



PROPOSED RESIDENTIAL DEVELOPMENT ROSE PLACE, LIVERPOOL

CLIENT: IMPEL CONTRACTS LTD



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1 INTRODUCTION

1.1 Purpose of Report

- 1.1.1 This Transport Statement (TS) considers the highways and transportation implications associated with a proposed mixed-use scheme comprising 127 apartments, circa 1,830 sq/ft of commercial/retail use and 51 car parking spaces. The site is located in the ward of Everton, northeast of Liverpool city centre. PRIME Transport Planning ("PRIME") has produced this TS on behalf of the applicant Impel Contracts Ltd.
- 1.1.2 The content and structure of this document accords with the withdrawn Department for Transport's (DfT) Guidance on Transport Assessment (GTA) (March 2007) and Planning Practice Guidance (PPG). It considers the accessibility of the site and safety for all modes of travel from the private car to more sustainable modes such as walking, cycling and public transport.
- 1.1.3 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.
- 1.1.4 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.
- 1.1.5 Third party rights are excluded for the use of information contained within this report.

1.2 Scope of Report

- 1.2.1 As stated above this document has been prepared in accordance with DfT GTA, which, it is noted, was withdrawn from circulation on the 22nd October 2014. The www.gov.uk website states that the document has been archived and superseded by *'Transport evidence bases in plan making.'*
- 1.2.2 The new document is not a like-for-like replacement for GTA, providing no guidance on the production of Transport Assessments (TA) and TS 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.
- 1.2.3 More relevant information is provided within the PPG under '*Travel Plans, Transport Assessments and Statements in Decision-Taking*' however this also does not provide the level of detailed guidance that was contained within DfT's GTA.
- 1.2.4 Given that GTA was in place for 7-years, PRIME believes 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.
- 1.2.5 Liverpool City Council (LCC) is the highway authority for the area. An email based scoping exercise was undertaken with an initial scoping note highlighting the proposed methodology being

submitted to the highways officers at LCC on 15th August 2017, with LCC responding on the 17th August 2017.

- 1.2.6 The original Scoping Note and LCC's response regarding the scope of this TA are provided in **Appendix A**.
- 1.2.7 To conclude, 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;
 - Section 4 details the development proposal including the access strategy and parking arrangements;
 - Section 5 details access to the site by sustainable modes of travel which includes walking, cycling and public transport and provides a summary of the Travel Plan (TP);
 - Section 6 discusses the traffic impact of the site and describes the traffic forecasting methodology, trip generation of the site and the impact of the development on the local highway network;
 - Section 7 reviews the five-year accident records for the local highway network; and
 - **Section 8** 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 compliment national and local planning policy. This section details the policies that are relevant to this development.

2.2 National Planning Policy Framework

- 2.2.1 The *National Planning Policy Framework* (NPPF) was published in March 2012 and sets out the UK Government's current planning policies in England.
- 2.2.2 Section 4 of the NPPF, *Promoting Sustainable Transport*, outlines the important role that transport policies have to play in facilitating sustainable development. In paragraph 29 it states that:

'Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives... However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas.'

- 2.2.3 Whilst the document emphasises the need for developments to offer a choice of sustainable modes of transport, it is clear that the UK Government requires the nature and location of development to be taken in to account when considering the opportunities for sustainable transport modes.
- 2.2.4 Paragraph 35 of the NPPF states that plans for new development should:

'...protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones; and
- consider the needs of people with disabilities by all modes of transport.'
- 2.2.5 With regards to making decisions related to new development, Paragraph 32 of the NPPF states that such decisions should consider whether:
 - *'the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*

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- safe and suitable access to the site can be achieved for all people; and
- improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.'
- 2.2.6 In light of Paragraph 32 of NPPF, this TS will conclude with an assessment as to whether or not the residual cumulative impacts of the development are considered to be severe.

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 in Decision Taking.
- 2.3.2 Both sections of the Guidance provide significant amounts of detail on the information types and sources that are appropriate for helping Local Planning Authorities 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.
- 2.3.3 The core components of the requirements for assessment, as set out in the guidance, can be summarised as:

The key issues, which should be considered in developing a transport evidence base, include the need to:

- assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms;
- assess the opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport;
- highlight and promote opportunities to reduce the need for travel where appropriate;
- *identify opportunities to prioritise the use of alternative modes in both existing and new development locations if appropriate;*
- consider the cumulative impacts of existing and proposed development on transport networks;
- assess the quality and capacity of transport infrastructure and its ability to meet forecast demands; and

- identify the short, medium and long-term transport proposals across all modes'.
- 2.3.4 The principles set out in Planning Practice Guidance are consistent with the approach undertaken in the production of this report.

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 p. 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.
- 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 Local Transport Plan and A Transport Plan for Growth

2.5.1 The Merseyside Local Transport Plan 3 (LTP3) was adopted in April 2011 and provides the statutory framework for transport strategy and plans across Merseyside.

- 2.5.2 The Merseyside LTP3 is set within the context of the vision of the Liverpool City Region (LCR): 'To establish our status as a thriving international city region by 2030'. The LCR vision for transport is, 'A city region committed to a low carbon future, which has a transport network and mobility culture that positively contribute to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice'.
- 2.5.3 In order to support the LCR and achieve the transport vision, LTP3 sets out six goals, as follows:
 - One Help create the right conditions for sustainable economic growth by supporting the priorities of the Liverpool City Region, the Local Enterprise Partnership and the Local Strategic Partnerships;
 - Two Provide and promote a clean, low emission transport system which is resilient to changes to climate and oil availability;
 - Three Ensure the transport system promotes and enables improved health and wellbeing and road safety;
 - Four Ensure equality of travel opportunity for all, through a transport system that allows people to connect easily with employment, education, healthcare, other essential services and leisure and recreational opportunities;
 - Five Ensure the transport network supports the economic success of the city region by the efficient movement of people and goods; and
 - Six Maintain our assets to a high standard.
- 2.5.4 Since LTP3 was published, there has been significant progress in formally bringing together local authorities across Merseyside and Halton to establish the LCR Combined Authority. Recognising the differences between the respective LTPs for Merseyside and Halton, and the government policy changes since the LTPs were published, 'A Transport Plan for Growth' (TPG) was published in March 2015.
- 2.5.5 TPG sets out three Transport Priorities, as follows:
 - 'Growth' supporting economic growth in the City Region, through increasing employment, levels of productivity and investment;
 - 'Low Carbon' we want to live and work in a City Region that draws its energy from a range of sustainable energy sources, where travel is in vehicles powered by alternatives to fossil fuels, and with increased active travel opportunities; and
 - 'Access to Opportunity' supporting those who wish to access employment, training, education and further learning opportunities, and the wider work in supporting the whole City Region in access to fresh food, leisure and healthcare.

2.6 Ensuring a Choice of Travel SPD

- 2.6.1 The 'Ensuring a Choice of Travel' Supplementary Planning Document (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 development across the wider Merseyside area. Its overall objectives are:
 - Ensure a reasonable choice of access by all modes of transport to new development;
 - Reduce the environmental impact of travel choices, by reducing pollution, and improving the local environment;
 - Improving road safety;
 - Promote healthier lifestyles by providing opportunities for people to walk or cycle for work or leisure purposes;
 - Reduce the level of traffic growth and congestion on the strategic and local road network; and
 - Encourage opportunities to improve the quality of development proposals by better use of space through the provision of less car parking spaces where appropriate.
- 2.6.2 More specifically for Liverpool, the SPD also seeks to:
 - Enable the provision of a balanced transport infrastructure which provides access to employment, leisure, retail and other facilities for all the city's residents and visitors; and
 - Provide a framework for future investment in the City's strategic road and rail network where new development would create additional travel demand.
- 2.6.3 The SPD's approach will bring benefits to developers, end users and the wider community. Depending on the nature of the development, benefits may include:
 - Increased choice of access for end users, thereby increasing the saleability of certain developments
 - Improved environmental image;
 - Opportunity to maximise the density of developments through (where appropriate) the provision of fewer car parking spaces;
 - Promoting sustainable communities through the creation of spaces which encourage social interaction, allow effective movement of traffic and integrate into the built environment; and
 - Healthier work forces / residents where people choose to walk or cycle.

Transport Assessments and Transport Statements

- 2.6.4 Chapter 5 of the SPD details the requirement for Transport Assessments (TA) and Transport Statements (TS). The SPD states that a TA is required which examines in detail the demand for travel generated by a development, and how this can be met in a safe and sustainable way minimising any negative impacts on the surrounding community.
- 2.6.5 With regard to the content of the TS/TA, the SPD states that this will need to be agreed with LCC, but should focus on the following issues:
 - Assessment of current local conditions in particular the capacity of all networks serving the site;
 - Assessment of the travel demand generated by the development both in construction and when completed;
 - Assessment of the travel demand generated by committed development within the locality; and
 - Assessment of how travel demand can be met in a manner which:
 - o ensures access by all modes;
 - maximises access to the site by sustainable modes;
 - Protects the safety of all road users in the vicinity of the site; and
 - Protects the efficiency of all networks in the vicinity of the site sets out a programme of measures to achieve the above.
- 2.6.6 The SPD also states that DfT's GTA document is of benefit to applicants in considering the contents of a TS/TA.

Travel Plans

2.6.7 Chapter 6 of the SPD outlines the benefits of and requirements for Travel Plans (TP). The SPD defines a TP as,

'... a plan for managing transport effectively for a specific site, with the aim of improving access to the site by all modes of travel, thus improving choices for everyone. By implementing a Travel Plan applicants can address transport issues such as: commuting, business travel, fleet management, business deliveries and transport contracts.'

- 2.6.8 The SPD summarises the benefits of a TP as, 'an effective and important means of controlling the traffic generation of new developments and establishing long-term sustainable travel patterns'.
- 2.6.9 The SPD sets out thresholds for when a TP will need to be submitted as part of a planning application; for C3 Dwelling Houses, the threshold is 30 units.

- 2.6.10 In respect of the requirements for a TP, the SPD makes the following key points:
 - It is a requirement that all Travel Plans contain a modal share target based on the Transport Assessment or other supporting data; and
 - Requirements for monitoring Travel Plans will include the submission of an annual modal share survey, biennial full staff travel surveys, and the submission to the Local Planning Authority and TravelWise Merseyside Team of Annual Progress Reports and an action plan for the following year.

Minimum Accessibility Standards Assessment

2.6.11 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. The MASA that has been undertaken for the proposed development is discussed in **Section 5** of this report.

Parking Standards

2.6.12 The SPD also sets out parking standards, these replacing the previous standards outlined in Supplementary Planning Guidance Note 8 – Parking Standards. For residential developments, the general car parking standards are 'guidelines' only, while cycle parking and disabled car parking standards are minimums. The SPD notes that SBC will encourage lower levels of parking where the development is in an accessible location or where there is good public transport access, especially in Liverpool city centre. The parking standards for C3 Dwelling Houses are set out in **Table 2.1**.

Standard	Vehicle Type		
Cycles (Minimum)	Flats – 1 secure space per flat, 1 visitor spaces per 10 units		
People with Disabilities (Minimum)	6% of first 100 parking spaces		
General Car Parking (Guideline)	Flats – 1 space per dwelling (outside the city centre)		

2.7 Liverpool Local Plan

- 2.7.1 Liverpool City Council (LCC) have been working on a number of documents including the Core Strategy and the Liverpool Unitary Development Plan over a number of years to enable individual guidance for Liverpool. However, the council have now decided to focus on the production of a framework for 'one' Local Plan for Liverpool.
- 2.7.2 LCC have stated that the proposed Local Plan for Liverpool will:
 - Set out a spatial vision, spatial objectives and strategic policies (based on those in the Core Strategy).
 - Detail the development management policies that will be used to determine planning applications in the City.

- Set out site allocations for residential, employment, retail or other land uses across the City, to be shown on a policies map.
- Show where land is proposed to be safeguarded or where specific policies apply such as District and Local Centres.

2.8 Summary

This section has outlined national and local transport policies and guidance which are applicable to the development site. How the site conforms to and compliments 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 site is located in the ward of Everton, north-east of Liverpool city centre. The rectangular piece of land is bounded by commercial property to the north and east, St. Anne Street to the west and Rose Place to the south. The location of the site in the context of the local highway network is illustrated in **Figure 1** in **Appendix B**.

3.2 Local Highway Network

St. Anne Street (B5186)

- 3.2.1 St. Anne Street is a 'B' classified road that runs on a generally north to south alignment and provides a connection between Great Homer Street in the north and the signalised junction of Hunter Street/ New Islington/Norton Street to the south. Fronting the site the road is a dual-carriageway with two lanes in either direction. Each carriageway is circa 6m to 7m in width, has circa 2m footways on both sides of the road, is subject to a 30mph speed limit and has street lighting. The frontage to St. Anne Street is generally commercial in nature.
- 3.2.2 A bus stop is located immediately adjacent to the proposed development which provides access to southbound services, facilities at this bus stop include a 'flag' type stop, timetable information and a full bus lay-by. Access to northbound services is facilitated via a bus stop located circa 500m to the north of the site, facilities include a bus shelter, timetable information and a full lay-by.
- 3.2.3 Pedestrian connections across St Anne Street are facilitated via a pelican crossing and a subway located some 100m to the north of the site, however the physical environment of the subway is probably not conducive to its safe use, especially during the hours of darkness. The pelican crossing provides for safe pedestrian access to the northbound bus stop.
- 3.2.4 Cycle lanes are provided in the vicinity of the proposed development, including along St Anne Street.

Rose Place

- 3.2.5 Rose Place runs on a generally east to west alignment and provides a connection between Fox street via a priority controlled junction in the east to St. Anne Street via a priority controlled junction in the west. It should be noted that due to St Anne Street being a dual carriageway, the St Anne Street/Fox Street junction only allows for left turns i.e. no right turns can be undertaken due to the presence of the central reservation.
- 3.2.6 The road is generally 5m to 6m in width, has circa 2m footways on both sides, is subject to a 30mph speed limit and has street lighting. The frontage to Rose Place is generally commercial in nature, these properties having a direct access to Rose Place.

Fox Street

3.2.7 Fox Street runs on a generally north to south alignment, providing a connection between St Anne Street via a priority controlled junction in the north and Rose Place in the south. It should be noted that all turning movements can be accommodated at the St Anne Street/Fox Street junction. The road is approximately 10m wide, has circa 3m footways on both sides, is subject to a 30mph speed limit and has street lighting. The frontage to Fox Street is generally commercial in nature.

3.3 Existing Traffic Conditions

3.3.1 A site visit was carried out during the late afternoon of Monday 21st August 2017. Both Rose Place and Fox Street were relatively quiet with little in the way of vehicular or pedestrian activity being witnessed. Parliament Street was moderately trafficked with no significant queues or delays being observed at any of the junctions in the area.

3.4 Cycle Facilities in the Area

3.4.1 A section of National Cycle Route 810 runs adjacent to the proposed development, locally the route connects Everton Park to Liverpool city centre, further afield the route connects Ainsdale via Formby and Crosby to Liverpool city centre. This route supplements the cycle lane facilities that can be found on St Anne Street.

4 DEVELOPMENT PROPOSAL

4.1 Development Description

- 4.1.1 The planning application will be for full planning permission for the development of existing commercial buildings into 127 apartments, circa 1,830 sq/ft of Commercial/retail use and 51 car parking spaces.
- 4.1.2 A site plan drawing has been produced by FCH Architects and forms part of the supporting documentation for the planning application. It is not included within this document as it has the potential to be revised up to the point of submission and therefore to avoid conflicting and superseded layouts being submitted within the various planning documents, it is omitted from this report. A copy of this document will however be available on LCC's planning portal.

4.2 Access Strategy

- 4.2.1 As mentioned above, the development will provide 51 car parking spaces. Access to these spaces will be via a priority controlled junction onto Rose Place. This will be a gated access utilising one of the existing access points onto the highway network. The site access and swept path analysis are shown in **Drawing P17061-001A** within **Appendix C.**
- 4.2.2 A separate pedestrian entrance will also be provided to the building for residents of the apartments via Rose Place, with a separate entrance to the commercial/retail element of the scheme being provided from St. Anne Street.

4.3 Parking Provision

4.3.1 As noted in **Section 2**, the 'Ensuring a Choice of Travel' SPD states that '*Reducing the amount of car parking available in new developments will contribute to the objective of reducing travel by car and encourage people to use passenger transport*. For convenience, the parking standards are reproduced in **Table 4.1**.

Standard	Vehicle Type		
Cycles (Minimum)	Flats – 1 secure space per flat, 1 visitor spaces per 10 units		
People with Disabilities (Minimum)	6% of first 100 parking spaces		
General Car Parking (Guideline)	Flats – 1 space per dwelling		

4.3.2 The SPD notes:

'The car parking standards for the City Centre aim to support its regeneration and the needs of economic development. The City Council does not want to stifle development by setting standards which are too restrictive. The standards therefore allow developers to provide a level of car parking to meet operational requirements up to a maximum level. Additionally by only adopting a maximum standard, developers

will not be required to provide a high level of car parking on sites which because of their location can accommodate very little or no car parking.

More over given Liverpool Centre's high level of accessibility by both bus and train, the improvements being undertaken to passenger transport facilities and the good supply of public car parking it was considered appropriate to adopt maximum car parking standards for the City Centre. This will support the City Council's objective of reducing the amount of commuting by private car and encouraging a modal shift to passenger transport, which will in turn have benefits for the environment.

- 4.3.3 The document indeed goes further by, at page 33, discussing the concept of 'Car Free Housing', stating that, 'The Council aims to reduce dependency on the private car and is therefore promoting the development of car free housing where appropriate, particularly in City Centre, District and Local Centres'. The SPD goes on to state that, 'Car free housing can encourage people to pursue car-free lifestyles and, in association with other initiatives, contribute to traffic and pollution reductions. In contrast, the inclusion of on-site car parking space can increase development costs and reduce the potential for high quality urban design and layouts (i.e. less parking can mean more development in the same space OR lower densities OR more space for residents).
- 4.3.4 In accordance with the well-established principles outlined in the SPD, and in light of the 'developments highly accessible location' (outlined in **Section 5**), it is proposed that 51 car parking spaces will be provided for the total 127 proposed residential units, representing over 40% parking provision.
- 4.3.5 In addition to providing car parking provision, it is proposed that secure storage for 122 cycles will be provided, which is equivalent to approximately 1 secure space per flat. This level of cycle parking provision accords with the ethos of the SPD.
- 4.3.6 It should be noted that no formal parking provision is to be provided for the commercial/retail element of the scheme given most of the trips to/from this unit are likely to be made by local residents/visitors who will already be in the area.

4.4 Refuse Collection

4.4.1 Refuse collections will take place from Rose Place in accordance with existing arrangements for surrounding residential developments in the area.

4.5 Summary

4.5.1 The use of the existing well-developed highway and footway network, as proposed, will ensure that the site is highly permeable allowing good connectivity to existing pedestrian infrastructure, the highway network, local amenities and public transport. The above would suggest that there are opportunities to *'protect and exploit the use of sustainable transport modes'*, this being in line with NPPF (paragraph 35). The accessibility of the site by sustainable modes of transport complements

the six goals outlined in LTP3 to help achieve the transport vision of the LCR and supports the main objective of the SPD is to 'ensure a reasonable choice of access by all modes to new development'.

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5 ACCESS BY SUSTAINABLE MODES

5.1 Introduction to Sustainable Modes of Transport

5.1.1 The theme of national and local transport planning policy is centred on the importance of sustainable development, meaning that new developments should be located where the need to travel will be minimised and where realistic alternatives to car travel exist or can be implemented. These alternatives are walking, cycling and public transport. This section of the TS considers opportunities for alternative modes of transport in the context of the proposed development.

5.2 Access on Foot

- 5.2.1 The site is located within a well-established urban area adjacent to Liverpool city centre, with an extensive footway network in place on the roads fronting the site and roads connecting the site with the wider area. The footways surrounding the development are generally 2m in width including St Anne Street (the western frontage) and Rose Place (the southern frontage).
- 5.2.2 As described in **Section 3**, a pelican crossing with dropped kerbs, tactile paving and guard railing is provided in the vicinity of the site, while dropped kerbs and tactile paving are also provided at uncontrolled crossings on minor junctions in the area. Roads on the local highway network also feature street lighting. The above would suggest that pedestrian infrastructure in the vicinity of the site is conducive to encouraging trips on foot.
- 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**.

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

Table 5.1: Suggested Acceptable Walking Distances

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 the Geographic Information System (GIS) software Visography TRACC. **Figure 2** in **Appendix B**, represents the site's walking catchment with the CIHT's '*Preferred Maximum*' distances of 1200m and 2000m for local service and commuting/school trips illustrated.

- 5.2.5 The accessibility distance is based on an origin/destination point in the approximate centre of the developed portion of the site.
- 5.2.6 Whilst **Table 5.1** provides useful guidance on walking distances, MfS provides a context for interpreting them. MfS states that:

'The propensity to walk is influenced not only by distance, but also by the quality of the walking experience. A 20-minute walk alongside a busy highway can seem endless, yet in a rich and stimulating street, such as in a Town Centre, it can pass without noticing. Residential areas can offer a pleasant walking experience if good quality landscaping, gardens or interesting architecture are present.'

- 5.2.7 It can be seen from **Figure 2** of **Appendix B** that some parts of Liverpool city centre are within a 1,200m walking distance from the site, while most of the city centre is within a 2,000m walking distance. As such, a comprehensive range of amenities, educational establishments, employment opportunities and settlements are located within a reasonable walking distance from the site. In addition, numerous bus stops and train stations can be reached by foot.
- 5.2.8 Using the TRACC software, walking times to the nearest bus stops were established, which are presented in **Table 5.2** below.

Bus Stop	Distance from Site (m)	Walk Time (mm:ss)
Adjacent Rose Place – Southbound services	162	02:03
Adjacent Virgil Street – Northbound services	575	07:13

Table 5.2: Walking Journey Times to Bus Stops in Proximity to the Site

- 5.2.9 **Table 5.2** above shows that there are multiple bus stops within an 8-minute walking journey of the site.
- 5.2.10 It should also be noted that Liverpool Lime Street rail station is circa 1,000m from the site, this being reached within a 13 minute walk from the site.
- 5.2.11 Given the evidence presented above and in **Figure 2** of **Appendix B**, 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 5km, and also as part of longer journeys by public transport.
- 5.3.2 The DfT's Local Transport Note 2/08 Cycle Infrastructure Design states that:

'The road is the most basic (and important) cycling facility available, and the preferred way of providing for cyclists is to create conditions on the carriageway where cyclists are content to use it, particularly in urban areas.'

- 5.3.3 A cycling isochrone showing the site's catchment has also been produced using TRACC and is shown as **Figure 3** in **Appendix B**. The figure illustrates 2,000m and 5,000m catchment ranges which equate to 10 minute and 25 minute journey times respectively which are based on the somewhat conservative or leisurely cycle speed of 12kph. Anecdotally, commuting cyclists are generally thought to travel at speeds between 15-20kph so a greater catchment may be more realistic.
- 5.3.4 **Figure 3** in **Appendix B** illustrates that all of the amenities, educational establishments, employment opportunities, settlements and bus/train stations mentioned in the 'Access by Foot' section are within a 10-minute cycle time. The settlements of Kirkdale, Vauxhall, Fairfield, Kensington, Tuebrook, Wavertree, Toxteth, amongst others are within the 5,000m cycle catchment, or a 25-minute cycle time. Further, additional employment areas, including Liverpool Innovation Park, are within a 25-minute cycle time.
- 5.3.5 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.' Furthermore, DfT's Local Transport Note 2/08 states similar, that 'many utility cycle journeys are under three miles (5 kilometres), although for commuter journeys, a trip distance of five miles (8 kilometres) or more is not uncommon'.
- 5.3.6 Based on the 'comfortable' and 'common' cycle distances established by the CIHT and DfT guidance,
 the catchment plan suggests that cycling would be a viable mode of travel for access to a range of
 local amenities, educational establishments and a number of employment opportunities.
- 5.3.7 The proposed development is therefore considered to be highly accessible from existing cycle provision.

5.4 Access by Public Transport

- 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 approximately 1.4m/s walking speed. The nearest bus stop to the site are located on St. Anne Street, which is circa 150m away, this providing access to southbound services.
- 5.4.2 The nearest bus stop providing access to northbound services is circa 500m to the north of the site. The walking distances to these bus stops are within the CIHT typical walking distance for access to southbound services and just over the typical walk distance for access to northbound services.

5.4.3 **Tables 5.4** below summarises the services that can be accessed at these bus stops. The information below has been obtained from Traveline North West (<u>http://www.traveline-northwest.co.uk/</u>), Arrivabus (<u>https://www.arrivabus.co.uk</u>) and PeoplesBus (http://www.peoplesbus.com/), and was correct at the time of drafting this report.

		Weekdays		Weekends		
Service	Route	AM	Inter	РМ	Sat	Sun
2A	Liverpool - Anfield		M	atch days o	nly	
2E	Liverpool - Kirkdale		Match days only			
26/27	Sheil Road Circular to Liverpool city centre	5/ hour	5/ hour	5/ hour	5/ hour	2/hour
53	Crosby - Liverpool	4/ hour	4/ hour	4/ hour	5/ hour	3/hour
58	Netherton - Liverpool	2/ hour	2/ hour	2/hour	2/ hour	1/hour
310	Skelmersdale - Liverpool	2/ hour	2/hour	2/hour	2/ hour	1/hour
345	Waddicar - Liverpool	2/ hour	2/hour	2/hour	2/ hour	1/hour
501	Anfield - Liverpool	Match days only				

Table 5.4: Summary of Bus Services

- 5.4.4 The above table demonstrates that the bus services which run adjacent to the site provide convenient high frequency connections to a number of destinations. These include Liverpool city centre, Crosby, Anfield, Skelmersdale and Kirkdale. Bus travel is therefore a viable mode of transport and provides a reasonable choice for a number of residents of the site.
- 5.4.5 In respect of access to rail services '*Planning for Public Transport in Developments*' recognises that people are often prepared to walk for longer to rail stops and stations compared to access to bus services, suggesting a typical upper distance threshold of 800m. This is equivalent to a ten-minute walk based on approximately 1.4m/s walking speed.
- 5.4.6 The nearest railway stations to the site is Liverpool Lime Street which is approximately a 1,000m walk distance from the development to the south-west, this being equivalent to a 13 minute walk, which is considered to be a reasonable walking distance for many people.
- 5.4.7 Lime Street Station is located on the Wirral Line of the Merseyrail network, providing connections to Chester, Ellesmere Port, West Kirby and New Brighton and the various station in between. Lime Street Station also provides access to the national rail network with the City Line connecting Liverpool to destinations such as Manchester, Wigan and Preston and the West Coast Mainline connecting Liverpool to destination further afield including London.
- 5.4.8 The NPPF, at paragraph 35, states that developments should be promoted in locations where they have access to high quality public transport facilities. The above would suggest that the existing public transport provision in the vicinity of the site is appropriate and reasonable for the size and location of the development proposed. The development, being located near to the above

mentioned bus stops and rail station, does '*exploit opportunities for the use of sustainable transport modes*' (paragraph 35 NPPF).

5.5 Framework Travel Plan

- 5.5.1 In line with best practice at a national and local scale, a TP has been produced and submitted as part of this planning application. Provision of the TP is consistent with the requirement set out in LCC's Ensuring a Choice of Travel SPD as set out in **Section 2**.
- 5.5.2 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 TS. As many aspects of the TP will be applicable to this TS, a summary of the key points is as follows:
 - A commitment to ensuring that the site is accessible by sustainable modes of transport and to initiate the TP process;
 - Outlines the key local and national objectives of the TP process;
 - Sets targets for the reduction of car or 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.
- 5.5.3 It should, however, be noted that in order to provide a robust assessment, the traffic impact assessment of the development, detailed in **Section 6** of this TS, does not take into account any trip reduction as part of the TP.

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, depending on the land use type, scale, location, and facilities provided.
- 5.6.2 Residential developments above 50 dwellings are classified in the standards as 'major'. Given the number of proposed dwellings and that fact the site is located on the edge of Liverpool city centre (other urban), the minimum required scores are provided in **Table 5.6**.

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	

Table 5.6: Minimum Required MASA Scoring

5.6.3 The MASA undertaken for the site is included in full in **Appendix D** of this TS. However, a summary of the scoring awarded is provided in **Table 5.7**.

Table 5.7: MASA Scoring Results

Development Type, Location, Size	Score for walking	Score for cycling	Score for public transport	Score for vehicle access & parking
C3 Dwelling Houses, 'Other Urban', 'Major'	4	5	5	2

5.6.4 It can be seen from **Table 5.6** and **Table 5.7** that the development proposals would meet or exceed the minimum scoring requirements of the MASA exercise, reflecting the safe design of the proposals and the highly accessible location of the development site.

5.7 Summary

- 5.7.1 This section of the report has demonstrated that the site is in a sustainable location where a range of local amenities and centres of employment and education are within nationally recognised acceptable walking and cycling distances.
- 5.7.2 In respect of public transport, bus services 26/27, 53, 58, 310 and 345 operate seven days a week, providing a regular and frequent connections to employment, retail and leisure opportunities. Furthermore Lime Street station is located on the Wirral Line of the Merseyrail network, which provides connections to Chester, Ellesmere Port, West Kirby and New Brighton. It also provides access to the national rail network with the City Line connecting Liverpool to destinations such as Manchester, Wigan and Preston and the West Coast Mainline connecting Liverpool to destination further afield including London. The site's highly accessible location has also been reflected within the scoring awarded as part of the MASA exercise.
- 5.7.3 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** of this report, the NPPF states that the *'transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel'* and developments should provide *'safe and suitable'* access for all.
- 5.7.4 It can be concluded that the proposed development accords with this NPPF guidance as well as the principles of Paragraph 35, in terms of exploiting opportunities for sustainable travel, as it is located and designed to give priority to pedestrian, cycle and public transport movements. It is therefore felt that, in relation to Paragraph 32 of the NPPF that, *'the opportunities for sustainable transport modes have been taken up'*.

6 TRIP GENERATION

6.1 Introduction

- 6.1.1 In light of the quantum and location of the development proposals, no junction capacity assessments are considered to be required as part of the planning submission.
- 6.1.2 This section of the report details the methodology used to predict the travel demand associated with the proposed development.

6.2 Vehicular Trip Generation

- 6.2.1 In order to determine the traffic generation associated with the proposed development, the TRICS
 7.4.2 database has been used. The industry standard database contains traffic generation surveys of numerous sites of various land use types across the UK and Eire.
- 6.2.2 Trip rates have been derived by interrogating the database to derive a sample of sites with somewhat similar characteristics to the proposed development site. A summary of the key selections applied in order to derive the sample is as follows:
 - Land use category –Flats privately owned;
 - Regions excluded London, Northern Ireland and Eire;
 - No. dwelling range selection 6 to 154 units (6 to 140 actual);
 - Date range 10/11/06 to 09/11/16;
 - Weekend surveys excluded;
 - Selected locations edge of town centre; and
 - Location sub categories residential zone.
- 6.2.3 The above selections returned a sample of 12 sites. During the scoping process, LCC advised PRIME to use 85% tile trip rates, however, paragraph 11.6 within the TRICS Good Practice Guide states 'that users have at least 20 surveys in rank order list before 85th and 15th percentile highlighted trip rates are quote'. In this instance, given the return sample of 12 sites, it is considered sensible to use average trip rates.
- 6.2.4 Full reports of the TRICS data and selection process are included in **Appendix E.**
- 6.2.5 The derived trip rates were then applied to the 127 dwellings associated with the development of our site resulting in the trip generation. The likely 12-hour (residential sites in TRICS are typically only surveyed between 7am and 7pm) trip generation of the site is shown in **Table 6.1** with the AM and PM peak hours highlighted in **bold** font.

	Average Trip Rates			Average Trip Generation			
Time	Arrivals	Departures	Totals	Arrivals	Departures	Totals	
07:00-08:00	0.04	0.134	0.174	5	17	22	
08:00-09:00	0.064	0.198	0.262	8	25	33	
09:00-10:00	0.071	0.093	0.164	9	12	21	
10:00-11:00	0.096	0.093	0.189	12	12	24	
11:00-12:00	0.083	0.096	0.179	11	12	23	
12:00-13:00	0.112	0.092	0.204	14	12	26	
13:00-14:00	0.09	0.124	0.214	11	16	27	
14:00-15:00	0.102	0.104	0.206	13	13	26	
15:00-16:00	0.100	0.075	0.175	13	10	22	
16:00-17:00	0.123	0.094	0.217	16	12	28	
17:00-18:00	0.193	0.108	0.301	25	14	38	
18:00-19:00	0.138	0.082	0.22	18	10	28	
Daily (12hr)	1.212	1.293	2.505	154	164	318	

- 6.2.6 As the above table shows, the site is likely to generate in the region of 33 two-way trips in the AM peak hour and 38 trips in the PM peak hour which equates to circa one vehicle movement every 2 minutes in both the AM and PM peak hours. The 12-hour trip generation is likely to be circa 318 two-way (total) trips. 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, therefore the trip generation figures can be described as being robust.
- 6.2.7 It is not considered necessary to ascertain the traffic generation in relation to the 1,830 sq/ft commercial/retail unit given most of the trips to/from this unit are likely to be made by local residents/visitors who will already be in the area. Notwithstanding this, there is no parking provision for the commercial/ retail element of the development proposal.

6.3 Person Trip Generation

- 6.3.1 In order to forecast the likely total number of person trips to be generated by the proposed development, the same TRICS sample used to forecast the average vehicular trip rates shown in **Table 6.1** has been used, with trip rates for other modes of transport also derived. The original TRICS data is included in the report output in **Appendix E**.
- 6.3.2 To avoid double counting, two adjustments to the trip rates have been made, firstly the other goods vehicles (OGVs) and passenger service vehicles (PSVs) have been removed from the vehicles user class to derive car drivers and the resultant car drivers have been subtracted from the vehicle occupant's user class to derive car passengers (excluding the driver). **Table 6.2** provides a summary of the forecast multimodal person trips that the site is likely to generate.

24

	AM Peak						
	Average Trip Rates			Average Trip Generation			%
User Class	Arrivals	Departures	Totals	Arrivals	Departures	Totals	Modal Split
Car Drivers	0.063	0.198	0.261	8	25	33	51.6%
Taxis	0.000	0.000	0.000	0	0	0	0.0%
Cyclists	0.001	0.000	0.001	0	0	0	0.0%
Car Passengers	0.005	0.057	0.062	1	7	8	12.5%
Pedestrians	0.027	0.101	0.128	3	13	16	25.0%
PT Users	0.003	0.052	0.055	0	7	7	10.9%
Total People	0.099	0.408	0.507	12	52	64	100%
	PM Peak						
	Average Trip Rates			Avera	%		
							Modal
User Class	Arrivals	Departures	Totals	Arrivals	Departures	Totals	Split
Car Drivers	0.189	0.105	0.294	24	14	37	50.0%
Taxis	0.004	0.003	0.007	1	0	1	1.4%
Cyclists	0.004	0.001	0.005	1	0	1	1.4%
Car Passengers	0.060	0.036	0.096	7	4	12	16.2%
Pedestrians	0.096	0.046	0.142	12	6	18	24.3%
PT Users	0.040	0.000	0.040	5	0	5	6.8%
Total People	0.393	0.191	0.584	50	24	74	100%

Table 6.2: Forecast Multimodal Person Trips

6.3.3 Based on the results in **Table 6.2**, the site is forecast to generate 64 and 74 total people trips in the AM and PM peaks respectively. Driving a car is likely to be the most popular method of travel, which is estimated to account for 33 trips and 37 trips in the AM and PM peaks respectively. Walking is estimated to account 16 trips in the AM peak hour and 18 trips in the PM peak hour, while being a passenger in a car account for 8 trips in the AM peak hour and 12 trips in the PM peak hour. This is followed public transport users which will account for 7 trips in the AM peak hour and 5 trips in the PM peak hour.

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7 HIGHWAY SAFETY

7.1 Accident Analysis

- 7.1.1 Injury accident data has been obtained from Liverpool City Council covering the period from 8th August 2012 to 7th August 2017. This covered the geographic area including St. Anne Street (B5186) from the signal controlled junction with Islington/ New Islington and Hunter Street in the south, to just north of the junction with Fox Street/ Great Nelson Street junction in the north, Fox Street and Rose Place.
- 7.1.2 A summary of the accidents in terms of severity and the year in which they occurred is presented in **Table 7.1**.

Year		Total		
	Slight	Serious	Fatal	TOLAT
2012	0	0	0	0
2013	7	0	0	7
2014	6	3	0	9
2015	4	0	1	5
2016	5	0	0	5
2017	2	0	0	2
Total	24	3	1	28

Table 7.1: Summary of reported Personal Injury Accidents

- 7.1.3 The above demonstrates that over the 5-year period, there has been a total of 28 reported injury accidents, of which 24 resulted in slight injuries being sustained, 3 in serious injuries being sustained and 1 fatality.
- 7.1.4 The following is a description of the accidents that have occurred in the study period.

St Anne Street – Junction with Great Nelson Street/ Fox Street

7.1.5 There were 2 reported incidents along St Anne Street at the junction with Great Nelson Street and Fox Street, the first of which was a vehicle-vehicle collision that resulted in 3 casualties all deemed to be slight in terms of severity. The first vehicle was travelling along St. Anne Street from north to south and the second, was travelling from Great Nelson Street to Fox Street. The other incident resulted in slight injuries being sustained by a cyclist following a collision with a vehicle.

Fox Street

7.1.6 There were 2 reported injury accidents that occurred on Fox Street. The first took place at the junction between Fox Street and Rose Place, when a vehicle exiting Rose Place was in collision with another vehicle travelling along Fox Street, this resulted in a slight injury being sustained by a driver

of one of the vehicles. The other incident was a vehicle to vehicle collision on Fox Street itself, where a serious injury was sustained by a driver of one of the vehicles.

St Anne Street - Junction with Rose Place

7.1.7 There were another 2 accidents reported at the junction between St. Anne Street and Rose Place, both considered slight with regards to severity, and both resulting in a single casualty. The first accident involved a collision between a cyclist and car, and the second was a vehicle-vehicle collision.

St Anne Street

7.1.8 The single fatal accident occurred on 9th April 2015, at 04:45 in the morning and in dark conditions.
 The incident involved a single vehicle and the resultant casualty was a pedestrian who may not have been visible in the dark conditions.

St Anne Street - Junction with Islington/ New Islington and Hunter Street

- 7.1.9 The remaining 21 accidents all occurred at the junction between St. Anne Street and Hunter Street/ New Islington/ Islington. The majority of these accidents (19) resulted in slight injuries being sustained and 2 resulted in serious injuries being sustained. The first of the serious accidents involved a collision between a single vehicle and a pedestrian, resulting in a serious injury being sustained by the pedestrian.
- 7.1.10 Conditions were dry and clear at the time of the incident, although it was dark. The second incident was a vehicle-vehicle collision and resulted in 4 casualties. The weather was fine at the time of the incident and the road surface was dry, although again the accident took place at 02:39 and it was therefore dark.
- 7.1.11 The majority of the slight injury accidents at this junction (15) were vehicle-vehicle collisions. There was a single vehicle accident involving a motorcyclist who lost control, a collision between a car and a cyclist and the remaining two incidents both involved pedestrians.

7.2 Summary

7.2.1 The above shows within the agreed study area there have been 28 injury accidents during the 5year period between the 8th August 2012 and 7th August 2017, the majority of the accidents occurring at the junction of St Anne Street/Islington/New Islington/Hunter Street. The locations and severity proportions are not unusually high based on traffic flows, link and junction types. No observations were made during the site visit that suggested highway condition or layout was unsafe.

8 SUMMARY AND CONCLUSION

8.1 Summary

- 8.1.1 This TS has been produced by PRIME Transport Planning to consider the highways and transportation implications associated with a proposal for a development comprising 127 apartments, circa 1,830 sq/ft of commercial/retail use and 51 car parking spaces. The site is located in the ward of Everton on the edge of Liverpool city centre.
- 8.1.2 The document has been prepared in accordance with the Department for Transport's (DfT) Guidance on Transport Assessment (GTA) (March 2007) and Planning Practice Guidance. It considers the accessibility of the site and safety for all modes of travel from the private car to more sustainable modes such as walking, cycling and public transport.
- 8.1.3 A review of accident data for the local area has been undertaken for the most recent five years available. The data indicates 28 accidents within the study area within the 5-year period provided, the majority of which occurred at the junction of St Anne Street/Islington/New Islington/Hunter Street.
- 8.1.4 Of these accidents, 24 were recorded as 'slight' while 3 were recorded as 'serious' and there was one fatality. There was nothing in the data available to suggest that the highway condition, layout or design were contributory factors. It is therefore concluded that there are no deficiencies in the highway network, or existing safety issues in the vicinity of the site, that would be exacerbated by the development proposals.
- 8.1.5 It is proposed that the parking associated with the residential element of the scheme will be served via an existing entryway from Rose Place. Entrances to the building for residents of the apartments will also be via Rose Place, with an entrance to the commercial/retail element of the scheme being provided off St. Anne Street. Refuse collections will take place from Rose Place in accordance with existing arrangements for surrounding residential developments in the area.
- 8.1.6 Parking for 51 cars will be provided within the development, in light of the site's highly accessible location and as consistent with LCC's desire to 'encourage lower levels of parking provision where circumstances allow'. Swept path analysis has been undertaken on car park and at the car park entryway which demonstrate that the car park can be accessed by a large car. The site access and swept path analysis are shown in **Drawing P17061-001A** within **Appendix C**
- 8.1.7 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 contained within the surrounding area and within the adjacent Liverpool city centre on foot, by cycle, and by public transport.

- 8.1.8 In accordance with LCC's Ensuring a Sustainable Choice of Travel SPD, a MASA exercise has been undertaken based on the site location and the development proposals. The results of the exercise indicate that the development exceeds the minimum required MASA score.
- 8.1.9 A trip generation exercise has been undertaken for the proposed development, which indicates that the site would generate no more than 38 new two-way vehicular trips in the busiest hour of the day (17:00-18:00). The development is therefore considered to have a negligible impact on the local highway network.

8.2 Conclusion

- 8.2.1 This report demonstrates that the proposal complies with local and National policy and guidance. In terms of sustainability, **Section 5** concludes that the site's location and therefore the proposed development would be accessible by non-car modes of travel. NPPF states, at Paragraph 14, that there is a 'presumption in favour of sustainable development' and that 'local planning authorities should positivity seek opportunity to meet the development needs of their area' unless 'any adverse impacts of doing so would significantly and demonstrably outweigh the benefits...' . The assessment that has been undertaken of the site's accessibility by sustainable modes in **Section 5**, and in particular the results of the MASA exercise, highlight that the site is in a sustainably accessible location.
- 8.2.2 Considering such 'adverse impacts', in accordance with paragraph 32 of NPPF, it is concluded that 'safe and suitable access to the site can be achieved for all people' and demonstrated, within Section
 6, that the impact of development generated traffic on the local highway network would be minimal.
- 8.2.3 Paragraph 32 concludes by stating that 'development should only be prevented or refused on transport grounds where the residual cumulative impacts of the development are <u>severe</u>.' This report concludes that the proposals would not have an adverse impact in terms of highway capacity and safety. Therefore, it is considered that there are no highways or transportation related reasons why planning permission should not be granted.

APPENDIX A

SCOPING CORRESPONDENCE WITH LIVERPOOL CITY COUNCIL

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Ben Gaze

From:	Taylor, Mike <mike.taylor@liverpool.gov.uk></mike.taylor@liverpool.gov.uk>
Sent:	16 August 2017 11:15
То:	David Schumacher
Subject:	RE: Proposed Residential Development

Dave,

Comments as follows:

Item 14 – we require 85th percentile trip rates to be used.

Item 17 – the accident analysis should be based on the latest STATS19 data (not Crashmap). The data is available from Jayne Black, Team Leader Highways & Transportation, <u>jayne.black@liverpool.gov.uk</u> 0151 233 0274. Item 22 – see comments below.

Item 23 – Connectivity across St Anne Street and with the city centre likely to be an issue – see comments below.

A formal pre-app has been submitted in respect of this site and the following is a summary of my comments:

The site lies outside of the City centre and outside of the Controlled Parking Zone and there is a strong demand for on-street parking due to the many existing business premises which rely on on-street parking for everyday use. The adjoining areas also experience heavy on-street parking due to demands from commuters, the hospital and the university which may well be dispersed as new parking restrictions are imposed. There is also a latent demand from the high proportion of vacant buildings and plots in the area.

At 22% the level of parking is way below the required parking standards and is unlikely to be considered acceptable. The level of cycle parking is also below recommended standards.

Servicing would be from on-street which is similar to other premises in the area and is likely acceptable although specific restrictions may be required to prevent indiscriminate parking from affecting loading and servicing.

The proposal will require the reinstatement as footway of existing access points. The carriageway of Rose Place consists of cobbles with infill tarmac patches and would likely require refurbishment to provide a continuous palette of material, as would the footways surrounding the site.

Further information would be required in respect of the ground floor commercial/retail/leisure unit to address any concerns of servicing/loading and potential indiscriminate parking along St Anne Street.

Contributions are likely to be sought towards connectivity improvement proposals between the site and the city centre and towards the introduction of a Controlled Parking Zone in the area.

If you need any further information let me know.

Regards

Mike

Mike Taylor I Principal Engineer – Highways Development Control

Liverpool City Council I Cunard Building I Water Street I Liverpool I L3 1AH

T: 0151 233 0321 | E: mike.taylor@liverpool.gov.uk





Creating a better city for a better future.

From: David Schumacher [mailto:D.Schumacher@primetp.co.uk]
Sent: 15 August 2017 17:41
To: Taylor, Mike <Mike.Taylor@liverpool.gov.uk>
Subject: Proposed Residential Development

Hi Mike

Our client is looking to submit a planning application in relation to a proposed mixed use scheme comprising up to 122 apartments together with retail, commercial and leisure units. Further, the development will also comprise 27 car parking spaces.

We are looking to produce a Transport Statement (TS) and Framework Travel Plan to support the scheme through the planning process. As such, we have attached our Scoping Report which provides our initial view on what would be required as part of the TS for this scheme.

Your views on the attached would be welcomed.

I have attached the Scoping Report in Word format so it can be directly edited.

Should you require any clarification on the content of the attached or any additional information, please do not hesitate to contact me.

Kind regards,

Dave

David Schumacher Director MSc DipMS, CMILT MCIHT | DD: 0151 728 1862 M: 07904 378859 | E-m



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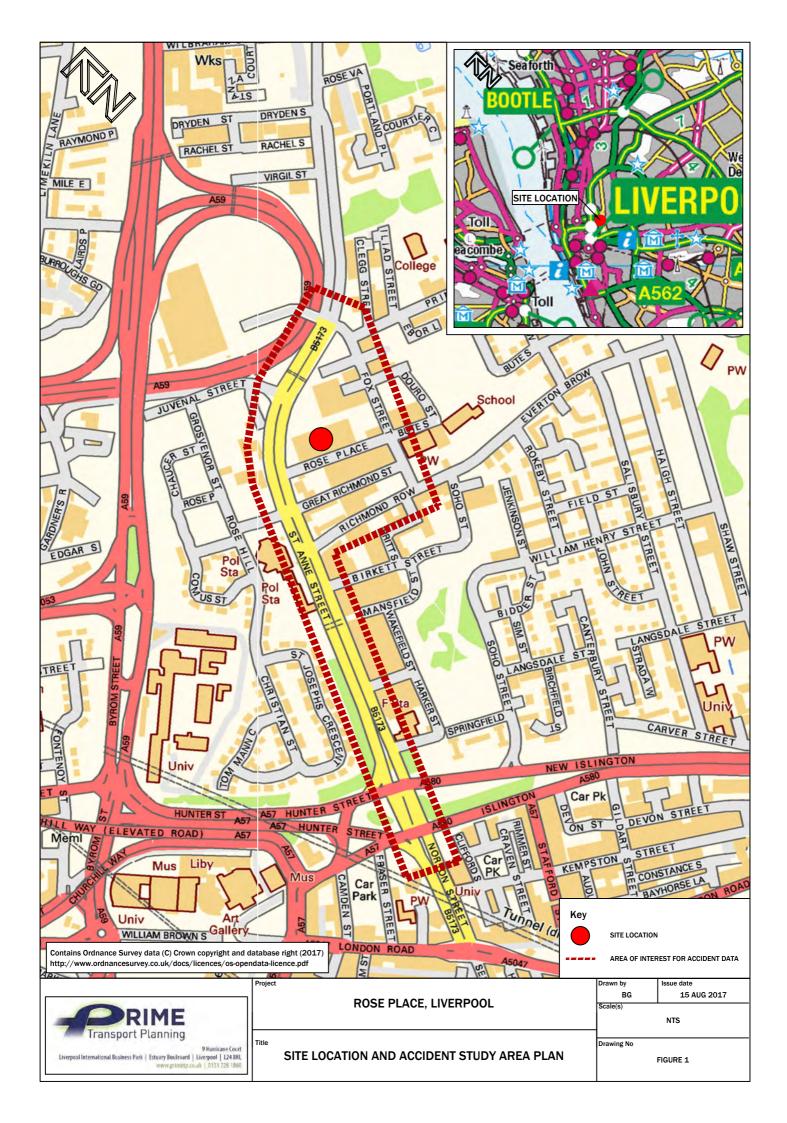
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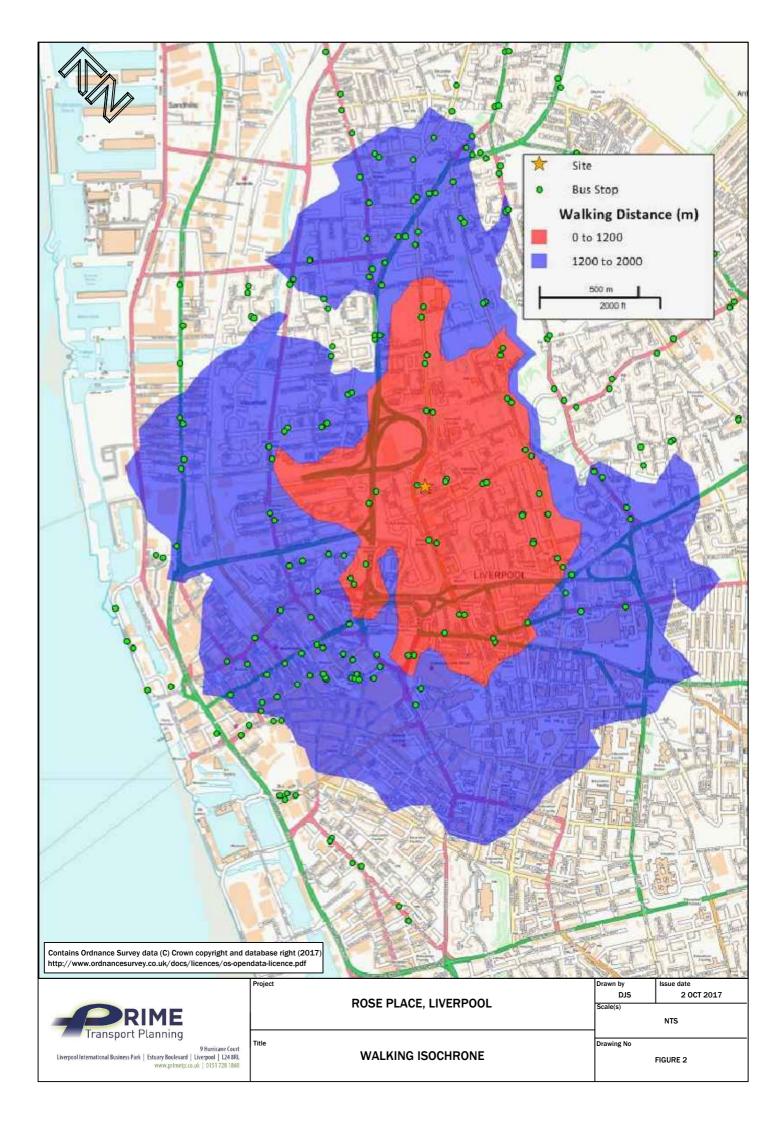
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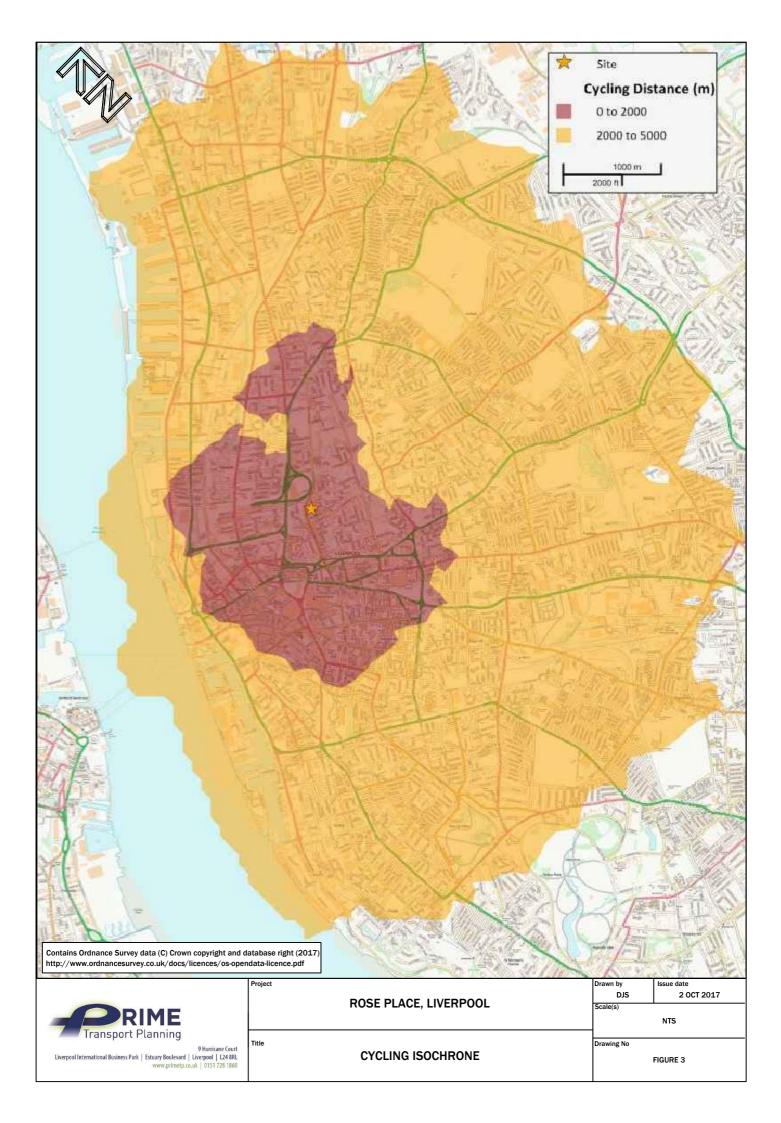
APPENDIX B

FIGURES

- Figure 1 Site Location Plan and Accident Search Area
- Figure 2 Pedestrian Isochrone
- Figure 3 Cycling Isochrone







APPENDIX C

SITE ACCESS ARRANGEMENT AND SWEPT PATH ANALYSIS

Project A 23.10.17 VB UPDATED TO NEW DWG DRAWING Project Rev Date By Revision notes Title Status FINAL Title SITE ACCESS ARRANGEMENT & SWEPT PARA	LOUBY Reference Bigger DOLD 200 DU DU 200 DU	plan				
Status Title Uverpool International Business Park Estuary Boulevard Liverpool L24 8RL FINIAL		Α	23.10.17	VB	UPDATED TO NEW DWG DRAWING	
Liverpool International Business Park Estuary Boulevard Liverpool 124 8RL	Transport Planning			Ву	Revision notes	Title
	Liverpool International Business Park Estuary Boulevard Liverpool L24 8RL				FINAL	

APPENDIX D

MINIMUM ACCESSIBILITY STANDARDS ASSESSMENT (MASA)

Minimum Scores

3.11 The minimum standard scores which are detailed have been developed through open and transparent testing by partner authorities and stakeholders on Merseyside. The scores have been tried and tested by transport and development professionals on real life developments.

Table 3.1: Minimum Levels of Accessibility: Minimum Scores for 'Medium' 'Large' and 'Major'
Developments

Development Type	Location (see key below)	Development Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access
A1 Retail D2 Assembly	Urban Centre	Major & Large	2	5	5	3
& Leisure		Medium	2	3	3	2
	Other Urban	Major & Large	4	5	6	2
		Medium	4	3	4	1
A3 Restaurants	Urban Centre	All	1	4	4	3
& Cafes A4 Drinking Establishments A5 Hot Food Takeaway	Other Urban	All	4	5	4	1
A2 Financial and	Urban Centre	Major & Large	2	5	5	3
Professional Services		Medium	2	4	5	2
	Other Urban	Major & Large	4	5	6	1 or 3 (2)
		Medium	4	4	4	1
B1 Business (including	Urban Centre	Major & Large	2	5	5	3
educational sites)		Medium	2	4	5	2
,	Other Urban	Major & Large	4	5	6	1 or 3 (2)
		Medium	4	4	4	1
B2 Industrial Uses	Urban Centre	Major & Large	n/a	n/a	n/a	n/a
		Medium	2	4	4	1
	Other Urban	Major & Large	2	3	5	1 or 3 ⁽²⁾
		Medium	2	2	4	1
B8 Storage and	Urban Centre	Major & Large	n/a	n/a	n/a	n/a
distribution		Medium	2	4	4	1

Development Type	Location (see key below)	Development Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access
	Other Urban	Major & Large	2	3	5	1 or 3 ⁽²⁾
		Medium	2	2	4	1
C1 Hotels	Urban Centre	Major & Large	2	5	5	3
		Medium	2	3	5	3
	Other Urban	Major & Large	4	5	5	1
		Medium	4	3	4	1
C3 Dwelling Houses	Urban Centre	Major & Large	4	4	5	3
(For flats with no		Medium	2	3	5	3
'internal circulation',	Other Urban	Major & Large	4	5	5	1
issues, i.e. no car park, reduce walking and cycling target by 1.)		Medium	4	3	5	1
C2 and D1 Residential	Urban Centre	All	2	5	5	3
and non-residential institutions (medical centres, museums and galleries, public halls and meeting places)	Other Urban	All	4	5	6	1

Notes:

(1) Urban Centres = Urban Centres in Liverpool are the City Centre (as defined by the Liverpool Vision City Centre boundary in Appendix F), and District Centres as shown on the UDP/LDF proposals map.

Other Urban = The areas that are not in the City / District Centres.

(2) In locations outside of the main centres, if reduced parking standards can not be applied with on-street parking controls (score 3), then the maximum parking level may be sought (score 1)

Minimum Accessibility Standard Assessment

Minimum Accessibility Standard Assessment

Proposal: Proposed Mixed Use Development

Completed	By: Ben Gaze				
		Access Diagram	ı		
developm (This can	gram been submitted wh ent and how this links to be included within the D has not been submitted	o the surrounding roa Design and Access Sta	ds, footpaths and sig atement, see Sectior	ght lines?	Yes / No
Access or	ı Foot			Points	Score
Safety	Is there safe pedestrian pedestrians passing the sides of the road)? If no y access.	site (2m minimum widt	th footpath on both		Yes / No
Location	Housing Development:		Yes	2	2
	within 500m of a district Accessibility Map 1 in A <u>Other development</u> : Is the local housing (i.e. within houses per hectare (see Appendix F)	No	0		
Internal	Does 'circulation' and ac	ccess inside the sites	Yes	1	1
Layout	reflect direct, safe and e routes for all; with priorit when they have to cross	No	0	1	
External Layout	Are there barriers betwee facilities or housing white access? (see Merseysic Access and Mobility)e.g No dropped kerbs	ch restrict pedestrian de Code of Practice on	There are barriers There are no barriers	-2 1	1
	desire lines;Steep gradients;	-	are no barners		
	heavy traffic;	crossing where there is , e.g. lack of lighting.			
Other	The development links to Accessibility Map 1). If r				Yes/ No
				Total (B)	4
Summary	Box A: Minimum Standard (from Table 3.1)	4	Comments or action any shortfall	n needed t	o correct
	Box B: Actual Score	4			

Access by	v Cycle			Points	Score
Safety	Are there safety issues f or a road junctions within for cyclists due to the lev issues in your application	n 400m of the site (e.g. vel of traffic)? If yes, you	dangerous right turns		Yes / 😡
Cycle Parking	Does the development meet cycle parking standards, in a secure location with natural surveillance, or where appropriate contribute to communal cycle parking facilities? If no, you must address cycle parking standards and cycle parking facilities.				Ves / No
Location	Housing Development:	•	(6)	2	2
	within 1 mile of a district or local centre (see Accessibility Map 1) Other Development: Is the density of local housing (e.g. within 1 mile) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)No			0	
Internal	Does 'circulation' and a		Yes	1	1
layout	reflect direct and safe cy given to cyclists where the vehicles?		No	0	
External Access	The development is with route (see Accessibility create a link to a cycle r	Map 1 in Appendix F) a	and / or proposes to	1	1
	The development is not within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F)			-1	
Other	Development includes shower facilities and		Yes	1	1
	lockers for cyclists		No	0	
				Total (B)	5
Summary	Box A: Minimum Standard (From Table 3.1)	5	Comments or action any shortfall	n needed f	to correct

	Box B:				
	Actual Score	5			
Access by	Public Transport			Points	Score
	-				
Location and	Is the site within a 200m walking distance of a bu		(es)	2	2
access to	400m of a rail station? (No	0	
public transport	2 in Appendix F). Are there barriers on dire	act and safe nedestrian	There are barriers	0	
	routes to bus stops or ra	ail stations i.e.	There are no	1	
	 A lack of dropped Pavements less th 		barriers		1
	• A lack of formal crossings where there is				
	heavy traffic; orBus access kerbs.				
Frequency	High (four or more bus s	services or trains an ho	ur <u>)</u>	2	
	Medium (two or three bus services or trains an hour)			1	2
	Low (less than two bus services or trains an hour)			0	
Other	The proposal contribute	s to bus priority measu	res serving the site	1	
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site				

The proposal contributes to an existing or new bus service

1

Total (B):

5

Summary	Box A: Minimum Standard	5	Comments or action any shortfall	n needed	to correct
	(from Table 3.1)				
	Box B: Total Score	5	-		
Vehicle Ac	ccess and Parking			Points	Score
Vehicle access	Is there safe access to a safety issues.	and from the road? If n	o, you must address		Yes/ No
and circulation	Can the site be adequate issues.		Yes/ No		
	Is the safety and conver and public transport) aff address safety issues.		Yes / 😡		
	Has access for the eme must provide emergenc		Yes/No		
	For development which the site easily accessed (i.e. minimising the impa- neighbourhoods) (see A please provide an expla		Yes / No N/A		

	The off-street parking pl development type	rovided is as advised in	n Section 4 for that	1	Yes / No
	The off-street parking pro in Section 4 for that dev with another developme	elopment type (or sha		2	Yes/ No
	For development in con	trolled parking zones:			Yes No
	Is it a car free deve	elopment?		1	Yes /NO
	provision of disabl	ol or removal of on-stre ed spaces), or contribu ocal parking strategy (ir	utes to other identified	1	Yes No
	1			Total (B):	2
Summary	Box A:		Comments or actio		
	Minimum Standard		any shortfall. If con appropriate for the parking (see section	reduced le	evel of
	(From Table 3.1)	1	been provided, plea	ise explair	ו why.

APPENDIX E

TRICS Outputs

Calculation Reference: AUDIT-753001-171002-1048

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL Category : C - FLATS PRIVATELY OWNED MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	2 days
	SC SURREY	1 days
03	SOUTH WEST	
	DC DORSET	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
10	WALES	
	FS FLINTSHIRE	1 days
11	SCOTLAND	
	SA SOUTH AYRSHIRE	1 days
	SR STIRLING	2 days

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

Secondary 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:	Number of dwellings
Actual Range:	6 to 140 (units:)
Range Selected by User:	6 to 154 (units:)

Public Transport Provision: Selection by:

Include all surveys

Date Range: 10/11/06 to 09/11/16

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:	
Monday	2 days
Tuesday	4 days
Wednesday	2 days
Thursday	2 days
Friday	2 days

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

Selected survey types:	
Manual count	12 days
Directional ATC Count	0 days

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.

<u>Selected Locations:</u> Edge of Town Centre

12

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

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.

Secondary Filtering selection:

Use Class: C3

. ..

12 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS[®].

Population within 1 mile:	
10,001 to 15,000	6 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:	
50,001 to 75,000	5 days
75,001 to 100,000	2 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days

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	1 days
1.1 to 1.5	11 days

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.

<u>Travel Plan:</u> No

12 days

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

12 days

This data displays the number of selected surveys with PTAL Ratings.

TRICS 7.4.2	290817 B17.57	(C) 2017	TRICS Consortium Ltd
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Hurricane Court Liverpool

Monday	02/	/10/1	17
	F	Page	3
Licence	No:	7530	01

LIST OF SITES relevant to selection parameters

PRIME Transport Planning'

<u>LISI</u>	OF SITES relevant to selection parameters		
1	CH-03-C-01 BLOCKS OF FLATS NEW CRANE STREET		CHESHIRE
2	CHESTER Edge of Town Centre Residential Zone Total Number of dwellings: Survey date: FRIDAY DC-03-C-01 BLOCKS OF FLATS ABBOTSBURY ROAD	60 17/10/08	Survey Type: MANUAL DORSET
3	WEYMOUTH Edge of Town Centre Residential Zone Total Number of dwellings: Survey date: TUESDAY EX-03-C-01 FLATS WESTCLIFF PARADE WESTCLIFF SOUTHEND-ON-SEA Edge of Town Centre	27 08/07/08	Survey Type: MANUAL ESSEX
4	Residential Zone Total Number of dwellings: Survey date: TUESDAY EX-03-C-02 BLOCK OF FLATS WESTCLIFF PARADE WESTCLIFF SOUTHEND-ON-SEA	6 22/10/13	Survey Type: MANUAL ESSEX
5	Edge of Town Centre Residential Zone Total Number of dwellings: Survey date: TUESDAY FS-03-C-01 BLOCK OF FLATS WREXHAM STREET	94 22/10/13	Survey Type: MANUAL FLINTSHIRE
6	MOLD Edge of Town Centre Built-Up Zone Total Number of dwellings: Survey date: MONDAY NF-03-C-01 BLOCKS OF FLATS PAGE STAIR LANE	30 06/07/09	Survey Type: MANUAL NORFOLK
7	KING'S LYNN Edge of Town Centre Built-Up Zone Total Number of dwellings: Survey date: THURSDAY SA-03-C-01 BLOCK OF FLATS RACECOURSE ROAD	51 11/12/14	Survey Type: MANUAL SOUTH AYRSHIRE
	AYR Edge of Town Centre Residential Zone Total Number of dwellings: Survey date: TUESDAY	51 16/09/14	Survey Type: MANUAL

PRIME Transport Planning'

LIST OF SITES rele	evant to selecti	on narameters ((`ont)

Hurricane Court

Liverpool

	or orrestant to selection parameters (or	/////	
8	SC-03-C-01 FLATS HEATHCOTE ROAD		SURREY
9	CAMBERLEY Edge of Town Centre Residential Zone Total Number of dwellings: Survey date: MONDAY SF-03-C-01 BLOCKS OF FLATS STATION HILL	140 21/07/08	Survey Type: MANUAL SUFFOLK
10	BURY ST EDMUNDS Edge of Town Centre Built-Up Zone Total Number of dwellings: Survey date: THURSDAY SR-03-C-01 FLATS FORTHSIDE WAY	85 18/12/14	Survey Type: MANUAL STIRLING
11	STIRLING Edge of Town Centre No Sub Category Total Number of dwellings: Survey date: WEDNESDAY SR-03-C-02 FLATS ROSEBERRY TERRACE	80 18/06/14	Survey Type: MANUAL STIRLING
12	STIRLING Edge of Town Centre Residential Zone Total Number of dwellings: Survey date: WEDNESDAY WM-03-C-03 FLATS LODE LANE	48 18/06/14	Survey Type: MANUAL WEST MIDLANDS
	SOLIHULL Edge of Town Centre No Sub Category Total Number of dwellings: Survey date: FRIDAY	60 21/09/07	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL VEHICLES Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		ARRIVALS DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
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	12	61	0.040	12	61	0.134	12	61	0.174
08:00 - 09:00	12	61	0.064	12	61	0.198	12	61	0.262
09:00 - 10:00	12	61	0.071	12	61	0.093	12	61	0.164
10:00 - 11:00	12	61	0.096	12	61	0.093	12	61	0.189
11:00 - 12:00	12	61	0.083	12	61	0.096	12	61	0.179
12:00 - 13:00	12	61	0.112	12	61	0.092	12	61	0.204
13:00 - 14:00	12	61	0.090	12	61	0.124	12	61	0.214
14:00 - 15:00	12	61	0.102	12	61	0.104	12	61	0.206
15:00 - 16:00	12	61	0.100	12	61	0.075	12	61	0.175
16:00 - 17:00	12	61	0.123	12	61	0.094	12	61	0.217
17:00 - 18:00	12	61	0.193	12	61	0.108	12	61	0.301
18:00 - 19:00	12	61	0.138	12	61	0.082	12	61	0.220
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.212			1.293			2.505

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL TAXIS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
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	12	61	0.003	12	61	0.003	12	61	0.006	
08:00 - 09:00	12	61	0.000	12	61	0.000	12	61	0.000	
09:00 - 10:00	12	61	0.000	12	61	0.000	12	61	0.000	
10:00 - 11:00	12	61	0.003	12	61	0.003	12	61	0.006	
11:00 - 12:00	12	61	0.003	12	61	0.003	12	61	0.006	
12:00 - 13:00	12	61	0.001	12	61	0.001	12	61	0.002	
13:00 - 14:00	12	61	0.004	12	61	0.004	12	61	0.008	
14:00 - 15:00	12	61	0.004	12	61	0.003	12	61	0.007	
15:00 - 16:00	12	61	0.003	12	61	0.004	12	61	0.007	
16:00 - 17:00	12	61	0.004	12	61	0.004	12	61	0.008	
17:00 - 18:00	12	61	0.004	12	61	0.003	12	61	0.007	
18:00 - 19:00	12	61	0.003	12	61	0.003	12	61	0.006	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.032			0.031			0.063	

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL OGVS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
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	12	61	0.000	12	61	0.000	12	61	0.000	
08:00 - 09:00	12	61	0.001	12	61	0.000	12	61	0.001	
09:00 - 10:00	12	61	0.003	12	61	0.004	12	61	0.007	
10:00 - 11:00	12	61	0.001	12	61	0.001	12	61	0.002	
11:00 - 12:00	12	61	0.001	12	61	0.000	12	61	0.001	
12:00 - 13:00	12	61	0.001	12	61	0.003	12	61	0.004	
13:00 - 14:00	12	61	0.001	12	61	0.001	12	61	0.002	
14:00 - 15:00	12	61	0.001	12	61	0.001	12	61	0.002	
15:00 - 16:00	12	61	0.000	12	61	0.000	12	61	0.000	
16:00 - 17:00	12	61	0.001	12	61	0.001	12	61	0.002	
17:00 - 18:00	12	61	0.000	12	61	0.000	12	61	0.000	
18:00 - 19:00	12	61	0.000	12	61	0.000	12	61	0.000	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.010			0.011			0.021	

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL PSVS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
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	12	61	0.000	12	61	0.000	12	61	0.000	
08:00 - 09:00	12	61	0.000	12	61	0.000	12	61	0.000	
09:00 - 10:00	12	61	0.000	12	61	0.000	12	61	0.000	
10:00 - 11:00	12	61	0.001	12	61	0.001	12	61	0.002	
11:00 - 12:00	12	61	0.001	12	61	0.001	12	61	0.002	
12:00 - 13:00	12	61	0.000	12	61	0.000	12	61	0.000	
13:00 - 14:00	12	61	0.000	12	61	0.000	12	61	0.000	
14:00 - 15:00	12	61	0.000	12	61	0.000	12	61	0.000	
15:00 - 16:00	12	61	0.001	12	61	0.000	12	61	0.001	
16:00 - 17:00	12	61	0.000	12	61	0.001	12	61	0.001	
17:00 - 18:00	12	61	0.000	12	61	0.000	12	61	0.000	
18:00 - 19:00	12	61	0.000	12	61	0.000	12	61	0.000	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.003			0.003			0.006	

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL CYCLISTS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
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	12	61	0.003	12	61	0.008	12	61	0.011	
08:00 - 09:00	12	61	0.001	12	61	0.000	12	61	0.001	
09:00 - 10:00	12	61	0.003	12	61	0.001	12	61	0.004	
10:00 - 11:00	12	61	0.003	12	61	0.005	12	61	0.008	
11:00 - 12:00	12	61	0.004	12	61	0.001	12	61	0.005	
12:00 - 13:00	12	61	0.003	12	61	0.005	12	61	0.008	
13:00 - 14:00	12	61	0.000	12	61	0.001	12	61	0.001	
14:00 - 15:00	12	61	0.001	12	61	0.000	12	61	0.001	
15:00 - 16:00	12	61	0.004	12	61	0.003	12	61	0.007	
16:00 - 17:00	12	61	0.000	12	61	0.001	12	61	0.001	
17:00 - 18:00	12	61	0.004	12	61	0.001	12	61	0.005	
18:00 - 19:00	12	61	0.003	12	61	0.000	12	61	0.003	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.029			0.026			0.055	

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL VEHICLE OCCUPANTS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
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	12	61	0.046	12	61	0.160	12	61	0.206	
08:00 - 09:00	12	61	0.068	12	61	0.255	12	61	0.323	
09:00 - 10:00	12	61	0.086	12	61	0.119	12	61	0.205	
10:00 - 11:00	12	61	0.130	12	61	0.120	12	61	0.250	
11:00 - 12:00	12	61	0.105	12	61	0.128	12	61	0.233	
12:00 - 13:00	12	61	0.145	12	61	0.120	12	61	0.265	
13:00 - 14:00	12	61	0.124	12	61	0.158	12	61	0.282	
14:00 - 15:00	12	61	0.119	12	61	0.142	12	61	0.261	
15:00 - 16:00	12	61	0.145	12	61	0.107	12	61	0.252	
16:00 - 17:00	12	61	0.160	12	61	0.117	12	61	0.277	
17:00 - 18:00	12	61	0.249	12	61	0.141	12	61	0.390	
18:00 - 19:00	12	61	0.171	12	61	0.112	12	61	0.283	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			1.548			1.679			3.227	

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL PEDESTRIANS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate	
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	12	61	0.022	12	61	0.064	12	61	0.086	
08:00 - 09:00	12	61	0.027	12	61	0.101	12	61	0.128	
09:00 - 10:00	12	61	0.037	12	61	0.081	12	61	0.118	
10:00 - 11:00	12	61	0.053	12	61	0.061	12	61	0.114	
11:00 - 12:00	12	61	0.045	12	61	0.072	12	61	0.117	
12:00 - 13:00	12	61	0.057	12	61	0.067	12	61	0.124	
13:00 - 14:00	12	61	0.064	12	61	0.056	12	61	0.120	
14:00 - 15:00	12	61	0.070	12	61	0.053	12	61	0.123	
15:00 - 16:00	12	61	0.085	12	61	0.042	12	61	0.127	
16:00 - 17:00	12	61	0.082	12	61	0.048	12	61	0.130	
17:00 - 18:00	12	61	0.096	12	61	0.046	12	61	0.142	
18:00 - 19:00	12	61	0.074	12	61	0.056	12	61	0.130	
19:00 - 20:00										
20:00 - 21:00										
21:00 - 22:00										
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.712			0.747			1.459	

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL PUBLIC TRANSPORT USERS Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
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	12	61	0.001	12	61	0.060	12	61	0.061
08:00 - 09:00	12	61	0.003	12	61	0.052	12	61	0.055
09:00 - 10:00	12	61	0.001	12	61	0.015	12	61	0.016
10:00 - 11:00	12	61	0.004	12	61	0.008	12	61	0.012
11:00 - 12:00	12	61	0.015	12	61	0.008	12	61	0.023
12:00 - 13:00	12	61	0.011	12	61	0.008	12	61	0.019
13:00 - 14:00	12	61	0.004	12	61	0.012	12	61	0.016
14:00 - 15:00	12	61	0.003	12	61	0.001	12	61	0.004
15:00 - 16:00	12	61	0.014	12	61	0.000	12	61	0.014
16:00 - 17:00	12	61	0.022	12	61	0.000	12	61	0.022
17:00 - 18:00	12	61	0.040	12	61	0.000	12	61	0.040
18:00 - 19:00	12	61	0.020	12	61	0.003	12	61	0.023
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.138			0.167			0.305

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED MULTI-MODAL TOTAL PEOPLE Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
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	12	61	0.072	12	61	0.292	12	61	0.364
08:00 - 09:00	12	61	0.100	12	61	0.408	12	61	0.508
09:00 - 10:00	12	61	0.127	12	61	0.216	12	61	0.343
10:00 - 11:00	12	61	0.190	12	61	0.195	12	61	0.385
11:00 - 12:00	12	61	0.169	12	61	0.210	12	61	0.379
12:00 - 13:00	12	61	0.216	12	61	0.201	12	61	0.417
13:00 - 14:00	12	61	0.193	12	61	0.228	12	61	0.421
14:00 - 15:00	12	61	0.193	12	61	0.197	12	61	0.390
15:00 - 16:00	12	61	0.247	12	61	0.152	12	61	0.399
16:00 - 17:00	12	61	0.264	12	61	0.167	12	61	0.431
17:00 - 18:00	12	61	0.388	12	61	0.189	12	61	0.577
18:00 - 19:00	12	61	0.268	12	61	0.171	12	61	0.439
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.427			2.626			5.053

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:	6 - 140 (units:)
Survey date date range:	10/11/06 - 09/11/16
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0