

Proposed Aldi Food Store

Salt Lake North, Porthcawl

TRANSPORT ASSESSMENT

Prepared by: Entran Ltd





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WEST OF ENGLAND TRAVEL PLAN AWARDS GOLD AWARD



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Salt Lake North, Porthcawl

TRANSPORT ASSESSMENT

Revision	Date	Notes	Author	Checked	Approved
Draft	July 2021	PAC Submission	AKL	DJA	RGW

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1.0 INTRODUCTION

1.1 Overview

- 1.1.1 This Transport Assessment (TA) has been prepared by Entran Ltd to detail and assess transport matters associated with the proposed Phase 1 redevelopment of Salt Lake Car Park in Porthcawl, for an Aldi Food Store.
- 1.1.2 The proposal comprises:
 - Primary vehicle and pedestrian access from A4106 Portway Roundabout with a redesigned access spur arm;
 - 2,045 sqm GFA ALDI Foodstore with 114 parking spaces (7No. Parent and Child, 5No. Disabled, 2 No. M/c, 2 No. Click and Collect, 4No. EV expandable to 24 No.);
 - Offsite highway infrastructure as part of the build process to enhance non-motorised user access to the site and connectivity to the town centre and surrounding area to support Active Travel Wales.
- 1.1.3 This TA has been prepared in reference to both National and Local Policy and Plan Documents including:
 - Planning Policy Wales (ed.11, 2021)
 - TAN 18 : Transport (2007)
 - Active Travel Wales Design Guidance (2014)
 - Bridgend Local Development Plan (LDP)
 - "Porthcawl's Waterfront" SPG (2007)
 - "Planning Development Brief–Foodstore Site Salt Lake North, Porthcawl"-BCBC (2019)
 - Salt Lake Car Park Porthcawl Regeneration Phase 1 Access Strategy" BCBC (2019)
 - SPG17: Parking Standards (2011)
- 1.1.4 The site has been identified by Bridgend County Borough Council (BCBC) in the LDP for a convenience goods supermarket. The site has been the subject of a previous transport study commissioned by the Highway Authority in 2019 to help determine the access requirements and the likely traffic effect of the redevelopment of the site. This Transport Assessment builds upon, refines and expands upon the earlier study.
- 1.1.5 The formal planning pre-application (PAC) response with relevant information can be found at **Appendix A**.

1.2 Structure of Report

- 1.2.1 This report provides details of the traffic and transportation issues associated with the development proposals and addresses the following:
 - The Existing Site and Surrounding Area
 - Development Proposals
 - Delivery and Servicing
 - Sustainable Travel by all Modes
 - Trip generation, distribution and assignment
 - Highway Impact
 - Parking accumulations
 - Road safety
 - Summary and Conclusions



2.0 EXISTING CONDITIONS

2.1 Existing Site Use and Access

- 2.1.1 The application site is located at the north west corner of the Salt Lake Car Park adjacent to the A4106 Portway Roundabout in the centre of Porthcawl, in the county borough of Bridgend.
- 2.1.2 The site is approximately 0.9 Ha. in area and is located within the Porthcawl Strategic Regeneration Area. It is supported by BCBC for a foodstore and represents the first phase of enabling development. The strategic site location is illustrated in **Figure 2.1** with the local context shown in **Figure 2.2** below.



Figure 2.1 – Strategic Site Location



Figure 2.2 – Local Context



- 2.1.3 The site is bounded to the north by Eastern Promenade road, opposite Porthcawl Fire Station which in turn is adjacent to residential areas. To the east of the site is grass/gravel surface land associated with Salt Lake Car Park leading on to Eastern Promenade road. To the south is further grass/gravel surface land associated with Salt Lake Car Park leading for a further c.300m on to Porthcawl Marina. To the west is the Portway, followed by Hillsboro Place Car Park and then Porthcawl Town Centre.
- 2.1.4 An illustration of the existing site layout by way of the red line boundary plan is provided in **Figure 2.3** below.



Figure 2.3 Site Boundary

- 2.1.5 The existing site is broadly flat with a gentle slope towards the south-east and Eastern Promenade. The existing site forms vacant land identified for redevelopment in the adopted Local Plan.
- 2.1.6 Vehicular access to the site is currently gained via a spur off Portway Roundabout and is shared with the Eastern Promenade public car park on Salt Lake. There is a second point of access to the public car park from Eastern Promenade. Pedestrian access to the site is gained from the same locations. The existing access is illustrated at **Figure 2.4**.



Figure 2.4 - Existing Access from Portway Roundabout



2.2 Existing Local Highway Network

- 2.2.1 The A4106 Portway Roundabout forms a c.90m ICD normal roundabout with six arms providing a key interchange in the centre of Porthcawl. The speed limit is 30mph and the roundabout is street lit. There is pedestrian guard railing installed on the outer edge of the circulatory carriageway which extends back for a short distance on all approach arms.
- 2.2.2 The A4106 Boulevard de Saint-Sebastian sur Loire forms the north arm of the roundabout and is a primary distributor road into Porthcawl. The approach forms a 7.3m dual carriageway highway without street lighting or footways and includes a central reservation. The speed limit of this road is 40mph from a point just to the north of the Portway Roundabout.
- 2.2.3 Eastern Promenade forms the eastern arm to the Portway Roundabout and is a street lit single carriageway highway bounded by footways to both sides separated by a grass verge. The current site access form the south-eastern arm to the roundabout, as illustrated in Figure 2.4.
- 2.2.4 The Portway forms the southern arm to the Portway Roundabout and forms a street lit 10m wide single carriageway with foot ways to both sides separated by grass verges.
- 2.2.5 The southwestern arm of the Portway Roundabout provides access to the Hillsboro Place car park, and the north western arm forms Lias Road leading towards the town centre. Lias Road is a street lit single carriageway highway bounded by footways to both sides.
- 2.2.6 A4106 Boulevard de Saint-Sebastian sur Loire leads northwards for c. 1km to join Fulmar Road, A4229 Pyle Road and A4106 Newton Cottage Road at a four-arm normal roundabout. A4229 Pyle Road leads northwards for c.4km to reach Junction 37 of the M4 motorway.
- 2.2.7 A4106 Newton Cottage Road leads east for c.5km to join the A48 at a four-arm normal roundabout. The A48 continues east towards Bridgend.

2.3 Existing Pedestrian/Cycle Facilities

- 2.3.1 Active Travel Wales Design Guidance (2014) sets out the procedures and processes to meet the goals of the Active Travel Wales Act 2013. The aim is to make active travel (e.g walking and cycling) the most attractive option for most shorter journeys, and to leave the car behind where suitable to do so. The Act requires local authorities to produce active travel maps and deliver continuous year on year improvements in active travel routes and facilities.
- 2.3.2 An active travel map for walking and cycling has been produced for Porthcawl which is contained at **Appendix B** and highlights the range of current active travel routes in the local area. This is now explored in context to existing facilities surrounding the site.
- 2.3.3 The UK Design Manual for Roads and Bridges (DMRB) TD 91/05 "Provision for Non-Motorised Users" states in paragraph 2.3 that "walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles. Walking and rambling can also be undertaken as a leisure activity, often over longer distances".
- 2.3.4 Acceptable walking distances will vary considerably depending on various factors such as fitness and land topography; however, guidelines by the Institution of Highways and Transportation (IHT) state the acceptability of distances in metres to various attractions, are as follows:
 - Desirable : 500m
 - Acceptable : 1,000m (12-13 mins)
 - Preferred Maximum : 2,000m
- 2.3.5 Manual for Streets usefully 'The propensity to walk is influenced not only by distance, but also by the quality of the walking experience. A 20-minute walk alongside a busy highway can seem endless, yet in a rich and stimulating street, such as in a town centre, it can pass without noticing. Residential areas can offer a pleasant walking experience if good quality landscaping, gardens or interesting architecture are present' (MfS, Para 6.3.1).
- 2.3.6 TD 91/05 states in paragraph 2.11 that "cycling is used for accessing a variety of different destinations, including educational facilities, shops and places of work, up to a range of around 5 miles.



- 2.3.7 Cycling is also undertaken as a leisure activity, often over much longer distances. As well as being a mode of transport in its own right, cycling frequently forms part of a journey in combination with cars and public transport".
- 2.3.8 The Department for Transport Document, LTN 1/04 Policy, Planning and Design for Walking and Cycling states that the mean average journey length by bicycle is 4km.
- 2.3.9 Local Transport Note (LTN) 2/08 Cycle Infrastructure Design also details in paragraph 1.5 "Typical cycle trip distances". In common with other modes, many utility cycle journeys are less than three miles, although, for commuter journeys, a trip distance of over five miles is not uncommon. Novice and occasional leisure cyclists will cycle longer distances where the cycle ride is the primary purpose of their journey. A round trip on a way-marked leisure route could easily involve distances of 20 to 30 miles. Experienced cyclists will often be prepared to cycle longer distances for whatever journey purpose".
- 2.3.10 The key objectives of national and local policy is minimising the need to travel, reducing the proportion of journeys made by private car by making the use of public transport, making walking and cycling more attractive, influencing the location and layout/links between development to maximise the use and value of existing and planned sustainable transport investment. The goal is to make cycling and walking a realistic choice for a range of journeys encouraging access for all age groups and abilities.
- 2.3.11 All the above documents have been considered in the following subsections.

Walking and Cycling

2.3.12 Within a walk distance of 2,000m, the site is very accessible from the surrounding residential areas on foot. There are approximately 11,200 residents located within this catchment area. **Figure 2.5** provides an illustration.



Figure 2.5 – 1,000m and 2,000m Walking Isochrone



- 2.3.13 There is a network of footpaths and footways adjacent and to the south of the site. A footway is provided along the northern side of the site boundary alongside Eastern Promenade.
- 2.3.14 The Portway Roundabout includes footways leading alongside all arms apart from A4106 Boulevard de Saint-Sebastian sur Loire which is truncated but includes a dropped kerb and uncontrolled crossing point with refuge island on the central reservation.
- 2.3.15 Crossing points are provided on all arms of the Portway Roundabout. A controlled crossing point is provided on Lias Road approximately 60 metres from the roundabout. There is a zebra crossing on the Portway approximately 250 metres south from the roundabout.
- 2.3.16 Eastern Promenade to the south east of the site includes a pedestrian Zebra crossing linking to the shared wide promenade along the beach frontage.
- 2.3.17 The existing footway links provide access to the town centre and also into the multitude of minor roads and accesses serving the surrounding residential areas. These links and crossings have basic functionality to reduce road severance between the site and the surrounding residential areas.
- 2.3.18 The previous transport study commissioned by the Highway Authority in 2019 has already identified a number of enhancements to walking and cycling links which would benefit both the site and wider connectivity between the site and town centre together with the surrounding residential areas. The improvements are discussed in the following section and help to ensure no major obstacles to customers or staff walking or cycling to and from the site.
- 2.3.19 **Figure 2.6** provides an illustration of existing cycle routes in the area. The dotted blue lines denote segregated foot/cycle ways with the remainder on-road shared facilities.
- 2.3.20 The existing network of cycle facilities is contiguous along the sea front and provides links between residential areas, the town centre and Trecco Bay Caravan Park.



Figure 2.6 – Local Cycle Routes

2.3.21 A 4km cycle isochrone is illustrated in **Figure 2.7**. There are approximately 15,400 residents located within this area. This plan illustrates the site is located within an acceptable cycle distance for Porthcawl and surrounding areas.





Figure 2.7 – 4,000m Cycle Isochrone

2.4 Public Transport

<u>Bus</u>

2.4.1 Existing bus services are provided on Eastern Promenade, John St and Lias Road, close to the town centre. The main bus stops on John St are located within a 300 metre / 4-minute walk of the site. The bus stops on Eastern Esplanade (Griffin Park) are located within a 250 metre / 3-minute walk. These bus stops are within the 400m guidance threshold distance advocated by IHT guidelines. Figure 2.8 provides an illustration of the location of the bus stops.



Figure 2.8 - Local Bus Stops



2.4.2 The local bus stops include shelters, seating and timetable information. The bus stops on John St include raised kerb bus boarders to aid stepless access to public transport.

Bus Stop	Service	Route	Frequency
	X2	Porthcawl-Bridgend-Cardiff	2 per hour
Eastern Promenade	172	Aberdare-Porthcawl	1 per hour
	861	Rest Bay-Porthcawl-Danygraig	1 per hour
	63	Porthcawl-Bridgend	2 per hour
Lice Bood	172	Aberdare-Porthcawl	1 per hour
Lias Roau	861	Rest Bay-Danygraig	1 per hour
	X2	Porthcawl-Bridgend-Cardiff	2 per hour
Church Place	861	Rest Bay-Porthcawl-Danygraig	1 per hour
John St (Stop 1)	861	Rest Bay-Porthcawl-Danygraig	1 per hour
John St (Stop 2)	63	Porthcawl-Bridgend	2 per hour
John St (Ston 2)	172	Aberdare-Porthcawl	1 per hour
John St (Stop 3)	X2	Porthcawl-Bridgend-Cardiff	2 per hour

2.4.3 A summary of the bus services is provided in **Table 2.1**.

Table 2.1 – Porthcawl Bus Services

2.4.4 Regular services are provided within the town, Rest Bay and links to Bridgend and further afield. Weekend services are also provided.

2.5 Road Safety

2.5.1 Personal injury accident (PIA) data for the local area has been obtained from <u>www.crashmap.co.uk</u>. Accident data is attached as **Appendix C** with mapping shown below as **Figure 2.9**.



Figure 2.9 – Personal Injury Accidents

2.5.2 The data indicates that within proximity of the site over a five-year period 2016 to 2020 there have only been 4 PIA's of which all were slight in severity. On average, there has been less than one accident per year.



- 2.5.3 Of these accidents, 1 occurred in the vicinity of the Portway Roundabout junction and involved a pedal cycle and 3 occurred on Eastern Promenade and involved pedestrians in the carriageway not crossing and a u-turning vehicle. This evidence suggests the accidents are unlikely to be linked to deficiencies in the highway layout.
- 2.5.4 A review of the accident detail therefore identifies no significant blackspots or common causes relating to highway deficiencies and the accidents appear to be related to arbitrary human error. Given the considerable volume of traffic the level of accidents is not considered significant. The site access entry to the Portway Roundabout is subject to a future improvement scheme and no accidents were recorded on Portway Roundabout in the vicinity of the site access.

2.6 Existing Traffic Data

- 2.6.1 Due to the Covid-19 pandemic it has not been possible to collect reliable traffic data reflective of normal traffic conditions on the local highways surrounding the site. In the circumstances, use has been reasonably made of historical traffic data contained within the previous transport study commissioned by the Highway Authority in 2019 to help determine the access requirements and the likely traffic effect of the redevelopment of the site.
- 2.6.2 The report prepared by Vectos contains MCTC data collected in 2018 for the weekday AM, PM and Saturday peak for Portway Roundabout. The surveyed flows are summarised in **Figure 2.10** below.





2.6.3 The baseline observed flows indicate a strong north-south movement between the A4106 (N) and The Portway also between A4106(N) and Lias Road. The existing movements to and from the site and car park access are currently very low during the peak times. The proportion of HGV and buses is low on all approach arms to the roundabout

2.7 Existing Parking

2.7.1 Existing parking in the local area is restricted to a mix of offstreet and onstreet parking bays. Figure 2.11 illustrates the extensive existing on-street parking restrictions in the local vicinity to the site. The proposed development would retain existing restrictions with some additional restrictions added to the new infrastructure. (see Section 3).



Figure 2.11 – Existing Parking Controls



3.0 DEVELOPMENT PROPOSALS

3.1 Development Composition

- 3.1.1 As stated in Section 1, the development proposal comprises;
 - Primary vehicle and pedestrian access from A4106 Portway Roundabout with a redesigned access spur arm;
 - 2,045 sqm GFA ALDI Foodstore with 114 parking spaces (7No. Parent and Child, 5No. Disabled, 2 No. M/c, 2 No. Click and Collect, 4No. EV expandable to 24 No.);
 - Offsite highway infrastructure as part of the build process to enhance non-motorised user access to the site, connectivity to the town centre and surrounding residential areas to support Active Travel Wales.
- 3.1.2 Cycle parking is to be provided on site totalling 8 spaces externally with staff spaces located internal to the warehouse area. The constituent design components of the proposed development layout are discussed in more detail below.

3.2 Access Strategy

3.2.1 The previous transport study commissioned by the Highway Authority in 2019 examined the optimal access requirements for the redevelopment of the site. The proposed overall phasing strategy of the redevelopment is illustrated in **Figure 3.1** below.



Figure 3.1 – BCBC Site Phasing Strategy



- 3.2.2 Section 2 described the main vehicle access to the site which is currently taken from the A4106 Portway Roundabout, also serving as an access to the Salt Lake Car Park. The 2019 study considered that the existing access in its current form would not be suitable to serve new development due to the need to accommodate HGV movements to service a retail development.
- 3.2.3 The proposal would be to upgrade the site access arm onto The Portway Roundabout to facilitate two-way access to the first phase of the redevelopment, and provide future access to phase 2 and phase 5 residential areas. **Figure 3.2** illustrates the preferred layout of the access which has been previously tracked for a 12m long rigid HGV and 16.5m articulated HGV.



Figure 3.2 – Proposed A4106 Portway Roundabout Access

- 3.2.4 The carriageway width of the spur road from the roundabout would be constructed to an adoptable standard with a 7.3m carriageway. It would include a 2m wide footway to the north side and a 3.5m wide shared footway/cycleway to the south side, and an uncontrolled crossing point on the roundabout entry splitter island.
- 3.2.5 The BCBC access strategy identified a range of local infrastructure improvements to accessibility by walking and cycling, to improve links between the site, connectivity to the town centre and surrounding residential areas to support Active Travel Wales. The following improvements are envisaged which enhance crossing points to minimise route diversions and severance issues:
 - (A) New Toucan crossing with raised table on The Portway;
 - (B) Continuation of the pedestrian / cycle route and provision of an improved 3m wide path between the Hillsboro Place car park access and Hillsboro Place, together with a new informal uncontrolled crossing across the car park access;
 - (C) New uncontrolled crossing of the new access road, adjacent to the roundabout;
 - (D) New cycle Zebra crossing markings on the existing Eastern Promenade crossing;
 - (E) New tactile paving and pedestrian central island at the existing pedestrian crossing on Eastern Promenade (adjacent to the A4106 roundabout). The exact location of this will be dictated by the siting of the foodstore and the store entrance;
 - (F) New 3.5 m wide shared footway / cycleway on the southern side of the new access road; and
 - (G) Temporary 3.5 m wide shared footway / cycleway connection to the existing Zebra crossing on Eastern Promenade.
- 3.2.6 A summary plan showing the location of the proposed improvements is illustrated at **Figure 3.3**.





Figure 3.3 - Location of Proposed Pedestrian and Cycle Infrastructure Improvements

- 3.2.7 It is understood that the planning authority would seek to ensure that the proposed improvements would be constructed by the applicant as part of the build process of the food store rather than by means of a S106 agreement. A S106 agreement would be sought for a traffic order for parking restrictions on the new access arm to ensure it remains clear at all times.
- 3.2.8 A further scheme is being promoted and funded by BCBC to provide a footway/cycleway improvement scheme between the Eastern Promenade and Newton Primary School on New Road, forming part of the Active Travel Route (PORP3) identified in the BCBC Integrated Network Map for Porthcawl (see Appendix B).
- 3.2.9 This scheme would link into the proposed developer funded improvements and would help to create a contiguous partially on-road and shared foot/cycle way facility along the eastern side of Eastern Promenade and New Road, which would further link the site to surrounding areas. An extract is illustrated in **Figure 3.4**.



Figure 3.4 – BCBC Shared Footway/Cycleway Improvements on Eastern Promenade



3.2.10 A plan extract from the BCBC access strategy illustrating the context of the site within the local area including for the proposed infrastructure improvements is provided at **Figure 3.5**.



Figure 3.5 – BCBC Non-Motorised Users Access Strategy

- 3.3 Development Layout
- 3.3.1 A plan extract of the current proposed development layout is illustrated in **Figure 3.6** and included as architect's plans at **Appendix D**. The site layout fully ties into the above access strategy.





Figure 3.6 – Proposed Site Layout

3.4 Access

- 3.4.1 As shown in Figure 3.6, vehicle access to the proposed site would be accessed via the A4106 Portway Roundabout via an improved purpose-built access spur road, with the site access forming a minor priority junction, located approximately 60 metres to the east of the roundabout entry.
- 3.4.2 Pedestrian access to the site would be provided at multiple locations to enhance permeability on foot. There would be two points of pedestrian access from Eastern Esplanade, one of which would be located directly opposite the enhanced pedestrian crossing, which will include new tactile paving and a pedestrian refuge island.
- 3.4.3 A further pedestrian access would be provided opposite the new uncontrolled crossing of the new access road, adjacent to the roundabout, together with a pedestrian and cycleway access at the main vehicle entrance from the spur road. The 3.5m shared cycleway directly into the site would provide a dedicated purpose-built route linking to onsite cycle parking facilities adjacent to the building.
- 3.4.4 Pedestrian footway access and car park delineated crossing facilities would be provided internal to the site directly linking the public footway network to the front entrance, with a shared surface provided within the low-speed internal parking areas.
- 3.4.5 The vehicle access would include appropriate bellmouth radii with uncontrolled pedestrian/cycle crossing facilities with dropped kerbs and tactile paving to provide a contiguous link to the segregated foot/cycleway. The internal layout of the site facilitates access and egress for all vehicle including service vehicles to be able to be undertaken in a forward gear.
- 3.4.6 Junction visibility of the site access onto the spur road would be commensurate with the standards shown in TAN18 and MfS for a 30mph speed limit. The design would ensure a visibility splay of 40 metres by 2.4 metres for a 48kph design speed. Given the proximity to the roundabout this is considered form a very robust standard at this location.

3.5 Parking

3.5.1 Bridgend County Borough Council includes parking standards associated with Class A1 retail use



class are contained within SPG17. The site is located in Zone 3, and for supermarkets >2,000 sqm GFA the maximum relevant standard is 1 space per 14 sq.m. Cycle parking 1 stand per 500 sq.m for both long stay and short stay parking. Disabled parking should be 2% of the car park capacity.

- 3.5.2 The proposal is to provide <u>114</u> combined car parking spaces for ALDI (7No. Parent and Child, 5No. Disabled, 2 No. M/c, 2 No. Click and Collect, 4No. ELV expandable to 24 No.) together with 8 cycle parking spaces.
- 3.5.3 The proposed car parking is therefore below the maximum permitted (146 spaces), the cycle parking is greater than the minimum standards (5) together with the proportion of disabled parking.
- 3.5.4 The parking provision is based on extensive local experience at other ALDI stores and is similar to existing stores that have either been built, are being built, have planning or in planning with no objection from highways development control. There is a need for a balance to be struck between adequate provision to help efficient operation of the car park given turnover and to prevent any overspill onto adjacent surrounding roads, but avoiding overprovision to encourage car-based trips to the detriment of walking and cycle trips. This is envisaged to help meet the aims of Active Travel Wales.
- 3.5.5 Cycle parking would be located in proximity of the store entrance in a visible, step free and convenient location as illustrated on the Architect's plans. More details are provided in the Travel Plan which accompanies the planning application (copied at **Appendix E**).
- 3.5.6 It is noted that ALDI seek to encourage travel by cycle whenever possible and in this regard will, through their Travel Plan, review the occupation of cycle stands and, if necessary and justified, introduce additional shoppers cycle parking facilities.
- 3.5.7 An expected Automated EV Bill will be released by government soon, and in compliance with this proposal the following allocations will be made:
 - 4 live EVCPs, 20no future EVCPs
 - The first two EVCP bays should be designed as accessible bays. In order to highlight that they are EVCPs the white lining of these bays will be changed to blue.
- 3.5.8 The NewMotion EVCP final cover design is shown in **Figure 3.7**.



Figure 3.7 – NewMotion EVCP cover design

3.5.9 The proposed development and the wider redevelopment of Salt Lake as shown in Figure 3.1 will by its nature result in some loss of temporary parking provision for tourists during seasonally busy periods. The planning Development Brief July 2019 as prepared by BCBC and summarised in



Section 3.2 considers that reconfiguration of the Hillsboro car park using the receipts generated by the enabling phase 1 supermarket would be re-invested in improvements to the car park to increase the number of car parking spaces and improve access arrangements. It is understood a town-wide parking demand survey is to be undertaken by BCBC which will help further inform the strategy adopted by the local authorities.

3.5.10 It is noted that work on the Transport Strategy was delayed by Covid, but work is due to commence imminently and will continue over the summer (by Jacobs).

3.6 Servicing

3.6.1 As per Aldi's standard operational requirements, servicing is provided to the rear of the site. Further details are presented below in **Section 4**.

3.7 Transport Implementation Strategy

3.7.1 The aim of the Transport Implementation Strategy (TIS) for ALDI is to set out the measures the development proposal will support to provide travel choice and support the objectives of the Local Plan and in this regard presents:

Target Modal Split

3.7.2 The staff target mode split for the TIS for journeys to and from the development proposal is summarised in **Table 3.1**. The initial values are simply taken from the 2011 Census data for Travel to Work for the local MSOA containing the town centre (Bridgend 018) and are subject to refinements as more is known. The only target is car driver, with the targets for individual sustainable travel modes indications only of what one might expect the approximate split of journeys to be, but not specific targets in their own right. (i.e. all non-car driver modes of travel are 'sustainable travel modes').

Mode of Travel	Expected Initial Modal Split	2-year Modal Split Target	5-Year Modal Split Target
Car Driver	62%	56%	50%
Car Passenger, Cycle, Walk, Bus	38%	44%	50%

Table 3.1 – Indicative Staff Mode Share Targets

3.7.3 Provided the overall contribution of sustainable travel modes helps deliver the car driver target, variations from the targets for sustainable travel modes is acceptable. Indeed, in some instances it is hoped they are exceeded.

TIS Measures

- 3.7.4 The TIS aims to make the inevitable step change shift in overall travel mode across the area easier and quicker, providing travel choice for all. A Travel Plan should include the provision of up-to-date information about public transport services, timetables, and opportunities for car sharing (e.g. via a car share website).
- 3.7.5 The measures within the TIS, which are set out in more detail in the ALDI Staff Travel Plan included at **Appendix E**, are aimed at providing this travel choice include (In addition, all employees will receive details of the TP upon commencement of employment and a copy of the TP will be kept in the staff room).

Measures and Actions

- 3.7.6 The Travel Plan Co-ordinator will ensure that the Travel Plan is implemented; operating efficiently and that all the measures for encouraging sustainable travel are in place. Responsibilities include:
- 3.7.7 Promoting and encouraging travel modes other than the car, including providing information to staff via a notice board in the staff room, which will be checked every three months. Travel options will also be discussed at staff meetings;
 - Ensuring that all information relating to public transport, cycling, walking and car sharing is displayed on staff notice boards and is kept accurate and up to date, as well as discussing the TP at staff meetings to continually encourage use of alternative modes than the private car;
 - Ensuring that all information relating to public transport, cycling, walking are available to customers via availability of bus timetables etc, on the packing shelf at the front of the store and that the provided information is kept accurate and up to date;
 - Promoting car sharing during both the staff interview and induction process as well as ongoing reminders from the TPC;
 - Identify employee travel habits through staff surveys;
 - Monitoring and reviewing the Travel Plan as set out in the TP;
 - Training / induction of staff to cover Travel Plan and travel options;
 - Ensuring the needs of the less mobile is incorporated in the Plan; and
 - Coordinate and monitor the TP, update as required and liaise with external bodies and other relevant developers (in discussion with BCBC) in accordance with the contents of this TP.
- 3.7.8 The measures developed on site shall be largely based on the outcomes of the initial travel survey. Some measures are essential in meeting with current standards, for example the quantity of cycle and car parking provision, other measures will be unique to the site. As such the following sections are intended to give an overview of the potential measures that could be implemented by the Travel Plan Co-ordinator if the travel survey highlights them as being appropriate.



TP Measures

- 3.7.9 Due to the changing characteristics of the development over time it would be ineffective for the TP to specify TP measures or funding for measures that may not be required, Nevertheless, funding will be made available for the implementation of measures should the need arise through the monitoring process. In this regard therefore, required measures must be determined by reference to travel surveys and importantly, an understanding of the factors that would motivate staff to alter their travel behaviour. The programme of surveys and monitoring therefore not only needs to identify travel behaviour but also attitudes to travel and key motivators for change.
- 3.7.10 Notwithstanding this, the TP's measures are divided into sub-categories:
 - Hard measures these are infrastructure provision or improvements;
 - Soft measures these are management measure, incentives, marketing initiatives etc;
 - Secured measures these are measures that will be implemented; and
 - Failsafe measures these are an 'arsenal' of measures available to the TP Coordinator to be chosen according to survey feedback so that resources can be targeted towards those measures found to be most effective.
- 3.7.11 The following tables describe both secure and failsafe measures per mode. Secure measures are those that will be adopted prior to recruitment of staff or as part of the build process, with the failsafe measures being those that could be introduced should the need arise.

In addition, all employees will receive details of the TP upon commencement of employment and a copy of the TP will be kept in the staff room.

Hard measures	
Secured	Failsafe
Good on-site lighting;Lockers;New footway across store frontage	 Additional pedestrian signage;
Soft measures	
Secured	Failsafe
 Marketing – promoting walking in all written and electronic material - Travel pack 	Personalised Travel Planning.
 Notice board in staff room displaying the above 	

Measures to encourage walking

Measures to encourage cycling

Hard measures				
Secured	Failsafe			
 Good on-site lighting; 8 external prominent and covered cycle parking spaces via Sheffield loops–usage to be monitored – via the TP 	Additional cycle parking			



•	Provision for in-store cycle storage facilities for employees convenient to staff room	
•	Implement the Government backed cycle purchase scheme (Aldi standard)	
Soft	neasures	
Secu	red	Failsafe
Secu •	red Marketing – promoting cycling in all written and electronic material - Travel pack	 Failsafe Negotiated discount with local bike shop; Personalised travel planning

Measures to encourage public transport use

Soft measures					
Secured	Failsafe				
 Marketing – promoting the use of public transport in all written and electronic material; Travel pack (including bus routes and bus/train timetable info) 	 Personalised travel planning; Investigate bus discounts for staff 				
 Travel notice board in staff room displaying bus timetables 					

Measures to encourage car sharing

Hard measures					
Secured	Failsafe				
 Marketing – promoting car sharing in all written and electronic material as well as interview and induction process 	Personalised travel planning				
Guaranteed ride home (emergency only)					

Table 3.2 - Summary of Travel Plan Measures

- 3.7.12 The Travel Pack (to be agreed with Oxfordshire County Council) will contain information on the alternatives to single-occupancy car use available to staff including;
 - comprehensive walking and cycling route maps linking the site to local infrastructure including shops, residential areas and bus station
 - Bus maps and timetables as well as leaflets describing the health benefits of cycling and walking;
 - contact details of the Travel Plan Co-ordinator for the site; and
 - Useful resources such as Journey Planner website to enable people to plan their own journeys.
- 3.7.13 Travel Packs will be issued to all staff as part of their induction process. Staff will also be advised of the Travel Plan and Pack during the interview process.



4.0 DELIVERY AND SERVICING

4.1 ALDI Company Specific Servicing Arrangements

- 4.1.1 ALDI, as a company, operate the following specific servicing arrangements and working practices.
- 4.1.2 A store in Porthcawl, as per Aldi's other stores in South Wales will be serviced from Aldi's Regional Distribution Centre (RDC) in Cardiff.
- 4.1.3 Between 30-50 staff (27 FTE) are employed at each store, comprising a Store Manager, Assistant Store Manager and Store Assistants, although not all staff are present on site at all times.
- 4.1.4 Delivery routes are planned to minimise distances travelled by each vehicle and maximise efficiency of goods per delivery. This practice is economically prudent for Aldi but also sustainable by virtue of reducing vehicle kilometres travelled. Each vehicle will visit between 1 and 6 stores per trip depending on the nature of the delivery and the geographical location of the stores.
- 4.1.5 On average each store will have only two deliveries by articulated lorry per day plus a modest number of smaller vehicles delivering locally sourced fresh produce. This compares with an average of 6 to 10 articulated lorries and up to 20 subsidiary vehicles (including HGVs) per day usually associated with the larger supermarkets.
- 4.1.6 Each store manager will have an allotted time each day by which the main delivery will have taken place. Each driver is furnished with a mobile phone and is able to inform the distribution centre if any delay is likely. However, this is very rare and allocated delivery times are consistently met by the distribution teams.
- 4.1.7 Delivery practices are identical at each store. Goods delivery is a one-man function carried out by the driver. The vehicle is reversed down the delivery ramp to the loading bay which is fitted with a "dock leveller" to provide a flush ramp from the floor of the lorry to the floor of the storage area.
- 4.1.8 The driver gains access to the building by means of a "driver's door" located next to the loading bay. The driver opens the roller shutter door from within the building then unloads the goods directly into the storage area. The driver is then responsible for locking the shutter and the side door before leaving. Contact with the store manager is only required where site specific special arrangements dictate.
- 4.1.9 The daily HGV delivery arrival journey will normally take place outside peak highway network hours as well as peak store trading hours;
 - The standard delivery period is 1/2 hour;
 - Vehicular access to the delivery ramp will be through the car park;
 - Aldi's service vehicles benefit from operational safety improvements including;
 - Rear Cameras;
 - Audible Warning Systems; and
 - Reversing Object Sensors.
- 4.1.10 ALDI has a long-established approach of ensuring minimal off-site impacts to neighbours and aims to be a responsible neighbour developing good relationships within the community and ensuring any disturbances are kept to a minimum.

4.2 Site Specific Operational Requirements

- 4.2.1 Aldi, as a company, operate the following specific servicing arrangements and working practices:
 - The store will normally be served by two HGV's and a number of smaller vehicles per day, which will unload their goods using a dock leveller adjacent to the store building;
 - Access for service vehicles will be from the site access via Portway Roundabout and the spur road;
 - HGV movements would be very infrequent and measured in speed;
 - Turning and reversing manoeuvres all undertaken within the on-site service area;



- Egress in a forward gear;
- The daily HGV delivery arrival journey will normally take place outside peak highway network hours but not during night time hours; and
- The service yard would be located at the rear of the store on the southern boundary of the site as illustrated in Figure 3.1.
- 4.2.2 The swept path of the HGV internally and the ALDI dock leveller is illustrated in **Appendix D**.



5.0 TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

5.1 Introduction

- 5.1.1 As described in Chapter 3 of this report, it is proposed to develop this site for an Aldi discount food store of 2,045 sq.m GFA including access roads with associated parking and servicing facilities and supporting infrastructure to aid non-motorised users.
- 5.1.2 In order to determine the likely impact of the proposed development it is necessary to determine the expected trip generation of the proposed development, the expected distribution of trips and their assignment to the local highway network.
- 5.1.3 The scope of the assessment was previously identified in the previous transport study commissioned by the Highway Authority in 2019 to help determine the access requirements and the likely traffic effect of the redevelopment of the site. The A4106 Portway roundabout is the key junction node to be considered.

5.2 Proposed Site Traffic Generation

- 5.2.1 The previous assessment in 2019 identified that the scope of assessment for robustness should include the proposed discount foodstore as well as the potential future residential phase 2 and phase 5 (totalling 200 flatted units) which could be served from the spur arm onto the roundabout.
- 5.2.2 The proposed vehicle trip generation of the site was determined via interrogation of the standardised TRICS v 7.8.1 database.
- 5.2.3 **Table 5.1** summarises the expected weekday AM, PM and Saturday trip rates per 100 sq.m, together with the number of trips expected for the proposed 2,045 sq.m GFA ALDI foodstore. Two PM peak hours are included as per the 2019 study to help ensure the local peaks are fully covered. The TRICS outputs are attached as **Appendix F**.

	Trip Rates			Trip Generation		
Peak	Inbound	Outbound	Two-Way	Inbound	Outbound	Two-Way
AM Peak (8-9)	2.443	1.62	4.063	50	33	83
PM Peak (4-5)	4.069	4.208	8.277	83	86	169
PM Peak (5-6)	3.772	3.985	7.757	77	81	159
SAT Peak (12-1)	6.230	6.751	12.981	127	138	265

Table 5.1 – Proposed ALDI Trip Generation

- 5.2.4 The trip generation for the proposed ALDI development would be 83 trips in the weekday AM peak hour, 169 trips in the weekday PM peak hour and 265 trips in the Saturday peak hour.
- 5.2.5 **Table 5.2** summarises the expected weekday AM, PM and Saturday trip rates per 100 sq.m, together with the number of trips expected for the proposed 200 flats associated with the future residential phase 2 and 5. The TRICS outputs are attached as **Appendix G**.

	Trip Rates			Trip Generation		
Peak	Inbound	Outbound	Two-Way	Inbound	Outbound	Two-Way
AM Peak (8-9)	0.047	0.156	0.203	9	31	41
PM Peak (4-5)	0.092	0.059	0.151	18	12	30
PM Peak (5-6)	0.126	0.064	0.190	25	13	38
SAT Peak (12-1)	0.080	0.140	0.220	16	28	44

Table 5.2 – Proposed F	uture Residential Flats	Trip Generation
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- 5.2.6 The trip generation for the proposed future residential development would be 41 trips in the weekday AM peak hour, 38 trips in the weekday PM peak hour and 44 trips in the Saturday peak hour.
- 5.2.7 A multi-modal trip assessment has also been carried out to gain an indication of the expected number of trips by modes other than the private car at the proposed food-store. An interrogation of the TRICS 7.8.1 database was undertaken and **Table 5.3** summarises the expected number of trips.

	Trip Rates			Trip Generation		
Peak	Cycles	Pedestrian	Bus Pax	Cycles	Pedestrian	Bus Pax
AM Peak (8-9)	0.106	1.639	0.240	2	34	5
PM Peak (4-5)	0.117	3.406	0.621	2	70	13
PM Peak (5-6)	0.224	3.495	0.677	5	71	14
SAT Peak (12-1)	0.225	4.073	0.788	5	83	16

Table 5.3 – Proposed ALDI Multi-Modal Trip Generation

- 5.2.8 The non-car trip generation assessment for the proposed development suggests there would be modest levels of cycle trips and bus trips occurring during the weekday peaks, with a much larger proportion of pedestrian trips. This may reflect how ALDI often functions as a neighbourhood store located in proximity to residential areas.
- 5.2.9 The proposed ALDI store would generate a total of 3,575 person trips during a typical weekday, of which 37 by cycle, 759 on foot and 137 by bus. This would suggest that cycle trips would make up 1%, bus passengers 4%, with walking trips a much greater 21%.
- 5.2.10 This assessment confirms that the pedestrian infrastructure and links including a controlled crossing should be directly beneficial, cost effective and well utilised.

5.3 Proposed Site Trip Distribution and Assignment

<u>ALDI</u>

- 5.3.1 The trip generation that an ALDI store might have in this location only forms a part of the exercise. An ALDI store will also attract trips that are already on the local highway network and take the opportunity of passing the site to use the new opportunities; such trips are known as secondary diverted or pass-by trips.
- 5.3.2 Therefore, in order to understand the overall impact of the development on the local highway network, it is necessary to clearly identify the actual impact after external factors are considered such as trip types. Typically, new food stores only lead to about 10% completely new traffic, with the remainder forming pass-by and diverted trips (secondary trips) which are already on the local highway network.
- 5.3.3 The definition of pass-by trips is that which actually passes the site, which in this case is adjacent to A4106 Portway Roundabout. Diverted trips are those which make a diversion from their original route, which in the case of this assessment is outside the study area and therefore for the purposes of the assessment are essentially new trips. This is considered a robust assumption as some diverted trips may already pass through the Portway Roundabout.

Pass-by, Diverted and Linked Trips

- 5.3.4 TRICS research report 14/1 sets out that the standard application of the pass-by and diverted trip proportions in research report 95/2 is not considered so relevant and a site by site approach should be used instead.
- 5.3.5 The quanta of pass by / diverted / linked trips for this store was undertaken using first principles taking into account the location of other stores in proximity to the proposed development.
- 5.3.6 An assessment methodology set out at section 11 in TRICS paper 14/1. The location type for the proposed store is in a location close an important north/south route into Porthcawl and close to the town centre, therefore the pass-by/diverted percentage is likely to be reasonable.



- 5.3.7 The number of facilities at the store is more limited as a result of the limited offer. Click and collect is available at ALDI, but the GFA is much less than 4,000 sq.m which might suggest the ALDI store would act more as a convenience store with corresponding higher pass-by levels, however ALDI also contains some comparison elements (20%) and as a result some diverted trips may occur. The proposed development is located in reasonable proximity to residential areas to the north of the site and would be close to the future residential development on Salt Lake.
- 5.3.8 **Figure 5.1** provides an illustration of the estimate of the proportions of the trade draw which might occur from existing other food stores to the proposed ALDI store in Porthcawl. This information has been obtained from draft information provided by the planning consultant which we understand will be used in the retail impact assessment contained within a supporting Planning and Retail Statement.



Figure 5.1 – Trade Draw to Proposed ALDI Foodstore

- 5.3.9 It can be seen that the diversion of trips is likely to be spread across the A4106 Boulevard de Saint-Sebastian sur Loire, Lias Road and Eastern Promenade approaches to the Portway Road Roundabout, with the majority associated with the A4106 (N) and Lias Road approach.
- 5.3.10 With consideration to the site location, the following secondary trip proportions were identified as a reasonable and modest set of assumptions:
 - 20% pass-by between A4106(N) and Portway (i.e.trips already heading to and from Porthcawl)
 - **20% diverted from other stores** (using Figure 5.1 and all trips assumed as 'new' as arriving on the Portway Roundabout)
 - 60% new primary trips (effective only on local roads, i.e. 'real' new primary trips = 10%)
- 5.3.11 These assumptions are considered robust for the purposes of this assessment and it is proposed that the above secondary trip proportions should be taken forward to assess the impact of development on the local highways. The above proportions make a robust allowance for concentration of 'effective' new traffic on the local roads, although across the wider area the traffic increases should only be slight and traffic heading to and from Bridgend should be diminished.



5.3.12 In order to determine the distribution of new primary trips from the proposed foodstore development, a population-distance gravity model was developed using 2011 census data. Population numbers were obtained for each of the MSOA in the surrounding area, and the journey time from the weighted population centre of each MSOA was derived using google driving directions set to PM peak time. The MSOA are, on average, within an average 8-minute drive time. The distribution assessment is provided at **Figure 5.2**.





5.3.13 The primary trip distribution based on populations would result in 50% of trips arriving and departing to the north on the A4106 Boulevard de Saint-Sebastian sur Loire. **Figure 5.3** provides the primary new trip assignment for the proposed ALDI development.







5.3.14 **Figure 5.4** provides the secondary pass-by trip assignment for the proposed ALDI development. The split is based on the directionality of flow in each peak.









5.3.15 Figure 5.5 provides the Secondary diverted trip assignment for the proposed ALDI development.







E 2.46. Figure E C provides the sum tatal of this assignment for the proposed ALDI days







Residential

5.3.17 The trip distribution of the vehicle trips from the proposed phase 2 and phase 5 of the residential element of the redevelopment was based on the census 2011 journey to work travel data for the local MSOA (Bridgend 019). **Figure 5.7** provides a summary of the distribution exercise.

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



Figure 5.7 – Residential Traffic Distribution

5.3.18 The assignment of residential trips to the local junction is provided in Figure 5.8.





Figure 5.8 – Residential Traffic Assignment

5.3.19 The sum total of the ALDI and residential traffic assignment to the study area is provided in Figure5.9. It is important to note that the residential element is added to the ALDI foodstore although this is likely to occur at a later date. The assessment traffic generation is therefore a very robust estimate and will be applied to both the assumed foodstore opening year and the future year tests.






5.3.20 The above traffic figures have been taken forward for use in the highway capacity assessment.



6.0 HIGHWAY IMPACT

6.1 Introduction

- 6.1.1 In order to determine the impact on the local highway network from the proposed development, normal practice is to undertake an assessment by comparing the baseline situation to the 'with development' situation.
- 6.1.2 Due to the Covid-19 pandemic it has not been possible to collect reliable traffic data reflective of normal traffic conditions on the local highways surrounding the site. In the circumstances, use has been reasonably made of historical traffic data contained within the previous transport study commissioned by the Highway Authority in 2019 to help determine the access requirements and the likely traffic effect of the redevelopment of the site. Figure 2.9 in the previous sections summarised the MCTC data collected in 2018 for the weekday AM, PM and Saturday peak for the Portway Roundabout.

6.2 Assessment Flows

- 6.2.1 In order to undertake the operational assessment, the derivation of traffic flows for the baseline, opening year and future year are required. A reasonable baseline should be 2022 for the assumed opening year and a future year test of 2027.
- 6.2.2 In order to determine the baseline flows, traffic growth was based on TEMPro 7.2c with the 2018 RTF dataset for the average of MSOA 018 and 019 Bridgend. This follows the same methodology as the 2019 study commissioned by the Highway Authority. The growth rates are summarised in Table 6.1.

Period	AM Peak	PM Peak	SAT Peak
2018-2022	1.0524	1.0539	1.0572
2018-2027	1.1005	1.1042	1.1126

Table 6.1 – Base Traffic Growth Rates

6.2.3 The expected baseline flows in the 2022 Opening Year are provided at Figure 6.1.



C



6.2.4 The expected baseline flows in 2027 Future Year is provided at **Figure 6.2**.



C



6.2.5 The expected baseline + development traffic flows in the 2022 Opening Year is summarised at **Figure 6.3**.







Figure 6.3 – 2022 Base + Development Traffic Flows

6.2.6 The expected baseline + development traffic flows in the 2027 Future Year is summarised at **Figure 6.4**.







Figure 6.4 – 2028 Base + Development Traffic Flows

6.2.7 The traffic figures shown in the above tables were then taken forward for capacity testing of the local junction contained within the study area.

6.3 Operational Assessment

A4106 Portway Roundabout

- 6.3.1 An operational assessment of the junctions included within the study area was carried out using Junctions 10 (ARCADY) software. Geometric measurements for the models were taken from the 2019 study and cross checked to mapping sources.
- 6.3.2 A summary of the operational assessment is provided in **Table 6.2 and Table 6.3**. The full model output results are at **Appendix G**.
- 6.3.3 The results of the capacity assessment reveal that the roundabout is currently well within capacity and is predicted to remain so in the 2022 opening year and 2027 future year. The expected level of queues and delay at the junction is very minor.
- 6.3.4 The results reveal that with the addition of ALDI traffic, the expected impact would be minor and the change in performance not significant. The addition of development traffic is not expected to lead to any capacity issues in either the opening year or the future year. The greatest RFC (ratio of flow to capacity) of <u>0.41</u> occurs on the A4106 (N) arm in the AM peak.
- 6.3.5 The site access arm is expected to remain well within capacity with a maximum RFC value of <u>0.21</u>, a queue of less than 1 vehicle on average and delay of 5 seconds.
- 6.3.6 The expected impact of the proposed development is therefore shown by the capacity assessment to be modest in scale and would not lead to any significant or severe effects on the local highway network.

-			AM	-		PM (4-5)	
Реак	Arm	Queue	Delay	RFC	Queue	Delay	RFC
	A4106 (N)	1	3	0.35	1	3	0.23
	Eastern Promenade	1	5	0.26	1	4	0.23
2018 Base	Site Access	0	0	0.00	0	0	0.00
Observed	The Portway	1	5	0.34	1	5	0.25
	Hilsboro Place CP	0	4	0.02	1	4	0.07
	Lias Rd	1	5	0.26	1	5	0.27
	A4106 (N)	1	3	0.37	1	3	0.25
	Eastern Promenade	1	5	0.27	1	4	0.25
2022 Rasolino	Site Access	0	0	0.00	0	0	0.00
2022 Daseillie	The Portway	1	5	0.36	1	5	0.27
	Hilsboro Place CP	0	4	0.02	0	4	0.08
	Lias Rd	1	5	0.27	1	5	0.28
	A4106 (N)	1	3	0.39	1	3	0.28
	Eastern Promenade	1	5	0.28	1	4	0.26
2022 Baseline	Site Access	0	5	0.09	0	4	0.12
+Development	The Portway	/ 1	5	0.37	1	5	0.28
	Hilsboro Place CP	0	4	0.02	0	4	0.08
	Lias Rd	1	5	0.29	1	5	0.31
	A4106 (N)	1	3	0.39	1	3	0.26
	Eastern Promenade	1	5	0.29	1	4	0.26
2027 Basolino	Site Access	0	0	0.00	0	0	0.00
2027 Daseille	The Portway	1	6	0.38	1	5	0.29
	Hilsboro Place CP	0	4	0.02	1	4	0.08
	Lias Rd	1	5	0.29	1	5	0.30
	A4106 (N)	1	3	0.41	1	3	0.29
	Eastern Promenade	1	5	0.30	1	4	0.28
2027 Baseline	Site Access	0	5	0.09	0	5	0.12
+Development	The Portway	1	6	0.39	1	5	0.30
	Hilsboro Place CP	0	4	0.02	0	4	0.09
	Lias Rd	1	5	0.31	1	5	0.33

Table 6.2 – Junction Capacity Assessment of The A4016 Portway Roundabout (1)

Deels	A		PM(5-6)		5	SAT (12-1))
Реак	Arm	Queue	Delay	RFC	Queue	Delay	RFC
	A4106 (N)	1	3	0.22	1	3	0.27
	Eastern Promenade	1	4	0.19	1	4	0.25
2018 Base	Site Access	0	0	0.00	0	0	0.00
Observed	The Portway	1	4	0.26	1	5	0.26
	Hilsboro Place CP	1	4	0.06	1	4	0.09
	Lias Rd	1	5	0.27	1	5	0.28
	A4106 (N)	1	3	0.23	1	3	0.29
	Eastern Promenade	1	4	0.20	1	5	0.27
2022 Receline	Site Access	0	0	0.00	0	0	0.00
2022 Baseline	The Portway	1	5	0.27	1	5	0.28
	Hilsboro Place CP	1	4	0.07	1	4	0.10
	Lias Rd	1	5	0.29	1	5	0.30
	A4106 (N)	1	3	0.26	1	3	0.33
	Eastern Promenade	1	4	0.22	1	5	0.30
2022 Baseline	Site Access	0	4	0.11	1	5	0.20
+Development	The Portway	1	5	0.28	1	5	0.30
	Hilsboro Place CP	0	4	0.07	1	4	0.11
	Lias Rd	1	5	0.31	1	5	0.34
	A4106 (N)	1	3	0.24	1	3	0.30
	Eastern Promenade	1	4	0.22	1	5	0.29
2027 Papalina	Site Access	0	0	0.00	0	0	0.00
2027 Daseline	The Portway	1	5	0.29	1	5	0.30
	Hilsboro Place CP	1	4	0.07	1	4	0.11
	Lias Rd	1	5	0.31	1	5	0.32
	A4106 (N)	1	3	0.28	1	3	0.35
	Eastern Promenade	1	4	0.23	1	5	0.32
2027 Baseline	Site Access	0	4	0.11	1	5	0.21
+Development	The Portway	1	5	0.30	1	5	0.31
	Hilsboro Place CP	0	4	0.07	1	4	0.11
	Lias Rd	1	5	0.33	1	5	0.36

Table 6.2 – Junction Capacity	Assessment of The Por	tway Roundabout (2)
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6.4 Road Safety Impact

- 6.4.1 The review of historical accidents in previous section 2 identified no significant blackspots or common causes relating to highway deficiencies and the low level of accidents appeared to be related to arbitrary human error.
- 6.4.2 The introduction of the proposed development is considered unlikely to change this situation. The development is supported by a developer funded package of improvements to the public realm which is expected to improve road safety and help cater for any increased movements by non-motorised users to and from the site.
- 6.4.3 The addition of the development traffic is modest in scale and the access is designed to modern adoptable standards including provision for NMUs and is therefore considered unlikely to introduce or lead to any new material road safety issues.

6.5 Summary

- 6.5.1 The results of the highway impact assessment can be summarised as follows:
 - The existing A4106 Portway roundabout currently has no capacity issues with short queues and low delay on all approaches. This is expected to remain the case in 2022 and 2027 without development traffic.
 - The proposed development would not lead to any significant impact at the roundabout which would remain well within capacities for both the Opening and Future Year during the weekday network peak hours and during the busier trading conditions on a Saturday.



7.0 SUMMARY AND CONCLUSIONS

7.1 Summary

- 7.1.1 This Transport Assessment (TA) has been prepared by Entran Ltd to detail and assess transport matters associated with the proposed Phase 1 redevelopment of Salt Lake Car Park in Porthcawl, for an Aldi Food Store
- 7.1.2 A summary of the key information contained in this report is set out as follows:
- 7.1.3 The proposed ALDI development would comprise;
 - Primary vehicle and pedestrian access from A4106 Portway Roundabout with a redesigned access spur arm;
 - 2,045 sqm GFA ALDI Foodstore with 114 parking spaces (7No. Parent and Child, 5No. Disabled, 2 No. M/c, 2 No. Click and Collect, 4No. EV expandable to 24 No.);
 - 8 no. cycle spaces for customer use with further staff spaces located internally to the building.
 - Offsite highway infrastructure as part of the build process to enhance safe non-motorised user access to the site, connectivity to the town centre and surrounding residential areas to support Active Travel Wales.
- 7.1.4 The site includes for a Staff Travel Plan and a Transport Implementation Strategy;
- 7.1.5 The findings of the previous 2019 transport study for the redevelopment of the site commissioned by the Highway Authority have been fully incorporated into this assessment. The BCBC access strategy identified a range of local infrastructure improvements to aid walking and cycling, which the proposed development would help bring forward, in support of the Active Travel Wales Act.
- 7.1.6 Proposed discount foodstore trip generation rates have been obtained from latest TRICS surveys to form a reasonable and robust estimate of the expected development traffic. Development trips have been assigned to the local highway network in the assessment using information from the Retail Impact Assessment and a population/distance gravity model.
- 7.1.7 The expected traffic from future phase 2 and phase 5 residential areas has also been added into the assessment and assigned to the local highway network, using the 2011 travel to work census data.
- 7.1.8 A capacity assessment has been undertaken of the local highway junction of A4106 Portway Roundabout during the weekday and Saturday peak periods. The roundabout currently has no capacity issues with short queues and low delay on all approaches. The proposed development would not lead to any significant impact at the roundabout, which would remain well within capacities for both the opening and future year horizon.
- 7.1.9 Adequate car parking is proposed, commensurate with the needs and expected operation of the development proposal, to avoid overspill onto local roads but to avoid over-provision for the private car. The proposed parking levels are below the local maximum standards. Secure cycle parking spaces for the discount food store would be provided in excess of the local maximum standards together with safe access for pedestrians.
- 7.1.10 The proposed car park can accommodate the expected parking accumulation and movements at the busiest times during the week to avoid and overspill parking highway impact onto local roads.
- 7.1.11 Accident data has been examined on the local highways and the addition of the modest amount of development traffic is considered unlikely to introduce or lead to any new material road safety issues.
- 7.1.12 Servicing would be consistent with ALDI's tried and tested approach and with local policy in mind; the site access will be designed to provide safe and efficient access for turning of service vehicles and will tie into the identified highway access improvements. Tracking has been undertaken to confirm access by an articulated HGV to and from the servicing area in a forward gear.



7.2 Conclusion

- 7.2.1 The information presented in this TA Report has been presented to help Bridgend County Borough Council review the likely effects of the proposed development on the surrounding transportation network.
- 7.2.2 Based on these findings, the development proposals are not expected to lead to any localised material off-site highways issues on the adjacent transportation network. It is therefore concluded that the impact has been fairly and reasonably addressed and there should be no reason for highways related objection to the proposed development.



APPENDIX A

Philip Marsden, Planning Potential

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Grwp Datblygu/Development Group (Planning)

Deialu uniongyrchol / Direct Line: 643177 Gofynnwch am / Ask for: Mrs Hayley Kemp

Ein cyf / Our ref: PE/402/2020 Eich cyf / Your ref:

Dyddiad / Date: 22 March 2021

Dear Sir,

PROPOSED NEW ALDI FOOD STORE AT SALT LAKE CAR PARK, PORTHCAWL

I refer to your email, dated 8, February 2020, and the subsequent TEAMS meeting undertaken on the 5 March 2021 with Mrs Hayley Kemp (Principal Planning Officer), Mr Gareth Denning (Development Planning), Mr Leigh Tuck (Highway Officer), Mr Gethin Powell (Land Drainage Officer) and Mrs Helen Williams (Noise) from Bridgend County Borough Council with Rob Jones (Aldi), James Stansfield (Kendall Kingscott - architects), Louis Spencer (Tyler Grange - soft landscaping), Keith Metcalfe (Sharps Redmore – acoustics), Chris Jarman (Craddy's – structural and drainage engineers), Robert Williams (Highways and Lloyd Collins (Planning Potential) in respect of pre-application advice and an informal opinion on the acceptability of the above mentioned development.

Proposal

The proposal seeks the erection of a new, Aldi discount community food store (Use Class A1) with associated access, landscaping and parking on land located to the north of Salt Lake Car Park, Porthcawl. The proposed store will cover a gross area of approximately 2,045 sqm including a net sales area of 1,315 sqm. The development would also include 114 car parking spaces, which includes five parent and child spaces, seven disabled spaces, two click and collect spaces and four live, electric charging spaces.

The site would be accessed via a new section of road from a spur at the south eastern corner of the existing Portway roundabout. The service yard will be located at the north eastern corner of the site, behind the store.

The proposal also includes soft landscaping including a public realm area and the design of the store will include a waved style, feature roof finished with locally significant materials such as blue lias limestone and full height glazing.

Location and Context

The site measures 0.9 hectares and comprises of an area of hardstanding and grassland. It is bound by the Eastern promenade to the east and north. The Portway roundabout to the west and a large undeveloped area of hard standing/grassland to the south, which is currently used

as a car park. The site is located to the west of Coney Beach Funfair and immediately to the south of Porthcawl Fire Station.

Relevant Planning History

None

Relevant Planning Policies

<u>National Policies</u> Planning Policy Wales (Edition 11, February 2021) Future Wales – the National Plan 2040 (Feb. 2021) TAN11: Noise TAN12: Design (2016) TAN18: Transport

Local Policies

The Development Plan for the area comprises the Bridgend Local Development Plan 2006-2021 (LDP) which was formally adopted by the Council in September 2013 and within which the following Policies are of relevance:-

- Strategic Policy SP2 Design and Sustainable Place Making
- Strategic Policy SP3 Strategic Transport Planning Principles
- Policy SP10 Retail and Commercial Hierarchy
- Policy SP14 Infrastructure
- Policy PLA1 Settlement Hierarchy and Urban Management
- Policy PLA3 Regeneration and Mixed Use Development Schemes
- Policy PLA11 Parking Standards
- Policy REG9 Development Sites in Retailing and Commercial Centres

Supplementary Planning Guidance: SPG17: Parking Standards

Main Considerations

Principle of the Development

Policy SP10 of the Bridgend Local Development Plan states that new retail development should be focussed on the retail and commercial centres identified in the Retail and Commercial Hierarchy. Porthcawl Town Centre is identified in the hierarchy and should therefore be the focus for retail activity. The site is located outside of the Town Centre boundary, and as such any application should be supported by evidence of an identified need and a sequential test of sites in accordance with the 'Town Centre First' approach enshrined in national planning policy.

Policy REG9(6) of the LDP identifies the Porthcawl Waterfront Regeneration Area as a key site where retail development will be favoured in order to assist the regeneration of Porthcawl Town Centre. The supporting text to the policy confirms an allocation of 2,500m2 for a convenience goods supermarket within REG9(6) would meet the retail need identified in the CACI Retail Study

(2010). Land at the Hillsboro Place Car Park was intended to fulfil this allocation, being located both within Porthcawl Town Centre and the Regeneration Area.

In 2018, STANTEC prepared a Retail Study in support of the review of the Local Development Plan. The Retail Study concluded that whilst there was limited quantitative need for additional convenience floorspace throughout the County Borough, there is a qualitative need within Porthcawl based on a survey of household shopping patterns which show significant levels of convenience expenditure leakage outside of Porthcawl. In addition to this, STANTEC were commissioned by BCBC to undertake a sequential site test in May 2019. This concluded that the Hillsboro Place Car Park site as the most preferable location, but documented the various reasons why this site has not come forward for development despite its allocation for such a purpose in the LDP since its adoption in 2013. The Sequential Site Test identified the Salt Lake site as the next most sequentially preferable site, being located 50m from the commercial centre boundary.

The findings of both the Retail Study and Sequential Site Test have been incorporated into a Development Brief that was approved by members of BCBCs Development Control Committee in June 2019 as a material consideration in the determination of future planning applications.

In conclusion, it is felt that the studies outlined above provide sufficient justification for why the Salt Lake site fulfils an established retail need and is the most sequentially appropriate location for a convenience food store in Porthcawl. However, in order to fully comply with national and local planning policy the planning application should be supported by a retail impact assessment to enable officers to assess whether the vitality and viability of Porthcawl Town Centre will suffer detrimentally as a result of this proposal.

Proposed Design and Materials

As discussed at the meeting, it was noted that no further changes had been undertaken to the proposed scheme following out previous discussions prior to the bidding/tendering process. In view of this, you were advised at the previous meetings that further design and material changes would be required to the scheme prior to the formal submission of a planning application. In view of this, concerns were raised regarding the large expanse of proposed timber cladding on the north western elevation of the building, not only visually but also its maintenance in such an exposed, salty, coastal environment. You were advised at the meeting that the inclusion of more glazing on this elevation as well as the inclusion of a more localised material to Porthcawl such as yellow sandstone/lias limestone or a pebble stone finish as previous discussed would be considered more acceptable. This is considered to reflect the character and appearance of the Porthcawl area as oppose to timber cladding which is a more modern material and which is not considered to resemble the area.

The design of the main roof was also raised and it was suggested that more emphasis in terms of the wave design was included on the front elevation. You did raise concerns regarding the engineering ability to achieve this, however this would need to be included in any planning submission as justification for the proposed design. The front canopy area was also discussed

and you were advised to include and reflect the wave design of the roof into the canopy structure. Currently, the canopy is very lateral and commonplace on other Aldi stores and therefore it is considered that it could become a real feature of the front of the store. As stated in the meeting, it can still retain its functional use, just include a more interesting and unique design.

Landscaping

As advised at the meeting, a detailed and robust landscaping scheme for the site including details of all proposed hard and soft will be required to be submitted with any formal planning application. The landscaping is key to the integration of the site into the context of the area and the small-grassed areas located between the car parking spaces need to be addressed. Also, due to such an exposed, salty environment, the landscaping scheme will need to include certain specific species of planting and landscaping, which will respond to and thrive in that type of environment.

Further details are also required regarding landscaping located to the rear of the building and it was suggested at the meeting that a cross section plan of this is submitted to demonstrate its relationship with the adjoining land.

Boundary Treatments

As mentioned in the previous meeting, a distinctive and unique boundary feature is sought along the northern boundary of the site as you enter into Porthcawl. Previously a waved style wall feature was discussed and at the meeting, some images and ideas of the inclusion of a waved type boundary treatment and public art scheme were presented. It was agreed that further details of this would be submitted for consideration and comment prior to the formal submission of a planning application.

The proposed rear fence was also discussed, that provides a boundary treatment around the staff welfare area. It was advised that this type of boundary treatment would not be considered acceptable on such a prominent corner of the site and that a more well designed and in keeping structure would be required with materials that reflect the character and appearance of the local context of the area.

Public Realm Area

The public realm area (identified on the submitted plan as No.3) requires more justification as to its use, design, purpose, how it will be managed and how it will fit in with the wider regeneration proposals. Prior to the meeting, you submitted a Landscape Proposal, which included examples for the layout and design of the proposed public realm area, albeit nothing bespoke to this development. During the meeting, this was discussed in more detail and you advised that it would include a seating area and landscaping for the public to use. It was also considered that the proposed design ideas were considered acceptable and that further details of this would be submitted for consideration and comment prior to the formal submission of a planning application.

You were also advised that details of litter bins and how they are to be managed in this area would need to be considered and submitted with any formal planning application.

Justification/Design statement regarding the relationship of the proposed scheme with Porthcawl

As advised at the meeting, any formal planning application is required to be supported by a justification or design statement, which demonstrates or explains as to what makes this development of a quality suitable to Porthcawl and what unique characteristics set it apart from other retail schemes. The entire design ethos for the building needs to be set out and it need to demonstrate how you have reached this particular design and how it relates to the context and setting of this coastal location.

Public Art

With regard to the inclusion of a public art scheme within the development, this was discussed at the meeting and as mentioned above, some images and ideas of the inclusion of a public art scheme into the proposed development were presented. It was agreed that further details of this would be submitted for consideration and comment prior to the formal submission of a planning application.

Access, Parking and Highway Safety

The applicant will be required to produce a transport assessment (TA) to quantify and mitigate the impact of the development on the surrounding highway network. The TA will follow the transportation hierarchy of Walking, Cycling. Public Transport, Private motor vehicle and will suggest ways to improve access to the site via sustainable modes of transport. The applicants' transportation consultants should, at the outset contact the highway development control section to agree a scope for the Transport Assessment.

The applicant is reminded that there is an historic transport statement prepared by Vectos, which was commissioned by the Highway Authority, which can be used for any transport assessment study. This documents has been attached for your information.

The previous transport statement considered the following, which will need to be refreshed with reference to the proposed food stores access and servicing regime.

- Access to the food store site from the A4106 roundabout. This will include a (preliminary design) plan illustrating a new internal access road with an amended roundabout arm to accommodate refuse collection and servicing vehicles likely to use this section of highway. The layout will also provide geometrical measurements for reference;
- Consider the traffic effect of the redevelopment.
- Undertake a junction capacity assessment of the A4106 roundabout to assess the redevelopment traffic effect as well as demonstrate that the traffic volumes associated with the food store would be acceptable; and
- Review pedestrian and cycle access to the site and recommend improvements to ensure the development is compliant with the Active Travel (Wales) Act.

Any new infrastructure identified in the new transport assessment, such as the new access road and new shared use cycle routes, will be constructed by the applicant as part of the build schedule of the food store and will not form part of a S106 contribution. therefore the details of the new infrastructure will need to be agreed at the planning stage. The applicant will be required to enter into a S106 agreement for the sum of £8000 to facilitate a new traffic order for parking restrictions on the new arm and access road into the site. This will ensure the access road remains clear at all times.

The applicant is directed to the Council's Parking Standards SPG17 which provide maximum numbers of parking spaces. Therefore, any overprovision of parking will require a robust evidence as to why an overprovision is required contrary to local and national legislation.

The internal circulation of the car park needs to be carefully considered at the design stage to ensure that pedestrians and vehicles can enter the site easily and are not held or queueing on the highway due to reversing manoeuvres taking place within the car park. Pedestrian permeability through the car park and onto the wider active travel routes beyond the site will also be required.

Connectivity to the town centre is paramount and a series of dropped kerbs over the roundabout splitter islands will be required. This work has already been identified in the transport statement described earlier.

The access road from the roundabout will be constructed to an adoptable standard with a turning head at its termination to the east of the site. The access road will be presented to the Highway Authority for formal adoption via a S38 agreement. Therefore, the applicant will be required to submit a bond to the highway authority of 100% of the costs of the BCBC estimated costs of constructed the road. In addition, the developer will pay an administration, legal and highway supervision fee of approx. 8% of the bond value as well as cover the highway supervision and legal fees for that process.

Sustainable Drainage (SUDS)

The proposed development site is not located within a flood risk zone or within 20m of a watercourse.

During the pre-application meeting the applicant confirmed foul water will be disposed to the DCWW public sewer via a foul pumping station. No foul drainage layout has been provided. The applicant shall provide an agreement in principle from DCWW for the proposed connection to the public sewer. The applicant shall provide details of the proposed pumping station, including the maintenance plan for the pumping station.

During the pre-application meeting the applicant confirmed surface water will be disposed via infiltration. An indicative drainage layout is shown on the Drainage Strategy Plan. Infiltration systems must be designed in accordance with BRE-Digest 365 and must not be situated within

5m of buildings or boundaries. A minimum of three infiltration tests shall be undertaken for each trial hole.

As the development is over 100 sq. m., a sustainable drainage application will be required. Maintenance of the sustainable drainage features will remain with the single landowner. The applicant will need to consider how the interception criteria will be achieved for the hardstanding area associated with the store footprint. Drainage from the store shall drain to green SUDs features prior to disposal to the infiltration system.

From 7 January 2019, new developments of at least two properties or over 100 sw. m. of construction area will require sustainable drainage to manage on-site surface water. The information provided confirms that the development would be in excess of 100 sq. m., therefore the applicant will be required to submit a sustainable drainage application form to the Bridgend SuDS Approving Body (SAB). The surface water drainage systems must be designed and built in accordance with standards for sustainable drainage. These systems must be approved by the Bridgend SAB before construction work begins. The sustainable drainage application form shall be submitted before or alongside the planning application. The applicant is advised to contact the Bridgend SAB to discuss the drainage implications from the proposed development via the contact details within the link below (The sustainable drainage application form and supporting information required for the application can be accessed from the link below):

https://www.bridgend.gov.uk/residents/recycling-waste-andenvironment/environment/flooding/sustainable-drainage-systems/

No surface water is allowed to discharge to the public highway.

No land drainage run-off will be permitted to discharge (either directly or indirectly) into the public sewerage system.

The applicant shall provide the following information to progress the planning/sustainable drainage application (if the application is progressed):

- Provide foul and surface water drainage layouts;
- Provide an agreement in principle from DCWW for the proposed connection to the foul sewer;
- Provide details of the foul pumping station, including proposed maintenance plan;
- Provide hydraulic calculations to confirm the site does not flood during a 1 in 100yr + 30%CC event;
- Provide infiltration tests in compliance with BRE-Digest 365, details of proposed soakaways and maintenance plan should infiltration be proposed;
- Submit a Sustainable Drainage Application to the Bridgend SAB <u>SAB@bridgend.gov.uk</u> (the applicant is advised to contact the Bridgend SAB prior to the formal submission to discuss the application should they proceed).

Please note the Pre-Application Consultation comments above have been provided as a guide only and shall not be taken as approval for the current drainage proposals. Additional comments may be identified once the formal planning/sustainable drainage application for the site has been received by the Land Drainage Team.

Other Considerations

<u>Noise</u>

Further to the discussion at the meeting, the applicant must consider the noise impacts as a result from the proposed development. Although it is stated in the additional information that an acoustic fence will be erected along the boundary of the residential properties, the deliveries, plant and machinery will all be at the rear of the development backing onto the area of land earmarked for residential development. A preliminary noise assessment was submitted in advance of the pre-app meeting. However, it was carried out using background measurements from 2010. In addition, the assessment predicted the rating levels for day and night time at existing residential receptors and a future receptor on the proposed residential site. Nevertheless, although the 15 minute LAeq was predicted for night time, a screening attenuation was included of 10dB, which would have been incorrect as a 3m barrier at first floor level would not give this degree of attenuation. Whilst it is appreciated that the houses/flats are not yet built, consideration will need to be given to the noise impact of the foodstore on the future residential site as it is part of the regeneration scheme that has been designated for residential use. Consequently, an updated noise assessment will need to be undertaken in accordance with BS4142:2014. The assessment will need to include the following:

- 1. Baseline survey to determine the existing noise climate including parameters for LAeq, LA90 and LAmax (without Coney Beach Fairground being in operation) as its operation is seasonal and is not operated all year round.
- 2. The location and scope of the survey should be agreed with Shared Regulatory Services prior to the acoustic consultant undertaking the survey and in any event, I would request that this is taken from either on the proposed residential site or Wellfield Avenue as opposed to Hillsboro Place. Even if it is taken from Wellfield Avenue, it would be prudent to undertake some background measurements at the future residential site in respect of additional noise which can be designed out at the detailed design stage at source such as fixed plant noise levels.
- 3. An assessment of all noise sources, including fixed plant and machinery, deliveries, noise from vehicles entering and leaving the premises and the prediction of the rating levels at the nearest existing residential properties and on the future residential site at ground floor and at 1st floor height as well as consideration of the LAmax levels for deliveries.
- 4. Plant noise levels shall be designed to meet background -10dB in view of the close proximity of the residential properties and not to increase background levels any further
- 5. The noise assessment shall include any appropriate mitigation to ensure there is no adverse impact on the proposed residential properties assuming that no more than two storey houses will be erected (as the number of storeys and design of the houses can be controlled via the planning stage of that development

The application should also be accompanied by information to demonstrate the following:

- Careful consideration will need to be given with respect to the design of the public seating
 area Aldi propose to install adjacent to its staff welfare facility. Public seating areas on its
 premises can result in groups of people congregating in this area and antisocial behaviour
 at night as it effectively remains an open area accessible to the public at any time. Aldi
 will therefore need to demonstrate how litter and anti-social behaviour will be managed to
 prevent an impact to future residential occupiers.
- Consideration of the design and location of the external staff welfare area to prevent possible nuisance due to smoking and noise due to raised voices with respect to the future residential dwellings
- How the trolley area will be managed to prevent abandoned trolleys eg by provision of coin operated trolleys which will encourage customers to return the trolleys to the designated areas as opposed to randomly leaving them
- Access arrangements for the car park to prevent antisocial behaviour by 'boy racers' and unauthorised use when the store is closed eg by provision of electronic retractable bollards at the entrance car park etc as was discussed during the meeting.

Contamination

In reviewing available records, the enquiry site has been identified as vacant land. Part of the enquiry site has previously been used as a site compound. Prior to this, the site historically included railway infrastructure associated with the adjacent former (infilled) dock. In addition, there is an historical landfill site recorded within 250m of the enquiry site.

Activities associated with this may have caused the land to become contaminated. The nearby infilled sites may be associated with the generation of landfill gases, within subsurface materials, which have the potential to migrate to other sites. The history of the site and the immediate surrounds may therefore give rise to potential risks to human health and the environment for the proposed end use.

Consequently, a contamination and ground gas assessment of the site, in line with current guidance, is required to identify any associated risks and to determine whether further assessment and/or remediation is required to ensure the site is made suitable for use. Depending on the information submitted with a formal planning application, Shared Regulatory Services may request the conditions provided below to ensure this is addressed in accordance with CIEH best practice and to ensure that the safety of future occupiers is not prejudiced in accordance with policy ENV7 of the Bridgend County Borough Council Local Development Plan:

Should there be any importation of soils to develop the landscaped areas of the development, or any site won recycled material, or materials imported as part of the construction of the development, then it must be demonstrated that they are suitable for the end use. This is to prevent the introduction or recycling of materials containing chemical or other potential contaminants which may give rise to potential risks to human health and the environment for the

proposed end use. Conditions to address this would be included in a future planning application of this nature.

Air Quality

Due to the nature of the development, in terms of its size, as well as its locality, which features nearby residential properties, the applicant must give consideration to the potential impacts on ambient air quality and the magnitude/risk of these potential air quality impacts on existing residents via the submission of an appropriate air quality assessment (AQA). Consideration of air quality impacts should be examined through the development stage and when the development is complete, focusing on dust emissions during the construction phase of the development and potential exposure of current residents to traffic derived Nitrogen Dioxide (NO2) & Particulate Matter (PM10) following completion of the development. Although not a mandatory requirement of LAQM in Wales, it would also be reassuring for the appointed consultant to consider PM2.5.

Construction Phase

Due to the close proximity of residential dwellings to the proposed development it is considered best practise to adopt the principles stipulated in IAQM "Guidance on the assessment of dust from demolition and construction." The guidance provides a risk based approach based on the potential dust emission magnitude of the site (small, medium or large) and the sensitivity of the area to dust effects. The importance of professional judgment is noted throughout the guidance. The guidance recommends that once the risk class of the site has identified, the appropriate level of mitigation measures are implemented to ensure that the construction activities have no significant impacts. In accordance with the guidance, Chapter 6, Step 1, Box 1 highlights certain screening criteria which needs to be considered and if a development qualifies for an assessment. The document states "An assessment will normally be required where there is: a 'human receptor' within:- 350 m of the boundary of the site; or- 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s)." It is apparent that there are residential dwellings located in close proximity to the proposed site, therefore satisfying the 'human receptor' criteria stipulated in the cited guidance and the need for a detailed air quality appraisal in the form of a dust assessment to be produced.

Operational

Here the applicant will be expected to consider the potential impacts of traffic derived emissions (NO2, PM10 & PM2.5) generated by the proposal and how this may impact upon existing nearby residents. It is unclear from the proposal how many additional traffic movements are anticipated with regards to the proposal. The applicant needs to perform a screening assessment to examine if the Air Quality Assessment should be undertaken to consider potential impacts to air quality derived by vehicle emissions; nitrogen dioxide (NO2) & particulate matter (PM2.5 & PM10). Following these investigations appropriate actions should be applied such as complete Air Quality Assessment submission and mitigation schemes designed.

As part of the outlined screening assessment, the applicant should make reference to the EPUK IAQM guidance "Land-Use Planning and Development Control: Planning for Air Quality, January

2017", specifically Table 6.2 and the stipulated threshold criteria. Here, the applicant must look to examine current AADT (Annual Average Daily Traffic) flows and projected AADT following the completion of the development. Referring to Table 6.2 of the EPUK and IAQM guidance "Land-Use Planning and Development Control: Planning for Air Quality, January 2017" if calculated AADT flows increase from the baseline traffic levels by more than the set figures outlined in Table 6.2, the applicant is required to submit an Air Quality Assessment (AQA) which would examine the potential air quality impacts associated with traffic derived emissions (nitrogen dioxide & particulate matter) at locations of relevant exposure.

If deemed necessary, the AQA should use detailed dispersion modelling to examine projected air quality levels for traffic derived Nitrogen Dioxide (NO2) and Particulate Matter (PM10) at identified sensitive receptors where the locality of applicable air quality objectives are relevant. Should the assessment indicate that existing nearby residents will be made vulnerable to poor air quality then appropriate mitigation measures must be proposed and approved by the Local Planning Authority. The applicant will be expected to adopt an appropriate approach to building an evidence package that supports the implementation of mitigation measures (Defra's Damage Cost Appraisal). If agreed, these mitigation measures shall be implemented to the satisfaction of the Local Planning Authority prior to beneficial occupation.

As outlined in Local Air Quality Management (LAQM) Technical Guidance TG16, February 2018, examples of where the air quality objectives should apply are detailed in Box 1.1. Based on the detailed criteria, projected levels of traffic derived emissions (NO2, PM10) must be quantified, considering both the short term and long term air quality objectives. The Air Quality Assessment should look to focus on the national annual mean ($40\mu g/m3$) & 1- hour mean objective for NO2 ($200\mu g/m3$ not to be exceeded more than 18 times a year) and annual mean ($40\mu g/m3$) & 24-hour mean objective for PM10 ($50\mu g/m3$ not to be exceeded more than 35 times a year).

Modelling the operational impacts expected with such a development would include the following scenarios:

-Baseline and verification;

-Projected year of opening without scheme in place (Baseline- Do Minimum (DM));

-Projected year of opening with scheme in place (Do-Something (DS));

-Future year projections beyond the Do-Something projection year which accounts for future growth and development; and

-Additional sensitivity tests which focus upon emission factors etc.

It would be good practise for an Air Quality Scope of Works to be agreed between the LPA and applicant. Therefore please can the applicant look to submit for approval a proposed scope of work and methodology for the assessment of air quality.

S106 Obligations

Policy SP14 of the LDP requires applicants to enter into Planning Obligations or alternatively provide contributions if they are deemed necessary to offset any negative consequence of development. The most relevant issues to be considered in this regard relate to:-

Public Open Space

Whilst an area of Public Open Space/Public Realm is proposed within the scheme and to be located to the side of the building, as mentioned above, as part of the planning submission, further justification is required for the amount of POS proposed and further clarification about the future maintenance of this area. Once this has been submitted, it can be determine whether this then needs to be secured through a S106 agreement.

Public Art

Given the status of the site within the context of the Regeneration Scheme and to ensure the scheme achieves a standard of design befitting of its setting, it is considered that a public art feature based on and having relevance to the historic and coastal context of Porthcawl should be secured. At the meeting, we discussed the possibility of including a public art feature with a boundary treatment, however further discussion is required on this. In order to secure this through the Planning process, an obligation may need to be included within the S106 requiring the submission of a Public Art Strategy/Plan.

Highway Improvements

There will be a requirement to enter into a S106 agreement for the sum of £8000 to facilitate a new traffic order for parking restrictions on the new arm and access road into the site. This will ensure the access road remains clear at all times.

Additional Meetings

Following discussions at the meeting, it was indicated that an additional meeting would be beneficial to review the additional information prior to the formal submission of a planning application. It would also be useful to set out a time scale for the submission of the formal planning application. Any additional meetings will attract a fee of £1000, which will include a one-hour meeting with the relevant consultees and a full written response.

Design Commission for Wales (DCfW)

As advised at the meeting, if the amendments you propose to the scheme, do not sufficiently address the concerns raised by the Local Planning Authority, then the Local Planning Authority reserves the right for the proposed scheme to be reviewed by the DCfW at a later stage in the process.

PAC Report

As you are aware, as part of the Pre Application Consultation (PAC) process, developers are required to undertake pre-application consultation with "community consultees and "specialist consultees". The consultee is required to provide a "substantive response" to the developer within 28 days or within such period as agreed.

In this case, the relevant Town Council is Porthcawl Town Council (Kerry-Leigh Grabham Town Clerk & Responsible Finance Officer, Porthcawl Town Council, 16-18 Mary Street, Porthcawl CF36 3AY (Telephone 01656 782215) and the County Borough Ward Member is Councillor Brian Jones (<u>Cllr.Brian.Jones@bridgend.gov.uk</u>)

This informal opinion is provided on the basis of the information contained in your letter together with a desk top study of OS map extracts, Departmental records and aerial photographs of the area. You will also appreciate that this advice is offered without prejudice to any future decision of the Authority in respect of any future application(s) for the development described in your enquiry.

Yours sincerely,

ohn Dan.

Mr. Rhodri Davies BA, BTP, MRTPI DEVELOPMENT AND BUILDING CONTROL MANAGER



APPENDIX B

Porthcawl Active Travel Existing Routes Map - Cycle

Produced by the Active Travel web site. Gynhyrchwyd gan y wefan Teithio Llesol.



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Shared use foot/cycle path (away from road) / Llwybr cerdded/beicio a rennir (i ffwrdd o'r ffordd) Shared use foot/cycle path (alongside road) / Llwybr cerdded/beicio a rennir (ochr yn ochr â ffordd) 🚀 Segregated foot/cycle path (away from road) / Llwybr cerdded/beicio wedi'i wahanu (i ffwrdd o'r ffordd) 🚀 Segregated foot/cycle path (alongside road) / Llwybr cerdded/beicio wedi'i wahanu (ochr yn ochr â ffordd)



Porthcawl Active Travel Existing Routes Map - Pedestrian

Produced by the Active Travel web site. Gynhyrchwyd gan y wefan Teithio Llesol.



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Shared use foot/cycle path (away from road) / Llwybr cerdded/beicio a rennir (i ffwrdd o'r ffordd) Shared use foot/cycle path (alongside road) / Llwybr cerdded/beicio a rennir (ochr yn ochr â ffordd) 🚀 Segregated foot/cycle path (away from road) / Llwybr cerdded/beicio wedi'i wahanu (i ffwrdd o'r ffordd) 🚀 Segregated foot/cycle path (alongside road) / Llwybr cerdded/beicio wedi'i wahanu (ochr yn ochr â ffordd)





APPENDIX C

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Validated Data

Crash Date:	Sunday, March 27, 2016	Time of Crash:	7:17:00 PM	Crash Reference:	2016621600683
Highest Injury Severity:	Slight	Road Number:	U0	Number of Casualties:	1
Highway Authority:	Bridgend			Number of Vehicles:	1
Local Authority:	Bridgend County Borough			OS Grid Reference:	282086 176976
Weather Description:	Fine without high winds		Suttork P	nis place 7 05 High	New Road 5
Road Surface Description:	Dry		Westbourne Place	A4105 Brian Crescent Nicholls	Poplar Road
Speed Limit:	30		L	Alephia Road	
Light Conditions:	Darkness: street lights present a	nd lit	Park Avenue	Permain Place	orth Road
Carriageway Hazards:	None		na Avenue	Astos Weltfield Avenue	America
Junction Detail:	Not at or within 20 metres of jun	ction	cordon Road	Lias Road	
Junction Pedestrian Crossing:	No physical crossing facility withi	n 50 metres	lundell Avenue _ §	ary Street	
Road Type:	Single carriageway		on Avenue	Autoro filisboro f	
Junction Control:	Not Applicable		Esplana	Dock Street	

For more information about the data please visit: www.crashmap.co.uk/home/Faq To subscribe to unlimited reports using CrashMap Pro visit www.crashmap.co.uk/home/Faq

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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	10	Female	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	Kerb	Road sign/Traffic signal

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other

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Validated Data

Crash Date:	Tuesday, November 29, 2016	Time of Crash:	3:29:00 PM	Crash Reference:	2016621700088
Highest Injury Severity:	Slight	Road Number:	UO	Number of Casualties:	1
Highway Authority:	Bridgend			Number of Vehicles:	2
Local Authority:	Bridgend County Borough			OS Grid Reference:	282059 176741
Weather Description:	Fine without high winds		park Avenue	Phile Resnallt Place	Koar
Road Surface Description:	Dry		Avenue	A4105 Wellfield Avenue	And Changes
Speed Limit:	30		ctona Att	Lias Road	
Light Conditions:	Daylight: regardless of presence of	of streetlights	Gordon Koar		
Carriageway Hazards:	None		Blundell Avenue anuavy ape	John John Mileboro Pla	
Junction Detail:	Not at or within 20 metres of junc	ction	Picton	Dock Street	
Junction Pedestrian Crossing:	No physical crossing facility withir	n 50 metres	Esplanad		Bristol Channel
Road Type:	Single carriageway			The	
Junction Control:	Not Applicable				

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Vehicles involved

Validated Data

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	13	Male	Over 75	Vehicle is performing a U turn	Offside	Other	None	None
2	Car (excluding private hire)	2	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	3	Slight	Vehicle or pillion	Female	66 - 75	Unknown or other	Unknown or other
			passenger				

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Vehicles involved

Validated Data

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	9	Female	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Other	None	None
2	Pedal cycle	-1	Male	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	2	Slight	Driver or rider	Male	66 - 75	Unknown or other	Unknown or other

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Validated Data

Vehicle Vehicle Type Driver Age Vehicle Maneouvre First Point of Journey Hit Object - On Hit Object - Off Vehicle Driver Gender Band Impact Carriageway Carriageway Ref Age Purpose 1 Car (excluding private -1 Male 56 - 65 Vehicle is moving off Did not impact Journey as None None part of work hire)

Casualties

Vehicles involved

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Pedestrian	Female	46 - 55	In carriageway, not crossing	In carriageway, stationary - not crossing (standing or playing)

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APPENDIX D





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(10)	Location for public art installation			
o site entrance to 💦 👝	Timber application for the second			
ccupied ⁽¹¹⁾				
(12)	Tarmac to car park circulation	Total Proposed Parking	114	
o advorticoment	low lovel timber groups have der the state of the	(Typically 2.5 x 5m)	, ' , '	
	west and southern site boundary treatment to north,	Standard	96	/

(15) Cycle hoops

(14)

1.1m high paladin fence to rear boundary

Future EVCP provision (20no additional spaces)

west and southern site boundary

Standard Parent & Child Disabled EVCP Click & Collect

Site area: 8,830 m² / 2.18 acres

2

Please refer to Tyer Grange soft landscape proposals for further details .







Only to be used on the site for which designed. The electron arising therefrom. The production of amended or updated info ser and Kendall Kingscott Ltd. shall have n



APPENDIX E



Proposed Aldi Food Store

Salt Lake North, Porthcawl

STAFF TRAVEL PLAN

Prepared by: Entran Ltd

On behalf of: Aldi Stores Limited

Entran is committed to reducing unnecessary waste in the environment. For this reason our paper reports are printed:

 \leq

- Double sided;
- Using 10 point font; and
- Report on recycled paper.

Additional copies of this report are available on CD-ROM. If you require this report in another format please ask.



WEST OF ENGLAND TRAVEL PLAN AWARDS GOLD AWARD



Proposed Aldi Food Store

Salt Lake North, Porthcawl

TRAVEL PLAN

Revision	Date	Notes	Author	Checked	Approved
А	July 2021	PAC Submission	AKL	DJA	RGW

Entran Limited 2nd and 3rd Floors Northgate House, Upper Borough Walls Bath BA1 1RG

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3.0	THE DEVELOPMENT AND ITS LOCATION	5
4.0	TRAVEL PLAN APPROACH	12
5.0	OBJECTIVES, BENEFITS AND TARGETS	18
6.0	MEASURES AND ACTIONS	20
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- 3.1 Strategic Site Location
- 3.2 Local Context
- 3.3 Site Boundary
- 3.4 Existing Access from Portway Roundabout
- 3.5 1,000m and 2,000m Walking Isochrone
- 3.6 Local Cycle Routes
- 3.7 4,000m Cycle Isochrone
- 3.8 Local Bus Stops
- 4.1 BCBC Site Phasing Strategy
- 4.2 Proposed A4106 Portway Roundabout Access
- 4.3 Location of Proposed Pedestrian and Cycle Infrastructure Improvements
- 4.4 BCBC Shared Footway/Cycleway Improvements on Eastern Promenade
- 4.5 BCBC Non-Motorised Users Access Strategy
- 4.6 Proposed Site Layout

APPENDICES

- A Active Travel Wales Maps for Porthcawl
- B Sample Staff Travel Survey



1.0 INTRODUCTION

1.1 Overview

1.1.1 Entran Ltd has been appointed by Aldi Stores Ltd to prepare a Travel Plan in connection with the proposed food retail development. This document is relevant to staff of the proposed Aldi store and will suggest initiatives to maximise the sustainable transport opportunities of the site and will, prior to trading, be developed as a standalone document. This Travel Plan has been prepared in line with national, regional and local policy and should be seen as an on-going process that will be implemented by the occupiers of the development.

1.2 Development Proposals - Overview

- 1.2.1 The proposal comprises:
 - Primary vehicle and pedestrian access from A4106 Portway Roundabout with a redesigned access spur arm;
 - 2,045 sqm GFA ALDI Foodstore with 114 parking spaces (7No. Parent and Child, 5No. Disabled, 2 No. M/c, 2 No. Click and Collect, 4No. EV expandable to 24 No.);
 - Offsite highway infrastructure as part of the build process to enhance non-motorised user access to the site and connectivity to the town centre and surrounding area to support Active Travel Wales.

1.3 Site Location and Scale

- 1.3.1 The application site is located on Abberley Hall Road.
- 1.3.2 Aldi have a policy of limited trading hours, which are generally as follows:
 - Monday Saturday 0800am 2200pm; and
 - Sunday 1000am 1700pm.
- 1.3.3 Up to 40 staff are employed at each store, comprising a Store Manager, Assistant Store Manager and Store Assistants.

1.4 Travel Plan Structure

- 1.4.1 The Travel Plan for the site is structured as follows:
 - What is a travel plan?
 - Policy;
 - The development and its location;
 - Travel Plan Approach;
 - Objectives and Benefits;
 - Measures, Actions and Targets; and
 - Monitoring Strategy.



2.0 WHAT IS A TRAVEL PLAN

2.1 Introduction

- 2.1.1 A Travel Plan seeks to reduce car use, encouraging alternative transport choices and reducing the need to travel. It sets aims and tangible targets so that 'real' change in transport behaviour can be achieved i.e. encouraging a modal shift away from single occupancy car use to more sustainable means of travel such as public transport, walking and cycling.
- 2.1.2 A clear definition of a Travel Plan is as follows:

"A Travel Plan is a long term travel management strategy built on a package of site specific measures aimed at promoting sustainable travel, with an emphasis on reducing reliance on single occupancy car journeys and reducing the need to travel."

- 2.1.3 The ultimate aim of any Travel Plan should be to influence long term changes in travel behaviour by providing the right package of measures that promote and value sustainable transport initiatives. It is crucial to the success of a Travel Plan that the measures are site specific and tailored to the needs of the existing and future users of the site.
- 2.1.4 A Travel Plan is a dynamic process which will grow and develop with time, and with the changing circumstances of the site and the environment in which it works. It should be stressed that the Travel Plan will be flexible when determining which exact measures are implemented, and allow for changes to be made in line with Travel Plan performance.

2.2 Why a Travel Plan is required

- 2.2.1 A Travel Plan should be viewed as a positive tool that will have a real benefit to the users of the site and to the surrounding area. By submission of this document the applicant is committing the operator of the site to implement the recommendations of this TP.
- 2.2.2 Travel Plans help to reduce the impact of travel on the environment and reduce costs for individuals and have a number of benefits such as:
 - Helping to inform the design and operation of the development;
 - The promotion of measures such as walking and cycling, which can help to improve the health of staff at the site;
 - The reduction in the cost of travelling to and from the site;
 - The reduction of congestion and improved access to the site. This has the knock on effect of reducing local pollution levels in terms of noise and harmful vehicle emissions such as Carbon Monoxide; and
 - The improvement of accessibility by facilitating and promoting sustainable transport initiatives, thus reducing the reliance on the car.

2.3 Components of the Travel Plan

- 2.3.1 As explained earlier, this draft TP sets the parameters for a full TP to be developed following interpretation of the proposed initial travel surveys. There are a number of key components required within the TP to ensure that an effective and successful strategy is implemented. The key components include:
 - Background Information the existing travel habits of staff must be identified and the reasons for them understood, before any attempt can be made to influence transport choices;
 - Objectives and targets once the existing conditions are known and appropriate audits undertaken, realistic, attainable, time-bound objectives can be developed, in the light of operational and budgetary constraints. Objectives and targets may be different. Objectives may



be as abstract as explaining the reason for implementing certain measures whereas targets may be measurable outcomes or goals;

- Measures having set the objectives the appropriate measures required to attain them should be identified. This process will be an evolutionary one and the measures adopted may vary over time as new partners are found and the effectiveness of measures are evaluated. Therefore, both long and short term policies and initiatives need to be developed. As directed the measures should be 'worked up' in partnership with the local highway and planning authorities;
- This TP identifies two types of measure; secured and potential. The secured measures are those which will be delivered as part of the proposed TP. These may include both infrastructure and management practices. The proposed measures are those which are not considered appropriate at this stage but which will need to be reviewed following each survey and review session;
- Raising awareness and Marketing it is essential, if the plan is to succeed, for the staff to "take ownership" of the Plan. A wave of awareness and involvement must be created and the strategy to achieve this must be flexible, but an outline approach is set out within this TP; and
- Monitoring and Review The range of success achieved can only be recognised if attitudes to transport and the measures adopted are monitored from the beginning. This TP therefore sets a programme for surveys and reviews.
- 2.3.2 It should be noted that each TP is a document that will evolve over time as additional information becomes available and the travel habits of staff change. To consider any document to be the definitive TP for the development will lead to an ineffective, and ultimately, obsolete initiative. The plan needs to set out the policy objectives and initiatives, but allow them to develop and evolve over time.

3.0 THE DEVELOPMENT AND ITS LOCATION

3.1 Development Composition

- 3.1.1 The proposal comprises:
 - Primary vehicle and pedestrian access from A4106 Portway Roundabout with a redesigned access spur arm;
 - 2,045 sqm GFA ALDI Foodstore with 114 parking spaces (7No. Parent and Child, 5No. Disabled, 2 No. M/c, 2 No. Click and Collect, 4No. EV expandable to 24 No.);
 - Offsite highway infrastructure as part of the build process to enhance non-motorised user access to the site and connectivity to the town centre and surrounding area to support Active Travel Wales

3.2 Existing Site Use and Access

- 3.2.1 The application site is located at the north west corner of the Salt Lake Car Park adjacent to the A4106 Portway Roundabout in the centre of Porthcawl, in the county borough of Bridgend.
- 3.2.2 The site is approximately 0.9 Ha. in area and is located within the Porthcawl Strategic Regeneration Area. It is supported by BCBC for a foodstore and represents the first phase of enabling development. The strategic site location is illustrated in **Figure 3.1** with the local context shown in **Figure 3.2** below.



Figure 3.1 – Strategic Site Location





Figure 3.2 – Local Context

- 3.2.3 The site is bounded to the north by Eastern Promenade road, opposite Porthcawl Fire Station which in turn is adjacent to residential areas. To the east of the site is grass/gravel surface land associated with Salt Lake Car Park leading on to Eastern Promenade road. To the south is further grass/gravel surface land associated with Salt Lake Car Park leading for a further c.300m on to Porthcawl Marina. To the west is the Portway, followed by Hillsboro Place Car Park and then Porthcawl Town Centre.
- 3.2.4 An illustration of the existing site layout by way of the red line boundary plan is provided in **Figure 3.3** below.



Figure 3.3 Site Boundary

- 3.2.5 The existing site is broadly flat with a gentle slope towards the south-east and Eastern Promenade. The existing site forms vacant land identified for redevelopment in the adopted Local Plan.
- 3.2.6 Vehicular access to the site is currently gained via a spur off Portway Roundabout and is shared with



the Eastern Promenade public car park on Salt Lake. There is a second point of access to the public car park from Eastern Promenade. Pedestrian access to the site is gained from the same locations. The existing access is illustrated at **Figure 3.4**.



Figure 3.4 - Existing Access from Portway Roundabout

3.3 Existing Local Highway Network

- 3.3.1 The A4106 Portway Roundabout forms a c.90m ICD normal roundabout with six arms providing a key interchange in the centre of Porthcawl. The speed limit is 30mph and the roundabout is street lit. There is pedestrian guard railing installed on the outer edge of the circulatory carriageway which extends back for a short distance on all approach arms.
- 3.3.2 The A4106 Boulevard de Saint-Sebastian sur Loire forms the north arm of the roundabout and is a primary distributor road into Porthcawl. The approach forms a 7.3m dual carriageway highway without street lighting or footways and includes a central reservation. The speed limit of this road is 40mph from a point just to the north of the Portway Roundabout.
- 3.3.3 Eastern Promenade forms the eastern arm to the Portway Roundabout and is a street lit single carriageway highway bounded by footways to both sides separated by a grass verge. The current site access form the south-eastern arm to the roundabout, as illustrated in Figure 3.4.
- 3.3.4 The Portway forms the southern arm to the Portway Roundabout and forms a street lit 10m wide single carriageway with foot ways to both sides separated by grass verges.
- 3.3.5 The southwestern arm of the Portway Roundabout provides access to the Hillsboro Place car park, and the north western arm forms Lias Road leading towards the town centre. Lias Road is a street lit single carriageway highway bounded by footways to both sides.
- 3.3.6 A4106 Boulevard de Saint-Sebastian sur Loire leads northwards for c. 1km to join Fulmar Road, A4229 Pyle Road and A4106 Newton Cottage Road at a four-arm normal roundabout. A4229 Pyle Road leads northwards for c.4km to reach Junction 37 of the M4 motorway.
- 3.3.7 A4106 Newton Cottage Road leads east for c.5km to join the A48 at a four-arm normal roundabout. The A48 continues east towards Bridgend.

3.4 Existing Pedestrian/Cycle Facilities

- 3.4.1 Active Travel Wales Design Guidance (2014) sets out the procedures and processes to meet the goals of the Active Travel Wales Act 2013. The aim is to make active travel (e.g walking and cycling) the most attractive option for most shorter journeys, and to leave the car behind where suitable to do so. The Act requires local authorities to produce active travel maps and deliver continuous year on year improvements in active travel routes and facilities.
- 3.4.2 An active travel map for walking and cycling has been produced for Porthcawl which is contained at **Appendix A** and highlights the range of current active travel routes in the local area. This is now explored in context to existing facilities surrounding the site.
- 3.4.3 The UK Design Manual for Roads and Bridges (DMRB) TD 91/05 "Provision for Non-Motorised Users" states in paragraph 2.3 that "walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles. Walking and



rambling can also be undertaken as a leisure activity, often over longer distances".

- 3.4.4 Acceptable walking distances will vary considerably depending on various factors such as fitness and land topography; however, guidelines by the Institution of Highways and Transportation (IHT) state the acceptability of distances in metres to various attractions, are as follows:
 - Desirable : 500m
 - Acceptable : 1,000m (12-13 mins)
 - Preferred Maximum : 2,000m
- 3.4.5 Manual for Streets usefully 'The propensity to walk is influenced not only by distance, but also by the quality of the walking experience. A 20-minute walk alongside a busy highway can seem endless, yet in a rich and stimulating street, such as in a town centre, it can pass without noticing. Residential areas can offer a pleasant walking experience if good quality landscaping, gardens or interesting architecture are present' (MfS, Para 6.3.1).
- 3.4.6 TD 91/05 states in paragraph 2.11 that "cycling is used for accessing a variety of different destinations, including educational facilities, shops and places of work, up to a range of around 5 miles.
- 3.4.7 Cycling is also undertaken as a leisure activity, often over much longer distances. As well as being a mode of transport in its own right, cycling frequently forms part of a journey in combination with cars and public transport".
- 3.4.8 The Department for Transport Document, LTN 1/04 Policy, Planning and Design for Walking and Cycling states that the mean average journey length by bicycle is 4km.
- 3.4.9 Local Transport Note (LTN) 2/08 Cycle Infrastructure Design also details in paragraph 1.5 "Typical cycle trip distances". In common with other modes, many utility cycle journeys are less than three miles, although, for commuter journeys, a trip distance of over five miles is not uncommon. Novice and occasional leisure cyclists will cycle longer distances where the cycle ride is the primary purpose of their journey. A round trip on a way-marked leisure route could easily involve distances of 20 to 30 miles. Experienced cyclists will often be prepared to cycle longer distances for whatever journey purpose".
- 3.4.10 The key objectives of national and local policy is minimising the need to travel, reducing the proportion of journeys made by private car by making the use of public transport, making walking and cycling more attractive, influencing the location and layout/links between development to maximise the use and value of existing and planned sustainable transport investment. The goal is to make cycling and walking a realistic choice for a range of journeys encouraging access for all age groups and abilities.
- 3.4.11 All the above documents have been considered in the following subsections.

Walking and Cycling

3.4.12 Within a walk distance of 2,000m, the site is very accessible from the surrounding residential areas on foot. There are approximately 11,200 residents located within this catchment area. **Figure 3.5** provides an illustration.





Figure 3.5 – 1,000m and 2,000m Walking Isochrone

- 3.4.13 There is a network of footpaths and footways adjacent and to the south of the site. A footway is provided along the northern side of the site boundary alongside Eastern Promenade.
- 3.4.14 The Portway Roundabout includes footways leading alongside all arms apart from A4106 Boulevard de Saint-Sebastian sur Loire which is truncated but includes a dropped kerb and uncontrolled crossing point with refuge island on the central reservation.
- 3.4.15 Crossing points are provided on all arms of the Portway Roundabout. A controlled crossing point is provided on Lias Road approximately 60 metres from the roundabout. There is a zebra crossing on the Portway approximately 250 metres south from the roundabout.
- 3.4.16 Eastern Promenade to the south east of the site includes a pedestrian Zebra crossing linking to the shared wide promenade along the beach frontage.
- 3.4.17 The existing footway links provide access to the town centre and also into the multitude of minor roads and accesses serving the surrounding residential areas. These links and crossings have basic functionality to reduce road severance between the site and the surrounding residential areas.
- 3.4.18 The previous transport study commissioned by the Highway Authority in 2019 has already identified a number of enhancements to walking and cycling links which would benefit both the site and wider connectivity between the site and town centre together with the surrounding residential areas. The improvements are discussed in the following section and help to ensure no major obstacles to customers or staff walking or cycling to and from the site.
- 3.4.19 **Figure 3.6** provides an illustration of existing cycle routes in the area. The dotted blue lines denote segregated foot/cycle ways with the remainder on-road shared facilities.
- 3.4.20 The existing network of cycle facilities is contiguous along the sea front and provides links between residential areas, the town centre and Trecco Bay Caravan Park.





Figure 3.6 – Local Cycle Routes

3.4.21 A 4km cycle isochrone is illustrated in **Figure 3.7**. There are approximately 15,400 residents located within this area. This plan illustrates the site is located within an acceptable cycle distance for Porthcawl and surrounding areas.



Figure 3.7 – 4,000m Cycle Isochrone



3.5 **Public Transport**

<u>Bus</u>

3.5.1 Existing bus services are provided on Eastern Promenade, John St and Lias Road, close to the town centre. The main bus stops on John St are located within a 300 metre / 4-minute walk of the site. The bus stops on Eastern Esplanade (Griffin Park) are located within a 250 metre / 3-minute walk. These bus stops are within the 400m guidance threshold distance advocated by IHT guidelines. **Figure 3.8** provides an illustration of the location of the bus stops.



Figure 3.8 - Local Bus Stops

- 3.5.2 The local bus stops include shelters, seating and timetable information. The bus stops on John St include raised kerb bus boarders to aid stepless access to public transport.
- 3.5.3 A summary of the bus services is provided in **Table 3.1**.

Bus Stop	1.0.1 Service	1.0.2 Route	1.0.3 Frequency
	X2	Porthcawl-Bridgend-Cardiff	2 per hour
Eastern Promenade	172	Aberdare-Porthcawl	1 per hour
	861	Rest Bay-Porthcawl-Danygraig	1 per hour
	63	Porthcawl-Bridgend	2 per hour
Lias Road	172	Aberdare-Porthcawl	1 per hour
Lias Road	861	Rest Bay-Danygraig	1 per hour
	X2	Porthcawl-Bridgend-Cardiff	2 per hour
Church Place 861 Rest Bay-Porthcawl-Danygraig		Rest Bay-Porthcawl-Danygraig	1 per hour
John St (Stop 1) 861 R		Rest Bay-Porthcawl-Danygraig	1 per hour
John St (Stop 2)	63	Porthcawl-Bridgend	2 per hour
John St (Ston 2)	172	Aberdare-Porthcawl	1 per hour
30m 3t (3top 3)	X2	Porthcawl-Bridgend-Cardiff	2 per hour

Table 3.1 – Porthcawl Bus Services

3.5.4 Regular services are provided within the town, Rest Bay and links to Bridgend and further afield. Weekend services are also provided.



4.0 TRAVEL PLAN APPROACH

4.1 Introduction

- 4.1.1 This Travel Plan has been prepared as a concise document to present the Company's commitment to managing multimodal access to its development.
- 4.1.2 Aldi are also committed to reducing reliance on the private car for journeys to work and maximising the potential and opportunities for employees to travel by sustainable modes. In this regard, this Travel Plan has been developed with reference to both local and national guidance.
- 4.1.3 This Plan presents a long term strategy for reducing dependence of staff on travel by private car and in this regard this Travel Plan itself will be an ever evolving document, amended as required once the referred staff travel surveys have been completed. The Plan will then naturally evolve and change as subsequent staff surveys are undertaken.

4.2 Approach

- 4.2.1 In order for a Travel Plan to be successful, it must influence behaviour as opposed to dictate a specific modal use. In order for this to be achieved, the Plan must successfully alter an individual's perception in the following ways:
 - the Individual must be able to appreciate that a change in behaviour will benefit them;
 - he/ she is enabled to change his/her behaviour; and
 - An individual must be encouraged to take action, by experimenting with transport modes.
- 4.2.2 Measures should focus on the areas that need most development in order to ensure that all of the above factors are covered. A Travel Plan should therefore consider as a minimum the following three points:
 - Raise awareness of the Travel Plan and its benefits, the sustainable transport infrastructure and incentives to encourage use;
 - Improve accessibility and to discourage single occupancy vehicle use as a primary mode of travel; and
 - Measures should be developed and provided to encourage a behavioural shift and adoption of sustainable modes of transport.

4.3 Access Strategy

4.3.1 The previous transport study commissioned by the Highway Authority in 2019 examined the optimal access requirements for the redevelopment of the site. The proposed overall phasing strategy of the redevelopment is illustrated in **Figure 4.1** below.



Figure 4.1 – BCBC Site Phasing Strategy

- 4.3.2 Section 2 described the main vehicle access to the site which is currently taken from the A4106 Portway Roundabout, also serving as an access to the Salt Lake Car Park. The 2019 study considered that the existing access in its current form would not be suitable to serve new development due to the need to accommodate HGV movements to service a retail development.
- 4.3.3 The proposal would be to upgrade the site access arm onto The Portway Roundabout to facilitate twoway access to the first phase of the redevelopment, and provide future access to phase 2 and phase 5 residential areas. **Figure 4.2** illustrates the preferred layout of the access which has been previously tracked for a 12m long rigid HGV and 16.5m articulated HGV.





Figure 4.2 – Proposed A4106 Portway Roundabout Access

- 4.3.4 The carriageway width of the spur road from the roundabout would be constructed to an adoptable standard with a 7.3m carriageway. It would include a 2m wide footway to the north side and a 3.5m wide shared footway/cycleway to the south side, and an uncontrolled crossing point on the roundabout entry splitter island.
- 4.3.5 The BCBC access strategy identified a range of local infrastructure improvements to accessibility by walking and cycling, to improve links between the site, connectivity to the town centre and surrounding residential areas to support Active Travel Wales. The following improvements are envisaged which enhance crossing points to minimise route diversions and severance issues:
 - (A) New Toucan crossing with raised table on The Portway;
 - (B) Continuation of the pedestrian / cycle route and provision of an improved 3m wide path between the Hillsboro Place car park access and Hillsboro Place, together with a new informal uncontrolled crossing across the car park access;
 - (C) New uncontrolled crossing of the new access road, adjacent to the roundabout;
 - (D) New cycle Zebra crossing markings on the existing Eastern Promenade crossing;
 - (E) New tactile paving and pedestrian central island at the existing pedestrian crossing on Eastern Promenade (adjacent to the A4106 roundabout). The exact location of this will be dictated by the siting of the foodstore and the store entrance;
 - (F) New 3.5 m wide shared footway / cycleway on the southern side of the new access road; and
 - (G) Temporary 3.5 m wide shared footway / cycleway connection to the existing Zebra crossing on Eastern Promenade.
- 4.3.6 A summary plan showing the location of the proposed improvements is illustrated at **Figure 4.3**.



Figure 4.3 - Location of Proposed Pedestrian and Cycle Infrastructure Improvements

- 4.3.7 It is understood that the planning authority would seek to ensure that the proposed improvements would be constructed by the applicant as part of the build process of the food store rather than by means of a S106 agreement. A S106 agreement would be sought for a traffic order for parking restrictions on the new access arm to ensure it remains clear at all times.
- 4.3.8 A further scheme is being promoted and funded by BCBC to provide a footway/cycleway improvement scheme between the Eastern Promenade and Newton Primary School on New Road, forming part of the Active Travel Route (PORP3) identified in the BCBC Integrated Network Map for Porthcawl (see



Appendix B).

4.3.9 This scheme would link into the proposed developer funded improvements and would help to create a contiguous partially on-road and shared foot/cycle way facility along the eastern side of Eastern Promenade and New Road, which would further link the site to surrounding areas. An extract is illustrated in **Figure 4.4**.



Figure 4.4 – BCBC Shared Footway/Cycleway Improvements on Eastern Promenade

4.3.10 A plan extract from the BCBC access strategy illustrating the context of the site within the local area including for the proposed infrastructure improvements is provided at **Figure 4.5**.



Figure 3.5 – BCBC Non-Motorised Users Access Strategy



4.4 Development Layout

4.4.1 A plan extract of the current proposed development layout is illustrated in **Figure 4.6** The site layout fully ties into the above access strategy.



Figure 4.6 – Proposed Site Layout

4.5 Access

- 4.5.1 As shown in Figure 3.6, vehicle access to the proposed site would be accessed via the A4106 Portway Roundabout via an improved purpose-built access spur road, with the site access forming a minor priority junction, located approximately 60 metres to the east of the roundabout entry.
- 4.5.2 Pedestrian access to the site would be provided at multiple locations to enhance permeability on foot. There would be two points of pedestrian access from Eastern Esplanade, one of which would be located directly opposite the enhanced pedestrian crossing, which will include new tactile paving and a pedestrian refuge island.
- 4.5.3 A further pedestrian access would be provided opposite the new uncontrolled crossing of the new access road, adjacent to the roundabout, together with a pedestrian and cycleway access at the main vehicle entrance from the spur road. The 3.5m shared cycleway directly into the site would provide a dedicated purpose-built route linking to onsite cycle parking facilities adjacent to the building.
- 4.5.4 Pedestrian footway access and car park delineated crossing facilities would be provided internal to the site directly linking the public footway network to the front entrance, with a shared surface provided within the low-speed internal parking areas.
- 4.5.5 The vehicle access would include appropriate bellmouth radii with uncontrolled pedestrian/cycle crossing facilities with dropped kerbs and tactile paving to provide a contiguous link to the segregated foot/cycleway. The internal layout of the site facilitates access and egress for all vehicle including service vehicles to be able to be undertaken in a forward gear.
- 4.5.6 Junction visibility of the site access onto the spur road would be commensurate with the standards shown in TAN18 and MfS for a 30mph speed limit. The design would ensure a visibility splay of 40 metres by 2.4 metres for a 48kph design speed. Given the proximity to the roundabout this is considered form a very robust standard at this location.



4.6 Parking

- 4.6.1 Bridgend County Borough Council includes parking standards associated with Class A1 retail use class are contained within SPG17. The site is located in Zone 3, and for supermarkets >2,000 sqm GFA the maximum relevant standard is 1 space per 14 sq.m. Cycle parking 1 stand per 500 sq.m for both long stay and short stay parking. Disabled parking should be 2% of the car park capacity.
- 4.6.2 The proposal is to provide 114 combined car parking spaces for ALDI (7No. Parent and Child, 5No. Disabled, 2 No. M/c, 2 No. Click and Collect, 4No. ELV expandable to 24 No.) together with 8 cycle parking spaces.
- 4.6.3 The proposed car parking is therefore below the maximum permitted (146 spaces), the cycle parking is greater than the minimum standards (5) together with the proportion of disabled parking.
- 4.6.4 The parking provision is based on extensive local experience at other ALDI stores and is similar to existing stores that have either been built, are being built, have planning or in planning with no objection from highways development control. There is a need for a balance to be struck between adequate provision to help efficient operation of the car park given turnover and to prevent any overspill onto adjacent surrounding roads, but avoiding overprovision to help meet the aims of Active Travel Wales.
- 4.6.5 Cycle parking would be located in proximity of the store entrance in a visible, step free and convenient location as illustrated on the Architect's plans.
- 4.6.6 It is noted that ALDI seek to encourage travel by cycle whenever possible and in this regard will, through their Travel Plan, review the occupation of cycle stands and, if necessary and justified, introduce additional shoppers cycle parking facilities.
- 4.6.7 An expected Automated EV Bill will be released by government soon, and in compliance with this proposal the following allocations will be made:
 - 4 live EVCPs, 20no future EVCPs
 - The first two EVCP bays should be designed as accessible bays. In order to highlight that they are EVCPs the white lining of these bays will be changed to blue.

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5.0 OBJECTIVES, BENEFITS AND TARGETS

5.1 Objectives

- 5.1.1 The primary purpose of this Travel Plan is to determine a realistic range of actions to encourage the use of more sustainable modes of transport to travel to and from the site. The principle objectives of the Travel Plan are therefore:
 - To encourage staff to use more sustainable modes of transport to travel to and from the site;
 - To improve awareness of transport issues and reduce the impact of traffic on the local environment;
 - To raise customer awareness of sustainable travel options;
 - To minimise the proportion of private car journeys to and from the proposed development;
 - To increase the proportion of journeys to and from the proposed development by sustainable modes of transport in particular car share; and
 - To minimise the number of single occupancy car trips to and from the proposed development.

5.2 Benefits

- 5.2.1 This Travel Plan will assist both staff and customers in making an informed decision on how they travel to and from the site and encourage them to use sustainable transport. This will reduce reliance on single occupancy car travel and encourage a reduction in car trips generated by the development.
- 5.2.2 Other benefits of the Travel Plan may include:
 - Reduction in congestion and traffic related pollution;
 - Increase in employee attendance levels; and
 - A healthier work force.
- 5.2.3 Table 5.1, below, summarises some of the benefits of implementing a TP and indicates who will benefit.

Benefit	Visitors	Staff	Community/ Environment
Cost Savings	\checkmark	\checkmark	
Healthier staff and reduced absenteeism	\checkmark	\checkmark	
Improved site access	\checkmark	\checkmark	\checkmark
Reduced Congestion	\checkmark	\checkmark	\checkmark
Reduced accidents	\checkmark	\checkmark	\checkmark
Improved staff morale		\checkmark	
Improved quality of life	\checkmark	\checkmark	\checkmark
Reduced stress		\checkmark	
Improved local air quality		\checkmark	\checkmark

Table 5.1: Who will benefit from the Travel Plan?



Reduced noise			\checkmark
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5.3 Targets

- 5.3.1 Table 5.2 below presents expected and proposed mode share targets. Mode share targets should, however, be re-entered following the results of the first survey and based on this information, future achievable '*SMART*' targets to be devised in liaison with the Local Authority. Nevertheless, based on collected staff travel data from other Aldi stores the following indicative minimum targets are proposed in the first instance (see Table 5.2 below).
- 5.3.2 It should be noted that the following table provides both staff numbers and percentage splits and is based on14 staff with a maximum of 6 staff on-site at any one time and are based on recent surveys at other sites. Future targets and reviews have to be carefully considered against the limited staff numbers to ensure unrealistic aspirations do not unnecessarily burden the Travel Plan initiatives.

Mode of Travel	Expected Initial Modal Split	2 year Modal Split Target	5 Year Modal Split Target
Car Driver	80%	78%	75%
Car Passenger, Cycle, Walk, Bus	20%	22%	24%
Motorcycle	0%	0%	1%

Table 5.2 – Indicative Staff Mode Share Targets

5.3.3 The above targets will be reviewed and amended as survey information becomes available and appropriate measures as stated later in this Travel Plan introduced.



6.0 MEASURES AND ACTIONS

6.1 Background

- 6.1.1 A wide range of measures and actions will be used to encourage car-sharing, public transport use, cycling and walking in accordance with national and local policies.
- 6.1.2 Firstly, within two months of opening Entran Ltd be appointed as the Travel Plan Co-ordinator, Entran Contact details:

Robert Williams,

7 Greenway Farm,

Bath Road, Wick, Bristol,

BS30 5RL,

Tel: 0117 937 4077

- 6.1.3 At this point all partners to the Travel Plan will be advised of the appointment.
- 6.1.4 Entran will, on all matters, liaise with Aldi's Property Director Rob Jones, who will ensure that internally all measures are implemented. If any internal matters arise with the Travel Plan, the communication process will be reversed.

6.2 Measures and Actions

- 6.2.1 The Travel Plan Co-ordinator will ensure that the Travel Plan is implemented; operating efficiently and that all the measures for encouraging sustainable travel are in place. Responsibilities include:
 - Promoting and encouraging travel modes other than the car, including providing information to staff via a notice board in the staff room, which will be checked every <u>three</u> months;
 - Promoting car sharing;
 - Identify employee travel habits through staff surveys;
 - Monitoring and reviewing the Travel Plan; and
 - Ensuring the needs of the less mobile is incorporated in the Plan.
- 6.2.2 The measures developed on site shall be largely based on the outcomes of the initial travel survey. Some measures are essential in meeting with current standards, for example the quantity of cycle and car parking provision, other measures will be unique to the site. As such the following sections are intended to give an overview of the potential measures that could be implemented by the Travel Plan Co-ordinator if the travel survey highlights them as being appropriate.

6.3 TP Measures

- 6.3.1 Due to the changing characteristics of the development over time it would be ineffective for the TP to specify TP measures or funding for measures that may not be required, Nevertheless, funding will be made available for the implementation of measures should the need arise through the monitoring process. In this regard therefore, required measures must be determined by reference to travel surveys and importantly, an understanding of the factors that would motivate staff to alter their travel behaviour. The programme of surveys and monitoring therefore not only needs to identify travel behaviour but also attitudes to travel and key motivators for change.
- 6.3.2 Notwithstanding this, the TP's measures are divided into sub-categories:
 - Hard measures these are infrastructure provision or improvements;
 - Soft measures these are management measure, incentives, marketing initiatives etc;
 - · Secured measures these are measures that will be implemented; and



- Failsafe measures these are an 'arsenal' of measures available to the TP Coordinator to be chosen according to survey feedback so that resources can be targeted towards those measures found to be most effective.
- 6.3.3 The following tables describe both secure and failsafe measures per mode. Secure measures are those that will be adopted prior to recruitment of staff or as part of the build process, with the failsafe measures being those that could be introduced should the need arise.
- 6.3.4 In addition, all employees will receive details of the TP upon commencement of employment and a copy of the TP will be kept in the staff room.

Hard	Hard measures				
Secu	red	Failsafe			
•	Good on-site lighting; Lockers; New footway across store frontage	Additional pedestrian signage;			
Soft r	neasures				
Secu	red	Failsafe			
•	Marketing – promoting walking in all written and electronic material - Travel pack	Personalised Travel Planning.			
•	Notice board in staff room displaying the above				

Table 6.1 - Measures to encourage walking

Hard	Hard measures			
Secu	red	Failsafe		
• • •	Good on-site lighting; 8 external prominent and covered cycle parking spaces via Sheffield loops– usage to be monitored Provision for in-store cycle storage facilities for employees convenient to staff room Implement the Government backed cycle purchase scheme (Aldi standard)	Additional cycle parking		
Soft r	neasures			
Secu	red	Failsafe		
•	Marketing – promoting cycling in all written and electronic material - Travel pack Notice board in staff room displaying cycle routes to and from the development	 Negotiated discount with local bike shop; Personalised travel planning. 		

Table 6.2 - Measures to encourage cycling



Soft measures				
Secured	Failsafe			
 Marketing – promoting the use of public transport in all written and electronic material; Travel pack (including bus routes and bus/train timetable info) 	Personalised travel planning;Investigate bus discounts for staff			
 Travel notice board in staff room displaying bus timetables 				

Table 6.3 - Measures to encourage public transport use

Hard measures				
Secured	Failsafe			
• Marketing – promoting car sharing in all written and electronic material as well as interview and induction process	Personalised travel planning			
Guaranteed ride home (emergency only)				

Table 6.4 - Measures to encourage car sharing

- 6.3.5 The Travel Pack (to be agreed with BCBC) will contain information on the alternatives to singleoccupancy car use available to staff including;
 - comprehensive walking and cycling route maps linking the site to local infrastructure including shops, residential areas and bus station
 - Bus maps and timetables as well as leaflets describing the health benefits of cycling and walking;
 - contact details of the Travel Plan Co-ordinator for the site; and
 - Useful resources such as the Transport Direct Journey Planner website to enable people to plan their own journeys.
- 6.3.6 Travel Packs will be issued to all staff as part of their induction process. Staff will also be advised of the Travel Plan and Pack during the interview process.



7.0 MONITORING

7.1.1 Monitoring Strategy

- 7.1.1 An important part of the Travel Plan is the continual monitoring and review of its effectiveness. It is essential that a Travel Plan is not a one-off event, but a continually evolving process. Regular monitoring and reviewing will help to gauge progress towards targets and objectives, and, if necessary, enable the Travel Plan to be refined and adapted in order to improve its progression.
- 7.1.2 The stages to monitoring a Travel Plan include:
 - Collection of base data i.e.: soon after opening and resultant setting of travel mode targets;
 - Measures implemented over a period of time are recorded;
 - Collection of future data at defined point;
 - Comparison of data collected; and
 - Review of mode share against target and resultant implementation of new measures or setting of revised targets.
- 7.1.3 In terms of this Travel Plan, it is important to note that it will not be possible to collect any 'before' data for the site since it is currently in a different land use.

7.2 Survey of Employee Travel Patterns

7.2.1 The effectiveness of the Travel Plan will need to be monitored and reviewed in partnership with the local authority. This review process will identify the most effective measures and key motivators influencing people's travel choices. The schedule of monitoring and review will be as follows:

Survey	Date	Review / Reports	
1.	2 months after first occupation	• Within 1 month of survey review survey findings and report to local authority. Submit Final Travel Plan to BCBC for approval	
		 Feedback findings to staff within 1 month of local authority review 	
		• Senior staff member to implement review outcomes and Travel Plan within 2 months of being approved	
2.	1 year after first	Identify actions from Review 1	
/	occupation	 Review survey 2 findings and report to local authority within 1 month of survey and update Travel Plan 	
		 Feedback findings to staff within 1 month of local authority review 	
		• Senior staff member to implement review outcomes prior to Survey 3.	
3.	2 and 5 and years after	Identify actions from Review 2	
	Inst occupation	 Review survey 3 findings and report to local authority within 1 month of survey and update Travel Plan 	
		 Feedback findings to staff within 1 month of local authority review 	
		• Senior staff member to implement review outcomes.	

Fable 7.1	– Schedule	of monitoring	and review
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- 7.2.2 The communication strategy, monitoring and review process contained within this document will instil a culture of sustainable travel within the company and focus resources on the methods most effective in reducing single car occupancy.
- 7.2.3 A sample staff questionnaire is included as **Appendix B.**

7.3 Partnership Arrangement

- 7.3.1 As discussed, the Travel Plan will be monitored to ensure that the aims and objectives are met and that the development accords with the terms of the planning permission.
- 7.3.2 The Local Authority are an important partner in the Travel Plan process. However, it is important that the relationship between the site occupiers and the Councils is a genuine partnership arrangement and not seen by any party as being a matter of enforcement or penalties. With this in mind all objectives or targets must be agreed by all parties as being:
 - challenging;
 - realistic;
 - measurable; and
 - achievable.
- 7.3.3 If the objectives do not meet all these requirements they will be ineffective.
- 7.3.4 The Travel Plan will be a continuously evolving 'live' document. It may therefore be necessary to amend mode share baselines and targets depending on the result of the on-going surveys. These evolving changes should be communicated to and agreed with the Council.
- 7.3.5 If targets or objectives are not met it may be decided following discussions between the Travel Plan Co-ordinator and the Council that measures could be modified or alternative measures implemented



Appendix A

Porthcawl Active Travel Existing Routes Map - Cycle

Produced by the Active Travel web site. Gynhyrchwyd gan y wefan Teithio Llesol.



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Shared use foot/cycle path (away from road) / Llwybr cerdded/beicio a rennir (i ffwrdd o'r ffordd) Shared use foot/cycle path (alongside road) / Llwybr cerdded/beicio a rennir (ochr yn ochr â ffordd) 🚀 Segregated foot/cycle path (away from road) / Llwybr cerdded/beicio wedi'i wahanu (i ffwrdd o'r ffordd) 🚀 Segregated foot/cycle path (alongside road) / Llwybr cerdded/beicio wedi'i wahanu (ochr yn ochr â ffordd)



Porthcawl Active Travel Existing Routes Map - Pedestrian

Produced by the Active Travel web site. Gynhyrchwyd gan y wefan Teithio Llesol.



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Shared use foot/cycle path (away from road) / Llwybr cerdded/beicio a rennir (i ffwrdd o'r ffordd) Shared use foot/cycle path (alongside road) / Llwybr cerdded/beicio a rennir (ochr yn ochr â ffordd) 🚀 Segregated foot/cycle path (away from road) / Llwybr cerdded/beicio wedi'i wahanu (i ffwrdd o'r ffordd) 🚀 Segregated foot/cycle path (alongside road) / Llwybr cerdded/beicio wedi'i wahanu (ochr yn ochr â ffordd)





Appendix B
1. Staff Travel Survey

Aldi is constantly looking to develop it's Travel Plan and evaluate the travel options available to staff and visitors. Your involvement in the development of the plan is crucial, please spare a few minutes to complete the questionnaire. All the information you provide will be treated in strictest confidence. Please tick the boxes that correspond to your answers or write in the spaces provided as appropriate.

SECTION A: ABOUT YOUR JOURNEY TO THE SITE

1.	Where do you travel from to come to the site?	
	Postcode	Street
	1a. How many times do you normally travel to t	he store each week?
	1b. At what time do you normally arrive?	

2. How often do you use the following means of transport to travel to work? (tick appropriate box in each column)								
	Walk	Cycle	Bus	Train	Car Driver (alone)	Car Driver (with others)	Car Passenger	Other (specify)
5 days a week or more								
3 or 4 days a week								
Once or twice a week								
1 to 3 times a month								
Less								



SECTION B: IF YOU EVER TRAVEL TO THE STORE BY CAR

3. What are your main reasons for using a car to get to work?

Please tick up to 4 boxes

Time savings	Health Reasons
Cost savings	Use the car during the day
Convenience/flexibility	Lack of suitable alternative transport
Dropping off/Collecting Children	Other (please state)

4. Would you be prepared to car share?

No
I already car share

SECTION C: ALTERNATIVES

5. Which of the following would encourage you to use the bus for your journey to/from work? If you already travel by bus, which would you like to see?

Please tick up to four boxes.

Direct Bus Services	More frequent bus services
Improved waiting facilities e.g. shelters, seating	Discount tickets extended for all local bus services
Better information on rates and fares	Real time information at stop (digital bus time information)
Comments	



6. Which of the following would encourage you to cycle to/from work? If you already cycle, which would you most like to see?

Please tick up to four boxes.

Better cycle routes on the roads leading to the site	Improved cycle parking at the site
Improved facilities eg lockers	Better information on cycle routes and location of cycle facilities
Arrangement to buy/hire a bicycle at discounted rates	Improved cycle security
Comments	

7. What factors would encourage you to walk to and from work? If you already walk, what would you like to see improved.

Please tick up to two boxes

Better walking routes on the roads leading to the site?	Safe site?	er, better lit walking	paths in the	
More information about walking routes?	Othe 	er (please	state)	

8. Would you take advantage of any of the following initiatives if they were available? Would they encourage you to change how you travel to work or for journeys undertaken in the course of work?

	Would you use?			Would it change how you travel?			
	Yes	No	Not sure	Yes	No	Not sure	
Flex-time – making it easier to fit in with public transport or car share etc.							
Cycle mileage allowance for 'business mileage'							
Provision of pool car for business travel off-site							



SECTION D: ABOUT YOU

										•••••
lease u oursel	use spa f/your	ace belov colleagi	v to ment ues to	ion an use	y incei sustaii	ntives (financial o nable modes o	r other) that ye f transport	ou feel to acc	would in cess th	fluenc e site
Yes					No)				
13. W the tra	ould yo avel pla	ou be will an?	ing to be	involv	ved in a	a discussion grou	p to identify fu	iture m	easures	for
Yes	J you n	ave a lui			No	•				
12 D		avo a ful	l car driv	ina lic	oneo?					
							<u></u>			
<u>11. W</u> Job R	nat is y ole	our job i								
44 144					•					
Male						Female				
10 Yo	our Gei	nder:								
40 - 3	59					60+				
10 _ 5	.4					25 – 39				



APPENDIX F

TRICS 7.8.1 240321 B20.15 Database right	of TRICS Consortium Limited, 2021. All rights	s reserved Thursday 01/04/21
Entran Ltd Chapel Pill Lane Bristol		Licence No: 337901
Filtering Summary		
Land Use	01/C	RETAIL/DISCOUNT FOOD STORES
Selected Trip Rate Calculation Parameter Range	900-2635 sqm GFA	
Actual Trip Rate Calculation Parameter Range	1485-2568 sqm GFA	
Date Range	Minimum: 01/01/13	Maximum: 21/10/20
Parking Spaces Range	All Surveys Included	
Days of the week selected	Saturday	10
Main Location Types selected	Suburban Area (PPS6 Out of Centre) Edge of Town Neighbourhood Centre (PPS6 Local Centre)	4 3 3
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	5,001 to 10,000 10,001 to 15,000 15,001 to 20,000 25,001 to 50,000 50,001 to 100,000	2 1 3 2 2
Population <5 Mile ranges selected	5,001 to 25,000 50,001 to 75,000 75,001 to 100,000 125,001 to 250,000 250,001 to 500,000 500,001 or More	1 1 1 2 2 3
Car Ownership <5 Mile ranges selected	0.5 or Less 0.6 to 1.0 1.1 to 1.5	2 3 5
PTAL Rating	No PTAL Present 2 Poor	9 1

TRICS 7.8.	240321 B20.15	Database right of TRICS (Consortium Limited, 2021. All rights res	erved Thursday 01/04/21
	Chanal Dill Lana	Drietel		
Entran Ltd	Chaper Pill Lane	Bristoi		Licence No: 337901
TRI	P RATE CALCULAT	TION SELECTION PARAM	IETERS:	
Land		ΤΔΙΙ		
Cato				
1010	LIT-WODAL IC	JIAL VLINCLLS		
<u>Sele</u>	<u>cted regions and ar</u>	<u>reas:</u>		
01	GREATER LOND	ON		
	WF WALTHAM	1 FOREST	1 days	
03	SOUTH WEST		2	
	SM SOMERSE	Т	1 days	
05	FAST MIDIAND	S		
		SHIRE	2 days	
		HAMSHIRE	1 days	
06			T ddys	
00				
	VVIVI VVESTIMIL	JLANDS	2 days	
	WO WORCEST	ERSHIRE	1 days	
10	WALES			

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

Primary Filtering selection:

CARDIFF

WICKLOW

CF

LEINSTER WC WIC

14

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.

1 days

1 days

Include all surveys

Gross floor area
1485 to 2568 (units: sqm)
900 to 2635 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision: Selection by:

Date Range: 01/01/13 to 21/10/20

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.

10 days

<u>Selected survey days:</u> Saturday

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

<u>Selected survey types:</u>	
Manual count	10 days
Directional ATC Count	0 days

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

<u>Selected Locations:</u>	
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	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.

<u>Selected Location Sub Categories:</u>	
Industrial Zone	
Development Zone	
Residential Zone	
Retail Zone	
High Street	
No Sub Category	

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.

Entran Ltd Chapel Pill Lane Bristol

Secondary Filtering selection:

<u>Use Class:</u> E(a)

50,001 to 100,000

10 days

2 days 1 days 3 days 2 days

2 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:	
5,001 to 10,000	
10,001 to 15,000	
15,001 to 20,000	
25,001 to 50,000	

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
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days
500,001 or More	3 days

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

<u>Car ownership within 5 miles:</u>	
0.5 or Less	2 days
0.6 to 1.0	3 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.

<u>Petrol filling station:</u>	
Included in the survey count	0 days
Excluded from count or no filling station	10 days

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

<u>Travel Plan:</u>	
Not Known	1 days
Yes	1 days
No	8 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	9 days
2 Poor	1 davs

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

TRICS 7.8.1 DF SAT MM	240321 B20.15	Database right of T	RICS Consortium Limited, 2021	. All rights reserved	Thursday 01/04/21 Page 4
Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
1157	OF SITES relevant	to selection narame	ters		
<u></u>	or orreo relevant				
1	CF-01-C-01	LIDL		CARDIFF	
	EAST TYNDALL ST	TREET			
	CARDIFF				
	Suburban Area (P	PS6 Out of Centre)			
	Development Zon	e			
	Survey da	area: <i>te[,] SATURNAV</i>	2568 Sqm 01/07/17	SURVEY ΤΥΡΕ΄ ΜΑΝΠΑΙ	
2	LN-01-C-02	LIDL	0,,0,,,,	LINCOLNSHIRE	
	DIXON STREET				
	LINCOLN				
	Suburban Area (P	PS6 Out of Centre)			
	No Sub Category				
	Total Gross floor a	area:	2233 sqm	SURVAY TUDAY MANUAL	
3	LN-01-C-03	ALDI	20/10/17	LINCOLNSHIRE	
Ũ	NEWARK ROAD	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	LINCOLN				
	BRACEBRIDGE Suburban Area (P	PS6 Out of Centre)			
	High Street	100 out of ochine)			
	Total Gross floor	area:	1485 sqm		
1	Survey da	te: SATURDAY	28/10/17	Survey Type: MANUAL	
4	CHAPEL LANE	LIDL		NOTTINGLAMSTICE	
	BINGHAM				
	Edge of Town				
	Industrial Zone				
	Total Gross floor a	area:	2440 sqm		
F	Survey da	te: SATURDAY	16/07/16	Survey Type: MANUAL	
5	SEAWARD WAY	LIDL		SOMERSEI	
	MINEHEAD				
	No Sub Category				
	Total Gross floor a	area:	2247 sqm		
,	Survey da	te: SATURDAY	24/06/17	Survey Type: MANUAL	
6		ALDI F		WICKLOW	
	BRAY				
	Suburban Area (P	PS6 Out of Centre)			
	Total Gross floor a	area:	1672 sqm		
_	Survey da	te: SATURDAY	05/10/19	Survey Type: MANUAL	
/	WF-01-C-01	ALDI		WALTHAM FOREST	
	LEYTON				
	HATCH LANE				
	Neighbourhood Ce	entre (PPS6 Local Ce	ntre)		
	Total Gross floor a	area:	2099 sam		
	Survey da	te: SATURDAY	07/03/20	Survey Type: MANUAL	

TRICS 7.8.1 DF SAT MM	240321 B20.15	Database right o	f TRICS Consort	ium Limited	, 2021. All rights reserved	Thursday	01/04/21 Page 5
Entran Ltd	Chapel Pill Lane	Bristol				Licence	No: 337901
<u></u>	OF SITES relevant	to selection para	<u>meters (Cont.)</u>				
8	WM-01-C-01 MACKADOWN LAI	LI DL NE			WEST MIDLANDS		
	KITT'S GREEN						
	Neighbourhood C No Sub Category	entre (PPS6 Local	Centre)				
	Total Gross floor	area:	2085	sqm			
0	Survey da	te: SATURDAY	09/	07/16	Survey Type: MANUAL		
9		LIDL			WEST MIDLANDS		
		L					
		Ţ					
	Neighbourhood C	entre (PPS6 Local	Centre)				
	High Street		0011110)				
	Total Gross floor	area:	2085	sqm			
	Survey da	ate: SATURDAY	09/	07/16	Survey Type: MANUAL		
10	WO-01-C-01	LIDL			WORCESTERSHIRE		
	BLACKPOLE ROAD)					
	WORCESTER						
	BRICKFIELDS						
	Edge of Town						
	Total Gross floor	aroa	2/17	sam			
	Survey da	ate: SATURDAY	2417 16/	07/16	Survey Type' MANUAL		
			, 6,				

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL TOTAL VEHICLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No. Ave. Trip			No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.514	9	2184	0.137	9	2184	0.651
08:00 - 09:00	10	2133	2.621	10	2133	1.692	10	2133	4.313
09:00 - 10:00	10	2133	3.882	10	2133	3.211	10	2133	7.093
10:00 - 11:00	10	2133	5.162	10	2133	4.627	10	2133	9.789
11:00 - 12:00	10	2133	6.484	10	2133	6.048	10	2133	12.532
12:00 - 13:00	10	2133	6.001	10	2133	6.713	10	2133	12.714
13:00 - 14:00	10	2133	5.977	10	2133	5.658	10	2133	11.635
14:00 - 15:00	10	2133	5.401	10	2133	5.504	10	2133	10.905
15:00 - 16:00	10	2133	5.452	10	2133	5.616	10	2133	11.068
16:00 - 17:00	10	2133	5.246	10	2133	5.476	10	2133	10.722
17:00 - 18:00	10	2133	4.552	10	2133	4.627	10	2133	9.179
18:00 - 19:00	10	2133	3.408	10	2133	3.863	10	2133	7.271
19:00 - 20:00	10	2133	2.457	10	2133	2.996	10	2133	5.453
20:00 - 21:00	10	2133	1.463	10	2133	1.753	10	2133	3.216
21:00 - 22:00	10	2133	0.713	10	2133	1.125	10	2133	1.838
22:00 - 23:00	9	2184	0.076	9	2184	0.300	9	2184	0.376
23:00 - 24:00									
Total Rates:			59.409			59.346			118.755

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:	1485 - 2568 (units: sqm)
Survey date date range:	01/01/13 - 21/10/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	10
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI -MODAL TAXIS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

Bristol

Chapel Pill Lane

Entran Ltd

		ARRIVALS		[DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.010	9	2184	0.010	9	2184	0.020
08:00 - 09:00	10	2133	0.028	10	2133	0.023	10	2133	0.051
09:00 - 10:00	10	2133	0.033	10	2133	0.033	10	2133	0.066
10:00 - 11:00	10	2133	0.066	10	2133	0.056	10	2133	0.122
11:00 - 12:00	10	2133	0.103	10	2133	0.084	10	2133	0.187
12:00 - 13:00	10	2133	0.098	10	2133	0.113	10	2133	0.211
13:00 - 14:00	10	2133	0.084	10	2133	0.070	10	2133	0.154
14:00 - 15:00	10	2133	0.075	10	2133	0.070	10	2133	0.145
15:00 - 16:00	10	2133	0.084	10	2133	0.094	10	2133	0.178
16:00 - 17:00	10	2133	0.066	10	2133	0.070	10	2133	0.136
17:00 - 18:00	10	2133	0.061	10	2133	0.066	10	2133	0.127
18:00 - 19:00	10	2133	0.052	10	2133	0.056	10	2133	0.108
19:00 - 20:00	10	2133	0.042	10	2133	0.052	10	2133	0.094
20:00 - 21:00	10	2133	0.038	10	2133	0.038	10	2133	0.076
21:00 - 22:00	10	2133	0.023	10	2133	0.028	10	2133	0.051
22:00 - 23:00	9	2184	0.000	9	2184	0.000	9	2184	0.000
23:00 - 24:00									
Total Rates:			0.863			0.863			1.726

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI -MODAL OGVS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.015	9	2184	0.010	9	2184	0.025	
08:00 - 09:00	10	2133	0.014	10	2133	0.019	10	2133	0.033	
09:00 - 10:00	10	2133	0.019	10	2133	0.014	10	2133	0.033	
10:00 - 11:00	10	2133	0.005	10	2133	0.009	10	2133	0.014	
11:00 - 12:00	10	2133	0.005	10	2133	0.005	10	2133	0.010	
12:00 - 13:00	10	2133	0.009	10	2133	0.009	10	2133	0.018	
13:00 - 14:00	10	2133	0.009	10	2133	0.000	10	2133	0.009	
14:00 - 15:00	10	2133	0.014	10	2133	0.019	10	2133	0.033	
15:00 - 16:00	10	2133	0.014	10	2133	0.014	10	2133	0.028	
16:00 - 17:00	10	2133	0.005	10	2133	0.005	10	2133	0.010	
17:00 - 18:00	10	2133	0.000	10	2133	0.005	10	2133	0.005	
18:00 - 19:00	10	2133	0.005	10	2133	0.000	10	2133	0.005	
19:00 - 20:00	10	2133	0.014	10	2133	0.014	10	2133	0.028	
20:00 - 21:00	10	2133	0.014	10	2133	0.014	10	2133	0.028	
21:00 - 22:00	10	2133	0.000	10	2133	0.009	10	2133	0.009	
22:00 - 23:00	9	2184	0.000	9	2184	0.000	9	2184	0.000	
23:00 - 24:00										
Total Rates:			0.142			0.146			0.288	

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL PSVS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00							, and the second s		
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	9	2184	0.000	9	2184	0.000	9	2184	0.000
08:00 - 09:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
09:00 - 10:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
10:00 - 11:00	10	2133	0.005	10	2133	0.000	10	2133	0.005
11:00 - 12:00	10	2133	0.000	10	2133	0.005	10	2133	0.005
12:00 - 13:00	10	2133	0.005	10	2133	0.000	10	2133	0.005
13:00 - 14:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
14:00 - 15:00	10	2133	0.000	10	2133	0.005	10	2133	0.005
15:00 - 16:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
16:00 - 17:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
17:00 - 18:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
18:00 - 19:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
19:00 - 20:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
20:00 - 21:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
21:00 - 22:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
22:00 - 23:00	9	2184	0.000	9	2184	0.000	9	2184	0.000
23:00 - 24:00									
Total Rates:			0.010			0.010			0.020

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL CYCLISTS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.025	9	2184	0.000	9	2184	0.025	
08:00 - 09:00	10	2133	0.080	10	2133	0.056	10	2133	0.136	
09:00 - 10:00	10	2133	0.108	10	2133	0.098	10	2133	0.206	
10:00 - 11:00	10	2133	0.150	10	2133	0.103	10	2133	0.253	
11:00 - 12:00	10	2133	0.131	10	2133	0.113	10	2133	0.244	
12:00 - 13:00	10	2133	0.122	10	2133	0.103	10	2133	0.225	
13:00 - 14:00	10	2133	0.141	10	2133	0.117	10	2133	0.258	
14:00 - 15:00	10	2133	0.103	10	2133	0.145	10	2133	0.248	
15:00 - 16:00	10	2133	0.103	10	2133	0.075	10	2133	0.178	
16:00 - 17:00	10	2133	0.113	10	2133	0.141	10	2133	0.254	
17:00 - 18:00	10	2133	0.070	10	2133	0.103	10	2133	0.173	
18:00 - 19:00	10	2133	0.094	10	2133	0.108	10	2133	0.202	
19:00 - 20:00	10	2133	0.089	10	2133	0.089	10	2133	0.178	
20:00 - 21:00	10	2133	0.066	10	2133	0.084	10	2133	0.150	
21:00 - 22:00	10	2133	0.023	10	2133	0.056	10	2133	0.079	
22:00 - 23:00	9	2184	0.000	9	2184	0.010	9	2184	0.010	
23:00 - 24:00										
Total Rates:			1.418			1.401			2.819	

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL VEHICLE OCCUPANTS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.794	9	2184	0.168	9	2184	0.962
08:00 - 09:00	10	2133	4.130	10	2133	2.602	10	2133	6.732
09:00 - 10:00	10	2133	6.165	10	2133	5.115	10	2133	11.280
10:00 - 11:00	10	2133	8.504	10	2133	7.454	10	2133	15.958
11:00 - 12:00	10	2133	10.665	10	2133	9.831	10	2133	20.496
12:00 - 13:00	10	2133	10.164	10	2133	11.490	10	2133	21.654
13:00 - 14:00	10	2133	10.693	10	2133	9.910	10	2133	20.603
14:00 - 15:00	10	2133	9.521	10	2133	9.732	10	2133	19.253
15:00 - 16:00	10	2133	9.662	10	2133	10.018	10	2133	19.680
16:00 - 17:00	10	2133	9.118	10	2133	9.545	10	2133	18.663
17:00 - 18:00	10	2133	7.716	10	2133	7.909	10	2133	15.625
18:00 - 19:00	10	2133	5.551	10	2133	6.380	10	2133	11.931
19:00 - 20:00	10	2133	4.097	10	2133	5.072	10	2133	9.169
20:00 - 21:00	10	2133	2.236	10	2133	2.817	10	2133	5.053
21:00 - 22:00	10	2133	1.097	10	2133	1.781	10	2133	2.878
22:00 - 23:00	9	2184	0.102	9	2184	0.382	9	2184	0.484
23:00 - 24:00									
Total Rates:			100.215			100.206			200.421

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL PEDESTRIANS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.097	9	2184	0.056	9	2184	0.153	
08:00 - 09:00	10	2133	0.792	10	2133	0.502	10	2133	1.294	
09:00 - 10:00	10	2133	0.966	10	2133	0.914	10	2133	1.880	
10:00 - 11:00	10	2133	1.627	10	2133	1.285	10	2133	2.912	
11:00 - 12:00	10	2133	1.510	10	2133	1.524	10	2133	3.034	
12:00 - 13:00	10	2133	2.142	10	2133	1.931	10	2133	4.073	
13:00 - 14:00	10	2133	2.307	10	2133	2.185	10	2133	4.492	
14:00 - 15:00	10	2133	2.213	10	2133	2.382	10	2133	4.595	
15:00 - 16:00	10	2133	1.856	10	2133	2.166	10	2133	4.022	
16:00 - 17:00	10	2133	1.814	10	2133	1.880	10	2133	3.694	
17:00 - 18:00	10	2133	1.988	10	2133	1.758	10	2133	3.746	
18:00 - 19:00	10	2133	1.777	10	2133	1.631	10	2133	3.408	
19:00 - 20:00	10	2133	1.111	10	2133	1.369	10	2133	2.480	
20:00 - 21:00	10	2133	0.984	10	2133	1.186	10	2133	2.170	
21:00 - 22:00	10	2133	0.530	10	2133	0.675	10	2133	1.205	
22:00 - 23:00	9	2184	0.066	9	2184	0.163	9	2184	0.229	
23:00 - 24:00										
Total Rates:			21.780			21.607			43.387	

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI-MODAL BUS/TRAM PASSENGERS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.031	9	2184	0.010	9	2184	0.041
08:00 - 09:00	10	2133	0.258	10	2133	0.117	10	2133	0.375
09:00 - 10:00	10	2133	0.333	10	2133	0.272	10	2133	0.605
10:00 - 11:00	10	2133	0.445	10	2133	0.356	10	2133	0.801
11:00 - 12:00	10	2133	0.413	10	2133	0.413	10	2133	0.826
12:00 - 13:00	10	2133	0.366	10	2133	0.422	10	2133	0.788
13:00 - 14:00	10	2133	0.459	10	2133	0.389	10	2133	0.848
14:00 - 15:00	10	2133	0.441	10	2133	0.389	10	2133	0.830
15:00 - 16:00	10	2133	0.366	10	2133	0.366	10	2133	0.732
16:00 - 17:00	10	2133	0.291	10	2133	0.333	10	2133	0.624
17:00 - 18:00	10	2133	0.286	10	2133	0.347	10	2133	0.633
18:00 - 19:00	10	2133	0.248	10	2133	0.248	10	2133	0.496
19:00 - 20:00	10	2133	0.150	10	2133	0.225	10	2133	0.375
20:00 - 21:00	10	2133	0.098	10	2133	0.188	10	2133	0.286
21:00 - 22:00	10	2133	0.047	10	2133	0.103	10	2133	0.150
22:00 - 23:00	9	2184	0.000	9	2184	0.025	9	2184	0.025
23:00 - 24:00									
Total Rates:			4.232			4.203			8.435

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI-MODAL TOTAL RAIL PASSENGERS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.066	9	2184	0.000	9	2184	0.066	
08:00 - 09:00	10	2133	0.014	10	2133	0.005	10	2133	0.019	
09:00 - 10:00	10	2133	0.009	10	2133	0.000	10	2133	0.009	
10:00 - 11:00	10	2133	0.019	10	2133	0.005	10	2133	0.024	
11:00 - 12:00	10	2133	0.000	10	2133	0.005	10	2133	0.005	
12:00 - 13:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
13:00 - 14:00	10	2133	0.000	10	2133	0.005	10	2133	0.005	
14:00 - 15:00	10	2133	0.000	10	2133	0.005	10	2133	0.005	
15:00 - 16:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
16:00 - 17:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
17:00 - 18:00	10	2133	0.005	10	2133	0.033	10	2133	0.038	
18:00 - 19:00	10	2133	0.000	10	2133	0.014	10	2133	0.014	
19:00 - 20:00	10	2133	0.000	10	2133	0.009	10	2133	0.009	
20:00 - 21:00	10	2133	0.000	10	2133	0.014	10	2133	0.014	
21:00 - 22:00	10	2133	0.000	10	2133	0.009	10	2133	0.009	
22:00 - 23:00	9	2184	0.000	9	2184	0.000	9	2184	0.000	
23:00 - 24:00										
Total Rates:			0.113			0.104			0.217	

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL PUBLIC TRANSPORT USERS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.097	9	2184	0.010	9	2184	0.107
08:00 - 09:00	10	2133	0.272	10	2133	0.122	10	2133	0.394
09:00 - 10:00	10	2133	0.342	10	2133	0.272	10	2133	0.614
10:00 - 11:00	10	2133	0.464	10	2133	0.361	10	2133	0.825
11:00 - 12:00	10	2133	0.413	10	2133	0.417	10	2133	0.830
12:00 - 13:00	10	2133	0.366	10	2133	0.422	10	2133	0.788
13:00 - 14:00	10	2133	0.459	10	2133	0.394	10	2133	0.853
14:00 - 15:00	10	2133	0.441	10	2133	0.394	10	2133	0.835
15:00 - 16:00	10	2133	0.366	10	2133	0.366	10	2133	0.732
16:00 - 17:00	10	2133	0.291	10	2133	0.333	10	2133	0.624
17:00 - 18:00	10	2133	0.291	10	2133	0.380	10	2133	0.671
18:00 - 19:00	10	2133	0.248	10	2133	0.263	10	2133	0.511
19:00 - 20:00	10	2133	0.150	10	2133	0.234	10	2133	0.384
20:00 - 21:00	10	2133	0.098	10	2133	0.202	10	2133	0.300
21:00 - 22:00	10	2133	0.047	10	2133	0.113	10	2133	0.160
22:00 - 23:00	9	2184	0.000	9	2184	0.025	9	2184	0.025
23:00 - 24:00									
Total Rates:			4.345			4.308			8.653

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL TOTAL PEOPLE Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	1.012	9	2184	0.234	9	2184	1.246
08:00 - 09:00	10	2133	5.274	10	2133	3.282	10	2133	8.556
09:00 - 10:00	10	2133	7.581	10	2133	6.399	10	2133	13.980
10:00 - 11:00	10	2133	10.745	10	2133	9.203	10	2133	19.948
11:00 - 12:00	10	2133	12.719	10	2133	11.884	10	2133	24.603
12:00 - 13:00	10	2133	12.794	10	2133	13.947	10	2133	26.741
13:00 - 14:00	10	2133	13.600	10	2133	12.606	10	2133	26.206
14:00 - 15:00	10	2133	12.278	10	2133	12.653	10	2133	24.931
15:00 - 16:00	10	2133	11.987	10	2133	12.625	10	2133	24.612
16:00 - 17:00	10	2133	11.336	10	2133	11.898	10	2133	23.234
17:00 - 18:00	10	2133	10.065	10	2133	10.150	10	2133	20.215
18:00 - 19:00	10	2133	7.670	10	2133	8.382	10	2133	16.052
19:00 - 20:00	10	2133	5.447	10	2133	6.765	10	2133	12.212
20:00 - 21:00	10	2133	3.385	10	2133	4.290	10	2133	7.675
21:00 - 22:00	10	2133	1.697	10	2133	2.625	10	2133	4.322
22:00 - 23:00	9	2184	0.168	9	2184	0.580	9	2184	0.748
23:00 - 24:00									
Total Rates:			127.758			127.523			255.281

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL CARS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.412	9	2184	0.097	9	2184	0.509	
08:00 - 09:00	10	2133	2.400	10	2133	1.528	10	2133	3.928	
09:00 - 10:00	10	2133	3.652	10	2133	3.010	10	2133	6.662	
10:00 - 11:00	10	2133	4.890	10	2133	4.416	10	2133	9.306	
11:00 - 12:00	10	2133	6.174	10	2133	5.715	10	2133	11.889	
12:00 - 13:00	10	2133	5.719	10	2133	6.409	10	2133	12.128	
13:00 - 14:00	10	2133	5.654	10	2133	5.396	10	2133	11.050	
14:00 - 15:00	10	2133	5.096	10	2133	5.190	10	2133	10.286	
15:00 - 16:00	10	2133	5.185	10	2133	5.321	10	2133	10.506	
16:00 - 17:00	10	2133	5.026	10	2133	5.237	10	2133	10.263	
17:00 - 18:00	10	2133	4.304	10	2133	4.365	10	2133	8.669	
18:00 - 19:00	10	2133	3.225	10	2133	3.652	10	2133	6.877	
19:00 - 20:00	10	2133	2.330	10	2133	2.817	10	2133	5.147	
20:00 - 21:00	10	2133	1.360	10	2133	1.622	10	2133	2.982	
21:00 - 22:00	10	2133	0.652	10	2133	1.045	10	2133	1.697	
22:00 - 23:00	9	2184	0.076	9	2184	0.295	9	2184	0.371	
23:00 - 24:00										
Total Rates:			56.155			56.115			112.270	

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL LGVS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.066	9	2184	0.020	9	2184	0.086
08:00 - 09:00	10	2133	0.169	10	2133	0.117	10	2133	0.286
09:00 - 10:00	10	2133	0.173	10	2133	0.150	10	2133	0.323
10:00 - 11:00	10	2133	0.188	10	2133	0.136	10	2133	0.324
11:00 - 12:00	10	2133	0.173	10	2133	0.216	10	2133	0.389
12:00 - 13:00	10	2133	0.141	10	2133	0.155	10	2133	0.296
13:00 - 14:00	10	2133	0.206	10	2133	0.173	10	2133	0.379
14:00 - 15:00	10	2133	0.192	10	2133	0.206	10	2133	0.398
15:00 - 16:00	10	2133	0.155	10	2133	0.150	10	2133	0.305
16:00 - 17:00	10	2133	0.136	10	2133	0.155	10	2133	0.291
17:00 - 18:00	10	2133	0.173	10	2133	0.169	10	2133	0.342
18:00 - 19:00	10	2133	0.122	10	2133	0.150	10	2133	0.272
19:00 - 20:00	10	2133	0.070	10	2133	0.113	10	2133	0.183
20:00 - 21:00	10	2133	0.042	10	2133	0.070	10	2133	0.112
21:00 - 22:00	10	2133	0.038	10	2133	0.038	10	2133	0.076
22:00 - 23:00	9	2184	0.000	9	2184	0.005	9	2184	0.005
23:00 - 24:00									
Total Rates:			2.044			2.023			4.067

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL MOTOR CYCLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.010	9	2184	0.000	9	2184	0.010
08:00 - 09:00	10	2133	0.009	10	2133	0.005	10	2133	0.014
09:00 - 10:00	10	2133	0.005	10	2133	0.005	10	2133	0.010
10:00 - 11:00	10	2133	0.009	10	2133	0.009	10	2133	0.018
11:00 - 12:00	10	2133	0.028	10	2133	0.023	10	2133	0.051
12:00 - 13:00	10	2133	0.028	10	2133	0.028	10	2133	0.056
13:00 - 14:00	10	2133	0.023	10	2133	0.019	10	2133	0.042
14:00 - 15:00	10	2133	0.023	10	2133	0.014	10	2133	0.037
15:00 - 16:00	10	2133	0.014	10	2133	0.038	10	2133	0.052
16:00 - 17:00	10	2133	0.014	10	2133	0.009	10	2133	0.023
17:00 - 18:00	10	2133	0.014	10	2133	0.023	10	2133	0.037
18:00 - 19:00	10	2133	0.005	10	2133	0.005	10	2133	0.010
19:00 - 20:00	10	2133	0.000	10	2133	0.000	10	2133	0.000
20:00 - 21:00	10	2133	0.009	10	2133	0.009	10	2133	0.018
21:00 - 22:00	10	2133	0.000	10	2133	0.005	10	2133	0.005
22:00 - 23:00	9	2184	0.000	9	2184	0.000	9	2184	0.000
23:00 - 24:00									
Total Rates:			0.191			0.192			0.383

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI-MODAL Underground Passengers Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.056	9	2184	0.000	9	2184	0.056	
08:00 - 09:00	10	2133	0.009	10	2133	0.000	10	2133	0.009	
09:00 - 10:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
10:00 - 11:00	10	2133	0.009	10	2133	0.000	10	2133	0.009	
11:00 - 12:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
12:00 - 13:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
13:00 - 14:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
14:00 - 15:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
15:00 - 16:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
16:00 - 17:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
17:00 - 18:00	10	2133	0.005	10	2133	0.023	10	2133	0.028	
18:00 - 19:00	10	2133	0.000	10	2133	0.014	10	2133	0.014	
19:00 - 20:00	10	2133	0.000	10	2133	0.009	10	2133	0.009	
20:00 - 21:00	10	2133	0.000	10	2133	0.014	10	2133	0.014	
21:00 - 22:00	10	2133	0.000	10	2133	0.009	10	2133	0.009	
22:00 - 23:00	9	2184	0.000	9	2184	0.000	9	2184	0.000	
23:00 - 24:00										
Total Rates:			0.079			0.069			0.148	

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI-MODAL National Rail Passengers Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.010	9	2184	0.000	9	2184	0.010	
08:00 - 09:00	10	2133	0.005	10	2133	0.005	10	2133	0.010	
09:00 - 10:00	10	2133	0.005	10	2133	0.000	10	2133	0.005	
10:00 - 11:00	10	2133	0.009	10	2133	0.005	10	2133	0.014	
11:00 - 12:00	10	2133	0.000	10	2133	0.005	10	2133	0.005	
12:00 - 13:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
13:00 - 14:00	10	2133	0.000	10	2133	0.005	10	2133	0.005	
14:00 - 15:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
15:00 - 16:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
16:00 - 17:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
17:00 - 18:00	10	2133	0.000	10	2133	0.009	10	2133	0.009	
18:00 - 19:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
19:00 - 20:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
20:00 - 21:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
21:00 - 22:00	10	2133	0.000	10	2133	0.000	10	2133	0.000	
22:00 - 23:00	9	2184	0.000	9	2184	0.000	9	2184	0.000	
23:00 - 24:00										
Total Rates:			0.029			0.029			0.058	

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL Bus Passengers Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	9	2184	0.020	9	2184	0.005	9	2184	0.025
08:00 - 09:00	10	2133	0.127	10	2133	0.084	10	2133	0.211
09:00 - 10:00	10	2133	0.192	10	2133	0.173	10	2133	0.365
10:00 - 11:00	10	2133	0.211	10	2133	0.188	10	2133	0.399
11:00 - 12:00	10	2133	0.183	10	2133	0.169	10	2133	0.352
12:00 - 13:00	10	2133	0.159	10	2133	0.159	10	2133	0.318
13:00 - 14:00	10	2133	0.173	10	2133	0.155	10	2133	0.328
14:00 - 15:00	10	2133	0.150	10	2133	0.131	10	2133	0.281
15:00 - 16:00	10	2133	0.155	10	2133	0.159	10	2133	0.314
16:00 - 17:00	10	2133	0.150	10	2133	0.169	10	2133	0.319
17:00 - 18:00	10	2133	0.145	10	2133	0.192	10	2133	0.337
18:00 - 19:00	10	2133	0.117	10	2133	0.127	10	2133	0.244
19:00 - 20:00	10	2133	0.103	10	2133	0.113	10	2133	0.216
20:00 - 21:00	10	2133	0.056	10	2133	0.098	10	2133	0.154
21:00 - 22:00	10	2133	0.047	10	2133	0.080	10	2133	0.127
22:00 - 23:00	9	2184	0.000	9	2184	0.025	9	2184	0.025
23:00 - 24:00									
Total Rates:			1.988			2.027			4.015

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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Entran Ltd Chapel Pill Lane Bristol		Licence No: 337901
Filtering Summary		
Land Use	01/C	RETAIL/DISCOUNT FOOD STORES
Selected Trip Rate Calculation Parameter Range	700-2703 sqm GFA	
Actual Trip Rate Calculation Parameter Range	1485-2568 sqm GFA	
Date Range	Minimum: 01/01/13	Maximum: 28/11/20
Parking Spaces Range	All Surveys Included	
Days of the week selected	Saturday	17
Main Location Types selected	Suburban Area (PPS6 Out of Centre) Edge of Town Neighbourhood Centre (PPS6 Local Centre)	6 7 4
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	5,001 to 10,000 10,001 to 15,000 15,001 to 20,000 25,001 to 50,000 50,001 to 100,000	7 1 3 4 2
Population <5 Mile ranges selected	5,001 to 25,000 25,001 to 50,000 50,001 to 75,000 75,001 to 100,000 100,001 to 125,000 125,001 to 250,000 250,001 to 500,000 500,001 or More	1 2 1 2 1 3 3 4
Car Ownership <5 Mile ranges selected	0.5 or Less 0.6 to 1.0 1.1 to 1.5 1.6 to 2.0	2 6 7 2
PTAL Rating	No PTAL Present 2 Poor	15 2

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL Category : C - DISCOUNT FOOD STORES TOTAL VEHICLES

Selec	cted re	pgions and areas:	
01	GREA	ATER LONDON	
	ΗV	HAVERING	1 days
	WF	WALTHAM FOREST	1 days
02	SOU	TH EAST	5
	BD	BEDFORDSHIRE	1 days
03	SOU	TH WEST	
	SM	SOMERSET	1 days
05	EAST	T MI DLANDS	
	LN	LINCOLNSHIRE	2 days
	NR	NORTHAMPTONSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
06	WES	T MIDLANDS	
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	1 days
09	NOR	TH	
	ΤV	TEES VALLEY	1 days
10	WAL	ES	
	CF	CARDIFF	1 days
	MM	MONMOUTHSHIRE	1 days
14	LEIN	ISTER	
	LU	LOUTH	1 days
	WC	WICKLOW	1 days
15	GREA	ATER DUBLIN	
	DL	DUBLIN	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: Actual Range: Range Selected by User:	Gross floor area 1485 to 2568 (units: sqm) 700 to 2703 (units: sqm)						
Parking Spaces Range:	All Surveys Included						
Public Transport Provision: Selection by:	Include all surveys						
Date Range: 01/01	/13 to 28/11/20						
This data displays the rang included in the trip rate ca	ne of survey dates selected. Only surveys that were conducted within this date range are Iculation.						
<u>Selected survey days:</u> Saturday	17 days						
This data displays the num	nber of selected surveys by day of the week.						
<u>Selected survey types:</u> Manual count Directional ATC Count	17 days O days						
This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.							
<u>Selected Locations:</u> Suburban Area (PPS6 Out o Edge of Town	of Centre) 6 7						

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.

4

Selected Location Sub Categories:	
Industrial Zone	
Development Zone	
Residential Zone	
Retail Zone	
High Street	

Neighbourhood Centre (PPS6 Local Centre)

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Entran Ltd	Chapel Pill Lane	Bristol	Licence No: 337901

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:

E(a)

17 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:	
5,001 to 10,000	7 days
10,001 to 15,000	1 days
15,001 to 20,000	3 days
25,001 to 50,000	4 days
50,001 to 100,000	2 days

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

1 days
2 days
1 days
2 days
1 days
3 days
3 days
4 days

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

<u>Car ownership within 5 miles:</u>	
0.5 or Less	2 days
0.6 to 1.0	6 days
1.1 to 1.5	7 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.

Petrol filling station:	
Included in the survey count	0 days
Excluded from count or no filling station	17 days

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

<u>Travel Plan:</u>	
Not Known	1 days
Yes	1 days
No	15 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.

Yes

<u>PTAL Rating:</u>	
No PTAL Present	15 days
2 Poor	2 days

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

Covid-19 I	Restrictions
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At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

Entran Ltd	Chapel Pill Lane Bristol			Licence No: 337901
<u>LIST</u>	OF SITES relevant to selection parameters			
1	BD-01-C-01 LIDL RIDGE ROAD BEDFORD		BEDFORDSHI RE	
2	Edge of Town Residential Zone Total Gross floor area: <i>Survey date: SATURDAY</i> CF-01-C-01 LIDL EAST TYNDALL STREET CARDIFF	2544 sqm <i>17/10/20</i>	<i>Survey Type: MANUAL</i> CARDI FF	
3	Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area: <i>Survey date: SATURDAY</i> DL-01-C-02 ALDI SANTRY AVENUE DUBLIN SANTRY	2568 sqm <i>01/07/17</i>	<i>Survey Type: MANUAL</i> DUBLIN	
4	Edge of Town No Sub Category Total Gross floor area: Survey date: SATURDAY HV-01-C-01 ALDI COLLIER ROW ROAD ROMFORD	1703 sqm <i>24/10/20</i>	<i>Survey Type: MANUAL</i> HAVERING	
5	Neighbourhood Centre (PPS6 Local Centre) High Street Total Gross floor area: Survey date: SATURDAY LN-01-C-02 LIDL DIXON STREET	1575 sqm <i>05/09/20</i>	<i>Survey Type: MANUAL</i> LINCOLNSHIRE	
6	LINCOLN NEW BOULTHAM Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area: Survey date: SATURDAY LN-01-C-03 ALDI NEWARK ROAD	2233 sqm <i>28/10/17</i>	<i>Survey Type: MANUAL</i> LINCOLNSHIRE	
7	LINCOLN BRACEBRIDGE Suburban Area (PPS6 Out of Centre) High Street Total Gross floor area: <i>Survey date: SATURDAY</i> LU-01-C-01 ALDI NEWRY ROAD DUNDALK	1485 sqm <i>28/10/17</i>	<i>Survey Type: MANUAL</i> LOUTH	
8	Edge of Town Industrial Zone Total Gross floor area: Survey date: SATURDAY MM-01-C-01 LIDL	1746 sqm <i>07/11/20</i>	<i>Survey Type: MANUAL</i> MONMOUTHSHI RE	
9	A466 MONMOUTH MAYHILL Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area: Survey date: SATURDAY NR-01-C-03 ALDI	1640 sqm <i>28/11/20</i>	<i>Survey Type: MANUAL</i> NORTHAMPTONSHI RE	
	SAXON WAY WEST CORBY Edge of Town No Sub Category Total Gross floor area: Survey date: SATURDAY	2000 sqm <i>24/10/20</i>	Survey Type: MANUAL	

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Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
<u>LIST</u>	OF SITES relevant	to selection paramete	e <u>rs (Cont.)</u>		
10	NT-01-C-01 CHAPEL LANE BINGHAM	LIDL		NOTTI NGHAMSHI RE	
11	Edge of Town Industrial Zone Total Gross floor a <i>Survey da</i> SM-01-C-01 SEAWARD WAY MINEHEAD	irea: <i>te: SATURDAY</i> LIDL	2440 sqm <i>16/07/16</i>	<i>Survey Type: MANUAL</i> SOMERSET	
12	Edge of Town No Sub Category Total Gross floor a <i>Survey da</i> TV-01-C-01 JESMOND GARDEI HARTLEPOOL	nrea: <i>te: SATURDAY</i> LIDL NS	2247 sqm <i>24/06/17</i>	<i>Survey Type: MANUAL</i> TEES VALLEY	
13	Suburban Area (Pl Residential Zone Total Gross floor a <i>Survey dat</i> WC-01-C-01 PINEWOOD CLOSI BRAY	PS6 Out of Centre) nrea: <i>te: SATURDAY</i> ALDI E	1765 sqm <i>05/09/20</i>	<i>Survey Type: MANUAL</i> WICKLOW	
14	Suburban Area (PI No Sub Category Total Gross floor a <i>Survey dat</i> WF-01-C-01 HEYBRIDGE WAY LEYTON HATCH LANF	PS6 Out of Centre) area: <i>te: SATURDAY</i> ALDI	1672 sqm <i>05/10/19</i>	<i>Survey Type: MANUAL</i> WALTHAM FOREST	
15	Neighbourhood Ce Residential Zone Total Gross floor a Survey da WM-01-C-01 MACKADOWN LAN BIRMINGHAM	entre (PPS6 Local Cen irea: <i>te: SATURDAY</i> LIDL IE	tre) 2099 sqm <i>07/03/20</i>	<i>Survey Type: MANUAL</i> WEST MIDLANDS	
16	Neighbourhood Ce No Sub Category Total Gross floor a Survey dat WM-01-C-02 HIGH STREET WEST BROMWICH GUNS VILLAGE	entre (PPS6 Local Cen irea: <i>te: SATURDAY</i> LIDL	tre) 2085 sqm <i>09/07/16</i>	<i>Survey Type: MANUAL</i> WEST MIDLANDS	
	Neighbourhood Ce High Street Total Gross floor a Survey dat	entre (PPS6 Local Cen area: <i>te: SATURDAY</i>	tre) 2085 sqm <i>09/07/16</i>	Survey Type: MANUAL	

LIST OF SITES relevant to selection parameters (Cont.)

 17
 WO-01-C-01
 LI DL
 WORCESTERSHIRE

 BLACKPOLE ROAD
 WORCESTER
 BRICKFIELDS

 Edge of Town
 Retail Zone
 Total Gross floor area:
 2417 sqm

 Survey date:
 SATURDAY
 16/07/16
 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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES TOTAL VEHICLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		ARRIVALS DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	13	2119	0.595	13	2119	0.120	13	2119	0.715
08:00 - 09:00	17	2018	2.524	17	2018	1.612	17	2018	4.136
09:00 - 10:00	17	2018	4.029	17	2018	3.201	17	2018	7.230
10:00 - 11:00	17	2018	5.297	17	2018	4.685	17	2018	9.982
11:00 - 12:00	17	2018	6.410	17	2018	5.973	17	2018	12.383
12:00 - 13:00	17	2018	6.230	17	2018	6.751	17	2018	12.981
13:00 - 14:00	17	2018	6.160	17	2018	5.973	17	2018	12.133
14:00 - 15:00	17	2018	5.740	17	2018	5.848	17	2018	11.588
15:00 - 16:00	17	2018	5.926	17	2018	6.113	17	2018	12.039
16:00 - 17:00	17	2018	5.550	17	2018	5.784	17	2018	11.334
17:00 - 18:00	17	2018	4.816	17	2018	5.031	17	2018	9.847
18:00 - 19:00	17	2018	3.454	17	2018	4.046	17	2018	7.500
19:00 - 20:00	17	2018	2.507	17	2018	3.003	17	2018	5.510
20:00 - 21:00	17	2018	1.498	17	2018	1.912	17	2018	3.410
21:00 - 22:00	17	2018	0.740	17	2018	1.134	17	2018	1.874
22:00 - 23:00	11	2112	0.082	11	2112	0.344	11	2112	0.426
23:00 - 24:00									
Total Rates:			61.558			61.530			123.088

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:	1485 - 2568 (units: sqm)
Survey date date range:	01/01/13 - 28/11/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	17
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRICS 7.8.1 240321 B20.15 Database right DF MM WD	of TRICS Consortium Limited, 2021. All right	s reserved Thursday 01/04/21 Page 1				
Entran Ltd Chapel Pill Lane Bristol		Licence No: 337901				
Filtering Summary						
Land Use	01/C	RETAIL/DISCOUNT FOOD STORES				
Selected Trip Rate Calculation Parameter Range	Selected Trip Rate Calculation Parameter Range 900-2635 sqm GFA					
Actual Trip Rate Calculation Parameter Range	1023-2568 sqm GFA					
Date Range	Minimum: 01/01/13	Maximum: 21/10/20				
Parking Spaces Range	All Surveys Included					
Days of the week selected	Monday Tuesday Wednesday Thursday Friday	1 4 6 4 3				
Main Location Types selected	Suburban Area (PPS6 Out of Centre) Edge of Town Neighbourhood Centre (PPS6 Local Centre)	4 8 6				
Population within 500m	All Surveys Included					
Population <1 Mile ranges selected	1,001 to 5,000 5,001 to 10,000 10,001 to 15,000 15,001 to 20,000 20,001 to 25,000 25,001 to 50,000 50,001 to 100,000	1 4 3 2 1 5 2				
Population <5 Mile ranges selected	5,001 to 25,000 25,001 to 50,000 50,001 to 75,000 75,001 to 100,000 125,001 to 250,000 250,001 to 500,000 500,001 or More	1 3 1 3 3 3 4				
Car Ownership <5 Mile ranges selected	0.6 to 1.0 1.1 to 1.5 1.6 to 2.0 2.1 to 2.5	11 5 1 1				
PTAL Rating	No PTAL Present 2 Poor 4 Good	16 1 1				

FRICS DF MM	7.8.1 1 WD	240321 B20.15	Database right of TRIC	S Consortium Limited, 2021. All rights reserved	Thursday 01/04/2 Page
Entran	Ltd	Chapel Pill Lane	Bristol		Licence No: 33790
	TOLO				
	IRIF	RATE CALCULA	TION SELECTION PAR	AMETERS:	
	Land	Use : 01 - RF	TAII		
	Cated	aorv : C - DIS	SCOUNT FOOD STORES		
	MUĽ	TÍ-MODAL TO	OTAL VEHICLES		
	Selec	cted regions and a	areas:		
	01	GREATER LONE	DON		
		BE BEXLEY		1 days	
		MR MERTON		1 days	
	02	SOUTH EAST			
		WS WEST SU	SSEX	2 days	
	03	SOUTH WEST			
	~ .	SM SOMERSE	ET	1 days	
	04	EAST ANGLIA			
		CA CAMBRID	GESHIRE	1 days	
	OF			Tdays	
	05			1 dove	
	06			Tudys	
	00	WM WEST MI		2 days	
		WO WORCEST	TERSHIRE	1 days	
	09	NORTH		1 4495	
		DH DURHAM		1 davs	
		TW TYNE & W	VEAR	1 days	
	10	WALES		,	
		CF CARDIFF		1 days	
	11	SCOTLAND			
		AD ABERDEE	IN CITY	1 days	
	13	MUNSTER			
		KE KERRY		1 days	
	15	GREATER DUBL	_I N		
		DL DUBLIN		1 days	

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

Primary Filtering selection:

ANTRIM

17

AN

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.

1 days

Parameter:	Gross floor area
Actual Range:	1023 to 2568 (units: sqm)
Range Selected by User:	900 to 2635 (units: sqm)

Parking Spaces Range: All Surveys Included

ULSTER (NORTHERN I RELAND)

Public Transport Provision: Selection by:

Include all surveys

Date Range: 01/01/13 to 21/10/20

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.

<u>Selected survey days:</u>	
Monday	1 days
Tuesday	4 days
Wednesday	6 days
Thursday	4 days
Friday	3 days

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

Selected survey types:	
Manual count	18 days
Directional ATC Count	0 days

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

<u>Selected Locations:</u>	
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	8
Neighbourhood Centre (PPS6 Local Centre)	6

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
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DF MM WD			Page 3
Entran Ltd	Chapel Pill Lane	Bristol	Licence No: 337901

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:

E(a)

18 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
5,001 to 10,000	4 days
10,001 to 15,000	3 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	5 days
50,001 to 100,000	2 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	3 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
125,001 to 250,000	3 days
250,001 to 500,000	3 days
500,001 or More	4 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	11 days
1.1 to 1.5	5 days
1.6 to 2.0	1 days
2.1 to 2.5	1 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.

Petrol filling station:	
Included in the survey count	0 days
Excluded from count or no filling station	18 days

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

Travel Plan:	
Not Known	1 days
Yes	3 days
No	14 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.

Yes

16 days
1 days
1 days

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

At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

TRICS 7.8.1 DF MM WD	240321 B20.15	Database right of T	RICS Consortium Limited, 2	021. All rights reserved	Thursday 01/04/21 Page 4
Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
<u>LIST</u>	OF SITES relevant	to selection parame	eters		
1	AD-01-C-01 GREENWELL ROA ABERDEEN EAST TULLOS INI Suburban Area (F Industrial Zone	LIDL D D. ESTATE PPS6 Out of Centre)		ABERDEEN CITY	
2	Total Gross floor <i>Survey da</i> AN-01-C-02 BELFAST ROAD CARRICKFERGUS	area: <i>hte: MONDAY</i> LIDL	1950 sqm <i>18/11/19</i>	<i>Survey Type: MANUAL</i> ANTRIM	
3	Edge of Town Development Zor Total Gross floor <i>Survey da</i> BE-01-C-01 CLYDESDALE WA BELVEDERE	ne area: <i>hte: WEDNESDAY</i> LIDL Y	1325 sqm <i>12/10/16</i>	<i>Survey Type: MANUAL</i> BEXLEY	
4	Edge of Town Industrial Zone Total Gross floor <i>Survey da</i> CA-01-C-01 CROMWELL ROAE WISBECH	area: h <i>te: WEDNESDAY</i> LIDL)	2145 sqm <i>06/11/19</i>	<i>Survey Type: MANUAL</i> CAMBRI DGESHI RE	
5	Edge of Town Retail Zone Total Gross floor <i>Survey da</i> CF-01-C-01 EAST TYNDALL S CARDIFF	area: h <i>te: FRIDAY</i> LIDL TREET	1466 sqm <i>21/10/16</i>	<i>Survey Type: MANUAL</i> CARDIFF	
6	Suburban Area (F Development Zor Total Gross floor <i>Survey da</i> DH-01-C-01 WATLING ROAD BISHOP AUCKLAN	PPS6 Out of Centre) ne area: <i>nte: THURSDAY</i> ALDI	2568 sqm <i>29/06/17</i>	<i>Survey Type: MANUAL</i> DURHAM	
7	Edge of Town Retail Zone Total Gross floor <i>Survey da</i> DL-01-C-01 SALLYNOGGIN RO DUBLIN	area: h <i>te: THURSDAY</i> LIDL DAD	1023 sqm <i>06/04/17</i>	<i>Survey Type: MANUAL</i> DUBLIN	
8	THOMASTOWN Neighbourhood C Residential Zone Total Gross floor <i>Survey da</i> KE-01-C-01 DEERPARK ROAD KILLARNEY	entre (PPS6 Local Ce area: n <i>te: WEDNESDAY</i> ALDI	entre) 2163 sqm <i>20/06/18</i>	<i>Survey Type: MANUAL</i> KERRY	
	Suburban Area (F No Sub Category Total Gross floor <i>Survey da</i>	PPS6 Out of Centre) area: <i>hte: THURSDAY</i>	1354 sqm <i>17/10/19</i>	Survey Type: MANUAL	

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Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
<u></u>	OF SITES relevant	to selection parameters (<u>Cont.)</u>		
9	MR-01-C-01 STREATHAM ROA MITCHAM	LI DL D		MERTON	
10	Neighbourhood Co Residential Zone Total Gross floor a <i>Survey da</i> NF-01-C-01 AYLSHAM ROAD NORWICH	entre (PPS6 Local Centre) area: <i>te: WEDNESDAY</i> LIDL	2400 sqm <i>06/11/19</i>	<i>Survey Type: MANUAL</i> NORFOLK	
11	Neighbourhood Co No Sub Category Total Gross floor a <i>Survey da</i> NT-01-C-01 CHAPEL LANE BINGHAM	entre (PPS6 Local Centre) area: <i>te: FRIDAY</i> LIDL	2555 sqm <i>29/11/19</i>	<i>Survey Type: MANUAL</i> NOTTI NGHAMSHI RE	
12	Edge of Town Industrial Zone Total Gross floor a <i>Survey da</i> SM-01-C-01 SEAWARD WAY MINEHEAD	area: t <i>e: FRIDAY</i> LIDL	2440 sqm <i>15/07/16</i>	<i>Survey Type: MANUAL</i> SOMERSET	
13	Edge of Town No Sub Category Total Gross floor a <i>Survey da</i> TW-01-C-01 EDGEFIELD AVEN NEWCASTLE EAWDON	area: t <i>e: THURSDAY</i> ALDI UE	2247 sqm <i>22/06/17</i>	<i>Survey Type: MANUAL</i> TYNE & WEAR	
14	Neighbourhood Co No Sub Category Total Gross floor a Survey da WM-01-C-01 MACKADOWN LAN BIRMINGHAM	entre (PPS6 Local Centre) area: a <i>te: TUESDAY</i> LIDL NE	1798 sqm <i>30/04/19</i>	<i>Survey Type: MANUAL</i> WEST MIDLANDS	
15	NILLS GREEN Neighbourhood Co No Sub Category Total Gross floor a <i>Survey da</i> WM-01-C-02 HIGH STREET WEST BROMWICH GUNS VILLAGE	entre (PPS6 Local Centre) area: <i>ite: TUESDAY</i> LIDL	2085 sqm <i>12/07/16</i>	<i>Survey Type: MANUAL</i> WEST MIDLANDS	
	Neighbourhood Co High Street Total Gross floor a <i>Survey da</i>	entre (PPS6 Local Centre) area: <i>te: TUESDAY</i>	2085 sqm <i>12/07/16</i>	Survey Type: MANUAL	

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Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
<u>LIST</u>	OF SITES relevant	to selection paran	neters (Cont.)		
16	WO-01-C-01 BLACKPOLE ROAE WORCESTER BRICKFIELDS Edge of Town Retail Zone	LI DL		WORCESTERSHI RE	
17	Total Gross floor a Survey da WS-01-C-01 WESTHAMPNETT CHICHESTER	area: t <i>e: WEDNESDAY</i> LIDL ROAD	2417 sqm <i>13/07/16</i>	<i>Survey Type: MANUAL</i> WEST SUSSEX	
18	Edge of Town Retail Zone Total Gross floor a <i>Survey da</i> WS-01-C-02 FOUNDRY LANE HORSHAM	area: t <i>e: TUESDAY</i> LIDL	2125 sqm <i>20/10/20</i>	<i>Survey Type: MANUAL</i> WEST SUSSEX	
	Suburban Area (P Industrial Zone Total Gross floor a <i>Survey da</i>	PS6 Out of Centre area: <i>ite: WEDNESDAY</i>) 1616 sqm <i>21/10/20</i>	Survey Type: MANUAL	

6

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL TOTAL VEHICLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.481	2	1871	0.000	2	1871	0.481
07:00 - 08:00	17	2024	0.465	17	2024	0.163	17	2024	0.628
08:00 - 09:00	18	1987	2.441	18	1987	1.608	18	1987	4.049
09:00 - 10:00	18	1987	3.174	18	1987	2.659	18	1987	5.833
10:00 - 11:00	18	1987	3.529	18	1987	3.249	18	1987	6.778
11:00 - 12:00	18	1987	3.971	18	1987	3.797	18	1987	7.768
12:00 - 13:00	18	1987	4.208	18	1987	4.194	18	1987	8.402
13:00 - 14:00	18	1987	4.183	18	1987	4.371	18	1987	8.554
14:00 - 15:00	18	1987	4.027	18	1987	4.234	18	1987	8.261
15:00 - 16:00	18	1987	4.060	18	1987	4.077	18	1987	8.137
16:00 - 17:00	18	1987	4.029	18	1987	4.152	18	1987	8.181
17:00 - 18:00	18	1987	3.713	18	1987	3.926	18	1987	7.639
18:00 - 19:00	18	1987	3.395	18	1987	3.658	18	1987	7.053
19:00 - 20:00	18	1987	2.559	18	1987	2.816	18	1987	5.375
20:00 - 21:00	18	1987	1.653	18	1987	2.047	18	1987	3.700
21:00 - 22:00	18	1987	0.772	18	1987	1.155	18	1987	1.927
22:00 - 23:00	16	2017	0.037	16	2017	0.229	16	2017	0.266
23:00 - 24:00									
Total Rates:			46.697			46.335			93.032

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:	1023 - 2568 (units: sqm)
Survey date date range:	01/01/13 - 21/10/20
Number of weekdays (Monday-Friday):	18
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL TAXIS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.000	2	1871	0.000	2	1871	0.000
07:00 - 08:00	17	2024	0.003	17	2024	0.003	17	2024	0.006
08:00 - 09:00	18	1987	0.017	18	1987	0.011	18	1987	0.028
09:00 - 10:00	18	1987	0.042	18	1987	0.039	18	1987	0.081
10:00 - 11:00	18	1987	0.042	18	1987	0.036	18	1987	0.078
11:00 - 12:00	18	1987	0.017	18	1987	0.028	18	1987	0.045
12:00 - 13:00	18	1987	0.031	18	1987	0.028	18	1987	0.059
13:00 - 14:00	18	1987	0.039	18	1987	0.039	18	1987	0.078
14:00 - 15:00	18	1987	0.036	18	1987	0.031	18	1987	0.067
15:00 - 16:00	18	1987	0.034	18	1987	0.034	18	1987	0.068
16:00 - 17:00	18	1987	0.031	18	1987	0.034	18	1987	0.065
17:00 - 18:00	18	1987	0.039	18	1987	0.036	18	1987	0.075
18:00 - 19:00	18	1987	0.039	18	1987	0.050	18	1987	0.089
19:00 - 20:00	18	1987	0.022	18	1987	0.020	18	1987	0.042
20:00 - 21:00	18	1987	0.028	18	1987	0.025	18	1987	0.053
21:00 - 22:00	18	1987	0.017	18	1987	0.022	18	1987	0.039
22:00 - 23:00	16	2017	0.000	16	2017	0.000	16	2017	0.000
23:00 - 24:00									
Total Rates:			0.437			0.436			0.873

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL OGVS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.000	2	1871	0.000	2	1871	0.000
07:00 - 08:00	17	2024	0.015	17	2024	0.006	17	2024	0.021
08:00 - 09:00	18	1987	0.014	18	1987	0.008	18	1987	0.022
09:00 - 10:00	18	1987	0.017	18	1987	0.028	18	1987	0.045
10:00 - 11:00	18	1987	0.022	18	1987	0.022	18	1987	0.044
11:00 - 12:00	18	1987	0.020	18	1987	0.020	18	1987	0.040
12:00 - 13:00	18	1987	0.020	18	1987	0.017	18	1987	0.037
13:00 - 14:00	18	1987	0.025	18	1987	0.025	18	1987	0.050
14:00 - 15:00	18	1987	0.008	18	1987	0.014	18	1987	0.022
15:00 - 16:00	18	1987	0.008	18	1987	0.014	18	1987	0.022
16:00 - 17:00	18	1987	0.011	18	1987	0.008	18	1987	0.019
17:00 - 18:00	18	1987	0.003	18	1987	0.003	18	1987	0.006
18:00 - 19:00	18	1987	0.020	18	1987	0.017	18	1987	0.037
19:00 - 20:00	18	1987	0.017	18	1987	0.017	18	1987	0.034
20:00 - 21:00	18	1987	0.014	18	1987	0.014	18	1987	0.028
21:00 - 22:00	18	1987	0.006	18	1987	0.006	18	1987	0.012
22:00 - 23:00	16	2017	0.000	16	2017	0.000	16	2017	0.000
23:00 - 24:00									
Total Rates:			0.220			0.219			0.439

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL PSVS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.000	2	1871	0.000	2	1871	0.000
07:00 - 08:00	17	2024	0.000	17	2024	0.000	17	2024	0.000
08:00 - 09:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
09:00 - 10:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
10:00 - 11:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
11:00 - 12:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
12:00 - 13:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
13:00 - 14:00	18	1987	0.003	18	1987	0.003	18	1987	0.006
14:00 - 15:00	18	1987	0.003	18	1987	0.003	18	1987	0.006
15:00 - 16:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
16:00 - 17:00	18	1987	0.003	18	1987	0.003	18	1987	0.006
17:00 - 18:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
18:00 - 19:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
19:00 - 20:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
20:00 - 21:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
21:00 - 22:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
22:00 - 23:00	16	2017	0.000	16	2017	0.000	16	2017	0.000
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL CYCLISTS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.027	2	1871	0.000	2	1871	0.027
07:00 - 08:00	17	2024	0.020	17	2024	0.000	17	2024	0.020
08:00 - 09:00	18	1987	0.056	18	1987	0.050	18	1987	0.106
09:00 - 10:00	18	1987	0.062	18	1987	0.042	18	1987	0.104
10:00 - 11:00	18	1987	0.081	18	1987	0.070	18	1987	0.151
11:00 - 12:00	18	1987	0.070	18	1987	0.078	18	1987	0.148
12:00 - 13:00	18	1987	0.059	18	1987	0.070	18	1987	0.129
13:00 - 14:00	18	1987	0.073	18	1987	0.062	18	1987	0.135
14:00 - 15:00	18	1987	0.059	18	1987	0.064	18	1987	0.123
15:00 - 16:00	18	1987	0.064	18	1987	0.062	18	1987	0.126
16:00 - 17:00	18	1987	0.067	18	1987	0.050	18	1987	0.117
17:00 - 18:00	18	1987	0.109	18	1987	0.115	18	1987	0.224
18:00 - 19:00	18	1987	0.078	18	1987	0.087	18	1987	0.165
19:00 - 20:00	18	1987	0.034	18	1987	0.048	18	1987	0.082
20:00 - 21:00	18	1987	0.050	18	1987	0.059	18	1987	0.109
21:00 - 22:00	18	1987	0.006	18	1987	0.031	18	1987	0.037
22:00 - 23:00	16	2017	0.006	16	2017	0.015	16	2017	0.021
23:00 - 24:00									
Total Rates:			0.921			0.903			1.824

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL VEHICLE OCCUPANTS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.561	2	1871	0.000	2	1871	0.561
07:00 - 08:00	17	2024	0.590	17	2024	0.206	17	2024	0.796
08:00 - 09:00	18	1987	3.068	18	1987	2.008	18	1987	5.076
09:00 - 10:00	18	1987	4.200	18	1987	3.467	18	1987	7.667
10:00 - 11:00	18	1987	4.913	18	1987	4.496	18	1987	9.409
11:00 - 12:00	18	1987	5.509	18	1987	5.251	18	1987	10.760
12:00 - 13:00	18	1987	5.783	18	1987	5.903	18	1987	11.686
13:00 - 14:00	18	1987	5.813	18	1987	6.040	18	1987	11.853
14:00 - 15:00	18	1987	5.657	18	1987	5.788	18	1987	11.445
15:00 - 16:00	18	1987	5.811	18	1987	5.730	18	1987	11.541
16:00 - 17:00	18	1987	5.646	18	1987	5.909	18	1987	11.555
17:00 - 18:00	18	1987	5.100	18	1987	5.537	18	1987	10.637
18:00 - 19:00	18	1987	4.935	18	1987	5.165	18	1987	10.100
19:00 - 20:00	18	1987	3.649	18	1987	4.038	18	1987	7.687
20:00 - 21:00	18	1987	2.340	18	1987	2.922	18	1987	5.262
21:00 - 22:00	18	1987	1.054	18	1987	1.585	18	1987	2.639
22:00 - 23:00	16	2017	0.050	16	2017	0.285	16	2017	0.335
23:00 - 24:00									
Total Rates:			64.679			64.330			129.009

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL PEDESTRIANS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.053	2	1871	0.000	2	1871	0.053
07:00 - 08:00	17	2024	0.221	17	2024	0.049	17	2024	0.270
08:00 - 09:00	18	1987	0.906	18	1987	0.733	18	1987	1.639
09:00 - 10:00	18	1987	1.359	18	1987	1.046	18	1987	2.405
10:00 - 11:00	18	1987	1.432	18	1987	1.214	18	1987	2.646
11:00 - 12:00	18	1987	1.314	18	1987	1.306	18	1987	2.620
12:00 - 13:00	18	1987	1.639	18	1987	1.667	18	1987	3.306
13:00 - 14:00	18	1987	1.653	18	1987	1.650	18	1987	3.303
14:00 - 15:00	18	1987	1.488	18	1987	1.432	18	1987	2.920
15:00 - 16:00	18	1987	1.482	18	1987	1.669	18	1987	3.151
16:00 - 17:00	18	1987	1.678	18	1987	1.728	18	1987	3.406
17:00 - 18:00	18	1987	1.739	18	1987	1.756	18	1987	3.495
18:00 - 19:00	18	1987	1.502	18	1987	1.569	18	1987	3.071
19:00 - 20:00	18	1987	0.878	18	1987	1.146	18	1987	2.024
20:00 - 21:00	18	1987	0.805	18	1987	0.881	18	1987	1.686
21:00 - 22:00	18	1987	0.433	18	1987	0.621	18	1987	1.054
22:00 - 23:00	16	2017	0.003	16	2017	0.074	16	2017	0.077
23:00 - 24:00									
Total Rates:			18.585			18.541			37.126

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL BUS/TRAM PASSENGERS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.053	2	1871	0.000	2	1871	0.053
07:00 - 08:00	17	2024	0.058	17	2024	0.029	17	2024	0.087
08:00 - 09:00	18	1987	0.176	18	1987	0.064	18	1987	0.240
09:00 - 10:00	18	1987	0.179	18	1987	0.148	18	1987	0.327
10:00 - 11:00	18	1987	0.260	18	1987	0.213	18	1987	0.473
11:00 - 12:00	18	1987	0.229	18	1987	0.193	18	1987	0.422
12:00 - 13:00	18	1987	0.232	18	1987	0.196	18	1987	0.428
13:00 - 14:00	18	1987	0.257	18	1987	0.316	18	1987	0.573
14:00 - 15:00	18	1987	0.313	18	1987	0.327	18	1987	0.640
15:00 - 16:00	18	1987	0.299	18	1987	0.291	18	1987	0.590
16:00 - 17:00	18	1987	0.316	18	1987	0.305	18	1987	0.621
17:00 - 18:00	18	1987	0.322	18	1987	0.355	18	1987	0.677
18:00 - 19:00	18	1987	0.330	18	1987	0.355	18	1987	0.685
19:00 - 20:00	18	1987	0.173	18	1987	0.218	18	1987	0.391
20:00 - 21:00	18	1987	0.145	18	1987	0.157	18	1987	0.302
21:00 - 22:00	18	1987	0.059	18	1987	0.089	18	1987	0.148
22:00 - 23:00	16	2017	0.000	16	2017	0.028	16	2017	0.028
23:00 - 24:00									
Total Rates:			3.401			3.284			6.685

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI-MODAL TOTAL RAIL PASSENGERS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.000	2	1871	0.000	2	1871	0.000
07:00 - 08:00	17	2024	0.006	17	2024	0.000	17	2024	0.006
08:00 - 09:00	18	1987	0.011	18	1987	0.003	18	1987	0.014
09:00 - 10:00	18	1987	0.006	18	1987	0.003	18	1987	0.009
10:00 - 11:00	18	1987	0.011	18	1987	0.003	18	1987	0.014
11:00 - 12:00	18	1987	0.006	18	1987	0.003	18	1987	0.009
12:00 - 13:00	18	1987	0.006	18	1987	0.011	18	1987	0.017
13:00 - 14:00	18	1987	0.003	18	1987	0.014	18	1987	0.017
14:00 - 15:00	18	1987	0.006	18	1987	0.011	18	1987	0.017
15:00 - 16:00	18	1987	0.006	18	1987	0.006	18	1987	0.012
16:00 - 17:00	18	1987	0.020	18	1987	0.011	18	1987	0.031
17:00 - 18:00	18	1987	0.008	18	1987	0.003	18	1987	0.011
18:00 - 19:00	18	1987	0.008	18	1987	0.008	18	1987	0.016
19:00 - 20:00	18	1987	0.003	18	1987	0.003	18	1987	0.006
20:00 - 21:00	18	1987	0.000	18	1987	0.003	18	1987	0.003
21:00 - 22:00	18	1987	0.003	18	1987	0.003	18	1987	0.006
22:00 - 23:00	16	2017	0.000	16	2017	0.006	16	2017	0.006
23:00 - 24:00									
Total Rates:			0.103			0.091			0.194

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL PUBLIC TRANSPORT USERS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.053	2	1871	0.000	2	1871	0.053
07:00 - 08:00	17	2024	0.064	17	2024	0.029	17	2024	0.093
08:00 - 09:00	18	1987	0.187	18	1987	0.067	18	1987	0.254
09:00 - 10:00	18	1987	0.185	18	1987	0.151	18	1987	0.336
10:00 - 11:00	18	1987	0.271	18	1987	0.215	18	1987	0.486
11:00 - 12:00	18	1987	0.235	18	1987	0.196	18	1987	0.431
12:00 - 13:00	18	1987	0.238	18	1987	0.207	18	1987	0.445
13:00 - 14:00	18	1987	0.260	18	1987	0.330	18	1987	0.590
14:00 - 15:00	18	1987	0.319	18	1987	0.338	18	1987	0.657
15:00 - 16:00	18	1987	0.305	18	1987	0.296	18	1987	0.601
16:00 - 17:00	18	1987	0.336	18	1987	0.316	18	1987	0.652
17:00 - 18:00	18	1987	0.330	18	1987	0.358	18	1987	0.688
18:00 - 19:00	18	1987	0.338	18	1987	0.364	18	1987	0.702
19:00 - 20:00	18	1987	0.176	18	1987	0.221	18	1987	0.397
20:00 - 21:00	18	1987	0.145	18	1987	0.159	18	1987	0.304
21:00 - 22:00	18	1987	0.062	18	1987	0.092	18	1987	0.154
22:00 - 23:00	16	2017	0.000	16	2017	0.034	16	2017	0.034
23:00 - 24:00									
Total Rates:			3.504			3.373			6.877

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL TOTAL PEOPLE Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.695	2	1871	0.000	2	1871	0.695
07:00 - 08:00	17	2024	0.895	17	2024	0.285	17	2024	1.180
08:00 - 09:00	18	1987	4.217	18	1987	2.858	18	1987	7.075
09:00 - 10:00	18	1987	5.805	18	1987	4.706	18	1987	10.511
10:00 - 11:00	18	1987	6.697	18	1987	5.995	18	1987	12.692
11:00 - 12:00	18	1987	7.128	18	1987	6.831	18	1987	13.959
12:00 - 13:00	18	1987	7.718	18	1987	7.846	18	1987	15.564
13:00 - 14:00	18	1987	7.799	18	1987	8.081	18	1987	15.880
14:00 - 15:00	18	1987	7.522	18	1987	7.623	18	1987	15.145
15:00 - 16:00	18	1987	7.662	18	1987	7.757	18	1987	15.419
16:00 - 17:00	18	1987	7.726	18	1987	8.003	18	1987	15.729
17:00 - 18:00	18	1987	7.279	18	1987	7.765	18	1987	15.044
18:00 - 19:00	18	1987	6.854	18	1987	7.184	18	1987	14.038
19:00 - 20:00	18	1987	4.737	18	1987	5.453	18	1987	10.190
20:00 - 21:00	18	1987	3.342	18	1987	4.021	18	1987	7.363
21:00 - 22:00	18	1987	1.555	18	1987	2.329	18	1987	3.884
22:00 - 23:00	16	2017	0.059	16	2017	0.409	16	2017	0.468
23:00 - 24:00									
Total Rates:			87.690			87.146			174.836

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL CARS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	;	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.401	2	1871	0.000	2	1871	0.401
07:00 - 08:00	17	2024	0.398	17	2024	0.131	17	2024	0.529
08:00 - 09:00	18	1987	2.198	18	1987	1.448	18	1987	3.646
09:00 - 10:00	18	1987	2.883	18	1987	2.396	18	1987	5.279
10:00 - 11:00	18	1987	3.230	18	1987	2.947	18	1987	6.177
11:00 - 12:00	18	1987	3.727	18	1987	3.546	18	1987	7.273
12:00 - 13:00	18	1987	3.971	18	1987	3.962	18	1987	7.933
13:00 - 14:00	18	1987	3.906	18	1987	4.074	18	1987	7.980
14:00 - 15:00	18	1987	3.800	18	1987	4.001	18	1987	7.801
15:00 - 16:00	18	1987	3.809	18	1987	3.817	18	1987	7.626
16:00 - 17:00	18	1987	3.783	18	1987	3.884	18	1987	7.667
17:00 - 18:00	18	1987	3.498	18	1987	3.708	18	1987	7.206
18:00 - 19:00	18	1987	3.157	18	1987	3.400	18	1987	6.557
19:00 - 20:00	18	1987	2.374	18	1987	2.615	18	1987	4.989
20:00 - 21:00	18	1987	1.532	18	1987	1.899	18	1987	3.431
21:00 - 22:00	18	1987	0.688	18	1987	1.060	18	1987	1.748
22:00 - 23:00	16	2017	0.031	16	2017	0.204	16	2017	0.235
23:00 - 24:00									
Total Rates:			43.386			43.092			86.478

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL LGVS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.080	2	1871	0.000	2	1871	0.080
07:00 - 08:00	17	2024	0.047	17	2024	0.023	17	2024	0.070
08:00 - 09:00	18	1987	0.196	18	1987	0.134	18	1987	0.330
09:00 - 10:00	18	1987	0.229	18	1987	0.190	18	1987	0.419
10:00 - 11:00	18	1987	0.224	18	1987	0.229	18	1987	0.453
11:00 - 12:00	18	1987	0.190	18	1987	0.193	18	1987	0.383
12:00 - 13:00	18	1987	0.173	18	1987	0.173	18	1987	0.346
13:00 - 14:00	18	1987	0.193	18	1987	0.213	18	1987	0.406
14:00 - 15:00	18	1987	0.168	18	1987	0.176	18	1987	0.344
15:00 - 16:00	18	1987	0.193	18	1987	0.196	18	1987	0.389
16:00 - 17:00	18	1987	0.190	18	1987	0.207	18	1987	0.397
17:00 - 18:00	18	1987	0.154	18	1987	0.162	18	1987	0.316
18:00 - 19:00	18	1987	0.157	18	1987	0.162	18	1987	0.319
19:00 - 20:00	18	1987	0.140	18	1987	0.154	18	1987	0.294
20:00 - 21:00	18	1987	0.064	18	1987	0.098	18	1987	0.162
21:00 - 22:00	18	1987	0.053	18	1987	0.059	18	1987	0.112
22:00 - 23:00	16	2017	0.006	16	2017	0.022	16	2017	0.028
23:00 - 24:00									
Total Rates:			2.457			2.391			4.848

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL MOTOR CYCLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.000	2	1871	0.000	2	1871	0.000
07:00 - 08:00	17	2024	0.003	17	2024	0.000	17	2024	0.003
08:00 - 09:00	18	1987	0.014	18	1987	0.006	18	1987	0.020
09:00 - 10:00	18	1987	0.003	18	1987	0.006	18	1987	0.009
10:00 - 11:00	18	1987	0.011	18	1987	0.014	18	1987	0.025
11:00 - 12:00	18	1987	0.017	18	1987	0.011	18	1987	0.028
12:00 - 13:00	18	1987	0.014	18	1987	0.014	18	1987	0.028
13:00 - 14:00	18	1987	0.017	18	1987	0.017	18	1987	0.034
14:00 - 15:00	18	1987	0.014	18	1987	0.008	18	1987	0.022
15:00 - 16:00	18	1987	0.017	18	1987	0.017	18	1987	0.034
16:00 - 17:00	18	1987	0.011	18	1987	0.017	18	1987	0.028
17:00 - 18:00	18	1987	0.020	18	1987	0.017	18	1987	0.037
18:00 - 19:00	18	1987	0.022	18	1987	0.028	18	1987	0.050
19:00 - 20:00	18	1987	0.006	18	1987	0.011	18	1987	0.017
20:00 - 21:00	18	1987	0.014	18	1987	0.011	18	1987	0.025
21:00 - 22:00	18	1987	0.008	18	1987	0.008	18	1987	0.016
22:00 - 23:00	16	2017	0.000	16	2017	0.003	16	2017	0.003
23:00 - 24:00									
Total Rates:			0.191			0.188			0.379

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI-MODAL National Rail Passengers Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.000	2	1871	0.000	2	1871	0.000
07:00 - 08:00	17	2024	0.003	17	2024	0.000	17	2024	0.003
08:00 - 09:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
09:00 - 10:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
10:00 - 11:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
11:00 - 12:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
12:00 - 13:00	18	1987	0.003	18	1987	0.000	18	1987	0.003
13:00 - 14:00	18	1987	0.000	18	1987	0.003	18	1987	0.003
14:00 - 15:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
15:00 - 16:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
16:00 - 17:00	18	1987	0.003	18	1987	0.003	18	1987	0.006
17:00 - 18:00	18	1987	0.003	18	1987	0.000	18	1987	0.003
18:00 - 19:00	18	1987	0.008	18	1987	0.003	18	1987	0.011
19:00 - 20:00	18	1987	0.003	18	1987	0.003	18	1987	0.006
20:00 - 21:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
21:00 - 22:00	18	1987	0.000	18	1987	0.000	18	1987	0.000
22:00 - 23:00	16	2017	0.000	16	2017	0.000	16	2017	0.000
23:00 - 24:00									
Total Rates:			0.023			0.012			0.035

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.

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES MULTI - MODAL Bus Passengers Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.000	2	1871	0.000	2	1871	0.000
07:00 - 08:00	17	2024	0.041	17	2024	0.026	17	2024	0.067
08:00 - 09:00	18	1987	0.059	18	1987	0.039	18	1987	0.098
09:00 - 10:00	18	1987	0.070	18	1987	0.070	18	1987	0.140
10:00 - 11:00	18	1987	0.092	18	1987	0.081	18	1987	0.173
11:00 - 12:00	18	1987	0.103	18	1987	0.087	18	1987	0.190
12:00 - 13:00	18	1987	0.070	18	1987	0.087	18	1987	0.157
13:00 - 14:00	18	1987	0.115	18	1987	0.154	18	1987	0.269
14:00 - 15:00	18	1987	0.182	18	1987	0.193	18	1987	0.375
15:00 - 16:00	18	1987	0.185	18	1987	0.165	18	1987	0.350
16:00 - 17:00	18	1987	0.224	18	1987	0.187	18	1987	0.411
17:00 - 18:00	18	1987	0.218	18	1987	0.221	18	1987	0.439
18:00 - 19:00	18	1987	0.260	18	1987	0.271	18	1987	0.531
19:00 - 20:00	18	1987	0.134	18	1987	0.151	18	1987	0.285
20:00 - 21:00	18	1987	0.109	18	1987	0.112	18	1987	0.221
21:00 - 22:00	18	1987	0.053	18	1987	0.059	18	1987	0.112
22:00 - 23:00	16	2017	0.000	16	2017	0.019	16	2017	0.019
23:00 - 24:00									
Total Rates:			1.915			1.922			3.837

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.

TRICS 7.8.1 240321 B20.15 Database right DF WD	of TRICS Consortium Limited, 2021. All right	s reserved Thursday 01/04/21 Page 1
Entran Ltd Chapel Pill Lane Bristol		Licence No: 337901
Filtering Summary		
Land Use	01/C	RETAIL/DISCOUNT FOOD STORES
Selected Trip Rate Calculation Parameter Range	e 700-2703 sqm GFA	
Actual Trip Rate Calculation Parameter Range	700-2568 sqm GFA	
Date Range	Minimum: 01/01/13	Maximum: 28/11/20
Parking Spaces Range	All Surveys Included	
Days of the week selected	Monday Tuesday Wednesday Thursday Friday	2 4 7 4 3
Main Location Types selected	Suburban Area (PPS6 Out of Centre) Edge of Town Neighbourhood Centre (PPS6 Local Centre)	4 8 8
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	1,001 to 5,000 5,001 to 10,000 10,001 to 15,000 15,001 to 20,000 20,001 to 25,000 25,001 to 50,000 50,001 to 100,000	1 4 3 3 1 6 2
Population <5 Mile ranges selected	5,001 to 25,000 25,001 to 50,000 50,001 to 75,000 75,001 to 100,000 125,001 to 250,000 250,001 to 500,000 500,001 or More	1 3 2 3 3 3 5
Car Ownership <5 Mile ranges selected	0.6 to 1.0 1.1 to 1.5 1.6 to 2.0 2.1 to 2.5	12 6 1 1
PTAL Rating	No PTAL Present 2 Poor 4 Good	18 1 1

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL Category : C - DISCOUNT FOOD STORES TOTAL VEHICLES

Selec	rted reg	ions and areas:	
01	GREA	TER LONDON	
	BE	BEXLEY	1 days
	MR	MERTON	1 days
02	SOUT	H EAST	-
	WS	WEST SUSSEX	2 days
03	SOUT	H WEST	
	SM	SOMERSET	1 days
04	EAST	ANGLIA	
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
05	EAST	MIDLANDS	
	NT	NOTTINGHAMSHIRE	1 days
06	WEST	MIDLANDS	
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	1 days
07	YORK	SHI RE & NORTH LI NCOLNSHI RE	
	WY	WEST YORKSHIRE	1 days
09	NORT	Н	
	DH	DURHAM	1 days
	TW	TYNE & WEAR	1 days
10	WALE	S	
	CF	CARDIFF	1 days
11	SCOTI	LAND	
	AD	ABERDEEN CITY	1 days
	SR	STIRLING	1 days
13	MUNS	TER	
	KE	KERRY	1 days
15	GREA	TER DUBLIN	
	DL	DUBLIN	1 days
17	ULSTE	ER (NORTHERN I RELAND)	
	AN	ANTRIM	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: Actual Range: Range Selected by I	Jser:	Gross floor area 700 to 2568 (units: sqm) 700 to 2703 (units: sqm)	
Parking Spaces Ran	ge:	All Surveys Included	
Public Transport Pro Selection by:	vision:		Include all surveys
Date Range:	01/01,	/13 to 28/11/20	

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.

2 days
4 days
7 days
4 days
3 days

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

<u>Selected survey types:</u>	
Manual count	20 days
Directional ATC Count	0 days

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

<u>Selected Locations:</u>	
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	8
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:	
Industrial Zone	4
Development Zone	2
Residential Zone	3
Retail Zone	5
High Street	1
No Sub Category	5

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:

<u>Use Class:</u> E(a)

20 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
5,001 to 10,000	4 days
10,001 to 15,000	3 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	6 days
50,001 to 100,000	2 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	3 days
50,001 to 75,000	2 days
75,001 to 100,000	3 days
125,001 to 250,000	3 days
250,001 to 500,000	3 days
500,001 or More	5 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	12 days
1.1 to 1.5	6 days
1.6 to 2.0	1 days
2.1 to 2.5	1 davs

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

Petrol filling station:	
Included in the survey count	0 days
Excluded from count or no filling station	20 days

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

<u>Travel Plan:</u>	
Not Known	1 days
Yes	3 days
No	16 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.

<u>PTAL_Rating:</u>	
No PTAL Present	18 days
2 Poor	1 days
4 Good	1 days

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

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Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
<u>LIST</u>	OF SITES relevant	t to selection parameters			
1	AD-01-C-01 GREENWELL ROA ABERDEEN EAST TULLOS INI Suburban Area (F Industrial Zone	LIDL D. D. ESTATE PPS6 Out of Centre)		ABERDEEN CITY	
2	Total Gross floor <i>Survey da</i> AN-01-C-02 BELFAST ROAD CARRICKFERGUS	area: <i>ate: MONDAY</i> LIDL	1950 sqm <i>18/11/19</i>	<i>Survey Type: MANUAL</i> ANTRIM	
3	Edge of Town Development Zor Total Gross floor <i>Survey da</i> BE-01-C-01 CLYDESDALE WA	ne area: <i>ate: WEDNESDAY</i> LIDL Y	1325 sqm <i>12/10/16</i>	<i>Survey Type: MANUAL</i> BEXLEY	
	BELVEDERE				
4	Edge of Town Industrial Zone Total Gross floor <i>Survey da</i> CA-01-C-01 CROMWELL ROAE WISBECH	area: <i>ate: WEDNESDAY</i> LIDL D	2145 sqm <i>06/11/19</i>	<i>Survey Type: MANUAL</i> CAMBRI DGESHI RE	
5	Edge of Town Retail Zone Total Gross floor <i>Survey da</i> CF-01-C-01 EAST TYNDALL S CARDIFF	area: <i>ate: FRIDAY</i> LIDL TREET	1466 sqm <i>21/10/16</i>	<i>Survey Type: MANUAL</i> CARDIFF	
6	Suburban Area (F Development Zor Total Gross floor <i>Survey da</i> DH-01-C-01 WATLING ROAD BISHOP AUCKLAN	PPS6 Out of Centre) ne area: <i>ate: THURSDAY</i> ALDI	2568 sqm <i>29/06/17</i>	<i>Survey Type: MANUAL</i> DURHAM	
7	Edge of Town Retail Zone Total Gross floor <i>Survey da</i> DL-01-C-01 SALLYNOGGIN RO	area: a <i>te: THURSDAY</i> LIDL OAD	1023 sqm <i>06/04/17</i>	<i>Survey Type: MANUAL</i> DUBLIN	
8	THOMASTOWN Neighbourhood C Residential Zone Total Gross floor <i>Survey da</i> KE-01-C-01 DEERPARK ROAD KILLARNEY	entre (PPS6 Local Centre) area: <i>ate: WEDNESDAY</i> ALDI	2163 sqm <i>20/06/18</i>	<i>Survey Type: MANUAL</i> KERRY	
	Suburban Area (F No Sub Category Total Gross floor <i>Survey da</i>	PPS6 Out of Centre) area: <i>ate: THURSDAY</i>	1354 sqm <i>17/10/19</i>	Survey Type: MANUAL	

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Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
LIST	OF SITES relevant	to selection parameters	<u>(Cont.)</u>		
9	MR-01-C-01 STREATHAM ROAI MITCHAM	LI DL D		MERTON	
10	Neighbourhood Ce Residential Zone Total Gross floor a <i>Survey da</i> NF-01-C-01 AYLSHAM ROAD NORWICH	entre (PPS6 Local Centre area: <i>te: WEDNESDAY</i> LIDL	e) 2400 sqm <i>06/11/19</i>	<i>Survey Type: MANUAL</i> NORFOLK	
11	Neighbourhood Ce No Sub Category Total Gross floor a <i>Survey da</i> NT-01-C-01 CHAPEL LANE BINGHAM	entre (PPS6 Local Centre area: <i>te: FRIDAY</i> LIDL	e) 2555 sqm <i>29/11/19</i>	<i>Survey Type: MANUAL</i> NOTTI NGHAMSHI RE	
12	Edge of Town Industrial Zone Total Gross floor a <i>Survey da</i> SM-01-C-01 SEAWARD WAY MINEHEAD	area: <i>te: FRIDAY</i> LIDL	2440 sqm <i>15/07/16</i>	<i>Survey Type: MANUAL</i> SOMERSET	
13	Edge of Town No Sub Category Total Gross floor a <i>Survey da</i> SR-01-C-02 WEAVER ROW STIRLING	area: <i>te: THURSDAY</i> LIDL	2247 sqm <i>22/06/17</i>	<i>Survey Type: MANUAL</i> STIRLING	
14	SAINT NINIANS Neighbourhood Ce Residential Zone Total Gross floor a <i>Survey da</i> TW-01-C-01 EDGEFIELD AVEN NEWCASTI F	entre (PPS6 Local Centre area: <i>te: WEDNESDAY</i> ALDI UE	e) 1559 sqm <i>09/09/20</i>	<i>Survey Type: MANUAL</i> TYNE & WEAR	
15	FAWDON Neighbourhood Ce No Sub Category Total Gross floor a Survey da WM-01-C-01 MACKADOWN LAN BIRMINGHAM	entre (PPS6 Local Centre area: <i>te: TUESDAY</i> LIDL NE	e) 1798 sqm <i>30/04/19</i>	<i>Survey Type: MANUAL</i> WEST MIDLANDS	
	NILLS GREEN Neighbourhood Ce No Sub Category Total Gross floor a Survey da	entre (PPS6 Local Centre area: <i>te: TUESDAY</i>	e) 2085 sqm <i>12/07/16</i>	Survey Type: MANUAL	

Entran Ltd Chapel Pill Lane Bristol Licence No: 337901 LIST OF SITES relevant to selection parameters (Cont.) 16 WM-01-C. 02 LIDL WEST MIDLANDS High STREET WEST ROMWICH GUNS VILLAGE WEST ROMWICH Neighbourhood Centre (PPS6 Local Centre) High Street Total Gross floor area: 2085 sqm Survey date: 72/07/16 Survey Type: MANUAL WORCESTER BRICKFIELDS Edge of Town Retail Zone Total Gross floor area: 2417 sgm Total Gross floor area: 2125 sqm Survey Type: MANUAL WEST SUSSEX VWS-01-C-01 LIDL WEST SUSSEX Survey Type: MANUAL 18 WS-01-C-01 LIDL WEST SUSSEX Vest TAMPNETT ROAD CHICHESTER Survey date: TUESCAY 20/10/20 19 WS-01-C-01 LIDL WEST SUSSEX 19 WS-01-C-01 LIDL WEST SUSSEX 19 WS-01-C-01 LIDL WEST SUSSEX 1010 FOUNDRY LANE 1616 sqm Survey Type: MANUAL 19 WS-01-C-01 FARMFCODS WEST YORKSHI RE	TRICS 7.8.1 DF WD	240321 B20.15 Database right of TRICS	Consortium Limited, 2021	. All rights reserved	Thursday 01/04/21 Page 6
LIST OF SUTES relevant to selection parameters (Cont J 16 WM-01-C-02 LIDL WEST MIDLANDS HIGH STREET WEST MIDLANDS HIGH STREET WEST BROWNICH GUNS VILLAGE 2085 sgm Neighbourhood Centre (PPS6 Local Centre) High Street 12/07/16 Survey Type: MANUAL 17 WO-01-C-01 LIDL WORCESTER Survey date: TUSSDAY 12/07/16 BLACKPOLE ROAD WORCESTER BRICKFIELDS Edge of Town Retail Zone Retail Zone Total Gross floor area: 2417 sgm Survey date: WEDMESDAY 13/07/16 Survey Type: MANUAL 18 WS-01-C-01 LIDL WEST SUSSEX VEST SUSSEX WEST MARNPETT ROAD UNEST SUSSEX WEST SUSSEX CHICHESTER 20/10/20 Survey Type: MANUAL 19 VS-01-C-02 LIDL VEST SUSSEX 10 Survey date: WEDMESDAY 20/10/20 Survey Type: MANUAL 19 VS-01-C-02 LIDL VEST SUSSEX 10 FOUNDRY LANE 20/10/20 Survey Type: MANUAL 10 Suburban Area (PPS6 Out of Centre) Survey Type: M	Entran Ltd	Chapel Pill Lane Bristol			Licence No: 337901
16 WM-01-C-02 LIDL WEST MIDLANDS HIGH STREET WEST BROMWICH GUNS VILLAGE WEST BROMWICH GUNS VILLAGE Noighbourhood Centre (PPS6 Local Centre) High Street 2085 sgm Total Gross floor area: 2085 sgm Survey Type: MANUAL 17 WO-01-C-01 LIDL WORCESTER WO-01-C-01 LIDL WORCESTER WORCESTER BRICKFIELDS Edge of Town Retail Zone Z417 sgm Total Gross floor area: 2417 sgm Survey Type: MANUAL WS-01-C-01 LIDL WEST MARNETT ROAD WESTHAMPETT ROAD CHICHESTER Survey Type: MANUAL WS-01-C-02 LIDL WEST SUSSEX WS-01-C-02 LIDL WEST SUSSEX WS-01-C-02 LIDL WEST SUSSEX VWS-01-C-02 LIDL WEST SUSSEX VWS-01-C-02 LIDL WEST SUSSEX VWS-01-C-02 LIDL WEST SUSSEX VWS-01-C-02 LIDL WEST SUSSEX VMORUSTER Survey Grave: WEDWESDAY 21/10/20 Suburban Area (PPS6 Out of Centre) Survey Type: MANUAL<	<u>LIST</u>	OF SITES relevant to selection parameters	<u>(Cont.)</u>		
Neighbourhood Centre (PPS6 Local Centre) High Street Total Gross floor area: 2085 sqm Survey date: TUESDAY 12/07/16 SURVEY Type: MANUAL 17 WO-01-C-01 LIDL BLACKPOLE ROAD WORCESTER BRICKFIELDS Edge of Town Retail Zone Total Gross floor area: 2417 sqm Survey date: WEDNESDAY 13/07/16 Survey Type: MANUAL WEST SUSSEX WESTHAMPNETT ROAD CHICHESTER Edge of Town Retail Zone Total Gross floor area: 2125 sqm Survey date: TUESDAY 20/10/20 WEST SUSSEX WEST SUS	16	WM-01-C-02 LI DL HIGH STREET WEST BROMWICH GUNS VILLAGE		WEST MIDLANDS	
17 W0-01-C-01 LIDL WORCESTERSHIRE BLACKPOLE ROAD WORCESTER BRICKFIELDS Edge of Town Retail Zone Total Gross floor area: 2417 sqm <i>Survey date: IVEDNESDAY</i> 13/07/16 <i>Survey Type: MANUAL</i> WEST SUSSEX WEST HAMPNETT ROAD CHICHESTER Edge of Town Retail Zone Total Gross floor area: 2125 sqm <i>Survey date: TUESDAY</i> 20/10/20 <i>Survey Type: MANUAL</i> 19 WS-01-C-02 LIDL FOUNDRY LANE HORSHAM Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 1616 sqm <i>Survey date: WEDNESDAY</i> 21/10/20 <i>Survey Type: MANUAL</i> 20 WY-01-C-01 FARMFOODS WEST YORKSHIRE WATERLOO TERRACE LEEDS BRAMLEY Neighbourhood Centre (PPS6 Local Centre) Retail Zone Total Gross floor area: 700 sqm <i>Survey Type: MANUAL</i>		Neighbourhood Centre (PPS6 Local Centre) High Street Total Gross floor area: Survey date: TUESDAY) 2085 sqm <i>12/07/16</i>	Survey Type: MANUAL	
Total Gross floor area: 2417 sqm Survey date: WEDNESDAY 13/07/16 Survey Type: MANUAL 18 WS-01-C-01 LIDL WEST SUSSEX WESTHAMPNETT ROAD CHICHESTER WEST SUSSEX Edge of Town Retail Zone Total Gross floor area: 2125 sqm Total Gross floor area: 20/10/20 Survey Type: MANUAL 19 WS-01-C-02 LIDL WEST SUSSEX FOUNDRY LANE HORSHAM WEST SUSSEX Suburban Area (PPS6 Out of Centre) Industrial Zone Survey date: WEDNESDAY Total Gross floor area: 1616 sqm Survey Type: MANUAL 20 WY-01-C-01 FARMFOODS WEST SUSSEX WATERLOO TERRACE LEEDS BRAMLEY WEST YORKSHI RE Neighbourhood Centre (PPS6 Local Centre) Retail Zone Total Gross floor area: 700 sqm Total Gross floor area: 700 sqm Survey Type: MANUAL	17	WO-01-C-01 LIDL BLACKPOLE ROAD WORCESTER BRICKFIELDS Edge of Town Retail Zone		WORCESTERSHI RE	
Edge of Town Retail Zone Total Gross floor area: 2125 sqm Survey date: TUESDAY 20/10/20 Survey Type: MANUAL 19 WS-01-C-02 LIDL WEST SUSSEX FOUNDRY LANE HORSHAM Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 1616 sqm Survey date: WEDNESDAY 21/10/20 Survey Type: MANUAL 20 WY-01-C-01 FARMFOODS WEST YORKSHI RE WATERLOO TERRACE LEEDS BRAMLEY Neighbourhood Centre (PPS6 Local Centre) Retail Zone Total Gross floor area: 700 sqm Survey date: MONDAY 19/10/15 Survey Type: MANUAL	18	Total Gross floor area: <i>Survey date: WEDNESDAY</i> WS-01-C-01 LIDL WESTHAMPNETT ROAD CHICHESTER	2417 sqm <i>13/07/16</i>	<i>Survey Type: MANUAL</i> WEST SUSSEX	
Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 1616 sqm <i>Survey date: WEDWESDAY 21/10/20 Survey Type: MANUAL</i> 20 WY-01-C-01 FARMFOODS WEST YORKSHIRE WATERLOO TERRACE LEEDS BRAMLEY Neighbourhood Centre (PPS6 Local Centre) Retail Zone Total Gross floor area: 700 sqm <i>Survey date: MONDAY</i> 19/10/15 Survey Type: MANUAL	19	Edge of Town Retail Zone Total Gross floor area: <i>Survey date: TUESDAY</i> WS-01-C-02 LI DL FOUNDRY LANE HORSHAM	2125 sqm <i>20/10/20</i>	<i>Survey Type: MANUAL</i> WEST SUSSEX	
Total Gross floor area: 700 sqm Survey date: MONDAY 19/10/15 Survey Type: MANUAL	20	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: <i>Survey date: WEDNESDAY</i> WY-01-C-01 FARMFOODS WATERLOO TERRACE LEEDS BRAMLEY Neighbourhood Centre (PPS6 Local Centre) Patail Zone	1616 sqm <i>21/10/20</i>	<i>Survey Type: MANUAL</i> WEST YORKSHIRE	
		Total Gross floor area: Survey date: MONDAY	700 sqm <i>19/10/15</i>	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.

Entran Ltd Chapel Pill Lane Bristol

Page 7 Licence No: 337901

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES TOTAL VEHICLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1871	0.481	2	1871	0.000	2	1871	0.481
07:00 - 08:00	19	1930	0.458	19	1930	0.161	19	1930	0.619
08:00 - 09:00	20	1901	2.443	20	1901	1.620	20	1901	4.063
09:00 - 10:00	20	1901	3.243	20	1901	2.727	20	1901	5.970
10:00 - 11:00	20	1901	3.535	20	1901	3.285	20	1901	6.820
11:00 - 12:00	20	1901	3.977	20	1901	3.814	20	1901	7.791
12:00 - 13:00	20	1901	4.229	20	1901	4.213	20	1901	8.442
13:00 - 14:00	20	1901	4.187	20	1901	4.390	20	1901	8.577
14:00 - 15:00	20	1901	4.108	20	1901	4.263	20	1901	8.371
15:00 - 16:00	20	1901	4.077	20	1901	4.103	20	1901	8.180
16:00 - 17:00	20	1901	4.069	20	1901	4.208	20	1901	8.277
17:00 - 18:00	20	1901	3.772	20	1901	3.985	20	1901	7.757
18:00 - 19:00	20	1901	3.411	20	1901	3.645	20	1901	7.056
19:00 - 20:00	20	1901	2.543	20	1901	2.809	20	1901	5.352
20:00 - 21:00	20	1901	1.649	20	1901	2.033	20	1901	3.682
21:00 - 22:00	20	1901	0.734	20	1901	1.102	20	1901	1.836
22:00 - 23:00	16	2017	0.037	16	2017	0.229	16	2017	0.266
23:00 - 24:00									
Total Rates:			46.953			46.587			93.540

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:	700 - 2568 (units: sqm)
Survey date date range:	01/01/13 - 28/11/20
Number of weekdays (Monday-Friday):	20
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRICS 7.8.1 240321 B20.15 Database right	of TRICS Consortium Limited, 2021. All right	s reserved Thursday 01/04/21 Page 1
Entran Ltd Chapel Pill Lane Bristol		Licence No: 337901
Filtering Summary		
Land Use	03/C	RESIDENTIAL/FLATS PRIVATELY OWNED
Selected Trip Rate Calculation Parameter Range	e 6-493 DWELLS	
Actual Trip Rate Calculation Parameter Range	28-72 DWELLS	
Date Range	Minimum: 01/01/10	Maximum: 23/10/20
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	
Days of the week selected	Saturday	2
Main Location Types selected	Suburban Area (PPS6 Out of Centre) Edge of Town	1 1
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	5,001 to 10,000 25,001 to 50,000	1 1
Population <5 Mile ranges selected	125,001 to 250,000 250,001 to 500,000	1 1
Car Ownership <5 Mile ranges selected	1.1 to 1.5	2
PTAL Rating	No PTAL Present	2

_td (Chapel Pill Lane	Bristol		Licence No:
TRIP	RATE CALCULA	TION SELECTION P	ARAMETERS:	
Land				
Cateor	orv : C - FLA	ATS PRIVATELY OWNE	D	
TOT	AL VEHICLES			
Soloci	ted regions and a	araac.		
02	SOUTH EAST	neas.		
	SC SURREY		1 days	
05	EAST MIDLAND	DS HIRE	1 days	
This s	section displays th	he number of survey of	days per TRICS® sub-region in the selected set	
		<i>ie namie</i> ei ea reg a		
Prima	ary Filtering sel	lection:		
This a	data displays the d	chosen trip rate paran	meter and its selected range. Only sites that fall with	in the parameter range
are in	ncluded in the trip	rate calculation.	·····	
Param	neter:	No of Dwellings		
Actual	I Range:	28 to 72 (units:)	
Range	e Selected by Use	er: 6 to 493 (units:)	
Parkin	ng Spaces Range:	All Surveys Inclu	ıded	
Parkin	ng Spaces per Dw	elling Range: All Surv	veys Included	
Bedro	oms per Dwelling	g Range: All Surv	/eys Included	
Percer	ntage of dwelling	s privately owned.	All Surveys Included	
1 01 001		s privatory owned.		
<u>Public</u> Select	<u>Transport Provis</u>	<u>sion:</u>	Include all surveys	
001001	lion by:			
Date F	Range: 01	1/01/10 to 23/10/20		
This a	data displays the	range of survey dates	s selected. Only surveys that were conducted within t	his date range are
INCIUA	ded in the trip rate	e calculation.		
<u>Seleci</u>	ted survey days:			
Saturo	day		2 days	
This a	data displays the i	number of selected su	irveys by day of the week.	
Solar	tod curves time-			
Manua	al count	-	2 davs	
Direct	ional ATC Count		0 days	
This c	data disnlavs the	number of manual cla	psified surveys and the number of unclassified ΔTC s	urvevs the total adding
up to	the overall numb	ber of surveys in the se	elected set. Manual surveys are undertaken using sta	aff, whilst ATC surveys
are ur	ndertaking using l	machines.	5	· · · · · · · · · · · · · · · · · · ·
<u>Seleci</u>	ted Locations:			
Subur	ban Area (PPS6 0	Out of Centre)	1	
Edge o	of Town		1	
This a	data displays the i	number of surveys pe	er main location category within the selected set. The	main location categorie
consis	st of Free Standin	ng, Edge of Town, Sub	ourban Area, Neighbourhood Centre, Edge of Town Ce	entre, Town Centre and
Not Ki	nown.			
	ted Location Sub	Categories:		
Seleci		ourogeneer		
<u>Seleci</u> Reside	ential Zone	<u>earogenteer</u>	2	

Secondary Filtering selection:

Use Class: C3

2 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®.

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Flats SAT			Page 3
Entran Ltd	Chapel Pill Lane	Bristol	Licence No: 337901
Secor	ndary Filtering s	election (Cont.):	
Popula	ation within 1 mile	<u>,</u>	
5,001	to 10,000	1 days	
25,00	1 to 50,000	1 days	
This a	lata displays the r	number of selected surveys within stated 1-mile radii of population.	
Denvi	lation within F mil		
<u>200000</u>		<u>1. de se</u>	
125,0	01 to 250,000	1 days	
250,0	01 to 500,000	1 days	
This	data diaplaya tha r	number of colorted curveys within stated E-mile radii of population	
17//S C	iata displays the h	under of selected surveys within stated 5-mile radii of population.	
Car o	wnership within 5	miles:	
1.1 to	1.5	2 days	
This a	data displays the ri	number of selected surveys within stated ranges of average cars owned p	oer residential dwelling,
within	n a radius of 5-mile	es of selected survey sites.	

<u>*Travel Plan:*</u> No

2 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.

<u>PTAL Rating:</u> No PTAL Present

2 days

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

TRICS 7.8.1 Flats SAT	240321 B20.15	Database right of TRICS (Consortium Limited, 202	21. All rights reserved	Thursday 01/04/21 Page 4
Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
<u></u>	OF SITES relevant	t to selection parameters			
1	DS-03-C-02 BURTON ROAD DERBY NEW NORMANTO Suburban Area (F Pacidential Zapa	FLATS N PPS6 Out of Centre)		DERBYSHI RE	
	Total No of Dwell	ings:	28	0 T	
2	Survey da SC-03-C-04 LONDON ROAD GUILDFORD BURPHAM Edge of Town Residential Zone	<i>TE: SATURDAY</i> BLOCK OF FLATS	09/07/17	Survey Type: MANUAL SURREY	

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.

Survey Type: MANUAL

72 *23/10/10*

Total No of Dwellings: Survey date: SATURDAY Entran Ltd Chapel Pill Lane Bristol

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

	ARRIVALS		DEPARTURES		TOTALS				
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00							, and the second s		
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	2	50	0.010	2	50	0.030	2	50	0.040
08:00 - 09:00	2	50	0.000	2	50	0.060	2	50	0.060
09:00 - 10:00	2	50	0.020	2	50	0.090	2	50	0.110
10:00 - 11:00	2	50	0.100	2	50	0.070	2	50	0.170
11:00 - 12:00	2	50	0.080	2	50	0.100	2	50	0.180
12:00 - 13:00	2	50	0.080	2	50	0.140	2	50	0.220
13:00 - 14:00	2	50	0.170	2	50	0.210	2	50	0.380
14:00 - 15:00	2	50	0.120	2	50	0.130	2	50	0.250
15:00 - 16:00	2	50	0.140	2	50	0.080	2	50	0.220
16:00 - 17:00	2	50	0.170	2	50	0.090	2	50	0.260
17:00 - 18:00	2	50	0.080	2	50	0.060	2	50	0.140
18:00 - 19:00	2	50	0.170	2	50	0.090	2	50	0.260
19:00 - 20:00	1	72	0.111	1	72	0.097	1	72	0.208
20:00 - 21:00	1	72	0.083	1	72	0.069	1	72	0.152
21:00 - 22:00	1	72	0.083	1	72	0.042	1	72	0.125
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	-		1.417			1.358			2.775

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:	28 - 72 (units:)
Survey date date range:	01/01/10 - 23/10/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	2
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 show. 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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Entran Ltd Chapel Pill Lane Bristol		Licence No: 337901
Filtering Summary		
Land Use	03/C	RESIDENTIAL/FLATS PRIVATELY OWNED
Selected Trip Rate Calculation Parameter Range	e 6-493 DWELLS	
Actual Trip Rate Calculation Parameter Range	9-493 DWELLS	
Date Range	Minimum: 01/01/13	Maximum: 23/10/20
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	
Days of the week selected	Monday Tuesday Wednesday Thursday Friday	4 16 13 4 7
Main Location Types selected	Suburban Area (PPS6 Out of Centre) Edge of Town Neighbourhood Centre (PPS6 Local Centre)	29 7 8
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	1,001 to 5,000 5,001 to 10,000 10,001 to 15,000 15,001 to 20,000 20,001 to 25,000 25,001 to 50,000 50,001 to 100,000 100,001 or More	3 1 5 2 8 17 6 2
Population <5 Mile ranges selected	5,001 to 25,000 25,001 to 50,000 50,001 to 75,000 125,001 to 250,000 250,001 to 500,000 500,001 or More	1 1 6 6 8 22
Car Ownership <5 Mile ranges selected	0.5 or Less 0.6 to 1.0 1.1 to 1.5	3 25 16
PTAL Rating	No PTAL Present 1a (Low) Very poor 1b Very poor 2 Poor 3 Moderate 4 Good 5 Very Good 6a Excellent	28 2 1 4 3 1 2 3

Entran Ltd Chapel Pill Lane Bristol

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

<u>Selec</u>	<u>Selected regions and areas:</u>					
01	GREA	TER LONDON				
	BE	BEXLEY	1 days			
	ΒT	BRENT	2 days			
	EN	ENFIELD	3 davs			
	HG	HARINGEY	2 days			
	НК	HACKNEY	1 days			
	НО	HOUNSLOW	2 days			
	ΗV	HAVERING	1 days			
	IS	ISLINGTON	1 days			
	NH	NEWHAM	1 davs			
	RD	RICHMOND	1 days			
	SK	SOUTHWARK	1 davs			
	TH	TOWER HAMLETS	1 days			
02	SOUT	HEAST				
	ES	EAST SUSSEX	1 davs			
03	SOUT	H WEST				
	DC	DORSET	1 davs			
04	EAST	ANGLIA				
	CA	CAMBRIDGESHIRE	1 days			
	NF	NORFOLK	1 days			
	SF	SUFFOLK	2 days			
05	EAST	MIDLANDS	5			
	DS	DERBYSHIRE	1 days			
	LE	LEICESTERSHIRE	1 days			
	NT	NOTTINGHAMSHIRE	2 days			
07	YORK	SHI RE & NORTH LI NCOLNSHI RE				
	RI	EAST RIDING OF YORKSHIRE	1 days			
80	NORT	H WEST				
	MS	MERSEYSIDE	2 days			
09	NORT	Н				
	СВ	CUMBRIA	2 days			
11	SCOTI	LAND				
	EB	CITY OF EDINBURGH	1 days			
	SR	STIRLING	1 days			
12	CONN	AUGHT				
	GA	GALWAY	1 days			
13	MUNS	TER				
	WA	WATERFORD	1 days			
15	GREA	TER DUBLIN				
	DL	DUBLIN	7 days			
17	ULSTE	R (NORTHERN TRELAND)				
	AN	ANTRIM	T days			

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

Licence No: 337901

Chapel Pill Lane Entran Ltd Bristol

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: Actual Range: Range Selected by User:	No of Dwellings 9 to 493 (units:) 6 to 493 (units:)
Parking Spaces Range:	All Surveys Included
Parking Spaces per Dwellin	g 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 23/10/20

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.

<u>Selected survey days:</u>	
Monday	4 days
Tuesday	16 days
Wednesday	13 days
Thursday	4 days
Friday	7 days

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

<u>Selected survey types:</u>	
Manual count	44 days
Directional ATC Count	0 days

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

<u>Selected Locations:</u>	
Suburban Area (PPS6 Out of Centre)	29
Edge of Town	7
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:	
Industrial Zone	1
Development Zone	5
Residential Zone	29
Built-Up Zone	3
No Sub Category	6

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

44 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

Entran Ltd Chapel Pill Lane Bristol

Secondary Filtering selection (Cont.):

Population within 1 mile:	
1,001 to 5,000	3 days
5,001 to 10,000	1 days
10,001 to 15,000	5 days
15,001 to 20,000	2 days
20,001 to 25,000	8 days
25,001 to 50,000	17 days
50,001 to 100,000	6 days
100,001 or More	2 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	6 days
125,001 to 250,000	6 days
250,001 to 500,000	8 days
500,001 or More	22 days

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

Car ownership within 5 miles:	
0.5 or Less	3 days
0.6 to 1.0	25 days
1.1 to 1.5	16 days

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

<u>Travel Plan:</u>	
Yes	6 days
No	38 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.

Yes

28 days
2 days
1 days
4 days
3 days
1 days
2 days
3 days

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

Covid-19 Restrictions

At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
TRICS 7.8.1 Flats WD	240321 B20.15	Database right of TRICS Co	onsortium Limited, 2021	. All rights reserved	Thursday 01/04/21 Page 5
Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
LIST	OF SITES relevant i	to selection parameters			
1	AN-03-C-02 SUMMERHILL AVEN BELFAST KNOCK Edge of Town Residential Zone	BLOCK OF FLATS NUE		ANTRIM	
2	Total No of Dwellin <i>Survey date</i> BE-03-C-02 CLYDESDALE WAY BELVEDERE	gs: <i>e: FRIDAY</i> BLOCKS OF FLATS	22 <i>28/11/14</i>	<i>Survey Type: MANUAL</i> BEXLEY	
3	Edge of Town Industrial Zone Total No of Dwellin <i>Survey date</i> BT-03-C-01 LAKESIDE DRIVE PARK ROYAL	gs: <i>e: WEDNESDAY</i> BLOCKS OF FLATS	402 <i>19/09/18</i>	<i>Survey Type: MANUAL</i> BRENT	
4	Suburban Area (PP Development Zone Total No of Dwellin <i>Survey data</i> BT-03-C-02 ENGINEERS WAY WEMBLEY	S6 Out of Centre) gs: <i>e: WEDNESDAY</i> BLOCKS OF FLATS	170 <i>28/09/16</i>	<i>Survey Type: MANUAL</i> BRENT	
5	Suburban Area (PF Development Zone Total No of Dwellin <i>Survey dat</i> CA-03-C-03 CROMWELL ROAD CAMBRIDGE	S6 Out of Centre) gs: <i>e: WEDNESDAY</i> BLOCKS OF FLATS	472 <i>30/11/16</i>	<i>Survey Type: MANUAL</i> CAMBRI DGESHI RE	
6	Suburban Area (PP No Sub Category Total No of Dwellin <i>Survey dat</i> CB-03-C-02 BRIDGE LANE PENRITH	S6 Out of Centre) gs: <i>e: MONDAY</i> BLOCK OF FLATS	82 <i>18/09/17</i>	<i>Survey Type: MANUAL</i> CUMBRI A	
7	Edge of Town No Sub Category Total No of Dwellin <i>Survey dat</i> CB-03-C-03 LOUND STREET KENDAL	gs: <i>e: WEDNESDAY</i> FLATS & BUNGALOW:	35 <i>11/06/14</i> S	<i>Survey Type: MANUAL</i> CUMBRI A	
8	Suburban Area (PF Residential Zone Total No of Dwellin <i>Survey data</i> DC-03-C-02 PALM COURT WEYMOUTH SPA ROAD Suburban Area (PF	S6 Out of Centre) gs: <i>e: MONDAY</i> FLATS IN BLOCKS S6 Out of Centre)	33 <i>09/06/14</i>	<i>Survey Type: MANUAL</i> DORSET	
	Residential Zone Total No of Dwellin Survey date	gs: e: FRIDAY	14 <i>28/03/14</i>	Survey Type: MANUAL	

Entran Ltd Chapel Pill Lane Bristol Licence No: <i>LIST OF SITES roleband to selection guaranteers (Cont.)</i> 9 DL-03-C-11 BLOCK OF FLATS DUBLIN WYCKHAM WAY DUBLIN 10 DL-03-C-12 BLOCK OF FLATS DUBLIN 10 DL-03-C-12 BLOCK OF FLATS DUBLIN 5 <i>Survey table: TRSSDW</i> 12/02/13 DUBLIN 10 DU-03-C-12 BLOCK OF FLATS 10 DL-03-C-13 BLOCK OF FLATS 11 DL-03-C-13 BLOCK OF FLATS 12 DL-03-C-13 BLOCK OF FLATS 13 DL-03-C-13 BLOCK OF FLATS 14 DL-03-C-13 BLOCK OF FLATS 14 DL-03-C-13 BLOCK OF FLATS 15 DL-03-C-13 BLOCK OF FLATS 16 DL-03-C-13 BLOCK OF FLATS 17 DL-03-C-13 BLOCK OF FLATS 18 DL-03-C-13 BLOCK OF FLATS 19 DL-03-C-14 BLOCK OF FLATS 10 DL-03-C-15 BLOCK OF FLATS 10 DL-03-C-17 BLOCK OF FLATS 10 DL-03-C-18 BLOCK OF FLATS 11 DL-03-C-17 BLOCK OF FLATS 12 DL-03-C-18 BLOCK OF FLATS 13 DL-03-C-17 BLOCK OF FLATS 14 DL-03-C-17 BLOCK OF FLATS 14 DL-03-C-17 BLOCK OF FLATS 14 DL-03-C-17 BLOCKS OF FLATS 14 DL-03-C-17 BLOCKS OF FLATS 14 DL-03-C-16 BLOCKS OF FLATS 15 DL-03-C-17 BLOCKS OF FLATS 16 DL-03-C-16 BLOCKS OF FLATS 17 DL-03-C-17 BLOCKS OF FLATS 18 DLOS C-16 BLOCKS OF FLATS 19 DLBLIN 19 DLOBLIN 10 DL-03-C-17 BLOCKS OF FLATS 10 DUBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 11 DL-03-C-16 BLOCKS OF FLATS 12 DL-03-C-17 BLOCKS OF FLATS 13 DL-03-C-17 BLOCKS OF FLATS 14 DL-03-C-16 BLOCKS OF FLATS 15 DL-03-C-17 BLOCKS OF FLATS 16 DL-03-C-17 BLOCKS OF FLATS 17 DL-03-C-17 BLOCKS OF FLATS 18 DL-03-C-16 BLOCKS OF FLATS 19 DL-03-C-16 BLOCKS OF FLATS 10 DLBLIN 19 DLIN 10 DLIN 10 DLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DL-03-C-16 BLOCKS OF FLATS 10 DLC-03-C-17 BLOCKS OF FLATS 10 DLBLN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN 10 DLOBLIN	TRICS 7.8.1 Flats WD	240321 B20.15	Database right of	TRICS Consortiun	n Limited, 2021	. All rights reserved	Thursday 01/04/21 Page 6
LIST OF SITES relevant to selection parameters (Cont.) 9 DL-03-C-11 BLOCK OF FLATS DUBLIN 9 DL-03-C-11 BLOCK OF FLATS DUBLIN 9 DL-03-C-11 BLOCK OF FLATS DUBLIN 90 Survey 7000000000000000000000000000000000000	Entran Ltd	Chapel Pill Lane	Bristol				Licence No: 337901
9 DL-03-C-11 BLOCK OF FLATS DUBLIN DUBLIN DUBLIN DUBLIN DUBLIN Neighbourhood Centre (PPS6 Local Centro) Residential Zone Survey Value: TURSDAY TOVRP/13 Survey Type: MANUAL 10 DL-03-C-12 BLOCK OF FLATS DUBLIN DUBLIN Survey Value: TURSDAY TOVRP/13 Survey Value: TURSDAY 11 DL-03-C-13 BLOCK OF FLATS DUBLIN Survey Value: TURSDAY TOVRP/13 Survey Type: MANUAL DUBLIN Neighbourhood Centre (PPS6 Local Centre) Built-Up Zone Total No of Dwellings: 52 Survey Value: TURSDAY TOV07/3 Survey Type: MANUAL DUBLIN DUBLIN DUBLIN DUBLIN BUIL-UP Zone TOVROW DUBLIN DUBLIN DUBLIN DUBLIN BUIL-UP ZONE TOVROW Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 140 Survey Value: TURSDAY </td <td><u></u></td> <td>OF SITES relevant</td> <td>to selection paran</td> <td>neters (Cont.)</td> <td></td> <td></td> <td></td>	<u></u>	OF SITES relevant	to selection paran	neters (Cont.)			
Survey date: TUESDAY 10/09/13 Survey Type: MANUAL 10 DL-03-C-12 BLOCK OF FLATS DUBLIN DUBLIN Suburban Area (PPS6 Out of Centre) Residential Zone 47 Survey date: TUESDAY 10/09/13 Survey Type: MANUAL 11 DL-03-C-13 BLOCK OF FLATS DUBLIN DUBLIN SANDYFORD ROAD DUBLIN DUBLIN DUBLIN Naighbourhood Centre (PPS6 Local Centre) Built-Up Zone 52 Survey date: TUESDAY 10/09/13 Survey Type: Suburban Area (PPS6 Out of Centre) Built-Up Zone DUBLIN DUBLIN DUBLIN BLOCKS OF FLATS DUBLIN DUNDRUM Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 140 Survey Type: Suburban Area (PPS6 Out of Centre) Residential Zone TuESDAY Total No of Dwellings: 140 Survey Type: Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: Total No of Dwellings: 10/09/13 Survey Type: MONKSTOWN Roburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 20 Survey Type: Suburban Area (PPS6 Ou	9	DL-03-C-11 WYCKHAM WAY DUBLIN DUNDRUM Neighbourhood Co Residential Zone Total No of Dwelli	BLOCK OF FL entre (PPS6 Local (ngs:	ATS Centre) 96		DUBLIN	
Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 47 Survey Jape: MANUAL 11 DL-03-C-13 BLOCK OF FLATS DUBLIN Neighbourhood Centre (PPS6 Local Centre) Built-Up Zone Total No of Dwellings: 52 Survey Jape: MANUAL DL-03-C-14 BLOCKS OF FLATS DUBLIN DUBLIN DUBLIN DUBLIN DUBLIN SAUDY SAUDY SURVEY Jape: MANUAL DUBLIN DUBLIN DUBLIN DUBLIN Survey Jape: MANUAL DUBLIN DUBLIN DUBLIN Survey Jape: MANUAL DUBLIN DUBLIN DUBLIN Survey Jape: MANUAL DUBLIN DUBLIN DUBLIN DUBLIN Survey Jape: MANUAL DUBLIN DUBLIN DUBLIN MONKSTOWN ROAD DUBLIN MONKSTOWN ROAD DUBLIN Survey Jape: MANUAL DUBLIN MONKSTOWN ROAD DUBLIN Survey Jape: MANUAL DUBLIN MONKSTOWN ROAD DUBLIN Survey Jape: MANUAL DUBLIN MONKSTOWN ROAD DUBLIN Survey Jape: MANUAL DUBLIN MONKSTOWN ROAD DUBLIN Survey Jape: MANUAL DUBLIN Survey Jape: MANUAL DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS SUMUAN Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 31 Survey Jape: MANUAL DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN FINGLAS SUMUAN Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 31 Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 31 Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 32 Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 32 Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 32 Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 32 Suburban Area (PPS6 Out of Centre) Residential Zone Total	10	<i>Survey da</i> DL-03-C-12 BOOTERSTOWN A DUBLIN	<i>te: TUESDAY</i> BLOCK OF FL VENUE	<i>10/09/</i> ATS	/13	<i>Survey Type: MANUAL</i> DUBLIN	
Image: Sanoty-Ford Road Dublin BODERN Sanoty-Ford Road Dublin Neighbourhood Centre (PPS6 Local Centre) Built-Up Zone 52 Total No of Dwellings: 52 Survey date: TUESDAY 10/09/13 Survey Type: MANUAL DUBLIN DUBLIN DUBLIN DUBLIN DUBLIN DUBLIN DUBLIN DUBLIN DUBLIN DUBLIN DUNDRUM Survey date: TUESDAY 13 DL-03:-C-15 BLOCKS OF FLATS MONKSTOWN ROAD DUBLIN MONKSTOWN Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: Total No of Dwellings: 20 Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 31 Suburban Area (PPS6 Out of Centre) Residential Zone 31	11	Suburban Area (P Residential Zone Total No of Dwelli <i>Survey da</i>	PS6 Out of Centre) ngs: <i>te: TUESDAY</i>) 47 <i>10/09/</i> ATS	/13	Survey Type: MANUAL	
Neighbourhood Centre (PPS6 Local Centre) Built-Up Zone 52 Survey date: TUESDAY 10/09/13 Survey Type: MANUAL 12 DL-03-C-14 BLOCKS OF FLATS DUBLIN DUNDRUM Suburban Area (PPS6 Out of Centre) Residential Zone 140 Total No of Dwellings: 140 Survey date: TUESDAY 10/09/13 Survey Type: MANUAL DUNDRUM Suburban Area (PPS6 Out of Centre) BLOCKS OF FLATS DUBLIN MONKSTOWN ROAD DUBLIN DUBLIN DUBLIN Survey date: WEDMESDAY 01/09/13 Survey Type: MANUAL DUBLIN MONKSTOWN ROAD DUBLIN DUBLIN MONKSTOWN ROAD DUBLIN DUBLIN DUBLIN MONKSTOWN ROAD 20 Survey date: WEDMESDAY 01/10/14 Survey Type: MANUAL 14 DL-03-C-16 BLOCKS OF FLATS DUBLIN DUBLIN BOTANIC AVENUE DUBLIN Suburban Area (PPS6 Out of Centre) Survey Type: MANUAL 14 DL-03-C-17 BLOCKS OF FLATS DUBLIN 15 DL-03-C-17 BLOCKS OF FLATS DUBLIN 15 DL-03-C-17 BLOCKS OF FLATS DUBL		SANDYFORD ROA DUBLIN	D	A13		DOBEIN	
12 DL-03-C-14 BLOCKS OF FLATS DUBLIN BALLINTEER ROAD DUBLIN DUNDRUM Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 140 Survey date: TUESDAY T0/09/13 Survey Type: MANUAL 13 DL-03-C-15 BLOCKS OF FLATS DUBLIN MONKSTOWN ROAD DUBLIN MONKSTOWN Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 20 Survey date: WEDNESDAY 01/10/14 Survey Type: MANUAL 14 DL-03-C-16 BLOCKS OF FLATS DUBLIN MONKSTOWN Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 20 Survey Type: MANUAL 14 DL-03-C-16 BLOCKS OF FLATS DUBLIN DBUBLIN DRUMCONDRA Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 31 Survey Type: MANUAL 15 DL-03-C-17 BLOCKS OF FLATS DUBLIN FINGLAS ROAD DUBLIN FINGLAS ROAD DUBLIN Suburban Area (PPS6 Out of Centre)<		Neighbourhood Co Built-Up Zone Total No of Dwelli <i>Survey da</i>	entre (PPS6 Local (ngs: <i>te: TUESDAY</i>	Centre) 52 <i>10/09,</i>	/13	Survey Type: MANUAL	
Total No of Dwellings:140Survey date: TUESDAY10/09/13Survey Type: MANUAL13DL-03-C-15BLOCKS OF FLATSDUBLINMONKSTOWN ROADDUBLINMONKSTOWNMONKSTOWNSuburban Area (PPS6 Out of Centre)Residential ZoneTotal No of Dwellings:20Survey date: WEDNESDAY01/10/14Survey date: WEDNESDAY01/10/14BOTANIC AVENUEDUBLINBOTANIC AVENUEDUBLINDUBLINBOTANIC AVENUEDUBLINBOTANIC AVENUEDUBLINBOTANIC AVENUEDUBLINResidential ZoneTotal No of Dwellings:31Suburban Area (PPS6 Out of Centre)Residential Zone31Survey date: TUESDAY22/11/16Survey Type: MANUAL15DL-03-C-17BLOCKS OF FLATSDUBLINFINGLAS ROADDUBLINDUBLINSuburban Area (PPS6 Out of Centre)Residential Zone31Survey date: TUESDAY22/11/16Survey Type: MANUAL15DL-03-C-17BLOCKS OF FLATSDUBLINFINGLASSuburban Area (PPS6 Out of Centre)Residential Zone332Suburban Area (PPS6 Out of Centre)Residential Zone332Survey Type: MANUAL50DUBLINBLOCKS OF FLATSDERDSHI RE16DS-03-C-03BLOCKS OF FLATSDERBYSHI RE	12	DL-03-C-14 BALLINTEER ROA DUBLIN DUNDRUM Suburban Area (P Residential Zone	BLOCKS OF F D PS6 Out of Centre)	LATS		DUBLIN	
Residential Zone Total No of Dwellings: 20 <i>Survey date: WEDNESDAY</i> 01/10/14 <i>Survey Type: MANUAL</i> 14 DL-03-C-16 BLOCKS OF FLATS DUBLIN BOTANIC AVENUE DUBLIN DRUMCONDRA Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 31 <i>Survey date: TUESDAY</i> 22/11/16 <i>Survey Type: MANUAL</i> 15 DL-03-C-17 BLOCKS OF FLATS DUBLIN FINGLAS ROAD DUBLIN FINGLAS Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 332 <i>Survey date: FRIDAY</i> 23/10/20 <i>Survey Type: MANUAL</i> 16 DS-03-C-03 BLOCKS OF FLATS DERBYSHI RE	13	Total No of Dwelli Survey da DL-03-C-15 MONKSTOWN RO DUBLIN MONKSTOWN Suburban Area (P	ngs: <i>te: TUESDAY</i> BLOCKS OF F AD PS6 Out of Centre)	140 <i>10/09,</i> LATS	/13	<i>Survey Type: MANUAL</i> DUBLIN	
BOTANIC AVENUE DUBLIN DRUMCONDRA Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 31 <i>Survey date: TUESDAY</i> 22/11/16 Survey Type: MANUAL 15 DL-03-C-17 BLOCKS OF FLATS DUBLIN FINGLAS ROAD DUBLIN FINGLAS Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 332 <i>Survey date: FRIDAY</i> 23/10/20 Survey Type: MANUAL 16 DS-03-C-03 BLOCKS OF FLATS DERBYSHIRE CAESAR STREET	14	Residential Zone Total No of Dwelli <i>Survey da</i> DL-03-C-16	ngs: <i>te: WEDNESDAY</i> BLOCKS OF F	20 <i>01/10/</i> LATS	/14	<i>Survey Type: MANUAL</i> DUBLIN	
Survey date: TUESDAY 22/11/16 Survey Type: MANUAL 15 DL-03-C-17 BLOCKS OF FLATS DUBLIN FINGLAS ROAD DUBLIN FINGLAS Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: Total No of Dwellings: 332 Survey date: FRIDAY 23/10/20 Survey Type: MANUAL 16 DS-03-C-03 BLOCKS OF FLATS DERBYSHI RE		BOTANIC AVENUE DUBLIN DRUMCONDRA Suburban Area (P Residential Zone Total No of Dwelli	E PS6 Out of Centre; ngs:) 31			
Total No of Dwellings:332Survey date: FRIDAY23/10/2016DS-03-C-03BLOCKS OF FLATSCAESAR STREETDERBYSHI RE	15	SUrvey da DL-03-C-17 FINGLAS ROAD DUBLIN FINGLAS Suburban Area (P Residential Zone	BLOCKS OF F	22/11/ LATS	/16	Survey Type: MANUAL DUBLIN	
DERBY	16	Total No of Dwelli <i>Survey da</i> DS-03-C-03 CAESAR STREET DERBY	ngs: <i>te: FRIDAY</i> BLOCKS OF F	332 <i>23/10,</i> LATS	/20	<i>Survey Type: MANUAL</i> DERBYSHIRE	
Suburban Area (PPS6 Out of Centre)Residential ZoneTotal No of Dwellings:30Survey date: WEDNESDAY25/09/19Survey Type: MANUAL		Suburban Area (P Residential Zone Total No of Dwelli <i>Survey da</i>	PS6 Out of Centre) ngs: <i>te: WEDNESDAY</i>) 30 <i>25/09/</i>	/19	Survey Type: MANUAL	

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Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
<u>LIST</u>	OF SITES relevant	to selection paramete	ers (Cont.)		
17	EB-03-C-01 MYRESIDE ROAD EDINBURGH CRAIGLOCKHART Suburban Area (P Residential Zone	BLOCKS OF FLA	ΓS	CITY OF EDINBURGH	
18	Total No of Dwellin Survey day EN-03-C-01 SOUTH STREET ENFIELD	ngs: <i>te: TUESDAY</i> BLOCK OF FLATS	32 <i>26/05/15</i> 5	<i>Survey Type: MANUAL</i> ENFIELD	
19	Suburban Area (P Built-Up Zone Total No of Dwellin <i>Survey da</i> . EN-03-C-02 CARTERHATCH LA ENFIELD FORTY HILL	PS6 Out of Centre) ngs: <i>te: MONDAY</i> BLOCKS OF FLA ^T NE	16 <i>16/11/15</i> TS	<i>Survey Type: MANUAL</i> ENFIELD	
20	Edge of Town Residential Zone Total No of Dwellin <i>Survey da</i> EN-03-C-03 NORTH CIRCULAR PALMERS GREEN	ngs: <i>te: FRIDAY</i> BLOCKS OF FLA [®] ROAD	76 <i>10/11/17</i> TS	<i>Survey Type: MANUAL</i> ENFIELD	
21	Suburban Area (P Residential Zone Total No of Dwellin <i>Survey da</i> ES-03-C-01 OLD SHOREHAM F BRIGHTON	PS6 Out of Centre) ngs: <i>te: WEDNESDAY</i> BLOCK OF FLATS RD	18 <i>08/11/17</i> 5	<i>Survey Type: MANUAL</i> EAST SUSSEX	
22	Suburban Area (P Residential Zone Total No of Dwellin <i>Survey da</i> GA-03-C-01 BALLYLOUGHANE GALWAY	PS6 Out of Centre) ngs: <i>te: TUESDAY</i> FLATS ROAD	71 <i>26/09/17</i>	<i>Survey Type: MANUAL</i> GALWAY	
23	Suburban Area (P No Sub Category Total No of Dwellin <i>Survey da</i> HG-03-C-01 BREAM CLOSE TOTTENHAM HALE	PS6 Out of Centre) ngs: <i>te: THURSDAY</i> BLOCKS OF FLA ⁻	34 <i>31/10/13</i> TS	<i>Survey Type: MANUAL</i> HARINGEY	
24	Neighbourhood Ce Residential Zone Total No of Dwellin <i>Survey da</i> HG-03-C-02 HIGH ROAD WOOD GREEN WOOD GREEN WOODSIDE PARK Suburban Area (P	entre (PPS6 Local Cen ngs: <i>te: TUESDAY</i> BLOCK OF FLATS PS6 Out of Centre)	tre) 255 <i>18/06/19</i> S	<i>Survey Type: MANUAL</i> HARINGEY	
	Residential Zone Total No of Dwellin <i>Survey da</i>	ngs: <i>te: WEDNESDAY</i>	30 <i>01/10/14</i>	Survey Type: MANUAL	

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Entran Ltd	Chapel Pill Lane	Bristol			Licence No: 337901
<u>LIST</u>	OF SITES relevant	to selection parameters	<u>(Cont.)</u>		
25	HK-03-C-03 GREEN LANES FINSBURY PARK MANOR HOUSE Suburban Area (PF Residential Zone	BLOCK OF FLATS PS6 Out of Centre)		HACKNEY	
26	Total No of Dwellir Survey dat HO-03-C-04 LONDON ROAD ISLEWORTH	ngs: <i>te: WEDNESDAY</i> BLOCKS OF FLATS	10 <i>24/09/14</i>	<i>Survey Type: MANUAL</i> HOUNSLOW	
27	Neighbourhood Ce Residential Zone Total No of Dwellir <i>Survey dat</i> HO-03-C-05	ntre (PPS6 Local Centre) ngs: <i>e: TUESDAY</i> BLOCK OF FLATS) 203 <i>03/07/18</i>	<i>Survey Type: MANUAL</i> HOUNSLOW	
_,	PARK LANE HOUNSLOW CRANFORD Edge of Town Residential Zone Total No of Dwellir	ngs:	14		
28	Survey dat HV-03-C-02 WATERLOO ROAD ROMFORD	<i>e: FRIDAY</i> BLOCKS OF FLATS	06/03/20	<i>Survey Type: MANUAL</i> HAVERING	
29	Suburban Area (PF Built-Up Zone Total No of Dwellir <i>Survey dat</i> I S-03-C-03 FLORENCE STREET ISLINGTON	PS6 Out of Centre) ngs: <i>e: TUESDAY</i> BLOCK OF FLATS	493 <i>22/11/16</i>	<i>Survey Type: MANUAL</i> I SLINGTON	
30	Suburban Area (PF Residential Zone Total No of Dwellir <i>Survey dat</i> LE-03-C-01 NEW STREET LEICESTER OADBY Neighbourhood Ce	PS6 Out of Centre) ngs: <i>'e: THURSDAY</i> BLOCK OF FLATS ontre (PPS6 Local Centre)	9 21/11/13	<i>Survey Type: MANUAL</i> LEICESTERSHIRE	
31	Residential Zone Total No of Dwellir <i>Survey dat</i> MS-03-C-02 SOUTH FERRY OU	ngs: <i>e: FRIDAY</i> BLOCKS OF FLATS	19 <i>16/10/20</i>	<i>Survey Type: MANUAL</i> MERSEYSI DE	
32	LIVERPOOL BRUNSWICK DOCH Suburban Area (PF Development Zone Total No of Dwellir <i>Survey dat</i> MS-03-C-03	<pre> Solution of Centre) Solution of Centre) solution solution</pre>	184 <i>13/11/18</i>	<i>Survey Type: MANUAL</i> MERSEYSI DE	
	MARINERS WHARF LIVERPOOL QUEENS DOCK Suburban Area (PF Development Zone Total No of Dwellir <i>Survey dat</i>	PS6 Out of Centre) e ngs: <i>'e: TUESDAY</i>	9 13/11/18	Survey Type: MANUAL	

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Entran Ltd	Chapel Pill Lane	Bristol				Licence No: 337901
<u>LIST</u>	OF SITES relevant	to selection para	meters (Con	<u>nt.)</u>		
33	NF-03-C-02 HALL ROAD NORWICH LAKENHAM Suburban Area (P	MIXED FLAT PS6 Out of Centro	FS & HOUSE	ES	NORFOLK	
34	Residential Zone Total No of Dwelli <i>Survey da</i> NH-03-C-01 ARTHINGWORTH STRATFORD	ngs: <i>hte: MONDAY</i> BLOCK OF F STREET	LATS	82 <i>18/11/19</i>	<i>Survey Type: MANUAL</i> NEWHAM	
35	Neighbourhood Co Residential Zone Total No of Dwelli <i>Survey da</i> NT-03-C-01 LAWRENCE WAY NOTTINGHAM	entre (PPS6 Local ngs: <i>hte: THURSDAY</i> HOUSES (SF	Centre) PLIT INTO F	12 <i>14/11/13</i> FLATS)	<i>Survey Type: MANUAL</i> NOTTI NGHAMSHI RE	
36	Suburban Area (P No Sub Category Total No of Dwelli <i>Survey da</i> NT-03-C-02 CASTLE MARINA I NOTTINGHAM	PPS6 Out of Centro ngs: <i>hte: TUESDAY</i> HOUSES (SF ROAD	e) Plit into f	56 <i>08/11/16</i> FLATS)	<i>Survey Type: MANUAL</i> NOTTI NGHAMSHI RE	
37	Suburban Area (P No Sub Category Total No of Dwelli <i>Survey da</i> RD-03-C-04 BESSANT DRIVE KEW	PPS6 Out of Centro ngs: <i>ite: WEDNESDAY</i> BLOCKS OF	e) FLATS	135 <i>09/11/16</i>	<i>Survey Type: MANUAL</i> RICHMOND	
38	Suburban Area (P Residential Zone Total No of Dwelli <i>Survey da</i> RI-03-C-01 465 PRIORY ROAI HULL	PPS6 Out of Centro ngs: <i>nte: WEDNESDAY</i> FLATS D	e)	170 <i>15/05/19</i>	<i>Survey Type: MANUAL</i> EAST RIDING OF YORKSI	HI RE
39	Edge of Town Residential Zone Total No of Dwelli <i>Survey da</i> SF-03-C-03 TOLLGATE LANE BURY ST EDMUNE	ngs: <i>ite: TUESDAY</i> BLOCKS OF	FLATS	20 <i>13/05/14</i>	<i>Survey Type: MANUAL</i> SUFFOLK	
40	Suburban Area (P Residential Zone Total No of Dwelli <i>Survey da</i> SF-03-C-04 SAINT MARY'S RC IPSWICH	PPS6 Out of Centro ngs: <i>hte: WEDNESDAY</i> BLOCKS OF DAD	e) FLATS	30 <i>03/12/14</i>	<i>Survey Type: MANUAL</i> SUFFOLK	
	Suburban Area (P Residential Zone Total No of Dwelli <i>Survey da</i>	PPS6 Out of Centro ngs: htte: WEDNESDAY	e)	56 <i>16/09/20</i>	Survey Type: MANUAL	

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	ac airca (
<u></u>	OF STIES relevant	to selection parameters (C	<u>'ont.)</u>		
41	SK-03-C-03 MARITIME STREE SURREY QUAYS	BLOCKS OF FLATS T		SOUTHWARK	
	Neighbourhood Ce Development Zon Total No of Dwellin Survey da	entre (PPS6 Local Centre) e ngs: te: THURSDAY	233 <i>14/11/19</i>	Survey Type: MANIIAI	
42	SR-03-C-03 KERSEBONNY RO/ STIRLING CAMBUSBARRON Edge of Town Residential Zone	BLOCK OF FLATS & T AD	ERRACED	STIRLING	
	Total No of Dwelli	ngs:	82		
43	Survey da TH-03-C-04 LEVEN ROAD POPLAR ABERFELDY VILLA Neighbourhood Ce No Sub Category	AGE entre (PPS6 Local Centre)	01/09/20	<i>Survey Type: MANUAL</i> TOWER HAMLETS	
44	Total No of Dwelli Survey day WA-03-C-01 UPPER YELLOW RE WATERFORD	ngs: <i>te: FRIDAY</i> BLOCKS OF FLATS OAD	83 <i>21/06/19</i>	<i>Survey Type: MANUAL</i> WATERFORD	
	Suburban Area (P Residential Zone Total No of Dwelli <i>Survey da</i>	PS6 Out of Centre) ngs: <i>te: TUESDAY</i>	51 <i>12/05/15</i>	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.

Licence No: 337901

Entran Ltd Chapel Pill Lane Bristol

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

		ARRIVALS			DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	44	101	0.036	44	101	0.122	44	101	0.158
08:00 - 09:00	44	101	0.047	44	101	0.156	44	101	0.203
09:00 - 10:00	44	101	0.059	44	101	0.068	44	101	0.127
10:00 - 11:00	44	101	0.048	44	101	0.061	44	101	0.109
11:00 - 12:00	44	101	0.046	44	101	0.060	44	101	0.106
12:00 - 13:00	44	101	0.057	44	101	0.063	44	101	0.120
13:00 - 14:00	44	101	0.059	44	101	0.066	44	101	0.125
14:00 - 15:00	44	101	0.067	44	101	0.059	44	101	0.126
15:00 - 16:00	44	101	0.077	44	101	0.058	44	101	0.135
16:00 - 17:00	44	101	0.092	44	101	0.059	44	101	0.151
17:00 - 18:00	44	101	0.126	44	101	0.064	44	101	0.190
18:00 - 19:00	44	101	0.125	44	101	0.073	44	101	0.198
19:00 - 20:00	10	184	0.099	10	184	0.053	10	184	0.152
20:00 - 21:00	10	184	0.075	10	184	0.039	10	184	0.114
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.013			1.001			2.014

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:	9 - 493 (units:)
Survey date date range:	01/01/13 - 23/10/20
Number of weekdays (Monday-Friday):	44
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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



APPENDIX G



Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519

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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the

solution

Filename: A4106 Portway Rbt.j10 Path: E:\clients\EnTran\ALDI Porthcawl Report generation date: 27/04/2021 09:57:35

»2018 Existing, AM »2018 Existing, PM 4-5 »2018 Existing, PM 5-6 »2018 Existing, SAT »2022 Base, AM »2022 Base, PM 4-5 »2022 Base, PM 5-6 »2022 Base, SAT »2022 Base + Dev, AM »2022 Base + Dev, PM 4-5 »2022 Base + Dev, PM 5-6 »2022 Base + Dev, SAT »2027 Base, AM »2027 Base, PM 4-5 »2027 Base, PM 5-6 »2027 Base, SAT »2027 Base + Dev, AM »2027 Base + Dev, PM 4-5 »2027 Base + Dev, PM 5-6 »2027 Base + Dev, SAT



Summary of junction performance

		AM		PN	1 4-5		PM 5-6			SAT		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
				-	2	018 E	xisting			-		
1 - A4106 (N)	0.5	2.65	0.35	0.3	2.20	0.23	0.3	2.17	0.22	0.4	2.37	0.27
2 - Eastern Promenade	0.3	4.39	0.26	0.3	3.84	0.23	0.2	3.66	0.19	0.3	4.04	0.25
3 - Site	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00
4 - The Portway	0.5	4.83	0.34	0.3	4.19	0.25	0.3	4.12	0.26	0.4	4.27	0.26
5 - Hillsboro Place CP	0.0	3.45	0.02	0.1	3.42	0.07	0.1	3.37	0.06	0.1	3.51	0.09
6 - Lias Rd	0.3	4.19	0.26	0.4	4.09	0.27	0.4	4.12	0.27	0.4	4.26	0.28
				2022 Base								
1 - A4106 (N)	0.6	2.74	0.37	0.3	2.25	0.25	0.3	2.22	0.23	0.4	2.44	0.29
2 - Eastern Promenade	0.4	4.55	0.27	0.3	3.95	0.25	0.3	3.74	0.20	0.4	4.18	0.27
3 - Site	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00
4 - The Portway	0.6	5.01	0.36	0.4	4.31	0.27	0.4	4.23	0.27	0.4	4.40	0.28
5 - Hillsboro Place CP	0.0	3.51	0.02	0.1	3.49	0.08	0.1	3.44	0.07	0.1	3.58	0.10
6 - Lias Rd	0.4	4.32	0.27	0.4	4.23	0.28	0.4	4.26	0.29	0.4	4.42	0.30
					202	22 Ba	se + Dev					
1 - A4106 (N)	0.6	2.83	0.39	0.4	2.37	0.28	0.4	2.34	0.26	0.5	2.63	0.33
2 - Eastern Promenade	0.4	4.72	0.28	0.4	4.17	0.26	0.3	3.95	0.22	0.4	4.54	0.30
3 - Site	0.1	4.83	0.09	0.1	4.36	0.12	0.1	4.22	0.11	0.3	5.04	0.20
4 - The Portway	0.6	5.18	0.37	0.4	4.50	0.28	0.4	4.41	0.28	0.4	4.75	0.30
5 - Hillsboro Place CP	0.0	3.61	0.02	0.1	3.64	0.08	0.1	3.57	0.07	0.1	3.85	0.11
6 - Lias Rd	0.4	4.51	0.29	0.4	4.51	0.31	0.5	4.54	0.31	0.5	4.92	0.34
						2027	Base					
1 - A4106 (N)	0.6	2.83	0.39	0.3	2.30	0.26	0.3	2.26	0.24	0.4	2.51	0.30
2 - Eastern Promenade	0.4	4.72	0.29	0.3	4.05	0.26	0.3	3.82	0.22	0.4	4.33	0.29
3 - Site	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00
4 - The Portway	0.6	5.20	0.38	0.4	4.43	0.29	0.4	4.33	0.29	0.4	4.55	0.30
5 - Hillsboro Place CP	0.0	3.58	0.02	0.1	3.56	0.08	0.1	3.49	0.07	0.1	3.67	0.11
6 - Lias Rd	0.4	4.46	0.29	0.4	4.37	0.30	0.4	4.40	0.31	0.5	4.59	0.32
					202	27 Ba	se + Dev					
1 - A4106 (N)	0.7	2.93	0.41	0.4	2.42	0.29	0.4	2.39	0.28	0.5	2.72	0.35
2 - Eastern Promenade	0.4	4.90	0.30	0.4	4.28	0.28	0.3	4.03	0.23	0.5	4.72	0.32
3 - Site	0.1	4.97	0.09	0.1	4.44	0.12	0.1	4.29	0.11	0.3	5.18	0.21
4 - The Portway	0.6	5.39	0.39	0.4	4.63	0.30	0.4	4.52	0.30	0.5	4.91	0.31
5 - Hillsboro Place CP	0.0	3.68	0.02	0.1	3.70	0.09	0.1	3.62	0.07	0.1	3.95	0.11
6 - Lias Rd	0.4	4.65	0.31	0.5	4.67	0.33	0.5	4.69	0.33	0.6	5.13	0.36

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	A4106 Portway Rbt
Location	Porthcawl
Site number	
Date	06/04/2021
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	al
Description	



Units

Distance units S	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	S	-Hour	perHour
Distance units S m	kph	Traffic units input Veh	Traffic units results Veh	Flow units perHour	Average delay units s	Total delay units -Hour	N I N I N I N I N I N I N I N I N I N I
	9 \$ 2 9 5 THING	a to the co		The Port	way	3. Gile	Promenade 15 16 18 17 18

Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500



Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Existing	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Existing	PM 4-5	ONE HOUR	15:45	17:15	15	✓
D3	2018 Existing	PM 5-6	ONE HOUR	15:45	17:15	15	~
D4	2018 Existing	SAT	ONE HOUR	11:45	13:15	15	✓
D5	2022 Base	AM	ONE HOUR	07:45	09:15	15	✓
D6	2022 Base	PM 4-5	ONE HOUR	15:45	17:15	15	~
D7	2022 Base	PM 5-6	ONE HOUR	15:45	17:15	15	✓
D8	2022 Base	SAT	ONE HOUR	11:45	13:15	15	✓
D9	2022 Base + Dev	AM	ONE HOUR	07:45	09:15	15	~
D10	2022 Base + Dev	PM 4-5	ONE HOUR	15:45	17:15	15	~
D11	2022 Base + Dev	PM 5-6	ONE HOUR	15:45	17:15	15	~
D12	2022 Base + Dev	SAT	ONE HOUR	11:45	13:15	15	~
D13	2027 Base	AM	ONE HOUR	07:45	09:15	15	~
D14	2027 Base	PM 4-5	ONE HOUR	15:45	17:15	15	~
D15	2027 Base	PM 5-6	ONE HOUR	15:45	17:15	15	✓
D16	2027 Base	SAT	ONE HOUR	11:45	13:15	15	~
D17	2027 Base + Dev	AM	ONE HOUR	07:45	09:15	15	~
D18	2027 Base + Dev	PM 4-5	ONE HOUR	15:45	17:15	15	~
D19	2027 Base + Dev	PM 5-6	ONE HOUR	15:45	17:15	15	~
D20	2027 Base + Dev	SAT	ONE HOUR	11:45	13:15	15	~

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)	
A1	~	100.000	100.000	



2018 Existing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.69	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A4106 (N)		
2	Eastern Promenade		
3	Site		
4	The Portway		
5	Hillsboro Place CP		
6	Lias Rd		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A4106 (N)	7.31	8.67	2.8	19.0	88.0	42.0		
2 - Eastern Promenade	3.56	6.72	8.9	18.1	88.0	47.0		
3 - Site	3.65	4.73	2.9	20.0	88.0	34.0		
4 - The Portway	5.00	7.39	3.6	18.7	88.0	55.0		
5 - Hillsboro Place CP	4.17	5.58	5.3	16.9	88.0	41.0		
6 - Lias Rd	3.66	6.01	7.9	18.2	88.0	41.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
4 - The Portway	6.00	3.00	2.00	3.00	6.00	8.00	30.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A4106 (N)	0.530	2271
2 - Eastern Promenade	0.406	1429
3 - Site	0.390	1238
4 - The Portway	0.423	1589
5 - Hillsboro Place CP	0.409	1424
6 - Lias Rd	0.408	1410

The slope and intercept shown above include any corrections and adjustments.



Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2018 Existing	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	~	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	✓	668	100.000
2 - Eastern Promenade		ONE HOUR	✓	255	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	350	100.000
5 - Hillsboro Place CP		ONE HOUR	✓	20	100.000
6 - Lias Rd		ONE HOUR	~	272	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		

Origin-Destination Data

Demand (Veh/hr)

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	73	0	321	43	231
	2 - Eastern Promenade	184	0	2	34	7	28
From	3 - Site	2	0	0	0	0	0
	4 - The Portway	247	60	0	0	8	35
	5 - Hillsboro Place CP	7	3	0	6	0	4
	6 - Lias Rd	117	93	0	53	9	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	3	0	2
	2 - Eastern Promenade	1	0	0	6	0	7
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	3
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	2	2	0	2	0	0



Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.35	2.65	0.5	А	613	919
2 - Eastern Promenade	0.26	4.39	0.3	А	234	351
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.34	4.83	0.5	А	321	482
5 - Hillsboro Place CP	0.02	3.45	0.0	A	18	28
6 - Lias Rd	0.26	4.19	0.3	A	250	374

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	503	126	168		2135	0.236	502	416	0.0	0.3	2.203	A
2 - Eastern Promenade	192	48	498		1195	0.161	191	172	0.0	0.2	3.585	A
3 - Site	0	0	688		964	0.000	0	1	0.0	0.0	0.000	A
4 - The Portway	263	66	377	150.57	1205	0.219	262	311	0.0	0.3	3.812	A
5 - Hillsboro Place CP	15	4	589		1180	0.013	15	50	0.0	0.0	3.089	A
6 - Lias Rd	205	51	380		1231	0.166	204	224	0.0	0.2	3.504	А

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	601	150	201		2118	0.284	600	498	0.3	0.4	2.372	А
2 - Eastern Promenade	229	57	596		1155	0.198	229	206	0.2	0.2	3.886	A
3 - Site	0	0	823		910	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	315	79	451	179.80	1174	0.268	314	372	0.3	0.4	4.185	A
5 - Hillsboro Place CP	18	4	705		1132	0.016	18	60	0.0	0.0	3.230	A
6 - Lias Rd	245	61	455		1201	0.204	244	268	0.2	0.3	3.763	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	735	184	246		2094	0.351	735	610	0.4	0.5	2.646	A
2 - Eastern Promenade	281	70	729		1101	0.255	280	252	0.2	0.3	4.385	A
3 - Site	0	0	1008		836	0.000	0	2	0.0	0.0	0.000	А
4 - The Portway	385	96	552	220.20	1130	0.341	385	455	0.4	0.5	4.828	A
5 - Hillsboro Place CP	22	6	863		1067	0.021	22	74	0.0	0.0	3.445	А
6 - Lias Rd	299	75	557		1160	0.258	299	328	0.3	0.3	4.180	А



08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	735	184	247		2094	0.351	735	611	0.5	0.5	2.649	A
2 - Eastern Promenade	281	70	730		1101	0.255	281	252	0.3	0.3	4.390	A
3 - Site	0	0	1009		836	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	385	96	553	220.20	1134	0.340	385	456	0.5	0.5	4.808	A
5 - Hillsboro Place CP	22	6	864		1066	0.021	22	74	0.0	0.0	3.446	A
6 - Lias Rd	299	75	558		1159	0.258	299	328	0.3	0.3	4.185	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	601	150	202		2118	0.284	601	500	0.5	0.4	2.374	A
2 - Eastern Promenade	229	57	597		1155	0.199	230	206	0.3	0.2	3.892	A
3 - Site	0	0	824		909	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	315	79	452	179.80	1180	0.267	315	373	0.5	0.4	4.163	A
5 - Hillsboro Place CP	18	4	707		1131	0.016	18	60	0.0	0.0	3.232	A
6 - Lias Rd	245	61	457		1200	0.204	245	268	0.3	0.3	3.771	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	503	126	169		2135	0.236	503	418	0.4	0.3	2.206	А
2 - Eastern Promenade	192	48	500		1194	0.161	192	173	0.2	0.2	3.592	А
3 - Site	0	0	690		963	0.000	0	2	0.0	0.0	0.000	А
4 - The Portway	263	66	378	150.57	1215	0.217	264	312	0.4	0.3	3.787	A
5 - Hillsboro Place CP	15	4	592		1179	0.013	15	50	0.0	0.0	3.094	А
6 - Lias Rd	205	51	382		1230	0.166	205	225	0.3	0.2	3.511	А



2018 Existing, PM 4-5

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.39	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2018 Existing	PM 4-5	ONE HOUR	15:45	17:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)		
✓	✓	HV Percentages	2.00		

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	450	100.000
2 - Eastern Promenade		ONE HOUR	~	256	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	265	100.000
5 - Hillsboro Place CP		ONE HOUR	~	76	100.000
6 - Lias Rd		ONE HOUR	✓	288	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	113	0	136	33	168
	2 - Eastern Promenade	170	0	1	33	12	40
From	3 - Site	0 0		0	2	0	0
	4 - The Portway	168	54	0	0	5	38
	5 - Hillsboro Place CP	40	14	0	12	0	10
	6 - Lias Rd	127	93	0	53	15	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	8
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	ueue (Veh) Max LOS Average De (Veh)		Total Junction Arrivals (Veh)
1 - A4106 (N)	0.23	2.20	0.3	А	413	619
2 - Eastern Promenade	0.23	3.84	0.3	А	235	352
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.25	4.19	0.3	А	243	365
5 - Hillsboro Place CP	0.07	3.42	0.1	А	70	105
6 - Lias Rd	0.27	4.09	0.4	А	264	396

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	339	85	181		2175	0.156	338	379	0.0	0.2	1.959	А
2 - Eastern Promenade	193	48	313		1277	0.151	192	206	0.0	0.2	3.315	А
3 - Site	0	0	504		1040	0.000	0	0.75	0.0	0.0	0.000	A
4 - The Portway	200	50	329	150.57	1225	0.163	199	176	0.0	0.2	3.508	A
5 - Hillsboro Place CP	57	14	479		1227	0.047	57	49	0.0	0.0	3.077	А
6 - Lias Rd	217	54	344		1262	0.172	216	192	0.0	0.2	3.438	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	405	101	216		2156	0.188	404	454	0.2	0.2	2.055	A
2 - Eastern Promenade	230	58	375		1253	0.184	230	246	0.2	0.2	3.518	A
3 - Site	0	0	604		1001	0.000	0	0.90	0.0	0.0	0.000	A
4 - The Portway	238	60	393	179.80	1193	0.200	238	210	0.2	0.2	3.769	A
5 - Hillsboro Place CP	68	17	573		1188	0.058	68	58	0.0	0.1	3.215	A
6 - Lias Rd	259	65	411		1234	0.210	259	230	0.2	0.3	3.690	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	495	124	265		2130	0.233	495	555	0.2	0.3	2.202	А
2 - Eastern Promenade	282	70	459		1219	0.231	282	301	0.2	0.3	3.838	A
3 - Site	0	0	739		948	0.000	0	1	0.0	0.0	0.000	A
4 - The Portway	292	73	482	220.20	1150	0.254	291	257	0.2	0.3	4.192	A
5 - Hillsboro Place CP	84	21	702		1135	0.074	84	72	0.1	0.1	3.424	A
6 - Lias Rd	317	79	504		1196	0.265	317	282	0.3	0.4	4.090	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	495	124	265		2129	0.233	495	556	0.3	0.3	2.202	А
2 - Eastern Promenade	282	70	459		1219	0.231	282	302	0.3	0.3	3.840	A
3 - Site	0	0	740		948	0.000	0	1	0.0	0.0	0.000	А
4 - The Portway	292	73	482	220.20	1152	0.253	292	258	0.3	0.3	4.183	A
5 - Hillsboro Place CP	84	21	702		1134	0.074	84	72	0.1	0.1	3.425	A
6 - Lias Rd	317	79	504		1196	0.265	317	282	0.4	0.4	4.094	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	405	101	217		2155	0.188	405	455	0.3	0.2	2.056	A
2 - Eastern Promenade	230	58	375		1253	0.184	230	247	0.3	0.2	3.521	A
3 - Site	0	0	605		1001	0.000	0	0.90	0.0	0.0	0.000	A
4 - The Portway	238	60	394	179.80	1197	0.199	239	211	0.3	0.2	3.757	A
5 - Hillsboro Place CP	68	17	574		1187	0.058	68	58	0.1	0.1	3.217	A
6 - Lias Rd	259	65	412		1234	0.210	259	230	0.4	0.3	3.698	А

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	339	85	182		2174	0.156	339	381	0.2	0.2	1.963	А
2 - Eastern Promenade	193	48	314		1277	0.151	193	206	0.2	0.2	3.320	А
3 - Site	0	0	506		1039	0.000	0	0.75	0.0	0.0	0.000	А
4 - The Portway	200	50	330	150.57	1231	0.162	200	176	0.2	0.2	3.494	A
5 - Hillsboro Place CP	57	14	481		1226	0.047	57	49	0.1	0.0	3.080	A
6 - Lias Rd	217	54	345		1261	0.172	217	193	0.3	0.2	3.448	A



2018 Existing, PM 5-6

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.36	А

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.36	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2018 Existing	PM 5-6	ONE HOUR	15:45	17:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	
✓	✓	HV Percentages	2.00	

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	423	100.000
2 - Eastern Promenade		ONE HOUR	~	214	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	276	100.000
5 - Hillsboro Place CP		ONE HOUR	~	65	100.000
6 - Lias Rd		ONE HOUR	✓	296	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	70	3	171	9	170
	2 - Eastern Promenade	153	0	1 26		3	31
From	3 - Site	1	0	0	1	0	0
	4 - The Portway	183	58	0	0	4	31
	5 - Hillsboro Place CP	29	12	0	12	0	12
	6 - Lias Rd	124	124	0	44	4	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	10
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.22	2.17	0.3	А	388	582
2 - Eastern Promenade	0.19	3.66	0.2	А	196	295
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.26	4.12	0.3	А	253	380
5 - Hillsboro Place CP	0.06	3.37	0.1	А	60	89
6 - Lias Rd	0.27	4.12	0.4	A	272	407

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	318	80	191		2169	0.147	318	367	0.0	0.2	1.944	А
2 - Eastern Promenade	161	40	310		1275	0.126	161	198	0.0	0.1	3.227	А
3 - Site	0	0	468		1054	0.000	0	3	0.0	0.0	0.000	A
4 - The Portway	208	52	278	150.57	1243	0.167	207	190	0.0	0.2	3.473	A
5 - Hillsboro Place CP	49	12	470		1230	0.040	49	15	0.0	0.0	3.046	А
6 - Lias Rd	223	56	335		1263	0.176	222	183	0.0	0.2	3.456	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	380	95	228		2149	0.177	380	439	0.2	0.2	2.035	A
2 - Eastern Promenade	192	48	371		1251	0.154	192	237	0.1	0.2	3.398	A
3 - Site	0	0	560		1018	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	248	62	332	179.80	1215	0.204	248	227	0.2	0.3	3.722	A
5 - Hillsboro Place CP	58	15	562		1192	0.049	58	18	0.0	0.1	3.174	A
6 - Lias Rd	266	67	402		1236	0.215	266	219	0.2	0.3	3.711	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	466	116	279		2122	0.220	465	538	0.2	0.3	2.173	А
2 - Eastern Promenade	236	59	454		1218	0.193	235	290	0.2	0.2	3.662	A
3 - Site	0	0	685		969	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	304	76	407	220.20	1176	0.258	304	278	0.3	0.3	4.123	A
5 - Hillsboro Place CP	72	18	689		1140	0.063	72	22	0.1	0.1	3.367	A
6 - Lias Rd	326	81	492		1199	0.272	326	268	0.3	0.4	4.118	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	466	116	280		2121	0.220	466	538	0.3	0.3	2.173	А
2 - Eastern Promenade	236	59	455		1218	0.193	236	291	0.2	0.2	3.663	A
3 - Site	0	0	686		969	0.000	0	4	0.0	0.0	0.000	А
4 - The Portway	304	76	407	220.20	1179	0.258	304	279	0.3	0.3	4.114	A
5 - Hillsboro Place CP	72	18	689		1140	0.063	72	22	0.1	0.1	3.368	A
6 - Lias Rd	326	81	492		1199	0.272	326	269	0.4	0.4	4.123	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	380	95	229		2149	0.177	381	440	0.3	0.2	2.035	A
2 - Eastern Promenade	192	48	372		1251	0.154	193	238	0.2	0.2	3.403	A
3 - Site	0	0	561		1018	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	248	62	333	179.80	1219	0.204	248	228	0.3	0.3	3.713	A
5 - Hillsboro Place CP	58	15	563		1192	0.049	58	18	0.1	0.1	3.176	A
6 - Lias Rd	266	67	402		1235	0.215	266	220	0.4	0.3	3.718	А

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	318	80	191		2169	0.147	319	369	0.2	0.2	1.947	А
2 - Eastern Promenade	161	40	311		1275	0.126	161	199	0.2	0.1	3.234	A
3 - Site	0	0	469		1054	0.000	0	3	0.0	0.0	0.000	А
4 - The Portway	208	52	279	150.57	1249	0.166	208	191	0.3	0.2	3.456	А
5 - Hillsboro Place CP	49	12	472		1230	0.040	49	15	0.1	0.0	3.051	A
6 - Lias Rd	223	56	337		1262	0.177	223	184	0.3	0.2	3.467	A



2018 Existing, SAT

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.50	А

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.50	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2018 Existing	SAT	ONE HOUR	11:45	13:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
√	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	513	100.000
2 - Eastern Promenade		ONE HOUR	~	274	100.000
3 - Site		ONE HOUR	✓	1	100.000
4 - The Portway		ONE HOUR	✓	271	100.000
5 - Hillsboro Place CP		ONE HOUR	√	96	100.000
6 - Lias Rd		ONE HOUR	✓	299	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



	То										
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd				
	1 - A4106 (N)	0	121	2	178	49	163				
	2 - Eastern Promenade	175	0	0	42	16	41				
From	3 - Site	1	0	0	0	0	0				
	4 - The Portway	165	59	0	0	10	37				
	5 - Hillsboro Place CP	50	21	0	17	0	8				
	6 - Lias Rd	126	99	0	57	17	0				

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	2	0	0	0	3
	2 - Eastern Promenade	2	0	0	0	0	2
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.27	2.37	0.4	А	471	706
2 - Eastern Promenade	0.25	4.04	0.3	А	251	377
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.26	4.27	0.4	А	249	373
5 - Hillsboro Place CP	0.09	3.51	0.1	А	88	132
6 - Lias Rd	0.28	4.26	0.4	А	274	412

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	386	97	202		2132	0.181	385	387	0.0	0.2	2.060	A
2 - Eastern Promenade	206	52	363		1260	0.164	206	225	0.0	0.2	3.411	A
3 - Site	0	0	567		1014	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	204	51	346	150.57	1217	0.168	203	221	0.0	0.2	3.544	A
5 - Hillsboro Place CP	72	18	480		1225	0.059	72	69	0.0	0.1	3.123	A
6 - Lias Rd	225	56	365		1244	0.181	224	187	0.0	0.2	3.527	А



12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	461	115	243		2111	0.219	461	463	0.2	0.3	2.182	А
2 - Eastern Promenade	246	62	434		1232	0.200	246	269	0.2	0.2	3.652	A
3 - Site	0	0	678		970	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	244	61	414	179.80	1185	0.206	243	264	0.2	0.3	3.823	A
5 - Hillsboro Place CP	86	22	575		1185	0.073	86	83	0.1	0.1	3.274	A
6 - Lias Rd	269	67	437		1215	0.221	269	224	0.2	0.3	3.805	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	565	141	297		2082	0.271	564	567	0.3	0.4	2.372	A
2 - Eastern Promenade	302	75	531		1192	0.253	301	330	0.2	0.3	4.038	A
3 - Site	0	0	831		910	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	298	75	507	220.20	1140	0.262	298	323	0.3	0.4	4.273	A
5 - Hillsboro Place CP	106	26	704		1132	0.093	106	101	0.1	0.1	3.507	A
6 - Lias Rd	329	82	536		1175	0.280	329	274	0.3	0.4	4.253	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	565	141	297		2082	0.271	565	568	0.4	0.4	2.373	А
2 - Eastern Promenade	302	75	532		1192	0.253	302	330	0.3	0.3	4.042	A
3 - Site	0	0	831		910	0.000	0	2	0.0	0.0	0.000	А
4 - The Portway	298	75	508	220.20	1143	0.261	298	324	0.4	0.4	4.263	A
5 - Hillsboro Place CP	106	26	705		1132	0.093	106	101	0.1	0.1	3.508	A
6 - Lias Rd	329	82	536		1175	0.280	329	274	0.4	0.4	4.258	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	461	115	243		2110	0.219	462	465	0.4	0.3	2.185	A
2 - Eastern Promenade	246	62	435		1231	0.200	247	270	0.3	0.3	3.659	A
3 - Site	0	0	679		970	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	244	61	415	179.80	1189	0.205	244	265	0.4	0.3	3.810	A
5 - Hillsboro Place CP	86	22	576		1185	0.073	86	83	0.1	0.1	3.279	A
6 - Lias Rd	269	67	438		1214	0.221	269	224	0.4	0.3	3.813	А

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	386	97	203		2131	0.181	386	389	0.3	0.2	2.063	А
2 - Eastern Promenade	206	52	364		1260	0.164	206	226	0.3	0.2	3.417	А
3 - Site	0	0	569		1014	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	204	51	347	150.57	1224	0.167	204	222	0.3	0.2	3.530	А
5 - Hillsboro Place CP	72	18	482		1224	0.059	72	69	0.1	0.1	3.125	A
6 - Lias Rd	225	56	367		1243	0.181	225	188	0.3	0.2	3.537	А



2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.82	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.82	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2022 Base	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	703	100.000
2 - Eastern Promenade		ONE HOUR	~	268	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	368	100.000
5 - Hillsboro Place CP		ONE HOUR	~	20	100.000
6 - Lias Rd		ONE HOUR	✓	286	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	77	0	338	45	243
	2 - Eastern Promenade	194	0	2	36	7	29
From	3 - Site	2	0	0	0	0	0
	4 - The Portway	260	63	0	0	8	37
	5 - Hillsboro Place CP	7	3	0	6	0	4
	6 - Lias Rd	123	98	0	56	9	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	3	0	2
	2 - Eastern Promenade	1	0	0	6	0	7
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	3
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	2	2	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.37	2.74	0.6	А	645	968
2 - Eastern Promenade	0.27	4.55	0.4	А	246	369
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.36	5.01	0.6	А	338	507
5 - Hillsboro Place CP	0.02	3.51	0.0	А	18	28
6 - Lias Rd	0.27	4.32	0.4	А	262	394

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	529	132	176		2131	0.248	528	438	0.0	0.3	2.243	A
2 - Eastern Promenade	202	50	523		1185	0.170	201	181	0.0	0.2	3.656	A
3 - Site	0	0	723		950	0.000	0	1	0.0	0.0	0.000	A
4 - The Portway	277	69	395	150.57	1199	0.231	276	327	0.0	0.3	3.894	A
5 - Hillsboro Place CP	15	4	620		1167	0.013	15	52	0.0	0.0	3.123	A
6 - Lias Rd	215	54	400		1223	0.176	214	235	0.0	0.2	3.565	А



08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	632	158	211		2113	0.299	632	524	0.3	0.4	2.430	A
2 - Eastern Promenade	241	60	626		1143	0.211	241	216	0.2	0.3	3.989	A
3 - Site	0	0	865		893	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	331	83	473	179.80	1168	0.283	330	392	0.3	0.4	4.298	A
5 - Hillsboro Place CP	18	4	742		1117	0.016	18	62	0.0	0.0	3.275	A
6 - Lias Rd	257	64	479		1191	0.216	257	281	0.2	0.3	3.851	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	774	194	258		2088	0.371	773	642	0.4	0.6	2.737	A
2 - Eastern Promenade	295	74	767		1086	0.272	295	265	0.3	0.4	4.549	A
3 - Site	0	0	1059		816	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	405	101	580	220.20	1122	0.361	405	480	0.4	0.6	5.010	A
5 - Hillsboro Place CP	22	6	908		1048	0.021	22	76	0.0	0.0	3.507	A
6 - Lias Rd	315	79	586		1148	0.274	314	344	0.3	0.4	4.315	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	774	194	259		2088	0.371	774	643	0.6	0.6	2.739	А
2 - Eastern Promenade	295	74	767		1085	0.272	295	265	0.4	0.4	4.554	A
3 - Site	0	0	1060		815	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	405	101	580	220.20	1127	0.359	405	480	0.6	0.6	4.985	A
5 - Hillsboro Place CP	22	6	909		1048	0.021	22	76	0.0	0.0	3.509	A
6 - Lias Rd	315	79	587		1148	0.274	315	345	0.4	0.4	4.321	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	632	158	212		2112	0.299	633	526	0.6	0.4	2.435	A
2 - Eastern Promenade	241	60	627		1142	0.211	241	217	0.4	0.3	3.998	A
3 - Site	0	0	867		892	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	331	83	474	179.80	1175	0.282	331	392	0.6	0.4	4.274	A
5 - Hillsboro Place CP	18	4	744		1116	0.016	18	62	0.0	0.0	3.280	A
6 - Lias Rd	257	64	480		1191	0.216	258	282	0.4	0.3	3.858	А

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	529	132	177		2131	0.248	530	440	0.4	0.3	2.250	А
2 - Eastern Promenade	202	50	525		1184	0.170	202	182	0.3	0.2	3.669	А
3 - Site	0	0	726		949	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	277	69	397	150.57	1209	0.229	277	329	0.4	0.3	3.865	A
5 - Hillsboro Place CP	15	4	623		1166	0.013	15	52	0.0	0.0	3.126	A
6 - Lias Rd	215	54	402		1222	0.176	216	236	0.3	0.2	3.578	А



2022 Base, PM 4-5

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.49	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2022 Base	PM 4-5	ONE HOUR	15:45	17:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	474	100.000
2 - Eastern Promenade		ONE HOUR	~	270	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	279	100.000
5 - Hillsboro Place CP		ONE HOUR	~	81	100.000
6 - Lias Rd		ONE HOUR	✓	304	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	119	0	143	35	177
	2 - Eastern Promenade	179	0	1	35	13	42
From	3 - Site	0	0		2	0	0
	4 - The Portway	177	57	0	0	5	40
	5 - Hillsboro Place CP	42	15	0	13	0	11
	6 - Lias Rd	134	98	0	56	16	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	8
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS Average Demand (Veh/hr)		Total Junction Arrivals (Veh)
1 - A4106 (N)	0.25	2.25	0.3	А	435	652
2 - Eastern Promenade	0.25	3.95	0.3	А	248	372
3 - Site	0.00	0.00	0.0	А	A 0	
4 - The Portway	0.27	4.31	0.4	А	256	384
5 - Hillsboro Place CP	0.08	3.49	0.1	А	74	111
6 - Lias Rd	0.28	4.23	0.4	А	279	418

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	357	89	191		2169	0.165	356	399	0.0	0.2	1.984	A
2 - Eastern Promenade	203	51	330		1271	0.160	203	217	0.0	0.2	3.369	A
3 - Site	0	0	532		1029	0.000	0	0.75	0.0	0.0	0.000	A
4 - The Portway	210	53	347	150.57	1218	0.172	209	185	0.0	0.2	3.563	A
5 - Hillsboro Place CP	61	15	504		1216	0.050	61	52	0.0	0.1	3.115	A
6 - Lias Rd	229	57	362		1254	0.183	228	203	0.0	0.2	3.505	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	426	107	229		2149	0.198	426	478	0.2	0.2	2.089	А
2 - Eastern Promenade	243	61	395		1245	0.195	243	260	0.2	0.2	3.591	A
3 - Site	0	0	637		988	0.000	0	0.90	0.0	0.0	0.000	A
4 - The Portway	251	63	415	179.80	1186	0.211	251	222	0.2	0.3	3.846	A
5 - Hillsboro Place CP	73	18	604		1175	0.062	73	62	0.1	0.1	3.265	A
6 - Lias Rd	273	68	434		1225	0.223	273	243	0.2	0.3	3.782	А

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	522	130	280		2121	0.246	522	585	0.2	0.3	2.250	A
2 - Eastern Promenade	297	74	484		1209	0.246	297	318	0.2	0.3	3.944	A
3 - Site	0	0	780		932	0.000	0	1	0.0	0.0	0.000	A
4 - The Portway	307	77	508	220.20	1142	0.269	307	272	0.3	0.4	4.308	А
5 - Hillsboro Place CP	89	22	739		1119	0.080	89	76	0.1	0.1	3.493	A
6 - Lias Rd	335	84	531		1185	0.282	334	297	0.3	0.4	4.228	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	522	130	281		2121	0.246	522	586	0.3	0.3	2.250	А
2 - Eastern Promenade	297	74	484		1209	0.246	297	318	0.3	0.3	3.947	A
3 - Site	0	0	781		932	0.000	0	1	0.0	0.0	0.000	А
4 - The Portway	307	77	509	220.20	1145	0.268	307	272	0.4	0.4	4.297	A
5 - Hillsboro Place CP	89	22	740		1119	0.080	89	76	0.1	0.1	3.494	A
6 - Lias Rd	335	84	532		1185	0.282	335	297	0.4	0.4	4.233	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	426	107	230		2149	0.198	426	479	0.3	0.2	2.090	A
2 - Eastern Promenade	243	61	396		1245	0.195	243	260	0.3	0.2	3.597	A
3 - Site	0	0	638		987	0.000	0	0.90	0.0	0.0	0.000	A
4 - The Portway	251	63	416	179.80	1190	0.211	251	222	0.4	0.3	3.833	A
5 - Hillsboro Place CP	73	18	605		1175	0.062	73	62	0.1	0.1	3.267	A
6 - Lias Rd	273	68	435		1225	0.223	274	243	0.4	0.3	3.786	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	357	89	192		2168	0.165	357	401	0.2	0.2	1.988	А
2 - Eastern Promenade	203	51	331		1270	0.160	203	218	0.2	0.2	3.374	А
3 - Site	0	0	534		1028	0.000	0	0.75	0.0	0.0	0.000	А
4 - The Portway	210	53	348	150.57	1225	0.171	210	186	0.3	0.2	3.547	А
5 - Hillsboro Place CP	61	15	506		1215	0.050	61	52	0.1	0.1	3.120	A
6 - Lias Rd	229	57	364		1253	0.183	229	203	0.3	0.2	3.515	А



2022 Base, PM 5-6

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.45	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2022 Base	PM 5-6	ONE HOUR	15:45	17:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	445	100.000
2 - Eastern Promenade		ONE HOUR	~	225	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	291	100.000
5 - Hillsboro Place CP		ONE HOUR	✓	70	100.000
6 - Lias Rd		ONE HOUR	✓	312	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	74	3	180	9	179
	2 - Eastern Promenade	161	0	1	27	3	33
From	3 - Site	1	0		1	0	0
	4 - The Portway	193	61	0	0	4	33
	5 - Hillsboro Place CP	31	13	0	13	0	13
	6 - Lias Rd	131	131	0	46	4	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0		0	0	10
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.23	2.22	0.3	А	408	613
2 - Eastern Promenade	0.20	3.74	0.3	А	206	310
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.27	4.23	0.4	А	267	401
5 - Hillsboro Place CP	0.07	3.44	0.1	А	64	96
6 - Lias Rd	0.29	4.26	0.4	А	286	429

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	335	84	201		2164	0.155	334	387	0.0	0.2	1.966	А
2 - Eastern Promenade	169	42	326		1269	0.133	169	209	0.0	0.2	3.270	А
3 - Site	0	0	492		1045	0.000	0	3	0.0	0.0	0.000	A
4 - The Portway	219	55	292	150.57	1238	0.177	218	200	0.0	0.2	3.525	A
5 - Hillsboro Place CP	53	13	495		1220	0.043	53	15	0.0	0.0	3.083	А
6 - Lias Rd	235	59	354		1255	0.187	234	194	0.0	0.2	3.522	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	400	100	241		2142	0.187	400	463	0.2	0.2	2.065	A
2 - Eastern Promenade	202	51	390		1244	0.163	202	251	0.2	0.2	3.456	A
3 - Site	0	0	588		1007	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	262	65	349	179.80	1210	0.216	261	239	0.2	0.3	3.795	A
5 - Hillsboro Place CP	63	16	593		1180	0.053	63	18	0.0	0.1	3.223	A
6 - Lias Rd	280	70	424		1227	0.229	280	232	0.2	0.3	3.804	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	490	122	295		2113	0.232	490	567	0.2	0.3	2.217	A
2 - Eastern Promenade	248	62	478		1209	0.205	247	307	0.2	0.3	3.744	A
3 - Site	0	0	721		955	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	320	80	428	220.20	1170	0.274	320	293	0.3	0.4	4.231	A
5 - Hillsboro Place CP	77	19	726		1125	0.069	77	22	0.1	0.1	3.435	A
6 - Lias Rd	344	86	519		1188	0.289	343	284	0.3	0.4	4.259	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	490	122	295		2113	0.232	490	568	0.3	0.3	2.217	A
2 - Eastern Promenade	248	62	478		1209	0.205	248	307	0.3	0.3	3.745	A
3 - Site	0	0	721		955	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	320	80	428	220.20	1173	0.273	320	293	0.4	0.4	4.220	A
5 - Hillsboro Place CP	77	19	727		1125	0.069	77	22	0.1	0.1	3.436	A
6 - Lias Rd	344	86	520		1188	0.289	344	284	0.4	0.4	4.263	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	400	100	241		2142	0.187	400	465	0.3	0.2	2.068	А
2 - Eastern Promenade	202	51	390		1243	0.163	203	251	0.3	0.2	3.458	А
3 - Site	0	0	589		1007	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	262	65	350	179.80	1214	0.215	262	239	0.4	0.3	3.781	A
5 - Hillsboro Place CP	63	16	594		1179	0.053	63	18	0.1	0.1	3.227	A
6 - Lias Rd	280	70	425		1226	0.229	281	232	0.4	0.3	3.809	А

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	335	84	202		2163	0.155	335	389	0.2	0.2	1.969	А
2 - Eastern Promenade	169	42	327		1269	0.134	170	210	0.2	0.2	3.275	А
3 - Site	0	0	493		1044	0.000	0	3	0.0	0.0	0.000	А
4 - The Portway	219	55	293	150.57	1245	0.176	219	200	0.3	0.2	3.511	А
5 - Hillsboro Place CP	53	13	497		1219	0.043	53	15	0.1	0.0	3.086	A
6 - Lias Rd	235	59	356		1254	0.187	235	194	0.3	0.2	3.535	A



2022 Base, SAT

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.61	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2022 Base	SAT	ONE HOUR	11:45	13:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	542	100.000
2 - Eastern Promenade		ONE HOUR	~	289	100.000
3 - Site		ONE HOUR	✓	1	100.000
4 - The Portway		ONE HOUR	✓	286	100.000
5 - Hillsboro Place CP		ONE HOUR	~	101	100.000
6 - Lias Rd		ONE HOUR	✓	316	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	128	2	188	52	172
	2 - Eastern Promenade	185	0	0	44	17	43
From	3 - Site	1	0	0	0	0	0
	4 - The Portway	174	62	0	0	11	39
	5 - Hillsboro Place CP	53	22	0	18	0	8
	6 - Lias Rd	133	105	0	60	18	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	2	0	0	0	3
	2 - Eastern Promenade	2	0	0	0	0	2
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.29	2.44	0.4	А	497	746
2 - Eastern Promenade	0.27	4.18	0.4	А	265	398
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.28	4.40	0.4	А	262	394
5 - Hillsboro Place CP	0.10	3.58	0.1	А	93	139
6 - Lias Rd	0.30	4.42	0.4	A	290	435

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	408	102	214		2126	0.192	407	409	0.0	0.2	2.093	A
2 - Eastern Promenade	218	54	383		1252	0.174	217	238	0.0	0.2	3.473	A
3 - Site	0	0	598		1002	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	215	54	365	150.57	1211	0.178	214	233	0.0	0.2	3.609	A
5 - Hillsboro Place CP	76	19	506		1214	0.063	76	74	0.0	0.1	3.163	A
6 - Lias Rd	238	59	385		1236	0.193	237	197	0.0	0.2	3.601	А


12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	487	122	256		2103	0.232	487	489	0.2	0.3	2.227	А
2 - Eastern Promenade	260	65	458		1222	0.213	260	285	0.2	0.3	3.741	A
3 - Site	0	0	716		956	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	257	64	437	179.80	1177	0.218	257	278	0.2	0.3	3.909	A
5 - Hillsboro Place CP	91	23	606		1172	0.077	91	88	0.1	0.1	3.327	A
6 - Lias Rd	284	71	462		1205	0.236	284	235	0.2	0.3	3.908	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	597	149	313		2073	0.288	596	599	0.3	0.4	2.438	А
2 - Eastern Promenade	318	80	561		1180	0.270	318	349	0.3	0.4	4.172	A
3 - Site	0	0	877		892	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	315	79	536	220.20	1132	0.278	314	341	0.3	0.4	4.404	A
5 - Hillsboro Place CP	111	28	742		1116	0.100	111	108	0.1	0.1	3.582	A
6 - Lias Rd	348	87	565		1163	0.299	347	288	0.3	0.4	4.414	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	597	149	314		2073	0.288	597	600	0.4	0.4	2.438	A
2 - Eastern Promenade	318	80	562		1180	0.270	318	349	0.4	0.4	4.176	A
3 - Site	0	0	878		892	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	315	79	536	220.20	1135	0.278	315	341	0.4	0.4	4.391	A
5 - Hillsboro Place CP	111	28	743		1116	0.100	111	108	0.1	0.1	3.583	A
6 - Lias Rd	348	87	566		1162	0.299	348	288	0.4	0.4	4.419	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	487	122	257		2103	0.232	488	491	0.4	0.3	2.230	A
2 - Eastern Promenade	260	65	459		1222	0.213	260	285	0.4	0.3	3.745	A
3 - Site	0	0	717		955	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	257	64	438	179.80	1182	0.218	258	279	0.4	0.3	3.897	A
5 - Hillsboro Place CP	91	23	608		1172	0.077	91	88	0.1	0.1	3.330	A
6 - Lias Rd	284	71	463		1204	0.236	285	236	0.4	0.3	3.915	А

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	408	102	215		2125	0.192	408	411	0.3	0.2	2.098	А
2 - Eastern Promenade	218	54	384		1252	0.174	218	239	0.3	0.2	3.484	А
3 - Site	0	0	601		1001	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	215	54	367	150.57	1218	0.177	216	234	0.3	0.2	3.595	А
5 - Hillsboro Place CP	76	19	509		1213	0.063	76	74	0.1	0.1	3.168	A
6 - Lias Rd	238	59	387		1235	0.193	238	197	0.3	0.2	3.614	А



2022 Base + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.98	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2022 Base + Dev	AM	ONE HOUR	07:45	09:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	732	100.000
2 - Eastern Promenade		ONE HOUR	~	275	100.000
3 - Site		ONE HOUR	✓	66	100.000
4 - The Portway		ONE HOUR	✓	370	100.000
5 - Hillsboro Place CP		ONE HOUR	~	20	100.000
6 - Lias Rd		ONE HOUR	✓	297	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	77	35	332	45	243
	2 - Eastern Promenade	194	0	9	36	7	29
From	3 - Site	43	7	0	5	0	11
	4 - The Portway	256	63	6	0	8	37
	5 - Hillsboro Place CP	7	3	0	6	0	4
	6 - Lias Rd	123	98	11	56	9	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	3	0	2
	2 - Eastern Promenade	1	0	0	6	0	7
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	3
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	2	2	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.39	2.83	0.6	А	672	1008
2 - Eastern Promenade	0.28	4.72	0.4	А	252	379
3 - Site	0.09	4.83	0.1	А	61	91
4 - The Portway	0.37	5.18	0.6	А	340	509
5 - Hillsboro Place CP	0.02	3.61	0.0	А	18	28
6 - Lias Rd	0.29	4.51	0.4	А	273	409

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	551	138	194		2124	0.259	550	467	0.0	0.3	2.284	A
2 - Eastern Promenade	207	52	558		1172	0.177	206	186	0.0	0.2	3.725	A
3 - Site	50	12	718		952	0.052	49	46	0.0	0.1	3.989	A
4 - The Portway	279	70	441	150.57	1183	0.235	277	327	0.0	0.3	3.969	A
5 - Hillsboro Place CP	15	4	667		1148	0.013	15	52	0.0	0.0	3.176	А
6 - Lias Rd	224	56	439		1208	0.185	223	243	0.0	0.2	3.648	А



08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	658	165	233		2104	0.313	658	559	0.3	0.5	2.489	A
2 - Eastern Promenade	247	62	667		1127	0.219	247	223	0.2	0.3	4.089	A
3 - Site	59	15	860		895	0.066	59	55	0.1	0.1	4.306	A
4 - The Portway	333	83	528	179.80	1149	0.290	332	391	0.3	0.4	4.406	A
5 - Hillsboro Place CP	18	4	798		1094	0.016	18	62	0.0	0.0	3.345	A
6 - Lias Rd	267	67	525		1174	0.228	267	291	0.2	0.3	3.969	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	806	201	285		2076	0.388	805	685	0.5	0.6	2.830	A
2 - Eastern Promenade	303	76	817		1066	0.284	302	273	0.3	0.4	4.708	A
3 - Site	73	18	1053		818	0.089	73	67	0.1	0.1	4.827	A
4 - The Portway	407	102	647	220.20	1100	0.370	407	478	0.4	0.6	5.184	A
5 - Hillsboro Place CP	22	6	977		1020	0.022	22	76	0.0	0.0	3.607	A
6 - Lias Rd	327	82	643		1126	0.290	327	356	0.3	0.4	4.500	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	806	201	285		2076	0.388	806	686	0.6	0.6	2.833	А
2 - Eastern Promenade	303	76	818		1066	0.284	303	273	0.4	0.4	4.716	A
3 - Site	73	18	1054		818	0.089	73	67	0.1	0.1	4.829	A
4 - The Portway	407	102	647	220.20	1105	0.369	407	479	0.6	0.6	5.157	A
5 - Hillsboro Place CP	22	6	979		1019	0.022	22	76	0.0	0.0	3.609	A
6 - Lias Rd	327	82	644		1126	0.290	327	357	0.4	0.4	4.506	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	658	165	233		2103	0.313	659	561	0.6	0.5	2.492	А
2 - Eastern Promenade	247	62	669		1127	0.219	248	223	0.4	0.3	4.097	А
3 - Site	59	15	861		895	0.066	59	55	0.1	0.1	4.311	A
4 - The Portway	333	83	529	179.80	1156	0.288	333	392	0.6	0.4	4.377	A
5 - Hillsboro Place CP	18	4	801		1093	0.016	18	62	0.0	0.0	3.351	A
6 - Lias Rd	267	67	527		1173	0.228	267	292	0.4	0.3	3.977	А

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	551	138	195		2123	0.260	552	470	0.5	0.4	2.292	А
2 - Eastern Promenade	207	52	560		1171	0.177	207	187	0.3	0.2	3.739	А
3 - Site	50	12	721		950	0.052	50	46	0.1	0.1	3.996	А
4 - The Portway	279	70	443	150.57	1193	0.233	279	328	0.4	0.3	3.938	А
5 - Hillsboro Place CP	15	4	670		1147	0.013	15	52	0.0	0.0	3.180	A
6 - Lias Rd	224	56	441		1207	0.185	224	244	0.3	0.2	3.663	A



2022 Base + Dev, PM 4-5

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.69	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2022 Base + Dev	PM 4-5	ONE HOUR	15:45	17:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	526	100.000
2 - Eastern Promenade		ONE HOUR	~	282	100.000
3 - Site		ONE HOUR	✓	99	100.000
4 - The Portway		ONE HOUR	✓	282	100.000
5 - Hillsboro Place CP		ONE HOUR	~	81	100.000
6 - Lias Rd		ONE HOUR	✓	323	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	119	59	136	35	177
	2 - Eastern Promenade	179	0	13	35	13	42
From	3 - Site	57	12	0	12	0	18
	4 - The Portway	168	57	12	0	5	40
	5 - Hillsboro Place CP	42	15	0	13	0	11
	6 - Lias Rd	134	98	19	56	16	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	8
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.28	2.37	0.4	А	483	724
2 - Eastern Promenade	0.26	4.17	0.4	А	259	388
3 - Site	0.12	4.36	0.1	А	91	136
4 - The Portway	0.28	4.50	0.4	А	259	388
5 - Hillsboro Place CP	0.08	3.64	0.1	А	74	111
6 - Lias Rd	0.31	4.51	0.4	A	296	445

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	396	99	223		2152	0.184	395	435	0.0	0.2	2.048	А
2 - Eastern Promenade	212	53	393		1247	0.170	211	226	0.0	0.2	3.472	А
3 - Site	75	19	527		1031	0.072	74	77	0.0	0.1	3.762	А
4 - The Portway	212	53	412	150.57	1195	0.178	211	189	0.0	0.2	3.655	A
5 - Hillsboro Place CP	61	15	572		1189	0.051	61	52	0.0	0.1	3.191	А
6 - Lias Rd	243	61	416		1233	0.197	242	216	0.0	0.2	3.631	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	473	118	268		2128	0.222	473	521	0.2	0.3	2.174	A
2 - Eastern Promenade	254	63	470		1216	0.208	253	270	0.2	0.3	3.739	A
3 - Site	89	22	631		990	0.090	89	93	0.1	0.1	3.993	A
4 - The Portway	254	63	493	179.80	1159	0.219	253	226	0.2	0.3	3.972	A
5 - Hillsboro Place CP	73	18	684		1142	0.064	73	62	0.1	0.1	3.365	A
6 - Lias Rd	290	73	498		1199	0.242	290	259	0.2	0.3	3.959	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	579	145	328		2096	0.276	579	638	0.3	0.4	2.372	А
2 - Eastern Promenade	310	78	575		1174	0.264	310	331	0.3	0.4	4.165	A
3 - Site	109	27	772		935	0.117	109	113	0.1	0.1	4.358	A
4 - The Portway	310	78	604	220.20	1110	0.280	310	277	0.3	0.4	4.500	A
5 - Hillsboro Place CP	89	22	838		1079	0.083	89	76	0.1	0.1	3.636	A
6 - Lias Rd	356	89	610		1154	0.308	355	317	0.3	0.4	4.505	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	579	145	328		2096	0.276	579	639	0.4	0.4	2.372	А
2 - Eastern Promenade	310	78	576		1174	0.265	310	331	0.4	0.4	4.169	A
3 - Site	109	27	773		935	0.117	109	113	0.1	0.1	4.360	А
4 - The Portway	310	78	604	220.20	1113	0.279	310	277	0.4	0.4	4.486	A
5 - Hillsboro Place CP	89	22	839		1079	0.083	89	76	0.1	0.1	3.637	A
6 - Lias Rd	356	89	611		1153	0.308	356	317	0.4	0.4	4.512	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	473	118	268		2128	0.222	473	522	0.4	0.3	2.175	А
2 - Eastern Promenade	254	63	471		1216	0.209	254	271	0.4	0.3	3.743	A
3 - Site	89	22	632		990	0.090	89	93	0.1	0.1	3.998	A
4 - The Portway	254	63	494	179.80	1164	0.218	254	227	0.4	0.3	3.959	A
5 - Hillsboro Place CP	73	18	686		1141	0.064	73	62	0.1	0.1	3.368	A
6 - Lias Rd	290	73	500		1199	0.242	291	259	0.4	0.3	3.967	А

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	396	99	225		2151	0.184	396	437	0.3	0.2	2.052	А
2 - Eastern Promenade	212	53	394		1246	0.170	213	227	0.3	0.2	3.485	А
3 - Site	75	19	529		1030	0.072	75	78	0.1	0.1	3.766	A
4 - The Portway	212	53	414	150.57	1202	0.177	213	190	0.3	0.2	3.640	A
5 - Hillsboro Place CP	61	15	574		1187	0.051	61	52	0.1	0.1	3.195	A
6 - Lias Rd	243	61	418		1232	0.197	243	217	0.3	0.2	3.642	А



2022 Base + Dev, PM 5-6

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.64	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2022 Base + Dev	PM 5-6	ONE HOUR	15:45	17:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	500	100.000
2 - Eastern Promenade		ONE HOUR	~	237	100.000
3 - Site		ONE HOUR	✓	96	100.000
4 - The Portway		ONE HOUR	✓	293	100.000
5 - Hillsboro Place CP		ONE HOUR	√	70	100.000
6 - Lias Rd		ONE HOUR	✓	331	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	74	65	173	9	179
	2 - Eastern Promenade	161	0	13	27	3	33
From	3 - Site	56	12	0	11	0	17
	4 - The Portway	185	61	10	0	4	33
	5 - Hillsboro Place CP	31	13	0	13	0	13
	6 - Lias Rd	131	131	19	46	4	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	10
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.26	2.34	0.4	А	459	688
2 - Eastern Promenade	0.22	3.95	0.3	А	217	326
3 - Site	0.11	4.22	0.1	А	88	132
4 - The Portway	0.28	4.41	0.4	А	269	403
5 - Hillsboro Place CP	0.07	3.57	0.1	А	64	96
6 - Lias Rd	0.31	4.54	0.5	A	304	456

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	376	94	232		2147	0.175	376	423	0.0	0.2	2.031	А
2 - Eastern Promenade	178	45	389		1245	0.143	178	218	0.0	0.2	3.370	А
3 - Site	72	18	486		1047	0.069	72	80	0.0	0.1	3.692	А
4 - The Portway	221	55	356	150.57	1216	0.181	220	203	0.0	0.2	3.610	A
5 - Hillsboro Place CP	53	13	560		1193	0.044	53	15	0.0	0.0	3.155	А
6 - Lias Rd	249	62	406		1234	0.202	248	206	0.0	0.3	3.647	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	449	112	278		2123	0.212	449	507	0.2	0.3	2.151	А
2 - Eastern Promenade	213	53	465		1215	0.175	213	261	0.2	0.2	3.592	A
3 - Site	86	22	582		1009	0.086	86	96	0.1	0.1	3.899	A
4 - The Portway	263	66	426	179.80	1183	0.223	263	243	0.2	0.3	3.911	A
5 - Hillsboro Place CP	63	16	671		1148	0.055	63	18	0.0	0.1	3.317	A
6 - Lias Rd	298	74	487		1202	0.248	297	247	0.3	0.3	3.979	А

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	551	138	340		2089	0.263	550	620	0.3	0.4	2.338	A
2 - Eastern Promenade	261	65	570		1173	0.222	261	320	0.2	0.3	3.943	A
3 - Site	106	26	713		958	0.110	106	118	0.1	0.1	4.223	A
4 - The Portway	323	81	521	220.20	1139	0.283	322	297	0.3	0.4	4.406	A
5 - Hillsboro Place CP	77	19	822		1086	0.071	77	22	0.1	0.1	3.568	A
6 - Lias Rd	364	91	596		1157	0.315	364	303	0.3	0.5	4.534	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	551	138	340		2089	0.264	551	621	0.4	0.4	2.339	А
2 - Eastern Promenade	261	65	570		1173	0.222	261	320	0.3	0.3	3.946	A
3 - Site	106	26	713		958	0.110	106	118	0.1	0.1	4.224	A
4 - The Portway	323	81	522	220.20	1142	0.283	323	297	0.4	0.4	4.393	A
5 - Hillsboro Place CP	77	19	822		1085	0.071	77	22	0.1	0.1	3.569	A
6 - Lias Rd	364	91	597		1157	0.315	364	303	0.5	0.5	4.541	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	449	112	278		2122	0.212	450	508	0.4	0.3	2.152	A
2 - Eastern Promenade	213	53	466		1215	0.175	213	262	0.3	0.2	3.598	A
3 - Site	86	22	583		1009	0.086	86	96	0.1	0.1	3.904	A
4 - The Portway	263	66	427	179.80	1188	0.222	264	243	0.4	0.3	3.896	A
5 - Hillsboro Place CP	63	16	672		1147	0.055	63	18	0.1	0.1	3.320	A
6 - Lias Rd	298	74	488		1201	0.248	298	247	0.5	0.3	3.989	А

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	376	94	233		2147	0.175	377	425	0.3	0.2	2.033	А
2 - Eastern Promenade	178	45	390		1245	0.143	179	219	0.2	0.2	3.378	A
3 - Site	72	18	488		1046	0.069	72	81	0.1	0.1	3.695	А
4 - The Portway	221	55	357	150.57	1223	0.180	221	203	0.3	0.2	3.595	А
5 - Hillsboro Place CP	53	13	563		1192	0.044	53	15	0.1	0.0	3.158	A
6 - Lias Rd	249	62	408		1234	0.202	249	207	0.3	0.3	3.661	А



2022 Base + Dev, SAT

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	4.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.01	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2022 Base + Dev	SAT	ONE HOUR	11:45	13:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	612	100.000
2 - Eastern Promenade		ONE HOUR	~	307	100.000
3 - Site		ONE HOUR	✓	167	100.000
4 - The Portway		ONE HOUR	✓	290	100.000
5 - Hillsboro Place CP		ONE HOUR	~	101	100.000
6 - Lias Rd		ONE HOUR	✓	343	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	128	85	175	52	172
	2 - Eastern Promenade	185	0	18	44	17	43
From	3 - Site	98	20	0	18	0	31
	4 - The Portway	162	62	16	0	11	39
	5 - Hillsboro Place CP	53	53 22		18	0	8
	6 - Lias Rd	133	105	27	60	18	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	2	0	0	0	3
	2 - Eastern Promenade	2	0	0	0	0	2
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Delay (s) Max Queue (Veh)		Average Demand (Veh/hr)	Total Junction Arrivals (Veh)	
1 - A4106 (N)	0.33	2.63	0.5	А	562	842	
2 - Eastern Promenade	0.30	4.54	0.4	А	282	423	
3 - Site	0.20	5.04	0.3	А	153	230	
4 - The Portway	0.30	4.75	0.4	А	266	399	
5 - Hillsboro Place CP	0.11	3.85	0.1	А	93	139	
6 - Lias Rd	0.34	4.92	0.5	А	315	472	

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	461	115	261		2105	0.219	460	473	0.0	0.3	2.187	A
2 - Eastern Promenade	231	58	468		1219	0.190	230	253	0.0	0.2	3.635	A
3 - Site	126	31	588		1006	0.125	125	110	0.0	0.1	4.085	A
4 - The Portway	218	55	477	150.57	1171	0.186	217	236	0.0	0.2	3.770	A
5 - Hillsboro Place CP	76	19	621		1167	0.065	76	74	0.0	0.1	3.299	A
6 - Lias Rd	258	65	477		1200	0.215	257	220	0.0	0.3	3.815	А



12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	550	138	313		2077	0.265	550	567	0.3	0.4	2.357	А
2 - Eastern Promenade	276	69	560		1182	0.233	276	303	0.2	0.3	3.970	A
3 - Site	150	38	704		960	0.156	150	131	0.1	0.2	4.442	A
4 - The Portway	261	65	571	179.80	1131	0.230	260	283	0.2	0.3	4.132	A
5 - Hillsboro Place CP	91	23	744		1116	0.081	91	88	0.1	0.1	3.509	A
6 - Lias Rd	308	77	571		1162	0.265	308	263	0.3	0.4	4.214	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	674	168	383		2040	0.330	673	694	0.4	0.5	2.634	A
2 - Eastern Promenade	338	85	685		1132	0.299	338	371	0.3	0.4	4.530	А
3 - Site	184	46	862		898	0.205	184	161	0.2	0.3	5.038	А
4 - The Portway	319	80	699	220.20	1077	0.297	319	346	0.3	0.4	4.748	A
5 - Hillsboro Place CP	111	28	910		1047	0.106	111	108	0.1	0.1	3.845	A
6 - Lias Rd	378	94	699		1110	0.340	377	322	0.4	0.5	4.907	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	674	168	383		2040	0.330	674	695	0.5	0.5	2.634	А
2 - Eastern Promenade	338	85	686		1131	0.299	338	371	0.4	0.4	4.536	A
3 - Site	184	46	863		897	0.205	184	161	0.3	0.3	5.044	А
4 - The Portway	319	80	700	220.20	1080	0.296	319	347	0.4	0.4	4.733	A
5 - Hillsboro Place CP	111	28	912		1047	0.106	111	108	0.1	0.1	3.847	A
6 - Lias Rd	378	94	700		1110	0.340	378	323	0.5	0.5	4.918	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	550	138	313		2077	0.265	551	568	0.5	0.4	2.361	A
2 - Eastern Promenade	276	69	561		1182	0.234	276	303	0.4	0.3	3.979	A
3 - Site	150	38	706		960	0.156	150	131	0.3	0.2	4.452	A
4 - The Portway	261	65	573	179.80	1136	0.229	261	284	0.4	0.3	4.115	A
5 - Hillsboro Place CP	91	23	746		1115	0.081	91	88	0.1	0.1	3.513	A
6 - Lias Rd	308	77	573		1161	0.266	309	264	0.5	0.4	4.226	А

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	461	115	262		2104	0.219	461	476	0.4	0.3	2.191	А
2 - Eastern Promenade	231	58	469		1219	0.190	231	254	0.3	0.2	3.649	A
3 - Site	126	31	591		1005	0.125	126	110	0.2	0.1	4.096	A
4 - The Portway	218	55	479	150.57	1179	0.185	219	237	0.3	0.2	3.750	А
5 - Hillsboro Place CP	76	19	624		1166	0.065	76	74	0.1	0.1	3.303	A
6 - Lias Rd	258	65	479		1199	0.215	259	221	0.4	0.3	3.831	A



2027 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.96	А

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.96	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2027 Base	AM	ONE HOUR	07:45	09:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	734	100.000
2 - Eastern Promenade		ONE HOUR	~	280	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	386	100.000
5 - Hillsboro Place CP		ONE HOUR	~	22	100.000
6 - Lias Rd		ONE HOUR	✓	299	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	80	0	353	47	254
	2 - Eastern Promenade	202	0	2	37	8	31
From	3 - Site	2	0	0	0	0	0
	4 - The Portway	272	66	0	0	9	39
	5 - Hillsboro Place CP	8	3	0	7	0	4
	6 - Lias Rd	129	102	0	58	10	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	3	0	2
	2 - Eastern Promenade	1	0	0	6	0	7
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	3
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	2	2	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.39	2.83	0.6	А	674	1010
2 - Eastern Promenade	0.29	4.72	0.4	А	257	385
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.38	5.20	0.6	А	354	531
5 - Hillsboro Place CP	0.02	3.58	0.0	А	20	30
6 - Lias Rd	0.29	4.46	0.4	А	274	412

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	553	138	184		2127	0.260	551	458	0.0	0.3	2.283	A
2 - Eastern Promenade	211	53	547		1175	0.179	210	188	0.0	0.2	3.727	A
3 - Site	0	0	756		937	0.000	0	1	0.0	0.0	0.000	A
4 - The Portway	291	73	414	150.57	1193	0.244	289	342	0.0	0.3	3.978	A
5 - Hillsboro Place CP	17	4	648		1156	0.014	17	56	0.0	0.0	3.159	A
6 - Lias Rd	225	56	418		1216	0.185	224	246	0.0	0.2	3.627	А



08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	660	165	221		2108	0.313	659	549	0.3	0.5	2.486	A
2 - Eastern Promenade	252	63	655		1131	0.223	251	225	0.2	0.3	4.091	A
3 - Site	0	0	905		877	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	347	87	496	179.80	1161	0.299	347	409	0.3	0.4	4.418	A
5 - Hillsboro Place CP	20	5	776		1103	0.018	20	66	0.0	0.0	3.323	A
6 - Lias Rd	269	67	501		1182	0.227	269	295	0.2	0.3	3.938	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	808	202	270		2081	0.388	807	672	0.5	0.6	2.824	A
2 - Eastern Promenade	308	77	802		1071	0.288	308	276	0.3	0.4	4.711	A
3 - Site	0	0	1108		796	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	425	106	607	220.20	1115	0.381	424	500	0.4	0.6	5.204	A
5 - Hillsboro Place CP	24	6	950		1031	0.024	24	81	0.0	0.0	3.575	A
6 - Lias Rd	329	82	613		1137	0.289	329	361	0.3	0.4	4.450	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	808	202	271		2081	0.388	808	673	0.6	0.6	2.827	А
2 - Eastern Promenade	308	77	803		1071	0.288	308	276	0.4	0.4	4.718	A
3 - Site	0	0	1109		796	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	425	106	608	220.20	1121	0.379	425	501	0.6	0.6	5.175	A
5 - Hillsboro Place CP	24	6	951		1030	0.024	24	81	0.0	0.0	3.577	A
6 - Lias Rd	329	82	614		1137	0.290	329	361	0.4	0.4	4.456	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	660	165	222		2107	0.313	661	550	0.6	0.5	2.489	A
2 - Eastern Promenade	252	63	656		1131	0.223	252	226	0.4	0.3	4.099	A
3 - Site	0	0	906		877	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	347	87	497	179.80	1169	0.297	348	410	0.6	0.4	4.389	A
5 - Hillsboro Place CP	20	5	778		1102	0.018	20	67	0.0	0.0	3.326	A
6 - Lias Rd	269	67	503		1182	0.227	269	295	0.4	0.3	3.948	А

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	553	138	185		2126	0.260	553	461	0.5	0.4	2.288	А
2 - Eastern Promenade	211	53	549		1174	0.180	211	189	0.3	0.2	3.741	A
3 - Site	0	0	759		935	0.000	0	2	0.0	0.0	0.000	А
4 - The Portway	291	73	416	150.57	1204	0.241	291	343	0.4	0.3	3.946	А
5 - Hillsboro Place CP	17	4	651		1154	0.014	17	56	0.0	0.0	3.163	A
6 - Lias Rd	225	56	421		1215	0.185	225	247	0.3	0.2	3.638	А



2027 Base, PM 4-5

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.58	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.58	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2027 Base	PM 4-5	ONE HOUR	15:45	17:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	497	100.000
2 - Eastern Promenade		ONE HOUR	~	282	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	294	100.000
5 - Hillsboro Place CP		ONE HOUR	~	83	100.000
6 - Lias Rd		ONE HOUR	✓	319	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	125	0	150	36	186
	2 - Eastern Promenade	188	0	1	36	13	44
From	3 - Site	0	0	0	2	0	0
	4 - The Portway	186	60	0	0	6	42
	5 - Hillsboro Place CP	44	15	0	13	0	11
	6 - Lias Rd	140	103	0	59	17	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	8
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.26	2.30	0.3	А	456	684
2 - Eastern Promenade	0.26	4.05	0.3	А	259	388
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.29	4.43	0.4	А	270	405
5 - Hillsboro Place CP	0.08	3.56	0.1	А	76	114
6 - Lias Rd	0.30	4.37	0.4	А	293	439

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	374	94	200		2164	0.173	373	418	0.0	0.2	2.009	А
2 - Eastern Promenade	212	53	346		1264	0.168	212	227	0.0	0.2	3.418	А
3 - Site	0	0	557		1019	0.000	0	0.75	0.0	0.0	0.000	А
4 - The Portway	221	55	363	150.57	1213	0.182	220	194	0.0	0.2	3.623	А
5 - Hillsboro Place CP	62	16	530		1206	0.052	62	54	0.0	0.1	3.148	А
6 - Lias Rd	240	60	379		1247	0.193	239	212	0.0	0.2	3.569	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	447	112	240		2143	0.208	447	501	0.2	0.3	2.122	A
2 - Eastern Promenade	254	63	414		1237	0.205	253	272	0.2	0.3	3.658	A
3 - Site	0	0	667		976	0.000	0	0.90	0.0	0.0	0.000	A
4 - The Portway	264	66	435	179.80	1180	0.224	264	232	0.2	0.3	3.928	A
5 - Hillsboro Place CP	75	19	634		1163	0.064	75	65	0.1	0.1	3.308	A
6 - Lias Rd	287	72	454		1217	0.236	286	254	0.2	0.3	3.870	А

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	547	137	294		2114	0.259	547	614	0.3	0.3	2.296	A
2 - Eastern Promenade	310	78	507		1200	0.259	310	333	0.3	0.3	4.043	A
3 - Site	0	0	816		918	0.000	0	1	0.0	0.0	0.000	A
4 - The Portway	324	81	532	220.20	1135	0.285	323	284	0.3	0.4	4.433	А
5 - Hillsboro Place CP	91	23	776		1104	0.083	91	79	0.1	0.1	3.554	A
6 - Lias Rd	351	88	556		1175	0.299	351	311	0.3	0.4	4.366	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	547	137	294		2114	0.259	547	614	0.3	0.3	2.297	А
2 - Eastern Promenade	310	78	508		1200	0.259	310	334	0.3	0.3	4.046	A
3 - Site	0	0	817		917	0.000	0	1	0.0	0.0	0.000	А
4 - The Portway	324	81	533	220.20	1138	0.284	324	284	0.4	0.4	4.419	A
5 - Hillsboro Place CP	91	23	777		1104	0.083	91	79	0.1	0.1	3.555	A
6 - Lias Rd	351	88	557		1175	0.299	351	312	0.4	0.4	4.371	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	447	112	240		2143	0.209	447	502	0.3	0.3	2.124	A
2 - Eastern Promenade	254	63	415		1237	0.205	254	273	0.3	0.3	3.665	A
3 - Site	0	0	668		976	0.000	0	0.90	0.0	0.0	0.000	A
4 - The Portway	264	66	436	179.80	1185	0.223	265	232	0.4	0.3	3.915	A
5 - Hillsboro Place CP	75	19	636		1162	0.064	75	65	0.1	0.1	3.310	A
6 - Lias Rd	287	72	456		1216	0.236	287	255	0.4	0.3	3.879	А

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	374	94	201		2164	0.173	374	421	0.3	0.2	2.013	А
2 - Eastern Promenade	212	53	347		1264	0.168	213	228	0.3	0.2	3.426	А
3 - Site	0	0	559		1018	0.000	0	0.75	0.0	0.0	0.000	A
4 - The Portway	221	55	365	150.57	1220	0.181	222	194	0.3	0.2	3.605	А
5 - Hillsboro Place CP	62	16	532		1205	0.052	63	54	0.1	0.1	3.153	A
6 - Lias Rd	240	60	381		1246	0.193	240	213	0.3	0.2	3.579	А



2027 Base, PM 5-6

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.53	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2027 Base	PM 5-6	ONE HOUR	15:45	17:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	467	100.000
2 - Eastern Promenade		ONE HOUR	~	236	100.000
3 - Site		ONE HOUR	✓	2	100.000
4 - The Portway		ONE HOUR	✓	304	100.000
5 - Hillsboro Place CP		ONE HOUR	~	71	100.000
6 - Lias Rd		ONE HOUR	✓	327	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	77	3	189	10	188
	2 - Eastern Promenade	169	0	1	29	3	34
From	3 - Site 1		0	0	1	0	0
	4 - The Portway	202	64	0	0	4	34
	5 - Hillsboro Place CP	32	13	0	13	0	13
	6 - Lias Rd	137	137	0	49	4	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	9
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.24	2.26	0.3	А	429	643
2 - Eastern Promenade	0.22	3.82	0.3	А	217	325
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.29	4.33	0.4	А	279	418
5 - Hillsboro Place CP	0.07	3.49	0.1	А	65	98
6 - Lias Rd	0.31	4.40	0.4	А	300	450

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	352	88	210		2159	0.163	351	405	0.0	0.2	1.990	А
2 - Eastern Promenade	178	44	342		1265	0.141	177	218	0.0	0.2	3.308	А
3 - Site	0	0	516		1035	0.000	0	3	0.0	0.0	0.000	A
4 - The Portway	229	57	306	150.57	1234	0.186	228	210	0.0	0.2	3.576	А
5 - Hillsboro Place CP	53	13	518		1210	0.044	53	16	0.0	0.0	3.110	А
6 - Lias Rd	246	62	370		1249	0.197	245	202	0.0	0.2	3.584	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	420	105	251		2137	0.197	420	485	0.2	0.2	2.096	A
2 - Eastern Promenade	212	53	410		1238	0.171	212	261	0.2	0.2	3.509	A
3 - Site	0	0	618		995	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	273	68	367	179.80	1205	0.227	273	252	0.2	0.3	3.863	A
5 - Hillsboro Place CP	64	16	621		1168	0.055	64	19	0.0	0.1	3.258	A
6 - Lias Rd	294	73	443		1219	0.241	294	242	0.2	0.3	3.890	А

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	514	129	308		2106	0.244	514	594	0.2	0.3	2.260	А
2 - Eastern Promenade	260	65	502		1201	0.216	260	320	0.2	0.3	3.823	A
3 - Site	0	0	757		941	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	335	84	449	220.20	1165	0.287	334	308	0.3	0.4	4.334	A
5 - Hillsboro Place CP	78	20	760		1111	0.070	78	23	0.1	0.1	3.484	A
6 - Lias Rd	360	90	542		1179	0.305	360	296	0.3	0.4	4.392	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	514	129	308		2106	0.244	514	595	0.3	0.3	2.261	А
2 - Eastern Promenade	260	65	502		1201	0.216	260	320	0.3	0.3	3.823	A
3 - Site	0	0	757		941	0.000	0	4	0.0	0.0	0.000	А
4 - The Portway	335	84	449	220.20	1168	0.287	335	308	0.4	0.4	4.321	A
5 - Hillsboro Place CP	78	20	761		1111	0.070	78	23	0.1	0.1	3.485	A
6 - Lias Rd	360	90	543		1178	0.306	360	296	0.4	0.4	4.398	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	420	105	252		2136	0.197	420	486	0.3	0.2	2.097	A
2 - Eastern Promenade	212	53	410		1238	0.171	212	262	0.3	0.2	3.514	A
3 - Site	0	0	619		995	0.000	0	4	0.0	0.0	0.000	A
4 - The Portway	273	68	367	179.80	1209	0.226	274	252	0.4	0.3	3.850	A
5 - Hillsboro Place CP	64	16	622		1168	0.055	64	19	0.1	0.1	3.263	A
6 - Lias Rd	294	73	444		1219	0.241	294	242	0.4	0.3	3.897	А

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	352	88	211		2158	0.163	352	407	0.2	0.2	1.994	А
2 - Eastern Promenade	178	44	344		1264	0.141	178	219	0.2	0.2	3.313	А
3 - Site	0	0	518		1035	0.000	0	3	0.0	0.0	0.000	A
4 - The Portway	229	57	307	150.57	1241	0.184	229	211	0.3	0.2	3.560	А
5 - Hillsboro Place CP	53	13	521		1209	0.044	53	16	0.1	0.0	3.116	A
6 - Lias Rd	246	62	372		1248	0.197	246	203	0.3	0.2	3.597	A



2027 Base, SAT

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.74	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2027 Base	SAT	ONE HOUR	11:45	13:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	571	100.000
2 - Eastern Promenade		ONE HOUR	~	306	100.000
3 - Site		ONE HOUR	✓	1	100.000
4 - The Portway		ONE HOUR	✓	302	100.000
5 - Hillsboro Place CP		ONE HOUR	~	107	100.000
6 - Lias Rd		ONE HOUR	✓	332	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	135	2	198	55	181
	2 - Eastern Promenade	195	0	0	47	18	46
From	3 - Site	1	0	0	0	0	0
	4 - The Portway	184	66	0	0	11	41
	5 - Hillsboro Place CP	56	23	0	19	0	9
	6 - Lias Rd	140	110	0	63	19	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	2	0	0	0	3
	2 - Eastern Promenade	2	0	0	0	0	2
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.30	2.51	0.4	А	524	786
2 - Eastern Promenade	0.29	4.33	0.4	А	281	421
3 - Site	0.00	0.00	0.0	А	0	0
4 - The Portway	0.30	4.55	0.4	А	277	416
5 - Hillsboro Place CP	0.11	3.67	0.1	А	98	147
6 - Lias Rd	0.32	4.59	0.5	A	305	457

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	430	107	225		2120	0.203	429	431	0.0	0.3	2.128	А
2 - Eastern Promenade	230	58	403		1244	0.185	229	251	0.0	0.2	3.544	А
3 - Site	0	0	631		989	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	227	57	386	150.57	1204	0.189	226	245	0.0	0.2	3.679	А
5 - Hillsboro Place CP	81	20	535		1202	0.067	80	77	0.0	0.1	3.209	А
6 - Lias Rd	250	62	407		1227	0.204	249	208	0.0	0.3	3.678	А



12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	513	128	269		2096	0.245	513	516	0.3	0.3	2.273	A
2 - Eastern Promenade	275	69	482		1212	0.227	275	300	0.2	0.3	3.840	A
3 - Site	0	0	755		940	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	271	68	462	179.80	1170	0.232	271	294	0.2	0.3	4.005	A
5 - Hillsboro Place CP	96	24	640		1158	0.083	96	93	0.1	0.1	3.388	A
6 - Lias Rd	298	75	488		1194	0.250	298	249	0.3	0.3	4.016	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	629	157	330		2064	0.305	628	632	0.3	0.4	2.507	A
2 - Eastern Promenade	337	84	591		1168	0.288	336	367	0.3	0.4	4.326	A
3 - Site	0	0	925		873	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	333	83	565	220.20	1123	0.296	332	360	0.3	0.4	4.549	A
5 - Hillsboro Place CP	118	29	784		1099	0.107	118	113	0.1	0.1	3.669	A
6 - Lias Rd	366	91	597		1150	0.318	365	305	0.3	0.5	4.583	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	629	157	330		2064	0.305	629	633	0.4	0.4	2.507	А
2 - Eastern Promenade	337	84	591		1168	0.288	337	368	0.4	0.4	4.330	A
3 - Site	0	0	926		873	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	333	83	566	220.20	1126	0.295	333	360	0.4	0.4	4.535	A
5 - Hillsboro Place CP	118	29	785		1098	0.107	118	113	0.1	0.1	3.670	A
6 - Lias Rd	366	91	598		1150	0.318	366	305	0.5	0.5	4.591	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	513	128	270		2096	0.245	514	518	0.4	0.3	2.275	A
2 - Eastern Promenade	275	69	483		1212	0.227	276	301	0.4	0.3	3.846	A
3 - Site	0	0	757		939	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	271	68	463	179.80	1175	0.231	272	294	0.4	0.3	3.990	A
5 - Hillsboro Place CP	96	24	642		1158	0.083	96	93	0.1	0.1	3.391	A
6 - Lias Rd	298	75	489		1194	0.250	299	249	0.5	0.3	4.025	А

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	430	107	226		2119	0.203	430	433	0.3	0.3	2.132	А
2 - Eastern Promenade	230	58	405		1244	0.185	231	252	0.3	0.2	3.557	А
3 - Site	0	0	634		988	0.000	0	2	0.0	0.0	0.000	A
4 - The Portway	227	57	387	150.57	1211	0.188	228	246	0.3	0.2	3.659	А
5 - Hillsboro Place CP	81	20	537		1201	0.067	81	78	0.1	0.1	3.212	A
6 - Lias Rd	250	62	409		1226	0.204	250	209	0.3	0.3	3.692	A



2027 Base + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	4.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.12	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2027 Base + Dev	AM	ONE HOUR	07:45	09:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	764	100.000
2 - Eastern Promenade		ONE HOUR	~	287	100.000
3 - Site		ONE HOUR	✓	67	100.000
4 - The Portway		ONE HOUR	~	387	100.000
5 - Hillsboro Place CP		ONE HOUR	√	22	100.000
6 - Lias Rd		ONE HOUR	✓	310	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	80	35	348	47	254
	2 - Eastern Promenade	202	0	9	37	8	31
From	3 - Site	44	7	0	5	0	11
	4 - The Portway	267	66	6	0	9	39
	5 - Hillsboro Place CP	8	3	0	7	0	4
	6 - Lias Rd	129	102	11	58	10	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	3	0	2
	2 - Eastern Promenade	1	0	0	6	0	7
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	3
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	2	2	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.41	2.93	0.7	А	701	1052
2 - Eastern Promenade	0.30	4.90	0.4	А	263	395
3 - Site	0.09	4.97	0.1	А	61	92
4 - The Portway	0.39	5.39	0.6	А	355	533
5 - Hillsboro Place CP	0.02	3.68	0.0	А	20	30
6 - Lias Rd	0.31	4.65	0.4	A	284	427

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	575	144	202		2120	0.271	574	487	0.0	0.4	2.327	A
2 - Eastern Promenade	216	54	583		1161	0.186	215	194	0.0	0.2	3.800	A
3 - Site	50	13	752		938	0.054	50	46	0.0	0.1	4.053	A
4 - The Portway	291	73	461	150.57	1177	0.248	290	342	0.0	0.3	4.054	A
5 - Hillsboro Place CP	17	4	695		1136	0.015	17	56	0.0	0.0	3.213	A
6 - Lias Rd	233	58	457		1201	0.194	232	254	0.0	0.2	3.714	А



08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	687	172	242		2098	0.327	686	584	0.4	0.5	2.549	A
2 - Eastern Promenade	258	65	697		1115	0.231	258	232	0.2	0.3	4.198	A
3 - Site	60	15	900		879	0.069	60	55	0.1	0.1	4.395	A
4 - The Portway	348	87	551	179.80	1142	0.305	347	409	0.3	0.4	4.529	A
5 - Hillsboro Place CP	20	5	832		1080	0.018	20	66	0.0	0.0	3.395	A
6 - Lias Rd	279	70	548		1165	0.239	278	305	0.2	0.3	4.061	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	841	210	297		2070	0.406	840	714	0.5	0.7	2.926	A
2 - Eastern Promenade	316	79	854		1052	0.300	315	284	0.3	0.4	4.887	A
3 - Site	74	18	1102		799	0.092	74	67	0.1	0.1	4.965	A
4 - The Portway	426	107	675	220.20	1093	0.390	425	500	0.4	0.6	5.386	A
5 - Hillsboro Place CP	24	6	1019		1002	0.024	24	81	0.0	0.0	3.679	A
6 - Lias Rd	341	85	670		1115	0.306	341	373	0.3	0.4	4.645	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	841	210	297		2070	0.406	841	716	0.7	0.7	2.929	А
2 - Eastern Promenade	316	79	854		1051	0.301	316	284	0.4	0.4	4.895	A
3 - Site	74	18	1103		798	0.092	74	67	0.1	0.1	4.968	А
4 - The Portway	426	107	676	220.20	1098	0.388	426	501	0.6	0.6	5.354	A
5 - Hillsboro Place CP	24	6	1021		1002	0.024	24	81	0.0	0.0	3.681	A
6 - Lias Rd	341	85	672		1115	0.306	341	373	0.4	0.4	4.653	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	687	172	243		2098	0.327	688	586	0.7	0.5	2.553	A
2 - Eastern Promenade	258	65	698		1114	0.232	259	232	0.4	0.3	4.207	A
3 - Site	60	15	902		878	0.069	60	55	0.1	0.1	4.402	A
4 - The Portway	348	87	553	179.80	1150	0.302	349	410	0.6	0.4	4.495	A
5 - Hillsboro Place CP	20	5	835		1079	0.018	20	67	0.0	0.0	3.401	A
6 - Lias Rd	279	70	550		1164	0.239	279	305	0.4	0.3	4.071	А

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	575	144	204		2119	0.271	576	490	0.5	0.4	2.332	А
2 - Eastern Promenade	216	54	585		1161	0.186	216	194	0.3	0.2	3.815	А
3 - Site	50	13	755		937	0.054	51	46	0.1	0.1	4.062	А
4 - The Portway	291	73	463	150.57	1188	0.245	292	343	0.4	0.3	4.020	А
5 - Hillsboro Place CP	17	4	699		1135	0.015	17	56	0.0	0.0	3.220	A
6 - Lias Rd	233	58	460		1200	0.195	234	255	0.3	0.2	3.729	А



2027 Base + Dev, PM 4-5

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.79	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2027 Base + Dev	PM 4-5	ONE HOUR	15:45	17:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	549	100.000
2 - Eastern Promenade		ONE HOUR	~	294	100.000
3 - Site		ONE HOUR	✓	99	100.000
4 - The Portway		ONE HOUR	✓	296	100.000
5 - Hillsboro Place CP		ONE HOUR	~	83	100.000
6 - Lias Rd		ONE HOUR	✓	338	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	125	59	143	36	186
	2 - Eastern Promenade	188	0	13	36	13	44
From	3 - Site	57	12	0	12	0	18
	4 - The Portway	176	60	12	0	6	42
	5 - Hillsboro Place CP	44	15	0	13	0	11
	6 - Lias Rd	140	103	19	59	17	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	8
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.29	2.42	0.4	А	504	756
2 - Eastern Promenade	0.28	4.28	0.4	А	270	405
3 - Site	0.12	4.44	0.1	А	91	136
4 - The Portway	0.30	4.63	0.4	А	272	407
5 - Hillsboro Place CP	0.09	3.70	0.1	А	76	114
6 - Lias Rd	0.33	4.67	0.5	A	310	465

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	413	103	232		2147	0.193	412	454	0.0	0.2	2.074	A
2 - Eastern Promenade	221	55	408		1240	0.178	220	236	0.0	0.2	3.526	А
3 - Site	75	19	552		1021	0.073	74	77	0.0	0.1	3.801	A
4 - The Portway	223	56	428	150.57	1190	0.187	222	197	0.0	0.2	3.715	A
5 - Hillsboro Place CP	62	16	596		1178	0.053	62	54	0.0	0.1	3.225	A
6 - Lias Rd	254	64	433		1226	0.208	253	226	0.0	0.3	3.699	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	494	123	278		2123	0.233	493	543	0.2	0.3	2.209	A
2 - Eastern Promenade	264	66	489		1208	0.219	264	283	0.2	0.3	3.812	A
3 - Site	89	22	660		979	0.091	89	93	0.1	0.1	4.045	A
4 - The Portway	266	67	513	179.80	1153	0.231	266	236	0.2	0.3	4.055	A
5 - Hillsboro Place CP	75	19	714		1130	0.066	75	65	0.1	0.1	3.410	A
6 - Lias Rd	304	76	518		1191	0.255	304	270	0.3	0.3	4.055	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	604	151	341		2089	0.289	604	665	0.3	0.4	2.424	А
2 - Eastern Promenade	324	81	598		1165	0.278	323	346	0.3	0.4	4.277	А
3 - Site	109	27	808		921	0.118	109	113	0.1	0.1	4.435	A
4 - The Portway	326	81	628	220.20	1103	0.296	325	289	0.3	0.4	4.627	А
5 - Hillsboro Place CP	91	23	874		1064	0.086	91	79	0.1	0.1	3.700	A
6 - Lias Rd	372	93	634		1144	0.325	372	331	0.3	0.5	4.659	А

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	604	151	341		2089	0.289	604	666	0.4	0.4	2.424	А
2 - Eastern Promenade	324	81	599		1164	0.278	324	347	0.4	0.4	4.281	A
3 - Site	109	27	809		920	0.118	109	113	0.1	0.1	4.436	А
4 - The Portway	326	81	629	220.20	1106	0.295	326	290	0.4	0.4	4.613	A
5 - Hillsboro Place CP	91	23	875		1064	0.086	91	79	0.1	0.1	3.702	A
6 - Lias Rd	372	93	635		1144	0.325	372	331	0.5	0.5	4.666	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	494	123	279		2122	0.233	494	545	0.4	0.3	2.211	A
2 - Eastern Promenade	264	66	490		1208	0.219	265	284	0.4	0.3	3.816	A
3 - Site	89	22	662		978	0.091	89	93	0.1	0.1	4.050	A
4 - The Portway	266	67	514	179.80	1158	0.230	267	237	0.4	0.3	4.040	A
5 - Hillsboro Place CP	75	19	716		1129	0.066	75	65	0.1	0.1	3.413	A
6 - Lias Rd	304	76	520		1191	0.255	304	271	0.5	0.3	4.064	А

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	413	103	234		2146	0.193	414	456	0.3	0.2	2.079	А
2 - Eastern Promenade	221	55	410		1240	0.179	222	237	0.3	0.2	3.535	А
3 - Site	75	19	554		1021	0.073	75	78	0.1	0.1	3.808	A
4 - The Portway	223	56	430	150.57	1197	0.186	223	198	0.3	0.2	3.698	А
5 - Hillsboro Place CP	62	16	599		1177	0.053	63	54	0.1	0.1	3.231	A
6 - Lias Rd	254	64	435		1225	0.208	255	227	0.3	0.3	3.713	A



2027 Base + Dev, PM 5-6

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	3.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.73	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2027 Base + Dev	PM 5-6	ONE HOUR	15:45	17:15	15	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	521	100.000
2 - Eastern Promenade		ONE HOUR	✓	248	100.000
3 - Site		ONE HOUR	✓	96	100.000
4 - The Portway		ONE HOUR	✓	306	100.000
5 - Hillsboro Place CP		ONE HOUR	~	71	100.000
6 - Lias Rd		ONE HOUR	✓	346	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	Го			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	77	65	181	10	188
	2 - Eastern Promenade	169	0	13	29	3	34
From	3 - Site	56	12	0	11	0	17
	4 - The Portway	194	64	10	0	4	34
	5 - Hillsboro Place CP	32	13	0	13	0	13
	6 - Lias Rd	137	137	19	49	4	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	0	0	0	0	0
	2 - Eastern Promenade	1	0	0	0	0	9
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
ŀ	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	2	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.28	2.39	0.4	А	478	717
2 - Eastern Promenade	0.23	4.03	0.3	А	228	341
3 - Site	0.11	4.29	0.1	А	88	132
4 - The Portway	0.30	4.52	0.4	А	281	421
5 - Hillsboro Place CP	0.07	3.62	0.1	А	65	98
6 - Lias Rd	0.33	4.69	0.5	A	317	476

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	392	98	241		2142	0.183	391	441	0.0	0.2	2.054	А
2 - Eastern Promenade	187	47	405		1241	0.150	186	227	0.0	0.2	3.411	А
3 - Site	72	18	510		1038	0.070	72	80	0.0	0.1	3.728	А
4 - The Portway	230	58	370	150.57	1211	0.190	229	212	0.0	0.2	3.664	А
5 - Hillsboro Place CP	53	13	584		1184	0.045	53	16	0.0	0.0	3.184	А
6 - Lias Rd	260	65	422		1228	0.212	259	215	0.0	0.3	3.714	А



16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	468	117	288		2117	0.221	468	528	0.2	0.3	2.183	A
2 - Eastern Promenade	223	56	484		1209	0.184	223	272	0.2	0.2	3.649	A
3 - Site	86	22	611		998	0.086	86	96	0.1	0.1	3.947	A
4 - The Portway	275	69	443	179.80	1178	0.233	275	254	0.2	0.3	3.983	A
5 - Hillsboro Place CP	64	16	699		1136	0.056	64	19	0.0	0.1	3.355	A
6 - Lias Rd	311	78	506		1194	0.260	311	257	0.3	0.4	4.074	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	574	143	353		2082	0.275	573	647	0.3	0.4	2.385	A
2 - Eastern Promenade	273	68	593		1166	0.234	273	333	0.2	0.3	4.029	A
3 - Site	106	26	748		944	0.112	106	118	0.1	0.1	4.291	A
4 - The Portway	337	84	542	220.20	1133	0.297	336	311	0.3	0.4	4.515	A
5 - Hillsboro Place CP	78	20	856		1072	0.073	78	23	0.1	0.1	3.621	A
6 - Lias Rd	381	95	619		1148	0.332	380	315	0.4	0.5	4.687	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	574	143	353		2082	0.276	574	647	0.4	0.4	2.385	А
2 - Eastern Promenade	273	68	593		1166	0.234	273	334	0.3	0.3	4.032	А
3 - Site	106	26	749		944	0.112	106	118	0.1	0.1	4.293	А
4 - The Portway	337	84	543	220.20	1136	0.296	337	312	0.4	0.4	4.502	А
5 - Hillsboro Place CP	78	20	857		1071	0.073	78	23	0.1	0.1	3.623	A
6 - Lias Rd	381	95	620		1148	0.332	381	315	0.5	0.5	4.694	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	468	117	289		2117	0.221	469	529	0.4	0.3	2.184	A
2 - Eastern Promenade	223	56	485		1209	0.184	223	273	0.3	0.2	3.655	A
3 - Site	86	22	612		998	0.086	86	96	0.1	0.1	3.951	A
4 - The Portway	275	69	444	179.80	1183	0.232	276	255	0.4	0.3	3.968	A
5 - Hillsboro Place CP	64	16	700		1136	0.056	64	19	0.1	0.1	3.358	A
6 - Lias Rd	311	78	507		1194	0.261	312	257	0.5	0.4	4.085	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	392	98	242		2142	0.183	392	443	0.3	0.2	2.059	А
2 - Eastern Promenade	187	47	406		1240	0.151	187	228	0.2	0.2	3.417	А
3 - Site	72	18	512		1037	0.070	72	81	0.1	0.1	3.731	А
4 - The Portway	230	58	371	150.57	1219	0.189	231	213	0.3	0.2	3.646	А
5 - Hillsboro Place CP	53	13	586		1183	0.045	54	16	0.1	0.0	3.187	A
6 - Lias Rd	260	65	424		1227	0.212	261	215	0.4	0.3	3.725	А



2027 Base + Dev, SAT

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4106 Portway Rbt	Standard Roundabout		1, 2, 3, 4, 5, 6	4.15	А

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.15	А

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2027 Base + Dev	SAT	ONE HOUR	11:45	13:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A4106 (N)		ONE HOUR	~	641	100.000
2 - Eastern Promenade		ONE HOUR	~	324	100.000
3 - Site		ONE HOUR	✓	167	100.000
4 - The Portway		ONE HOUR	✓	305	100.000
5 - Hillsboro Place CP		ONE HOUR	~	107	100.000
6 - Lias Rd		ONE HOUR	✓	359	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A4106 (N)		
2 - Eastern Promenade		
3 - Site		
4 - The Portway	[ONEHOUR]	200.00
5 - Hillsboro Place CP		
6 - Lias Rd		



			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	135	85	185	55	181
	2 - Eastern Promenade	195	0	18	47	18	46
From	3 - Site	98	20	0	18	0	31
	4 - The Portway	171	66	16	0	11	41
	5 - Hillsboro Place CP	56	23	0	19	0	9
	6 - Lias Rd	140	110	27	63	19	0

Vehicle Mix

Heavy Vehicle Percentages

			-	То			
		1 - A4106 (N)	2 - Eastern Promenade	3 - Site	4 - The Portway	5 - Hillsboro Place CP	6 - Lias Rd
	1 - A4106 (N)	0	2	0	0	0	3
	2 - Eastern Promenade	2	0	0	0	0	2
From	3 - Site	0	0	0	0	0	0
	4 - The Portway	0	0	0	0	0	0
	5 - Hillsboro Place CP	0	0	0	0	0	0
	6 - Lias Rd	0	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A4106 (N)	0.35	2.72	0.5	A 588		882
2 - Eastern Promenade	0.32	4.72	0.5	А	297	446
3 - Site	0.21	5.18	0.3	А	153	230
4 - The Portway	0.31	4.91	0.5	А	280	420
5 - Hillsboro Place CP	0.11	3.95	0.1	А	98	147
6 - Lias Rd	0.36	5.13	0.6	A	329	494

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	483	121	272		2099	0.230	481	495	0.0	0.3	2.225	А
2 - Eastern Promenade	244	61	488		1211	0.201	243	266	0.0	0.3	3.714	А
3 - Site	126	31	621		993	0.127	125	110	0.0	0.1	4.146	А
4 - The Portway	230	57	497	150.57	1165	0.197	229	249	0.0	0.2	3.842	A
5 - Hillsboro Place CP	81	20	649		1155	0.070	80	77	0.0	0.1	3.348	А
6 - Lias Rd	270	68	498		1192	0.227	269	231	0.0	0.3	3.898	А


12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	576	144	326		2070	0.278	576	593	0.3	0.4	2.409	А
2 - Eastern Promenade	291	73	584		1173	0.248	291	318	0.3	0.3	4.083	A
3 - Site	150	38	744		945	0.159	150	131	0.1	0.2	4.529	A
4 - The Portway	274	69	595	179.80	1124	0.244	274	298	0.2	0.3	4.235	A
5 - Hillsboro Place CP	96	24	777		1102	0.087	96	93	0.1	0.1	3.576	A
6 - Lias Rd	323	81	596		1152	0.280	322	277	0.3	0.4	4.339	А

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	706	176	399		2031	0.347	705	726	0.4	0.5	2.713	A
2 - Eastern Promenade	357	89	715		1120	0.319	356	389	0.3	0.5	4.712	A
3 - Site	184	46	911		879	0.209	184	161	0.2	0.3	5.176	A
4 - The Portway	336	84	729	220.20	1068	0.314	335	365	0.3	0.5	4.911	A
5 - Hillsboro Place CP	118	29	951		1030	0.114	118	113	0.1	0.1	3.944	A
6 - Lias Rd	395	99	730		1097	0.360	395	339	0.4	0.6	5.116	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	706	176	400		2031	0.348	706	727	0.5	0.5	2.716	A
2 - Eastern Promenade	357	89	716		1119	0.319	357	390	0.5	0.5	4.719	A
3 - Site	184	46	912		878	0.209	184	161	0.3	0.3	5.183	A
4 - The Portway	336	84	730	220.20	1072	0.313	336	366	0.5	0.5	4.892	A
5 - Hillsboro Place CP	118	29	952		1030	0.114	118	113	0.1	0.1	3.946	А
6 - Lias Rd	395	99	731		1097	0.360	395	339	0.6	0.6	5.129	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	576	144	327		2069	0.278	577	594	0.5	0.4	2.414	A
2 - Eastern Promenade	291	73	585		1172	0.249	292	319	0.5	0.3	4.093	A
3 - Site	150	38	745		944	0.159	150	131	0.3	0.2	4.538	A
4 - The Portway	274	69	597	179.80	1129	0.243	275	299	0.5	0.3	4.214	A
5 - Hillsboro Place CP	96	24	779		1102	0.087	96	93	0.1	0.1	3.580	A
6 - Lias Rd	323	81	598		1151	0.280	323	277	0.6	0.4	4.355	А

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A4106 (N)	483	121	274		2098	0.230	483	498	0.4	0.3	2.229	А
2 - Eastern Promenade	244	61	490		1211	0.202	244	267	0.3	0.3	3.728	А
3 - Site	126	31	624		992	0.127	126	110	0.2	0.1	4.159	А
4 - The Portway	230	57	500	150.57	1172	0.196	230	250	0.3	0.2	3.823	A
5 - Hillsboro Place CP	81	20	652		1154	0.070	81	78	0.1	0.1	3.353	A
6 - Lias Rd	270	68	501		1190	0.227	271	232	0.4	0.3	3.915	A