode of transport and provides a convenient choice for future residents of the site.

5.5 Access by Rail

5.5.1 As established earlier in this section, Roby train station is located within an accessible cycling distance from the site and can be reached within a circa 8-minute cycle ride.

5.5.2 Roby train station is managed by Northern Trains and provides multiple direct services throughout the day to Wavertree Technology Park (circa 6 minutes), Liverpool Lime Street (circa 15 minutes), St Helens Central (circa 16 minutes), Wigan North Western (circa 34 minutes), Manchester Oxford Road (circa 48 minutes) and Manchester Piccadilly (circa 52 minutes), as well as other destinations.

5.5.3 The station provides a ticket office, ticket machines and customer help points.

5.5.4 A total of 8 cycle parking spaces, covered by CCTV, are also available at the station, which may encourage some future residents of the site to travel to and from the station by cycle.

5.5.5 Huyton train station is also located within an accessible cycling distance from the site and can be reached within a circa 11-minute cycle ride. The station sits on the same line as Roby, thus, it provides multiple direct services to the destinations listed in paragraph 5.5.2 above, however, it also provides direct services to additional destinations such as Preston (circa 46 minutes) and Blackpool North (circa 1 hour 9 minutes).

5.5.6 The station provides a car park, which comprise a total of 10 spaces, as well as a ticket office, ticket machines and customer help points.

5.5.7 A total of 12 cycle parking spaces are also available at the station, which may encourage some future residents of the site to travel to and from the station by cycle.

5.5.8 It should be noted that the 3A bus service, which operates from the local bus stops, enables passengers to travel to Roby train station, as well as to Huyton bus station which is a short walking distance from Huyton train station.

5.5.9 The short car journey to both stations should be considered a sustainable trip when the train is chosen for mid to long distance trips.

5.6 Minimum Accessibility Standards Assessment (MASA)

5.6.1 The Minimum Accessibility Standards Assessment (MASA) requires a score to be given for all developments based on the land use type, scale, location and facilities provided.

5.6.2 A residential development of this size is classified in MASA terms as ‘Major’. Given the number of proposed dwellings and the site’s location in a well-established urban area, the minimum required scores are as set out below in Table 5.3.

Table 5.3: Minimum Required MASA Scoring

Development Type, Location, Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access / parking
C3 - Dwelling Houses, 'Other Urban', 'Major'	4	5	5	1

5.6.3 A summary of the scoring awarded is provided in Table 5.4, while the MASA is provided in full in Appendix D.

Table 5.4: MASA Scoring Results

Development Type, Location, Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access / parking
C3 - Dwelling Houses, 'Other Urban', 'Major'	4	4	6	1

5.6.4 Tables 5.3 and 5.4 demonstrate that the development proposals meet or exceed the minimum scoring requirements for the walking, public transport and parking MASA categories for 'Major' developments.

5.6.5 The shortfall in the cycling category is due to the development proposals not being located within 400m of an existing or proposed cycle route, however, it important to note that an off-road cycle route and on-road cycle route are located circa 640m and 965m from the site respectively.

5.7 Framework Travel Plan

5.7.1 In line with best practice at a national and local scale, a TP has been produced and submitted as part of this planning application. The document forms the start of an ongoing process to encourage and monitor the use of sustainable modes of travel and should be read in conjunction with this TA. As many aspects of the TP will be applicable to this TA, a summary of the key points is as follows:

- Outlines the key local and national objectives of the TP process;
- Sets targets for the reduction of car/van driver trips by between 5 and 10%;
- Indicates potential measures that can be implemented to achieve these targets; and
- Provides details of how the TP will be managed, monitored and reviewed.

5.8 Summary

5.8.1 This section of the report has demonstrated that the site is in a sustainable location where a range of local amenities, employment opportunities and educational establishments are within acceptable walking and cycling distances.

5.8.2 In respect of bus travel, the bus services which operate in proximity to the site enable passengers to commute to and from various destinations across Liverpool in its entirety, including Liverpool city centre.

5.8.3 Roby train station and Huyton train station, both of which are accessible via bicycle and bus, also enable passengers to travel to and from several destinations including Wavertree Technology Park, Liverpool Lime Street, St Helens Central, Wigan North Western, Manchester Oxford Road, Manchester Piccadilly, Preston and Blackpool North, as well as other destinations.

5.8.4 Mentioned above is the fact that a TP will also be produced in support of the development, which will provide encouragement for future residents of the site to use sustainable modes of transport. It is hoped that a combination of the site's sustainable location and design and adoption of the TP will help to maximise the use of sustainable modes of transport.

5.8.5 A key theme of national and local transport planning policy is that development should be located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. As detailed in Section 2, the NPPF states that *'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'*, as well as providing *'safe and suitable'* access for all.

6 IMPACT ASSESSMENT

6.1 Introduction

6.1.1 This section of the report details the methodology used to predict the demand associated with the development. It then provides an assessment of the impact that it is likely to have on the highway network.

6.2 Vehicular Trip Generation

6.2.1 As part of the suggested scope of assessment presented in the original SN, which was submitted to KMBC and LCC on 31st July 2025, Prime utilised the TRICS 7.11.4 database to derive peak hour trip rates. However, this version of the software ceased on 1st September 2025, being replaced by a new version titled TRICS 8.25.6.

6.2.2 Given the update in the TRICS software, in order to determine the traffic generation associated with the proposed development, the TRICS 8.25.6 database has been used. This industry-standard database contains traffic generation surveys of numerous sites of various land use types across the UK and Eire.

6.2.3 A summary of the key selections applied in order to derive the sample is as follows:

- Land use category - affordable/local authority houses;
- Date range - 07/09/13 to 06/09/23;
- Weekend surveys excluded;
- Selected locations - suburban area, edge of town & neighbourhood centre; and
- Location sub categories - residential zone.

6.2.4 The full reports of the TRICS data and selection process are provided in Appendix E.

6.2.5 The derived trip rates were then applied to the 136 dwellings resulting in the trip generation, with the likely level of traffic generated in both the AM and PM peak periods shown in Table 6.1.

Table 6.1: Peak Hour TRICS Derived Trip Rates and Trip Generation for 136 Dwellings - Affordable/Local Authority Houses

Time	Trip Rates			Trip Generation		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
08:00-09:00	0.109	0.230	0.339	15	31	46
17:00-18:00	0.227	0.161	0.388	31	22	53

6.2.6 The above table shows that the proposed development is likely to generate in the region of 46 two-way trips in the AM peak and 53 two-way trips in the PM peak, which equates to a vehicle movement every circa 1.0-1.5 minutes during the busiest two hours of the day.

6.2.7 It should be noted that no allowance has been made for any future reduction in car travel based or any potential increased use of sustainable modes of travel.

6.2.8 Within its scoping response, LCC Highways stated that:

> *'It's noted that the interrogation of the TRICS database has been based on affordable houses, but more onerous trip rates would be beneficial in this instance and are considered a better representation of the on-site conditions. A sensitivity test with amended AM and PM peak trip generations should therefore be included within the TA assessments.'*

6.2.9 Prime consider the derivation of '*more onerous trip rates'* to be excessive, given that all dwellings will be classed as affordable. Furthermore, the new vision-led approach of the NPPF implies that any assessment should not be undertaken on a worst-case basis. We also suggest that, based on the evidence in Section 5, the site is more accessible by sustainable modes than LCC have previously realised.

6.2.10 That said, in order to satisfy the LCC Highways comments, Prime have utilised the TRICS 8.25.6 database to derive peak hour trip rates associated with private dwellings.

6.2.11 A summary of the key selections applied in order to derive the sample is as follows:

- Land use category - houses privately owned;
- Date range - 19/09/14 to 17/09/24;
- Weekend surveys excluded;
- Selected locations - suburban area & neighbourhood centre; and
- Location sub categories - residential zone.

6.2.12 The full reports of the TRICS data and selection process are provided in Appendix E.

6.2.13 The derived trip rates were then applied to the 136 dwellings resulting in the trip generation, with the likely level of traffic generated in both the AM and PM peak periods shown in Table 6.2.

Table 6.2: Peak Hour TRICS Derived Trip Rates and Trip Generation for 136 Dwellings - Houses Privately Owned

	Trip Rates			Trip Generation		
Time	Arrivals	Departures	Totals	Arrivals	Departures	Totals
08:00-09:00	0.125	0.384	0.509	17	52	69
17:00-18:00	0.346	0.188	0.534	47	26	73

6.2.14 Utilising worst-case/overly robust trip rates, the above table shows that the proposed development would likely generate in the region of 69 two-way trips in the AM peak and 73 two-way trips in the

PM peak, which equates to just over 1 vehicle movement every circa 1 minute during the busiest two hours of the day.

6.3 Multimodal Trip Generation

6.3.1 The number of non-car trips likely to be generated by the site has been forecast using 2011 Census Method of Travel to Work (MTW) data. The 'Knowsley 008 (E02001334)' MSOA has been selected, as it comprises the site and the surrounding area. The trip ends for each method of travel have been downloaded from Nomis (http://www.nomisweb.co.uk).

6.3.2 Several of the transport mode categories have been manually removed from the data for reasons including it being unrealistic that they will be used by residents of the site (i.e. underground); or that they will not generate a trip (i.e. not in employment).

6.3.3 As the vehicular trips were calculated using TRICS, factors have been derived between them and the census car driver trips (693). The factors equate to 6.6% and 7.6% in the respective AM and PM peaks. They have then been applied to the other census modes to forecast the likely number of multimodal trips generated by the site.

6.3.4 Table 6.3 provides the forecast multimodal trips.

Table 6.3: Forecast Multimodal Person Trips Based on Census MTW

Method of Travel to Work	Census Trips	Mode %	AM Trips	PM Trips
Work mainly at or from home	75	4.5%	5	6
Train	30	1.8%	2	2
Bus, minibus or coach	489	29.1%	32	37
Driving a car or van	693	41.3%	46	53
Passenger in a car or van	164	9.8%	11	13
Bicycle	29	1.7%	2	2
On foot	198	11.8%	13	15
Trips Excluding WFH	**1,603**	**-**	**106**	**122**
All Modes	**1,678**	**100%**	**111**	**128**
		Factors	*6.6%*	*7.6%*

6.3.5 Based on the figures in Table 6.3, the site is forecast to generate 106 and 122 total people physical trips in the AM peak and PM peak respectively, with around 5-6 people working from home, although this figure is likely to be higher given the increase in working from home and flexible working patterns following the Covid-19 pandemic.

6.3.6 Following driving a car being the most common method of travel likely to be used by residents of the site, trips via bus travel are expected to account for 32 trips in the AM peak and 37 trips in the PM peak, walking trips are expected to account for 13 trips in the AM peak and 15 trips in the PM peak, car passenger trips are expected to account for 11 trips in the AM peak and 13 trips in the PM peak, while trips via train travel and bicycle are each expected to account for 2 trips in each peak.

6.4 Trip Distribution & Impact Assessment

6.4.1 Traffic generated by the development proposal has been distributed on to the highway network based on 2011 Census MTW data for car drivers using the 'Knowsley 008 (E02001334)' MSOA, 'Knowsley 006 (E02001332)' MSOA and 'Liverpool 017 (E02001363)' MSOA, which contain the site and the surrounding area. Origin-destination pairs containing 9 trips or less were removed from the data, accounting for less than 23% of the total trips, to make the data more manageable and to eliminate less common and generally longer distance trips from the dataset.

6.4.2 The main commuter destinations/origins (urban areas, industrial estates, business parks, etc.) within each workplace MSOA were identified and the most likely route from/to the site, referred to as the primary route, was derived using web-based route planning software (Google Maps). Whilst some destinations may have more than one suitable route available, the most efficient routes (based on travel time and distance) have been chosen in order to concentrate the traffic on these routes within the exercise, forming a worst-case assessment.

6.4.3 Two routes have been identified and are shown in Table 6.4 with a summary of the percentage of development trips that will be distributed along each also shown.

6.4.4 The details of the distribution calculation are provided in Appendix F.

Table 6.4: Distribution Summary - Percentages

Route	Route %
Southdean Road, Saxby Road, Princess Drive (North-West)	14%
Southdean Road, Lordens Road, Princess Drive (South-East)	86%

6.4.5 As shown in Table 6.1, the proposed development is likely to generate in the region of 46 two-way trips in the AM peak and 53 two-way trips in the PM peak.

6.4.6 For the purpose of a robust assessment, the route percentages shown in Table 6.4 have been applied to the 53 two-way trips in the PM peak, with the resulting development trips expected to navigate each route shown in Table 6.5.

Table 6.5: Distribution Summary - Development Trips

Route	Dev. Trips
Southdean Road, Saxby Road, Princess Drive (North-West)	7
Southdean Road, Lordens Road, Princess Drive (South-East)	46

6.4.7 As shown in Table 6.5, 7 development trips are expected to navigate the Southdean Road/Saxby Road/Princess Drive (North-West) route, with this route comprising the following junctions:

- Junction 1 - Southdean Road/Saxby Road (priority-controlled junction); and
- Junction 2 - Princess Drive/Saxby Road (crossroads junction).

6.4.8 As shown in Table 6.5, 46 development trips are expected to navigate the Southdean Road/Lordens Road/Princess Drive (South-East) route, with this route comprising the following junctions:

- Junction 3 - Southdean Road/Lordens Road (priority-controlled junction); and
- Junction 4 - Princess Drive/Lordens Road (priority-controlled crossroads junction).

6.4.9 As this assessment was prepared during the summer of 2025, there was not an opportunity to undertake traffic surveys during a neutral month, as per DfT guidance. Therefore, we have considered the traffic impact from an absolute numerical perspective, in conjunction with our knowledge of the local highway network. We remain willing to discuss any need for traffic surveys and junction capacity assessments with the two LHAs, however, the below presents our initial consideration.

6.4.10 GTA suggests that an increase of 30 two-way trips is a useful point of reference regarding traffic impact at junctions, implying that any increase in trips less than this figure is unlikely to cause a detrimental impact. As this threshold is not exceeded at Junctions 1 and 2, capacity assessment of them using specialist software is considered to be unnecessary. Whilst this threshold is exceeded at Junction 3, we also consider capacity assessment at it to be unnecessary given the very low base flows on both roads.

Princess Drive/Lordens Road Priority Controlled Crossroads

6.4.11 Junction 4 is forecast to experience an increase of 46 two-way trips in the PM peak, which is fewer than 1 trip per minute. 29 of these trips will be arrival trips turning right from Princess Drive. This movement benefits from a 60m long right turn lane, which is capable of accommodating 10 cars (based on a passenger car unit of 5.75m). 29 trips is equivalent to 1 trip every 2 minutes. We have seen no evidence of the demand for this right turn lane exceeding the available storage and we believe that there are ample gaps in the south-eastbound flow on Princess Drive to turn on to Lordens Road. The departures trips in the PM peak are forecast to be just 17 trips, equivalent to 1 trip every 3 minutes turning left on to Princess Drive. Again, we consider there to be ample opportunity for this level of additional traffic to turn at the junction. From consideration of the forecast level of traffic increase as a result of the proposed development, we do not consider there is a need to undertake a survey or more detailed capacity assessment of this junction.

A57 Liverpool Road/Princess Drive/Stockbridge Lane Signals

6.4.12 Within the original SN, Prime proposed to undertake a capacity assessment at the A57 Liverpool Road/Princess Drive/Stockbridge Lane signalised junction, which is forecast to experience an increase of 46 two-way trips in the PM peak.

6.4.13 Of the 46 two-way trips, 27 trips are expected to be arrival trips, with 14 trips turning on to Princess Drive from the A57 Liverpool western arm which benefits from a 65m long left turn flare lane, 9 trips from the A57 Liverpool Road eastern arm which benefits from 2 right turn flares measuring circa 45m

long, and 4 trips from Stockbridge Lane which has a shared ahead and right turn lane that benefits from circa 15m of non-blocking storage.

6.4.14 Of the 46 two-way trips, 19 trips are expected to be departure trips, with 10 trips turning from Princess Drive on to the A57 Liverpool western arm which has a 65m long right turn lane, 6 trips on to the A57 Liverpool Road eastern arm which can be made from the two main ahead lanes, and 4 trips on to Stockbridge Lane which can be made using the long nearside lane.

6.4.15 Prime are aware that the 46 two-way trips exceed the traditional 30 two-way trips threshold, however, given the scale of the A57 Liverpool Road/Princess Drive/Stockbridge Lane junction, the multiple lanes on each arm of the junction that will help to dissipate the impact of the traffic, we consider a capacity assessment of this junction to be excessive. Furthermore, it is assumed that the junction operates on a 90-120 second signal cycle in the peak hours. The level of traffic that the proposed development will likely add in the PM peak hour will be less than 1 trip every 2 cycles, so the impact of the proposed development in degree of saturation and practical reserve capacity (2 of the measures of capacity using specialist software) will be negligible.

6.4.16 Also, within its scoping response, LCC Highways stated that a capacity assessment should be undertaken at the Princess Drive/Burtree Road priority-controlled junction. Prime consider this to be excessive given that vehicles will not be able to enter and egress the site via Burtree Drive and Callington Close by virtue of the existing closure between Callington Close and Snowberry Road. Only 7 trips are forecast to be added to Princess Drive that will pass north and south through the junction, which will result in a negligible impact.

6.4.17 Even if higher trip rates were used, the largest concentration of traffic travelling to/from the A57 Liverpool Road would be 63 trips in the PM peak hour, equivalent to little more than 1 trip per minute. Of these, 40 will be arrivals and 23 will be departures. These would be spread across the multiple arms and lanes of the A57 Liverpool Road/Princess Drive/Stockbridge Lane signalised junction and easily accommodated at this and the Princess Drive/Lordens Road junction.

6.5 Summary

6.5.1 This section has explained the trip forecasting methodology for the development proposal.

6.5.2 A trip generation exercise demonstrated that the site would generate minimal volumes of traffic during the peak periods. As such, it is expected that the proposed development will not have a detrimental impact on the surrounding road network.

6.5.3 It is our view that, based on the above, traffic surveys and capacity assessments at off-site junctions are unnecessary, but we remain happy to discuss this and any other matters with both LHAs.

6.5.4 The development proposals are not going to result in an *'unacceptable impact on highway safety'* and the residual cumulative impact of the development can certainly not be considered *'severe'* meaning

that according to paragraph 116 of the NPPF, as described in Section 2 of this report, the development should not be refused on transport grounds.

7 SUMMARY AND CONCLUSION

7.1 Summary

7.1.1 This TA considers the highways and transportation implications associated with a proposed residential development comprising 136 affordable dwellings, located to the north of Southdean Road, Stockbridge, Knowsley. The site is allocated for development as part of the *North Huyton Action Area*.

7.1.2 A review of collision data for the surrounding area has been undertaken for the most recent five years available on MAVRIC and CrashMap. The data indicates that 19 collisions have occurred within the study area, 15 of which were classed as 'slight' in terms of severity and three classed as 'serious'. There was one fatal collision within the study area, which occurred on 8th November 2023, however, an article on the Merseyside Police website contradicts both MAVRIC and CrashMap by stating that the collision resulted in a teenager, who had been riding an electric bike, sustaining serious injuries.

7.1.3 The site will be served by a new simple priority-controlled junction on Southdean Road, comprising a 5.5m wide carriageway, 6m corner radii and 2 x 2.0m wide footways, which will connect to the existing footway provision on the northern side of Southdean Road. A safe level of visibility can be achieved from the proposed site access.

7.1.4 An uncontrolled crossing, comprising dropped kerbs and tactile paving, will also be provided across the proposed vehicular access where it connects with Southdean Road, and the existing speed hump in the vicinity of the access will be re-provided further west.

7.1.5 The Applicant proposes to facilitate a secondary access to the land to the north, which is also allocated for development as part of the *North Huyton Action Area.*

7.1.6 As part of the development proposals, dropped kerbs and tactile paving will be provided at the Princess Drive/Burtree Road junction, while the existing closure between Callington Close and Snowberry Road will be upgraded to a modal filter with the walls and railings removed. These off-site pedestrian/cycle improvements, which were requested by LCC Highways in its scoping response, will be beneficial for existing residents of the local area and future residents associated with the proposed development.

7.1.7 It has been demonstrated that the internal road layout of the development is suitable for both cars and refuse collection vehicles, with such vehicles being able to access and egress the site in a forward gear.

7.1.8 The level of parking provided on site will conform to KMBC guidelines presented its *Ensuring a Choice of Travel* SPD.

7.1.9 An assessment has been undertaken of the site's level of accessibility by sustainable modes, from which it can be concluded that realistic options exist for access to local amenities, education and employment opportunities on foot, by cycle and by public transport.

7.1.10 A trip generation exercise has been undertaken utilising the latest TRICS database, which has demonstrated that the proposed development will generate minimal volumes of traffic during the peak periods.

7.1.11 A census-based traffic distribution exercise has been undertaken to inform the off-site impact of the proposed development. The local highway network benefits from high-capacity junctions with multiple lanes on approach. The development traffic will dissipate across these lanes, thus, the impact on the local junctions will be negligible.

7.2 Conclusion

7.2.1 It is concluded that the proposed development would not result in an '*unacceptable impact on highway safety*' nor have a '*severe'* impact on the operation of the highway network in terms of safety and capacity. The impact is best described as negligible.

7.2.2 As the proposal complies with local and national planning policy and guidance with respect to sustainable accessibility, safety and impact on the highway network, there are no highways or transportation related reasons why planning permission should not be granted. Should the local highway authorities have any concerns, we would be happy to consult further with them.

APPENDIX A

SCOPING NOTE & LCC HIGHWAYS RESPONSE

SCOPING CHECKLIST FOR: Southdean Road, Huyton - Up to 141 affordable dwellings

HIGHWAY AUTHORITY: Knowsley Metropolitan Borough Council (KMBC) & Liverpool City Council (LCC)

DATE PREPARED: 30/07/25

Ref	Item	Intention	LHA Comments
1	Level of planning approval sought? e.g. outline, full.	Full. The planning authority will be KMBC but the site lies adjacent to LCC's network hence why both authorities are being consulted.	
2	Size and description of development proposals	Development of up to 141 affordable dwellings with associated access, parking, landscaping and open space to the north of Southdean Road, Huyton. The affordable dwellings will comprise a mixture of 1-4 bedroom houses and apartments. The area in question forms part of the North Huyton Action Area Supplementary Planning Document (SPD) (2007), with the site being allocated for residential development within said document. It is situated adjacent to the boundary with Dovecot, a suburb of Liverpool. Although not forming part of the proposal at this stage, there is potential for this development to provide a connection to the wider allocated land to the north of the development (which has previously been referred to as North Huyton Phase 5). Please see 'Location Plan' and 'Figure 1' in Appendix l for location of site.	
3	Description of existing land uses, existing trip distribution	The site comprises archdiocese land and disused hard-surfaced playing areas - no existing trips assumed.	
4	Does the development involve the relocation of an existing use?	No.	
5	What transport based supporting documents will be produced?	Transport Assessment and Framework Travel Plan.	
6	Are traffic surveys of the existing conditions available or required?	A distribution exercise has been undertaken using 2011 Census Method of Travel to Work (MTW) data for the local area (see attached calculations in Appendix ll). Figures 2-3 in Appendix II illustrate the distribution percentages and two-way peak hour flows (given the AM and PM vehicle trip generation only vary very slightly, only the AM two way trips have been shown). We propose to undertake manual classified turning count	

		(MCC) and queue length surveys at the following junctions, unless alternative data sources are available: 1. Saxby Road/Princess Drive 2. Lordens Road/Princess Drive 3. Princess Drive/A57 Liverpool Road/Stockbridge Lane (Signalised Junction); Note that the selection of these junctions has been based on the traditional 30 two-way trip threshold being exceeded in combination with our anticipated sensitivity of each junction to accommodate additional traffic. The traffic surveys are intended to be undertaken between 0700-1000 and 1530-1830 hours on a neutral weekday (Tuesday, Wednesday or Thursday) The locations of the above proposed traffic surveys are shown in Figure 1 in Appendix I. Please advise if the survey locations are acceptable for the purposes of the assessment.	
7	Details of any other developments to be taken into account.	Please advise if there are any developments that we should treat as being committed.	
8	Details of any adjacent highway improvement proposals by others	Please advise if there are any highway improvement schemes that need to be taken account of.	
9	When are the critical periods for assessments?	Weekday AM and PM peaks derived from surveys mentioned above. The need for a school PM peak assessment will also be considered depending on the traffic survey results given the proximity to Hope Valley Primary School, Mab Lane Primary School and Knowsley Community College.	
10	When would the site be fully operational?	Post 2030 (assumed).	
11	What are the assessment years?	2025 - Observed flows only. 2030 - 5 years post submission - with and w/out development (fully build-out assumed for assessment purposes.	

<table>
<tr><td>12</td><td>Traffic growth factors?</td><td>TEMPro growth for light vehicles for local MSOA(s) manually adjusted with any committed development removed from planning assumptions to remove double counting. National Road Traffic Projections for the North West used for HGV growth.</td><td></td></tr>
<tr><td>13</td><td>How will vehicular trip generation be derived for the proposal?</td><td>The TRICs database has been utilised to determine suitable trip rates associated with the development site. As stated previously, the development site comprises 100% affordable properties and as such the land use classification of ‘Affordable/Local Authority Houses’ vehicular trip rates have been used and are presented in Table 1 below.

<u>Table 1 - ‘Affordable/Local Authority Houses’ Trip Rates</u>

<table><tr><th rowspan="2">Time</th><th colspan="3">Trip Rates</th><th colspan="3">Trip Generation</th></tr><tr><th>Arrivals</th><th>Departures</th><th>Totals</th><th>Arrivals</th><th>Departures</th><th>Totals</th></tr><tr><td>08:00-09:00</td><td>0.108</td><td>0.234</td><td>0.342</td><td>15</td><td>33</td><td>48</td></tr><tr><td>17:00-18:00</td><td>0.200</td><td>0.144</td><td>0.344</td><td>28</td><td>20</td><td>49</td></tr></table>
The TRICS output files are attached in Appendix lll.

<u>Please confirm acceptance of the above trip rates for the purposes of the assessment.</u></td><td></td></tr>
<tr><td>14</td><td>How will non-car mode trip generation be derived for the proposal?</td><td>Factors will be derived between forecast vehicular trips described at Point 13 above and car driver trips from local census MTW data. These factors will then be applied to the other modes reflecting the census modal split.</td><td></td></tr>
<tr><td>15</td><td>Would traffic from adjacent sites be attracted to the site? Pass-by traffic?</td><td>100% newly generated trips.</td><td></td></tr>
<tr><td>16</td><td>What is the assumed trip distribution?</td><td>Trips generated by the site to be distributed in accordance with MTW information derived from local census data detailed in Point 6.
The distributed exercise accounted for the ‘No vehicles except for buses and taxis’ restriction on Stockbridge Lane between Knowsley Community Campus vehicular access and Waterpark Drive.</td><td></td></tr>
</table>

		There are numerous routes available but for assessment purposes we have attempted to concentrate the traffic along what we believe will be the more commonly used routes, such as Princess Drive, the A57 and Seth Powell Way for traffic utilising the M57.	
17	What is the extent of the accident study area to be considered?	See suggested study area in Figure 1 in Appendix I. The study area includes Saxby Road, Lordens Road and Southdean Road, as well as other roads in the area. Accident data will be obtained from KMBC and LCC for the latest five-year period. Please advise if the suggested accident study area is acceptable.	
18	Capacity tests required for the proposed and following existing junctions	Formal capacity assessment at proposed site access point and at the junctions mentioned in Point 6 above. Please advise if there are any other junctions you feel we should assess.	
19	Are adjacent junctions or links likely to become overloaded?	To be confirmed through capacity assessment.	
20	Is a new or modified highway access likely?	**Vehicular Access** The access road will comprise a 5.5m wide carriageway, 6m corner radii and 2 x 2m footways It is anticipated that vertical traffic calming in the form of raised tables and/or speed humps will be provided internally. Please see Appendix IV for masterplan **Pedestrian/Cycle Access** The proposed vehicular access point to the site will also enable pedestrian and cycle access. Comments welcome on suggested vehicular access and pedestrian/cycle access arrangements at an early stage.	
21	What are the visibility requirements? Are those requirements met?	Visibility splays of 2.4m x 25m will be provided, the 'y' distance being commensurate with the 20mph speed limit on Southdean Road	

22	What level of car parking is required?	Parking provision will conform to the maximum standards set out within Appendix A of KMBC's 'Ensuring a Choice of Travel' SPD (2010). EV provision is expected to be in line with Approved Document S of the Building Regulations. Please advise if this is acceptable.	
23	Are special provisions required for cyclists, pedestrians, those with a disability or public transport?	To be reviewed as part of the Transport Assessment Comments welcome on suggested vehicular access and pedestrian/cycle access arrangements at an early stage.	
24	What planning policy should the development comply with?	• NPPF; • MfS/MfS2; • 4th Local Transport Plan: Developing a Vision for Local Transport to 2040; • Ensuring a Choice of Travel SPD; • Knowsley Local Plan Core Strategy (2016); and • Knowsley Unitary Development Plan (2006). Please advise if any more documents should be taken into account.	
25	Are there any other special circumstances relevant to this proposal?	Please advise.	

ATTACHMENTS:

APPENDIX I **PLANS & FIGURES**

SITE LOCATION PLAN (RED LINE)

FIGURE 1 - SITE LOCATION, TRAFFIC SURVEY LOCATION AND ACCIDENT STUDY AREA PLAN

FIGURE 2 - DISTRIBUTION: PERCENTAGES

FIGURE 3 - DISTRIBUTION: AM PEAK HOUR TWO-WAY FLOWS

APPENDIX II **DISTRIBUTION CALCULATIONS**

APPENDIX III **TRICS OUTPUT**

APPENDIX IV **PROPOSED ACCESS DRAWINGS**

From:	David Stoddart
To:	Anthony Morley; Ben Gaze
Subject:	Fwd: SCOPING CHECKLIST FOR: Southdean Road, Huyton
Date:	11 August 2025 13:49:46
Attachments:	image001.jpg

David Stoddart
Associate Director
Prime Transport Planning

Begin forwarded message:

From: "Walker, Stephen" <Stephen.Walker@liverpool.gov.uk>
Date: 11 August 2025 at 11:31:56 BST
To: David Stoddart <d.stoddart@primetp.co.uk>
Cc: "Dingwall, Andy" <Andy.Dingwall@liverpool.gov.uk>, "Lau, James" <James.Lau@liverpool.gov.uk>
Subject: SCOPING CHECKLIST FOR: Southdean Road, Huyton

Hi David,

Thank you for your scoping email detailing the proposals for the continuing residential development in Knowsley.

The initial thoughts from Highways Development Control are that the main traffic generations from this phase of development would initially impact Knowsley's highway network before they filter through to Princess Drive.

That said, there is no direct public transport to the site, and the proposed site plan indicates houses with 2 off-street car parking spaces.

This is considered contrary to the notion of affordable housing and as the development is located in an area not served by frequent public transport services, it will likely attract residents with a high rate of car ownership.

Active travel should therefore be promoted and encouraged as a 'mitigating' opportunity.

Drop kerbs and tactile paving should be introduced at Seacroft Road with Burtree Road, and at Burtree Road (inset crossing) with Princess Drive. This improves the walking routes to amenities west of the site.

Furthermore, the closest bus stops at Princess Drive should also be upgraded with accessible kerbs installed to their footprints.

A modal filter for pedestrian and cycle movements should be considered and could therefore be introduced at the northernmost point of the site, which can connect to the wider North Huyton Phase 5 scheme. This would in turn improve connections to wider bus services. In addition, the existing closure between Callington Close and Snowberry Road can be upgraded into a modal filter also.

It's noted that the interrogation of the TRICS database has been based on affordable houses, but more onerous trip rates would be beneficial in this instance and are considered a better representation of the on-site conditions. A sensitivity test with amended AM and PM peak trip generations should therefore be included within the TA assessments.

In addition to the junction assessments scoped;
Saxby Road,
Lordens Road, and
Liverpool Road/Stockbridge Lane,
the junction of Princess Drive / Burtree Road and the junction of Finch Lane / Princess Drive should also be included in any network assessment.

The assessment of the network will also need to include the trips generated by planning application 25F/1709, which is for a new 250-place SEND school at Colwell Road for completeness.

I trust this is of assistance to you, if you require further details please don't hesitate to contact me.

Stephen Walker I Transport Planner
Liverpool City Council I Liverpool I L3 1AH

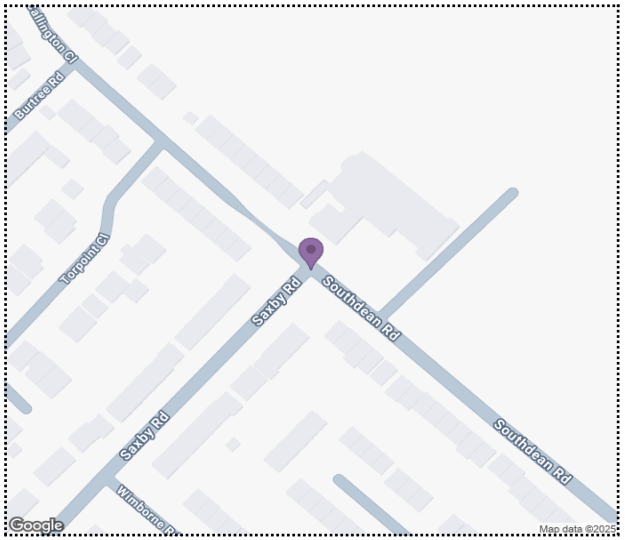
APPENDIX B

CRASHMAP REPORT

crashmap.co.uk

Validated Data

Highest Injury Severity:	Fatal	**Road Number:**	U	**Casualties:**	1
Highway Authority:	Knowsley			**Vehicles:**	2
Local Authority:	Knowsley			**OS Grid Reference:**	342533 392668
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: www.crashmap.co.uk/home/faq

To subscribe to unlimited reports using CrashMap Pro visit: www.crashmap.co.uk/home/premium_services

powered by agilysis

Vehicles Involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire cars 2005 onwards)	6	Male	Unknown	Vehicle is in the act of turning right	Front	Journey as part of work	None	None
2	Other vehicle, whether motorised or not (2011 onwards)	-1	Male	11 - 15	Vehicle proceeding normally along the carriageway, not on a bend	Nearside	Unknown	None	None

Casualties

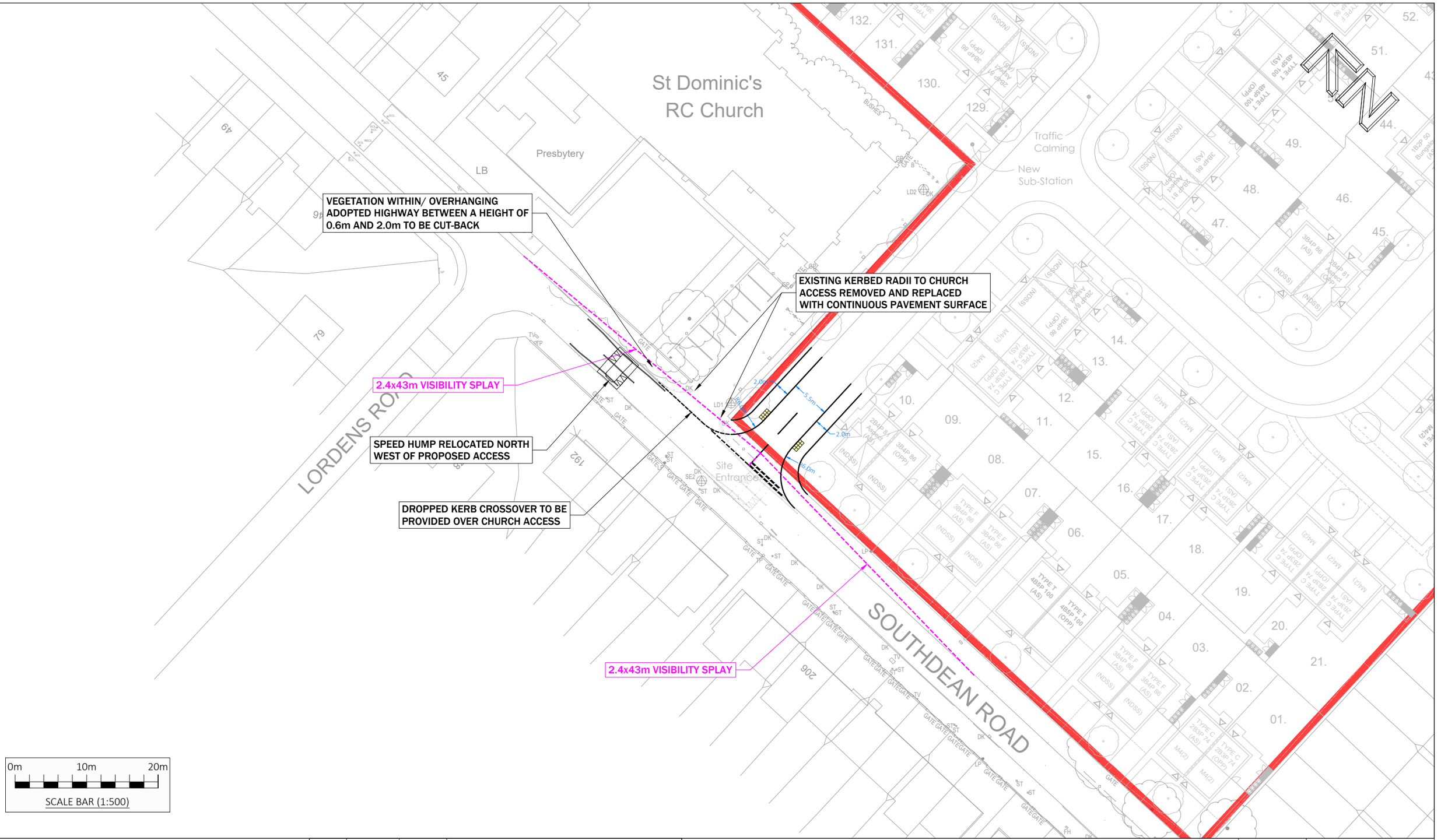
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Fatal	Driver or rider	Male	11 - 15	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/faq

To subscribe to unlimited reports using CrashMap Pro visit: www.crashmap.co.uk/home/premium_services

APPENDIX C

TECHNICAL DRAWINGS



Prime Transport Planning
Together for Progress

9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
www.primetp.co.uk | 0151 728 1860

Rev	Date	By	Revision notes
A	24.09.25	VB	LATEST LAYOUT & MINOR UPDATES

Status

INFORMATION

Project

SOUTHDEAN ROAD, HUYTON

Title

PROPOSED ACCESS STRATEGY

Drawn by	Issue date
RO	10 SEP 2025

Scale(s)

1:500 @ A3

Drawing No

P25075-001A

VEHICLE MODEL USED IN SWEPT PATH ANALYSIS

Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)	
Overall Length	11.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

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www.primetp.co.uk | 0151 728 1860

Rev	Date	By	Revision notes
A	24.09.25	VB	LATEST LAYOUT & MINOR UPDATES

Status

INFORMATION

Project

SOUTHDEAN ROAD, HUYTON

Title

SWEPT PATH ANALYSIS OF REFUSE VEHICLE

Drawn by	Issue date
RO	10 SEP 2025

Scale(s)

1:1000 @ A3

Drawing No

P25075-002A

APPENDIX D

MASA

Accessibility Assessment Form

Access on foot			Points	Score	Justification for Scoring
Location	Residential Development: Is the site within 800m of a district or local centre (see Accessibility Maps) **OR** Non-residential development: Is the density of existing local housing (i.e. within 800m) more than 30 houses per hectare (see Accessibility Maps)	Yes	2	2	Located within 800m of district/local centre.
		No	0		
Internal layout	Does 'circulation' and access inside the sites reflect direct, safe and easy to use pedestrian routes for all, with priority given to pedestrians when they have to cross roads or cycle routes?	Yes	1	1	Circulation and access reflects direct, safe and easy to use pedestrian routes for all.
		No	0		
External layout	Are there barriers between site and local facilities or housing, which restrict pedestrian access? Examples include no dropped kerbs at crossings or on desire lines; steep gradients; a lack of a formal crossing where there is heavy traffic; security concerns, e.g. lack of lighting	Yes	-1	1	There are no barriers.
		No	1		
			Total Score	4	
			Minimum score required	4	

Comments or action needed to correct any shortfall

Access by Cycle			Points	Score	Justification for Scoring
Location	Residential Development: Is the site within 1500m of a district or local centre (see Accessibility Maps) **Or** Non-residential development: Is the density of existing local housing (e.g. within 1500m) more than 30 houses per hectare (see Accessibility Maps)	Yes	2	2	Located within 1500m of district/ local centre
		No	0		
Internal layout	Does 'circulation' and access inside the site reflect appropriate and direct cycle routes, with priority given to cyclists where they meet motor vehicles?	Yes	1	1	Circulation and access reflects appropriate and direct cycle routes.
		No	0		
External Access	Is the development within 400m of an existing or proposed designated cycle route and/ or proposes to create a link to a cycle route, or develop a route.	Yes	1	-1	Located circa 640m and 965m from an off-road and on-road cycle route respectively.
		No	-1		
Other	Development includes cycle parking, shower facilities, and lockers for cyclists.	Yes	1	1	
		No	0		
			Total Score	4	
			Minimum score required	5	

Comments or action needed to correct any shortfall

Access by Public Transport			Points	Score	Justification for Scoring
Location and access to public transport	Is the site within a 200m walk of a bus or tram stop, and/or within 400m of a rail station?	Yes	2	2	Bus stops located nearby on Princess Drive.
		No	0		
	Are there barriers on direct pedestrian routes to bus or tram stops or rail stations e.g. a lack of dropped kerbs, footpaths less than 2m wide, a lack of formal crossings and / or bus stop infrastructure.	Yes	0	1	There are no barriers.
		No	1		
Frequency	High (four or more bus or tram services or trains an hour)		2	2	High frequency bus services operate at the local bus stops.
	Medium (two or three bus or tram services or trains an hour)		1		
	Low (less than two bus or tram services or trains an hour)		0		
Other	The proposal contributes to bus priority measures serving the site	Yes	1	0	
		No	0		
	The proposal contributes to bus stops, bus interchange, tram facilities or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site	Yes	1	0	Accessible kerbs to be provided at 'Burtree Road' & 'Saxby Road' bus stops on Princess Drive.
		No	0		
	The proposal contributes to an existing or new supported bus service	Yes	1	0	
		No	0		
			Total Score	6	
			Minimum score required	5	

Comments or action needed to correct any shortfall

Parking			Points	Score	Justification for Scoring
Parking	The off-street parking provided is as advised in Section 4 for that development type	Yes	1	1	
		No	0		
	The off street parking provided is less than 75% of the amount advised in Section 4 for that development type (or shares parking provision with another development).	Yes	2		
		No	0		
	For development in controlled parking zones:				
	Is the proposal for a car free development?	Yes	1		
		No	0		
	Does it supports the control or removal of on-street parking spaces (inc provision of disabled spaces) or contributes to other identified measures in the local parking strategy (including car clubs)	Yes	1		
		No	0		
		Total Score		1	
		Minimum score required		1	

Comments or action needed to correct any shortfall.

APPENDIX E

TRICS OUTPUT

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: B - AFFORDABLE/LOCAL AUTHORITY HOUSES

Total Vehicles

Selected regions and areas:

02	**SOUTH EAST**		
	EX	ESSEX	1 day
03	**SOUTH WEST**		
	WL	WILTSHIRE	1 day
05	**EAST MIDLANDS**		
	LR	LEICESTER	1 day
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	KS	KIRKLEES	1 day
08	**NORTH WEST**		
	AC	CHESHIRE WEST & CHESTER	1 day
09	**NORTH**		
	FU	WESTMORLAND & FURNESS	1 day
11	**SCOTLAND**		
	DU	DUNDEE CITY	1 day
13	**MUNSTER**		
	TI	TIPPERARY	1 day
15	**GREATER DUBLIN**		
	DL	DUBLIN	2 days

This section displays the number of survey days per TRICS® sub-region in the selected set.

Primary Filtering Selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	DWELLS
Actual Range:	1.21 to 3.5 (units:DWELLS)
Range Selected by User:	8 to 516 (units:DWELLS)
Parking Spaces Range:	11 - 220

Public Transport Provision:

Selection by:	All Surveys Included
Date Range:	07/09/13 to 05/09/23

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Friday	4 days
Monday	2 days
Thursday	1 days
Tuesday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	10
Direction ATC Count	0

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines

Selected Locations:

Edge of Town	2 days
Neighbourhood Centre (PPS6 Local Centre)	3 days
Suburban Area (PPS6 Out of Centre)	5 days

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	8 days
Village	2 days

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicle Counts:

Servicing vehicles Excluded	10 days

Secondary Filtering Selection:

Use Class:

C3	10 surveys

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

500 - 5500

Population within 1 mile:

1,001 to 5,000	3 surveys
10,001 to 15,000	1 surveys
15,001 to 20,000	3 surveys
5,001 to 10,000	2 surveys
50,001 to 100,000	1 surveys

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000	2 surveys
25,001 to 50,000	1 surveys
250,001 to 500,000	2 surveys
5,000 or Less	1 surveys
5,001 to 25,000	1 surveys
50,001 to 75,000	1 surveys
500,001 or More	1 surveys
75,001 to 100,000	1 surveys

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	5 surveys
1.1 to 1.5	5 surveys

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	10 surveys

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	10 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

No

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

1	**AC-03-B-01**	**HOUSES & FLATS**	**CHESHIRE WEST & CHESTER**

WORDSWORTH CRES.
CHESTER
BLACON
Edge of Town
Residential Zone
Site area: 1.74 hect
Survey date: Monday 17/11/2014 Survey Type: Unknown

2	**DL-03-B-02**	**TERRACED HOUSES**	**DUBLIN**

MARIGOLD ROAD
DUBLIN
DARNDALE
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Site area: 1.56 hect
Survey date: Monday 19/10/2015 Survey Type: Unknown

3	**DL-03-B-03**	**SEMI-DETACHED & TERRACED**	**DUBLIN**

HOME PARK ROAD
DUBLIN
DRUMCONDRA
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 3.5 hect
Survey date: Tuesday 22/11/2016 Survey Type: Unknown

4	**DU-03-B-01**	**TERRACED BUNGALOWS**	**DUNDEE CITY**

307-441 BALUNIE DRIVE
DUNDEE
DOUGLAS & ANGUS
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 2.48 hect
Survey date: Friday 21/04/2017 Survey Type: Unknown

5	**EX-03-B-01**	**MIXED HOUSES & FLATS**	**ESSEX**

SHIMBROOKS
NEAR BRAINTREE
GREAT LEIGHS
Neighbourhood Centre (PPS6 Local Centre)
Village
Site area: 2.66 hect
Survey date: Thursday 10/05/2018 Survey Type: Unknown

6	**FU-03-B-01**	**SEMI DETACHED & TERRACED**	**WESTMORLAND & FURNESS**

PENNINE WAY
ALSTON
Neighbourhood Centre (PPS6 Local Centre)
Village
Site area: 2.4 hect
Survey date: Friday 13/05/2022 Survey Type: Unknown

7	**KS-03-B-01**	**MIXED HOUSES**	**KIRKLEES**

WHITEACRE STREET
HUDDERSFIELD
DEIGHTON
Edge of Town
Residential Zone
Site area: 1.53 hect
Survey date: Tuesday 17/09/2013 Survey Type: Unknown

8	**LR-03-B-01**	**SEMI-DETACHED & TERRACED**	**LEICESTER**

COLEMAN ROAD
LEICESTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 1.21 hect
Survey date: Friday 22/10/2021 Survey Type: Unknown

9 **TI-03-B-01** **MIXED HOUSES** **TIPPERARY**
LIMERICK ROAD
NENAGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 2.09 hect
Survey date: Friday 27/05/2016 Survey Type: Unknown

10 **WL-03-B-01** **TERRACED HOUSES** **WILTSHIRE**
BUTTERFIELD DRIVE
AMESBURY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 1.6 hect
Survey date: Tuesday 18/09/2018 Survey Type: Unknown

DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
BN-03-B-01	04-11-2021	Low number of dwellings
KS-03-B-02	19-10-2018	Low number of dwellings
LS-03-B-02	19-09-2013	Low number of dwellings
MS-03-B-02	06-09-2023	Low number of dwellings
NN-03-B-01	13-10-2021	Low number of dwellings
TI-03-B-02	20-11-2017	Low number of dwellings
WM-03-B-02	07-06-2023	Low number of dwellings
WO-03-B-02	14-11-2016	Low number of dwellings

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES

Total Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**10**	**71**	**0.064**	**0.178**	**0.242**
08:00-09:00	**10**	**71**	**0.109**	**0.230**	**0.339**
09:00-10:00	**10**	**71**	**0.129**	**0.195**	**0.324**
10:00-11:00	**10**	**71**	**0.125**	**0.130**	**0.255**
11:00-12:00	**10**	**71**	**0.109**	**0.125**	**0.234**
12:00-13:00	**10**	**71**	**0.157**	**0.105**	**0.262**
13:00-14:00	**10**	**71**	**0.109**	**0.123**	**0.232**
14:00-15:00	**10**	**71**	**0.139**	**0.132**	**0.271**
15:00-16:00	**10**	**71**	**0.171**	**0.140**	**0.311**
16:00-17:00	**10**	**71**	**0.197**	**0.098**	**0.295**
17:00-18:00	**10**	**71**	**0.227**	**0.161**	**0.388**
18:00-19:00	**10**	**71**	**0.176**	**0.130**	**0.306**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**1.712**	**1.747**	**3.459**

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter Summary:

Trip rate parameter range selected:	8 - 516 (units: DWELLS)
Survey date date range:	17/09/2013 - 13/05/2022
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	8
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: A - HOUSES PRIVATELY OWNED

Total Vehicles

Selected regions and areas:

01	**GREATER LONDON**		
	BN	BARNET	1 day
02	**SOUTH EAST**		
	HC	HAMPSHIRE	1 day
	KC	KENT	2 days
03	**SOUTH WEST**		
	DV	DEVON	2 days
	TB	TORBAY	1 day
04	**EAST ANGLIA**		
	NF	NORFOLK	1 day
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 day
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	LS	LEEDS	1 day
09	**NORTH**		
	DH	DURHAM	1 day
	IM	ISLE OF MAN	1 day
12	**CONNAUGHT**		
	LT	LEITRIM	1 day
	RO	ROSCOMMON	1 day
17	**ULSTER (NORTHERN IRELAND)**		
	AN	ANTRIM	1 day

This section displays the number of survey days per TRICS® sub-region in the selected set.

Primary Filtering Selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	DWELLS
Actual Range:	0.9 to 8 (units:DWELLS)
Range Selected by User:	4 to 4334 (units:DWELLS)
Parking Spaces Range:	6 - 2696

Public Transport Provision:

Selection by:	All Surveys Included
Date Range:	19/09/14 to 17/09/24

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Friday	4 days
Monday	3 days
Thursday	1 days
Tuesday	4 days
Wednesday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	15
Direction ATC Count	0

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines

Selected Locations:

Neighbourhood Centre (PPS6 Local Centre)	3 days
Suburban Area (PPS6 Out of Centre)	12 days

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	15 days

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicle Counts:

Servicing vehicles Excluded	12 days
Servicing vehicles Included	3 days

Secondary Filtering Selection:

Use Class:

C3	15 surveys

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

0 - 0

Population within 1 mile:

1,001 to 5,000	2 surveys
10,001 to 15,000	3 surveys
15,001 to 20,000	2 surveys
20,001 to 25,000	1 surveys
25,001 to 50,000	4 surveys
5,001 to 10,000	3 surveys

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000	2 surveys
25,001 to 50,000	3 surveys
250,001 to 500,000	1 surveys
5,001 to 25,000	4 surveys
50,001 to 75,000	2 surveys
500,001 or More	1 surveys
75,001 to 100,000	2 surveys

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 surveys
1.1 to 1.5	11 surveys
1.6 to 2.0	1 surveys

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	12 surveys
Yes	3 surveys

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

2 - Poor	1 surveys
No PTAL Present	14 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

No

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

1	**AN-03-A-10**	**DETACHED & SEMI-DETACHED**	**ANTRIM**

FERRARD GRANGE
ANTRIM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 3.5 hect
Survey date: Friday 07/06/2024 Survey Type: Manual

2	**BN-03-A-04**	**MIXED HOUSES & FLATS**	**BARNET**

SWEETS WAY
WHETSTONE
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Site area: 4.65 hect
Survey date: Tuesday 21/09/2021 Survey Type: Manual

3	**DH-03-A-01**	**SEMI DETACHED**	**DURHAM**

GREENFIELDS ROAD
BISHOP AUCKLAND
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 0.9 hect
Survey date: Tuesday 28/03/2017 Survey Type: Manual

4	**DV-03-A-02**	**HOUSES & BUNGALOWS**	**DEVON**

MILLHEAD ROAD
HONITON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 4.04 hect
Survey date: Friday 25/09/2015 Survey Type: Manual

5	**DV-03-A-03**	**TERRACED & SEMI DETACHED**	**DEVON**

LOWER BRAND LANE
HONITON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 2.02 hect
Survey date: Monday 28/09/2015 Survey Type: Manual

6	**HC-03-A-23**	**HOUSES & FLATS**	**HAMPSHIRE**

CANADA WAY
LIPHOOK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 1.4 hect
Survey date: Tuesday 19/11/2019 Survey Type: Manual

7	**IM-03-A-04**	**MIXED HOUSES**	**ISLE OF MAN**

NEW CASTLETOWN ROAD
DOUGLAS
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 2.3 hect
Survey date: Monday 20/05/2024 Survey Type: Manual

8	**KC-03-A-03**	**MIXED HOUSES & FLATS**	**KENT**

HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 1.38 hect

Survey date: Thursday 14/07/2016 Survey Type: Manual

9 **KC-03-A-06** **MIXED HOUSES & FLATS** **KENT**
MARGATE ROAD
HERNE BAY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 8 hect
Survey date: Wednesday 27/09/2017 Survey Type: Manual

10 **LS-03-A-01** **MIXED HOUSING** **LEEDS**
SPRING VALLEY CRESCENT
LEEDS
BRAMLEY
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Site area: 1.38 hect
Survey date: Wednesday 21/09/2016 Survey Type: Manual

11 **LT-03-A-01** **SEMI-DETACHED & DETACHED** **LEITRIM**
ARD NA SI
CARRICK-ON-SHANNON
ATTIRORY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 4.48 hect
Survey date: Friday 24/04/2015 Survey Type: Manual

12 **NF-03-A-52** **MIXED HOUSES** **NORFOLK**
LYNNSPORT WAY
KING'S LYNN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 5.31 hect
Survey date: Tuesday 07/11/2023 Survey Type: Manual

13 **RO-03-A-04** **SEMI DET. & BUNGALOWS** **ROSCOMMON**
EAGLE COURT
ROSCOMMON
ARDNANAGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 1.92 hect
Survey date: Friday 26/09/2014 Survey Type: Manual

14 **TB-03-A-01** **TERRACED HOUSES** **TORBAY**
BRONSHILL ROAD
TORQUAY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 1.25 hect
Survey date: Wednesday 30/09/2015 Survey Type: Manual

15 **WM-03-A-04** **TERRACED HOUSES** **WEST MIDLANDS**
OSBORNE ROAD
COVENTRY
EARLSDON
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Site area: 1.1 hect
Survey date: Monday 21/11/2016 Survey Type: Manual

DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
AC-03-A-04	06-06-2019	Low number of dwellings
BN-03-A-02	03-07-2018	Removed: Site re-surveyed by BN-03-A-03
BN-03-A-03	10-09-2019	Removed: Site re-surveyed by BN-03-A-04
DH-03-A-02	27-03-2017	Low trip rate
DL-03-A-11	19-05-2021	Covid
DN-03-A-08	30-09-2020	Covid
GM-03-A-11	26-09-2016	Low number of dwellings
HC-03-A-17	12-11-2015	Removed: Site re-surveyed by HC-03-A-18
HC-03-A-18	29-11-2016	Removed: Site re-surveyed by HC-03-A-19
HC-03-A-19	27-11-2017	Removed: Site re-surveyed by HC-03-A-20
HC-03-A-20	20-11-2018	Removed: Site re-surveyed by HC-03-A-23
HC-03-A-32	29-06-2023	Low trip rate
HF-03-A-07	25-03-2024	Low trip rate
HI-03-A-14	23-03-2016	Low number of dwellings
LU-03-A-01	21-09-2021	Covid
MG-03-A-01	12-10-2021	Covid
NF-03-A-51	13-09-2022	Low number of dwellings
NY-03-A-13	10-05-2017	Low number of dwellings
PB-03-A-04	17-10-2016	Low number of dwellings
PS-03-A-02	11-05-2015	Low number of dwellings
SD-03-A-01	22-09-2016	Low number of dwellings
SF-03-A-07	09-05-2019	Removed: Site re-surveyed by SF-03-A-09
SF-03-A-09	24-06-2021	Covid
WK-03-A-03	25-09-2019	Low number of dwellings
WM-03-A-07	18-09-2024	Low number of dwellings

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Total Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**15**	**99**	**0.051**	**0.242**	**0.293**
08:00-09:00	**15**	**99**	**0.125**	**0.384**	**0.509**
09:00-10:00	**15**	**99**	**0.168**	**0.166**	**0.334**
10:00-11:00	**15**	**99**	**0.116**	**0.153**	**0.269**
11:00-12:00	**15**	**99**	**0.127**	**0.137**	**0.264**
12:00-13:00	**15**	**99**	**0.156**	**0.152**	**0.308**
13:00-14:00	**15**	**99**	**0.170**	**0.162**	**0.332**
14:00-15:00	**15**	**99**	**0.150**	**0.161**	**0.311**
15:00-16:00	**15**	**99**	**0.234**	**0.168**	**0.402**
16:00-17:00	**15**	**99**	**0.283**	**0.160**	**0.443**
17:00-18:00	**15**	**99**	**0.346**	**0.188**	**0.534**
18:00-19:00	**15**	**99**	**0.257**	**0.185**	**0.442**
19:00-20:00	**1**	**231**	**0.091**	**0.091**	**0.182**
20:00-21:00	**1**	**231**	**0.108**	**0.065**	**0.173**
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**2.382**	**2.414**	**4.796**

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter Summary:

Trip rate parameter range selected:	4 - 4334 (units: DWELLS)
Survey date date range:	26/09/2014 - 07/06/2024
Number of weekdays (Monday-Friday):	15
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	25
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX F

MTW DISTRIBUTION CALCULATION

Trip Distribution Based on 2011 Census MTW Data for Local MSOA

MSOA	Trips	MSOA Name	Local Area	Primary Route	Pri %	Secondary Route	Sec %	Tertiary Route	
E02003845	10	Cheshire West and Chester 007	Poole Hall Industrial Estate, Vauxhall, Westminster Park	1	0.4%				
E02002580	22	Halton 007	Widnes town centre & south, West Bank	1	0.9%				
E02002581	18	Halton 008	Hale & Halebank	1	0.7%				
E02002582	28	Halton 009	Daresbury, Sandymoor, Manor Park	1	1.2%				
E02001327	29	Knowsley 001	NE Kirkby	2	1.2%				
E02001329	37	Knowsley 003	Kirkby Shopping Centre, Kirkby High School, Knowsley Community College (Kirkby Campus)	2	1.5%				
E02001331	173	Knowsley 005	Knowsley Village, Knowsley Safari Park, Knowsley Industrial Park, Knowsley Business Park	2	3.6%	4	1.8%		3
E02001332	56	Knowsley 006	Stockbridge Village, Haswell Drive	5	2.3%				
E02001333	57	Knowsley 007	Prescot Cemetery, Cables Shopping Centre, Valerie Park	7	2.4%				
E02001334	30	Knowsley 008	Page Moss, Fincham, Woolfall	6	1.2%				
E02001335	44	Knowsley 009	Whiston, Whiston Hospital, E Prescot	7	1.8%				
E02001336	20	Knowsley 010	St. Columba's Catholic Primary School, Salerno Drive	7	0.4%	8	0.4%		
E02001337	20	Knowsley 011	NE Huyton, Mosscroft, Bakers Green	9	0.8%				
E02001338	20	Knowsley 012	Jubille Park, Roby Field, Roby Park Primary School	10	0.4%	19	0.4%		
E02001339	11	Knowsley 013	Whiston, Halsnead Primary School	1	0.2%	7	0.2%		
E02001340	15	Knowsley 014	Court Hey, Swanside	10	0.6%				
E02001341	93	Knowsley 015	Huyton East, Huyton Industrial Estate	9	3.9%				
E02001342	53	Knowsley 016	Huyton Town Centre, Knowsley Community College, Roby Train Station, Huyton Train Station	11	2.2%				
E02001343	48	Knowsley 017	Halewood, Interchange Motorway Estate	11	2.0%				
E02001346	30	Knowsley 020	Jaguar Landrover Plant	1	1.2%				
E02001347	37	Liverpool 001	Fazakerley High School, Fazakerley Primary School	13	1.5%				
E02001348	16	Liverpool 002	Longmoor Community Primary School	2	0.3%	13	0.3%		
E02001350	44	Liverpool 004	Gilmoss, St John Bosco Arts College	13	1.8%				
E02001351	21	Liverpool 005	Archbishop Beck Catholic Sports College, Aintree Hospital	13	0.9%				
E02001352	10	Liverpool 006	Walton, Clock View Hospital, Walton Cemetery	13	0.2%	14	0.2%		
E02001354	22	Liverpool 008	Liver Industrial Estate, Abingdon Grove	12	0.5%	13	0.5%		
E02001355	12	Liverpool 009	Alsop High School, Walton Sports Centre	13	0.5%				
E02001358	10	Liverpool 012	Goodison Park, Gwladys Street Primary School	13	0.4%				
E02001359	23	Liverpool 013	Croxteth Park	13	1.0%				
E02001360	23	Liverpool 014	Wellington Employment Park, kirkdale medical centre	14	1.0%				
E02001363	37	Liverpool 017	Mab Lane Junior Mixed and Infant School	13	1.5%				
E02001366	29	Liverpool 020	West Derby School, Lister Infant School	12	0.6%	14	0.6%		
E02001367	54	Liverpool 021	Holly lodge girls college	12	1.1%	14	1.1%		
E02001368	42	Liverpool 022	The Trinity Catholic Primary School, Stanley dock Tobacco Warehouse	14	1.7%				
E02001369	16	Liverpool 023	Everton	12	0.3%	14	0.3%		
E02001370	15	Liverpool 024	ASDA, St Margarets Anfield Primary School, Whitefield Primary School	12	0.6%				
E02001371	17	Liverpool 025	Dovecot Primary School, Libra close	10	0.7%				
E02001372	141	Liverpool 026	Alder Hey Children's Hospital, Broadgreen Hospital, Broughton Hall High School, Knotty Ash Primary School	15	2.9%	14	2.9%		
E02001373	72	Liverpool 027	Fairfield, Liverpool Shopping Park	14	3.0%				
E02001374	49	Liverpool 028	Liverpool Innovation Park, TJ Hughes, Barclays	14	2.0%				
E02001375	14	Liverpool 029	Old Swan Library, Broadgreen Primary School	14	0.6%				
E02001376	19	Liverpool 030	Kensington	14	0.8%				
E02001377	69	Liverpool 031	Royal Liverpool Hospital, Liverpool Women's Hospital, University of Liverpool	16	2.0%	14	0.9%		
E02001378	17	Liverpool 032	Olive Mount Hospital, Liverpool Shopping Park, Rathbone Hopsital	15	0.7%				
E02001381	10	Liverpool 035	Wavertree Technology Park, Archbishop Blanch High School	14	0.4%				
E02001383	12	Liverpool 037	Liveprool Georgian Quarter, Liverpool China Town	16	0.5%				
E02001384	14	Liverpool 038	S. Wavertree, Smithdown Rd	17	0.6%				
E02001386	19	Liverpool 040	Belle Vale	10	0.8%				
E02001390	13	Liverpool 044	Holy family catholic primary school	15	0.5%				
E02001393	23	Liverpool 047	Liverpool Hope University, Calderstones School, Abbot's Lea School	15	1.0%				
E02001394	23	Liverpool 048	Mossley Hill Hospital, St Hilda's High School	15	1.0%				
E02001395	11	Liverpool 049	Tesco, Dovedale Primary School	15	0.5%				
E02001396	24	Liverpool 050	Dingle	15	1.0%				
E02001400	10	Liverpool 054	Allerton Primary School, Triumph Business Park	15	0.4%				
E02001401	24	Liverpool 055	Hunts Cross Retail Park, St Julie's High School	15	1.0%				
E02001403	12	Liverpool 057	Garston, Garston IE	15	0.5%				
E02001404	114	Liverpool 058	Liverpool Airport, Estuary Banks Business Park, New Mersey Retail Park, Skypark International Industrial Estate	1	4.7%				
E02001405	12	Liverpool 059	Speke Shopping Park, Morrisons, Iceland	1	0.5%				
E02006932	111	Liverpool 060	Liverpool city Centre	14	4.6%				
E02006933	44	Liverpool 061	Alber dock, liverpool exhibition centre	16	0.9%	17	0.9%		
E02006934	111	Liverpool 062	Liverpool City Centre	14	4.6%				
E02001455	18	Sefton 027	Aintree Retail Park & Aintree Racecourse	13	0.7%				
E02001457	19	Sefton 029	Netherton & Litherland	13	0.8%				
E02001460	15	Sefton 032	Seaforth & Waterloo	2	0.6%				
E02001465	30	Sefton 037	Bootle Centre	14	1.2%				
E02001417	16	St. Helens 012	Reflection Court, St. Mary Lowe House, The Foundry	4	0.7%				
E02001419	23	St. Helens 014	St Helens Central, Hospital, Fingerpost, Fishwicks Ind Est	4	1.0%				
E02001424	12	St. Helens 019	Totally Wicked Stadium, Sherdley, The Clegg, Nutgrove	4	0.5%				
E02002598	24	Warrington 009	Warrington	1	1.0%				
E02002602	10	Warrington 013	Warrington	1	0.4%				
E02002607	12	Warrington 018	Warrington	1	0.5%				
E02001482	19	Wirral 016	Birkenhead	18	0.4%	14	0.4%		