



BKW Developments Ltd

# Land off Blackburn Road, Longridge Transport Assessment

Ref : T2267 Rev 1

February 2017

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Document Control Sheet

Land off Blackburn Road, Longridge  
Transport Assessment

<b>Job</b>	<b>Date</b>	<b>Issue</b>	<b>Copy</b>
T2267	February 2017	1	

*Originator.....PB.....*  
*Checker..... DW.....*  
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## **1.0 Introduction**

1.0.1 PSA Design Ltd has been commissioned to prepare this Transport Assessment (TA), to support a Planning Application for a proposed Business/Industrial Park on land off Blackburn Road, Longridge in Lancashire.

1.0.2 The purpose of this TS is to appraise Ribble Valley Borough Council, as the Local Planning Authority (LPA), and Lancashire County Council, as the Local Highway Authority (LHA), of the highway and transport implications of the proposed development of the site.

1.0.3 The structure of this TS report is as follows:

- A description of the site location and its existing use;
- A description of the local highway network in the vicinity of the site and its accessibility by non-car modes;
- A description of the development proposals, including parking, trip generation and servicing;
- A review of the transport implications of the development proposals; and
- Summary and conclusions.

## 2.0 Existing Conditions

### Site Location

- 2.0.1 The location of the site is shown in **Figure 1**. It is located to the east of Longridge, which itself is situated approximately 10 kilometres to the north east of Preston City Centre.
- 2.0.2 The site is shown in more detail in **Figure 2** and is bounded to the north by the B6243 Blackburn Road, to the west by Higher College Farm, to the east by White Lion Farm and Hillside Specialist School and to the south by agricultural land.
- 2.0.3 The site has historically been used for agricultural purposes, has an area of approximately 3ha and it currently has a gated access directly onto the B6243 Blackburn Road at the location shown in **Figure 2**.

### Local Highway Network

- 2.0.4 The B6243 Blackburn Road is an important county road which links the rural areas of Ribble Valley, Clitheroe, Whalley and the A59 in the east with Longridge, Preston and the M6 (J31a) in the west. The road is of varying standards along its length, however in the vicinity of the site it takes the form of a single carriageway about 7.3m in width and subject to a 60mph speed limit. It is also a bus route and a designated cycle route.
- 2.0.5 However it should be noted that approximately 100m to the west of the site the speed limit reduces to 30mph and some 100m to the east of the site there is a sharp horizontal bend in the road at the junction with Lower Road which is likely to reduce vehicle speeds. On site observations would indicate that vehicular speeds in both directions are significantly below the 60mph speed limit currently in force.
- 2.0.6 A footway is provided to the northern side of the road and, as one would expect in this rural location, the road is unlit in the vicinity of the site. There is a wide verge along the southern side of Blackburn Road, along the site frontage.

### Accident Data

- 2.0.7 By reference to the Lancashire County Council MARIO mapping system it is evident that there has been no recorded personal injury accidents on Blackburn Road across the site frontage within the last 5 years. However, to the east of the site there has been a single

‘serious’ injury accident at the access to the Corporation Arms and a further 4 accidents (3 ‘slight’ and 1 ‘serious’) at the junction with Lower Lane, 2 of which involved cyclists.

2.0.1 It is considered that these accident records indicate that there is not a safety issue along the site frontage and that the introduction of the proposed site access would not significantly add to the accident risk at this location. Indeed the presence of the proposed development may reduce vehicle speeds and this issue is discussed in more detail later in this report.

### **Accessibility by Non-Car Modes**

#### ***Public Transport – Bus***

2.0.2 As previously stated Blackburn Road is a bus route with the nearest bus stops located on the sites eastern boundary for both eastbound and westbound services.

2.0.3 The Institution of Highways and Transportation Document “Guidelines for Planning for Public Transport in Developments” states that the acceptable walking distance for access to a bus facility from new development is 400m. It is evident therefore, that the site is located well within this acceptable walking distance to the nearest bus stops.

2.0.4 The bus services and frequencies that use these bus stops are as shown in **Table 1**.

---

<b>Bus Service</b>	<b>Route</b>	<b>Frequency</b>		
		<b>Mon - Fri</b>	<b>Saturday</b>	<b>Sunday</b>
5	Chipping - Clitheroe (both directions)	Every 120 mins.	Every 120 mins.	-
35/35A	Chipping – Blackburn (both directions)	Every 120 mins.	Every 120 mins.	-

---

**Table 1 – Bus Services along Blackburn Road**

2.0.5 It is evident from **Table 1** that although the bus services operating along Blackburn Road are not at a high frequency they are well within the recognised acceptable walking distance and will enable future employees of the proposed development to travel to the site by bus.

### ***Cycle***

- 2.0.6 By reference to the Lancashire County Council MARIO mapping system it is evident that Blackburn Road is designated as an on road cycle route that links to Longridge and to other cycle routes in the wider area.
- 2.0.7 In relation to cycling, the former PPG13 recognises that cycling can be a substitute for car trips, particularly for journeys under 5km. Such a catchment area for the site is shown in **Figure 3**. It is evident that the site is readily accessible by cycle from all the residential areas of Longridge as well as some outlying villages.
- 2.0.8 Therefore, it will be possible for cycling trips to replace some car trips to, and from, the proposed development for commuting purposes.

### ***Pedestrians***

- 2.0.9 As previously stated there is a footway on the northern side of Blackburn Road which enables pedestrians to access the site from the residential areas of Longridge to the west of the site. To ensure safe crossing of Blackburn Road dropped kerbs and tactile paving will be provided close to the site access.
- 2.0.10 With consideration of walking distances, the Institute of Highways and Transportation (IHT) produced their 'Guidelines for Journeys on Foot' in 2000 which suggests that around 80% of walk journeys and walk stages in urban areas are less than 1 mile with the average length of a walk journey being just 1km (0.6 miles). The former Planning Policy Guidance Note 13 'Transport' (PPG13) also recognises that walking is the most important mode of travel at the local level, and has the greatest potential to replace car trips for distances up to 2 kilometres. Therefore, the 2km walking catchment area is as shown in **Figure 4** and shows that the main residential areas of Longridge are within a convenient walking distance of the proposed development.

## 3.0 Development Proposals

### Proposed Development

- 3.0.1 The proposed development of the site will provide a total of 9 employment buildings with a total Gross Floor Area (GFA) of 10,090sqm as shown in the proposed site plan included at **Appendix A**.
- 3.0.2 Buildings 1 and 2 will be for B1 office use and provide a total of 2,140sqm of GFA, whilst Buildings 3 to 9 are for B2/B8 industrial use and provide a total of 7,950sqm of GFA.
- 3.0.3 As shown on the proposed site plan, the proposed development will be accessed directly from the B6243, Blackburn Road via a simple priority T junction. The access location provides visibility to the change in speed limit to the west and to the bend in the road to the east, thereby ensuring no safety concern in this regard.
- 3.0.4 In addition, it is understood that there is a desire, locally, for the 30mph speed limit to be extended eastwards to a point to the southeast of the Hillside school access. Should the LPA and the LHA consider this proposal desirable, then it could be implemented as part of the site's development together with some associated traffic calming measures should these also be considered desirable. However, it should be noted that the proposed development does not require the relocation of the change in speed limit to ensure safe access.
- 3.0.5 Footways will be provided around the access bellmouth and as stated above dropped kerbs and tactile paving will be provided to enable safe crossing of Blackburn Road to access the footway on the northern side and the eastbound bus stop.
- 3.0.6 Both bus stops would be upgraded as part of the proposed development.
- 3.0.7 It is also noted that Longridge Town Council have aspirations for a Longridge Cycle/Footpath Loop around the town. It is understood that the potential route of this loop will run along Tan Yard Lane close to the eastern boundary of the Tootle Green housing development before heading westwards along Blackburn Road. As part of the development, a pedestrian/cycleway could be provided along the southern verge of Blackburn Road to connect into this facility to ensure excellent cycle and pedestrian links to the site for employees residing within Longridge. If the 30mph speed limit is extended as suggested above, then street lighting could also be provided along this section.

- 3.0.8 With regards to car parking provision, as shown on the proposed site plan 61 car parking spaces are proposed for Buildings 1 and 2, which is a provision of space per 35sqm GFA as required by the LHA parking standards for B1 use. Blocks 3 to 9 have 87 allocated car parking spaces which equates to a provision of 1 space per 42sqm GFA, which again is in accordance with the LHA parking standards for B2/B8 use. It is considered therefore, that the proposed parking provision will be sufficient to meet the likely demand of the proposed development.
- 3.0.9 Safe and secure cycle parking will also be provided at suitable locations within the site to encourage employees to cycle to work.
- 3.0.10 Suitable turning facilities are also provided within the site to ensure that large vehicles, including refuse vehicles, can satisfactorily manoeuvre within the site without conflicting with parking spaces.
- 3.0.11 Taking the above into account it is considered that access to the proposed development can be satisfactorily achieved and would not create unsafe conditions on the local road network.

**Other Highway Benefits**

- 3.0.12 It is also understood that vehicular access to Hillside Specialist School to the east of the site is an acknowledged local highway issue, due to its proximity to the bend in front of the Corporation Arms Public House. The school is a large LEA school catering for 90 students aged from 3 to 19 years, with special education needs from across Lancashire and the problem, which is not uncommon at specialist schools, arises from the large number of private taxis and dedicated vehicles which are used to transport students between their homes and the school on a daily basis.
- 3.0.13 Currently, vehicles arriving to collect pupils are not permitted to enter the school campus until the school day has ended and consequently, the drivers of these vehicles have to wait on Blackburn Road and Preston Road until they are able to enter the school grounds. This, together with queuing vehicles waiting to turn right into the school, frequently cause problems during morning peak and mid-afternoon hours and it is seen as a road safety issue given the location of the school access immediately to the south of the sharp bend in the road.

- 3.0.14 Taking the above into account, as the development site extends in the east to the western boundary of the school there is scope to provide a secure pupil vehicle waiting/parking area within the proposed site which would remove the current problem of queuing and stationary traffic in a dangerous location on the local highway network. This potential facility is shown on the site plan included at **Appendix A** and, although would require further discussion with the school and the LHA, could potentially provide a significant safety benefit to the local road network.

## 4.0 Transport Impact of the Proposed Development

### Introduction

- 4.0.1 In order to quantify the potential trip generation attributable to the proposed development, the TRICS database has been interrogated for the categories of 'Employment – Business Park' for the B1 buildings and 'Employment – Industrial Estate' for the B2/B8 buildings. Sites in England, excluding Greater London have been chosen from the database. The resulting TRICS output is included at **Appendix B** and the trip rates are summarised below in **Table 2**.

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
B1 Business Park	1.265	0.222	1.487	0.147	1.043	1.190
B2/B8 Industrial Estate	0.466	0.259	0.725	0.121	0.379	0.500

**Table 2 – Weekday Trip Generation Rates (per 100sqm GFA)**

- 4.0.2 Using the trip generation rates shown in **Table 2** the resulting trip generation of the proposed uses are as shown in **Table 3**.

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
B1 Business Park	27	5	32	3	22	25
B2/B8 Industrial Estate	37	21	58	10	30	40
<b>Total</b>	64	26	90	13	52	65

**Table 3 – Trip Generation for Proposed Development**

- 4.0.3 **Table 3** shows that the proposed development would generate 90 two-way vehicle trips during the weekday AM peak hour and 65 two-way vehicle trips during the weekday PM peak hour.
- 4.0.4 It is considered that the predicted generated traffic flows are not significant at an additional vehicle every 40 seconds in the AM Peak Hour and every minute in the PM peak hour. This is likely to be within generally accepted daily fluctuations in traffic on Blackburn Road and therefore would not be perceptible.

- 4.0.5 It is concluded therefore, that the proposed development will not have a material impact on the operation of the local road network in the vicinity of the site.

**Construction Phase**

- 4.0.6 The site is located on a route that is suitable for large HGVs and, therefore, the construction phase is unlikely to have a significant impact on the operation of the transport network.

## 5.0 Summary and Conclusions

5.0.1 This Transport Statement has considered the transport implications of a proposed employment development at Blackburn Road, Longridge in Lancashire. The information presented can be summarised as follows:

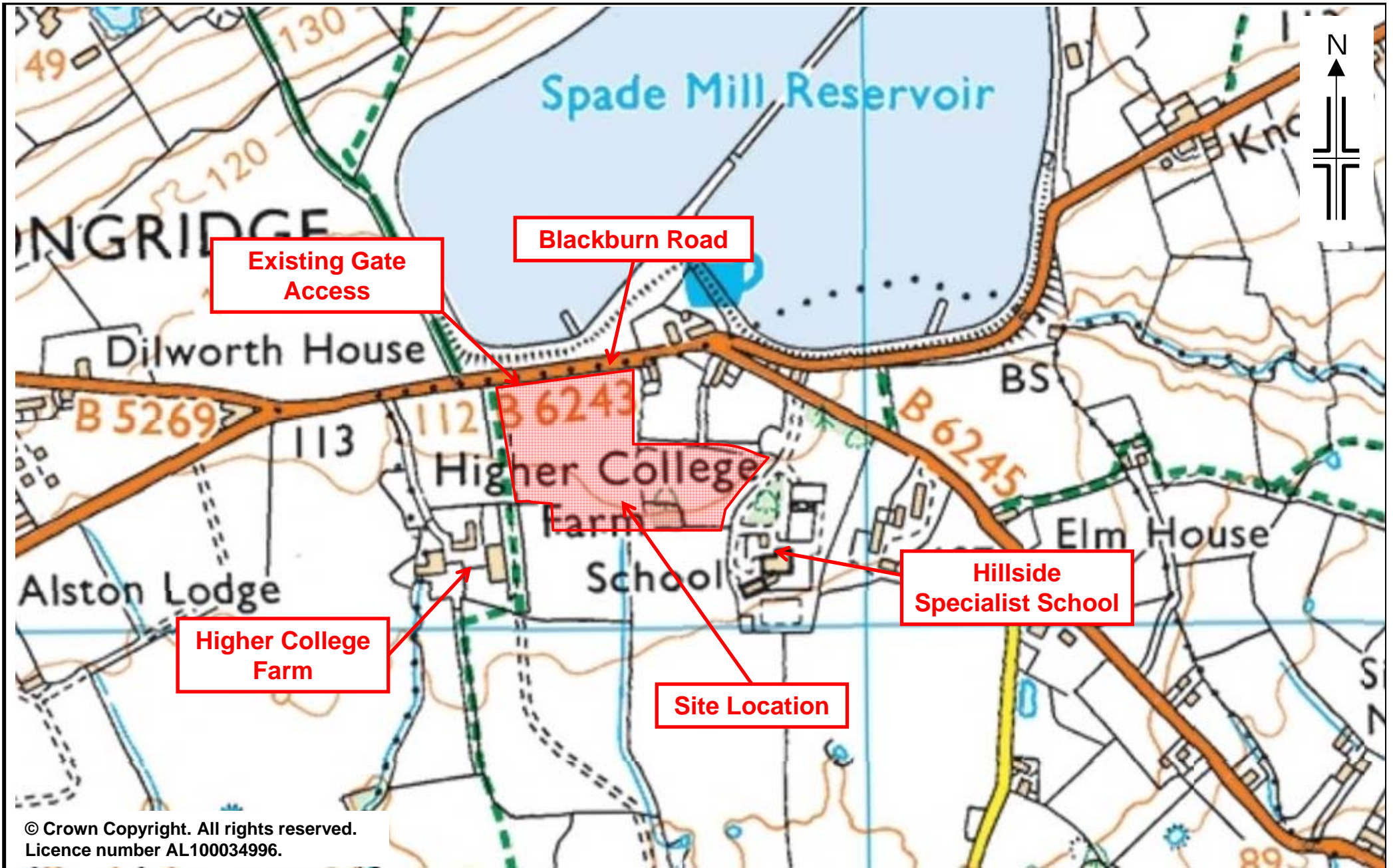
- **Site Description** – The site is located to the east of Longridge, which itself is situated approximately 10 kilometres to the north east of Preston City Centre. The site has historically been used for agricultural purposes, has an area of approximately 3ha and currently has a gated access directly onto the B6243 Blackburn Road. An examination of the road safety data for the local highway network shows that whilst there has been no injury accidents on Blackburn Road along the site frontage, although there have been a number at the bend in the road to the east of the site. Overall it is considered that there is no evidence of a significant road safety problem in the vicinity of the proposed site access.
- **Proposed Development** – The proposed development of the site will provide a total of 9 employment buildings with a total Gross Floor Area (GFA) of 10,090sqm. Buildings 1 and 2 will be for B1 office use and provide a total of 2,140sqm of GFA, whilst Buildings 3 to 9 are for B2/B8 industrial use and provide a total of 7,950sqm of GFA. The development will be accessed via a new priority T junction with Blackburn Road and provide car parking spaces within the site in accordance with the appropriate parking standards. Due to the accessibility of the site to sustainable modes of travel this is considered to be sufficient to meet the likely demand for car parking. Parking facilities will also be provided for cycles within the site.
- **Transport Impact** – The site is accessible by sustainable transport as bus services operate along Blackburn Road and there is also existing cycle and pedestrian facilities adjacent to the site. In addition, a pedestrian/cycleway could be provided along the southern verge of Blackburn Road linking the site to the potential Longridge Loop being promoted by Longridge Town Council. It is also proposed that the existing bus stops be upgraded in the vicinity of the site be upgraded. These measures provide potential for future employees to walk, cycle or use public transport to travel to the proposed development. With respect to existing reported road safety issues, there is potential to provide a secure pupil transport waiting/parking area within the proposed site which would remove the current

problem of queuing and stationary traffic in a dangerous location on the local highway network. The traffic that is likely to be generated by the proposal has been established and is not considered to be significant and is unlikely to result in the proposed development having a material impact on the operation of the local road network.

**5.0.2 In light of the above, it is concluded that the proposed development should not have a material impact in terms of highway operation and safety and may, in fact, afford some road safety benefits.**

**FIGURES**





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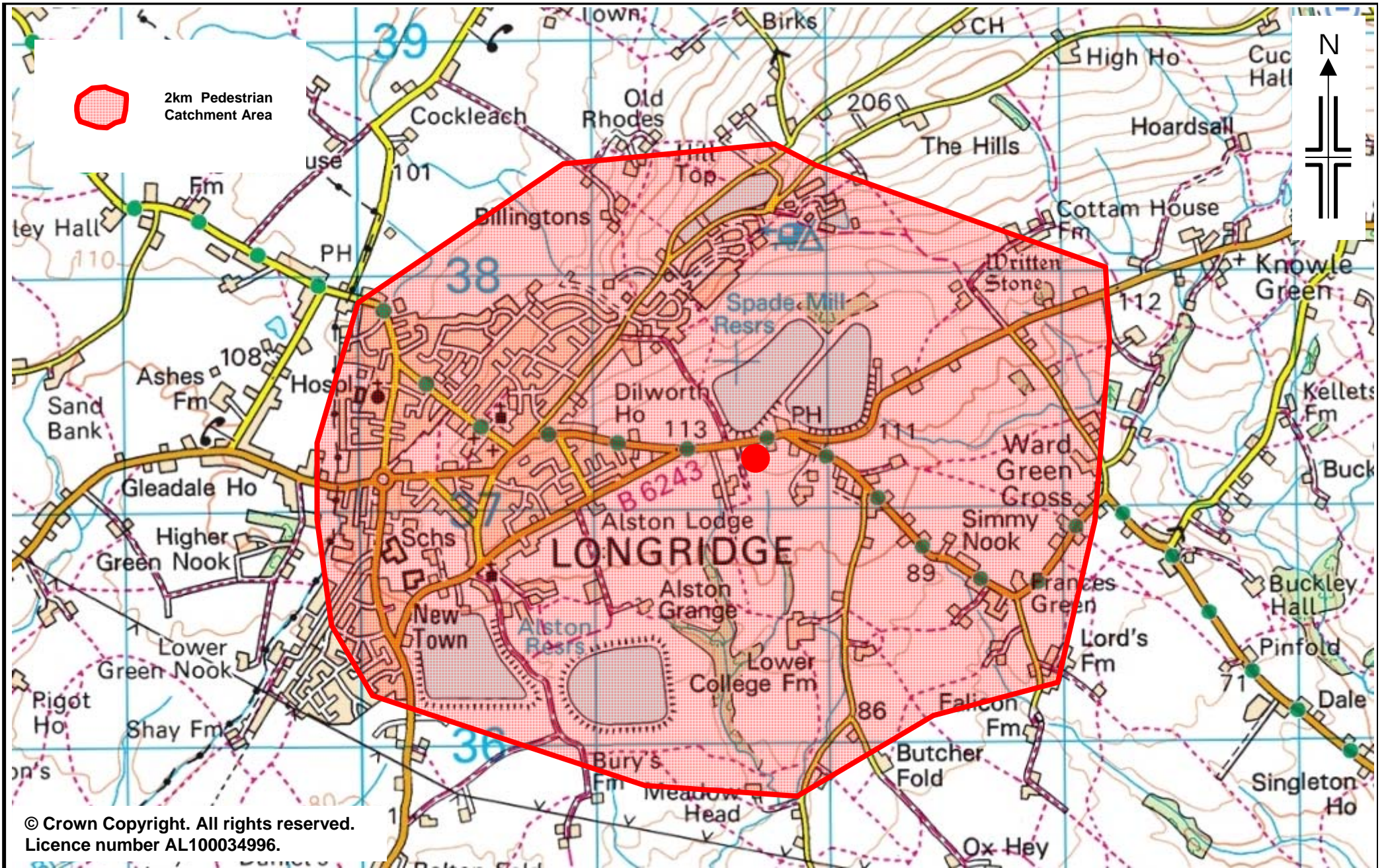
Client	Mr and Mrs Walker
Job	Blackburn Road, Longridge
Title	Site Area Plan

Drawn	PB
Checked	DLW
Approved	DLW

Date	09.11.2016
Scale	NTS

Drawing No.	T2267/Figure 2			
Rev				





 <b>PSA</b> DESIGN  <small>CIVIL. STRUCTURAL. GEOTECHNICAL. TRANSPORT</small>	PSA Design The Old Bank House 6 Berry Lane, Longridge Preston, PR3 3JA Tel. 01772 786066	Client	<b>Mr and Mrs Walker</b>	Drawn	PB	Date	<b>09.11.2016</b>	Drawing No. <b>T2267/Figure 3</b>
		Job	<b>Blackburn Road, Longridge</b>	Checked	DLW	Scale	<b>NTS</b>	
		Title	<b>2km Walking Catchment Area</b>	Approved	DLW			Rev

**Appendix A – Proposed Site Plan**

**Appendix B – TRICS Output**

Calculation Reference: AUDIT-551501-161109-1109

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 02 - EMPLOYMENT  
 Category : B - BUSINESS PARK

**VEHICLES**

Selected regions and areas:

<b>02 SOUTH EAST</b>	
WG WOKINGHAM	1 days
<b>03 SOUTH WEST</b>	
DC DORSET	1 days
<b>05 EAST MIDLANDS</b>	
LN LINCOLNSHIRE	1 days
<b>06 WEST MIDLANDS</b>	
SH SHROPSHIRE	2 days
<b>07 YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
WY WEST YORKSHIRE	2 days
<b>08 NORTH WEST</b>	
GM GREATER MANCHESTER	2 days
LC LANCASHIRE	1 days
<b>09 NORTH</b>	
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: Gross floor area  
 Actual Range: 1300 to 9500 (units: sqm)  
 Range Selected by User: 975 to 10000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 20/11/15

*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	1 days
Tuesday	3 days
Wednesday	1 days
Thursday	3 days
Friday	3 days

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

Selected survey types:

Manual count	11 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 Centre	1
Suburban Area (PPS6 Out of Centre)	5
Edge of Town	5

*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
-----------------	---

*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:

B1 11 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
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	6 days

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

Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	4 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	5 days

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

Travel Plan:

Yes	1 days
No	10 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

<b>1</b>	<b>DC-02-B-01 BUSINESS PARK</b> COMMERCIAL ROAD	<b>DORSET</b>
	POOLE Suburban Area (PPS6 Out of Centre) Built-Up Zone Total Gross floor area: 1570 sqm <i>Survey date: THURSDAY 17/07/08</i>	<i>Survey Type: MANUAL</i>
<b>2</b>	<b>GM-02-B-03 BUSINESS PARK</b> CROSS STREET	<b>GREATER MANCHESTER</b>
	SALE Edge of Town Industrial Zone Total Gross floor area: 3985 sqm <i>Survey date: TUESDAY 18/10/11</i>	<i>Survey Type: MANUAL</i>
<b>3</b>	<b>GM-02-B-04 BUSINESS PARK</b> SALMON FIELDS	<b>GREATER MANCHESTER</b>
	OLDHAM Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 3300 sqm <i>Survey date: THURSDAY 22/10/15</i>	<i>Survey Type: MANUAL</i>
<b>4</b>	<b>LC-02-B-03 BUSINESS PARK</b> NAVIGATION WAY	<b>LANCASHIRE</b>
	PRESTON Edge of Town Commercial Zone Total Gross floor area: 3450 sqm <i>Survey date: TUESDAY 18/10/11</i>	<i>Survey Type: MANUAL</i>
<b>5</b>	<b>LN-02-B-02 BUSINESS PARK</b> CARDINAL CLOSE	<b>LINCOLNSHIRE</b>
	LINCOLN Edge of Town Industrial Zone Total Gross floor area: 5000 sqm <i>Survey date: THURSDAY 25/06/15</i>	<i>Survey Type: MANUAL</i>
<b>6</b>	<b>SH-02-B-02 BUSINESS PARK</b> STAFFORD COURT	<b>SHROPSHIRE</b>
	TELFORD Edge of Town Centre Commercial Zone Total Gross floor area: 9500 sqm <i>Survey date: MONDAY 22/06/09</i>	<i>Survey Type: MANUAL</i>
<b>7</b>	<b>SH-02-B-03 BUSINESS CENTRE</b> CASTLE STREET HADLEY TELFORD	<b>SHROPSHIRE</b>
	Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area: 1300 sqm <i>Survey date: TUESDAY 16/06/09</i>	<i>Survey Type: MANUAL</i>

*LIST OF SITES relevant to selection parameters (Cont.)*

<b>8</b>	<b>TW-02-B-05</b> MONARCH ROAD	<b>BUSINESS PARK</b>	<b>TYNE &amp; WEAR</b>
	NEWCASTLE		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	7926 sqm	
	Survey date: FRIDAY	13/11/15	Survey Type: MANUAL
<b>9</b>	<b>WG-02-B-02</b> WHARFEDALE ROAD	<b>BUSINESS PARK</b>	<b>WOKINGHAM</b>
	WINNERSH		
	READING		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	4775 sqm	
	Survey date: FRIDAY	20/11/15	Survey Type: MANUAL
<b>10</b>	<b>WY-02-B-01</b> ROSEVILLE ROAD	<b>BUSINESS PARK</b>	<b>WEST YORKSHIRE</b>
	LEEDS		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	4078 sqm	
	Survey date: FRIDAY	20/09/13	Survey Type: MANUAL
<b>11</b>	<b>WY-02-B-02</b> ARMITAGE BRIDGE	<b>BUSINESS PARK</b>	<b>WEST YORKSHIRE</b>
	HUDDERSFIELD		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	9200 sqm	
	Survey date: WEDNESDAY	23/04/14	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK  
**VEHICLES**  
 Calculation factor: 100 sqm  
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	11	4917	0.118	11	4917	0.031	11	4917	0.149
07:30 - 08:00	11	4917	0.281	11	4917	0.030	11	4917	0.311
08:00 - 08:30	11	4917	0.501	11	4917	0.065	11	4917	0.566
08:30 - 09:00	<b>11</b>	<b>4917</b>	<b>0.764</b>	11	4917	0.157	<b>11</b>	<b>4917</b>	<b>0.921</b>
09:00 - 09:30	11	4917	0.453	11	4917	0.179	11	4917	0.632
09:30 - 10:00	11	4917	0.270	11	4917	0.189	11	4917	0.459
10:00 - 10:30	11	4917	0.240	11	4917	0.176	11	4917	0.416
10:30 - 11:00	11	4917	0.157	11	4917	0.153	11	4917	0.310
11:00 - 11:30	11	4917	0.150	11	4917	0.178	11	4917	0.328
11:30 - 12:00	11	4917	0.196	11	4917	0.157	11	4917	0.353
12:00 - 12:30	11	4917	0.192	11	4917	0.277	11	4917	0.469
12:30 - 13:00	11	4917	0.266	11	4917	0.307	11	4917	0.573
13:00 - 13:30	11	4917	0.207	11	4917	0.240	11	4917	0.447
13:30 - 14:00	11	4917	0.283	11	4917	0.213	11	4917	0.496
14:00 - 14:30	11	4917	0.227	11	4917	0.231	11	4917	0.458
14:30 - 15:00	11	4917	0.181	11	4917	0.192	11	4917	0.373
15:00 - 15:30	11	4917	0.166	11	4917	0.200	11	4917	0.366
15:30 - 16:00	11	4917	0.150	11	4917	0.244	11	4917	0.394
16:00 - 16:30	11	4917	0.153	11	4917	0.335	11	4917	0.488
16:30 - 17:00	11	4917	0.111	11	4917	0.399	11	4917	0.510
17:00 - 17:30	11	4917	0.092	<b>11</b>	<b>4917</b>	<b>0.594</b>	11	4917	0.686
17:30 - 18:00	11	4917	0.055	11	4917	0.449	11	4917	0.504
18:00 - 18:30	10	4488	0.031	10	4488	0.152	10	4488	0.183
18:30 - 19:00	10	4488	0.018	10	4488	0.098	10	4488	0.116
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			5.262			5.246			10.508

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

### Parameter summary

Trip rate parameter range selected:	1300 - 9500 (units: sqm)
Survey date date range:	01/01/08 - 20/11/15
Number of weekdays (Monday-Friday):	11
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.*

Calculation Reference: AUDIT-551501-161109-1144

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 02 - EMPLOYMENT  
Category : D - INDUSTRIAL ESTATE

**VEHICLES**

Selected regions and areas:

<b>02</b>	<b>SOUTH EAST</b>	
	ES EAST SUSSEX	2 days
	KC KENT	1 days
	WG WOKINGHAM	1 days
<b>03</b>	<b>SOUTH WEST</b>	
	BR BRISTOL CITY	2 days
	DV DEVON	1 days
<b>04</b>	<b>EAST ANGLIA</b>	
	CA CAMBRIDGESHIRE	4 days
	NF NORFOLK	1 days
<b>05</b>	<b>EAST MIDLANDS</b>	
	LN LINCOLNSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
<b>06</b>	<b>WEST MIDLANDS</b>	
	HE HEREFORDSHIRE	1 days
	WO WORCESTERSHIRE	1 days
<b>08</b>	<b>NORTH WEST</b>	
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
	MS MERSEYSIDE	1 days
<b>09</b>	<b>NORTH</b>	
	CB CUMBRIA	1 days
	NB NORTHUMBERLAND	1 days
	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: Gross floor area  
 Actual Range: 1775 to 18128 (units: sqm)  
 Range Selected by User: 708 to 20000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 22/10/15

*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	3 days
Tuesday	7 days
Wednesday	2 days
Thursday	5 days
Friday	5 days

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

Selected survey types:

Manual count	22 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 Centre	1
Suburban Area (PPS6 Out of Centre)	9
Edge of Town	9
Neighbourhood Centre (PPS6 Local Centre)	2
Free Standing (PPS6 Out 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:

Industrial Zone	11
Commercial Zone	1
Residential Zone	5
Village	1
Out of Town	1
No Sub Category	3

*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:

B1	9 days
B2	9 days
B8	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®.*

**Filtering Stage 3 selection (Cont.):**

Population within 1 mile:

1,000 or Less	3 days
1,001 to 5,000	1 days
5,001 to 10,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	4 days
25,001 to 50,000	9 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	2 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	9 days
250,001 to 500,000	5 days
500,001 or More	2 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	1 days
0.6 to 1.0	6 days
1.1 to 1.5	13 days
1.6 to 2.0	2 days

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

Travel Plan:

No	22 days
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*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 (Cont.)*

<b>9</b>	<b>ES-02-D-06</b> COURTLANDS ROAD	<b>INDUSTRIAL ESTATE</b>	<b>EAST SUSSEX</b>
	EASTBOURNE Edge of Town Residential Zone Total Gross floor area: 7525 sqm <i>Survey date: MONDAY 21/10/13</i>		<i>Survey Type: MANUAL</i>
<b>10</b>	<b>ES-02-D-07</b> HUGHES ROAD	<b>INDUSTRIAL ESTATE</b>	<b>EAST SUSSEX</b>
	BRIGHTON Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 6625 sqm <i>Survey date: THURSDAY 16/10/14</i>		<i>Survey Type: MANUAL</i>
<b>11</b>	<b>GM-02-D-07</b> VULCAN STREET	<b>BUSINESS PARK</b>	<b>GREATER MANCHESTER</b>
	OLDHAM Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 4400 sqm <i>Survey date: THURSDAY 22/10/15</i>		<i>Survey Type: MANUAL</i>
<b>12</b>	<b>HE-02-D-02</b> BURCOTT ROAD	<b>BUSINESS PARK</b>	<b>HEREFORDSHIRE</b>
	HEREFORD Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 5214 sqm <i>Survey date: TUESDAY 22/10/13</i>		<i>Survey Type: MANUAL</i>
<b>13</b>	<b>KC-02-D-02</b> SOUTHWELL ROAD	<b>INDUSTRIAL ESTATE</b>	<b>KENT</b>
	DEAL Edge of Town Residential Zone Total Gross floor area: 10715 sqm <i>Survey date: WEDNESDAY 28/11/12</i>		<i>Survey Type: MANUAL</i>
<b>14</b>	<b>LC-02-D-05</b> APPLEBY STREET	<b>INDUSTRIAL ESTATE</b>	<b>LANCASHIRE</b>
	BLACKBURN Edge of Town Centre Industrial Zone Total Gross floor area: 7020 sqm <i>Survey date: TUESDAY 04/06/13</i>		<i>Survey Type: MANUAL</i>
<b>15</b>	<b>LN-02-D-02</b> STATION ROAD SWINESHEAD NEAR BOSTON	<b>INDUSTRIAL ESTATE</b>	<b>LINCOLNSHIRE</b>
	Neighbourhood Centre (PPS6 Local Centre) Village Total Gross floor area: 4600 sqm <i>Survey date: TUESDAY 11/12/12</i>		<i>Survey Type: MANUAL</i>

*LIST OF SITES relevant to selection parameters (Cont.)*

<b>16</b>	<b>MS-02-D-06</b> BOALER STREET	<b>INDUSTRIAL EST.</b>	<b>MERSEYSIDE</b>
	LIVERPOOL Neighbourhood Centre (PPS6 Local Centre) Industrial Zone Total Gross floor area: 4800 sqm Survey date: THURSDAY 09/09/10		Survey Type: MANUAL
<b>17</b>	<b>NB-02-D-02</b> OLDSTONE ROAD EAST CRAMLINGTON NEAR CRAMLINGTON Free Standing (PPS6 Out of Town) Out of Town Total Gross floor area: 5500 sqm Survey date: FRIDAY 16/11/12	<b>INDUSTRIAL ESTATE</b>	<b>NORTHUMBERLAND</b>
			Survey Type: MANUAL
<b>18</b>	<b>NF-02-D-03</b> BIDEWELL CLOSE	<b>INDUSTRIAL ESTATE</b>	<b>NORFOLK</b>
	NORWICH Edge of Town Residential Zone Total Gross floor area: 6000 sqm Survey date: MONDAY 08/10/12		Survey Type: MANUAL
<b>19</b>	<b>NR-02-D-01</b> ROBINSON WAY	<b>INDUSTRIAL ESTATE</b>	<b>NORTHAMPTONSHIRE</b>
	KETTERING Edge of Town Industrial Zone Total Gross floor area: 12900 sqm Survey date: THURSDAY 23/10/14		Survey Type: MANUAL
<b>20</b>	<b>TW-02-D-07</b> SWALWELL BANK WHICKHAM GATESHEAD Edge of Town Residential Zone Total Gross floor area: 6800 sqm Survey date: FRIDAY 04/10/13	<b>INDUSTRIAL ESTATE</b>	<b>TYNE &amp; WEAR</b>
			Survey Type: MANUAL
<b>21</b>	<b>WG-02-D-01</b> FISHPONDS ROAD	<b>INDUSTRIAL ESTATE</b>	<b>WOKINGHAM</b>
	WOKINGHAM Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 3800 sqm Survey date: TUESDAY 20/11/12		Survey Type: MANUAL
<b>22</b>	<b>WO-02-D-01</b> SANDY LANE	<b>INDUSTRIAL ESTATE</b>	<b>WORCESTERSHIRE</b>
	STOURPORT-ON-SEVERN Edge of Town Commercial Zone Total Gross floor area: 2758 sqm Survey date: FRIDAY 23/05/14		Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

**VEHICLES**

Calculation factor: 100 sqm

**BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	22	7237	0.133	22	7237	0.034	22	7237	0.167
07:30 - 08:00	<b>22</b>	<b>7237</b>	<b>0.263</b>	22	7237	0.069	22	7237	0.332
08:00 - 08:30	22	7237	0.247	22	7237	0.134	<b>22</b>	<b>7237</b>	<b>0.381</b>
08:30 - 09:00	22	7237	0.219	22	7237	0.125	22	7237	0.344
09:00 - 09:30	22	7237	0.198	22	7237	0.133	22	7237	0.331
09:30 - 10:00	22	7237	0.187	22	7237	0.147	22	7237	0.334
10:00 - 10:30	22	7237	0.171	22	7237	0.164	22	7237	0.335
10:30 - 11:00	22	7237	0.144	22	7237	0.129	22	7237	0.273
11:00 - 11:30	22	7237	0.165	22	7237	0.157	22	7237	0.322
11:30 - 12:00	22	7237	0.161	22	7237	0.172	22	7237	0.333
12:00 - 12:30	22	7237	0.166	22	7237	0.175	22	7237	0.341
12:30 - 13:00	22	7237	0.166	22	7237	0.171	22	7237	0.337
13:00 - 13:30	22	7237	0.151	22	7237	0.164	22	7237	0.315
13:30 - 14:00	22	7237	0.160	22	7237	0.143	22	7237	0.303
14:00 - 14:30	22	7237	0.169	22	7237	0.160	22	7237	0.329
14:30 - 15:00	22	7237	0.166	22	7237	0.143	22	7237	0.309
15:00 - 15:30	22	7237	0.167	22	7237	0.209	22	7237	0.376
15:30 - 16:00	22	7237	0.130	22	7237	0.174	22	7237	0.304
16:00 - 16:30	22	7237	0.122	22	7237	0.209	22	7237	0.331
16:30 - 17:00	22	7237	0.099	22	7237	0.224	22	7237	0.323
17:00 - 17:30	22	7237	0.072	<b>22</b>	<b>7237</b>	<b>0.231</b>	22	7237	0.303
17:30 - 18:00	22	7237	0.049	22	7237	0.148	22	7237	0.197
18:00 - 18:30	22	7237	0.031	22	7237	0.106	22	7237	0.137
18:30 - 19:00	22	7237	0.020	22	7237	0.052	22	7237	0.072
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
<b>Total Rates:</b>			3.556			3.573			7.129

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

### Parameter summary

Trip rate parameter range selected:	1775 - 18128 (units: sqm)
Survey date date range:	01/01/08 - 22/10/15
Number of weekdays (Monday-Friday):	22
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
Surveys manually removed from selection:	0

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