

Project number:	19188	Project name:	Land north of Lewis Square, Abercanaid
Prepared by:	RB/ABR		
Subject:	Response to Local Highway Authority		
Date:	17 th January, 2020	File name:	19188d1

1 Introduction

1.1 Background

1.1.1 This Technical Note has been prepared by Lime Transport on behalf of Mr William Marshall to prepare a response to the issues raised by the Local Highway Authority (LHA) regarding the application for holiday accommodation.

1.1.2 The proposed campsite development of 32 holiday accommodation units, is located to the north of the existing 'The View Campsite' at Lewis Square, approximately 750m north of Abercanaid village centre within the Merthyr Tydfil Borough Council.

1.1.3 The location of the site is shown in **Figure 1.1** below.



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Figure 1.1

Site location

1.2 Planning history

1.2.1 A planning application (app. ref P/18/0349) was previously submitted in November 2018 and the consultation response from the LHA states:

‘The applicant has failed to provide sufficient information to demonstrate that the existing highway (Lewis Square) serving the site can adequately accommodate the additional traffic generated by the development without creating traffic hazards to the detriment of highway and pedestrian safety. As such, the proposed development is contrary to Policy BW12 of the Merthyr Tydfil Local Development Plan 2006-2021’.

1.2.2 It is stated in Policy BW12 that, the Council will expect new developments to demonstrate how they:

- ‘help reduce the need to travel;
- Encourage the use of transport other than the private car;
- Avoid increasing traffic to unacceptable levels;
- Avoid causing or exacerbating highway safety problems’.

1.3 Scope and structure of the report

1.3.1 The purposed of this Technical Note is to assess the impact of the proposed development on the local highway network and provide a response to the LHA.

1.3.2 Following this introductory section, the report is structured as follows:

- Section 2 describes the existing conditions;
- Section 3 outlines development proposals including the pedestrian facilities, the layout of the proposed access onto Glyndyrus Close and required visibility splays;
- Section 4 predicts the likely travel characteristics of the proposed development (by mode) based on TRICS trip generation database;
- Section 5 assess the impact of the proposed development on the local highway network and in particular, the operation of the Lewis Square/Glyndyrus Close priority junction and C246/Lewis Square roundabout; and,
- Section 6 provides summary and conclusions.

2 Existing situation

2.1 Site location

2.1.1 This section of the Technical Note describes the existing transport network within the vicinity of the site, including a description of the local highway network and the most recent accident data.

2.1.2 The proposed development is bounded by:

- A470 to the west;
- Glyndyrus Close to the east;
- The View Camping site to the south; and,
- Residential property to the north.

2.2 Walking

2.2.1 The development site is accessible by walking, cycling and public transport as described below.

2.2.2 In the vicinity of the site, footway is provided along the southern edge of Lewis Square. This footway provides a convenient access to the bus stop along the C246 to the east. Footways are also provided continuously along the eastern edge of the C246.

2.2.3 There are various bridleways in the vicinity of the site, which can be used by pedestrians, cyclists and equestrians and provide safe accesses to various facilities in the vicinity of the site. These bridleways are summarised below and illustrated in **Figure 2.1**:

- Bridleway (MT:466/110 12) – provided to the north of the site under the A470;
- Bridleways (MT:372/110 79 and MT576/110 78) – along the C246 provides safe access to Abercanaid village centre to the south and Merthyr Tydfil Leisure Village (with various facilities) to the north; and,
- Bridleway (MT:807/110 50) – provided to the south of the site from Lewis Square to Graig Road to the south through the wooded area.

2.2.4 It should be noted that the northern end of Gethin Street is a restricted byway, which allows a right of way for pedestrians, cyclists and equestrians. Based on site observations this is well used by pedestrians.

2.2.5 There is a convenient access provided to Pentre Bach railway station with a pedestrian footpath from Hopkins Close (to the south) to Cardiff Street via the pedestrian overbridge provided over the River Taff. Outside the station there is a signalised pedestrian crossing provided with dropped kerbs and tactile paving over Merthyr Road.

2.2.6 The Chartered Institution of Highways and Transportation (CIHT) '*Providing for Journeys on Foot*' indicates that the desirable walking distance for commuting and school journeys is 500m, the acceptable walking distance is 1km, and 2km is the preferred maximum.

2.2.7 The CIHT guidelines also indicate that the desirable walking distance for 'elsewhere', including local amenities is 400m, the acceptable walking distance is 800m and 1.2km is the preferred maximum.

2.2.8 There are various facilities provided within 2km of the site, within Abercanaid village centre to the south and Merthyr Tydfil Leisure Village to the north. These facilities are illustrated on Figure 2.1 and summarised below:

- Pubs – 750-2km;
- Place of worship – 1.1km;
- Pentre Bach railway station 1.3km;
- Restaurant – 1.6km;
- Pentrebach Retail Park (with retail, foodstore and café facilities) – 1.7km;
- Merthyr Tydfil Leisure Village (including cinema, restaurants/pubs, leisure centre, skate park, bowling centre) – 1.3-1.8km; and,
- Food superstore – 1.9km.

2.3 Cycling

2.3.1 The closest cycle route to the site is a National Cycle Network (NCN) route 8, located approximately 130m to the east of the site and can be accessed via Lewis Square. NCN Route 8 (also known as Lon Las Cymru) is a long-distance route provided from Cardiff to Anglesey. This route is provided on a mixture of traffic-free and on-road routes. In the vicinity of the site, this route is traffic-free and provides access to Pentrebach, Merthyr Vale and Abercynon to the south and Merthyr Tydfil, Trefechan and Pontsticill to the north. In addition, as described in Section 2.2, there are various public rights of way in the vicinity of the site, which can be used by cyclists.

2.4 Public transport

2.4.1 The closest bus stop is located approximately 130m to the south east of the site on the C246. This bus stop is served by route 21. Route 21 runs on Saturday only and provides connections between Merthyr Leisure Village (to the north) and Abercanaid (to the south) with hourly services between 09:47am and 17:47pm.

2.4.2 Additional bus stops are located on A4054 outside Pentrebach Station, approximately 1.3km to the south of the site. This bus stop is served by services 78/A, 79, E79, S79, S80 and X4. These services provide access to Merthyr Tydfil, Bedlinog, Pontypridd, Treharris, Nelson and Cardiff.

2.4.3 Pentrebach railway station is located approximately 1.3km to the south of the site. This station can be accessed via the existing bridleway and Gethin Street or the C246. This station is on the Merthyr Line and is operated by Transport for Wales. Services are provided to:

- Merthyr Tydfil to the north (two per hour);
- Pontypridd, Radyr, Cardiff Central, Cardiff Airport (via bus link), Barry to the south (two per hour); and,
- Bridgend to the south-west (one per hour).

2.4.4 There is no parking provided at this station. There is a step-free access and ramp for train access provided at this station.

2.4.5 Merthyr Tydfil railway station is located on the Merthyr Line and provides the same services are provided at this station as Pentrebach. There is also a station car park provided at this station with 34 car parking spaces (including three accessible) and 10 cycle parking spaces near the station entrance.

2.4.6 All public transport facilities are illustrated in Figure 2.1.

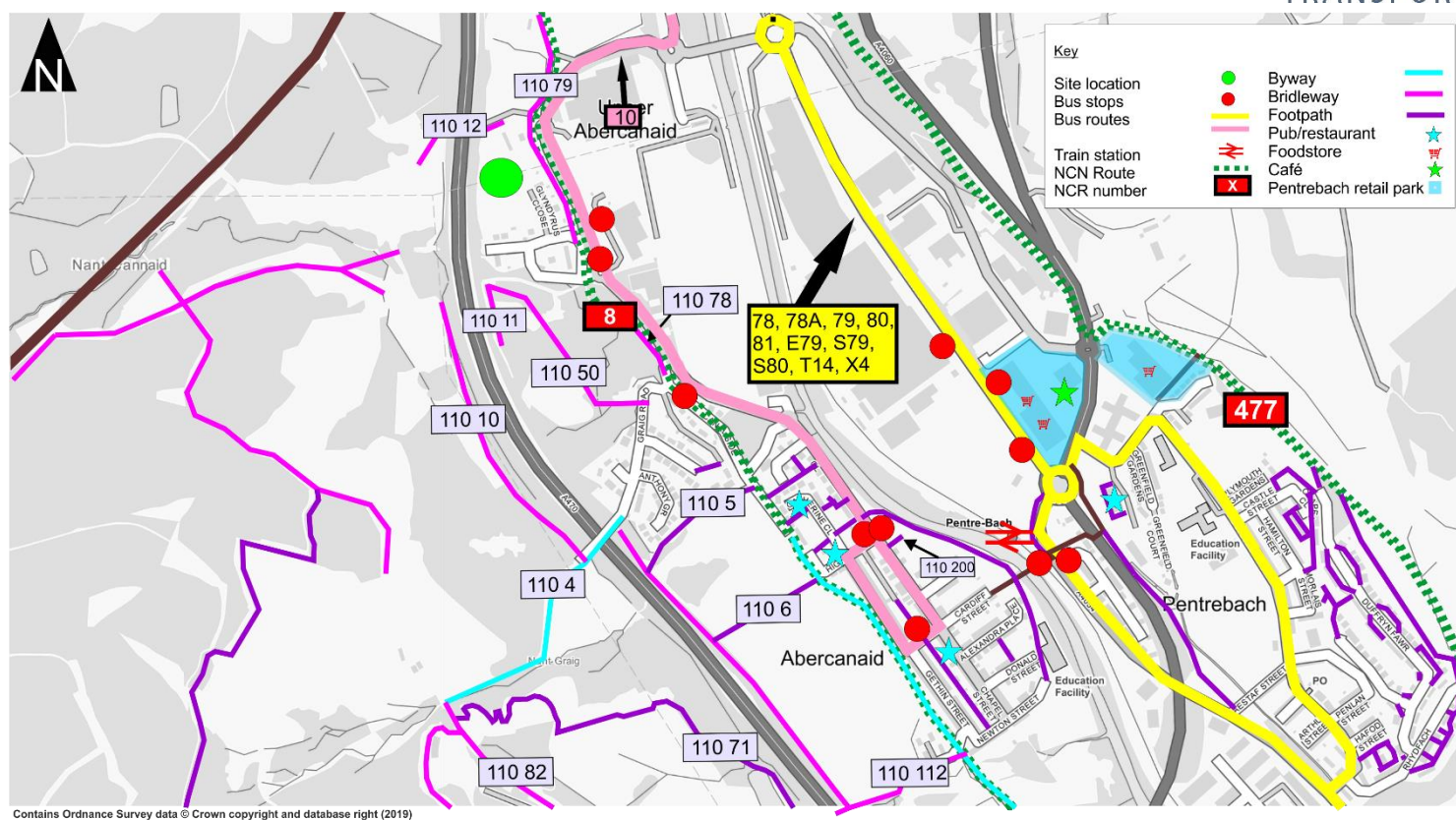


Figure 2.1 Local facilities, cycle, pedestrian and bus routes

2.5 Local highway network

2.5.1 The local highway network is summarised in **Table 2.1** below.

Table 2.1 Description of the local highway network

Road name	Description
Lewis Square	
Description	A single carriageway, residential loop road, which can be accessed via a roundabout junction with the C246.
Carriageway width	Approximately 4.8-5m
Speed limit	30mph
Street lighting	Yes, throughout the length of the carriageway.
Crossing facilities	Dropped kerb on approach to the bus stop.
Bus route	No
On-street parking	No parking restrictions.
Character	Residential loop road fronted by residential properties.
Glyndyrus Close	
Description	A single carriageway private access road, which can be accessed via a priority junction with Lewis Square.
Carriageway width	4.3m

Speed limit	30mph
Street lighting	None
Crossing facilities	None
Bus route	No
On-street parking	No parking restrictions.
Character	Residential access road fronted by residential properties.

2.6 Personal injury accident data

2.6.1 Personal injury accident data has been obtained for the period of 2014 to 2018 (inclusive) for the area surrounding the site. It should be noted that no accidents occurred in the vicinity of the site within the last five years.

2.6.2 It is considered that the proposed development will generate a limited volume of vehicular traffic and will, therefore, have a minimal impact on the road safety in the vicinity of the site.

3 Development proposals

3.1.1 As described in Section 1, the submitted planning application is for a development of 32 holiday accommodation units and includes the following:

- Eight glamping pods;
- Two shepherd huts;
- 14 touring pitches;
- Eight tent pitches;
- Toilet/welfare block; and,
- Bike store.

3.1.2 The proposed development is illustrated in **Figure 3.1** below.



Figure 3.1 Development proposals

3.2 Vehicle access

- 3.2.1 It is anticipated that access to the site will be maintained via Glyndyrus Close, approximately 15m north of the existing access to 'The View Camping'. The width of the existing lane is approximately 2.9m and it widens to 5.2m at the junction bell mouth to the south.
- 3.2.2 The lane is approximately 85m long with a gradient of 1 in 7, which for a development of this size is considered acceptable.
- 3.2.3 It should be noted that to the north of the site access/Glyndyrus Close junction, Glyndyrus Close provides access to three properties. It is considered that the speed of vehicles travelling along Glyndyrus Close will be very low and, therefore, visibility at the site access/Glyndyrus Close is sufficient. Drivers will be able to see to the left and right of the access on their approach to Glyndyrus Close.
- 3.2.4 In addition, given the width of the carriageway a passing place will be provided along the proposed access road.

3.3 Visibility at the site access

- 3.3.1 To the west of the junction with Glyndyrus Close, Lewis Square provides access to 12 properties. To the east of the Glyndyrus Close, the bend in the road results in low vehicle speeds. Given the low volume of traffic generated by the existing properties and the bend in the carriageway, it is anticipated that vehicles will be travelling under 30mph, at a likely speed of 15mph.
- 3.3.2 Based on the above, a visibility splay for a 15mph speed road is equivalent to a stopping sight distance (adjusted for bonnet length) of 17m. Given that Glyndyrus Close provides access to five properties, a 2m set back has been used. The MfS2 states that a *'distance of 2m may be considered in some slow-speed situations when flows on the minor arm are low'*. MfS2 also states that *'a more accurate assessment of visibility splay is made by measuring to the nearside edge of the vehicle track'*. Therefore, the visibility splay has been drawn 1.5m into the carriageway. This is illustrated in **Appendix A**.

3.4 Pedestrian access

- 3.4.1 Pedestrian access will be provided along the proposed access road and Glyndyrus Close. Based on the surveys carried out, the survey shows that, during the AM peak, 14 vehicles use Lewis Square (see Section 4), which is equivalent to one vehicle every four minutes and, in the PM peak 10 vehicles use Lewis Square, which is equivalent to one vehicle every six minutes. There is an existing footway provided on the southern side of Lewis Square, which provides convenient access to the bus stop on C246 and the PRoW leading to Merthyr Tydfil Leisure Village to the north.
- 3.4.2 There have been no accidents within the last 10 years on either Lewis Square or C246. Therefore, it is considered that additional traffic associated with 32 holiday accommodation units, (which will generate a maximum of one vehicle every five minutes) will have a negligible impact on the safety of pedestrians and cyclists.

4 Likely travel characteristics

4.1 Introduction

- 4.1.1 In order to assess the impact of the proposed development of 32 holiday accommodation units on the existing highway network in Abercanaid, it is necessary to assess the number of vehicle trips likely to be generated by the proposed development. This section of the Technical Note, therefore, outlines the methodology used to predict the person trip generation (by mode), distribution and assignment.

4.2 Vehicle trip generation – holiday accommodation

- 4.2.1 The TRCIS (v.7.6.4) trip generation database has been reviewed to predict the likely level of trips generated by the proposed development, and the sites were selected on the basis of the following criteria:

- Land use: residential – holiday accommodation;
- Survey type: Multi-modal
- Survey days: Monday - Thursday
- Number of units: 0 to 500 units; and,
- Type of location: all apart from town centre;
- Location of development: UK, excluding Greater London, Northern Ireland and Republic of Ireland.

4.2.2 There is a very limited number of multi-modal holiday accommodation sites available on TRICS database and only one site in Shrewsbury (with 115 units) could be found. The trip rates are summarised in **Table 4.1** below, and presented in full in **Appendix B**.

Table 4.1 Weekday persons trip rates – holiday accommodation

Time period	Arrival trip rate	No. of arrivals	Depart trip rate	No. of departs	Total trip rate	Total no. of movements
Total persons						
8am-9am	0.043	1	0.122	4	0.165	5
10am-11am	0.270	9	0.348	11	0.618	20
4pm-5pm	0.522	17	0.339	11	0.861	28
5pm-6pm	0.383	12	0.270	9	0.653	21
7am-7pm	3.879	124	3.836	123	7.715	247
Pedestrians						
8am-9am	0.000	0	0.035	1	0.035	1
10am-11am	0.009	0	0.017	1	0.026	1
4pm-5pm	0.026	1	0.009	0	0.035	1
5pm-6pm	0.017	1	0.043	1	0.060	2
7am-7pm	0.642	21	0.669	21	1.311	42
Cyclists						
8am-9am	0.000	0	0.000	0	0.000	0
10am-11am	0.000	0	0.017	1	0.017	1
4pm-5pm	0.000	0	0.000	0	0.000	0
5pm-6pm	0.000	0	0.000	0	0.000	0
7am-7pm	0.018	1	0.017	1	0.035	1
Public transport users						
8am-9am	0.000	0	0.000	0	0.000	0
10am-11am	0.009	0	0.104	3	0.113	4
4pm-5pm	0.035	1	0.017	1	0.052	2
5pm-6pm	0.052	2	0.009	0	0.061	2
7am-7pm	0.245	8	0.234	7	0.479	15
Vehicles						
8am-9am	0.035	1	0.061	2	0.096	3
10am-11am	0.157	5	0.13	4	0.287	9
4pm-5pm	0.200	6	0.139	4	0.339	11
5pm-6pm	0.122	4	0.096	3	0.218	7
7am-7pm	1.445	46	1.444	46	2.889	92

4.2.3 It can be seen from the table above that the proposed development could generate a total of 274 total person movements per day, with three vehicle trips (two-way) in the AM (8am-9am) and seven vehicle trips (two-way) in the PM (5pm-6pm). It should also be noted that, this would result in:

- One vehicle every 20 minutes in the AM peak (or one vehicle arrival every 60 minutes and one vehicle departure every 30 minutes); and,
- One vehicle every nine minutes in the PM peak (or one vehicle arrival every 12 minutes and one vehicle departure every 15 minutes).

4.2.4 It can also be seen that the morning peak time for the development, for vehicles, is between 10am-11am, which is likely to generate nine vehicle movements (two-way). The afternoon peak time for the development is between 4pm-5pm, which is likely to generate 11 vehicle movements (two-way).

4.2.5 Walking and vehicles are likely to be the most popular modes of travel, with walking representing 17% of daily trips and vehicles representing 37% of daily trips.

4.2.6 Given the proximity to Abercanaid Village Centre, Merthyr Tydfil Leisure Village and Pentrebach Retail Park, a large proportion of trips are likely to be undertaken by foot, thus resulting in a higher number of walking trips and a lower number of vehicle trips than predicted.

4.2.7 The trip rates used are considered robust and are higher than the ones used in the 2017 Transport Assessment for Blaen y Garth holiday resort development (planning ref. P/16/0095). Based on the Blaen y Garth trip rates:

- Daily vehicle arrival trip rate of 1.208 and departure rate of 0.930, which would result in a total of 69 vehicle movements;
- Two-way AM peak vehicle trip rate of 0.063, which would result in two vehicle movements; and,
- Two-way PM peak vehicle trip rate of 0.205, which would result in seven vehicle movements.

5 Impact on the local highway network

5.1 Distribution of development traffic

5.1.1 It is considered that all vehicles will turn left into and out of Glyndyrus Close junction. In addition, it is considered that 50% of traffic will travel along the C246 northern arm to/from Merthyr Tydfil, Abergavenny, Brecon, Swansea and Herefordshire and the other 50% will travel along the C246 southern arm to/from Cardiff, Newport, Bristol and Gloucestershire.

5.2 Vehicle impact on the local highway network

5.2.1 Surveys were carried out at the Glyndyrus Close/Lewis Square priority junction and at the Lewis Square/C246 roundabout on 10th Friday 2020 between 7.30am-9.30am and 3.30-6.00pm. The AM peak hour is 8:15am-09:15am and the PM peak hour is 4:30pm-5:30pm.

5.2.2 **Table 5.1** below provides a percentage impact analysis on each arm of the two junctions.

Table 5.1 %tage impact analysis

Lewis Square/Glyndyrus Close					
		2020 flows	Dev. flows	Total flows	% impact
Total junction	AM	14	3	17	21.4
	PM	10	7	17	70.0
Arm A (site access)	AM	4	3	7	75.0
	PM	3	7	10	233.3
Arm B (Lewis Square east)	AM	14	3	17	21.4
	PM	10	7	17	70.0
Arm C (Lewis Square west)	AM	10	0	10	0.0
	PM	7	0	7	0.0
Lewis Square/C246					
		2020 flows	Dev. flows	Total flows	% impact
Total junction	AM	349	3	352	0.9
	PM	307	7	314	2.3
Arm A (C246 north)	AM	342	2	344	0.6
	PM	306	4	310	1.3
Arm B (car park access)	AM	4	0	4	0.0
	PM	3	0	3	0.0
Arm C (C246 south)	AM	331	2	333	0.6
	PM	290	4	294	1.4
Arm D (Lewis Square)	AM	20	3	23	15.0
	PM	15	7	22	46.7

5.2.3 It can be seen from the table above that the percentage impact of the proposed development on the Lewis Square/Glyndyrus Close junction in the AM peak is 21.4% and in the PM peak it is 70.0%. However, this is due to already very low traffic flows at this junction. It should also be noted that the observed flows at the Lewis Square/Glyndyrus Close junction and the flows likely to be generated by the proposed development add up to 17 vehicles in both peak periods. This is equivalent to one vehicle every 3-4 minutes, suggesting that the impact of the development is minimal, therefore, junction capacity analysis is not required.

5.2.4 It can also be seen that the percentage impact of the proposed development on the Lewis Square/C246 roundabout is 0.9% in the AM peak and 2.3% in the PM peak, which is less than 5%. It should be noted that whilst the impact of the development traffic is greater in the PM peak, the total flows at the roundabout are higher in the AM peak. It is estimated, that with the addition of development traffic, 352 vehicles will use the Lewis Square/C246 roundabout in the AM peak, which is equivalent to approximately one vehicle every 10 seconds. During the PM peak, 314 vehicles will use the roundabout, which is equivalent to one vehicle every 12 seconds.

- 5.2.5 It is, therefore, considered that the impact of the proposed development will have a negligible impact on the capacity of the surrounding highway network. Given that the percentage impact of development traffic is less than 5% and the traffic generated by the proposed development is less than 30 vehicles, junction capacity analysis is not required at this junction.

6 Summary and conclusions

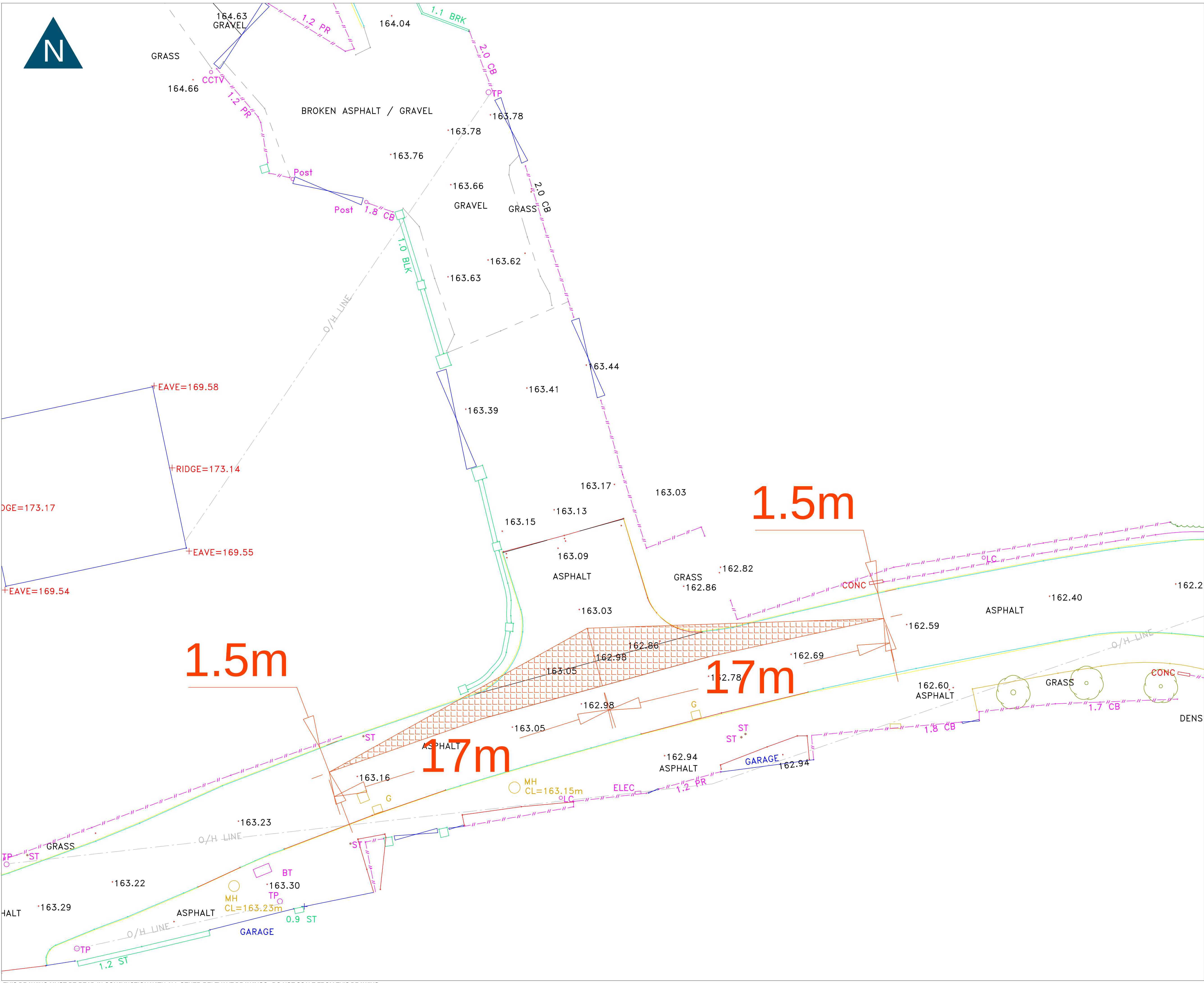
- 6.1.1 This Technical Note has been prepared by Lime Transport on behalf of Mr William Marshall to prepare a response to the issues raised by the Local Highway Authority (LHA). The proposed development is for 32 holiday units, with access provided from Glyndyrus Close.
- 6.1.2 The proposed development is located close to various PRowS, cycle routes and bus stops which provide convenient access to local facilities at the Merthyr Tydfil Leisure Village to the north, Abercanaid to the south and Pentrebach retail park, which includes retail shops and foodstores. No accidents have occurred on Lewis Square or C246 in the last 10 years.
- 6.1.3 TRICS data shows that the proposed development could generate three vehicle trips (two-way) in the AM peak and seven vehicle trips (two-way) in the PM peak. It should also be noted that, this would result in:
- One vehicle every 20 minutes in the AM peak (or one vehicle arrival every 60 minutes and one vehicle departure every 30 minutes); and,
 - One vehicle every nine minutes in the PM peak (or one vehicle arrival every 12 minutes and one vehicle departure every 15 minutes).
- 6.1.4 Based on the survey data, the vehicle flows Lewis Square/Glyndyrus Close junction are very low, with 14 vehicles using the junction in the AM peak and 10 vehicles using the junction in the PM peak. The nature of the road, with a sharp bend to the east of Glyndyrus Close, will result in low vehicle traffic speed and visibility is considered sufficient.
- 6.1.5 Based on the above, It is considered that the proposed development will generate a very low volume of traffic and will, therefore, have a negligible impact on the local highway network.

Appendices



Appendix A





NOT FOR CONSTRUCTION

GENERAL NOTES

1. This drawing to be read in conjunction with all relevant civil engineering drawings.

LEGEND

Rev	Date	Description	Drawn	Check
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5A Andrews Buildings
Penarth, CF64 2AA
Tel 029 2070 0924
mail@limetransport.com
www.limetransport.com

Drawing Status

PRELIMINARY

Project

Lewis Square, Abercanaid

Project No

19188

Title

Visibility splay based on a 15mph speed of vehicles

Drawing No

19188.101.02

Date

10.01.2020

Scale

A1@1:100

Drawn

RB

Checked

ABR

Client Project No

Revision

Appendix B



Calculation Reference: AUDIT-258601-200108-0146

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : J - HOLIDAY ACCOMMODATION
 MULTI-MODAL VEHICLES

Selected regions and areas:

06 WEST MIDLANDS
 SH SHROPSHIRE 1 days

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

Secondary Filtering selection:

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

Parameter: Number of units
 Actual Range: 115 to 115 (units:)
 Range Selected by User: 0 to 500 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 26/06/09

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

Selected survey days:

Friday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town 1

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:

No Sub Category 1

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

Secondary Filtering selection:

Use Class:

Not Known 1 days

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

Population within 1 mile:

5,001 to 10,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

75,001 to 100,000

1 days

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

Car ownership within 5 miles:

1.6 to 2.0

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.

Travel Plan:

No

1 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

1 days

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

LIST OF SITES relevant to selection parameters

1	SH-03-J-01	CARAVAN PARK	SHROPSHIRE
	WELSHPOOL ROAD		
	SHREWSBURY		
	BICTON HEATH		
	Edge of Town		
	No Sub Category		
	Total Number of units:	115	
	Survey date: FRIDAY	26/06/09	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/J - HOLIDAY ACCOMMODATION

MULTI-MODAL VEHICLES

Calculation factor: 1 UNITS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	115	0.009	1	115	0.035	1	115	0.044
08:00 - 09:00	1	115	0.035	1	115	0.061	1	115	0.096
09:00 - 10:00	1	115	0.113	1	115	0.122	1	115	0.235
10:00 - 11:00	1	115	0.157	1	115	0.130	1	115	0.287
11:00 - 12:00	1	115	0.148	1	115	0.148	1	115	0.296
12:00 - 13:00	1	115	0.113	1	115	0.070	1	115	0.183
13:00 - 14:00	1	115	0.026	1	115	0.061	1	115	0.087
14:00 - 15:00	1	115	0.078	1	115	0.061	1	115	0.139
15:00 - 16:00	1	115	0.157	1	115	0.165	1	115	0.322
16:00 - 17:00	1	115	0.200	1	115	0.139	1	115	0.339
17:00 - 18:00	1	115	0.122	1	115	0.096	1	115	0.218
18:00 - 19:00	1	115	0.157	1	115	0.130	1	115	0.287
19:00 - 20:00	1	115	0.043	1	115	0.113	1	115	0.156
20:00 - 21:00	1	115	0.052	1	115	0.070	1	115	0.122
21:00 - 22:00	1	115	0.035	1	115	0.043	1	115	0.078
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		1.445			1.444				2.889

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: 115 - 115 (units:)
 Survey date range: 01/01/06 - 26/06/09
 Number of weekdays (Monday-Friday): 1
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/J - HOLIDAY ACCOMMODATION

MULTI-MODAL CYCLISTS

Calculation factor: 1 UNITS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	115	0.000	1	115	0.000	1	115	0.000
08:00 - 09:00	1	115	0.000	1	115	0.000	1	115	0.000
09:00 - 10:00	1	115	0.000	1	115	0.000	1	115	0.000
10:00 - 11:00	1	115	0.000	1	115	0.017	1	115	0.017
11:00 - 12:00	1	115	0.009	1	115	0.000	1	115	0.009
12:00 - 13:00	1	115	0.009	1	115	0.000	1	115	0.009
13:00 - 14:00	1	115	0.000	1	115	0.000	1	115	0.000
14:00 - 15:00	1	115	0.000	1	115	0.000	1	115	0.000
15:00 - 16:00	1	115	0.000	1	115	0.000	1	115	0.000
16:00 - 17:00	1	115	0.000	1	115	0.000	1	115	0.000
17:00 - 18:00	1	115	0.000	1	115	0.000	1	115	0.000
18:00 - 19:00	1	115	0.000	1	115	0.000	1	115	0.000
19:00 - 20:00	1	115	0.000	1	115	0.000	1	115	0.000
20:00 - 21:00	1	115	0.000	1	115	0.000	1	115	0.000
21:00 - 22:00	1	115	0.000	1	115	0.000	1	115	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.018			0.017			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.

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/J - HOLIDAY ACCOMMODATION

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 UNITS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	115	0.009	1	115	0.000	1	115	0.009
08:00 - 09:00	1	115	0.000	1	115	0.035	1	115	0.035
09:00 - 10:00	1	115	0.017	1	115	0.017	1	115	0.034
10:00 - 11:00	1	115	0.009	1	115	0.017	1	115	0.026
11:00 - 12:00	1	115	0.017	1	115	0.052	1	115	0.069
12:00 - 13:00	1	115	0.052	1	115	0.035	1	115	0.087
13:00 - 14:00	1	115	0.017	1	115	0.026	1	115	0.043
14:00 - 15:00	1	115	0.000	1	115	0.017	1	115	0.017
15:00 - 16:00	1	115	0.043	1	115	0.009	1	115	0.052
16:00 - 17:00	1	115	0.026	1	115	0.009	1	115	0.035
17:00 - 18:00	1	115	0.017	1	115	0.043	1	115	0.060
18:00 - 19:00	1	115	0.035	1	115	0.096	1	115	0.131
19:00 - 20:00	1	115	0.026	1	115	0.122	1	115	0.148
20:00 - 21:00	1	115	0.261	1	115	0.191	1	115	0.452
21:00 - 22:00	1	115	0.113	1	115	0.000	1	115	0.113
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.642			0.669			1.311

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/J - HOLIDAY ACCOMMODATION

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 UNITS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	115	0.000	1	115	0.000	1	115	0.000
08:00 - 09:00	1	115	0.000	1	115	0.000	1	115	0.000
09:00 - 10:00	1	115	0.000	1	115	0.017	1	115	0.017
10:00 - 11:00	1	115	0.009	1	115	0.104	1	115	0.113
11:00 - 12:00	1	115	0.009	1	115	0.009	1	115	0.018
12:00 - 13:00	1	115	0.035	1	115	0.017	1	115	0.052
13:00 - 14:00	1	115	0.009	1	115	0.009	1	115	0.018
14:00 - 15:00	1	115	0.035	1	115	0.000	1	115	0.035
15:00 - 16:00	1	115	0.061	1	115	0.026	1	115	0.087
16:00 - 17:00	1	115	0.035	1	115	0.017	1	115	0.052
17:00 - 18:00	1	115	0.052	1	115	0.009	1	115	0.061
18:00 - 19:00	1	115	0.000	1	115	0.026	1	115	0.026
19:00 - 20:00	1	115	0.000	1	115	0.000	1	115	0.000
20:00 - 21:00	1	115	0.000	1	115	0.000	1	115	0.000
21:00 - 22:00	1	115	0.000	1	115	0.000	1	115	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.245			0.234			0.479	

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/J - HOLIDAY ACCOMMODATION

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 UNITS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	115	0.017	1	115	0.052	1	115	0.069
08:00 - 09:00	1	115	0.043	1	115	0.122	1	115	0.165
09:00 - 10:00	1	115	0.209	1	115	0.235	1	115	0.444
10:00 - 11:00	1	115	0.270	1	115	0.348	1	115	0.618
11:00 - 12:00	1	115	0.339	1	115	0.365	1	115	0.704
12:00 - 13:00	1	115	0.304	1	115	0.174	1	115	0.478
13:00 - 14:00	1	115	0.061	1	115	0.139	1	115	0.200
14:00 - 15:00	1	115	0.183	1	115	0.139	1	115	0.322
15:00 - 16:00	1	115	0.374	1	115	0.357	1	115	0.731
16:00 - 17:00	1	115	0.522	1	115	0.339	1	115	0.861
17:00 - 18:00	1	115	0.383	1	115	0.270	1	115	0.653
18:00 - 19:00	1	115	0.504	1	115	0.443	1	115	0.947
19:00 - 20:00	1	115	0.122	1	115	0.435	1	115	0.557
20:00 - 21:00	1	115	0.383	1	115	0.348	1	115	0.731
21:00 - 22:00	1	115	0.165	1	115	0.070	1	115	0.235
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.879			3.836			7.715

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.