

Transport Statement

**Proposed Residential Development
Rydal Penrhos School Site, Oak Drive, Colwyn Bay**

Prepared for Castle Green Homes

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1.0 INTRODUCTION

General

- 1.1 SCP have been appointed by Castle Green Homes to provide specialist transport planning and engineering advice in support of a proposed residential development on the Rydal Penrhos School Site located to the south of Oak Drive, Colwyn Bay.
- 1.2 The proposed development will provide 105 dwellings comprising a mix of 33no. 1-3 bedroom apartments and 72no. 2-5 bedroom houses. Further details of the proposed development are provided in Chapter 3 later.
- 1.3 This Transport Statement (TS) has been prepared to support the planning application and demonstrates that the proposed development of this site can be accommodated without detriment to the operational capacity or safety of the local highway network and that it can be readily accessed on foot, by bicycle and by local public transport services.

Scope and Structure of Report

- 1.4 The structure of this report is as follows:
- Chapter 2 – summarises relevant national and local transport policies and presents an evaluated Transport Implementation Strategy;
 - Chapter 3 – provides an appraisal of the existing conditions of the site including an appraisal of the local highway network, existing traffic conditions and road safety record;
 - Chapter 4 – provides an appraisal of the development proposals including the proposed site access arrangements, servicing arrangements and car parking;
 - Chapter 5 – presents a review of the accessibility of the site by walking, cycling and public transport modes;
 - Chapter 6 – presents estimates of the trip generating potential of the scheme and provides an assessment of the impact on the local highway network; and
 - Chapter 7 – provides the summary and conclusions to the above chapters.

2.0 POLICY CONTEXT AND TRANSPORT IMPLEMENTATION STRATEGY

Introduction

2.1 Technical Advice Note 18 (TAN 18) sets out the need for developments in Wales to include a Transport Implementation Strategy (TIS), which should include the following information in respect of each particular development proposal:

- Details of how the development and the TIS relate to transport planning policies and strategy. TIS's are intended to incorporate all the elements of a Travel Plan (TP) and to ensure that these are integrated with design elements of the new development;
- A set of objectives and targets relating to managing travel demand for the development;
- A framework for monitoring the objectives and targets, including the future modal split of transport to the development; and
- Details of measures proposed to improve access by public transport, walking and cycling to reduce the number and impacts of motorised journeys associated with the development.

2.2 This TIS section is therefore prepared having regard to the advice from TAN 18, as outlined above. It is considered that this TIS can be taken forward and used as a framework for a future detailed Travel Plan that can be secured as part of a planning condition, if considered necessary.

Policy Context - Planning Policy Wales (PPW)

2.3 In terms of the national transport policy that is relevant to the TIS, the latest 10th edition of PPW was published in December 2018 by the Welsh Government and sets out a framework for the Welsh planning authorities to prepare their development plans. Chapter 4 of PPW sets out the approach to Transport.

2.4 Paragraph 4.1.1 of PPW states that *"The planning system should enable people to access jobs and services through shorter, more efficient and sustainable journeys, by walking, cycling and public transport. By influencing the location, scale, density, mix of uses and design of new development, the planning system can improve choice in transport and secure accessibility in a way which supports sustainable development, increases physical activity, improves health and helps to tackle the causes of climate change and airborne pollution by:*

- *Enabling More Sustainable Travel Choices – measures to increase walking, cycling and public transport, reduce dependency on the car for daily travel;*

- *Network Management – measures to make best use of the available capacity, supported by targeted new infrastructure; and,*
- *Demand Management – the application of strategies and policies to reduce travel demand, specifically that of single-occupancy private vehicles”.*

2.5 Paragraph 4.1.8 of PPW states that “*The Welsh Government is committed to reducing reliance on the private car and supporting a modal shift to walking, cycling and public transport. The planning system has a key role to play in reducing the need to travel and supporting sustainable transport, by facilitating developments which:*

- *are sited in the right locations, where they can be easily accessed by sustainable modes of travel and without the need for a car;*
- *are designed in a way which integrates them with existing land uses and neighbourhoods; and,*
- *make it possible for all short journeys within and beyond the development to be easily made by walking and cycling.”*

2.6 With reference to the Active Travel (Wales) Act 2013, Paragraph 4.1.26 of PPW states that walking and cycling should be promoted for shorter journeys, particularly everyday journeys to work and education establishments or to other local services and facilities. “*The Active Travel Act requires local authorities to produce Integrated Network Maps, identifying the walking and cycling routes required to create fully integrated networks for walking and cycling to access work, education, services and facilities*”.

2.7 In reference to supporting documentation with planning applications, paragraph 4.1.56 of PPW states that “*Transport Assessments are an important mechanism for setting out the scale of anticipated impacts of a proposed development, or redevelopment, is likely to have. They assist in helping to anticipate the impacts of development so that they can be understood and catered for appropriately.*”

TIS Objectives and Targets

2.8 The objectives of a TIS should benefit both the occupiers of a development and the wider community. The objectives will be set out in the following sections and form the basis for a TP for the development. Site specific objectives that are relevant to the proposed development are as follows:

- Increase opportunities for residents;
- Reduce vehicle use in and around the site;
- Improve the image of the local area;
- Reduce the transport impact of the development upon the environment;
- Promote more sustainable ways of travelling; and,
- Support government policy to manage travel demand more effectively.

2.9 In order to achieve the objective of reducing single occupancy vehicle travel, realistic short term annual targets for mode share will be set.

2.10 The proposed development is located in the Rhiw Ward. The 2011 UK Census shows that single occupancy travel to work by car mode is, on average; higher in the Rhiw Ward (74%) to both Conwy (72%) and Wales (71%). The existing local single occupancy modal share percentage of 72% will therefore be the initial baseline target for the residential properties on the site. The following table shows the figures obtained from the Census data:-

Table 2.1 – Mode Share from Local, Regional and National Area (2011 Census)

Travel to Work (QS701EW) Census Statistics	Rhiw Ward	Conwy County	Wales Country
All Usual Residents Aged 16 to 74 in Employment	4,627	81,906	1363615
Work Mainly at or From Home	195	3,631	73140
Underground, Metro, Light Rail, Tram	5	0	1175
Train	41	576	27341
Bus, Minibus or Coach	110	2,179	62903
Taxi	9	236	6523
Motorcycle, Scooter or Moped	8	277	7694
Driving a Car or Van	1,972	33,566	918645
Passenger in a Car or Van	164	2,826	92727
Bicycle	25	658	19659
On Foot	298	5,677	145135
Other Method of Travel to Work	27	427	8673
Total Persons Travelling to Work	2,659	46,422	1,290,475
Single Occupancy Car Journeys (%)	74%	72%	71%
Car Shares (%)	6%	6%	7%
Public Transport (%)	6%	6%	7%
Walking (%)	11%	12%	11%
Bicycle (%)	1%	1%	2%
Taxi (%)	0%	1%	1%
Motorcycle (%)	0%	1%	1%

2.11 If it is demonstrated (through surveys) that the level of single occupancy car travel from the proposed development is lower than the 71% county level, the initial short term targets will be reassessed in conjunction with the local authority to try and bring levels down even further.

- 2.12 In addition to the single occupancy car travel targets, if it is demonstrated (through surveys) that the level of public transport travel usage to / from the site is less than the 6% for the ward, the initial short term targets will be to increase the public transport travel to that level. Once public transport usage from the development is at 6%, the targets will be reassessed to try to increase public transport usage levels even further.

Achieving the TIS Objectives and the Monitoring Process

- 2.13 The objectives and monitoring of the TIS will substantially be achieved through the appointment of suitable Travel Plan Co-ordinator/s (TPC/s). The TPC role for the development would most commonly be overseen by a Management Company located on the site, although in time this role could evolve to be overseen by the residents of the site themselves. Appropriate start-up funding will be provided for the TPC/s to cover the administration costs involved.
- 2.14 Once appointed, the TPC/s will act as the main contact for the TIS and will be responsible for implementing the TIS measures, involving new residents, maintaining a database and monitoring the effects of implementation. A full set of duties and responsibilities of the TPC/s is set out in the sections below.
- 2.15 The TPC/s will inform the Local Planning Authority and the appropriate local public transport operators of their contact details. Similarly, the TPC/s will obtain the contact details of the owners and complete a 'Contact' form to provide easy reference when dealing with relevant matters.
- 2.16 The TPC/s will undertake an initial resident travel survey, within three months of 30% occupation of the site, to enable a resident travel database to be set up. The TPC/s will prepare and distribute a questionnaire to each resident, to collect the following details:
- Postcode area of place of employment;
 - Normal working hours;
 - Mode of travel to work;
 - Car ownership / usage;
 - Reasons for not using public transport and other modes;
 - The anticipated take-up of a car sharing scheme, the use of public transport or other non-car modes of travel to work; and,
 - Information relating to potential areas for sustainable travel improvement, upon which the TPC/s could act and draw up measures to improve the TIS.
- 2.17 On receipt of the completed questionnaires the TPC/s will set up a travel database within 3 months of completion of the travel survey.

- 2.18 The TPC/s will agree the annual targets with the LPA within 1 month of completion of the travel survey analysis. The initial travel survey results for the proportion of residents travelling by single occupancy vehicles should be recorded along with the agreed short-term annual targets.
- 2.19 The TPC/s will ensure that any changes to the TIS or any relevant information is passed on to residents on a biannual / annual basis in the form of leaflets.
- 2.20 The TPC/s will ensure that residents are provided with information to allow ease of use of the local public transport by providing up-to-date public transport route maps and timetable information in residential 'welcome packs', and updating by leaflet drop, as necessary. Contact details for local taxi firms will also be provided by the TPC/s.
- 2.21 The TPC/s will liaise regularly with local public transport operators to ensure that information remains valid. The TPC/s will provide details of the websites and telephone advice services, such as <http://www.traveline.info/> to enable residents to obtain details on their individual journey requirements.
- 2.22 The TPC/s will also liaise with the local public transport operators and release survey data to the operators to identify travel demands and allow appropriate services to be provided. The TPC/s will check regularly to ensure that the information supplied to residents remains valid.
- 2.23 The TPC/s will encourage walking as a mode of travel to the site by implementing the following initiatives:
- Raise awareness of the health benefits of walking through promotional material;
 - Provide a map showing walking routes, indicating distances and times to the most common destinations near to the site; and,
 - Ensure that footways on site are well maintained and lit and any defects reported to the highways authority on an annual/biannual basis.
- 2.24 In conjunction with the pedestrian initiatives, the TPC/s will investigate the potential to set up a bicycle user group (BUG) to encourage residents to cycle to work.
- 2.25 The TPC/s will set up a car sharing scheme, utilising the online website www.liftshare.com, within 3 months of receiving the initial residents travel surveys. Residents will be contacted by the TPC/s to allow potential car sharers to register an interest and provide details of their journey to and from work along with their contact phone number and work location. The TPC/s will then identify suitable matches for residents that may be able to share their journeys to and from work or for shopping trips.
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- 2.26 The TPC/s will make the new residents aware of the existence of the TIS by providing them with a copy of the TIS as part of a welcome pack as they move into their properties. The existence of the TIS would also be highlighted in promotional literature and advertising for the new dwellings.
- 2.27 The TPC/s will monitor travel patterns on an annual basis for the first five years of the occupation of the sites and then at suitable intervals as agreed by the Local Planning Authority. The monitoring of the plan is important for the following reasons:
- It will ensure that the Local Planning Authority can see that the aims and objectives of the TIS are being achieved;
 - It justifies the commitment of the TPC/s and of other resources;
 - It maintains support for the plan by reporting successes;
 - It identifies any measures that are not working or problems with the approach of the Plan;
 - It can be shared with other organisations to refine the development of the Plan.
- 2.28 Surveys will be used to monitor travel to and from the site. The surveys can be used to monitor the number of residents walking, cycling, using cars and using public transport. The results can then be compared with the mode share targets identified earlier in this framework TIS.
- 2.29 The TPC/s will develop the monitoring programme in conjunction with the Local Planning Authority to ensure that the monitoring procedures are appropriate. The TPC/s will maintain a monitoring table of progress to key TIS targets based on the results of the monitoring travel surveys. This table will be published and distributed by leaflet to residents on the site.
- 2.30 The TPC/s will make information on mode share available to the Local Planning Authority as part of the continuous monitoring process, subject to the provisions of the Data Protection Act.
- 2.31 The TPC/s will undertake an annual review of the TIS in conjunction with the Local Planning Authority. This review will be important in assessing the effectiveness of the measures implemented and to identify areas where modification may be necessary. In particular the following will be assessed:
- The level of car/non-car usage at the site;
 - Comments received from residents.
- 2.32 When reviewing the effectiveness of the TIS, the following questions will be asked:
- Which areas offer the greatest potential for change/improvement?
 - Was the initiative implemented by the target date?

- How well used is each scheme/initiative?
- How much did it cost to introduce?

- 2.33 The TPC/s will compare the mode share statistics obtained from the annual monitoring to the targets set for the development. The TPC/s will set revised realistic targets for modal shifts to non-car travel modes and investigate the effectiveness of the TIS initiatives being promoted in conjunction with the Local Planning Authority.
- 2.34 In light of the data collected from the monitoring process, the TPC/s will adapt the TIS to enable the revised agreed targets to be achieved and submit a review report to be agreed with the Local Planning Authority.
- 2.35 It is considered that the delivery of the TIS / TP can be secured by planning condition, as appropriate.

3.0 EXISTING CONDITIONS

Site Location

- 3.1 The application site comprises an irregular shaped plot of land located to the south of Oak Drive, Colwyn Bay.
- 3.2 The location of the site in relation to the wider highway network is shown on **Figure 3.1** below and the site boundary in relation to the local highway network is shown in red on **Figure 3.2** overleaf.

Figure 3.1 – Site Location – Wider Highway Network

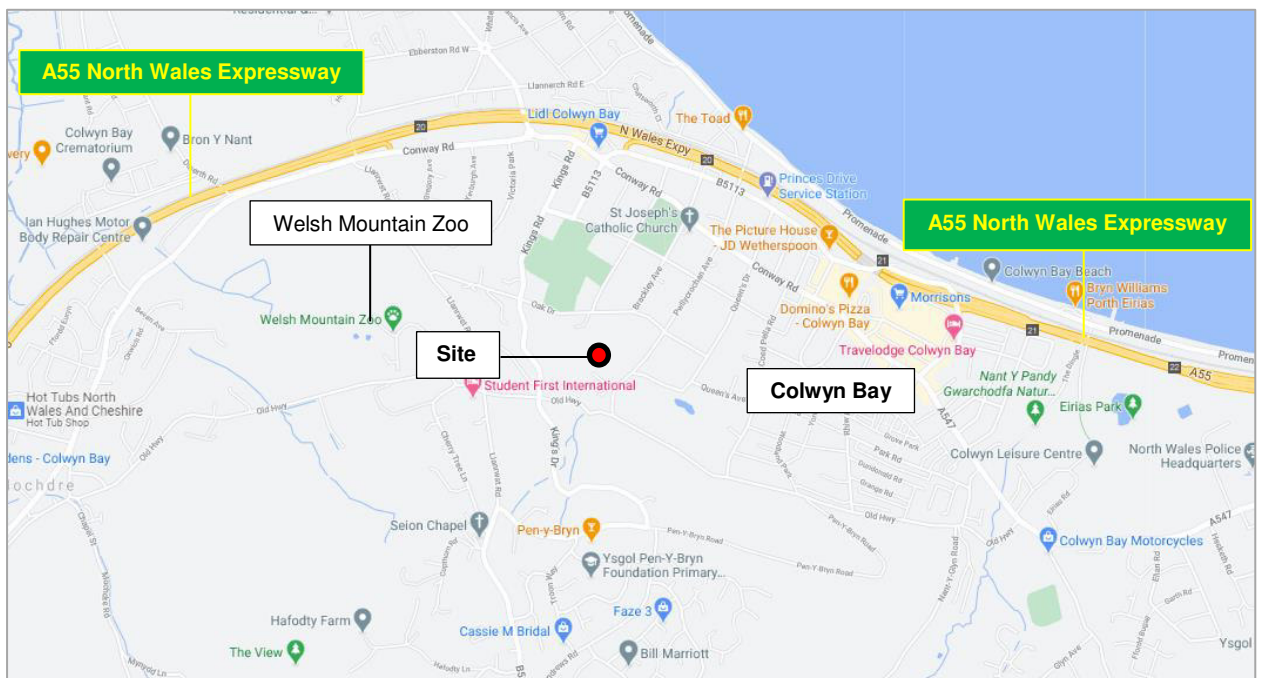
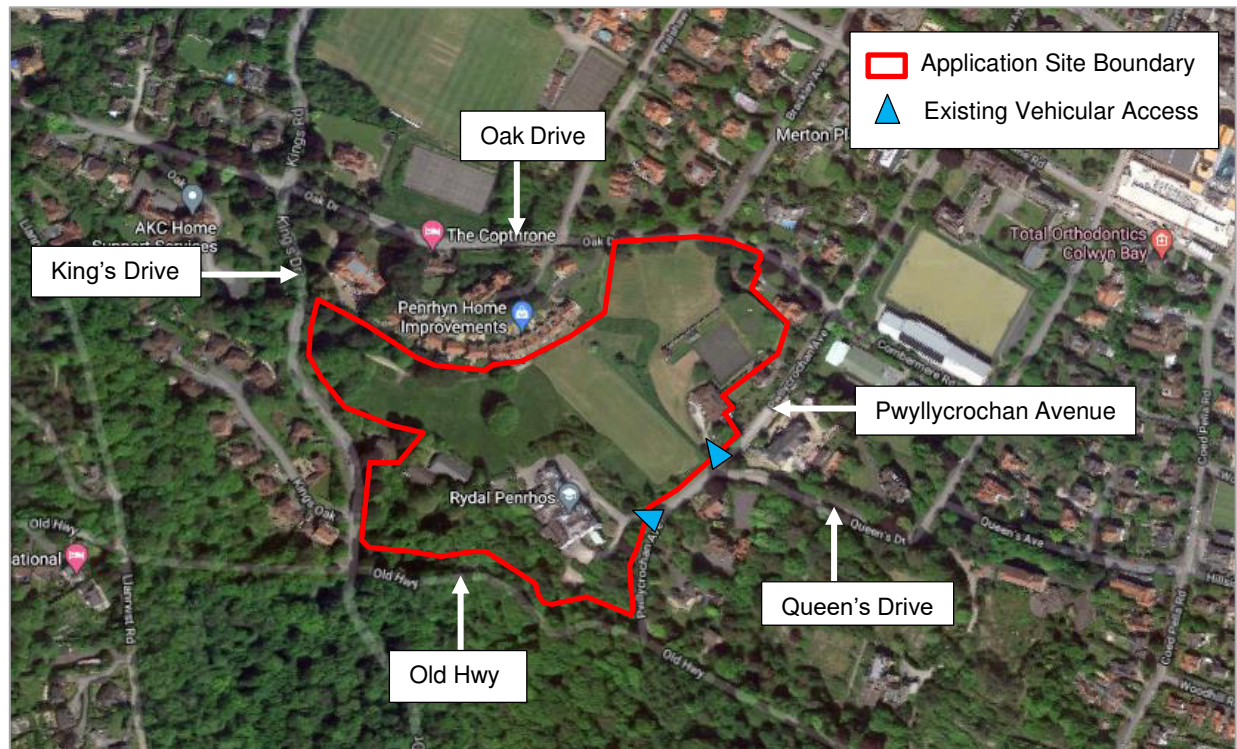


Figure 3.2 – Site Location Plan – Local View



- 3.3 There are no Public Right of Way (PROW) within the immediate vicinity of the application site.
- 3.4 The application site comprises the Rydal Penrhos Pre and Preparatory School including the associated sports fields and landscaped areas. The school is a mixed boarding and day school which has a total gross floor area (GFA) of approximately 3,680m² comprising 3,175m² of non-teaching rooms and 505m² of teaching rooms.
- 3.5 The site is bound by detached residential dwellings to the north-west, Oak Drive to the north, a single detached residential dwelling and Pwyllycrochan Avenue to the east, Old Hwy to the south and King's Drive and a large single residential dwelling to the west.
- 3.6 Vehicular access to the site is currently provided along Pwyllycrochan Avenue via two simple priority controlled accesses which serve buildings associated with the existing Rydal Penrhos School, as shown on **Figure 3.2** above.

Local Highway Network

Oak Drive

- 3.7 Oak Drive is residential in nature and located along the northern boundary of the site, providing a link between Pwllcrochan Avenue to the east and Llanwrst Road to the west. In the vicinity of the site, Oak Drive has a carriageway width of approximately 7.7m and benefits from footways on both sides of the carriageway. Oak Drive benefits from street lighting and is subject to a 20mph speed limit.

King's Drive

- 3.8 King's Drive is a quiet residential road located along the western boundary of the site and provides a link between Pen-Y-Bryn Road to the south and the A547 Conwy Road to the north. In the vicinity of the site, King's Drive has a carriageway width of approximately 7.0m and benefits from footways on both sides of the carriageway and street lighting. Kings Drive is subject to a 30mph speed limit.
- 3.9 To the north of the site, between the A547 Conwy Road and Oak Drive, King's Drive is subject to one-way operation in a southbound direction. King's Drive also provides on-street parking on both sides of the carriageway along this section which is restricted to Mon-Sat 08:00-18:00 for 120 mins (no return with 120 mins).

Pwllcrochan Avenue

- 3.10 Pwllcrochan Avenue is a residential road located along the eastern boundary of the site and provides a link between Old Hwy to the south-west and the A547 Conwy Road to the north-east. Within the vicinity of the site, Pwllcrochan Avenue has a carriageway width of approximately 7.7-12.0m and footways provided on both sides of the carriageway. Pwllcrochan Avenue benefits from street lighting and is subject to a mandatory speed limit of 20mph.

Road Safety

- 3.11 In order to identify critical locations on the network with a poor accident record, the personal injury accident data has been obtained from the online resource CrashMap for the most recently available 5-year period (approx.), ending in December 2020. The location and severity of any accidents within the study area during this period, are shown on **Figure 3.3** and summarised in **Table 3.1** below.

Figure 3.3 – Road Safety Plan

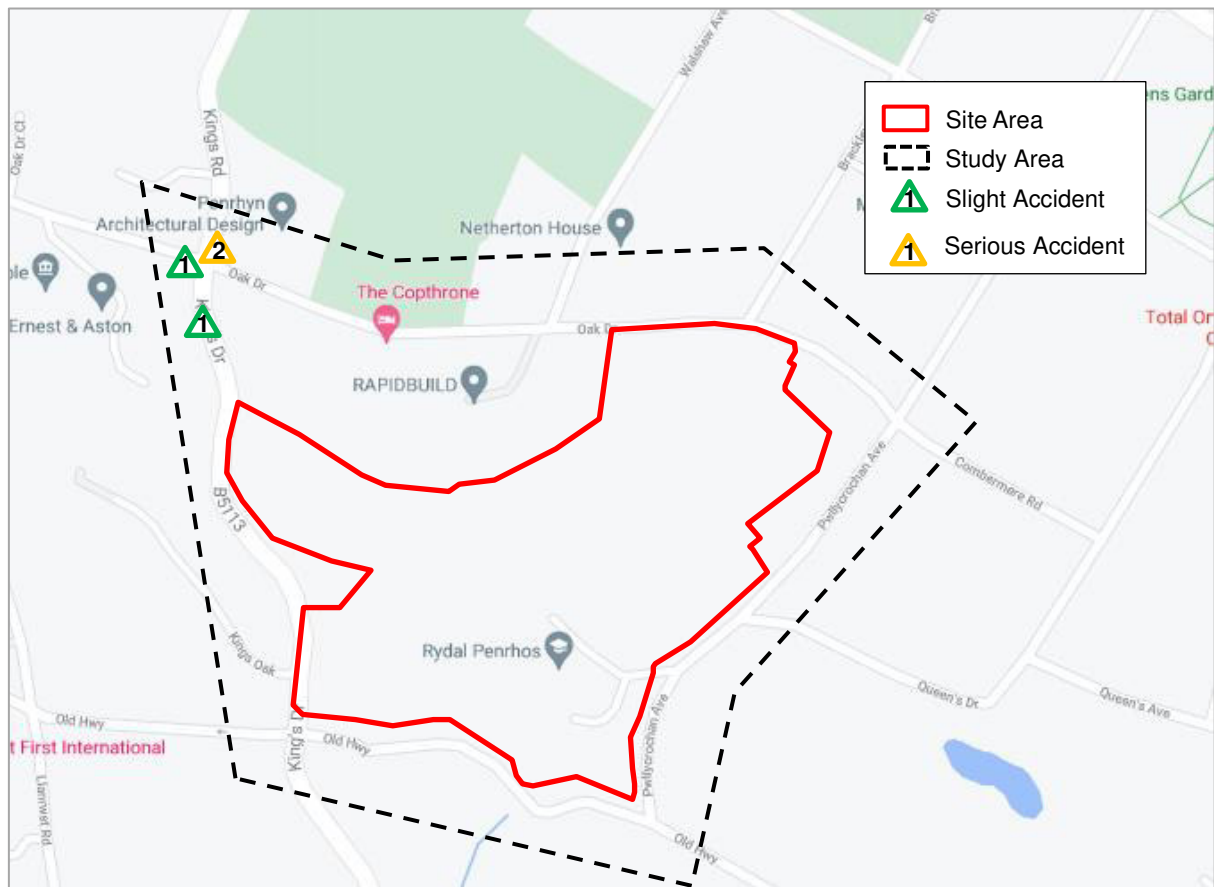


Table 3.1 – 5 Year Accident Record

		Number of Accidents/Collisions		
		Slight	Serious	Fatal
Junction	King's Rd / Oaks Dr	1	2	0
	Pwllcrochan Ave / Oaks Dr	0	0	0
	King's Rd / Old Hwy	0	0	0
	Pwllcrochan Ave / King's Rd	0	0	0
Link	King's Dr (between Old Hwy and Oaks Dr)	1	0	0
	Oak Dr (between King's Dr and Pwllcrochan Ave)	0	0	0
	Old Hwy (between King's Dr and Pwllcrochan Ave)	0	0	0
	Pwllcrochan Ave (between Old Hwy and Oaks Dr)	0	0	0

3.12 As can be seen from the above, the surrounding road network has a good accident record with a low number of accidents occurring at the key junctions and links in the vicinity of the site. In particular, no accidents occurred at the existing site access onto Pwllcrochan Avenue. On this basis, it is concluded that there are no recurring highway safety problems on the local highway network that could be affected by the development proposals.

4.0 PROPOSED DEVELOPMENT

General

- 4.1 The proposed development will provide 105 dwellings including the following:-
- 72 houses (including 21 affordable houses) comprising 14no. 2-bed houses, 29no. 3-bed houses, 25no. 4-bed houses and 4no. 5-bed houses; and
 - The existing Rydal School will be renovated to provide a total of 33 apartments comprising 1no. 1-bed apartment, 27no. 2-bed apartments and 5no. 3-bed apartments.
- 4.2 The proposed site layout plan is presented in **Appendix A**.
- 4.3 The existing Preparatory School on the site will be relocated into 'Beechholme' which is an existing building located at the south-eastern corner of the main Senior School site. This will require the renovation and refurbishment of the building from a boarding house into an educational use and would be subject to a separate planning application, if required.

Proposed Site Access Arrangements

- 4.4 Vehicular access to the site will be provided from five separate locations which will help to evenly distribute the development traffic on the local highway network and reduce traffic impacts. The proposed access arrangements are shown on Drawing Number SCP/200642/D01 Rev A presented in **Appendix B** and are summarised as follows:-
- A new simple priority junction will be introduced on Pwllcrochan Avenue, replacing the existing school access in the vicinity of Queens Drive. The proposed access has been designed to typical residential standards providing a 5.5m wide carriageway, 2m wide footways and 6m junction radii. This access will serve 24 dwellings;
 - A new simple priority junction will be introduced along Oak Drive. The proposed access has been designed to typical residential standards providing a 5.5m wide carriageway, 2m wide footways and 6m junction radii. This access will serve 36 dwellings;

- A new simple priority junction will be introduced on King's Drive. The proposed access has been designed to typical residential standards providing a 5.5m wide carriageway, 2m wide footways on both sides of the access in the vicinity of the junction and 6m junction radii. Within the site a footway will only be provided on the southern side of the access road which is considered acceptable as all dwellings are located on the southern side of the access road. This access will serve 8 dwellings;
- A new shared surface driveway access will be introduced along King's Drive. The proposed access will provide a 4.8m wide carriageway and take the form of a simple dropped kerb access. A pedestrian link will also be provided to the south of the access which will connect internally to the proposed apartments. This access will serve 4 dwellings; and
- The existing access to the existing Rydal School along Pwllcrochan Avenue will be retained in its current form and will serve all 33 apartments and associated parking. This is considered acceptable for the following reasons:-
 - This is an established access which, as detailed earlier, is operating safely with no accidents having occurred at the site access junction or along Pwllcrochan Avenue over the five-year study period;
 - As demonstrated later in this report, the proposed apartments will result in a reduction in the number of vehicle movements generated and therefore deintensification in the use of this access when compared to the existing school use;
 - As shown on drawing SCP/200642/D01 presented in **Appendix B**, visibility splays of 25m are achievable in both directions which is in accordance with the visibility requirements set out in TAN18 and the Manual for Streets for a 20mph road; and
 - Two cars can pass each other at the bellmouth of the junction.

4.5 Junction visibility from the site accesses confirm to the visibility requirements set out in TAN18 and the Manual for Streets, providing visibility splays that have an 'x' (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 25m for the 20mph roads (Pwllcrochan Avenue and Oak Drive) and 43m for 30mph road (King's Drive), as shown on drawing SCP/200642/D01 Rev A presented in **Appendix B**.

- 4.6 Pedestrian and cycle access into the site will be provided at the same location as the vehicular accesses. The pedestrian accesses will be connected internally helping to ensure that the site is permeable in all directions and reduce walk distances for prospective residents.

Internal Site Layout and Servicing

- 4.7 The internal road network has been designed to ensure the movements of service and refuse vehicles will be accommodated without allowing their requirements to dominate the layout of the site. Swept path analysis has been undertaken of the site access and internal road layout, which demonstrates that the movements of a large refuse vehicle can be accommodated within the proposed development.
- 4.8 Swept path analysis of a refuse vehicle is shown on drawing numbers SCP/200642/ATR02 and SCP/200642/ATR03 presented in **Appendix C**.

Parking

- 4.9 Car Parking Standards for new developments are outlined in the Conwy Local Development Plan 2007 – 2022 Supplementary Planning Guidance LDP2: Parking Standards. The most appropriate category is 'General Purpose Houses and Apartments - Zones 2-6' with the maximum standards summarised below:

Houses and Apartments

Residents: 1 space per bedroom (maximum requirement 3 spaces)

Visitors: 1 space per 5 units

- 4.10 However, CCBC's LDP2 also states that consideration should be given to the sustainability of sites when determining the required parking provision. CCBC's sustainability criteria checklist is presented in Appendix 6 of the LDP2 and states that "*sustainability points will be awarded to developments that meet the criteria below for their proximity, in terms of walking distance to local facilities, public transport, cycle routes and the frequency of local public transport.*"

Figure 4.1 – CCBC LDP2 Sustainability Criteria

Sustainability Criteria	Maximum Walking Distance	Single Sustainability Points
<u>Local Facilities</u>		
Local facilities include a foodstore, post office, health facility, school etc. Access to two of these within the same walking distance will score single points, whereas access to more than two of these will double the points score.	200m 400m 800m	3 pts 2 pts 1 pt
<u>Public Transport</u>		
Access to bus stop or railway station	300m 400m 800m	3 pts 2 pts 1 pt
<u>Cycle Route</u>	200m	1 pt
	Frequency	
<u>Frequency of Public Transport</u>		
Bus or rail service within 800m walking distance which operates consistently between 7am and 7 pm. Deduct one point for service which does not extend to these times.	5 minutes 20 minutes 30 minutes	3 pts 2 pts 1 pt

- 4.11 The proposed development score is summarised in Figure 4.2 below and demonstrates that the development scores a total of 10 points, which is the highest score achievable. CCBC's LDP2 states a score of 10 allows a reduction in the maximum parking standards.

Figure 4.2 – CCBC LDP2 Sustainability Criteria

	Distance	Points
Local Facilities	Rydal Penrhos School, St Joseph's Primary School, St Jospehs Catholic Church within 400m. Queens Gardens, Lidl, West End Medical Centre, Cohens Chemist, Bay Gym, Colwyn Bay Post Office, various banks, public houses and take outs along Conwy Road with 800m	Minimum of 7
Public Transport	Up to 800m	1
Cycle Route	Over 200m	0
Frequency of Public Transport	12 Sapphire operates approx. every 15 mins	2
Total		10

- 4.12 The parking spaces per dwelling is shown on the proposed site layout plan presented in **Appendix A** and demonstrates the proposed houses provide an average of 2-3 spaces per unit which is in accordance with CCBC's standards and includes 14 visitor parking spaces.

- 4.13 Based on CCBC's standards, the proposed apartments should provide a maximum of 84 parking spaces including 14 visitor parking spaces. The apartment will provide a total of 75 car parking spaces including 11 disabled parking spaces and 5 visitor parking spaces which is considered acceptable given the sites suitable location / accessibility score and as the proposed provision is only slightly below the Council's maximum standards.

5.0 ACCESSIBILITY

- 5.1 This Chapter presents a review of the accessibility of the site by walking, cycling and public transport modes.
- 5.2 The accessibility of the site by non-car modes has been assessed by comparison with the following threshold distances, as set out by Andrew Davies AM ‘Minister for Economic Development and Transport’ in his foreword to the 2003 *“Walking and Cycling Strategy for Wales”* document:

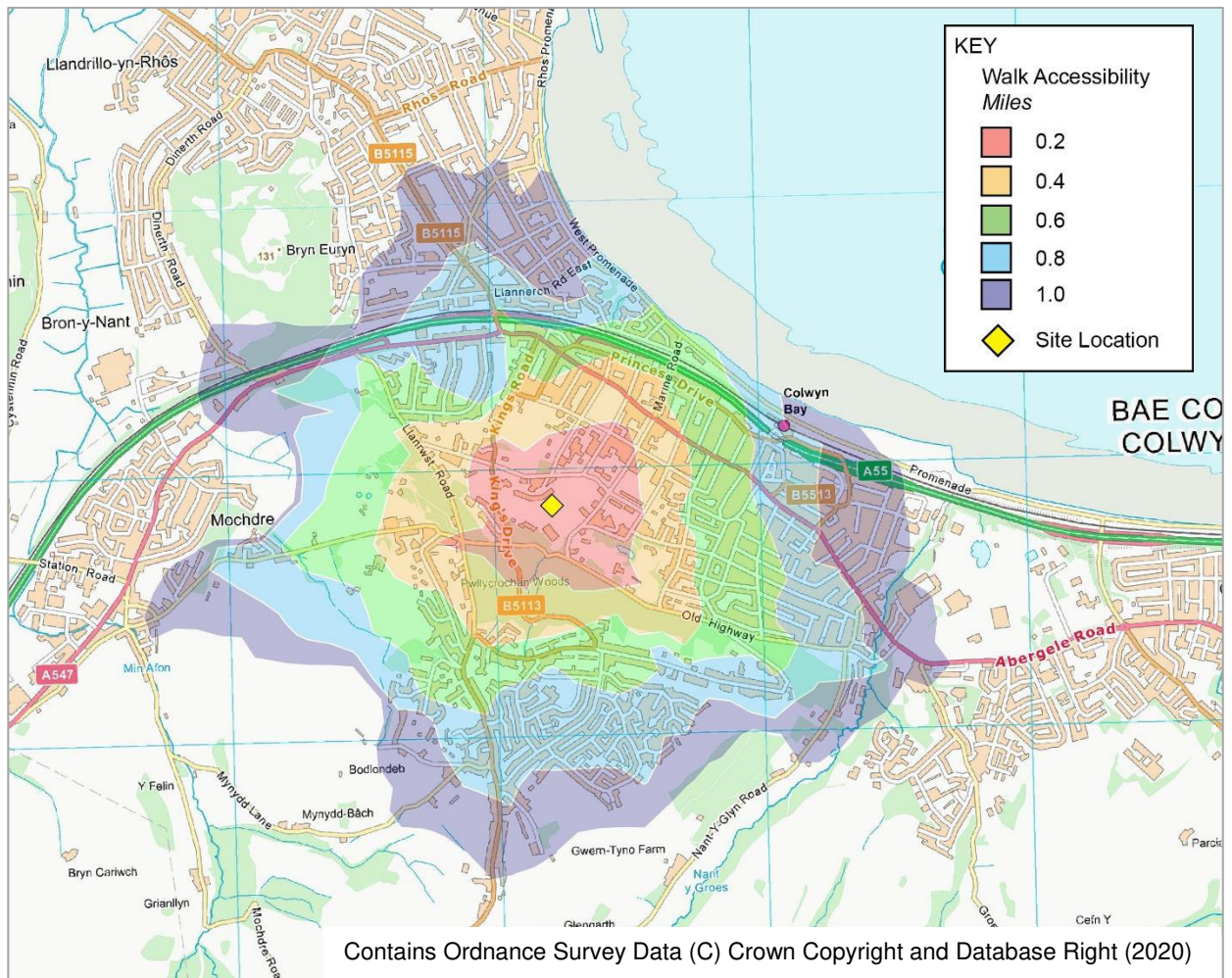
Table 5.1 – Walk / Cycle Distance Thresholds

Threshold Distance	Significance	Reference
1 mile	Walking can offer viable and attractive alternatives [to car trips]	Walking and Cycling Strategy for Wales
5 miles	Cycling can offer viable and attractive alternatives [to car trips]	Walking and Cycling Strategy for Wales

Pedestrian Accessibility

- 5.3 The roads in the vicinity of the site benefit from footpaths on both sides of the road as well as street lighting and natural surveillance from the existing residential properties that abut the main walking routes into Colwyn Bay.
- 5.4 The pedestrian accessibility of the development has been modelled using the Geographical Information System (GIS) software TRACC to produce isochrone mapping figures. The purpose of the isochrones is to demonstrate the areas within an acceptable walking distance of 1 mile of the site. The areas located within 1-mile walking distance of the site are shown below on **Figure 5.1**.

Figure 5.1 – Walk Accessibility



5.5 **Figure 5.1** demonstrates that the site is within acceptable walking distance of Colwyn Bay which includes an array of facilities including the following

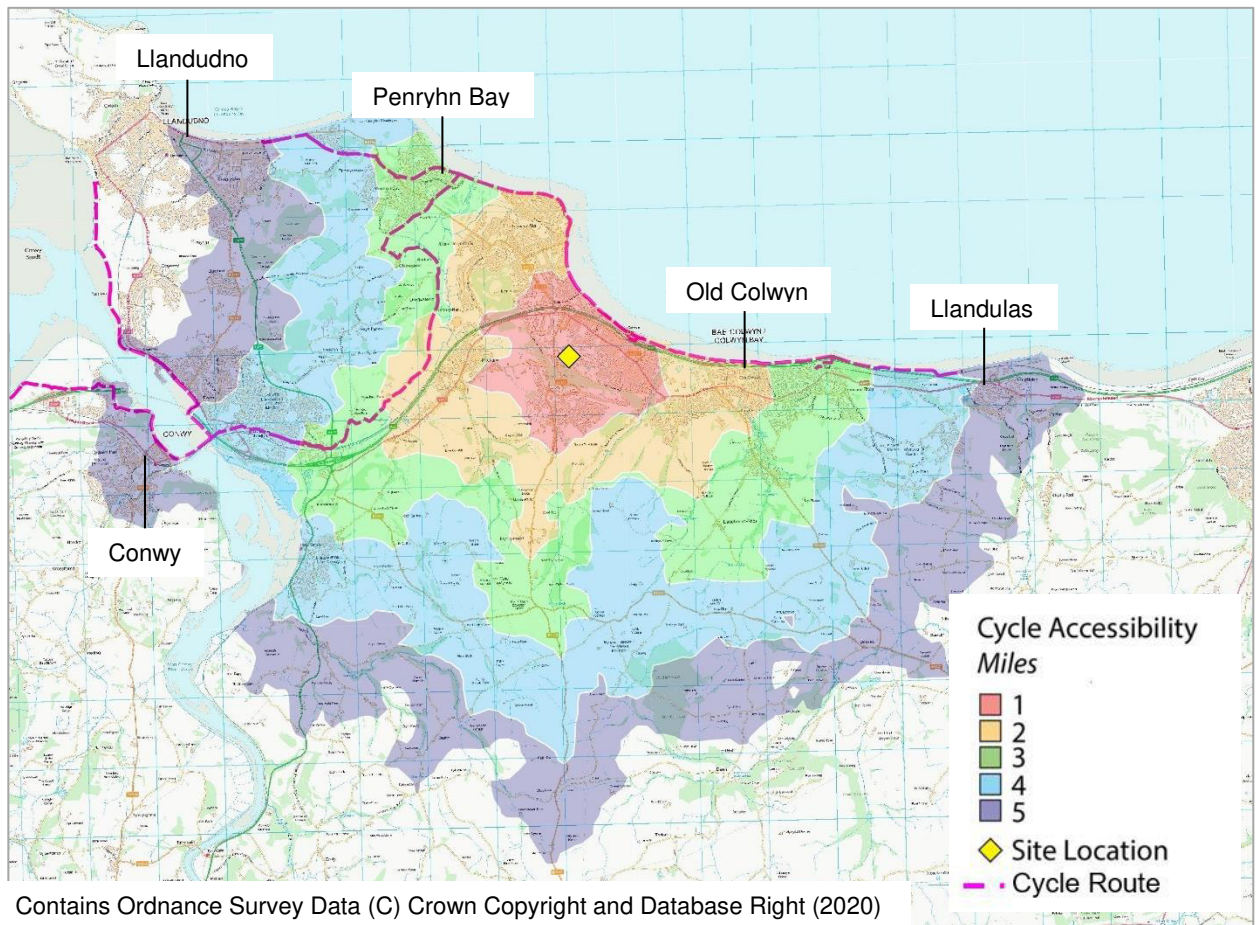
Table 5.1 – Local Facilities

Facility	Details	Distance from the Development Site (miles)
Dentist	White Gables Dental Practice	0.3
Primary School	St Joseph's Primary School	0.3
Bus Stop	Wheatley Lane Road	0.4
Park	Queens Gardens	0.4
Supermarket	Lidl Colwyn Bay	0.4
Convenience Store	Londis, Princes Drive	0.5
Doctors	West End Medical Centre	0.5
Pharmacy	Cohens Chemist, Conwy Rd	0.5
Gym	Bay Gym, Conwy Road	0.6
Post Office	Colwyn Bay Post Office	0.7
Beach	Colwyn Bay Beach	0.7
Retail Area	Station Road	0.7
Library	Colwyn Bay Library	0.7
Railway Station	Colwyn Railway Station	0.8
Supermarket	Morrison's	0.8
Shopping Centre	Bay View Shopping Centre	0.9

Cycle Accessibility

- 5.6 The Walking and Cycling Strategy for Wales identifies that “*Cycling can offer viable and attractive alternatives*” for short trips and as a substitute for shorter car journeys.
- 5.7 TRACC software has been used to assess the accessibility of the development by bicycle from the site. Isochrones illustrating the areas which lie within 5 miles of the site can be seen on the **Figure 5.2** below.

Figure 5.2 – Cycle Accessibility



Contains Ordnance Survey Data (C) Crown Copyright and Database Right (2020)

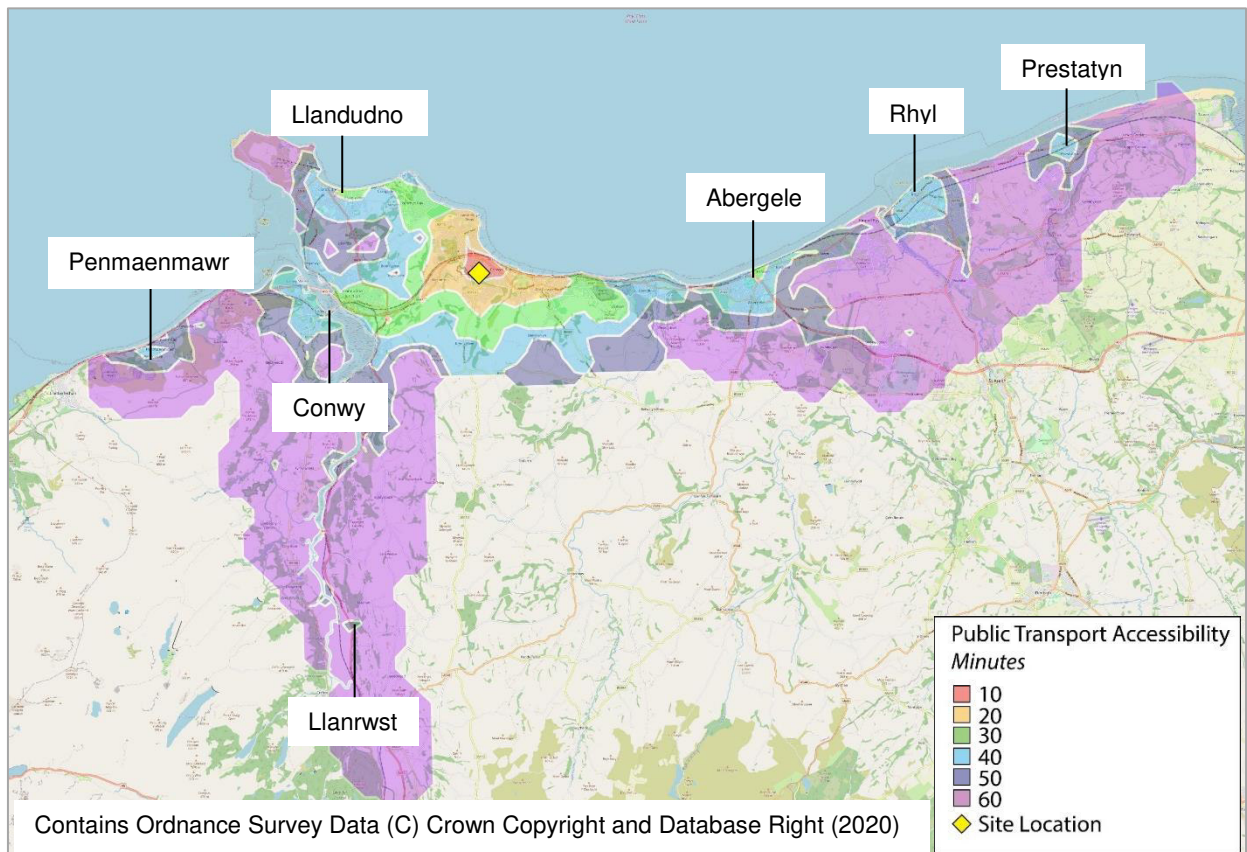
- 5.8 **Figure 5.2** demonstrates that, the nearby areas of Penrhyn Bay, Llandudno, Conwy and Llandulas, amongst others, are all located within the 5-mile cycle catchment area from the development site.
- 5.9 National Cycle Route (NCR) 5 is located approximately 0.5 miles to the north of the site along the coast and provides a mostly traffic free route to the nearby areas within a 5 mile catchment mentioned previously.

Public Transport

- 5.10 The nearest bus stops to the site are located along Lansdowne Road approximately 550m from the centre of the site. The bus stops are served by bus service 21 and 23 which provides access to locations including Colwyn Bay and Abergelle. Further bus stops are provided along Conwy Road approximately 700m from the centre of the site which are served by the 12 Sapphire, 13, 14, 23, 24, 27 and X12 sapphire services which provide up to 8 services per hour in either direction with connections to Rhyl, Old Colwyn, Prestatyn and Llysfaen.

- 5.11 Colwyn Bay Railway Station is located approximately 0.8 miles walking distance to the north-east of the site and is therefore within an acceptable walking distance. Cycle parking with CCTV is provided at the station.
- 5.12 Colwyn Bay Railway Station provides frequent services throughout the week to locations including Shrewsbury, Holyhead, Bangor and Chester.
- 5.13 The level of accessibility by public transport has been analysed using GIS TRACC software to assess the accessibility of the site and is shown on **Figure 5.3** below. The figure illustrates the distance that can be travelled within 60 minutes by public transport to and from the site, which includes the time taken to walk to the bus stops and rail station.

Figure 5.3 – 60-minute Public Transport Accessibility



- 5.14 **Figure 5.3** shows that Abergele, Rhyl and Prestatyn, amongst others, are in an acceptable 60-minute commute time.

Summary

- 5.15 It has been demonstrated that the site is well located in terms of its accessibility by all the major non-car modes of transport, scoring a maximum of 10 out of 10 on CCBC's sustainability criteria checklist presented in the LDP2. These findings demonstrate that future residents will not be wholly reliant on the private car to travel for employment, education, leisure and retail purposes.

6.0 TRIP GENERATION AND HIGHWAY IMPACT

General

6.1 This Chapter provides an estimation and comparison of the trip generating potential of the existing school use of the site and proposed residential development during the worst-case weekday highway peak hours.

Existing Rydal Penrhos Preparatory School

6.2 In order to estimate the trip generating potential of the existing school, average trip rates from the industry-standard TRICS Database (V7.8.2) have been obtained. The selection criteria for the TRICS based trip rates is as follows:

- Education;
- Primary
- Multi modal surveys;
- Sites in Greater London and Ireland excluded;
- Selection by GFA;
- Weekday surveys only; and
- Only sites in 'Edge of Town', 'Suburban Area' and Neighbourhood Centre' locations have been selected.

6.3 The multi modal TRICS outputs for the proposed development are presented in **Appendix D** and are summarised in **Table 6.1** below.

Table 6.1 - Estimated Trip Rates (Per 100sqm) Associated with the Existing School				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	3.643	2.366	0.315	0.506
Cycles	0.264	0.038	0.030	0.024
Pedestrians	8.063	2.662	0.089	0.274
Pub. Trans.	1.439	0.496	0.000	0.012

- 6.4 It should be noted that Rydal Penrhos Preparatory School is a mixed boarding and day school. However, as there are no direct comparator sites for mixed boarding schools within the TRICS database, the trip rates have been applied to the teaching area only which has a GFA of 505sq. m and therefore provides a robust approach. The estimated trip generation associated with the existing school is summarised in **Table 6.2** below.

Table 6.2 – Estimated Trip Generation Associated with the Existing School				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	18	12	2	3
Cycles	1	0	0	0
Pedestrians	41	13	0	1
Pub. Trans.	7	3	0	0

Proposed Houses

- 6.5 In order to estimate the trip generating potential of the proposed housing element of the development, average trip rates from the industry-standard TRICS Database (V7.8.2) have been obtained. The selection criteria for the TRICS based trip rates is as follows:-
- Residential;
 - Houses Privately owned;
 - Multi modal surveys;
 - Sites in Greater London and Ireland excluded;
 - Selection by number of dwellings;
 - Weekday surveys only; and
 - Only sites in 'Edge of Town', 'Suburban Area' and Neighbourhood Centre' locations have been selected.
- 6.6 The multi modal TRICS outputs for the proposed development are presented in **Appendix E** and are summarised in **Table 6.3** below.

Table 6.3 - Estimated Trip Rates (Per Dwelling) Associated with the Proposed Houses

Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.111	0.318	0.293	0.138
Cycles	0.007	0.021	0.013	0.005
Pedestrians	0.052	0.116	0.066	0.030
Pub. Trans.	0.001	0.038	0.018	0.005

6.7 The estimated trip generation associated with the proposed houses is therefore as summarised in **Table 6.4** below.

Table 6.4 – Estimated Trip Generation – Based on 71 Houses

Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	8	23	21	10
Cycles	0	1	1	0
Pedestrians	4	8	5	2
Pub. Trans.	0	3	1	0

Proposed Apartments

6.8 In order to estimate the trip generating potential of the proposed apartments, average trip rates from the industry-standard TRICS Database (V7.8.2) have been obtained. The selection criteria for the TRICS based trip rates is as follows:

- Residential;
- Apartments Privately owned;
- Multi modal surveys;
- Sites in Greater London and Ireland excluded;
- Selection by number of dwellings;
- Weekday surveys only; and

- Only sites in 'Edge of Town', 'Suburban Area' and Neighbourhood Centre' locations have been selected.

6.9 The multi modal TRICS outputs for the proposed development are presented in **Appendix F** and are summarised in **Table 6.5** below.

Table 6.5 - Estimated Trip Rates (Per Dwelling) Associated with the Proposed Apartments				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.064	0.199	0.195	0.097
Cycles	0.000	0.013	0.017	0.004
Pedestrians	0.021	0.119	0.136	0.034
Pub. Trans.	0.000	0.051	0.072	0.008

6.10 The estimated trip generation associated with the proposed apartments is therefore as summarised in **Table 6.6** below.

Table 6.6 – Estimated Trip Generation – Based on 33 Apartments				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	2	7	7	3
Cycles	0	0	1	0
Pedestrians	1	4	5	1
Pub. Trans.	0	2	2	0

Anticipated Highway Impacts

6.11 In planning terms, the net traffic impact of the development equates to the number of trips that could be generated by the existing use of the site subtracted from the number of trips generated by the proposed development, as summarised in **Table 6.7** below:-

Table 6.7 – Net Trip Generation (Vehicles)

	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Proposed Houses	8	23	21	10
Proposed Apartments	2	7	7	3
Existing School	18	12	2	3
Net Trip Generation	-8	17	26	11

- 6.12 The above demonstrates that the proposed residential development would generate an increase of only 9 vehicles during the AM peak hour and 37 vehicles during the PM peak hour when compared to the existing school use, which would reduce further when distributed across the local highway network. Volumetrically, this equates to an increase of 1 vehicle every 6-7 minutes during the AM peak hour and an increase of 1 vehicle every 1-2 minutes during the PM peak hour, which will not have a material impact on the operation of the local highway network.
- 6.13 Notwithstanding the above and as detailed earlier, the proposed development will provide five separate accesses which will help to distribute the proposed development trips on the network and reduce traffic impacts. In order to estimate this, the proposed residential trips have been distributed on the local highway network based on travel to work data obtain from the 2011 National census for all travel to work “out-moves” for the Conwy 009 Middle Super Output Area (MSOA), as presented in **Appendix G**.
- 6.14 Out-moves provide an indication of the numbers and destinations (on a ward basis) of people who reside in the Conwy 008 MSOA and who work elsewhere, providing a good proxy for the distribution of the proposed residential development traffic. The trip distribution routes are summarised in **Table 6.8** below:-

Table 6.8 – Proposed Residential Development Trip Distribution

Route Reference	Route Description	Percentage
A	Llanwrst Road	11%
B	Brompton Avenue	25%
C	Conwy Road (East)	16%
D	A55 (East)	16%
E	A55 (West)	32%

- 6.15 The traffic assignment has been estimated by applying the relevant trip distribution proportions to the estimated traffic generation figures (without the removal of the existing school trips) and is presented in **Appendix G**. This demonstrates that the impact of the proposed development on the surrounding road network will be low, with none of the junctions in the vicinity of the site experiencing in excess of 30 two-way vehicle trips, which is below the typical threshold for when detailed capacity assessments are required. On this basis the proposed development will not have a material impact on the operation of the local highway network and no further assessment of the highway impacts are required.

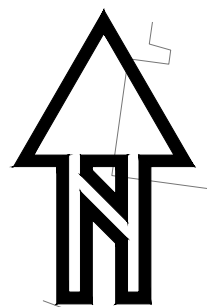
7.0 SUMMARY AND CONCLUSIONS

- 7.1 SCP have been appointed by Castle Green Homes to provide specialist transport planning and engineering advice in support of a proposed residential development on the former Rydal School site located to the south of Oak Drive, Colwyn Bay. The proposed development will provide up to 105 dwellings comprising a mix of 33no. 1-3 bedroom apartments and 72no. 2-5 bedroom houses.
- 7.2 The existing Preparatory School on the site will be relocated into 'Beechholme' which is an existing building located at the south-eastern corner of the main Senior School site. This will require the renovation and refurbishment of the building from a boarding house into an educational use and would be subject to a separate planning application, if required.
- 7.3 The most recently available five-year road safety record of the local highway network surrounding the site has been examined and does not represent a material concern in the context of the development.
- 7.4 Vehicular access to the site will be provided from five separate locations which will help to evenly distribute the development traffic on the local highway network and reduce traffic impacts. All accesses have been shown to meet typical residential standards and will provide the required levels of visibility, in accordance with standards set out in TAN18.
- 7.5 Pedestrian and cycle access into the site will be provided at the same location as the vehicular accesses. The pedestrian accesses will be connected internally helping to ensure that the site is permeable in all directions and reduce walk distances for prospective residents.
- 7.6 The accessibility of the site has been assessed by walk, cycle, and bus and train modes. Overall, the site is considered to be well located in terms of its accessibility by all the major non-car modes of transport. These findings demonstrate that future residents will not be wholly reliant on the private car to travel for employment, education, leisure and retail purposes.
- 7.7 The trip generating potential of the existing and proposed uses of the site have been estimated using trip rates from the industry standard TRICS Database. This demonstrates that the proposed development would result in an increase of only 9 vehicles during the AM peak hour and 37 vehicles during the PM peak hour when compared to the existing school use, which would reduce further when distributed across the local highway network. Volumetrically, this equates to an increase of 1 vehicle every 6-7 minutes during the AM peak hour and an increase of 1 vehicle every 1-2 minutes during the PM peak hour, which will not have a material impact on the operation of the local highway network.

- 7.8 Notwithstanding this, the proposed development will provide five separate accesses which will help to distribute the proposed development trips on the network and reduce traffic impacts. Even without the removal of the vehicle trips generated by the existing school, the traffic impact of the development will be low, with none of the junctions surrounding the site shown to experience an increase in excess of 30 two-way vehicle trips, which is below the typical threshold for when detailed capacity assessments are required. On this basis the proposed development will not have a material impact on the operation of the local highway network and no further assessment of the highway impacts are required.
- 7.9 Having regard to the above, it is concluded that there is no highway or transport related reason to withhold planning permission for the scheme and the proposed development is therefore recommended for approval.

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APPENDIX A



Parking requirements in accordance with CCBC LDP2 parking Standards Appendix 6.

Site Scores in Sustainability Criteria as follows -

Local Facilities	Distance	Points
School, Health Facility & Food store	400m	2
Public Transport	800m	4
Bus	300m	2
Cycle Route	Distance	Points
Cycle Route	Adjacent	0
Frequency of Public Transport	Frequency	Points
	20mins.	2
	Total	10

A score of 10 points results in the potential reduction of 2 spaces per dwelling. This Layout has only reduced the parking to some dwellings by one space.

SCHEDULE OF ACCOMMODATION			
HOUSING TYPE	DESCRIPTION	SQFT	NUMBER PERCENTAGE
1 Bed Apartment	Average floor area	600 SQFT	106
2 Bed Apartment	Average floor area	780 SQFT	27
3 Bed Apartment	Average floor area	960 SQFT	5
4 Bed (Villas)	2 Bed, 2 Storey, End & Mid Terrace	880 SQFT	14
5 Bed (Villas)	3 Bed, 2 Storey, End Terrace	990 SQFT	7
Houses 1	3 Bed, 2 Storey, Semi-Detached	887 SQFT	4
Houses 2	3 Bed, 2 Storey	1050 SQFT	10
Houses 3	3 Bed, 2 Storey	1204 SQFT	8
Houses 4	4 Bed, 2 Storey	1570 SQFT	5
Houses 5	4 Bed, 2 Storey	1570 SQFT	1
Houses 6	4 Bed, 2 Storey	1711 SQFT	4
Houses 7	4 Bed, 2 Storey	1674 SQFT	3
Houses 8	4 Bed, 2 Storey	1870 SQFT	3
Houses 9	4 Bed, 2 Storey	1980 SQFT	6
Houses 10	4 Bed, 2 Storey	2121 SQFT	3
Houses 11	5 Bed, 2 Storey	2020 SQFT	4
TOTAL	New Build SQFT only	99346	SQFT 169
Grass SW Area	14.70 Acres	5.85	Hectares
Paved	3.3 Acres	1.42	Hectares
Existing Retained buildings, parking & gardens	2.91 Acres	1.18	Hectares
Single Street Road	0.26 Acres	0.14	Hectares
Waste Center	0.37 Acres	0.15	Hectares
Undeveloped, Entrance, Entry Landscaping, Bus Station	1.1 Acres	0.45	Hectares
NET SITE AREA	6.83 ACRES	2.65	HECTARES
Grass Density	7.10 Units/Acre	17.55	Units/Hectare
NET DENSITY	18.63 UNITS/ACRE	38.61	UNITS/HECTARE
Grass Footage	6721.65 SQFT/Acre	1543.06	SQ/MHECTARE
NET FOOTAGE	18187.33 SQFT/ACRE	3481.81	SQ/MHECTARE

Key:

- Site Boundary
- 1.8m high boundary fence
- 1.8m high screen wall / fence
- Private Drive
- Indicative Landscaping
- Number of parking spaces proposed to Semi-Detached and Detached Dwellings in accordance with Convey's Parking Standards
- Parking space allocation to Frontage Parking Dwellings
- Knee rails to parking bays to terraced Housetypes
- Affordable Housing
- Existing retained hedges/landscaping
- Existing culvert & easement
- Existing S.W drain & easement

Rev:	Description:	Date:
A -	Culvert indicated & Layout revised accordingly. Split level units added.	25/03/20
B -	General amendments following technical review	02/07/20
C -	General amendments following technical review	17/09/20
D -	Listed building refurb by others shown, road in front plots 67-75 adjusted.	03/11/20
E -	Signature blocks amended. Apartment schedule added.	23/03/21
F -	Internal Design Review	09/07/21
G -	Schedule of Accommodation corrected	25/08/21
H -	Affordables amended	15/09/21



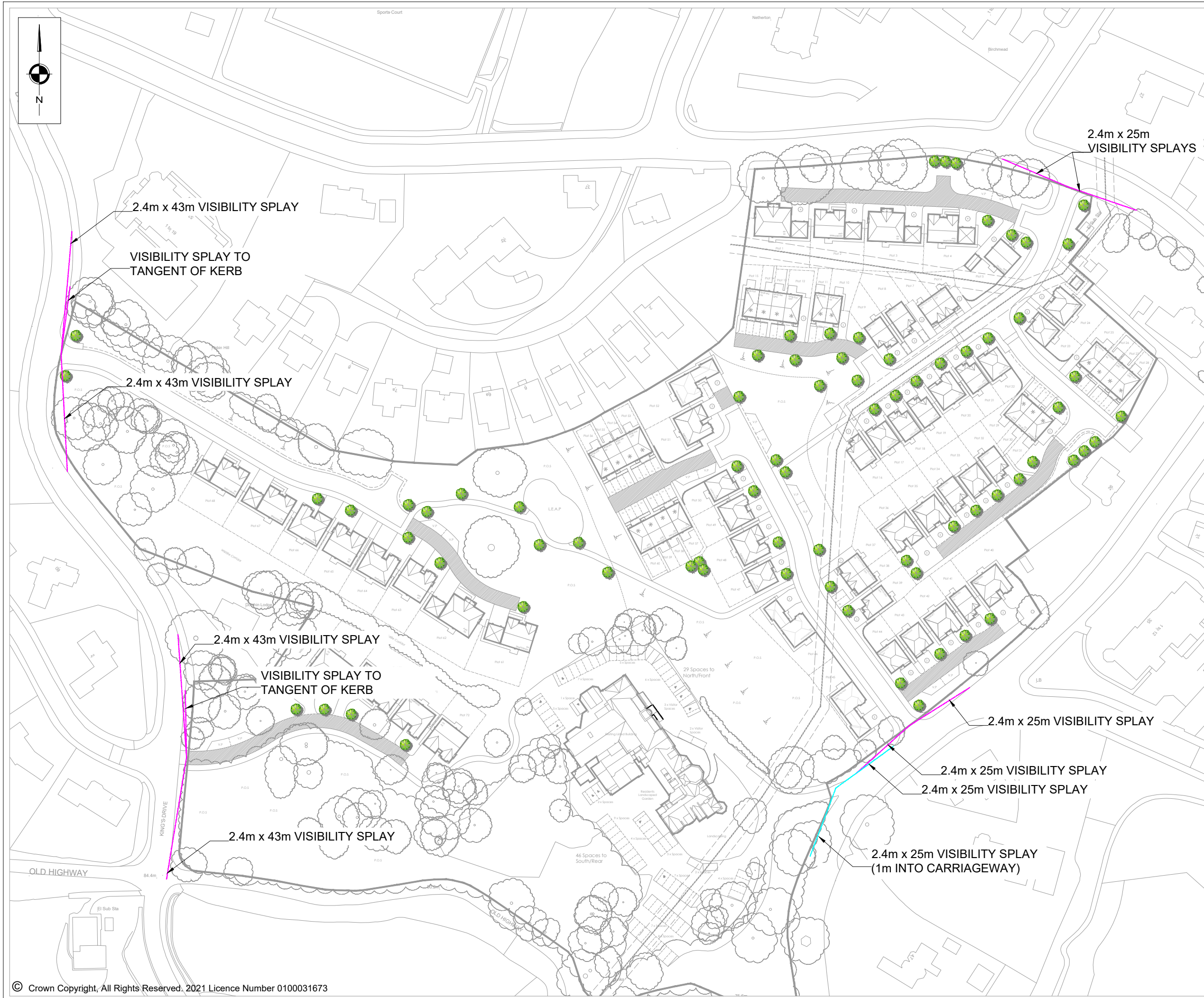
Castle Green,
Unit 20,
St. Asaph Business Park,
Denbighshire. LL17 0LJ.
Tel. 01745 536677

Site:
Rydal Penrhos, Colwyn Bay

Title: Site Layout	Date: 16/01/2020
Scale: 1:500@A0	Rev: H
Ref: RYDCB-SP.01	

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APPENDIX B



NOTES

REVISIONS

REV	DESCRIPTION	DATE	BY
-	Proposed Access Arrangemnts	09/08/2021	ALM
A	New site layout underlaid	22/09/2021	BH



Transportation Planning : Infrastructure Design

Client Name:

MacBryde Homes Ltd

Project Title:

Proposed Residential Development,
Former Rydal Penrhos School, Old
Coldwyn, Conwy

Drawing Title:

Proposed Access Arrangements

Drawn By:

ALM

Status:

-

Checked:

BA

Scale:

1:1250 @ A3

Drawing No.

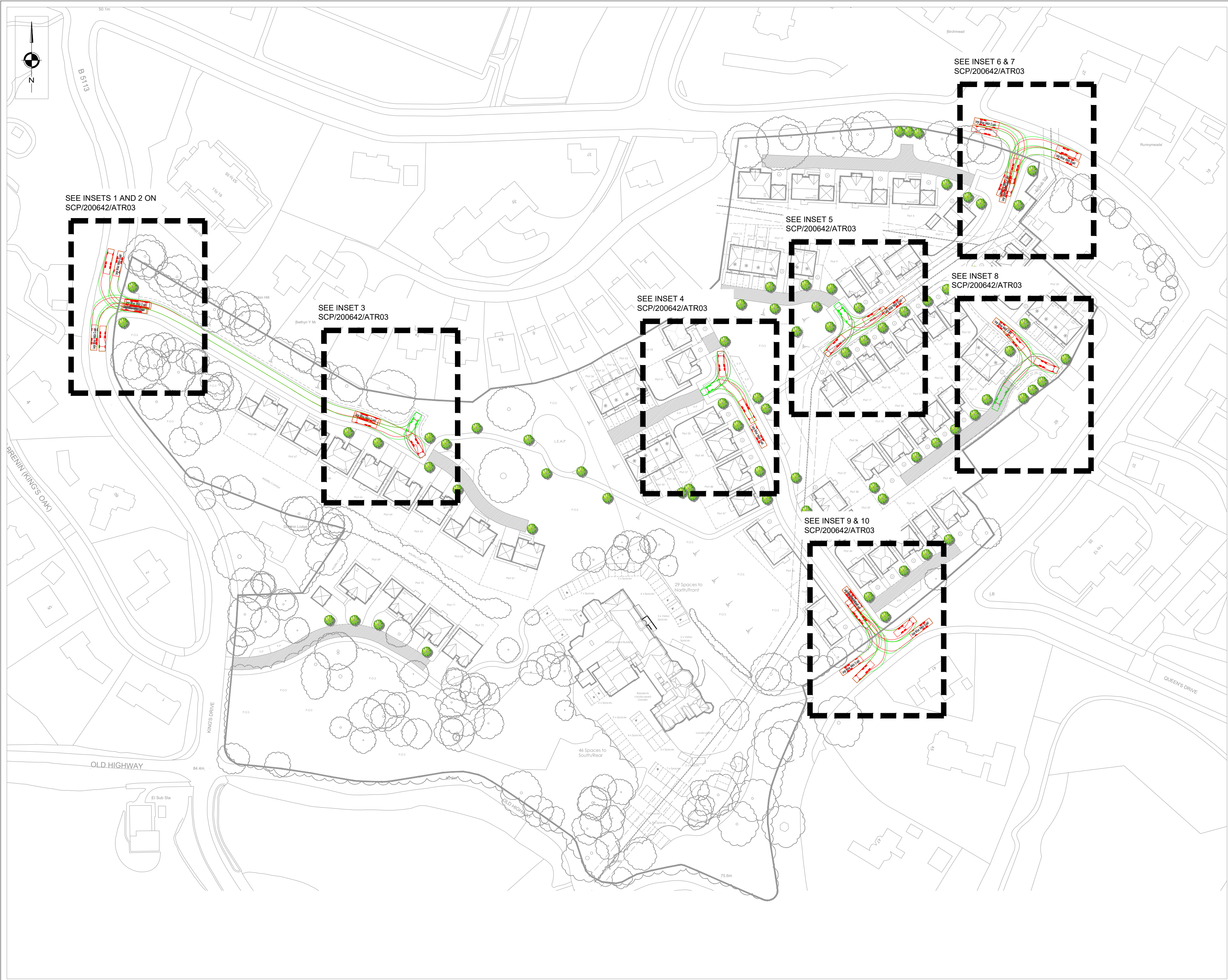
SCP/200642/D01

Rev.

A

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APPENDIX C



NOTES

Large Refuse Vehicle (3 axle)

Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	2.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.500m

REVISIONS			
REV	DESCRIPTION	DATE	BY
A	SWEPT PATH UPDATE	20.08.21	LB
B	NEW SITE LAYOUT UNDERLAID	22.09.21	BH

SCP

Transportation Planning : Infrastructure Design

Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:

MACBRYDE HOMES LIMITED

Project Title:

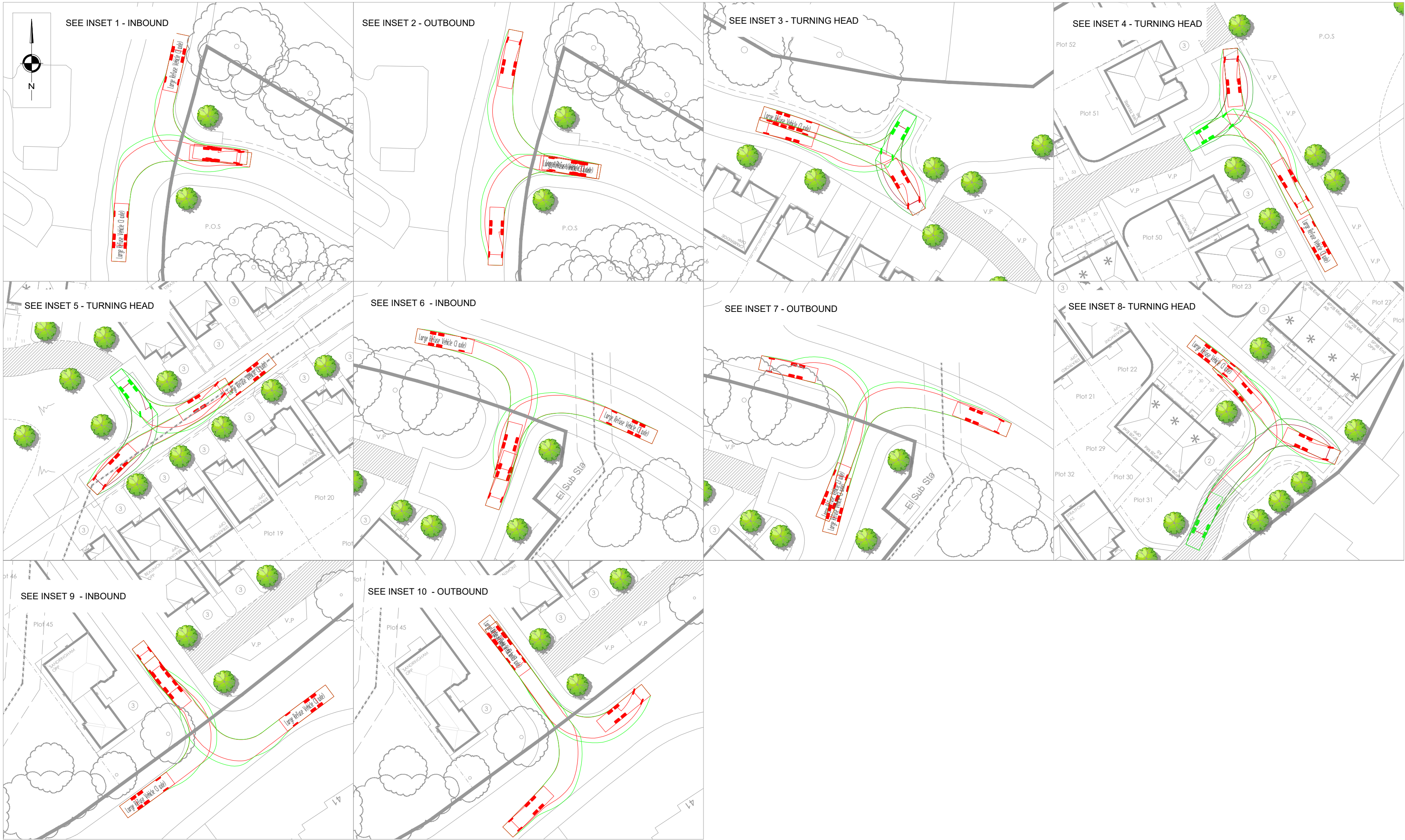
RYDAL SCHOOL, COLWYN BAY

Drawing Title:

SWEPT PATH ANALYSIS - OVERALL PLAN -
SEE DRAWING SCP/200642/ATR03 FOR INSETS

Date:	12.08.2021	Drawn By:	ALM
Scale:	1:1000 @ A2	Checked:	BA
Status:	PLANNING	Approved/Unapproved:	-

Drawing No.	SCP/200642/ATR02	Rev.	B
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NOTES	
Large Refuse Vehicle (3 axle)	9.860m
Overall Length	3.900m
Overall Width	3.814m
Overall Body Height	0.366m
Min Body Ground Clearance	2.450m
Track Width	4.00s
Lock to lock time	9.500m
Kerb to Kerb Turning Radius	

REVISIONS			
REV	DESCRIPTION	DATE	BY
A	SWEPT PATH UPDATE	20.08.21	LB
B	NEW SITE LAYOUT UNDERLAID	22.09.21	BH

SCP

Transportation Planning : Infrastructure Design

Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:		MACBRYDE HOMES LIMITED	
Project Title:		RYDAL SCHOOL, COLWYN BAY	
Drawing Title:		SWEPT PATH ANALYSIS - INSETS PLAN - SEE DRAWING SCP/200642/ATR02 FOR OVERALL PLAN	
Date:	12.08.2021	Drawn By:	ALM
Scale:	1:500 @ A2	Checked:	BA
Status:	PLANNING	Approved/ Unapproved:	-
Drawing No.	SCP/200642/ATR03		Rev. B

S|C|P

APPENDIX D

Calculation Reference: AUDIT-726001-210813-0839

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION

Category : A - PRIMARY

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

03	SOUTH WEST	
	CW CORNWALL	1 days
	SM SOMERSET	1 days
	WL WILTSHIRE	1 days
08	NORTH WEST	
	LC LANCASHIRE	2 days
	MS MERSEYSIDE	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1750 to 4520 (units: sqm)
 Range Selected by User: 1500 to 4520 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 03/04/19

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:

Tuesday	1 days
Wednesday	2 days
Thursday	3 days

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

Selected survey types:

Manual count	6 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 undertaken using machines.

Selected Locations:

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

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	3
Village	2
No Sub Category	1

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.

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Secondary Filtering selection:Use Class:

F1(a) 6 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 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	2 days
25,001 to 50,000	1 days
50,001 to 100,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	1 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	4 days
1.1 to 1.5	2 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.

Travel Plan:

No 6 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 6 days

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

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LIST OF SITES relevant to selection parameters

1	CW-04-A-03	PRIMARY ACADEMY	CORNWALL
	TREVERBYN RISE PENRYN		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Gross floor area:	3900 sqm	
	Survey date: THURSDAY	28/03/19	Survey Type: MANUAL
2	LC-04-A-05	PRIMARY SCHOOL	LANCASHIRE
	NEWTON STREET BLACKBURN		
	Suburban Area (PPS6 Out of Centre) No Sub Category		
	Total Gross floor area:	3359 sqm	
	Survey date: WEDNESDAY	28/09/16	Survey Type: MANUAL
3	LC-04-A-06	PRIMARY SCHOOL	LANCASHIRE
	SEVERN ROAD BLACKPOOL SOUTH SHORE		
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone		
	Total Gross floor area:	4520 sqm	
	Survey date: TUESDAY	27/09/16	Survey Type: MANUAL
4	MS-04-A-02	PRIMARY SCHOOL	MERSEYSIDE
	BOOKER AVENUE LIVERPOOL ALVERTON		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Gross floor area:	2500 sqm	
	Survey date: THURSDAY	13/06/13	Survey Type: MANUAL
5	SM-04-A-01	PRIMARY SCHOOL	SOMERSET
	BRIDGWATER ROAD NEAR TAUNTON BATHPOOL		
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total Gross floor area:	2525 sqm	
	Survey date: THURSDAY	27/09/18	Survey Type: MANUAL
6	WL-04-A-02	C OF E PRIMARY ACADEMY	WILTSHIRE
	HIGH STREET ROWDE		
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total Gross floor area:	1750 sqm	
	Survey date: WEDNESDAY	03/04/19	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.

SCP York Street Manchester

Licence No: 726001

TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

MULTI-MODAL TOTAL VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip 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	6	3092	0.814	6	3092	0.377	6	3092	1.191
08:00 - 09:00	6	3092	3.643	6	3092	2.366	6	3092	6.009
09:00 - 10:00	6	3092	0.399	6	3092	0.393	6	3092	0.792
10:00 - 11:00	6	3092	0.216	6	3092	0.205	6	3092	0.421
11:00 - 12:00	6	3092	0.275	6	3092	0.178	6	3092	0.453
12:00 - 13:00	6	3092	0.248	6	3092	0.286	6	3092	0.534
13:00 - 14:00	6	3092	0.232	6	3092	0.372	6	3092	0.604
14:00 - 15:00	6	3092	0.512	6	3092	0.334	6	3092	0.846
15:00 - 16:00	6	3092	1.649	6	3092	2.603	6	3092	4.252
16:00 - 17:00	6	3092	0.798	6	3092	1.417	6	3092	2.215
17:00 - 18:00	5	3361	0.315	5	3361	0.506	5	3361	0.821
18:00 - 19:00	5	3361	0.184	5	3361	0.107	5	3361	0.291
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			9.285			9.144			18.429

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.

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Parameter summary

Trip rate parameter range selected:	1750 - 4520 (units: sqm)
Survey date range:	01/01/13 - 03/04/19
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

MULTI-MODAL CYCLISTS**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip 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	6	3092	0.022	6	3092	0.000	6	3092	0.022
08:00 - 09:00	6	3092	0.264	6	3092	0.038	6	3092	0.302
09:00 - 10:00	6	3092	0.000	6	3092	0.000	6	3092	0.000
10:00 - 11:00	6	3092	0.000	6	3092	0.000	6	3092	0.000
11:00 - 12:00	6	3092	0.000	6	3092	0.000	6	3092	0.000
12:00 - 13:00	6	3092	0.000	6	3092	0.016	6	3092	0.016
13:00 - 14:00	6	3092	0.016	6	3092	0.005	6	3092	0.021
14:00 - 15:00	6	3092	0.000	6	3092	0.011	6	3092	0.011
15:00 - 16:00	6	3092	0.016	6	3092	0.226	6	3092	0.242
16:00 - 17:00	6	3092	0.016	6	3092	0.027	6	3092	0.043
17:00 - 18:00	5	3361	0.030	5	3361	0.024	5	3361	0.054
18:00 - 19:00	5	3361	0.000	5	3361	0.000	5	3361	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.364			0.347			0.711

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.

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TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY

MULTI-MODAL PEDESTRIANS**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip 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	6	3092	0.221	6	3092	0.081	6	3092	0.302
08:00 - 09:00	6	3092	8.063	6	3092	2.662	6	3092	10.725
09:00 - 10:00	6	3092	0.485	6	3092	0.782	6	3092	1.267
10:00 - 11:00	6	3092	0.119	6	3092	0.302	6	3092	0.421
11:00 - 12:00	6	3092	0.156	6	3092	0.135	6	3092	0.291
12:00 - 13:00	6	3092	0.420	6	3092	0.420	6	3092	0.840
13:00 - 14:00	6	3092	0.210	6	3092	0.437	6	3092	0.647
14:00 - 15:00	6	3092	0.782	6	3092	0.410	6	3092	1.192
15:00 - 16:00	6	3092	2.894	6	3092	6.710	6	3092	9.604
16:00 - 17:00	6	3092	0.366	6	3092	1.229	6	3092	1.595
17:00 - 18:00	5	3361	0.089	5	3361	0.274	5	3361	0.363
18:00 - 19:00	5	3361	0.030	5	3361	0.089	5	3361	0.119
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			13.835			13.531			27.366

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.

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TRIP RATE for Land Use 04 - EDUCATION/A - PRIMARY
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip 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	6	3092	0.043	6	3092	0.000	6	3092	0.043
08:00 - 09:00	6	3092	1.439	6	3092	0.496	6	3092	1.935
09:00 - 10:00	6	3092	0.205	6	3092	0.523	6	3092	0.728
10:00 - 11:00	6	3092	0.000	6	3092	0.000	6	3092	0.000
11:00 - 12:00	6	3092	0.022	6	3092	0.000	6	3092	0.022
12:00 - 13:00	6	3092	0.075	6	3092	0.038	6	3092	0.113
13:00 - 14:00	6	3092	0.043	6	3092	0.102	6	3092	0.145
14:00 - 15:00	6	3092	0.167	6	3092	0.011	6	3092	0.178
15:00 - 16:00	6	3092	0.776	6	3092	1.326	6	3092	2.102
16:00 - 17:00	6	3092	0.124	6	3092	0.404	6	3092	0.528
17:00 - 18:00	5	3361	0.000	5	3361	0.012	5	3361	0.012
18:00 - 19:00	5	3361	0.000	5	3361	0.000	5	3361	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.894			2.912			5.806

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.

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APPENDIX E

SCP York Street Manchester

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TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	2 days
	HC HAMPSHIRE	3 days
	KC KENT	2 days
	SC SURREY	2 days
	WS WEST SUSSEX	2 days
03	SOUTH WEST	
	DV DEVON	3 days
	SM SOMERSET	2 days
04	EAST ANGLIA	
	NF NORFOLK	2 days
	SF SUFFOLK	2 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	2 days
	SY SOUTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
09	NORTH	
	DH DURHAM	3 days
11	SCOTLAND	
	FA FALKIRK	1 days
	HI HIGHLAND	1 days

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

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Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 37 to 134 (units:)
 Range Selected by User: 35 to 140 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 08/10/20

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	4 days
Tuesday	7 days
Wednesday	7 days
Thursday	9 days
Friday	6 days

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

Selected survey types:

Manual count	33 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	11
Edge of Town	14
Neighbourhood Centre (PPS6 Local Centre)	8

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	26
Village	6
No Sub Category	1

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	33 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 500m Range:

All Surveys Included

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Secondary Filtering selection (Cont.):Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	6 days
5,001 to 10,000	10 days
10,001 to 15,000	4 days
15,001 to 20,000	8 days
25,001 to 50,000	3 days

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

Population within 5 miles:

5,001 to 25,000	5 days
25,001 to 50,000	6 days
50,001 to 75,000	3 days
75,001 to 100,000	8 days
100,001 to 125,000	1 days
125,001 to 250,000	7 days
250,001 to 500,000	3 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	5 days
1.1 to 1.5	26 days
1.6 to 2.0	2 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.

Travel Plan:

Yes	9 days
No	24 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	33 days
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This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	CH-03-A-10	SEMI-DETACHED & TERRACED	CHESHIRE
	MEADOW DRIVE		
	NORTHWICH		
	BARNTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	40	
	Survey date: TUESDAY	04/06/19	Survey Type: MANUAL
2	DH-03-A-01	SEMI DETACHED	DURHAM
	GREENFIELDS ROAD		
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
3	DH-03-A-02	MIXED HOUSES	DURHAM
	LEAZES LANE		
	BISHOP AUCKLAND		
	ST HELEN AUCKLAND		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	125	
	Survey date: MONDAY	27/03/17	Survey Type: MANUAL
4	DH-03-A-03	SEMI-DETACHED & TERRACED	DURHAM
	PILGRIMS WAY		
	DURHAM		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	57	
	Survey date: FRIDAY	19/10/18	Survey Type: MANUAL
5	DV-03-A-01	TERRACED HOUSES	DEVON
	BRONSHILL ROAD		
	TORQUAY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	37	
	Survey date: WEDNESDAY	30/09/15	Survey Type: MANUAL
6	DV-03-A-02	HOUSES & BUNGALOWS	DEVON
	MILLHEAD ROAD		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	116	
	Survey date: FRIDAY	25/09/15	Survey Type: MANUAL
7	DV-03-A-03	TERRACED & SEMI DETACHED	DEVON
	LOWER BRAND LANE		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	70	
	Survey date: MONDAY	28/09/15	Survey Type: MANUAL

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LIST OF SITES relevant to selection parameters (Cont.)

8	ES-03-A-04 NEW LYDD ROAD CAMBER	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 134 Survey date: FRIDAY 15/07/16		Survey Type: MANUAL
9	ES-03-A-05 RATTLE ROAD NEAR EASTBOURNE STONE CROSS	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 99 Survey date: WEDNESDAY 05/06/19		Survey Type: MANUAL
10	FA-03-A-01 MANDELA AVENUE FALKIRK	SEMI-DETACHED/TERRACED	FALKIRK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 37 Survey date: THURSDAY 30/05/13		Survey Type: MANUAL
11	HC-03-A-21 PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS	TERRACED & SEMI-DETACHED	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 39 Survey date: TUESDAY 13/11/18		Survey Type: MANUAL
12	HC-03-A-22 BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE	MIXED HOUSES	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: WEDNESDAY 31/10/18		Survey Type: MANUAL
13	HC-03-A-23 CANADA WAY LIPHOOK	HOUSES & FLATS	HAMPSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 62 Survey date: TUESDAY 19/11/19		Survey Type: MANUAL
14	HI-03-A-14 KING BRUDE ROAD INVERNESS SCORGUIE	SEMI-DETACHED & TERRACED	HIGHLAND
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 40 Survey date: WEDNESDAY 23/03/16		Survey Type: MANUAL

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LIST OF SITES relevant to selection parameters (Cont.)

15	KC-03-A-03	MIXED HOUSES & FLATS	KENT
	HYTHE ROAD ASHFORD WILLESBOROUGH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 51 Survey date: THURSDAY 14/07/16 Survey Type: MANUAL		
16	KC-03-A-04	SEMI-DETACHED & TERRACED	KENT
	KILN BARN ROAD AYLESFORD DITTON Edge of Town Residential Zone Total No of Dwellings: 110 Survey date: FRIDAY 22/09/17 Survey Type: MANUAL		
17	LE-03-A-02	DETACHED & OTHERS	LEICESTERSHIRE
	MELBOURNE ROAD IBSTOCK Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 85 Survey date: THURSDAY 28/06/18 Survey Type: MANUAL		
18	NF-03-A-04	MIXED HOUSES	NORFOLK
	NORTH WALSHAM ROAD NORTH WALSHAM Edge of Town Residential Zone Total No of Dwellings: 70 Survey date: WEDNESDAY 18/09/19 Survey Type: MANUAL		
19	NF-03-A-05	MIXED HOUSES	NORFOLK
	HEATH DRIVE HOLT Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: THURSDAY 19/09/19 Survey Type: MANUAL		
20	NY-03-A-09	MIXED HOUSING	NORTH YORKSHIRE
	GRAMMAR SCHOOL LANE NORTHALLERTON Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 52 Survey date: MONDAY 16/09/13 Survey Type: MANUAL		
21	NY-03-A-10	HOUSES AND FLATS	NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD RIPON Edge of Town No Sub Category Total No of Dwellings: 71 Survey date: TUESDAY 17/09/13 Survey Type: MANUAL		
22	SC-03-A-04	DETACHED & TERRACED	SURREY
	HIGH ROAD BYFLEET Edge of Town Residential Zone Total No of Dwellings: 71 Survey date: THURSDAY 23/01/14 Survey Type: MANUAL		

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LIST OF SITES relevant to selection parameters (Cont.)

23	SC-03-A-06 AMLETS LANE CRANLEIGH	MIXED HOUSES & FLATS	SURREY
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 116 Survey date: THURSDAY 08/10/20		Survey Type: MANUAL
24	SF-03-A-06 BURY ROAD KENTFORD	DETACHED & SEMI-DETACHED	SUFFOLK
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 38 Survey date: FRIDAY 22/09/17		Survey Type: MANUAL
25	SF-03-A-07 FOXHALL ROAD IPSWICH	MIXED HOUSES	SUFFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 73 Survey date: THURSDAY 09/05/19		Survey Type: MANUAL
26	SH-03-A-05 SANDCROFT TELFORD SUTTON HILL Edge of Town Residential Zone Total No of Dwellings: 54 Survey date: THURSDAY 24/10/13	SEMI-DETACHED/TERRACED	SHROPSHIRE
27	SM-03-A-02 HYDE LANE NEAR TAUNTON CREECH SAINT MICHAEL Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 42 Survey date: TUESDAY 25/09/18	MIXED HOUSES	SOMERSET
28	SM-03-A-03 HYDE LANE NEAR TAUNTON CREECH ST MICHAEL Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 41 Survey date: TUESDAY 25/09/18	MIXED HOUSES	SOMERSET
29	SY-03-A-01 A19 BENTLEY ROAD DONCASTER BENTLEY RISE Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 54 Survey date: WEDNESDAY 18/09/13	SEMI DETACHED HOUSES	SOUTH YORKSHIRE
30	WK-03-A-04 DALEHOUSE LANE KENILWORTH Edge of Town Residential Zone Total No of Dwellings: 49 Survey date: FRIDAY 27/09/19	DETACHED HOUSES	WARWICKSHIRE

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LIST OF SITES relevant to selection parameters (Cont.)

31	WM-03-A-04	TERRACED HOUSES	WEST MIDLANDS
	OSBORNE ROAD		
	COVENTRY		
	EARLSDON		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	39	
	Survey date: MONDAY	21/11/16	Survey Type: MANUAL
32	WS-03-A-07	BUNGALOWS	WEST SUSSEX
	EMMS LANE		
	NEAR HORSHAM		
	BROOKS GREEN		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total No of Dwellings:	57	
	Survey date: THURSDAY	19/10/17	Survey Type: MANUAL
33	WS-03-A-10	MIXED HOUSES	WEST SUSSEX
	TODDINGTON LANE		
	LITTLEHAMPTON		
	WICK		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	79	
	Survey date: WEDNESDAY	07/11/18	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.

SCP York Street Manchester

Licence No: 726001

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

MULTI-MODAL TOTAL VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	33	65	0.068	33	65	0.275	33	65	0.343
08:00 - 09:00	33	65	0.127	33	65	0.338	33	65	0.465
09:00 - 10:00	33	65	0.146	33	65	0.171	33	65	0.317
10:00 - 11:00	33	65	0.126	33	65	0.169	33	65	0.295
11:00 - 12:00	33	65	0.133	33	65	0.156	33	65	0.289
12:00 - 13:00	33	65	0.145	33	65	0.144	33	65	0.289
13:00 - 14:00	33	65	0.163	33	65	0.162	33	65	0.325
14:00 - 15:00	33	65	0.151	33	65	0.166	33	65	0.317
15:00 - 16:00	33	65	0.237	33	65	0.147	33	65	0.384
16:00 - 17:00	33	65	0.255	33	65	0.150	33	65	0.405
17:00 - 18:00	33	65	0.303	33	65	0.144	33	65	0.447
18:00 - 19:00	33	65	0.231	33	65	0.130	33	65	0.361
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.085			2.152			4.237

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.

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The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	37 - 134 (units:)
Survey date range:	01/01/13 - 08/10/20
Number of weekdays (Monday-Friday):	33
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
Surveys manually removed from selection:	0

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

SCP York Street Manchester

Licence No: 726001

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

MULTI-MODAL CYCLISTS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	33	65	0.006	33	65	0.012	33	65	0.018
08:00 - 09:00	33	65	0.006	33	65	0.019	33	65	0.025
09:00 - 10:00	33	65	0.001	33	65	0.009	33	65	0.010
10:00 - 11:00	33	65	0.004	33	65	0.004	33	65	0.008
11:00 - 12:00	33	65	0.003	33	65	0.005	33	65	0.008
12:00 - 13:00	33	65	0.005	33	65	0.004	33	65	0.009
13:00 - 14:00	33	65	0.005	33	65	0.001	33	65	0.006
14:00 - 15:00	33	65	0.005	33	65	0.001	33	65	0.006
15:00 - 16:00	33	65	0.012	33	65	0.006	33	65	0.018
16:00 - 17:00	33	65	0.013	33	65	0.006	33	65	0.019
17:00 - 18:00	33	65	0.012	33	65	0.007	33	65	0.019
18:00 - 19:00	33	65	0.009	33	65	0.007	33	65	0.016
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.081			0.081			0.162

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.

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Licence No: 726001

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

MULTI-MODAL PEDESTRIANS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	33	65	0.018	33	65	0.058	33	65	0.076
08:00 - 09:00	33	65	0.056	33	65	0.168	33	65	0.224
09:00 - 10:00	33	65	0.075	33	65	0.065	33	65	0.140
10:00 - 11:00	33	65	0.040	33	65	0.061	33	65	0.101
11:00 - 12:00	33	65	0.043	33	65	0.043	33	65	0.086
12:00 - 13:00	33	65	0.056	33	65	0.047	33	65	0.103
13:00 - 14:00	33	65	0.045	33	65	0.039	33	65	0.084
14:00 - 15:00	33	65	0.036	33	65	0.049	33	65	0.085
15:00 - 16:00	33	65	0.144	33	65	0.081	33	65	0.225
16:00 - 17:00	33	65	0.088	33	65	0.059	33	65	0.147
17:00 - 18:00	33	65	0.083	33	65	0.042	33	65	0.125
18:00 - 19:00	33	65	0.053	33	65	0.036	33	65	0.089
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.737			0.748			1.485

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.

SCP York Street Manchester

Licence No: 726001

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

MULTI-MODAL PUBLIC TRANSPORT USERS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	33	65	0.000	33	65	0.030	33	65	0.030
08:00 - 09:00	33	65	0.000	33	65	0.042	33	65	0.042
09:00 - 10:00	33	65	0.003	33	65	0.015	33	65	0.018
10:00 - 11:00	33	65	0.010	33	65	0.010	33	65	0.020
11:00 - 12:00	33	65	0.006	33	65	0.007	33	65	0.013
12:00 - 13:00	33	65	0.011	33	65	0.010	33	65	0.021
13:00 - 14:00	33	65	0.004	33	65	0.003	33	65	0.007
14:00 - 15:00	33	65	0.010	33	65	0.006	33	65	0.016
15:00 - 16:00	33	65	0.023	33	65	0.010	33	65	0.033
16:00 - 17:00	33	65	0.021	33	65	0.004	33	65	0.025
17:00 - 18:00	33	65	0.022	33	65	0.005	33	65	0.027
18:00 - 19:00	33	65	0.028	33	65	0.004	33	65	0.032
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.138			0.146			0.284

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.

S|C|P

APPENDIX F

SCP York Street Manchester

Licence No: 726001

Calculation Reference: AUDIT-726001-210818-0840

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	RI EAST RIDING OF YORKSHIRE	1 days
09	NORTH	
	CB CUMBRIA	2 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 20 to 56 (units:)
 Range Selected by User: 17 to 70 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 25/09/19

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	1 days
Tuesday	3 days
Wednesday	3 days

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

Selected survey types:

Manual count	7 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Edge of Town	2

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	5
No Sub Category	2

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,

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Secondary Filtering selection:Use Class:

C3 7 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 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	2 days
250,001 to 500,000	3 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	2 days
1.1 to 1.5	5 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.

Travel Plan:

No 7 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 7 days

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

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LIST OF SITES relevant to selection parameters

1	CB-03-C-02 BRIDGE LANE PENRITH	BLOCK OF FLATS		CUMBRIA
	Edge of Town No Sub Category Total No of Dwellings:		35	
	Survey date: WEDNESDAY		11/06/14	Survey Type: MANUAL
2	CB-03-C-03 LOUND STREET KENDAL	FLATS & BUNGALOWS		CUMBRIA
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		33	
	Survey date: MONDAY		09/06/14	Survey Type: MANUAL
3	DS-03-C-03 CAESAR STREET DERBY	BLOCKS OF FLATS		DERBYSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		30	
	Survey date: WEDNESDAY		25/09/19	Survey Type: MANUAL
4	EB-03-C-01 MYRESIDE ROAD EDINBURGH CRAIGLOCKHART	BLOCKS OF FLATS		CITY OF EDINBURGH
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		32	
	Survey date: TUESDAY		26/05/15	Survey Type: MANUAL
5	NT-03-C-01 LAWRENCE WAY NOTTINGHAM	HOUSES (SPLIT INTO FLATS)		NOTTINGHAMSHIRE
	Suburban Area (PPS6 Out of Centre) No Sub Category Total No of Dwellings:		56	
	Survey date: TUESDAY		08/11/16	Survey Type: MANUAL
6	RI-03-C-01 465 PRIORY ROAD HULL	FLATS		EAST RIDING OF YORKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		20	
	Survey date: TUESDAY		13/05/14	Survey Type: MANUAL
7	SF-03-C-03 TOLLGATE LANE BURY ST EDMUNDS	BLOCKS OF FLATS		SUFFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		30	
	Survey date: WEDNESDAY		03/12/14	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.

SCP York Street Manchester

Licence No: 726001

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	7	34	0.106	7	34	0.174	7	34	0.280
08:00 - 09:00	7	34	0.064	7	34	0.199	7	34	0.263
09:00 - 10:00	7	34	0.114	7	34	0.157	7	34	0.271
10:00 - 11:00	7	34	0.089	7	34	0.110	7	34	0.199
11:00 - 12:00	7	34	0.093	7	34	0.097	7	34	0.190
12:00 - 13:00	7	34	0.076	7	34	0.059	7	34	0.135
13:00 - 14:00	7	34	0.093	7	34	0.110	7	34	0.203
14:00 - 15:00	7	34	0.102	7	34	0.097	7	34	0.199
15:00 - 16:00	7	34	0.089	7	34	0.072	7	34	0.161
16:00 - 17:00	7	34	0.119	7	34	0.081	7	34	0.200
17:00 - 18:00	7	34	0.195	7	34	0.097	7	34	0.292
18:00 - 19:00	7	34	0.144	7	34	0.106	7	34	0.250
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.284			1.359			2.643

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.

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Parameter summary

Trip rate parameter range selected:	20 - 56 (units:)
Survey date range:	01/01/13 - 25/09/19
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL CYCLISTS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	7	34	0.008	7	34	0.008	7	34	0.016
08:00 - 09:00	7	34	0.000	7	34	0.013	7	34	0.013
09:00 - 10:00	7	34	0.008	7	34	0.013	7	34	0.021
10:00 - 11:00	7	34	0.000	7	34	0.000	7	34	0.000
11:00 - 12:00	7	34	0.004	7	34	0.004	7	34	0.008
12:00 - 13:00	7	34	0.004	7	34	0.000	7	34	0.004
13:00 - 14:00	7	34	0.000	7	34	0.008	7	34	0.008
14:00 - 15:00	7	34	0.000	7	34	0.000	7	34	0.000
15:00 - 16:00	7	34	0.000	7	34	0.000	7	34	0.000
16:00 - 17:00	7	34	0.004	7	34	0.000	7	34	0.004
17:00 - 18:00	7	34	0.017	7	34	0.004	7	34	0.021
18:00 - 19:00	7	34	0.004	7	34	0.004	7	34	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.049			0.054			0.103

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.

SCP York Street Manchester

Licence No: 726001

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	7	34	0.030	7	34	0.131	7	34	0.161
08:00 - 09:00	7	34	0.021	7	34	0.119	7	34	0.140
09:00 - 10:00	7	34	0.051	7	34	0.127	7	34	0.178
10:00 - 11:00	7	34	0.042	7	34	0.064	7	34	0.106
11:00 - 12:00	7	34	0.038	7	34	0.042	7	34	0.080
12:00 - 13:00	7	34	0.047	7	34	0.025	7	34	0.072
13:00 - 14:00	7	34	0.034	7	34	0.051	7	34	0.085
14:00 - 15:00	7	34	0.059	7	34	0.042	7	34	0.101
15:00 - 16:00	7	34	0.055	7	34	0.051	7	34	0.106
16:00 - 17:00	7	34	0.076	7	34	0.025	7	34	0.101
17:00 - 18:00	7	34	0.136	7	34	0.034	7	34	0.170
18:00 - 19:00	7	34	0.097	7	34	0.059	7	34	0.156
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.686			0.770			1.456

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.

SCP York Street Manchester

Licence No: 726001

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**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip 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	7	34	0.000	7	34	0.030	7	34	0.030
08:00 - 09:00	7	34	0.000	7	34	0.051	7	34	0.051
09:00 - 10:00	7	34	0.000	7	34	0.017	7	34	0.017
10:00 - 11:00	7	34	0.004	7	34	0.004	7	34	0.008
11:00 - 12:00	7	34	0.004	7	34	0.013	7	34	0.017
12:00 - 13:00	7	34	0.008	7	34	0.013	7	34	0.021
13:00 - 14:00	7	34	0.008	7	34	0.008	7	34	0.016
14:00 - 15:00	7	34	0.021	7	34	0.017	7	34	0.038
15:00 - 16:00	7	34	0.017	7	34	0.025	7	34	0.042
16:00 - 17:00	7	34	0.034	7	34	0.000	7	34	0.034
17:00 - 18:00	7	34	0.072	7	34	0.008	7	34	0.080
18:00 - 19:00	7	34	0.030	7	34	0.013	7	34	0.043
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.198			0.199			0.397

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.

S|C|P

APPENDIX G

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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population All usual residents aged 16 and over in employment the week before the census
 units Persons
 date 2011
 usual residence W02000034 : Conwy 008 (2011 super output area - middle layer)

place of work	Driving a car or van	%	Route
W02000010 : Gwynedd 001	32	2%	E
W02000011 : Gwynedd 002	23	1%	E
W02000014 : Gwynedd 005	27	1%	E
W02000027 : Conwy 001	247	14%	B
W02000028 : Conwy 002	50	3%	B
W02000029 : Conwy 003	40	2%	B
W02000030 : Conwy 004	120	7%	B
W02000031 : Conwy 005	28	2%	D
W02000032 : Conwy 006	60	3%	E
W02000033 : Conwy 007	286	16%	C
W02000034 : Conwy 008	195	11%	A
W02000035 : Conwy 009	55	3%	E
W02000036 : Conwy 010	59	3%	E
W02000037 : Conwy 011	149	8%	E
W02000038 : Conwy 012	127	7%	E
W02000039 : Conwy 013	24	1%	E
W02000041 : Conwy 015	30	2%	E
W02000045 : Denbighshire 004	71	4%	D
W02000050 : Denbighshire 009	161	9%	D
W02000051 : Denbighshire 010	28	2%	D
	1,812		

A	B	C	D	E
Llanwrst Rd	Brompton Ave	Conwy Rd (E)	A55 (E)	A55 (W)
11%	25%	16%	16%	32%

