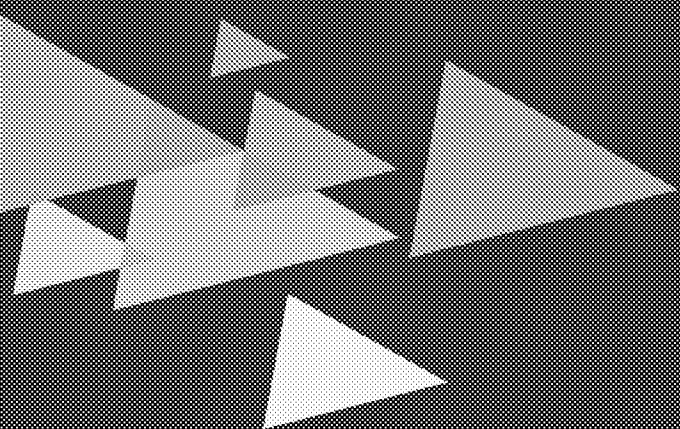




Proposed Residential Development
Land off Lake Lane, Barnham

Transport Assessment Addendum

For

Redrow Homes Limited

Document Control Sheet

Transport Assessment Addendum

Land off Lake Lane, Barnham

Redrow Homes Limited

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
14/01/2016	1 st Draft	E. Stonard	C. Saunders
15/01/2016	Final	E. Stonard	C. Saunders

Motion
232 High Street
Guildford
Surrey

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1.0 Introduction

- 1.1 This Transport Assessment Addendum has been prepared on behalf of Redrow Homes Limited to support a new application for an additional 7 dwellings on land off Lake Lane, Barnham.
- 1.2 In July 2012, an outline planning application was submitted to Arun District Council (ADC) for a residential development comprising up to 107 residential units on land at Lake Lane, Barnham, application ref: BN/16/12. This application was refused as Arun District Council stated it was *'...located outside of the defined built up areas and represent a significant encroachment into the countryside...'*. The application was appealed and was later granted permission in October 2013. Pursuant to this outline consent, a reserved matters application was submitted by Redrow Homes Limited in June 2015, which was granted permission in December 2015, (application ref: BN 21/15/RES).
- 1.3 The latest proposals seek to construct an additional 7 dwellings. In whole, the proposed residential development will comprise a total of 114 dwellings.
- 1.4 Following this introduction the Transport Assessment Addendum, which should be read in conjunction with the Transport Assessment prepared by Motion in support of application ref: BN/16/12, is split into the following sections:
- ✧ Section 2 considers the national, regional and local policies relevant to the proposals;
 - ✧ Section 3 describes the location of the site and surrounding area and reviews the accessibility of the sites by all modes of transport;
 - ✧ Section 4 provides an overview of the proposed development and sets out the access and parking strategies that will be adopted;
 - ✧ Section 5 considers the vehicular trip generating potential of the proposals; and,
 - ✧ Section 6 summarises the key findings and conclusions of the report.

2.0 Policy

Introduction

- 2.1 There are a number of documents that contain planning policies relevant to transport. The key policy documents which set the context for the development proposals are as follows:

- » National Planning Policy Framework – March 2012;
- » Arun District Council Local Plan (Saved Policies) – April 2003.

National Planning Policy Guidance

- 2.2 There have not been any changes to the National Planning Policy Guidance since the submission of application BN/16/12.

Arun District Council Local Plan – April 2003

- 2.3 There have not been any changes to Arun District Council's Local Plan since the submission of application BN/16/12.

Parking

- 2.4 For ease of reference, as set out in the Transport Assessment for BN/16/12, Arun District Council applies guidance published by West Sussex County Council in September 2010, 'Guidance for Car Parking in New Residential Developments'. This guidance indicates that parking in residential developments is calculated on a site-specific basis using a Car Parking Demand Calculator. The calculator predicts levels of car ownership using information relating to the site's location, the type of dwellings proposed (ownership and size) and whether allocated parking is proposed.
- 2.5 Guidance accompanying the Car Parking Demand Calculator tool also sets out parking provision for visitors and cycles. Visitor parking is calculated within the online tool. Cycle parking provision should take into account dwelling type, size and type, although the guide indicates a provision of 1 space per unit for 1 and 2-bed flats, with 2 spaces per unit for houses with 3 or more bedrooms.

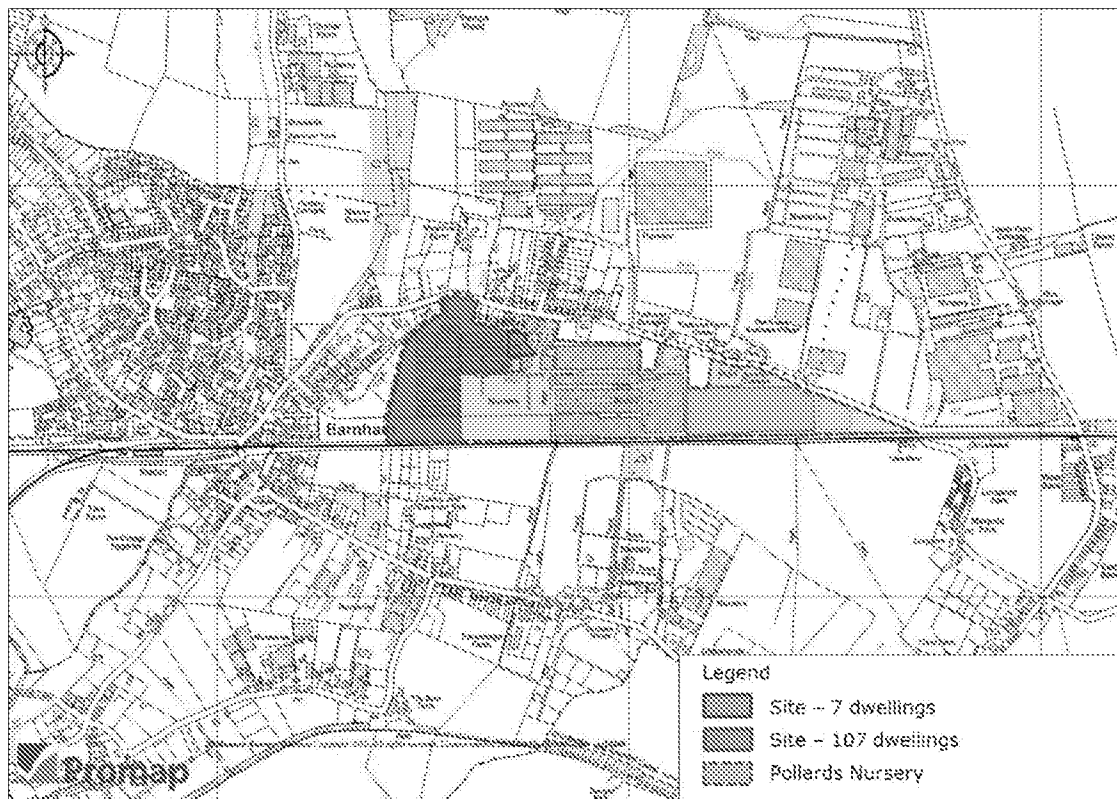
3.0 Existing Conditions

Overview

- 3.1 So that the context of the proposed development can be established a detailed review of the site and surrounding area has been undertaken. The following text presents the results of this review and makes reference to the location of the site in relation to the local highway network and access to sustainable modes of transport and local services.

Existing Site Details

- 3.2 The map below identifies the application site, which is located approximately 0.7 kilometres to the east of the village of Barnham in West Sussex. The application site forms part of the Eric Wall Nursery site (known as Pollard's Nursery), which is adjoined by residential properties fronting Lake Lane to the north, the West Coastway Railway Line to the south and undeveloped land to the west.
- 3.3 The application site comprising 7 residential dwellings is located to the east of the main residential application comprising 107 dwellings as shown in the map below.



Site location and local area map

Sustainable Transport Accessibility

- 3.4 It is generally accepted that walking and cycling provide important alternatives to the private car, and should also be encouraged to form part of longer journeys via public transport. Indeed, it is noteworthy that the Institute of Highways and Transportation (IHT) has prepared several guidance documents that provide advice with respect to the provision of sustainable travel in conjunction with new developments. Within these documents it is suggested that:
- Most people will walk to a destination that is less than one mile (Planning for Walking, 2015);
 - The bicycle is a potential mode of transport for all journeys under five miles (Planning for Cycling, 2015); and,

- Walking distances to bus stops should not exceed 400 metres, whilst people are prepared to walk twice as far to rail stations (Planning for Walking, 2015).

Walking and Cycling

- 3.5 The application site is well located in relation to a network of public footways and other off-road walking routes (including public footpaths 324, 325 and 327). These connect the site with the bus stop located on Barnham Lane, the railway station and the main residential areas located to the west. In this regard it is considered that the pedestrian facilities in the vicinity of the site have the potential to encourage walking as a practical mode of transport in its own right and as part of longer journeys via public transport.
- 3.6 Whilst there are no dedicated cycling facilities in the immediate vicinity of the site, it is thought that the lightly trafficked nature of surrounding roads is such that cycling would provide an attractive alternative for people living in Barnham, Climping, Eastergate, Westergate, Woodgate and Yapton. Cycling in the local area has been enhanced in recent years through the implementation of the 'Barnham Link' cycle path that links Barnham with Bognor Regis to the south.

Public Transport

- 3.7 The closest bus stops are located on Lake Lane approximately 800 metres west of the site (measured from the existing site access). Further stops are located circa 900 metres west of the site on Barnham Lane.
- 3.8 These stops are served by bus service 66 / 66a, which provide links to Westergate, Walberton, Bognor Regis and Yapton. This service operates hourly during the week and on Saturdays. A service summary, based on information available on West Sussex County Council and *Traveline* websites, is provided in Table 3.1.

Service No	Route	Mon-Sat Services		
		Start	End	Frequency
66/66A	Bognor Regis – Barnham – Walberton – Yapton – Bognor Regis (Circular)	07:45	18:20	8 per day

Table 3.1 – Bus services from Lake Lane/Barnham Lane

- 3.9 Further bus services, which also call at the above mentioned stops, include:
- Service 85 operates between Billingshurst and Chichester with one service each direction Monday to Saturday;
 - Route 602 is a school service between Rustington and St Philip Howard School, providing one service per school day in each direction;
 - Bus service 665 is also a school service linking Littlehampton and Chichester, operating one service in each direction on school days;
 - Service D is a shopping service between Rustington Sainsbury's and Westergate, running one service per direction on Tuesdays and Thursdays; and
 - T1 is also a shopping service for Tesco in Littlehampton providing one service each direction on a Thursday.
- 3.10 Barnham Rail Station is operated by Southern Railway and located approximately 1.2 kilometres to the west of the site on Barnham Road. Barnham rail station is on the West Coastway Line, which runs between Brighton and Southampton. Trains from Barnham provide links to Bognor Regis, Chichester, Portsmouth Harbour, London Victoria (via Gatwick) and Littlehampton. A summary of the services that operate from the station are provided in Table 3.2.

Destination	Other Destinations Served	Approx. Frequency	
		Mon-Sat	Sun
Brighton	Ford, Angermerring, Goring-by-Sea, Durrington-on-Sea, West Worthing, Worthing, Lancing, Shoreham-by-Sea, Southwick, Portslade, Hove	2 per hour	1 per hour
Southampton	Chichester, Southbourne, Emsworth, Havant, Cosham, Portchester, Fareham, Swanwick,	2 per hour	No service
Bognor Regis	Direct service	4 per hour	4 per hour
Chichester	Direct service	5 per hour	No direct service
Portsmouth Harbour	Chichester, Southbourne, Emsworth, Havant, Fratton, Portsmouth & Southsea	2 per hour	No service
London Victoria (via Gatwick)	Ford, Arundel, Amberley, Pullborough, Billingshurst, Christs Hospital, Horsham, Crawley, Three Bridges, Gatwick Airport, Horley, Redhill, Purley, East Croydon, Clapham Junction (OR on Sunday's also via: Worthing, Shoreham-by-Sea, Hove, Burgess Hill, Haywards Heath, Gatwick Airport, East Croydon, Clapham Junction)	2 per hour	2 per hour
Littlehampton	Ford	2 per hour	1 per hour

Table 3.2 – Direct Train Services from Barnham

4.0 Proposed Development

Overview

- 4.1 This Transport Assessment Addendum accompanies a planning application for a residential development comprising 7 dwellings and should be read in conjunction with the Transport Assessment prepared by Motion in support of application ref: BN/16/12. The additional 7 dwellings will be located to the east of the approved 107 dwellings and will include six dwellings comprising four bedrooms, and one dwelling comprising three bedrooms.

Access Arrangements

- 4.2 The access arrangements identified within the Transport Assessment submitted in respect of application BN/16/12 have been approved and it is intended it will serve the additional 7 dwellings. The access has been designed in accordance with the current design guidance.
- 4.3 It should also be noted that a Stage 1 Road Safety Audit was undertaken and within West Sussex County Council's highways comments, it stated that the '*site access will not have a material impact on the Highway safety*' and that it can be demonstrated that '*safe access can be achieved*'.

Parking Arrangements

- 4.4 Parking guidance relevant to the development proposals are introduced in Section 2. Guidance published by West Sussex County Council indicates that parking in residential developments is calculated on a site-specific basis using a Car Parking Demand Calculator. The calculator uses factors such as location, property tenure and number of habitable rooms to calculate the demand for parking at new residential developments. Based on these factors, the proposed development comprising 7 dwellings is projected to generate a total demand for 23 parking spaces. With regard to cycle parking, secure cycle provision will be accommodated for within the site to promote sustainable transport.

Sustainable Transport Access Strategy

- 4.5 As part of the proposals approved under BN15/11, in order to improve the accessibility of the site by modes of transport other than the private car, a footway link will be provided in the south-western corner of the site to link into the approved residential development comprising 75 dwellings at land to the east of Goodacres, Barnham (ref: BN/15/11), which is currently under construction.
- 4.6 This footway link will significantly reduce the time it takes pedestrians and cyclists to access the local bus stops and railway station, and local amenities located within Barnham village. With this footway link, pedestrians can access Barnham railway within 800 metres (10 minute walk), whereas without this footway link Barnham railway was located approximately 1.2 kilometres from the site (15 minute walk).
- 4.7 The footway link will also reduce the distance to the bus stops located along Lake Lane from 800 metres (10 minute walk) to approximately 500 metres (6 minute walk).

5.0 Development Impact

Overview

- 5.1 This section outlines the levels of trips that are likely to be generated by the 7 proposed residential dwellings. The assessment presented in this section outlines traffic generation for the proposed uses during the peak traffic flow periods (i.e. peak hours of 08:00-09:00 and 17:00-18:00) and daily flows (i.e. between 07:00-19:00).

TRICS Assessment

- 5.2 The TRICS database (version 7.2.4.) has been interrogated to find comparable sites in order to obtain trip rate information for the proposed land uses at the site. The TRICS outputs are included as Appendix A, while a summary of the results is shown at Table 5.1. Weekday surveys for all sites in comparable locations (excluding sites in London) were selected from the database.

Time Period	Trip Rates (per dwelling)			Traffic Attraction (7 dwellings)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak (08:00-09:00)	0.155	0.368	0.523	1	3	4
PM Peak (17:00-18:00)	0.314	0.176	0.490	2	1	3
Daily (07:00-19:00)	2.293	2.388	4.681	16	17	33

Table 5.1 – Houses privately owned trip rate and generation (7 dwellings)

- 5.3 Table 5.1 indicates that the proposed residential development is likely to attract approximately 4 and 3 vehicle movements in the weekday morning and evening peaks respectively, and approximately 33 movements across a typical day.

Net Impact

- 5.4 The net impact in terms of vehicular movements associated with the proposed 7 units as well as the already approved 107 residential dwellings is set out in Table 5.2 below.

Scenario	AM Peak (08:00-09:00)	PM Peak (17:00-18:00)	Daily (07:00-19:00)
Approved 107 dwellings	52	58	565
Proposed 7 dwellings plus 107 consented dwellings	56	61	598
Net Change	4	3	33

Table 5.2 – Net vehicular impact

- 5.5 Table 5.2 indicates that the total residential development on land off Lake Lane, Barnham comprising a total of 114 dwellings will generate approximately 56 and 61 vehicle movements in the morning and evening peaks, and approximately 598 vehicle movements across a typical day. The additional 7 dwellings associated with this application only results in an increase of approximately 33 vehicle movements across a typical weekday above the already consented development of 107 dwellings.
- 5.6 Within the original Transport Assessment for application BN/16/12, Figure 5.3 and 5.4 illustrates the trip distribution in the morning and evening period respectively, from the site access onto Lake Lane and the wider highway network. Figure 5.3 displayed that 44% of the movements to/from the development were via Lake Lane to the west, whilst 56% were via Lake Lane to the east. Figure 5.4 displayed that 42% of the movements were to/from Lake Lane to the west, with 58% via Lake Lane to the east.

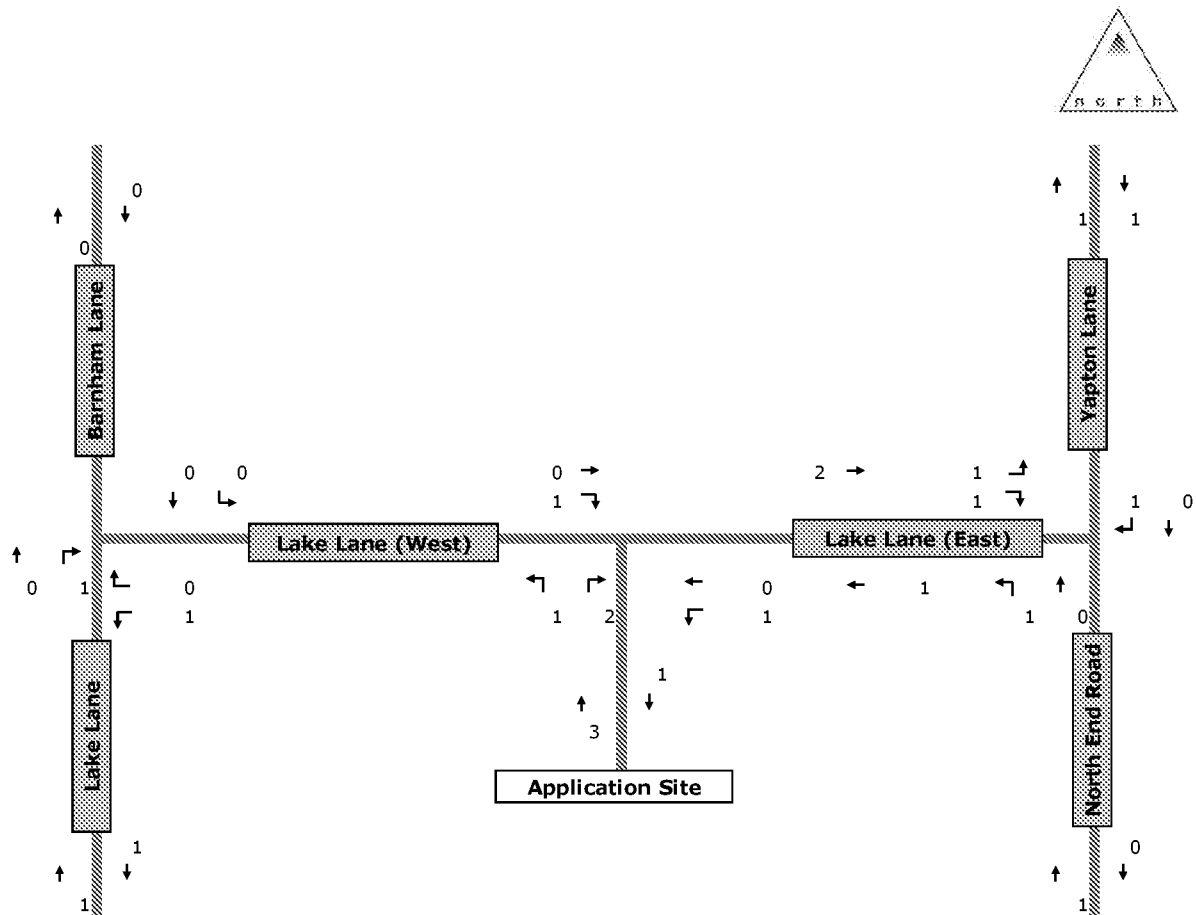
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- 5.7 Therefore, the current proposals will result in an additional 2 vehicle movements travelling westbound towards Barnham village and an additional 2 vehicle movements travelling eastbound towards Yapton Lane in the morning peak, as shown in Figure 8.1 of this Transport Assessment Addendum. In the evening period, there will be an additional 1 vehicle movement travelling westbound and 2 vehicle movements travelling eastbound, as shown in Figure 8.2 of this report.
- 5.8 These increases are not severe and are within the daily fluctuations of traffic flow seen on the highway network. Additionally, within West Sussex County Council's 'Transport Assessment Methodology' it states that:
- "Generally the study area will include all junctions where there is a predicted increase in total entry flows of 30 or more vehicles in any hour – or if the junction already experiences peak period congestion an increase of 10 or more vehicles – as a result of the development proposals."*
- 5.9 It should also be noted that as part of application BN/16/12 for 107 dwellings, it was determined that there would be on average 1 additional movement every 2 minutes travelling across the railway crossing. Within West Sussex County Council's Highway comments, it stated:
- "...this figure (1 additional movement every 2 minutes) is slightly high and that some of the vehicles shown to be exiting the site and travelling towards Yapton, who will be familiar with the presence of a railway crossing, will probably chose to travel east before joining Yapton Road to avoid any delay that might be caused by the crossing".*
- 5.10 The proposed increases in traffic movements associated with the proposed development are therefore not considered to be material and are significantly below West Sussex County Council's thresholds. Also, as West Sussex County Council did not raise any concerns regarding the potential additional movements across the railway crossing in relation to the approved 107 dwellings, it is understood that there will be no concerns raised regarding the traffic flows associated with the proposed 7 dwellings.

6.0 Summary and Conclusions

- 6.1 This Transport Assessment Addendum has been prepared on behalf of Redrow Homes Limited to support a new application for an additional 7 dwellings on land off Lake Lane, Barnham.
- 6.2 The report has been prepared in accordance with current best practice guidance and demonstrates that the proposal accords with national and local policies relevant to transport. It also considers the traffic impact of the proposed development in relation to the already approved residential development comprising 107 dwellings at the site.
- 6.3 This statement demonstrates that:
- ✧ The proposals accord with national and local policies relevant to transport as per BN/16/12;
 - ✧ Suitable and appropriate access to the site will be utilised as approved in BN/16/12 from Lake Lane;
 - ✧ The site can be accessed via sustainable modes of travel;
 - ✧ The proposals make appropriate provision for car and cycle parking having regard to adopted local standards; and,
 - ✧ The anticipated level of traffic associated with the development is not considered to be material and will not lead to any demonstrable harm upon the operation of the local highway network.
- 6.4 On the basis of the above, it is considered that the proposals can be accommodated for without detriment to the operation of the local highway network. As such, it is considered that there is no reason why the proposals should be resisted on traffic or transportation grounds.

Figure 5.1

Development Traffic AM Peak (7 dwellings)



motion

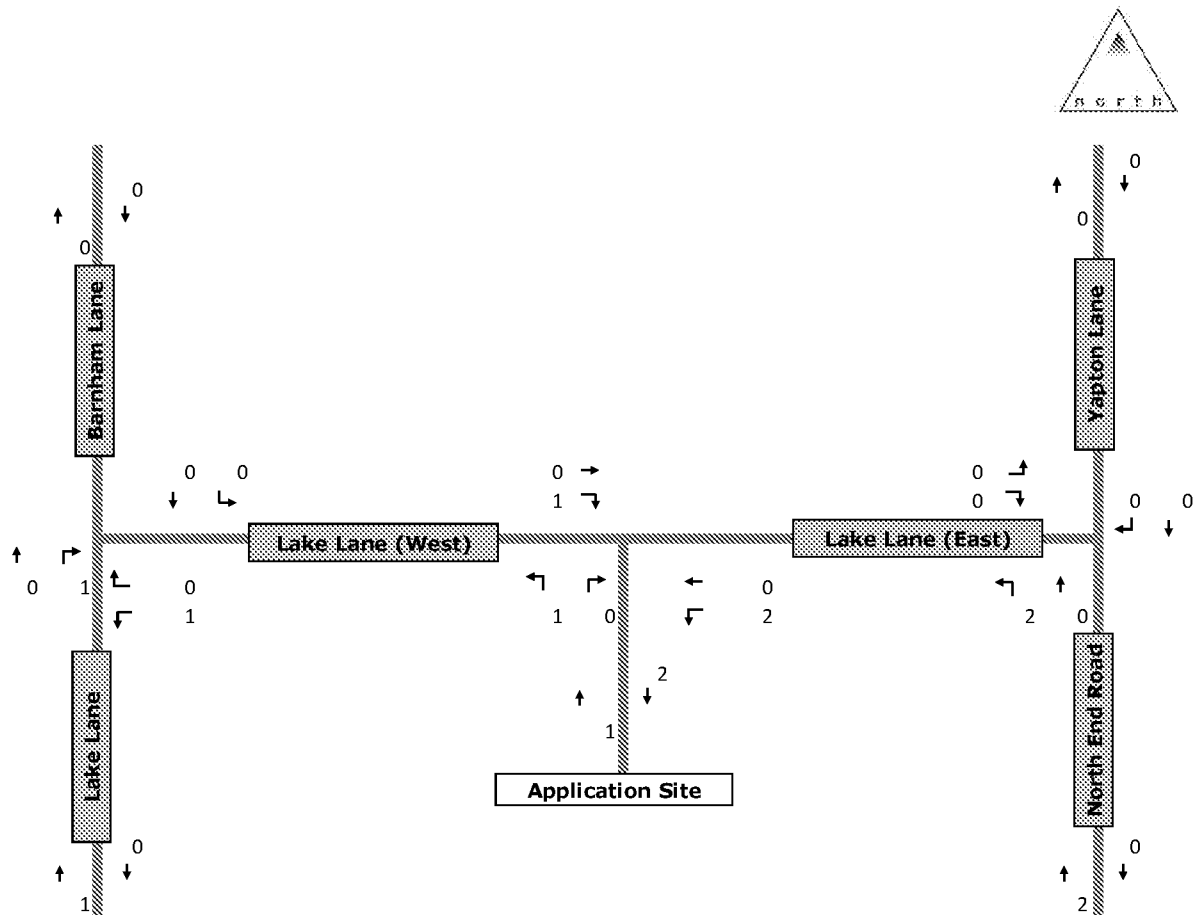
Eric Wall Limited, Lake Lane, Barnham, West Sussex

Development Traffic - PM Peak (08:00-09:00)

Motion Figure No. 5.1

Figure 5.2

Development Traffic PM Peak (7 dwellings)



motion

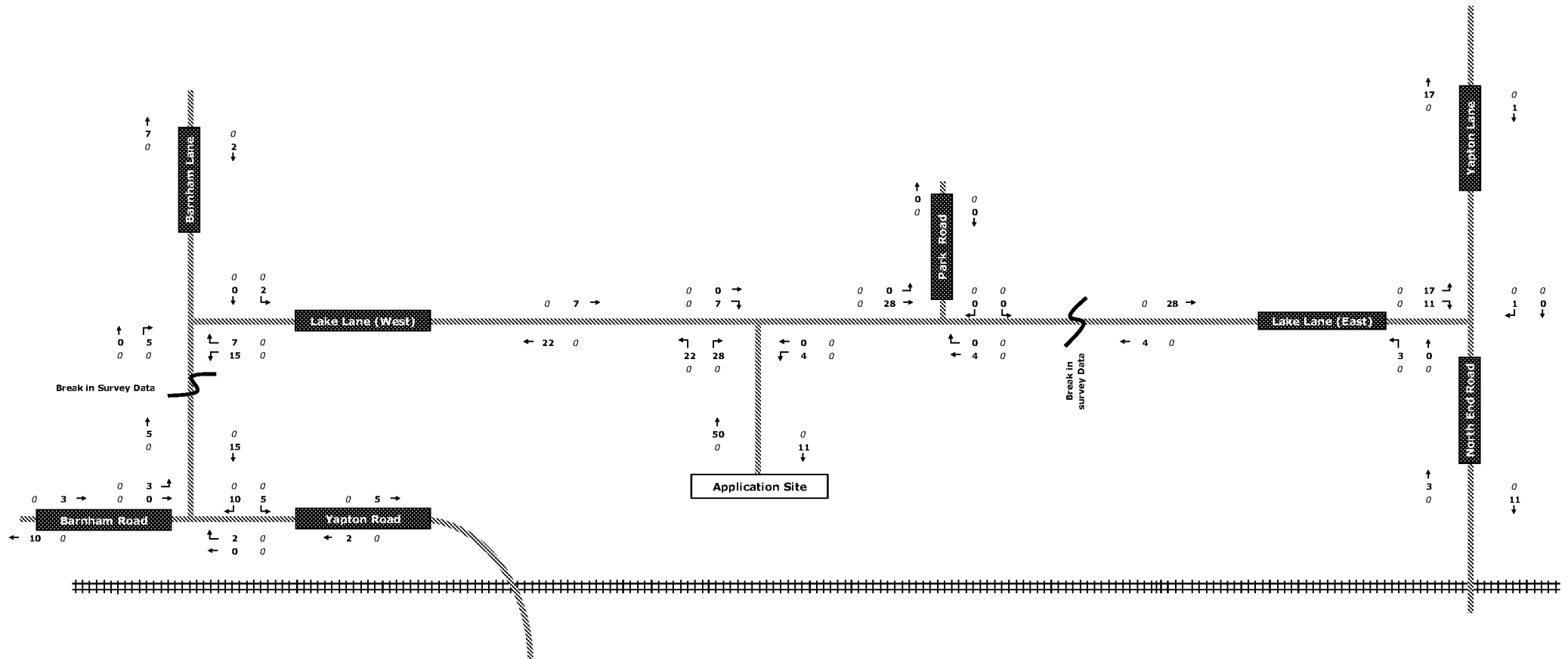
Eric Wall Limited, Lake Lane, Barnham, West Sussex

Development Traffic - AM Peak (16:00-17:00)

Motion Figure No. 5.2

Figure 5.3

Development Traffic AM Peak (107 dwellings)



Traffic Flow Summary		
Barnham Road/Barnham Lane	20	0.33
Barnham Lane/Lake Lane (West)	29	0.48
Lake Lane/Site Access/Park Lane	61	1.02
Lake Lane (East)/Yapton Lane	32	0.53

Key:	
123	Total Vehicles
45	Number of HGVs

motion
transport planning

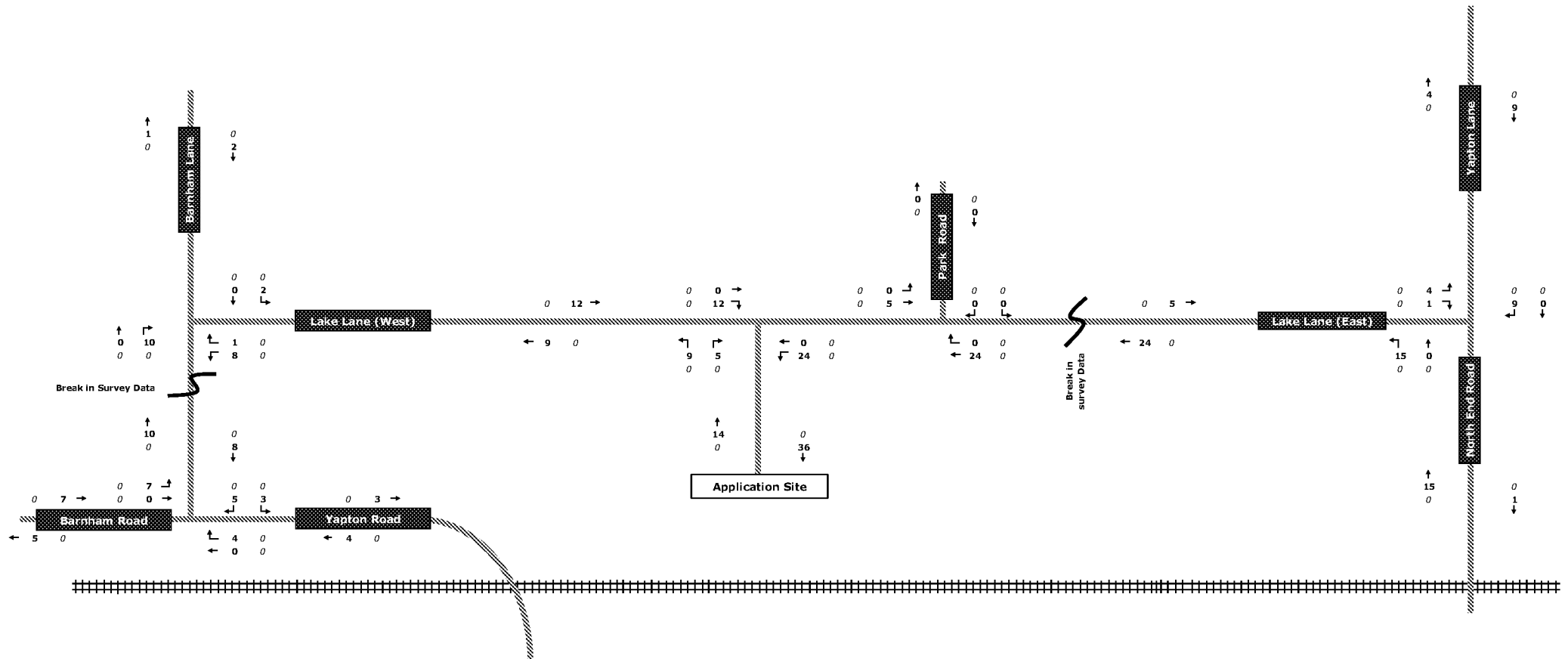
Eric Wall Nursery Limited, Lake Lane, Barnham, West Sussex

Development Traffic - AM Peak Hour Flows (08:00-09:00)

Motion Figure No. 5.3

Figure 5.4

Development Traffic PM Peak (107 dwellings)



Traffic Flow Summary		Total Vols	Vols/Hr
Approach	Barnham Road/Barnham Lane	18	0.30
	Barnham Lane/Lake Lane (West)	21	0.35
	Lake Lane/Site Access/Park Lane	50	0.83
	Lake Lane (East)/Yapton Lane	29	0.48

Key:

123 Total Vehicles

45 Number of HGVs

motion
transport planning

Eric Wall Nursery Limited, Lake Lane, Barnham, West Sussex

Development Traffic - PM Peak Hour Flows (16:00-17:00)

Motion Figure No. 5.4

Appendix A

TRICS Output

Calculation Reference: AUDIT-734001-160111-0124

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED

VEHICLESSelected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	CW CORNWALL	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	MS MERSEYSIDE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days

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

Filtering Stage 2 selection:

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

Parameter: Number of dwellings
 Actual Range: 6 to 36 (units:)
 Range Selected by User: 6 to 50 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/00 to 12/11/15

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

Selected survey days:

Monday	2 days
Tuesday	5 days
Wednesday	2 days
Thursday	4 days
Friday	2 days

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

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	14
Neighbourhood Centre (PPS6 Local Centre)	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:

Residential Zone	15
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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.

Filtering Stage 3 selection:**Use Class:**

C3	14 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®.

Filtering Stage 3 selection (Cont.):Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	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	9 days
1.1 to 1.5	6 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	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.

LIST OF SITES relevant to selection parameters

1	CA-03-A-04	DETACHED		CAMBRIDGESHIRE
	THORPE PARK ROAD			
	PETERBOROUGH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	9		
	Survey date: TUESDAY	18/10/11		Survey Type: MANUAL
2	CH-03-A-08	DETACHED		CHESHIRE
	WHITCHURCH ROAD			
	BOUGHTON HEATH			
	CHESTER			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	11		
	Survey date: TUESDAY	22/05/12		Survey Type: MANUAL
3	CW-03-A-01	TERRACED		CORNWALL
	ALVERTON ROAD			
	PENZANCE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	13		
	Survey date: THURSDAY	30/06/05		Survey Type: MANUAL
4	DS-03-A-01	SEMI D./ TERRACED		DERBYSHIRE
	THE AVENUE			
	HOLMESDALE			
	DRONFIELD			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Number of dwellings:	20		
	Survey date: THURSDAY	22/06/06		Survey Type: MANUAL
5	HC-03-A-17	HOUSES & FLATS		HAMPSHIRE
	CANADA WAY			
	LIPHOOK			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	36		
	Survey date: THURSDAY	12/11/15		Survey Type: MANUAL
6	LN-03-A-03	SEMI DETACHED		LINCOLNSHIRE
	ROOKERY LANE			
	BOULTHAM			
	LINCOLN			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	22		
	Survey date: TUESDAY	18/09/12		Survey Type: MANUAL
7	MS-03-A-03	DETACHED		MERSEYSIDE
	BEMPTON ROAD			
	OTTERSPOOL			
	LIVERPOOL			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	15		
	Survey date: FRIDAY	21/06/13		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	NF-03-A-01	SEMI DET. & BUNGALOWS	NORFOLK
	YARMOUTH ROAD		
	CAISTER-ON-SEA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	27	
	Survey date: TUESDAY	16/10/12	Survey Type: MANUAL
9	NY-03-A-08	TERRACED HOUSES	NORTH YORKSHIRE
	NICHOLAS STREET		
	YORK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	21	
	Survey date: MONDAY	16/09/13	Survey Type: MANUAL
10	SF-03-A-04	DETACHED & BUNGALOWS	SUFFOLK
	NORMANSTON DRIVE		
	LOWESTOFT		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	7	
	Survey date: TUESDAY	23/10/12	Survey Type: MANUAL
11	ST-03-A-05	TERRACED & DETACHED	STAFFORDSHIRE
	WATERMEET GROVE		
	ETRURIA		
	STOKE-ON-TRENT		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	14	
	Survey date: WEDNESDAY	26/11/08	Survey Type: MANUAL
12	TW-03-A-02	SEMI-DETACHED	TYNE & WEAR
	WEST PARK ROAD		
	GATESHEAD		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	16	
	Survey date: MONDAY	07/10/13	Survey Type: MANUAL
13	WK-03-A-01	TERRACED/ SEMI / DET.	WARWICKSHIRE
	ARLINGTON AVENUE		
	LEAMINGTON SPA		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	6	
	Survey date: FRIDAY	21/10/11	Survey Type: MANUAL
14	WM-03-A-02	DETACHED & SEMI DET.	WEST MIDLANDS
	HEATH STREET		
	STOURBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	12	
	Survey date: WEDNESDAY	26/04/06	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	WO-03-A-01	DETACHED	WORCESTERSHI RE
	MARLBOROUGH AVENUE		
	ASTON FIELDS		
	BROMSGROVE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Number of dwellings:	10	
	Survey date: THURSDAY	23/06/05	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/A - HOUSES PRIVATELY OWNED

VEHICLES**Calculation factor: 1 DWELLS****Estimated TRIP rate value per 7 DWELLS shown in shaded columns****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	15	16	0.059	0.410	15	16	0.259	1.816	15	16	0.318	2.226
08:00 - 09:00	15	16	0.155	1.084	15	16	0.368	2.577	15	16	0.523	3.661
09:00 - 10:00	15	16	0.134	0.937	15	16	0.159	1.113	15	16	0.293	2.050
10:00 - 11:00	15	16	0.172	1.201	15	16	0.151	1.054	15	16	0.323	2.255
11:00 - 12:00	15	16	0.184	1.289	15	16	0.167	1.172	15	16	0.351	2.461
12:00 - 13:00	15	16	0.222	1.552	15	16	0.192	1.347	15	16	0.414	2.899
13:00 - 14:00	15	16	0.146	1.025	15	16	0.176	1.230	15	16	0.322	2.255
14:00 - 15:00	15	16	0.167	1.172	15	16	0.201	1.406	15	16	0.368	2.578
15:00 - 16:00	15	16	0.238	1.669	15	16	0.167	1.172	15	16	0.405	2.841
16:00 - 17:00	15	16	0.251	1.757	15	16	0.209	1.464	15	16	0.460	3.221
17:00 - 18:00	15	16	0.314	2.197	15	16	0.176	1.230	15	16	0.490	3.427
18:00 - 19:00	15	16	0.251	1.757	15	16	0.163	1.142	15	16	0.414	2.899
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			2.293	16.050			2.388	16.723			4.681	32.773

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: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 6 - 36 (units:)
 Survey date range: 01/01/00 - 12/11/15
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 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/A - HOUSES PRIVATELY OWNED

OGVS**Calculation factor: 1 DWELLS****Estimated TRIP rate value per 7 DWELLS shown in shaded columns****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	15	16	0.004	0.029	15	16	0.004	0.029	15	16	0.008	0.058
08:00 - 09:00	15	16	0.004	0.029	15	16	0.004	0.029	15	16	0.008	0.058
09:00 - 10:00	15	16	0.004	0.029	15	16	0.004	0.029	15	16	0.008	0.058
10:00 - 11:00	15	16	0.004	0.029	15	16	0.004	0.029	15	16	0.008	0.058
11:00 - 12:00	15	16	0.004	0.029	15	16	0.004	0.029	15	16	0.008	0.058
12:00 - 13:00	15	16	0.008	0.059	15	16	0.008	0.059	15	16	0.016	0.118
13:00 - 14:00	15	16	0.000	0.000	15	16	0.000	0.000	15	16	0.000	0.000
14:00 - 15:00	15	16	0.004	0.029	15	16	0.004	0.029	15	16	0.008	0.058
15:00 - 16:00	15	16	0.000	0.000	15	16	0.000	0.000	15	16	0.000	0.000
16:00 - 17:00	15	16	0.004	0.029	15	16	0.004	0.029	15	16	0.008	0.058
17:00 - 18:00	15	16	0.000	0.000	15	16	0.000	0.000	15	16	0.000	0.000
18:00 - 19:00	15	16	0.000	0.000	15	16	0.000	0.000	15	16	0.000	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.036	0.262			0.036	0.262			0.072	0.524

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: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 6 - 36 (units:)
Survey date range: 01/01/00 - 12/11/15
Number of weekdays (Monday-Friday): 15
Number of Saturdays: 0
Number of Sundays: 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/A - HOUSES PRIVATELY OWNED

PSVS**Calculation factor: 1 DWELLS****Estimated TRIP rate value per 7 DWELLS shown in shaded columns****BOLD print indicates peak (busiest) period**

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

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: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 6 - 36 (units:)
 Survey date range: 01/01/00 - 12/11/15
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 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/A - HOUSES PRIVATELY OWNED

CYCLISTS**Calculation factor: 1 DWELLS****Estimated TRIP rate value per 7 DWELLS shown in shaded columns****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated 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	15	16	0.008	0.059	15	16	0.038	0.264	15	16	0.046	0.323
08:00 - 09:00	15	16	0.004	0.029	15	16	0.029	0.205	15	16	0.033	0.234
09:00 - 10:00	15	16	0.000	0.000	15	16	0.008	0.059	15	16	0.008	0.059
10:00 - 11:00	15	16	0.004	0.029	15	16	0.017	0.117	15	16	0.021	0.146
11:00 - 12:00	15	16	0.004	0.029	15	16	0.004	0.029	15	16	0.008	0.058
12:00 - 13:00	15	16	0.008	0.059	15	16	0.000	0.000	15	16	0.008	0.059
13:00 - 14:00	15	16	0.008	0.059	15	16	0.000	0.000	15	16	0.008	0.059
14:00 - 15:00	15	16	0.000	0.000	15	16	0.004	0.029	15	16	0.004	0.029
15:00 - 16:00	15	16	0.025	0.176	15	16	0.000	0.000	15	16	0.025	0.176
16:00 - 17:00	15	16	0.046	0.322	15	16	0.025	0.176	15	16	0.071	0.498
17:00 - 18:00	15	16	0.017	0.117	15	16	0.013	0.088	15	16	0.030	0.205
18:00 - 19:00	15	16	0.008	0.059	15	16	0.000	0.000	15	16	0.008	0.059
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.132	0.938			0.138	0.967			0.270	1.905

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: $COUNT/TRP \times FACT$. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected: 6 - 36 (units:)
 Survey date range: 01/01/00 - 12/11/15
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 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.