



TRANSPORT ASSESSMENT

BOSWORTH LAKESIDE LODGES
MARKET BOSWORTH

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1.0 INTRODUCTION

- 1.1 ADC Infrastructure have been commissioned by Golby and Luck to provide transport and highways advice in relation to a proposed extension of the Bosworth Lakeside Lodges site, off Wellingborough Road, Market Bosworth. The site's general location is shown in **Figure 1** below.

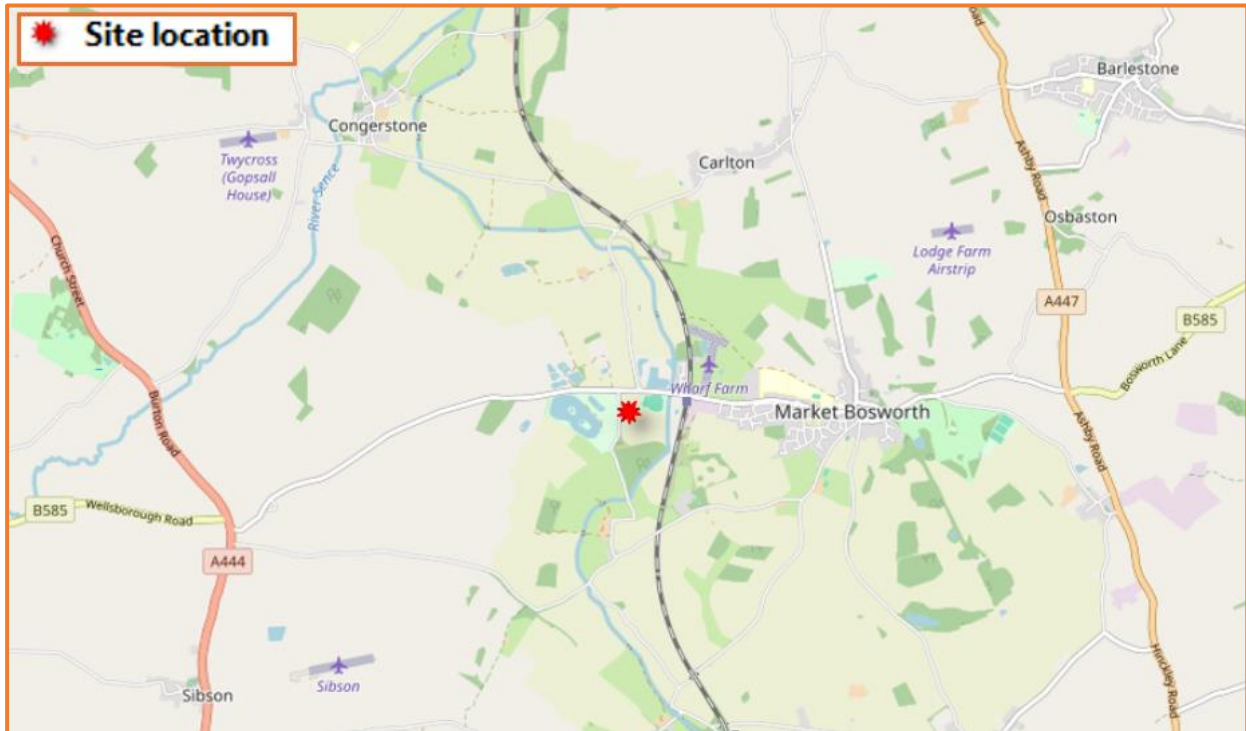


Figure 1: general site location

- 1.2 Hinckley and Bosworth Borough Council (HBBC) are the local planning authority and Leicestershire County Council (LCC) are the local highway authority.
- 1.3 The proposed extension would be on the eastern adjacent field to the south of Wellingborough Road and would be accessed via the existing access at the north western corner of the site which would be upgraded to serve the development. The proposed extension would accommodate 38 holiday lodges, each with two car parking spaces.
- 1.4 In addition, there would be a building at the northern end of the site. This would provide a spa with a floor area of 2,280sqm. There would be two activity pods which would host yoga classes and, would be used by the guests of the holiday lodges. In total, there would be 135 car parking spaces at the northern end of the site.
- 1.5 To the south of the holiday lodges, there would also be a building with a floor area of 1,000sqm which would host weddings. There would be a car park for the wedding venue which would accommodate 22 cars. A masterplan of the proposed development is included in **Appendix A**.
- 1.6 In October 2023, ADC Infrastructure Limited produced an Access Appraisal which was submitted to HBBC so that pre-application comments could be provided for the development. LCC provided a highways response which is contained in **Appendix B**. In summary, LCC have stated the following:
- A site access drawing should be provided demonstrating the access would be designed in accordance with LCC's Highway Design Guide including visibility splays and a swept path analysis of a refuse vehicle.

- Consideration should be given to the separation distance between the proposed site access and the Wellsborough Road/Cotton Bridge Lane junction and whether the access could be relocated further south whilst avoiding a crossroads with the junction for the existing holiday lodges on the western side of Cotton Bridge Lane.
- A Stage 1 Road Safety Audit should be undertaken of the site access proposals.
- A traffic generation exercise should be undertaken for the morning and evening weekday peaks as well as an identified peak at the weekend.
- In the event where the development proposals generate more than 30 two-way trips, a capacity assessment would be required at any affected junction.
- To increase accessibility between the existing holiday lodges on the western side of Cotton Bridge Lane and the proposed development, a pedestrian crossing point should be provided.
- Car parking should be provided in accordance with LCC standards.

1.7 This Transport Assessment report has been prepared to support the proposals. It is structured as follows:

- Section 2 describes the existing conditions near the site. The site location and existing use is detailed. The local highway network is described, and the existing opportunities for travel to the site by sustainable modes are examined.
- Section 3 describes the development proposals, including the vehicular access proposals and car parking provision.
- Section 4 summarises the forecast trip generation of the development.
- Section 5 assesses the impact of the development on the operation and safety of the local highway.
- Section 6 presents the summary and conclusions.

1.8 This Transport Assessment has been produced in accordance with Travel plans, Transport Assessments and Statements¹.

1.9 It examines the transport implications of the proposed development, and considers the requirements set out in paragraph 114 of the National Planning Policy Framework (NPPF)², as follows:

In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) safe and suitable access to the site can be achieved for all users;*
- c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code⁴⁸; and*
- d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.*

1.10 This report also highlights paragraph 115 of the NPPF, which states:

¹ Travel Plans, Transport Assessments and Statements, Planning Practice Guidance, Department for Levelling Up, Housing and Communities and Ministry for Housing, Communities and Local Government, March 2014

² National Planning Policy Framework, Ministry of Housing, Communities & Local Government (December, 2023)

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”

2.0 EXISTING CONDITIONS

Site location and existing use

- 2.1 As shown in **Figure 2**, the site is located east of the recently constructed Bosworth Lakeside Lodges development (planning reference: 20/00026/FUL). The site is bound by Wellsborough Road to the north and Cotton Bridge Lane to the west which serves the consented lodge park as well as a farm and residential properties to the south.
- 2.2 The site has most recently been used for the growing of Christmas trees but is now vacant.



Figure 2: aerial photograph

Local highway network

- 2.3 Wellsborough Road is a single carriageway road which adjoins with Bosworth Road to the west and Station Road to the east. Bosworth Road provides connectivity to the A444 whilst Station Road extends to the centre of Market Bosworth.
- 2.4 There is an existing speed limit change point approximately 125m to the west of the site access junction where the speed limit increases to 50mph for westbound traffic towards the A444, whilst the speed limit along the site frontage is 40mph. Double yellow lines are present on Wellsborough Road, either side of the site access junction.
- 2.5 Cotton Bridge Lane to the west of the site is approximately 6m wide adjacent to the proposed site access and also has double yellow lines on both side of the carriageway and is subject to a 7.5t

weight restriction (except for loading). Beyond the access to the existing lodges on the western side of Cotton Bridge Lane, the carriageway narrows but still provides yellow lines on both sides of the carriageway.

Accident record

- 2.6 It is necessary to examine the accident record on the roads in the vicinity of the site, to identify any trends which may be made worse by additional traffic and person trips generated by the proposed development. Therefore, the Crashmap database (www.crashmap.co.uk) was interrogated.
- 2.7 No recorded accidents have occurred along Cotton Bridge Lane and approximately 400m either side of the junction on Wellsborough Road since January 2018. Hence, there is no accident problem in the vicinity of the site.

Opportunities for sustainable travel

- 2.8 Regarding pedestrian travel, there are footways on both sides of the Cotton Bridge Lane from the Wellsborough Road junction. The footway on the eastern side of the access road connects with a footway on the southern side of Wellsborough Road. The footway extends to the east for approximately 180m before terminating at the junction with Carlton Road, adjacent to Bosworth Marina.
- 2.9 For onward connectivity towards the centre of Market Bosworth, there is an informal route pedestrians could take through the car park of the Market Bosworth Sports Club which is shown in **Figure 3** below where it connects with the footway on the southern side of Wellsborough Road.
- 2.10 As shown in **Figure 4**, the route through the car park connects with a footway on Wellsborough Road over the Ashby de la Zouch canal. There are uncontrolled crossings at the roundabout with Station Road and Pipistrelle Drive which enables connectivity to the footway on the northern side of Station Road. The footway on the northern side of Station Road extends to the centre of Market Bosworth and its associated facilities.



Figure 3: Informal pedestrian route through Market Bosworth Sport Club

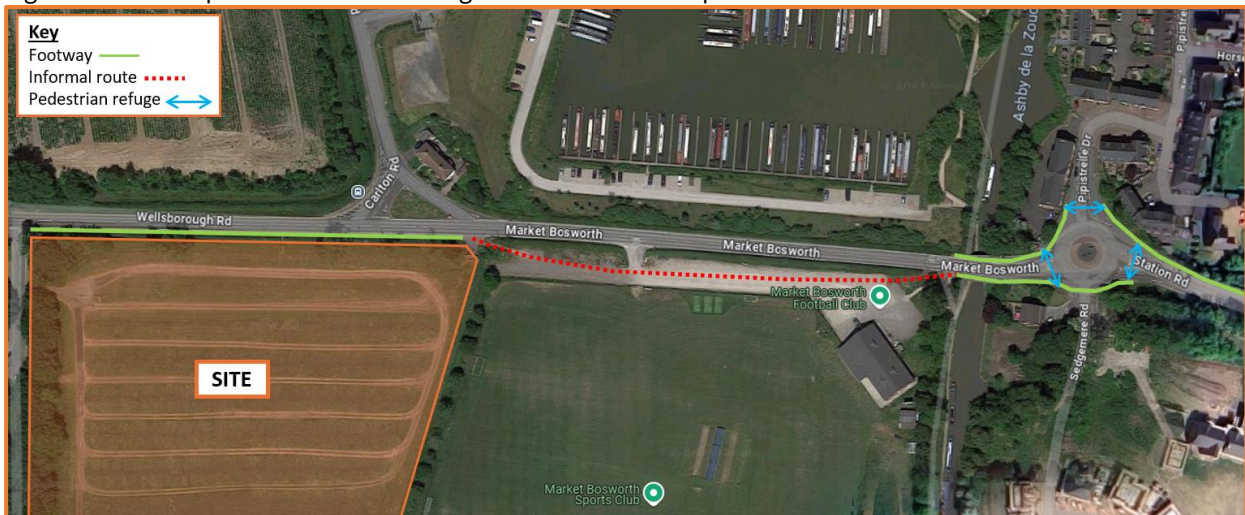


Figure 4: footway map between site and local footway network

- 2.11 Regarding cycle travel, LCC have categorised the site frontage on Wellsborough Road as an on-road cycle leisure route which runs through the heart of Market Bosworth. Cotton Bridge Lane is part of the National Cycle Network Route 52 which extends to destinations such as Nuneaton and Coalville.
- 2.12 In terms of public transport, there is a bus stop on Carlton Road, approximately 160m east to the east of the site access junction on Wellsborough Road. However, due to recent changes, the 153 route which use to serve the stop no longer routes along Wellsborough Road. Therefore, there are no existing bus routes in the vicinity of the site.

3.0 PROPOSED DEVELOPMENT

Development proposals

- 3.1 The development proposals consist of an extension of the existing Bosworth Lakeside Lodges and would be accessed via the existing access at the north western corner of the site which would be upgraded to serve the development. The proposed extension would accommodate 38 holiday lodges, each with two car parking spaces.
- 3.2 In addition, there would be a building at the northern end of the site. This would provide a spa with a floor area of 2,280sqm. There would be two activity pods which would host yoga classes and, would be used by the guests of the holiday lodges. In total, there would be 135 car parking spaces.
- 3.3 To the south of the holiday lodges, there would also be a building with a floor area of 1,000sqm which would host weddings. There would be a car park for the wedding venue which would accommodate 22 cars. A masterplan of the proposed development is included in **Appendix A**.

Access

- 3.4 The proposed development would be accessed via the existing access in the north western corner of the site which is currently gated. The access would be upgraded to provide 6m kerb radii and a 6m wide carriageway as shown in **Drawing 3381-ADC-ZZ-XX-DR-Z-0101-S1_P02**. There would be 2m wide footways either side of the access, the northern of which would connect with the car park for the spa at the northern end of the site whilst the southern footway would connect with the access road for the holiday lodges and wedding venue.
- 3.5 As requested by LCC, an uncontrolled pedestrian crossing point is proposed to the immediate north of the site access junction to enable pedestrian connectivity with the existing lodges on the western side of Cotton Bridge Lane.
- 3.6 LCC stated that a swept path assessment would be required of the site access of a refuse vehicle with a design speed of 15km/h. Therefore, **Drawing 3381-ADC-ZZ-XX-DR-Z-0131-S1_P02** has been produced which demonstrates a refuse vehicle can enter and exit the site in both directions.
- 3.7 As part of the pre-application advice provided by LCC, comments were raised relating to the separation distance between the proposed access and the Wellsborough Road junction. LCC have queried whether the access could be relocated further south, but not creating a crossroads with the existing lodges on the western side of Cotton Bridge Lane.
- 3.8 The trip generation for the development is outlined in Section 4 and during a weekday highway peak hour, the proposed development would generate up to 30 two-way vehicle trips. However, this is a robust assessment as this is assuming all of the wedding guests would arrive by car, but it is reasonable to assume some of the guests would arrive by taxi, minibuss or coach. Therefore, whilst it is acknowledged that there would be an intensification of the access as a result of the proposed development, the intensification of the access would not be significant.
- 3.9 For people entering the site from Wellsborough Road, there would be no requirement to give way to oncoming traffic due to the left turn into the site. Hence, there would be no concern relating to vehicles queueing from the site towards the junction with Wellsborough Road when entering the site.

- 3.10 Given the modest number of traffic movements, there would also be minimal queueing on Cotton Bridge Lane for traffic exiting the site towards Wellsborough Road. During a peak hour, there would only be up to 21 departures associated with the development which equates to a vehicle every 171 seconds. In addition, the only frequent traffic currently associated with Cotton Bridge Lane would be from the existing lodges on the western side of Cotton Bridge Lane plus potential traffic from a farm and a handful of dwellings adjacent to the junction with Tinsel Lane. Therefore, there would be no concern relating to vehicles queueing from the site towards the junction with Wellsborough Road when exiting the site.
- 3.11 Regarding visibility, **Drawing 3381-ADC-ZZ-XX-DR-Z-0101-S1_P02** shows visibility splays at the site access. To the north, a visibility splay of 2.4 x 27m has been shown which is to the Wellsborough Road/Cotton Bridge Lane junction. This equates to a driver speed of around 23mph. Therefore, whilst it is acknowledged Cotton Bridge Lane is subject to the national speed limit, it is considered reasonable to assume drivers would not be travelling at more than 23mph as they pass the site after turning in from Wellsborough Road. In addition, a visibility splay of 2.4 x 160m is shown to the south of the proposed access. In accordance with Table DG4 of LCC's Highway Design Guide, this is equivalent to a driver speed of up to 53mph. Whilst Cotton Bridge Lane is subject to the national speed limit, a visibility splay equivalent to a design speed of 53mph is considered sufficient given vehicles driving north would be slowing down as drivers brake before the junction with Wellsborough Road. Cotton Bridge Lane is also lightly trafficked, and its narrowed nature only enables one way traffic.
- 3.12 Furthermore, as part of this Transport Assessment, a Road Safety Audit has been undertaken of the proposed site access. No comments were raised in relation to the separation between the proposed access and the Wellsborough Road junction. Hence, it is not considered the site access needs to be relocated south due to the intensification of traffic or due to highway safety concerns.

Road safety audit

- 3.13 As part of the pre-application comments, LCC requested a Stage 1 Road Safety Audit (RSA) be undertaken of the site access proposals. Therefore, an independent Stage 1 RSA was carried out in accordance with DMRB GG119 and is contained in **Appendix C**. The Audit found 2 changes with the initial design.
- 3.14 A Response Report has been produced, which is also in **Appendix C**. Where necessary, changes to the design of the works have been incorporated within the drawing presented within this Transport Assessment.
- 3.15 Overall, the highway works would be designed to adoptable standards with appropriate visibility splays and would therefore provide safe and suitable vehicular access to the development.

Parking

- 3.16 As part of LCC's pre-application comments, LCC have stated the car parking provision should be justified. For the holiday lodges, LCC have stated one car parking space should be provided per lodge. As shown within the masterplan contained in **Appendix A**, each holiday lodge would have two car parking spaces and hence, exceeds the spaces required by LCC. Some of the lodges would be sufficient for two couples and, hence the additional car parking space.
- 3.17 Regarding the required car parking provision for the proposed spa, LCC provide car parking guidance for D2 developments within their HDG. D2 use is associated with assembly, leisure and entertainment use such as cinemas, concerts and music halls. It is considered that the proposed

spa would not be as trip intensive as these uses and, therefore, reference has been made to the trip generation of the development outlined in Section 4.

- 3.18 It is forecast the development would generate around 97 two-way movements over the course of a day which includes visitors and employees. Therefore, the proposed spa would require 49 car parking spaces when rounded up based on the forecast traffic movements associated with the visitors and employees of the spa. As shown within the masterplan contained in **Appendix A**, 135 car parking spaces would be provided at the northern end of the site and, hence, sufficient car parking would be provided for the spa. To accommodate electric vehicles, 16 of the car parking spaces would have electric charging facilities.
- 3.19 In terms of the wedding venue, it has been confirmed that the venue could accommodate up to 100 guests. Assuming an average of 2 people per car, the 100 guests would arrive in around 50 cars although some guests may arrive by taxi or minibus. In addition, there could be up to 40 employees during weddings and, hence, assuming a car parking space per employee as a worst case scenario, that would mean a total of 90 car parking spaces would be required.
- 3.20 As shown in the masterplan contained within **Appendix A**, 22 car parking spaces would be provided adjacent to the wedding venue. Hence, an additional 68 car parking spaces would be required. As stated above, the proposed spa would require around 49 car parking spaces. Given there are 135 spaces at the northern end of the site, there would be sufficient car parking spaces within the site to accommodate for the rest of the demand generated by the wedding venue.
- 3.21 Hence, there would be sufficient car parking within the site to accommodate the proposed uses and the development would not lead to parking stress on the local highway network. As stated in Section 2, there are double yellow lines already in place along Cotton Bridge Lane and, hence, would discourage car parking outside of the development.

Internal layout

- 3.22 As stated above, the site access carriageway would be 6m wide. To the east, the carriageway width would remain 6m as it extends through the car park for the spa. To the south, the carriageway would reduce to 4m for access to the holiday lodges and the wedding venue at the southern end of the site. In addition, there would be a 4.7m wide spine road through the middle of the site.
- 3.23 It is expected that the biggest vehicle to access the site would be a refuse vehicle which would service the site once a week. For the proposed spa, a refuse vehicle would be able to route to the end of the car park and perform a turning manoeuvre adjacent to the service yard before driving out of the site in a forward gear.
- 3.24 For the holiday lodges, bin collection points would be provided, and the refuse collection would be able to collect the bins from the kerbside. And in terms of the wedding venue, a bin collection point would be provided and a refuse vehicle would be able to perform a turning manoeuvre at the car park access of the venue before driving away in a forward gear.

Accessibility

- 3.25 Given the modest amount of traffic the holiday lodges would generate, pedestrians would be able to walk along the internal carriageways and the grassland either side of the carriageway. For the car park at the northern end of the site, there would be a 1.7m wide footway to the north of the spa building to enable connectivity to the entrance to the spa.

- 3.26 To provide connectivity with the local footway network, there would be 2m wide footways either side of the site access. The footway on the northern side connects with a footway on the eastern side Cotton Bridge Lane. There is also a footway on the western side Cotton Bridge Lane and to enable connectivity to the existing lodges on the western side of Cotton Bridge Lane, an uncontrolled crossing point would be provided to the north of the proposed site access. The footway on the eastern side of Cotton Bridge Lane connects with the footway on the southern side of Wellsborough Road.
- 3.27 Cyclists would be encouraged to travel on the carriageway throughout the development, and it is therefore not necessary to provide designated cycle lanes.

4.0 TRIP GENERATION

Trip rates and traffic generation – proposed lodges

- 4.1 To determine the forecast traffic generation of the proposed holiday lodges, reference was made to the TRICS database. Surveyed sites within the ‘Residential – Holiday Accommodation’ category were examined in edge of town and suburban locations whilst weekend surveys were deselected. Sites affected by COVID were also excluded. The TRICS outputs are contained in **Appendix D** and the average weekday trip rates and resultant traffic generation of the proposed 38 holiday lodges are shown in the table below.

Time range	Weekday trip rates			Traffic generation (38 lodges)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00-08:00	0.012	0.025	0.046	0	1	1
08:00-09:00	0.019	0.040	0.059	2	2	3
09:00-10:00	0.044	0.046	0.090	2	2	4
10:00-11:00	0.047	0.089	0.136	2	3	5
11:00-12:00	0.055	0.082	0.137	2	3	5
12:00-13:00	0.055	0.048	0.103	2	2	4
13:00-14:00	0.062	0.039	0.101	2	1	3
14:00-15:00	0.075	0.047	0.122	3	2	5
15:00-16:00	0.073	0.051	0.124	3	2	5
16:00-17:00	0.096	0.068	0.164	4	3	7
17:00-18:00	0.091	0.051	0.142	3	2	5
18:00-19:00	0.077	0.058	0.135	3	2	5
19:00-20:00	0.066	0.054	0.120	3	2	5
20:00-21:00	0.056	0.024	0.080	2	1	3
21:00-22:00	0.028	0.022	0.050	1	1	2
Daily	0.865	0.744	1.609	33	29	62

- 4.2 As shown in the table above, for the typical weekday highway hours between 08:00-09:00 and 17:00-18:00 hours, the proposed lodges would generate up to seven two-way trips in a peak hour.
- 4.3 As stated in Section 1 of this report, as well as an assessment of vehicle trips for a weekday, LCC have also requested an assessment of an identified peak for a weekend. Therefore, the TRICS database was interrogated to determine the weekend traffic generation of the proposed lodges. From reviewing the ‘Residential – Holiday Accommodation’ category within the TRICS database, there have only been two surveys carried out during a weekend as shown in **Figure 5** below.

1	DS-03-J-02	CARAVAN & CAMPING PARK	DERBYSHIRE
	COACH ROAD		
	NEAR RIPLEY		
	GOLDEN VALLEY		
	Free Standing (PPS6 Out of Town)		
	Out of Town		
	Total Number of units:	170	
	Survey date: SATURDAY	28/07/18	Survey Type: MANUAL
2	NO-03-J-01	CARAVAN PARK	NORTH LINCOLNSHIRE
	WATERSIDE ROAD		
	BARTON-UPON-HUMBER		
	Edge of Town		
	No Sub Category		
	Total Number of units:	31	
	Survey date: SUNDAY	27/09/09	Survey Type: MANUAL

Figure 5: list of comparable TRICS sites

- 4.4 Therefore, given the lack of weekend surveys, trip rates from the most comparable site has been adopted rather than applying average trip rates. As shown in **Figure 6**, for the period between 07:00-19:00 hours, the site in Barton upon Humber has significantly higher trip rates. Therefore, whilst the site in Derbyshire is more recent, the trip rates from the Barton upon Humber site has been applied as a robust assessment to forecast the level of traffic generation of the proposed lodges on a weekend.

Rank	Site Ref	Description	Town/City	UNITS	Day	Date	Arrivals	Departures	Totals
1	NO-03-J-01	CARAVAN PARK	BARTON-UPON-HUMBER	31	Sunday	27/09/09	1.000	1.161	2.161
2	DS-03-J-02	CARAVAN & CAMPING PARK	NEAR RIPLEY	170	Saturday	28/07/18	0.641	0.706	1.347

Figure 6: comparison of trip rates of TRICS sites

- 4.5 The TRICS outputs are contained in **Appendix E** and the average weekend trip rates and resultant traffic generation of the proposed 38 holiday lodges are shown in the table below.

Time range	Weekend trip rates			Traffic generation (38 lodges)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00-08:00	0.000	0.000	0.000	0	0	0
08:00-09:00	0.000	0.032	0.032	0	1	1
09:00-10:00	0.032	0.065	0.097	1	2	3
10:00-11:00	0.000	0.032	0.032	0	1	1
11:00-12:00	0.129	0.161	0.290	5	6	11
12:00-13:00	0.194	0.161	0.355	7	6	13
13:00-14:00	0.129	0.290	0.419	5	11	16
14:00-15:00	0.097	0.097	0.194	4	4	8
15:00-16:00	0.097	0.065	0.162	4	2	6
16:00-17:00	0.065	0.065	0.130	2	2	4
17:00-18:00	0.194	0.161	0.355	7	6	13
18:00-19:00	0.065	0.032	0.097	2	1	3
19:00-20:00	0.097	0.129	0.226	4	5	9
20:00-21:00	0.065	0.032	0.097	2	1	3
21:00-22:00	0.032	0.000	0.032	1	0	1
Daily	1.196	1.322	2.518	44	48	92

- 4.6 As shown in the table above, during a worst case peak hour on a weekend, the proposed lodges would generate up to 16 two-way vehicle trips.

Trip rates and traffic generation – spa

- 4.7 To determine the forecast traffic generation of the proposed spa, a review of the TRICS database was undertaken to find a comparable site. From reviewing the respective land use categories within the TRICS database, no spa developments were found. Therefore, reference was made to a planning application in North West Leicestershire (planning reference: 18/00216/FULM) which included an erection of a spa with a floor area of 1,830sqm.
- 4.8 As part of the planning application, a Transport Assessment was approved and within the report, it was stated that there would be 50 guests a day, some of which would visit in small groups or couples. In terms of vehicle trips, the visitors would generate around 50 two-way vehicular movements a day. Regarding staff trips, the report states the overall development which includes six holiday lodges, and a restaurant would generate around 56 two-way movements a day. Therefore, assuming a 50/50 split for the restaurant and spa, there would be 28 two-way movements a day associated with the employees of the spa. Hence, in total, there would be 78 two-way movements associated with the consented spa.
- 4.9 As stated in Section 2, the proposed spa would have a floor area of 2,280sqm and, hence, using a pro-rata approach based on the consented spa, the proposed spa would generate around 97 two-way vehicle trips over the course of a day. To provide an hourly breakdown of the vehicle trips, it is considered reasonable to assume a fitness club would have a similar hourly profile to the proposed spa. Therefore, average weekday trip rates have been derived from the 'Leisure – Fitness Club' category of TRICS and are contained in **Appendix F**.
- 4.10 The trip rates are summarised in the table below along with the percentage breakdown per hourly period.

Time range	Arrive	%	Departures	%	Total
06:00-07:00	0.972	6%	0.159	1%	1.131
07:00-08:00	0.623	4%	0.689	4%	1.312
08:00-09:00	0.877	5%	0.845	5%	1.722
09:00-10:00	1.482	9%	0.747	5%	2.229
10:00-11:00	1.133	7%	0.951	6%	2.084
11:00-12:00	0.715	4%	1.22	7%	1.935
12:00-13:00	0.666	4%	0.949	6%	1.615
13:00-14:00	0.701	4%	0.796	5%	1.497
14:00-15:00	0.721	4%	0.634	4%	1.355
15:00-16:00	1.104	7%	0.905	6%	2.009
16:00-17:00	1.554	9%	0.963	6%	2.517
17:00-18:00	2.096	13%	1.243	8%	3.339
18:00-19:00	1.799	11%	1.935	12%	3.734
19:00-20:00	1.243	8%	1.914	12%	3.157
20:00-21:00	0.623	4%	1.465	9%	2.088
21:00-22:00	0.144	1%	0.767	5%	0.911
22:00-23:00	0.026	0%	0.263	2%	0.289
Total	16.479	100%	16.445	100%	32.924

- 4.11 When applying the hourly breakdown outlined above to the proposed 97 vehicles, the hourly breakdown of the proposed spa is summarised in the table below for a weekday.

Time range	Arrive	Departures	Total
06:00-07:00	2	0	3
07:00-08:00	2	2	4
08:00-09:00	3	2	5
09:00-10:00	4	2	7
10:00-11:00	3	3	6
11:00-12:00	2	4	6
12:00-13:00	2	3	5
13:00-14:00	2	2	4
14:00-15:00	2	2	4
15:00-16:00	3	3	6
16:00-17:00	5	3	7
17:00-18:00	6	4	10
18:00-19:00	5	6	11
19:00-20:00	4	6	9
20:00-21:00	2	4	6
21:00-22:00	0	2	3
22:00-23:00	0	1	1
Total	48	49	97

- 4.12 As shown in the table above, the proposed spa would generate up to 11 two-way trips during a peak hour. In terms of the traffic generation of the spa on a weekend, the TRICS database does not have any surveys of fitness clubs prior to COVID-19 and, hence, it is not possible to provide a detailed breakdown of vehicle trips on a weekend. However, from reviewing software from Google of Ragdale Hall Spa in Melton Mowbray, the peak time on a Saturday would be around 5pm as shown in **Figure 7** and, hence, similar to the weekday profile.

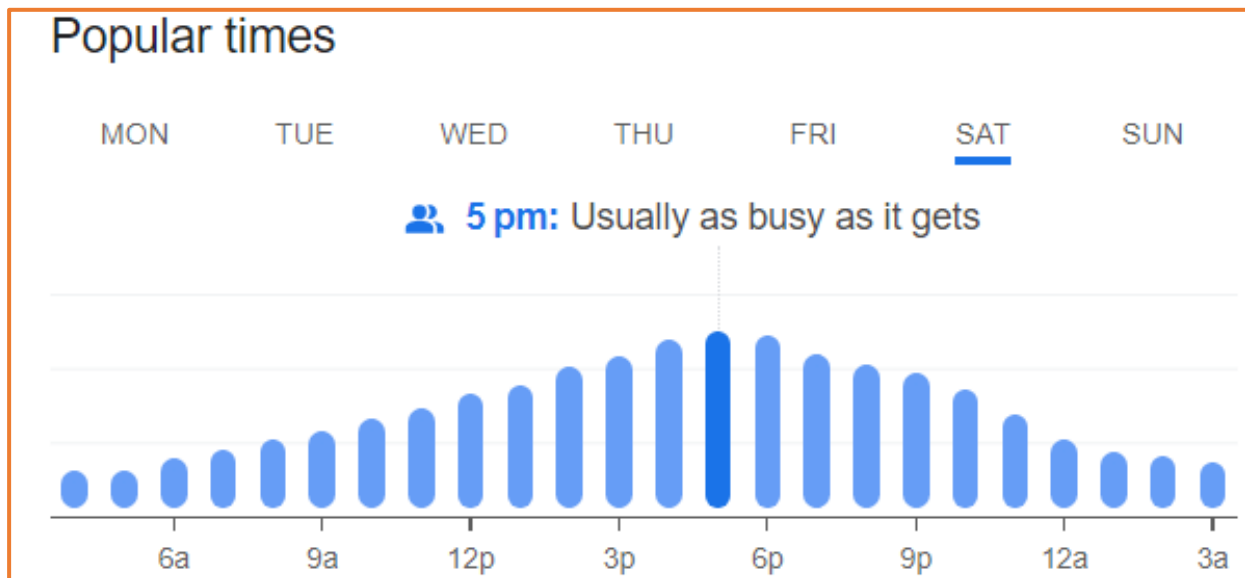


Figure 7: traffic profile of Ragdale Hall Spa

Traffic generation – wedding venue guests

- 4.13 Regarding the proposed wedding venue, it has been confirmed that the venue could accommodate a total of 100 guests. Assuming an average of 2 people per car, the 100 guests would arrive in around 50 cars although this is a robust assumption given some of the guests may arrive by taxi, minibus or by coach.

- 4.14 For a typical event, guests would begin to arrive at the venue at 13:00 and food would be generally served between 14:00 and 16:00. Guests would then be expected to leave between 21:00 and 24:00. It is assumed guests leaving between 21:00 and 24:00 would do so on an equal basis over the three hour period. The table below therefore presents the typical profile of traffic assuming a wedding of 100 guests.

Time range	Arrive	Departures	Total
13:00-14:00	50	0	50
21:00-22:00	0	17	17
22:00-23:00	0	17	17
23:00-24:00	0	16	16
Total	50	50	100

Traffic generation – wedding venue staff

- 4.15 In addition to guest travel, trips would be made to and from the development by staff. It has been confirmed there could be up to 30 staff members for a wedding plus an additional 10 staff members for after wedding parties. Regarding the 30 staff members, it would be expected that staff for the wedding would arrive on an equal basis between 09:00 and 12:00 and leave between 17:00 and 19:00 on an equal basis.
- 4.16 It is expected the staff for the after wedding parties would arrive between 18:00 and 19:00 and depart between 24:00 and 01:00.
- 4.17 With regards to deliveries and servicing, the number of deliveries would be dependent on the amount and size of each event. It is expected that deliveries would take place between 09:00 and 10:00 and for a wedding with the maximum occupancy of 100 guests, an event could generate up to 4 deliveries and, hence, up to eight two-way traffic movements.
- 4.18 Therefore, the table below presents the typical profile of staff for a wedding.

Time range	Arrive	Departures	Total
09:00-10:00	14	4	18
10:00-11:00	10	0	10
11:00-12:00	10	0	10
17:00-18:00	0	15	15
18:00-19:00	10	15	25
24:00-01:00	0	10	10
Total	44	44	88

Traffic generation – wedding venue total

- 4.19 Taking into account the above, the below table summarised the hourly profile of traffic movements of a typical wedding at the proposed development.

Time range	Arrive	Departures	Total
09:00-10:00	14	4	18
10:00-11:00	10	0	10
11:00-12:00	10	0	10
13:00-14:00	50	0	50
17:00-18:00	0	15	15
18:00-19:00	10	15	25
21:00-22:00	0	17	17
22:00-23:00	0	17	17
23:00-24:00	0	16	16
24:00-01:00	0	10	10
Total	94	94	188

- 4.20 As shown in the above, there would be up to 188 two-way traffic movements for a wedding event at its maximum capacity although this would be spread across the day whilst guests and staff would typically arrive and depart outside of peak hours. However, it is worth noting this a robust assessment as it has been assumed the 100 guests would arrive and depart in 50 cars when it is likely some guests would arrive by taxi, minibus or coach.
- 4.21 On the day of events, there would be on-site marshals at the site access to direct guests and event staff to the parking area as well as taxis/minibuses at the front of the venue. To supplement this, appropriate mobile signage would be placed in key locations and removed immediately at the close of each event.

Total traffic generation

- 4.22 Given the above, the below tables present the overall traffic generation for the development on a weekday and weekend.

Weekday traffic generation			
Time range	Arrive	Departures	Total
06:00-07:00	2	0	3
07:00-08:00	2	3	5
08:00-09:00	5	4	8
09:00-10:00	20	8	29
10:00-11:00	15	6	21
11:00-12:00	14	7	21
12:00-13:00	4	5	9
13:00-14:00	54	3	57
14:00-15:00	5	4	9
15:00-16:00	6	5	11
16:00-17:00	9	6	14
17:00-18:00	9	21	30
18:00-19:00	18	23	41
19:00-20:00	7	8	14
20:00-21:00	4	5	9
21:00-22:00	1	20	22
22:00-23:00	0	18	18
23:00-24:00	0	16	16
24:00-01:00	0	10	10
Total	175	172	347

Weekend traffic generation			
Time range	Arrive	Departures	Total
06:00-07:00	2	0	3
07:00-08:00	2	2	4
08:00-09:00	3	3	6
09:00-10:00	19	8	28
10:00-11:00	13	4	17
11:00-12:00	17	10	27
12:00-13:00	9	9	18
13:00-14:00	57	13	70
14:00-15:00	6	6	12
15:00-16:00	7	5	12
16:00-17:00	7	5	11
17:00-18:00	13	25	38
18:00-19:00	17	22	39
19:00-20:00	8	11	18
20:00-21:00	4	5	9
21:00-22:00	1	19	21
22:00-23:00	0	18	18
23:00-24:00	0	16	16
24:00-01:00	0	10	10
Total	185	191	377

4.23 As shown in the tables above, combining the traffic movements of the proposed uses, the development would generate up to 30 two-way traffic movements during a highway peak hour

on a weekday. Over the weekend, the most intensive peak hour would be between 13:00 and 14:00 hours where 70 two-way traffic movements would be generated.

Modal split and person trip generation – spa and wedding venue

- 4.24 The proportion of trips generated by employees related to the proposed spa and wedding venue for each mode has been calculated using the 2011 National Census ‘location of usual residence and place of work by method of travel to work’ data (dataset WU03EW). The data provides information on the ‘in’ moves and ‘out’ moves, by each travel mode, to and from each middle layer super output area, associated with journeys to work. The site is in the ‘Hinckley and Bosworth 004’ MSOA and this MSOA was examined as it likely employees within the development would display similar travel patterns to existing employees in the area. A copy of the Census data is in **Appendix G** and the modal split is summarised in the table below.

Trip Type	number of people	modal split of the MSOA
Underground, metro, light rail, or tram	0	0.0%
Train	5	0.2%
Bus, minibus, or coach	56	2.3%
Taxi	3	0.1%
Motorcycle, scooter or moped	28	1.2%
Driving a car or van	1,841	77.0%
Passenger in a car or van	205	8.6%
Bicycle	44	1.8%
On foot	210	8.8%
Total	2,392	100%

- 4.25 It is forecast that there would be 18 employees associated with the spa and up to 40 employees for a wedding and, hence, up to 58 employees. The table below presents the daily person trip generation of the employees related to the proposed spa and wedding venue.

Trip Type	Employment Daily Trips
Underground, metro, light rail, or tram	0
Train	0
Bus, minibus, or coach	1
Taxi	0
Motorcycle, scooter or moped	1
Driving a car or van	45
Passenger in a car or van	5
Bicycle	1
On foot	5
Total	58

5.0 HIGHWAY IMPACT

- 5.1 It is typically accepted that 30 or more two-way vehicles trips is the threshold for considering whether a proposed development would have a material impact on the operation of the local highway network. As stated in Section 4, during a highway peak hour on a weekday, the proposed development would generate up to 30 two-way trips.
- 5.2 However, this forecast is robust because the calculations includes traffic generated by a wedding on site with a maximum occupancy of 100 guests and the 100 guests arriving and departing in 50 cars. It is reasonable to assume that there would be some guests that would arrive by taxi, minibus or by coach. Therefore, taking this into account, it is likely there would be less than 30 two-way traffic generated by the development overall in a highway peak hour.
- 5.3 As stated in Section 2, Cotton Bridge Lane is a lightly trafficked road as it only currently serves the existing lodges on the western side of the carriageway, a farm and a handful of dwellings. Wellingborough Road is also not a busy road and there would be sufficient gaps for development trips to enter and exit the site from the Wellingborough Road/Cotton Bridge Lane junction. It is therefore concluded that the local highway network would have the capacity to accommodate the proposed development and no off-site junction capacity assessments are required.
- 5.4 Section 2 of this report demonstrates there is no history of accidents in the vicinity of the site. Hence, there is no accident problem.
- 5.5 Section 3 of this report details the parking provision of the development and concludes there would be sufficient car parking within the site. Therefore, the development would not lead to parking stress on the local highway network.

6.0 SUMMARY AND CONCLUSIONS

- 6.1 Golby and Luck commissioned ADC Infrastructure Limited to provide transport and highways advice in support of a planning application an extension of the existing Bosworth Lakeside Lodges. As part of proposals, a spa would be provided at the northern end of the site and a wedding venue at the southern end which could accommodate up to 100 guests.
- 6.2 The proposed development would be accessed via the existing access in the north western corner of the site which is currently gated. A 6m wide carriageway would be provided along with 6m kerb radii and 2m wide footways either side of the access carriageway. To enable pedestrian connectivity, uncontrolled crossing points would be provided at the site access and to the south of the site access.
- 6.3 LCC have provided pre-application comments and stated consideration should be given to the separation distance between the proposed site access and the Wellsborough Road/Cotton Bridge Lane junction. Whilst it is acknowledged that there would be an intensification of the access as a result of the proposed development, the intensification of the access would not be severe. In terms of the wedding venue, guests would typically arrive and depart outside of peak hours and, therefore, would not cause problems with the highway network at its busiest times. From a highway safety perspective, for people entering the site from Wellsborough Road, there would be no requirement to give way to oncoming traffic due to the left turn into the site. Hence, there would be no concern relating to vehicles queueing from the site towards the junction with Wellsborough Road when entering the site. A Road Safety Audit was undertaken, and no concern was raised regarding the separation distance. Therefore, it is not considered the site access needs to be relocated south due to the intensification of traffic or due to highway safety concerns.
- 6.4 Regarding car parking provision, each holiday lodge would have two car parking spaces which exceeds LCC guidance of one parking space per lodge. There would be a car park at the northern end of the site which would parking for 135 cars and a car park at the southern end of the site for the wedding venue which would accommodate 22 cars. Based on forecast traffic movements, the spa would require 49 car parking spaces for visitors and employees whilst 90 car parking spaces would be required for the wedding venue when at its maximum occupancy. Therefore, the proposed 157 car parking spaces for the spa and wedding venue is sufficient and hence, the development would not lead to parking stress on the local highway network.
- 6.5 During a highway peak hour on a weekday, the development could generate up to 30 two-way trips which is not a material number of traffic movements. Although this is a robust assessment as the calculations includes traffic generated by a wedding on site with a maximum occupancy of 100 guests and the 100 guests arriving and departing in 50 cars. It is reasonable to assume that there would be some guests that would arrive by taxi, minibus or by coach. Hence, taking this into account, it is likely there would be less than 30 two-way traffic generated by the development overall in a highway peak hour. It is therefore concluded that the local highway network would have the capacity to accommodate the proposed development and no off-site junction capacity assessments are required.
- 6.6 Overall, the proposed development would accord with the NPPF. Safe and suitable access is achievable by all modes of travel. The development would not result in a severe impact on the local road network and therefore it would be unreasonable to prevent the proposed development on transport grounds.

APPENDIX A

DEVELOPMENT MASTERPLAN

APPENDIX B

LCC PRE-APPLICATION COMMENTS

PRE-APPLICATION DETAILS:

District Reference Number: 24/10028/PREMAJ

Highway Reference Number: 2024/1453/04/HEN

Location: Land East Of Bosworth Water Park Wellsborough Road Market Bosworth Leicestershire
Proposal:

Enquiry. Spa and 60 holiday lodges.

GENERAL DETAILS

Planning Case Officer: Matt Jedruch

Applicant: via Hinckley and Bosworth Borough Council

Parish: Market Bosworth

Road Classification: Class C

Please note that the contents of this report including any attachments are offered as my officer opinion and will not prejudice any future decision the Highway Authority may make in relation to this matter.

The following comments are based on a desktop exercise; no site visit is undertaken for pre-application advice.

The Local Highway Authority (LHA) is in receipt of a pre-application enquiry for the construction of a Spa and 60 holiday lodges at land east of Bosworth Water Park, Wellsborough Road, Market Bosworth.

The LHA has reviewed the submitted Planning Pre-application Advice Request - Issue 2 document. It is understood the proposals seek to build on the successful Bosworth Lakeside Lodges development with the first family based wellness spa in the East Midlands. It should be noted that this document states in different parts that approximately 40 or 60 lodges would be constructed as part of the proposals. The submitted Proposed Site Layout drawing appears to show 50 lodges. For the avoidance of doubt, the LHA has provided advice on the basis of 60 lodges. It is understood that currently, the site is used for the growing of Christmas trees.

Site Access

The Applicant is proposing to use the existing field access to the site off Cotton Bridge Lane, an unclassified road subject to the national speed limit.

The LHA considers that the proposals would result in an intensification in use of the access. As such, the LHA advise that as part of any future application, the Applicant would need to demonstrate that the access arrangements are to (or can be improved to) the standards detailed within Part 3 of the Leicestershire Highway Design Guide ([LHDG] available at <https://resources.leicestershire.gov.uk/lhdg>). Details of the available visibility splays, junction radii and access width would need to be provided on the site access drawing.

It should be demonstrated through swept path analysis that a refuse collection vehicle can safely access and egress the site in all directions. The LHA require swept path analysis at junctions with a minimum vehicle speed of 15kph and this would need to be confirmed on the drawing. However, at turning heads and for reversing movements, a slower swept path analysis vehicle speed would be acceptable.

The LHA advise that consideration should be given to the proximity of the site access to the junction of Cotton Bridge Lane with Wellsborough Road and whether the access junction could be relocated further south given the use of the access would be intensified. Consideration would also need to be given to avoid forming a crossroads with the existing access to the holiday lodges on the opposite side of the road and widening of the single carriageway beyond this, if necessary. An independent Stage 1 Road Safety Audit would need to be undertaken of the site access proposals. This would need to be accompanied by a Designer's Response to any problems raised and, if necessary, a revised access drawing.

Personal Injury Collisions (PIC's)

PIC data for at least Cotton Bridge Lane in the vicinity of the site access and its junction with Wellsborough Road would need to be obtained for the most recent five year period - LCC currently hold data up to the end of December 2023 – the Applicant can contact NDI@leics.gov.uk to obtain PIC data.

Trip Generation

Based on Part 2, Table PDP1 of the LHDG, no detailed assessment in to the level of trips the proposed holiday lodges could generate is required. It is however unclear from the submitted information as to whether or not the spa facilities would be for exclusive use of those using the proposed holiday lodges (and those on the wider, existing Bosworth Lodges site) or whether it would be open to the general public as well.

It is noted that 100 car parking spaces would be provided for the spa, as well as parking provision for the proposed lodges and therefore the LHA considers the proposals have potential to generate a considerable amount of additional traffic on the network. Based on LHDG guidance, for D1 use between 500-1500sqm, a Transport Statement would be required and for over 1,500sqm, a Transport Assessment and Travel Plan. Based on the indicative dimensions of the proposed spa building, the LHA believe the floorspace of the building could be in the region of 3,000sqm.

The Applicant has stated the existing Bosworth Lakeside Lodge development has resulted in the significant reduction on vehicle movements following the closure of the former Bosworth Water Park facility. The cumulative effect of this proposal in combination with the adjacent Bosworth Lakeside Lodge development is likely to remain well below the traffic volumes experienced by the former water park. It is stated initial work does not identify any significant highway concerns.

The LHA advise at this stage that it believes the water park is now closed to the public and that this could not be used as a fall-back position in respect of trip generation. Furthermore, as it is stated the site is currently used to grow Christmas trees, this does not appear to be relevant to the former water park use. The LHA therefore do not accept the proposals could result in a reduction in traffic compared to the former water park use, as it believes that use has ceased and may not have been relevant to the site where the development is proposed. The LHA believes the proposals could considerably intensify the use of the access in comparison to the Christmas tree growing business, unless evidence of trip rates of the existing use can be provided.

Given the above, the LHA would ask the Applicant to provide a detailed information regarding predicted trip generation for the proposed development for the AM (08:00 – 09:00) and PM (17:00 – 18:00) peaks as well as at an identified peak time at the weekend. For the proposed holiday lodges, it may be possible to provide trip rate data based on a survey of the existing site across the road and compare this to surveys from the TRICS database for a robust assessment. For the spa, this could be undertaken using any similar type of development from the TRICS database. In the event the spa is open to the public, the LHA acknowledge that there is potential for staying on-site to also attend the spa and therefore the spa proposals may not generate 100% new trips. Any reduction in trips would need to be fully justified and evidenced by the Applicant.

The Applicant would also need to give consideration to the proposed developments trip distribution, which would need to be fully justified.

Junction Capacity Assessments

In the event the proposals generated approximately 30 or more two way trips (e.g. 15 arrivals and 15 departures) in either the AM or PM peaks at any key junctions in the area, including the site access, the Applicant would be required to undertake a capacity assessment of the affected junctions.

Traffic count data should be a maximum of three years old. The Applicant should be advised that a permit is required to carry out any traffic count/speed survey on the public highway within Leicestershire. A permit can be obtained by contacting ndi@leics.gov.uk. Alternatively, Leicestershire County Council offer a data collection service including a large traffic count database. For details of the services available please contact ndi@leics.gov.uk.

Capacity assessments should consider a base year with traffic counts factored up to the year the application is submitted if necessary (e.g. 2024), along with a future year which is five years following on from the base year (e.g. 2029). Future base year traffic flows should be factored using TEMPRO. The LHA will review the growth factors as part of the planning application. In addition, nearby committed developments would need to be taken into consideration.

To enable traffic flow scenarios to be checked, the following is required:

- Full traffic survey results as well as summary diagrams;
- Peak hour and, if appropriate, PCU calculations;
- Full explanation of all calculations;
- Fully explained and evidenced details of committed development flows;
- Full explanation of trip distribution and assignment and how the change in flows is built up; and
- Full explanation of the build-up of traffic flow scenarios.

For all 'Junctions' or 'Linsig' modelling, the following information will be required:

- Models should be validated against observed conditions;
- Scale plans of junction geometries used for model input should be provided for review;
- Full model outputs in PDF format; and
- Actual model files.

Off-Site Implications

The LHA consider that the spa has potential to attract customers from the existing Bosworth Lakeside Lodges site on the opposite side of Cotton Bridge Lane. These customers could potentially travel on foot given the proximity between the two sites. The LHA therefore advise that this should be considered by the Applicant as part of any future proposals and that it may be beneficial for the Applicant to provide an appropriate pedestrian crossing point over Cotton Bridge Lane. Any such crossing point should also be included within the Applicants RSA1.

The LHA note that Cotton Bridge Lane becomes single track to the south of the proposed site access. Should the proposals result in an increase in traffic using this route, the Applicant should consider what impact the additional traffic could have on the route.

Internal Layout

As part of any future application, the Applicant will need to give consideration to the level of parking proposed within the site.

Based on the Highway Requirements Part 4 document available within the LHDG, the Applicant will be required to provide one new parking space per holiday lodge. In addition, staff parking will be required at the rate of 1 car space for each residential member of staff, plus 1 car space per 40 sq. metres of public area for non-residential staff. Full justification should also be provided for the level of parking proposed for the Spa. Parking space dimensions should be as per Part 3, Paragraph 3.165 of the LHDG.

Transport Sustainability

The LHA advises that the site is remote and not well served by public transport. Whilst it is acknowledged the rural location may be part of the appeal for the proposals, the Applicant should give consideration to transport sustainability as part of any future proposals.

Date Received
13 March 2024

Case Officer
Ben Dutton

Reviewer
DH

Date issued
25 March 2024

APPENDIX C

STAGE 1 ROAD SAFETY AUDIT AND RESPONSE REPORT



STAGE 1 ROAD SAFETY AUDIT RESPONSE REPORT

**BOSWORTH LAKESIDE LODGES
MARKET BOSWORTH**

DOCUMENT CONTROL

project number: ADC3381			report reference: ADC3381-RP-D	
version	date	author	reviewer	comments
1		Keith Gamblen		issued as part of Transport Assessment

Introduction

- Appendix 1** contains the Stage 1 Road Safety Audit carried out by Sevenairs Consulting Ltd on the proposed access junction for the proposed extension of the Bosworth Lakeside Lodges site, off Wellingborough Road, Market Bosworth. The audit report includes background information about the location and works proposed. This document is the Response Report to the findings in the Road Safety Audit. It has been prepared with reference to DMRB GG 119.
- The following drawings were the subject of the Road Safety Audit:
 - 3381-ADC-ZZ-XX-DR-Z-0101-S1_P01** – Proposed Site Access Layout
 - 3381-ADC-ZZ-XX-DR-Z-0131-S1_P01** – Swept Path Analysis of Site Access Layout
 -

Key personnel

- GG 119 requires the Design Organisation to prepare a road safety audit response report in collaboration with the Overseeing Organisation. The key personnel are as follows:

Overseeing Organisation	Leicestershire County Council
RSA team	Sevenairs Consulting Ltd
Design organisation	ADC Infrastructure

Decision Log

- The Audit noted two problems, listed in the Decision Log below. Our response is included. The revised drawing is as follows.
 - 3381-ADC-ZZ-XX-DR-Z-0101-S1_P02** – Proposed Site Access Layout
 - 3381-ADC-ZZ-XX-DR-Z-0131-S1_P02** – Swept Path Analysis of Site Access Layout

Design organisation and Overseeing Organisation statement

- On behalf of the design organisation, I certify that:
 - the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation

name	Keith Gamblen		
position	Senior Engineer	organisation	ADC Infrastructure Limited
signed		date	

- On behalf of the Overseeing Organisation, I certify that:
 - the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and
 - the agreed RSA actions will be progressed.

name			
position		organisation	Leicestershire County Council
signed		date	

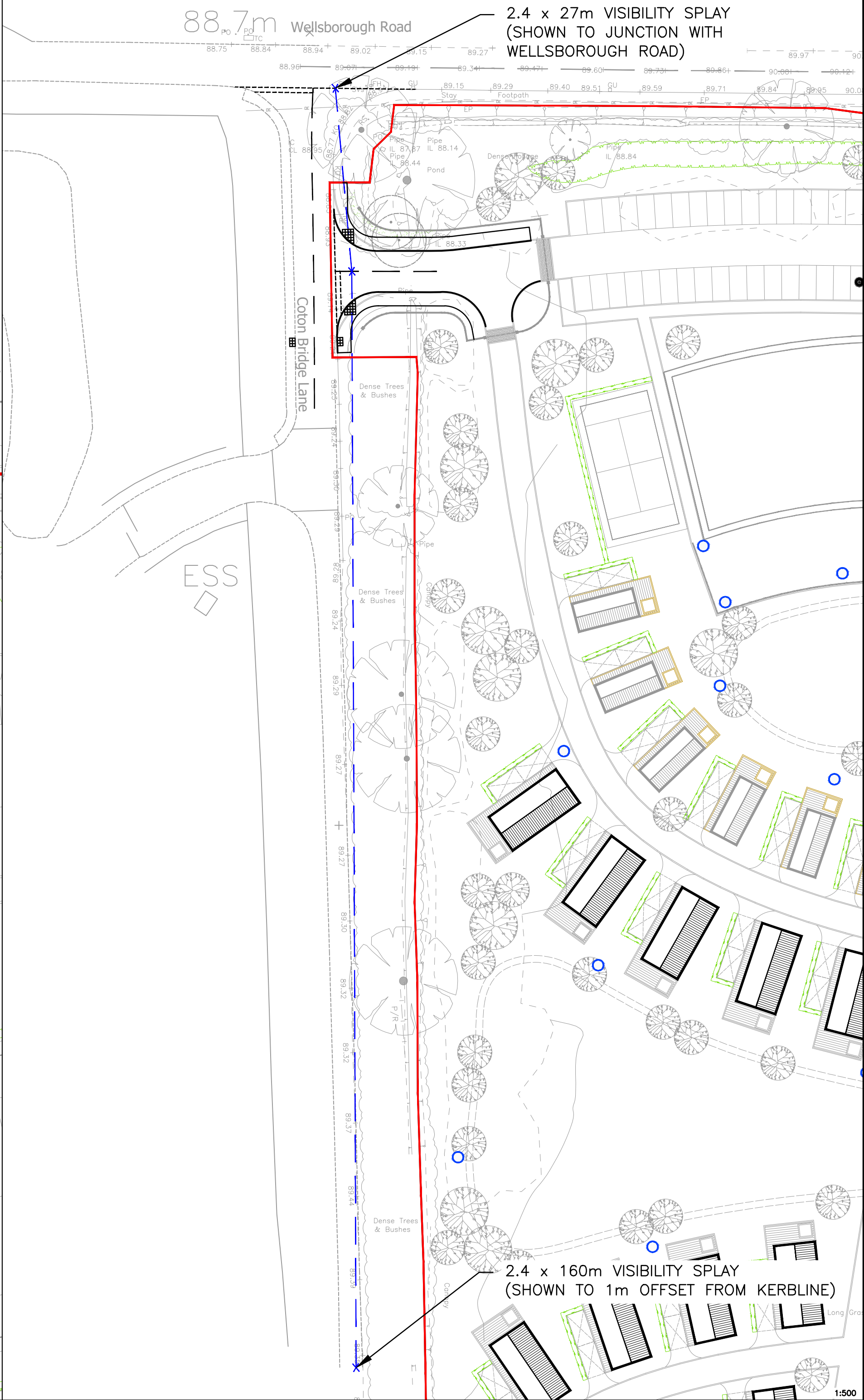
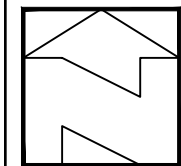
DECISION LOG

Problem/Issue		Design Organisation Response	Overseeing Organisation response
A - 01	Location:Coton Lane – At the proposed dropped crossing.	Agree. As referred to in Drawing 3381-ADC-ZZ-XX-DR-Z-0101-S1_P02, as part of development proposals, the carriageway on Cotton Bridge Lane would be resurfaced at the proposed crossing point.	
	Summary: Pedestrians – Surface quality may increase the risk of trips, falls and other related injuries.		
	A new dropped crossing is proposed across Coton Lane to provide connectivity to the adjacent lakeside leisure site. However, the carriageway surface at this crossing point has a number of surface defects that may increase the risk of trips and falls by pedestrians. The surface quality may also increase the risk of injuries for users with mobility aids, i.e. wheelchairs, mobility scooters, prams etc. or make crossing difficult such that these users have to seek other dropped crossing provision that may involve extended use of carriageway areas.		
	RECOMMENDATION		
	It is recommended that the carriageway surface at the crossing point is resurfaced.		
A - 02	Location: Development access.	Part agree. As shown in Drawing 3381-ADC-ZZ-XX-DR-Z-0101-S1_P02, an uncontrolled crossing point has been included at the development access. It is also noted there is a recommendation for an additional pedestrian access into the site. However, with the addition of the crossing point at the site access, there is now suitable provision for pedestrians with mobility aids. In addition, given the proposed uses of the development, it is expected pedestrian footfall would be modest and an additional pedestrian access would therefore not be proportionate to the pedestrian trips generated. Hence, no additional pedestrian access is proposed.	
	Summary: Specific Road Users – Lack of crossing facility may increase the risk of collisions involving users who rely on mobility aids.		
	Although there are limited onward options for users who rely on mobility aids, no provision is made for these users to cross the development access or enter the development site. Onward options may include the adjacent lakeside leisure site, the nearby bus stop or may eventually include an off-carriageway route into Market Bosworth provided by others. Without provision at the development access, pedestrians who rely on mobility aids such as mobility scooters, wheelchairs, prams etc, may have difficulties finding suitable onward routes. Without suitable dropped crossing provision these users may find crossing the road difficult, traveling along the carriageway to find a suitable point to traverse the kerb check. This may consequentially increase the risk of collisions involving these users.		
	RECOMMENDATION		
	It is recommended that a dropped crossing is provided across the development access and that sperate footway access point is provided into the main site.		

DRAWINGS

3381-ADC-ZZ-XX-DR-Z-0101-S1_P02

3381-ADC-ZZ-XX-DR-Z-0131-S1_P02



Notes

- Do not scale this drawing. All dimensions must be checked/verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.

P02	23.09.24	Updated following RSA	KG	TC
P01	16.09.24	First issue	KG	TC
Rev	Date	Description	Dr	Ch

Client:

Festive Fir Limited

Project:

Bosworth Lakeside Lodges

Title:

Proposed Site Access Layout

Size:

A2

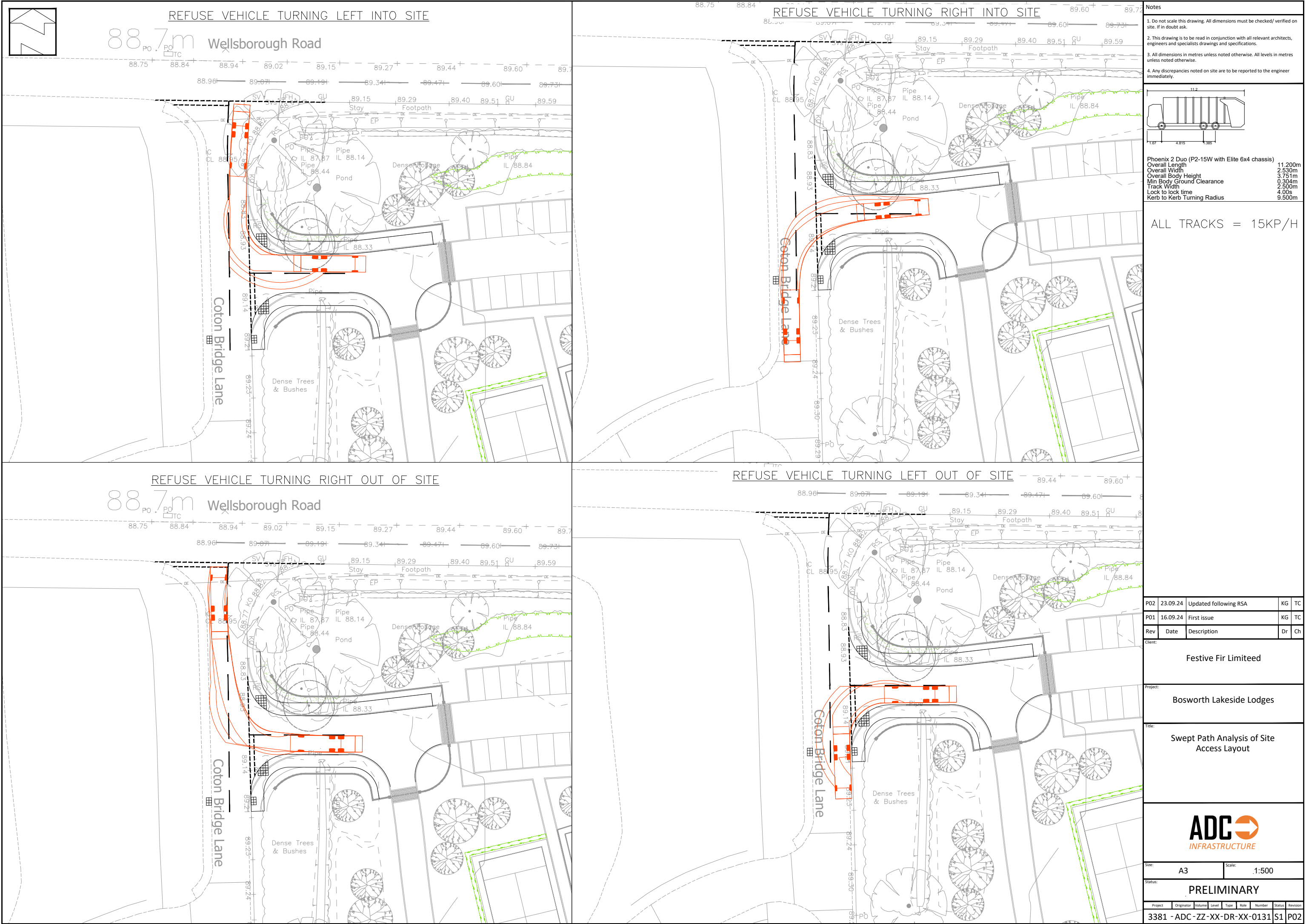
Scale:

A_s Shown

Status:

PRELIMINARY

Project	Originator	Volume	Level	Type	Role	Number	Status	Revision
3381	-ADC	-ZZ	-XX	-DR	-XX	-0101	S1	P02



Notes

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.

2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.

3. All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise.

4. Any discrepancies noted on site are to be reported to the engineer immediately.

11.2

1.87

4.815

1.385

Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)

Overall Length

Overall Width

Overall Body Height

Min Body Ground Clearance

Track Width

Lock to lock time

Kerb to Kerb Turning Radius

11.200m

2.530m

3.751m

0.304m

2.500m

4.00s

9.500m

ALL TRACKS = 15KP/H

P02	23.09.24	Updated following RSA	KG	TC
P01	16.09.24	First issue	KG	TC
Rev	Date	Description	Dr	Ch

Client:

Festive Fir Limitedeod

Project:

Bosworth Lakeside Lodges

Title:

Swept Path Analysis of Site
Access Layout

ADC

INFRASTRUCTURE

Size:

A3

Scale:

1:500

Status:

PRELIMINARY

Project	Originator	Volume	Level	Type	Role	Number	Status	Revision
3381	- ADC	- ZZ	- XX	- DR	- XX	- 0131	S1	P02

APPENDIX 1

STAGE 1 ROAD SAFETY AUDIT



Sevenairs Consulting Ltd

Wellsborough Road, Market Bosworth, Leicestershire

Road Safety Audit Stage 1

September 2024



Document Control

Report Title:

Wellsborough Road, Market Bosworth, Leicestershire – Road Safety Audit Stage 1

Date of Site Visit

19th September 2024

Document Reference

2024-09 Market Bosworth RSA1 – Revision 0

Report Prepared By:

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On behalf of

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Highway Authority / Overseeing Organisation

Leicestershire County Council

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Document History:

Revision	Date	Description	By
0	21.09.2024	For Issue	HV

Introduction

Commissioning and Scope

This report results from a Stage 1 Road Safety Audit carried out at the site of a holiday lodge and spa development off Wellsborough Road in Market Bosworth, Leicestershire . The audit was carried out at the request of Keith Gamblen, Senior Engineer, ADC Infrastructure on behalf of the developer of the site.

The Road Safety Audit team membership was as follows:

The Audit Team	Haydn Vernals FCIHT FIHE CMILT MSoRSA Directive 2008/96/EC (Certificate of Competency), Road Safety Team Leader in accordance with GG119
	Sarah Vernals BAHonsQTS NPQH, Road Safety Team Member in accordance with GG119
Audit Observers	None

The main project comprises of a holiday lodge and spa development. Ultimately this will provide almost 40 holiday lodges, a spa venue and a separate wedding venue. Highway works include provision of a new access from Coton Lane, near its junction with Wellsborough Road, connecting footways and a dropped crossing across Cotton Lane. The scope of this Road Safety Audit is to review the proposed highway works.

The audit has been carried out in accordance with the principles of the National Highways document GG 119 Road Safety Audit. A formal Road Safety Audit Brief was not provided to the Audit Team. However, information regarding the site was provided via email alongside the relevant scheme documents and drawings. This was considered by the Audit Team to provide sufficient detail to undertake the appropriate stage of audit.

The audit also comprised of a desk-top study where all documents and plans provided by the Design Team were reviewed. No departures from standard have been brought to the attention of the RSA team with regard to the scheme as designed.

Site Visit Attendance

A site visit took place comprising of the RSA team on Thursday 19th September 2024 between 10:15 and 10:45 hours during which the weather was overcast and the road surface dry. Traffic conditions were light and free flowing, with no pedestrians or cyclists observed.

Documents Supplied

- Email proposal background
- 3381-ADC-ZZ-XX-DR-Z-0101-S1_P01_Proposed Site Access Layout
- 3381-ADC-ZZ-XX-DR-Z-0131-S1_P01_Swept Path Analysis of Site Access Layout
- GL2223 02 - Bosworth Family Health & Wellness Spa - Development Proposal Plan-Layout1

Terms of Reference

The terms of reference of this Road Safety Audit are as described in the National Highways document GG119 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. No member of the Audit Team has been directly linked to the scheme design.

Each of the auditors' responses is classified as a 'Problem' that is likely to result in a significant road safety hazard. All comments and recommendations are referenced to the detailed design drawings and the locations have been indicated on the plan at the end of the report.

Where recommendations are made, these do not comprise design decisions, and it remains the responsibility of the Design Team to incorporate any changes into the scheme and consider any interactions between design elements.

Previous Road Safety Audits

The audit team have not been made aware of any previous Road Safety Audits.

Problems Raised at this Stage 1 RSA

PROBLEM – A-01

Location: Coton Lane – At the proposed dropped crossing.

Summary: Pedestrians – Surface quality may increase the risk of trips, falls and other related injuries.

A new dropped crossing is proposed across Coton Lane to provide connectivity to the adjacent lakeside leisure site. However, the carriageway surface at this crossing point has a number of surface defects that may increase the risk of trips and falls by pedestrians. The surface quality may also increase the risk of injuries for users with mobility aids, i.e. wheelchairs, mobility scooters, prams etc. or make crossing difficult such that these users have to seek other dropped crossing provision that may involve extended use of carriageway areas.

RECOMMENDATION

It is recommended that the carriageway surface at the crossing point is resurfaced.

PROBLEM – A-02

Location: Development access.

Summary: Specific Road Users – Lack of crossing facility may increase the risk of collisions involving users who rely on mobility aids.

Although there are limited onward options for users who rely on mobility aids, no provision is made for these users to cross the development access or enter the development site. Onward options may include the adjacent lakeside leisure site, the nearby bus stop or may eventually include an off-carriageway route into Market Bosworth provided by others. Without provision at the development access, pedestrians who rely on mobility aids such as mobility scooters, wheelchairs, prams etc, may have difficulties finding suitable onward routes. Without suitable dropped crossing provision these users may find crossing the road difficult, traveling along the carriageway to find a suitable point to traverse the kerb check. This may consequentially increase the risk of collisions involving these users.

RECOMMENDATION

It is recommended that a dropped crossing is provided across the development access and that separate footway access point is provided into the main site.

Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with GG119 Revision 2.

Road Safety Audit Team Leader

Haydn Vernals FCIHT FIHE CMILT MSoRSA
Directive 2008/96/EC (Certificate of Competency)

Signed:



Sevenairs Consulting Ltd
20 High Bank, Thurlstone, Sheffield,
South Yorkshire, S36 9QH

Date: 21st September 2024

Road Safety Audit Team Member

Sarah Vernals BAHonsQTS NPQH

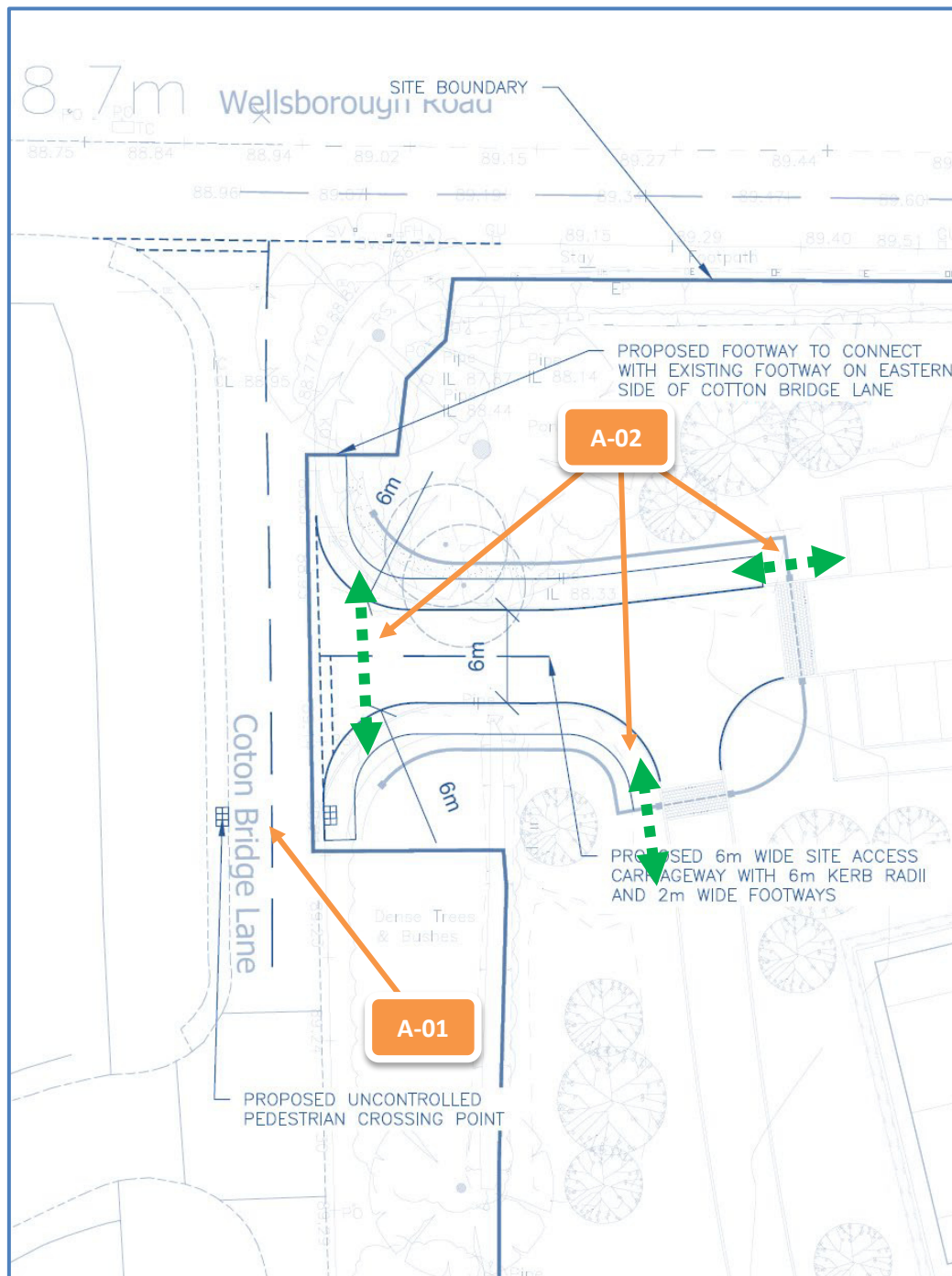
Signed:



Sevenairs Consulting Ltd
20 High Bank, Thurlstone, Sheffield,
South Yorkshire, S36 9QH

Date: 21st September 2024

Problem Location Plan



APPENDIX D

TRICS OUTPUT – HOLIDAY LODGES (WEEKDAY)

Calculation Reference: AUDIT-855401-240911-0906

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : J - HOLIDAY ACCOMMODATION
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HF HERTFORDSHIRE	1 days
03	SOUTH WEST	
	DC DORSET	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: Number of units
 Actual Range: 55 to 300 (units:)
 Range Selected by User: 31 to 9700 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 17/02/20

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

Selected survey days:

Monday 1 days
 Tuesday 1 days
 Wednesday 2 days
 Friday 3 days

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

Selected survey types:

Manual count 7 days
 Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1
 Edge of Town 2
 Neighbourhood Centre (PPS6 Local Centre) 1
 Free Standing (PPS6 Out of Town) 3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Village 2
 Out of Town 2
 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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included X days - Selected
 Servicing vehicles Excluded 7 days - Selected

Secondary Filtering selection:

Use Class:

n/a 7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	2 days
5,001 to 10,000	1 days
10,001 to 15,000	2 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	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	1 days
1.1 to 1.5	2 days
1.6 to 2.0	4 days

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

Travel Plan:

No	7 days
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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.

PTAL Rating:

No PTAL Present	7 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	DC-03-J-05	CAMPING/CARAVAN	DORSET
	STATION ROAD MORETON		
	Free Standing (PPS6 Out of Town) Out of Town		
	Total Number of units:	122	
	Survey date: FRIDAY	11/07/08	Survey Type: MANUAL
2	DS-03-J-01	CARAVAN PARK	DERBYSHIRE
	MAIN ROAD THULSTON ELVASTON		
	Free Standing (PPS6 Out of Town) Village		
	Total Number of units:	152	
	Survey date: FRIDAY	29/07/11	Survey Type: MANUAL
3	HF-03-J-01	CARAVAN	HERTFORDSHIRE
	BREAKSPEAR WAY HEMEL HEMPSTEAD		
	Edge of Town No Sub Category		
	Total Number of units:	55	
	Survey date: WEDNESDAY	30/07/08	Survey Type: MANUAL
4	NY-03-J-01	CAMPING & CARAVANNING	NORTH YORKSHIRE
	BAR LANE NEAR BOROUGHBRIDGE ROECLIFFE		
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total Number of units:	163	
	Survey date: TUESDAY	16/09/08	Survey Type: MANUAL
5	SF-03-J-01	CARAVAN PARK	SUFFOLK
	WALTON AVENUE FELIXSTOWE		
	Suburban Area (PPS6 Out of Centre) No Sub Category		
	Total Number of units:	300	
	Survey date: WEDNESDAY	28/05/08	Survey Type: MANUAL
6	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
7	WM-03-J-01	CARAVAN PARK	WEST MIDLANDS
	MILL LANE NEAR COVENTRY ASTON CANTLOW		
	Free Standing (PPS6 Out of Town) Out of Town		
	Total Number of units:	86	
	Survey date: MONDAY	08/06/09	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

TOTAL 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	7	142	0.012	7	142	0.025	7	142	0.037
08:00 - 09:00	7	142	0.019	7	142	0.040	7	142	0.059
09:00 - 10:00	7	142	0.044	7	142	0.046	7	142	0.090
10:00 - 11:00	7	142	0.047	7	142	0.089	7	142	0.136
11:00 - 12:00	7	142	0.055	7	142	0.082	7	142	0.137
12:00 - 13:00	7	142	0.055	7	142	0.048	7	142	0.103
13:00 - 14:00	7	142	0.062	7	142	0.039	7	142	0.101
14:00 - 15:00	7	142	0.075	7	142	0.047	7	142	0.122
15:00 - 16:00	7	142	0.073	7	142	0.051	7	142	0.124
16:00 - 17:00	7	142	0.096	7	142	0.068	7	142	0.164
17:00 - 18:00	7	142	0.091	7	142	0.051	7	142	0.142
18:00 - 19:00	7	142	0.077	7	142	0.058	7	142	0.135
19:00 - 20:00	7	142	0.066	7	142	0.054	7	142	0.120
20:00 - 21:00	7	142	0.056	7	142	0.024	7	142	0.080
21:00 - 22:00	6	151	0.028	6	151	0.022	6	151	0.050
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.856			0.744			1.600

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: 55 - 300 (units:)
Survey date range: 01/01/05 - 17/02/20
Number of weekdays (Monday-Friday): 7
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

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

APPENDIX E

TRICS OUTPUT – HOLIDAY LODGES (WEEKEND)

Calculation Reference: AUDIT-855401-240911-0945

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : J - HOLIDAY ACCOMMODATION
TOTAL VEHICLES

Selected regions and areas:

07 YORKSHIRE & NORTH LINCOLNSHIRE
NO NORTH LINCOLNSHIRE 1 days

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

Primary Filtering selection:

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

Parameter: Number of units
 Actual Range: 31 to 31 (units:)
 Range Selected by User: 31 to 9700 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 17/02/20

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

Selected survey days:

Sunday 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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included X days - Selected
 Servicing vehicles Excluded 1 days - Selected

Secondary Filtering selection:

Use Class:

n/a 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 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:

100,001 to 125,000

1 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

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	NO-03-J-01	CARAVAN PARK	NORTH LINCOLNSHIRE
	WATERSIDE ROAD		
	BARTON-UPON-HUMBER		
	Edge of Town		
	No Sub Category		
	Total Number of units:	31	
	Survey date: SUNDAY	27/09/09	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

TOTAL 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	31	0.000	1	31	0.000	1	31	0.000
08:00 - 09:00	1	31	0.000	1	31	0.032	1	31	0.032
09:00 - 10:00	1	31	0.032	1	31	0.065	1	31	0.097
10:00 - 11:00	1	31	0.000	1	31	0.032	1	31	0.032
11:00 - 12:00	1	31	0.129	1	31	0.161	1	31	0.290
12:00 - 13:00	1	31	0.194	1	31	0.161	1	31	0.355
13:00 - 14:00	1	31	0.129	1	31	0.290	1	31	0.419
14:00 - 15:00	1	31	0.097	1	31	0.097	1	31	0.194
15:00 - 16:00	1	31	0.097	1	31	0.065	1	31	0.162
16:00 - 17:00	1	31	0.065	1	31	0.065	1	31	0.130
17:00 - 18:00	1	31	0.194	1	31	0.161	1	31	0.355
18:00 - 19:00	1	31	0.065	1	31	0.032	1	31	0.097
19:00 - 20:00	1	31	0.097	1	31	0.129	1	31	0.226
20:00 - 21:00	1	31	0.065	1	31	0.032	1	31	0.097
21:00 - 22:00	1	31	0.032	1	31	0.000	1	31	0.032
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.196			1.322			2.518

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: 31 - 31 (units:)
Survey date range: 01/01/05 - 17/02/20
Number of weekdays (Monday-Friday): 0
Number of Saturdays: 0
Number of Sundays: 1
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.

APPENDIX F

TRICS OUTPUT – FITNESS CLUB

Calculation Reference: AUDIT-855401-231010-1050

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BH BRIGHTON & HOVE	1 days
	SP SOUTHAMPTON	1 days
05	EAST MIDLANDS	
	DY DERBY	1 days
	NG NOTTINGHAM	1 days
	NM WEST NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	KS KIRKLEES	1 days
	LS LEEDS	2 days
09	NORTH	
	TW TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1333 to 8000 (units: sqm)
 Range Selected by User: 1000 to 8000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 19/02/20

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

Selected survey days:

Tuesday 2 days
 Wednesday 3 days
 Thursday 4 days
 Friday 1 days

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

Selected survey types:

Manual count 10 days
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town Centre 3
 Suburban Area (PPS6 Out of Centre) 2
 Edge of Town 3
 Neighbourhood Centre (PPS6 Local Centre) 1
 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:

Commercial Zone 2
 Development Zone 1
 Residential Zone 2
 Built-Up Zone 2
 Out of Town 1
 No Sub Category 2

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 1 days - Selected
 Servicing vehicles Excluded 9 days - Selected

Secondary Filtering selection:

Use Class:

n/a 5 days
 Not Known 2 days
 E(d) 3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	3 days
500,001 or More	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	4 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	9 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	10 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BH-07-K-01	CORAL FITNESS	BRIGHTON & HOVE
	ORCHARD ROAD		
	BRIGHTON		
	HOVE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	1600 sqm	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
2	DY-07-K-02	LA FITNESS	DERBY
	CARRINGTON STREET		
	DERBY		
	CASTLE WARD		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	4000 sqm	
	Survey date: THURSDAY	25/06/15	Survey Type: MANUAL
3	KS-07-K-01	FITNESS CLUB	KIRKLEES
	GELDERD ROAD		
	BIRSTALL		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	2400 sqm	
	Survey date: TUESDAY	22/04/14	Survey Type: MANUAL
4	LS-07-K-01	FITNESS FIRST	LEEDS
	REDCOTE LANE		
	LEEDS		
	BURLEY		
	Free Standing (PPS6 Out of Town)		
	Out of Town		
	Total Gross floor area:	1570 sqm	
	Survey date: FRIDAY	11/06/10	Survey Type: MANUAL
5	LS-07-K-02	PURE GYM	LEEDS
	ELMFIELD WAY		
	LEEDS		
	BRAMLEY		
	Neighbourhood Centre (PPS6 Local Centre)		
	No Sub Category		
	Total Gross floor area:	3900 sqm	
	Survey date: THURSDAY	14/03/19	Survey Type: MANUAL
6	NG-07-K-01	VIRGIN ACTIVE	NOTTINGHAM
	LONDON ROAD		
	NOTTINGHAM		
	Edge of Town Centre		
	Commercial Zone		
	Total Gross floor area:	6000 sqm	
	Survey date: THURSDAY	27/06/13	Survey Type: MANUAL
7	NM-07-K-01	PUMP GYM	WEST NORTHAMPTONSHIRE
	GLADSTONE ROAD		
	NORTHAMPTON		
	KINGSFIELD BUS. CENTRE		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	1333 sqm	
	Survey date: WEDNESDAY	23/11/16	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	SH-07-K-01 SUNDORNE ROAD SHREWSBURY	FITNESS, TENNIS & LEISURE	SHROPSHIRE
	Edge of Town Residential Zone Total Gross floor area:	4500 sqm	
	Survey date: WEDNESDAY	21/05/14	Survey Type: MANUAL
9	SP-07-K-01 BOTLEY ROAD SOUTHAMPTON WEST END	VIRGIN ACTIVE	SOUTHAMPTON
	Edge of Town No Sub Category Total Gross floor area:	8000 sqm	
	Survey date: TUESDAY	24/11/15	Survey Type: MANUAL
10	TW-07-K-01 TIMBER BEACH ROAD SUNDERLAND CASTLETOWN	DW SPORTS FITNESS	TYNE & WEAR
	Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area:	1380 sqm	
	Survey date: THURSDAY	06/04/17	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 07 - LEISURE/K - FITNESS CLUB (PRIVATE)

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	1570	0.000	1	1570	0.000	1	1570	0.000
06:00 - 07:00	10	3468	0.972	10	3468	0.159	10	3468	1.131
07:00 - 08:00	10	3468	0.623	10	3468	0.689	10	3468	1.312
08:00 - 09:00	10	3468	0.877	10	3468	0.845	10	3468	1.722
09:00 - 10:00	10	3468	1.482	10	3468	0.747	10	3468	2.229
10:00 - 11:00	10	3468	1.133	10	3468	0.951	10	3468	2.084
11:00 - 12:00	10	3468	0.715	10	3468	1.220	10	3468	1.935
12:00 - 13:00	10	3468	0.666	10	3468	0.949	10	3468	1.615
13:00 - 14:00	10	3468	0.701	10	3468	0.796	10	3468	1.497
14:00 - 15:00	10	3468	0.721	10	3468	0.634	10	3468	1.355
15:00 - 16:00	10	3468	1.104	10	3468	0.905	10	3468	2.009
16:00 - 17:00	10	3468	1.554	10	3468	0.963	10	3468	2.517
17:00 - 18:00	10	3468	2.096	10	3468	1.243	10	3468	3.339
18:00 - 19:00	10	3468	1.799	10	3468	1.935	10	3468	3.734
19:00 - 20:00	10	3468	1.243	10	3468	1.914	10	3468	3.157
20:00 - 21:00	10	3468	0.623	10	3468	1.465	10	3468	2.088
21:00 - 22:00	10	3468	0.144	10	3468	0.767	10	3468	0.911
22:00 - 23:00	2	3800	0.026	2	3800	0.263	2	3800	0.289
23:00 - 24:00									
Total Rates:			16.479				16.445	32.924	

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: 1333 - 8000 (units: sqm)
 Survey date range: 01/01/10 - 19/02/20
 Number of weekdays (Monday-Friday): 10
 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.

APPENDIX G

2011 CENSUS MODAL SPLIT - EMPLOYMENT

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

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population All usual residents aged 16 and over in employment the week before the census
 units Persons
 date 2011
 place of work E02005380 : Hinckley and Bosworth 004 (2011 super output area - middle layer)

usual residence : 2011 census merged local authority district	All categories: Method of travel to work (2001 specification)	Work mainly at or from home	Underground, metro, light rail or tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot	Other method of travel to work
Hinckley and Bosworth	1,057	0	0	0	36	0	9	747	66	27	169	3
North West Leicestershi	308	0	0	1	3	0	7	251	37	4	5	0
North Warwickshire	184	0	0	1	2	1	3	150	22	1	4	0
Nuneaton and Bedworth	120	0	0	0	3	1	0	99	14	2	1	0
South Derbyshire	107	0	0	0	0	1	2	81	21	1	1	0
Blaby	87	0	0	0	0	0	1	79	3	2	2	0
Tamworth	83	0	0	0	1	0	0	74	7	0	1	0
Charnwood	62	0	0	0	0	0	3	54	3	1	1	0
Leicester	46	0	0	1	4	0	0	37	3	0	1	0
Birmingham	44	0	0	0	4	0	0	33	7	0	0	0
Harborough	41	0	0	0	1	0	0	35	1	0	4	0
Lichfield	26	0	0	1	0	0	0	23	1	1	0	0
East Staffordshire	24	0	0	0	0	0	0	24	0	0	0	0
Coventry	23	0	0	0	0	0	1	18	3	1	0	0
Sandwell	18	0	0	0	1	0	0	7	2	1	7	0
Rugby	14	0	0	0	0	0	1	11	1	0	1	0
Warwick	13	0	0	0	0	0	0	10	3	0	0	0
Melton	12	0	0	0	0	0	0	9	0	0	3	0
Oadby and Wigston	12	0	0	0	0	0	1	9	1	1	0	0
Nottingham	8	0	0	0	1	0	0	6	0	0	1	0
Solihull	8	0	0	1	0	0	0	7	0	0	0	0
Rushcliffe	7	0	0	0	0	0	0	7	0	0	0	0
Derby	6	0	0	0	0	0	0	6	0	0	0	0
Ashfield	6	0	0	0	0	0	0	3	3	0	0	0
Lincoln	5	0	0	0	0	0	0	1	4	0	0	0
Stoke-on-Trent	5	0	0	0	0	0	0	5	0	0	0	0
York	4	0	0	0	0	0	0	0	0	0	4	0
Kettering	4	0	0	0	0	0	0	4	0	0	0	0
Dudley	4	0	0	0	0	0	0	4	0	0	0	0
Erewash	3	0	0	0	0	0	0	3	0	0	0	0
Daventry	3	0	0	0	0	0	0	3	0	0	0	0
Mansfield	3	0	0	0	0	0	0	3	0	0	0	0
Newcastle-under-Lyme	3	0	0	0	0	0	0	1	0	0	2	0
Bromsgrove	3	0	0	0	0	0	0	3	0	0	0	0
Walsall	3	0	0	0	0	0	0	2	1	0	0	0
County Durham	2	0	0	0	0	0	0	0	0	2	0	0
Broxtowe	2	0	0	0	0	0	0	2	0	0	0	0
Gedling	2	0	0	0	0	0	0	2	0	0	0	0
Stratford-on-Avon	2	0	0	0	0	0	0	2	0	0	0	0
Bolton	1	0	0	0	0	0	0	1	0	0	0	0
Rochdale	1	0	0	0	0	0	0	1	0	0	0	0
Wigan	1	0	0	0	0	0	0	0	0	0	1	0
North Lincolnshire	1	0	0	0	0	0	0	1	0	0	0	0
Doncaster	1	0	0	0	0	0	0	1	0	0	0	0
Sheffield	1	0	0	0	0	0	0	1	0	0	0	0
Rutland	1	0	0	0	0	0	0	0	0	0	1	0
Amber Valley	1	0	0	0	0	0	0	1	0	0	0	0
North East Derbyshire	1	0	0	0	0	0	0	1	0	0	0	0
East Lindsey	1	0	0	0	0	0	0	1	0	0	0	0
South Holland	1	0	0	0	0	0	0	1	0	0	0	0
Northampton	1	0	0	0	0	0	0	1	0	0	0	0
South Northamptonshire	1	0	0	0	0	0	0	1	0	0	0	0
Shropshire	1	0	0	0	0	0	0	1	0	0	0	0
South Staffordshire	1	0	0	0	0	0	0	1	0	0	0	0
Stafford	1	0	0	0	0	0	0	0	1	0	0	0
Staffordshire Moorlands	1	0	0	0	0	0	0	1	0	0	0	0
Worcester	1	0	0	0	0	0	0	1	0	0	0	0
Wychavon	1	0	0	0	0	0	0	1	0	0	0	0
Peterborough	1	0	0	0	0	0	0	1	0	0	0	0
Central Bedfordshire	1	0	0	0	0	0	0	1	0	0	0	0
Three Rivers	1	0	0	0	0	0	0	1	0	0	0	0
Breckland	1	0	0	0	0	0	0	0	0	0	1	0
Ipswich	1	0	0	0	0	0	0	1	0	0	0	0
Barnet	1	0	0	0	0	0	0	1	0	0	0	0
Bromley	1	0	0	0	0	0	0	1	0	0	0	0
East Hampshire	1	0	0	0	0	0	0	0	1	0	0	0
Vale of White Horse	1	0	0	0	0	0	0	1	0	0	0	0
Elmbridge	1	0	0	0	0	0	0	1	0	0	0	0
Runnymede	1	0	0	0	0	0	0	1	0	0	0	0
Sedgemoor	1	0	0	0	0	0	0	1	0	0	0	0
usual residence : 2011 census merged local authority district	All categories: Method of travel to work (2001 specification)	Work mainly at or from home	Underground, metro, light rail or tram	Train	Bus, minibus or coach	Taxi	Motorcycle, scooter or moped	Driving a car or van	Passenger in a car or van	Bicycle	On foot	Other method of travel to work
	2,395	0	0	5	56	3	28	1,841	205	44	210	3
	2,392		0	5	56	3	28	1,841	205	44	210	
%	100.0%		0.0%	0.2%	2.3%	0.1%	1.2%	77.0%	8.6%	1.8%	8.8%	