

LAND EAST OF BRIDGE ROAD, IMPINGTON

Access Appraisal

May 2022

Barratt David Wilson Homes (Cambridgeshire)

RESIDENTIAL DEVELOPMENT LAND EAST OF BRIDGE ROAD IMPINGTON

ACCESS APPRAISAL



Revision Record						
Rev.	Date	Ву	Summary of Changes	Aprvd		

Disclaimer

This document has been prepared in accordance with the scope of Paul Basham Associates Ltd's appointment with its client and is subject to the terms of that appointment. It is addressed to and for the sole use and reliance of Paul Basham Associates clients. Paul Basham Associates accepts no liability for any use of this document other than by its client and only for the purposes, stated in the document, for which it was prepared and provided. No person other than the client may copy (in whole or in part), use or rely on the contents of this document, without the prior written permission of a Director of Paul Basham Associates. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole. The contents of this document are not to be construed as providing legal, business or tax advice or opinion.

© Paul Basham Associates Limited 2022





paulbasham associates

Barratt David Wilson Homes (Cambridgeshire)
Forder Way
Cygnet Park
Hampton
Peterborough
Cambridgeshire

Paul Basham Associates Ltd Vision Park Compass House Chivers Way Histon Cambridgeshire

RESIDENTIAL DEVELOPMENT LAND EAST OF BRIDGE ROAD IMPINGTON

ACCESS APPRAISAL

Contents

1.	INTRODUCTION	2
2.	SITE CONTEXT	3
3.	LOCAL ACCESSIBILITY	6
4.	DEVELOPMENT PROPOSALS	10
5.	TRIP GENERATION AND DISTRIBUTION	12
6.	ACCESS OPPORTUNITES	15
	SUMMARY AND NEXT STEPS	

Figures

- Figure 1 Site Location
- Figure 2 Site Context
- Figure 3 PIA Investigation: 2017 2021 (Source: Crashmap)
- Figure 4 PRoW (Source: Cambridgeshire.gov.uk)
- Figure 5 CD 123 Figure 2.3.1 Approximate Priority Junction Provision

Tables

- Table 1 Radar Survey Results
- Table 2 Local Bus Services
- Table 3 Proposed Vehicle Trip Generation
- Table 4 Proposed Pedestrian/Cycle Trip Generation
- Table 5 Place of Work Census Data
- Table 6 Direction of Travel from Development Site

Appendices

- Appendix A Masterplan
- Appendix B Radar Outputs
- Appendix C TRICS Outputs
- Appendix D Trip Distribution
- Appendix E Access Design & Tracking
- Appendix F Title Plan and Highway Boundary Mapping
- Appendix G Access Visibility
- Appendix H Pedestrian Visibility
- Appendix I Internal Visibility and Tracking
- Appendix J Emergency Access Visibility



1. INTRODUCTION

1.1 This Access Appraisal (AA) has been prepared by Paul Basham Associates on behalf of Barratt David Wilson Homes (BDWH) in order to assess the potential for residential development at Land east of Bridge Road, Impington. The site location is demonstrated in **Figure 1**, with the indicative site masterplan included in **Appendix A**.



Figure 1: Site Location

- 1.2 It is understood that BDWH are seeking to provide circa 235 units on the land identified in **Figure 1**. As part of this assessment, and to help inform the report, a site visit was undertaken in April 2022. In addition, this report benefits from highway boundary mapping obtained from Cambridgeshire County Council (CCC) and a radar survey undertaken on Tuesday 3rd May 2022 to determine the actual vehicle speeds in the vicinity of the site.
- 1.3 The remainder of this report therefore provides an assessment of the potential opportunities and constraints of a scheme based on 235 units, including an assessment of the site location, the potential impact on the surrounding highway network, commentary on the internal road layout as well as identifying any highway works that may be required to support a development.

2. SITE CONTEXT

2.1 The site, located to the east of Bridge Road, is situated to the south of the Busway NCN51, west of a drainage pond and north of the Holiday Inn. The site and its surroundings are demonstrated in Figure2.



Figure 2: Site Context (Source: Google)

Local Road Network

Bridge Road

2.2 Bridge Road, which runs north to south past the site frontage, provides a route between the A14 to the south and Histon to the north. The carriageway measures approximately 9m in width, of which 2m is provided as an on-street cycle lane flanking the eastern side of Bridge Road. The road itself is subject to a 40mph speed limit across the site frontage, however whilst on site, and given the nature of the road, vehicle speeds were observed and considered to be higher. The existing conditions along Bridge Road are demonstrated in **Photograph 1**.



Photograph 1: Bridge Road Conditions

2.3 In order to determine the actual vehicle speeds in the vicinity of the proposed site, a radar survey was undertaken on Tuesday 3^{rd} May between 1000 - 1200 and 1300 - 1500. The results of the survey are summarised in Table 1, with the full outputs included in Appendix B.

Bridge Road	85 ^{th%ile} speeds				
bridge road	AM Period	PM Period			
Northbound	39.7mph	40.6mph			
Southbound	42.8mph	42.3mph			

Table 1: Radar Survey Results

2.4 The site is well located in relation to the strategic road network, with the A14 located 500m south of the proposed site. The A14 provides the main commuter route between Suffolk to the east and Cambridge. The speed survey demonstrates that recorded speeds exceeded the speed limit for vehicles travelling southbound in particular.

Personal Injury Accident Data

2.5 Personal Injury Accident (PIA) data has been obtained from Crashmap for the latest available 5-year period between January 2017 and December 2021 to determine the existing safety scenario in the local area. The PIA investigation is demonstrated in Figure 3.



Figure 3: PIA Investigation: 2017 – 2021 (Source: Crashmap)

- 2.6 The PIA investigation demonstrates that there has been only 1 recorded incident in the immediate vicinity of the site. The incident, which was classified as 'slight' in nature, occurred in 2017 at the junction with the Holiday Inn access road and involved a cyclist. Despite this, the PIA investigation does not indicate a highways concern that would worsen as a result of the development or pose a safety concern for future site users.
- 2.7 It should be noted that, if an application is to come forwards on the site, it is likely that CCC would require full accident data to be obtained.

3. LOCAL ACCESSIBILITY

Proximity to Amenities

3.1 Located to the east of Bridge Road, the site is well located in relation to the existing facilities and amenities in Histon and Impington. Within a 20 minute walk (4 minute cycle) of the site, a comprehensive range of facilities and amenities are available including a pharmacy, banks, small retail units, convenience stores, a doctors surgery and leisure facilities. A full review of the facilities and amenities available would be assessed to support an application.

Pedestrian Infrastructure

3.2 The gentle topography of the area makes it conducive for pedestrians and encouraging movements on foot. In the immediate vicinity of the site, there is currently no pedestrian footway flanking the eastern side of Bridge Road, however, a 2m wide footway is present on the western side. The existing pedestrian infrastructure in the vicinity of the site is demonstrated in **Photograph 2**.



Photograph 2: Pedestrian Footway on Bridge Road

3.3 As part of this DD report, opportunities to provide a connection between the site and the footway flanking the western side will be explored.

Public Rights of Way

3.4 In addition to the local pedestrian infrastructure, the site is located approximately 450m south of Bridleway no.6 which runs parallel to the Busway and National Cycle Network (NCN) Route no.51. The location of the Bridleway in relation to the site is demonstrated in **Figure 4**.

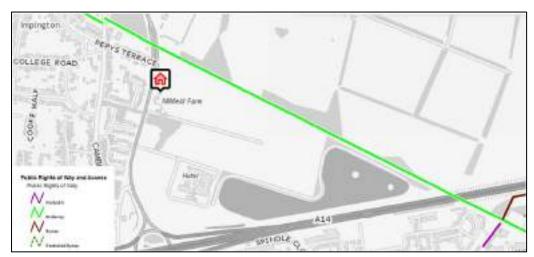


Figure 4: PRoW (Source: Cambridgeshire.gov.uk)

Cycling Infrastructure

3.5 The topography of the area also makes it conducive for cycling. Within the immediate vicinity of the site, dedicated cycle lanes are present flanking both the eastern and western sides of Bridge Road, thus making it an attractive and safe method of transport for cyclists. The cycle infrastructure in the vicinity of the site is demonstrated in **Photograph 3**.



Photograph 3: Dedicated Cycle Lanes

3.6 In addition to the dedicated cycle lanes, the aforementioned Bridleway also facilitates the movement of cyclists in the area. For cyclists, journeys into Histon take approximately 6 minutes, whilst journeys to Cambridge take approximately 15 minutes.

Public Transport Provision

Bus Services

- 3.7 The closest bus stops to the site are located at the Highfield Road/Cambridge Road junction, accessible via a 4 minute walk or 2 minute cycle. The stops comprise a sheltered waiting area and single pole with timetable information. These stops are served by the Stagecoach no.8 Citi service.
- 3.8 In addition to the stops at the Highfield Road/Cambridge Road junction, the site is located approximately 450m south of the Cambridgeshire Guided Busway, which is solely dedicated to buses. The Histon and Impington busway station is serviced by three routes, A, B and C.
- 3.9 A summary of the services available from both the Busway and the Highfield Road stops are provided within Table 2 below.

			F	requency	
Location		Route	Monday – Friday	′ I Saturday I Sunday I	
Highfield Road	8 Citi	March — Doddington — Chatteris — Sutton — Witcham Toll — Haddenham — Wilburton — Cottenham — Histon & Impington — Cambridge	Every 30 minutes	Every 30 minutes	Every Hour
	Α	Huntingdon – St Ives – Histon & Impington – Central Cambridge – Cambridge Station - Addenbrooke's Hospital	Every 30 minutes	Every 30 minutes	Every Hour
Busway	В	Huntingdon – St Ives – Histon & Impington – Cambridge Science Park – Cambridge North – Central Cambridge – Addenbrooke's Hospital	Every 30 minutes	Every 30 minutes	Every Hour
	С	Huntingdon – St Ives – Histon & Impington – Central Cambridge – Cambridge Station – Long Road Sixth Form College	School Service	No Service	No Service

Table 2: Local Bus Services

3.10 The site is very well located in relation to the comprehensive bus services available in the local area, thus presenting an excellent opportunity to encourage walk/bus/walk commuter and leisure journeys to and from the site.

Rail Services

3.11 The closest railway station to the site is Cambridge North, accessible via a 15 minute cycle or the use of Busway Route B. Cambridge North station is equipped with 1000 cycle storage spaces, 4560 car parking spaces, CCTV, customer help points and step free access amongst others, thus being suitable for all users or as part of a multimodal journey.

- 3.12 Cambridge North provides services to a number of destinations, including London, Norwich, Stansted Airport, Kings Lynn and Ely. Trains to these destinations operate frequently, with the majority operating at least once per hour. For more local rail journeys, destinations such as Central Cambridge and Ely are within a 6 minute and 15 minute travel time respectively.
- 3.13 The location of the site in relation to the railway station presents an excellent opportunity to encourage cycle/rail/cycle commuter journeys for both local destinations and those further afield.

Summary

3.14 The location of the site in relation to cycle and bus infrastructure presents an excellent opportunity to promote travel via these modes and thus create a sustainable development. The opportunities to improve the pedestrian infrastructure in the vicinity of the site will be explored further later in this report.

4. DEVELOPMENT PROPOSALS

4.1 It is understood that the development would seek to provide circa 235 dwellings. A review of the car and cycle parking standards has been undertaken to aid the development of the site layout. The layout is included in **Appendix A**.

Car Parking Standards

- 4.2 Car parking would need to be provided in accordance with South Cambridgeshire's Local Plan (2018) Policy T1/3: Parking Provision. The policy states that 'Car parking provision should be provided through a design-led approach in accordance with the indicative standards'. The indicative standard for all residential dwellings is 2 spaces per dwelling.
- 4.3 If garages are to be provided on-site, the internal widths must measure 3.3m x 6m if solely used for a car, with an additional 1m at the end and/or 650 750mm at the side to park cycles.
- 4.4 If all parking is allocated, the Greater Cambridge Sustainable Design and Construction SPD states that one slow Electric charging point is required per dwelling. If communal parking is proposed, one slow electric charging point is required for every two dwellings.

Cycle Parking Standards

4.5 Cycle parking would also need to be provided to accord with the minimum standards set out within the Local Plan. The policy states a minimum provision of 1 space per bedroom. Cycle parking would need to be provided in safe, secure and well-lit areas, either on plot or within communal storage blocks.

Internal Road Geometries

- 4.6 In order to provide an attractive and permeable environment and ensure that the site is delivered to CCC adoptable standards where applicable, the design principles in which the development should adhere to are summarised below;
 - A spine road measuring a minimum of 6m in width.
 - Internal roads should measure 5.5m in order to conform to CCC's adoptable standards but can reduce in width to 4.8m 4.1m for tertiary roads and private drives. As a general guide, 4.8m will allow two cars to pass, whilst 4.1m would be more suitable for very quiet cul-de-sacs. All routes facilitating fire tenders must measure at least 3.7m in width.
 - \bullet Footways should be provided along all main estate road and should measure 1.8m 2m in width.
 - If shared surfaces are to be provided, these should measure 6m in width with a 0.5m margin flanking either side.

- Traffic calming measures are recommended throughout the development, and in particular reference to CCC preferences, these should be provided in the form of raised junctions.
- 4.7 All internal corners and junctions provided within the site will need to be restricted to a 20mph speed limit and therefore any vegetation within visibility splays would need to be maintained to below 0.6m or over 2m in height.

Servicing

- 4.8 It is envisaged that refuse collection would occur on site and thus causing no impact on the local road network. Turning heads should be provided on site to aid collection, but where collection is proposed from the kerbside, refuse vehicles must be able to get to within 25m of each storage point or house, with residents able to get to within 30m of a storage point.
- 4.9 Fire tender vehicles must be able to get within 45m of all properties in accordance with Building Regulations Part B. Based on CCC guidance, for developments over 200 units, a second access location for emergency vehicles should be provided. The opportunity to provide this has been assessed as part of the access design works.

5. TRIP GENERATION AND DISTRIBUTION

Trip Generation

5.1 In order to ascertain the likely impact of the proposed development on the operation of the local road network, a TRICS assessment has been undertaken. Given that the site is currently greenfield, any vehicle movements generated by the site would be new to the network.

Vehicular Trip Generation

- 5.2 A multimodal TRICS assessment has been undertaken for the site. The parameters used to generate the trip rates are summarised below:
 - TRICS v.7.9.1 Database
 - 'Residential' 'Houses Privately Owned' Use Class
 - Sites in England and Wales (Excluding Greater London)
 - 6 750 Dwellings
 - Weekday Surveys only
 - 'Suburban' and 'Edge of Town' Locations
 - Sites with No Travel Plans
- 5.3 Whilst it is likely that the proposed development would comprise a mixture of private and affordable housing, the TRICS assessment undertaken provides a worst-case scenario as private housing typically generates more vehicle movements than affordable.
- 5.4 The resultant trip generation assessment is summarised in **Table 3**, with the full outputs included in **Appendix C**.

TRICS (v.7.9.1)	AM Peak Perio	d (0800 – 0900)	PM Peak Perio	Total Daily	
TRIC3 (V.7.9.1)	Arrivals	Departures	Arrivals	Departures	Trips
Vehicular Trip Rate (per Dwelling)	0.124	0.373	0.340	0.156	4.515
Vehicular Trip Generation (235 Dwellings)	29	88	80	37	1,061

Table 3: Proposed Vehicular Trip Generation (235 dwellings)

5.5 **Table 3** demonstrates that the proposed development would be anticipated to generate 117 vehicle movements in both the AM and PM peak periods and 1,061 vehicle movements across a 12 hour day. This equates to 1 vehicle movement every 30 seconds in the peak periods.

Pedestrian/Cycle Trip Generation

5.6 The TRICS database has also been consulted to determine the likely pedestrian and cycle movements that will be generated by the proposed development. Using the same parameters as set out above, the resultant trip generation assessment is summarised in **Table 4**, with the full outputs included in **Appendix C**.

TDICC (7.0.1)	AM Peak Perio	d (0800 – 0900)	PM Peak Perio	Total Daily	
TRICS (v.7.9.1)	Arrivals	Departures	ures Arrivals Departures		Trips
Pedestrian Trip Rate (per Dwelling)	0.030	0.086	0.053	0.030	0.909
Pedestrian Trip Generation (235 Dwellings)	7	20	12	7	214
Cycle Trip Rate (per Dwelling)	0.004	0.006	0.007	0.005	0.088
Cycle Trip Generation (235 Dwellings)	1	1	2	1	21

Table 4: Proposed Pedestrian/Cycle Trip Generation

- 5.7 Table 4 demonstrates that the proposed development would be anticipated to generate 27 pedestrian and 2 cycle movements in the AM peak period, 19 pedestrian and 3 cycle movements in the PM peak period and 214 pedestrian and 21 cycle movements across a 12 hour day. The existing pedestrian and cycle infrastructure in the vicinity of the site is anticipated to be sufficient in accommodating this level of trips (subject to pedestrian facilities being improved and implemented on the eastern side of Bridge Road).
- 5.8 The 'Method of Travel' to work Census Data (2011) has been assessed for the South Cambridgeshire 006 location to identify how residents currently residing in the area travel to work. The data identified that approximately 11% of trips are by cyclists and 7% by pedestrians.

Vehicle Distribution

5.9 Having estimated the number of vehicular trips to be generated by the site, traffic distribution diagrams have been created using the 2011 'Travel to Work' Census Data (WF01BEW) for South Cambridgeshire 006 (where the site is located). Data set WF01BEW has been assessed to understand the destinations people travel to work from the site (Histon and Impington) and determine the likely routes they travel.

5.10 The main workplace destinations and the percentage of residents (South Cambridgeshire 006) that commute to each destination along with the most likely route used, for locations with more than 1% of trips has been shown in Table 5.

Place of Work	Percentage	Left or Right from Site Access
Cambridge	47%	100% Left
South Cambridgeshire 006: Histon & Impington	12%	100% Right
South Cambridgeshire 007: Milton	9%	100% Left
Huntingdonshire	3%	100% Left
South Cambridgeshire 017: Duxford	2%	100% Left
East Cambridgeshire	2%	100% Left
South Cambridgeshire 011: Fulbourn	2%	100% Left
Other	24%	20% Left, 4% Right

Table 5: Place of Work Census Data

- 5.11 Table 5 demonstrates that most trips are expected to stay within Cambridge (47%) with a large proportion also remaining within Histon and Impington (12%) and people travelling to nearby Milton/Horningsea (9%).
- 5.12 The information presented in Table 5 has been assessed to determine the percentage of development traffic anticipated to turn left and right out of the site access onto Bridge Road. This is summarised in Table 6 below.

Direction	Percentage
Right (Northbound)	16%
Left (Southbound)	84%

Table 6: Direction of Travel from Development Site

5.13 Based on the information from the trip distribution, 16% of development traffic is anticipated to turn right out of the site and head northbound along Bridge Road. The remaining 84% are anticipated to turn left out of the site access and head southbound towards the A14/Bridge Road/Cambridge Road roundabout. A trip distribution diagram of the site access is attached as Appendix D.

Access Appraisal

6. ACCESS OPPORTUNITES

Type of Access

The proposed site would be served by a single vehicular access onto Bridge Road. In order to determine the type of access required, consideration has been given to the quantum of traffic along both the major road (Bridge Road) and the minor road (site access). CD 123 (Geometric design of at-grade priority and signal-controlled junctions) show that where major road flow exceeds 13,000 vehicles and minor road flows exceed 300 vehicles, a right turn lane/ghost island should be considered. This is shown in **Figure 5**.

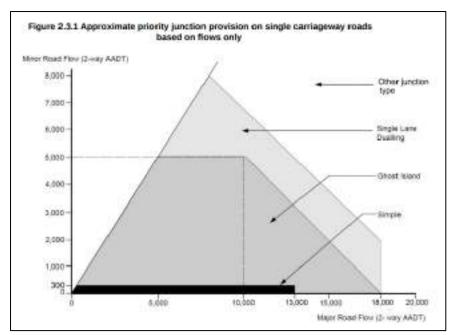


Figure 5: CD 123 Figure 2.3.1 Approximate priority junction provision

6.2 Whilst no flow data along Bridge Road itself is available, given that the proposed development is anticipated to generate in the region of 1,100 vehicle movements across a 12 hour period, and with consideration given to the distribution of traffic from the site access, a right turn lane junction is considered to be required.

Access Design

6.3 To accommodate the right turn lane and existing infrastructure such as the on-street cycle lanes, it is proposed that the carriageway of Bridge Road would be widened by c.3m. This ensures that a width of 3m is achievable for both through lanes and that the right turn lane has a minimum width of 3m. In accordance with CD 123 junction design guidance, a drawing has been produced that outlines the required geometries for the right turn lane based on speeds and the gradient of the road. The design of the proposed right turn lane junction is attached in **Appendix E**.

- 6.4 It should also be noted that in order to facilitate the right turn lane junction, the existing gated access to the site would need to be stopped up and a new access provided circa 18m north of the existing.
- 6.5 The development site would be served via a 6m wide road with radii of 9m. In line with MfS guidance, the access is of sufficient width to allow a large vehicle and car to pass. Tracking of the proposed access has been undertaken and is included in **Appendix E**.
- 6.6 It should, however, be noted that the delivery of this access would require further investigation. Specifically, this is in relation to the level differences between the carriageway and the site and that a substantial level of verge does not appear to be either within highway ownership or that of the clients. The Title Plan and Highway Boundary Mapping illustrating this are included within **Appendix F**.
- 6.7 When on-site, and from a desk-based review, there appear to be quite substantial level changes along the site frontage as a whole, and therefore without a topographical survey we cannot fully assess its suitability.

Visibility

6.8 In line with the recorded 85th percentile speeds of 40.6mph northbound and 42.8mph southbound, visibility splays of 4.5m x 120m are presented. These visibility splays are achievable from the site access (subject to confirmation of the land ownership of an element of the verge) to the kerb line in both directions and are shown in **Appendix G**, as well as being visually shown in **Photographs 4** and **5** below.



Photograph 4: Primary Direction Visibility



Photograph 5: Secondary Direction Visibility

6.9 In order to ensure that visibility is achievable, any vegetation that falls within the splay will need to be maintained at a height below 0.6m in height or over 2m in height. As the access design completed in **Appendix E** has been done on OS mapping, in order to fully assess the opportunities and impacts on vegetation, a topographical survey would be required to support a planning application.

Pedestrian/Cycle Access

- 6.10 It is proposed that a 3m wide shared footway cycleway would be provided on the northern side of the site access. The shared footway/cycleway would terminate at a new formal crossing point (facilitated by a refuge island, dropped kerbs and tactile paving) approximately 20m from the site access. For those travelling northbound along the western side of Bridge Road, a new jug handle buildout would be provided to enable cyclists to safely exit the existing cycle lane and utilise the new crossing facility. The provision of this crossing point therefore ensures that pedestrians and cyclists can safely cross Bridge Road from all directions when accessing local amenities within Histon and Impington.
- 6.11 The location of the footway/cycleway and the crossing point/arrangement is demonstrated on the access design, attached in **Appendix E**.
- 6.12 In line with the 85th percentile speeds, pedestrian visibility splays have also been undertaken from the proposed crossing point and therefore measure 0.8m x 120m. This is demonstrated on the drawing included in **Appendix H**.

Emergency Access

- 6.13 It is understood that CCC require a separate access, or at a very minimum, a secondary access point suitable for emergency vehicles for any development over 200 dwellings. At present, we also understand that the frontage onto the road to the south (private drive for the Holiday Inn) is unavailable and therefore any secondary access would also be required to be provided onto Bridge Road.
- 6.14 An emergency access design has therefore been incorporated into the wider access design drawing (attached as **Appendix E**) which is located approximately 35m north of the proposed site access. This emergency access is proposed in the form of a vehicle crossover junction with a width of 3.7m, which is in accordance with MfS design guidance.
- 6.15 The location and geometries of the proposed emergency access ensure that vehicle tracking for a fire tender can be completed, as shown in the drawing included in **Appendix I.** In addition, a visibility splay assessment from this junction has also been undertaken and is included in **Appendix J**.
- 6.16 As with the main site access, it should be noted that the delivery of this access would require further investigation in specific relation to the level differences between the carriageway and the site, and the extent of ownership of land in this area. Therefore, without a topographical survey and this information we cannot fully assess its suitability.

Internal Access to Existing Property

- 6.17 The proposed relocation of the existing access would also require a new access to be provided for the existing property located to the north of the site. An access design has been provided, which is located approximately 15m east of the site access and would be provided in the form of a vehicle crossover. The width of the road should be a minimum of 4.1m, as per the existing arrangement (subject to confirmation from a topographical survey), which is a sufficient width to enable two cars to pass. It is proposed that this access track would give way to the proposed emergency access and therefore associated lining has been demonstrated. This access design is included in **Appendix E**.
- 6.18 As the proposed track would form a junction with both the proposed site spine road and the emergency access, junction visibility has also been assessed. Visibility splays have therefore been demonstrated to 2.4m x 25m which accords with a 20mph design speed. Any vegetation within the splays would need to be maintained to below 600mm in height. The internal junction visibility is included on the drawing in Appendix I.

7. SUMMARY AND NEXT STEPS

- 7.1 This Access Appraisal has been prepared by Paul Basham Associates on behalf of Barratt David Wilson Homes in order to assess the potential for residential development at Land east of Bridge Road, Impington.
- 7.2 The site, located to the east of Bridge Road, is situated to the south of the Busway NCN51, west of a drainage pond and north of the Holiday Inn. The location of the site in relation to cycle and bus infrastructure, presents an excellent opportunity to promote travel via these modes and thus create a sustainable development. The opportunities to improve the pedestrian infrastructure in the vicinity of the site has also been explored as part of the report.
- 7.3 Car and cycle parking would need to be provided in accordance with South Cambridgeshire's Local Plan Policy T1/3: Parking Provision, internal geometries for roads, visibility and footways/cycleways would need to be provided in accordance with CCC's adoptable standards if they are to be adopted. Suitable provision would need to be made on site to ensure both emergency and refuse vehicles can suitably access the relevant areas, for which we can provide assistance when we get to that stage.
- 7.4 A TRICS assessment for vehicle, pedestrian and cycle movements anticipated to be generated by the site has been undertaken. The assessment demonstrates that the proposed development would be anticipated to generate 117 vehicle movements in both the AM and PM peak periods and 1,061 vehicle movements across a 12 hour day. The proposed development would also be anticipated to generate 27 pedestrian and 2 cycle movements in the AM peak period, 19 pedestrian and 3 cycle movements in the PM peak period and 214 pedestrian and 21 cycle movements across a 12 hour day.
- 7.5 Census data has been used to assess the likely split of development traffic at the site access and inform the type of access required to serve the site. The data indicates that 84% of traffic is anticipated to turn left from the site access (And subsequently right in), with the remaining 16% anticipated to turn right out of the site (and subsequently left in).
- 7.6 The proposed development would be served via one point of vehicular access, which would need to be provided in the form of a right turn lane arrangement. With the widening works required, further investigation needs to be had to determine the ownership of the verge as this is currently not shown as being under either highway or client ownership. In addition to fully assess this access design, a topographical survey would be required which would also identify the level/scale of vegetation required to be removed and any level differences between the carriageway and the site which may impact the deliverability.

- 7.7 A new shared footway/cycleway is proposed on the northern side of the access, which would culminate in a crossing facility approximately 20m north of the access. This would facilitate the movement of both pedestrians and cyclists accessing the site from all directions.
- 7.8 An emergency access has also been designed in order to appease CCC's policy which requires a separate access for developments over 200 units. This access is located c.35m north of the main site access and would have right of way over a new access proposed to serve the existing property. It has been observed, however, that level differences are present along the site frontage between the Bridge Road carriageway and the site and therefore, a topographical survey would be required to ensure that an emergency access is deliverable.
- 7.9 Overall, the initial due diligence works demonstrates that a right turn lane junction arrangement should be able to be accommodated within land owned by the highway/site, however, in order to determine its actual deliverability and suitability, a topographical survey would be required, and a more detailed design provided. We would therefore recommend the following next steps from a highway's perspective:
 - Prepare a more detailed access design on a topographical survey and try to establish ownership rights of the verge
 - Prepare a Pre-application Scoping Note (PSN) and engage in pre-application discussions with CCC highway officers to determine the scope of works required to support an application and discuss the proposed access arrangements – including the need for an emergency access.



Impington - Radar Speed Survey (AM)

360 TSL

Speed Limit



All speeds are recorded from free flowing vehicles

Weather Dry/Cool Tues 3rd May 2022 1000-1200

specus are re	corded from free	flowing vehicles	'	Dry/Cool			1000-120
	North	bound			South	bound	
	Speeds (mph)		Speeds (mph)		Speeds (mph) Speed		
1	23	51	36	1	27	51	40
2	24	52	36	2	30	52	40
3	26	53	36	3	33	53	40
4	28	54	36	4	34	54	40
5	29	55	36	5	35	55	40
6	30	56	36	6	35	56	40
7	31	57	37	7	35	57	40
8	31	58	37	8	35	58	40
9	31	59	37	9	36	59	40
10	32	60	37	10	36	60	40
11	33	61	37	11	36	61	40
12	33	62	37	12	36	62	40
13	34	63	37	13	36	63	40
14			37	14			
	34	64	I		37	64	40 40
15	34	65	37	15	37	65	
16	34	66	37	16	37	66	40
17	34	67	37	17	37	67	41
18	34	68	37	18	37	68	41
19	34	69	37	19	37	69	41
20	34	70	37	20	38	70	41
21	34	71	37	21	38	71	41
22	34	72	38	22	38	72	41
23	34	73	38	23	38	73	41
24	35	74	38	24	38	74	41
25	35	75	38	25	38	75	41
26	35	76	38	26	38	76	41
27	35	77	39	27	38	77	41
28	35	78	39	28	38	78	41
29	35	79	39	29	39	79	41
30	35	80	39	30	39	80	42
31	35	81	39	31	39	81	42
32	35	82	39	32	39	82	42
33	35	83	39	33	39	83	42
34	35	84	39	34	39	84	42
35	35	85	39	35	39	85	42
36	35	86	40	36	39	86	42
37	35	87	40	37	39	87	42
38	35	88	40	38	39	88	43
39	35	89	40	39	39	89	43
40	35	90	40	40	39	90	43
41	35	91	40	41	39	91	43
42	35	92	40	42	40	92	43
43	35	93	40	43	40	93	43
44	36	94	40	44	40	94	44
45	36	95	41	45	40	95	44
46	36	96	41	45	40	96	44
46	36 36	96	l	46	40	96	44
			42				
48	36	98	43	48	40	98	47
49	36	99	44	49	40	99	48
50	36	100	46	FACE - DRY	40	100	50

Average Northbound (mph)	36.1	Average Southbound (mph)	39.6
Standard Deviation (mph)	3.6	Standard Deviation (mph)	3.2
85th%ile Northbound (mph)	39.7	85th%ile Southbound (mph)	42.8
And the second s	-81	At an artist to a set of the set	



Impington - Radar Speed Survey (PM)



Speed Limit



Weather

Tues 3rd May 2022

All speeds are recorded from free flowing vehicles

Dry/Cool

1300-1500

	North	bound			South	bound	
	Speeds (mph)		Speeds (mph)		Speeds (mph)		Speeds (mph)
1	21	51	37	1	26	51	40
2	23	52	37	2	29	52	40
3	25	53	37	3	30	53	40
4	25	54	37	4	32	54	40
5	28	55	37	5	33	55	40
6	31	56	37	6	34	56	40
7	32	57	37	7	34	57	40
8	32	58	37	8	35	58	40
9	32	59	38	9	35	59	40
10	33	60	38	10	35	60	40
11	34	61	38	11	36	61	40
12	34	62	38	12	36	62	40
13	34	63	38	13	37	63	40
14	34	64		14	37	64	41
15	1	65	38	15	l	65	l
	34	ı	38	l	37		41
16	34	66	38	16	37	66	41
17	34	67	38	17	37	67	41
18	34	68	38	18	37	68	41
19	35	69	38	19	37	69	41
20	35	70	39	20	38	70	41
21	35	71	39	21	38	71	41
22	35	72	39	22	38	72	41
23	35	73	39	23	38	73	41
24	35	74	39	24	38	74	41
25	35	75	39	25	38	75	41
26	35	76	39	26	38	76	41
27	35	77	39	27	38	77	41
28	35	78	39	28	38	78	41
29	35	79	39	29	38	79	41
30	35	80	39	30	38	80	41
31	35	81	39	31	38	81	41
32	35	82	39	32	38	82	41
33	35	83	39	33	38	83	41
34	36	84	39	34	38	84	41
35	36	85	39	35	38	85	41
36	36	86	39	36	39	86	42
37	36	87	39	37	39	87	42
38	36	88	39	38	39	88	42
39	36	89	40	39	39	89	42
40	36	90	40	40	39	90	42
41	36	91	42	41	39	91	42
42	36	92	42	42	39	92	42
43	36	93	42	43	39	93	43
44	36	94	42	44	39	94	43
45	36	95	43	45	39	95	43
46	36	96	43	46	39	96	43
47	36	97	43	46	39	97	43
48	1	98	44	47	40		45
	36	l	1	l	l	98	l
49	36	99	45	49	40	99	45
50	37	100	45 ROAD SUR	50	40	100	46

Average Northbound (mph)	36.6	Average Southbound (mph)	39.2
Standard Deviation (mph)	4.0	Standard Deviation (mph)	3.1
85th%ile Northbound (mph)	40.6	85th%ile Southbound (mph)	42.3
% > Speed Limit Northbound	10%	% > Speed Limit Southbound	37%

Monday 09/05/22 Page 1

Paul Basham Associates Hamble Lane Southampton Licence No: 247601

TRIP RATE CALCULATION SELECTION PARAMETERS:

Calculation Reference: AUDIT-247601-220509-0505

. ...

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED MULTI-MODAL TOTAL VEHICLES

Selected	regions	and	areas:
	I CUIUIIS	anu	aicas.

		gioris ariu arcas.	
02	SOU	TH EAST	
	ES	EAST SUSSEX	3 days
	EX	ESSEX	1 days
	KC	KENT	4 days
	SC	SURREY	1 days
03	SOU	TH WEST	
	DC	DORSET	1 days
	DV		3 days
	SM		1 days
	WL	WILTSHIRE	1 days
04		T ANGLIA	
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	2 days
	SF	SUFFOLK	2 days
05		T MIDLANDS	
	DS	DERBYSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
06		T MIDLANDS	
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
	WK	WARWICKSHIRE	1 days
07		KSHIRE & NORTH LINCOLNSHIRE	4.1
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	1 days
80		TH WEST	4 4
	CH	CHESHIRE	1 days
09	NOR		2 4
	DH	DURHAM	2 days
10	WAL		4 4
	PS	POWYS	1 days
	VG	VALE OF GLAMORGAN	1 days

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

TRICS 7.9.1 300322 B20.41 Database right of TRICS Consortium Limited, 2022. All rights reserved Monday 09/05/22

Paul Basham Associates Hamble Lane Southampton Licence No

Page 2 Licence No: 247601

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: No of Dwellings Actual Range: 10 to 432 (units:) Range Selected by User: 6 to 750 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included
Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 23/11/21

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
 10 days

 Tuesday
 4 days

 Wednesday
 8 days

 Thursday
 5 days

 Friday
 5 days

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

Selected survey types:

Manual count 32 days
Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 10 Edge of Town 22

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

Selected Location Sub Categories:

Residential Zone 31 No Sub Category 1

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

Secondary Filtering selection:

Use Class:

C3 32 days

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

Population within 500m Range:

All Surveys Included

TRICS 7.9.1 300322 B20.41 Database right of TRICS Consortium Limited, 2022. All rights reserved Monday 09/05/22

Paul Basham Associates Hamble Lane Southampton Licence No: 247601

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
5,001 to 10,000	5 days
10,001 to 15,000	12 days
15,001 to 20,000	5 days
20,001 to 25,000	6 days
25,001 to 50,000	3 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	4 days
25,001 to 50,000	1 days
	•
50,001 to 75,000	6 days
75,001 to 100,000	6 days
100,001 to 125,000	1 days
125,001 to 250,000	11 days
250,001 to 500,000	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	10 days
1.1 to 1.5	21 days
1.6 to 2.0	1 days

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

Travel Plan:

lo 32 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 32 days

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

Covid-19 Restrictions

Yes

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

TRICS 7.9.1 300322 B20.41 Database right of TRICS Consortium Limited, 2022. All rights reserved

Paul Basham Associates Hamble Lane Southampton Licence No: 247601

CAMBRIDGESHIRE

Monday 09/05/22

LIST OF SITES relevant to selection parameters

DETACHED HOUSES

EASTFIELD ROAD PETERBOROUGH

CA-03-A-05

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 28

Survey date: MONDAY 17/10/16 Survey Type: MANUAL

CH-03-A-09 **TERRACED HOUSES** CHESHIRE

GREYSTOKE ROAD MACCLESFIELD HURDSFIELD Edge of Town Residential Zone

Total No of Dwellings: 24

Survey date: MONDAY 24/11/14 Survey Type: MANUAL

DC-03-A-08 **BUNGALOWS** DORSET

HURSTDENE ROAD BOURNEMOUTH CASTLE LANE WEST Edge of Town Residential Zone

Total No of Dwellings: 28

Survey date: MONDAY 24/03/14 Survey Type: MANUAL

DH-03-A-01 **SEMI DETACHED** DURHAM

GREENFIELDS ROAD BISHOP AUCKLAND

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 50

Survey date: TUESDAY 28/03/17 Survey Type: MANUAL

DH-03-A-03 **SEMI-DETACHED & TERRACED** DURHAM

PILGRIMS WAY DURHAM

Edge of Town Residential Zone

Total No of Dwellings: 57 Survey date: FRIDAY

19/10/18 Survey Type: MANUAL **DERBYSHIRE**

DS-03-A-02 **MIXED HOUSES**

RADBOURNE LANE

DERBY

Edge of Town Residential Zone

Total No of Dwellings: 371

Survey date: TUESDAY 10/07/18 Survey Type: MANUAL

DV-03-A-01 **TERRACED HOUSES** DEVON

BRONSHILL ROAD

TORQUAY

Suburban Area (PPS6 Out of Centre)

Residentia Zone

Total No of Dwellings: 37

Survey date: WEDNESDAY 30/09/15 Survey Type: MANUAL TRICS 7.9.1 300322 B20.41 Database right of TRICS Consortium Limited, 2022. All rights reserved Monday 09/05/22

Paul Basham Associates Hamble Lane Southampton Licence No: 247601

Page 5

LIST OF SITES relevant to selection parameters (Cont.)

HOUSES & BUNGALOWS DEVON 8 DV-03-A-02

MILLHEAD ROAD HONITON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 116

Survey date: FRIDAY 25/09/15 Survey Type: MANUAL

DV-03-A-03 **TERRACED & SEMI DETACHED** DEVON

LOWER BRAND LANE

HONITON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 70

> Survey date: MONDAY 28/09/15 Survey Type: MANUAL

ES-03-A-03 **MIXED HOUSES & FLATS** 10 **EAST SUSSEX**

SHEPHAM LANE POLEGATE

Edge of Town

Residential Zone Total No of Dwellings: 212

Survey date: MONDAY 11/07/16 Survey Type: MANUAL

ES-03-A-04 **EAST SUSSEX** 11 **MIXED HOUSES & FLATS**

NEW LYDD ROAD

CAMBER

Edge of Town Residential Zone

Total No of Dwellings: 134

Survey date: FRIDAY Survey Type: MANUAL 15/07/16

12 ES-03-A-05 **MIXED HOUSES & FLATS** EAST SUSSEX

RATTLE ROAD NEAR EASTBOURNE STONE CROSS Edge of Town Residential Zone

Total No of Dwellings:

99 Survey date: WEDNESDAY 05/06/19 Survey Type: MANUAL

13 EX-03-A-03 **MIXED HOUSES ESSEX**

KESTREL GROVE RAYLEIGH

Edge of Town Residential Zone

Total No of Dwellings: 123

Survey date: MONDAY 27/09/21 Survey Type: MANUAL

MIXED HOUSES & FLATS 14 KC-03-A-03 KENT

HYTHE ROAD **ASHFORD** WILLESBOROUGH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 51

Survey date: THURSDAY 14/07/16 Survey Type: MANUAL TRICS 7.9.1 300322 B20.41 Database right of TRICS Consortium Limited, 2022. All rights reserved Monday 09/05/22

Page 6 Licence No: 247601 Paul Basham Associates Hamble Lane Southampton

LIST OF SITES relevant to selection parameters (Cont.)

KENT 15 KC-03-A-04 **SEMI-DETACHED & TERRACED**

KILN BARN ROAD AYLESFORD DITTON Edge of Town Residential Zone

Total No of Dwellings: 110

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

KC-03-A-06 **MIXED HOUSES & FLATS** 16 KFNT

MARGATE ROAD HERNE BAY

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 363

> Survey date: WEDNESDAY 27/09/17 Survey Type: MANUAL

KC-03-A-07 **MIXED HOUSES** 17 **KENT**

RECULVER ROAD

HERNE BAY Edge of Town

Residential Zone Total No of Dwellings: 288

27/09/17 Survey date: WEDNESDAY Survey Type: MANUAL 18 NE-03-A-02 **SEMI DETACHED & DETACHED** NORTH EAST LINCOLNSHIRE

HANOVER WALK SCUNTHORPE

> Edge of Town No Sub Category

Total No of Dwellings: 432

Survey date: MONDAY 12/05/14 Survey Type: MANUAL

19 NF-03-A-03 **DETACHED HOUSES** NORFOLK

HALING WAY THETFORD

Edge of Town Residential Zone Total No of Dwellings:

10

16/09/15 Survey Type: MANUAL Survey date: WEDNESDAY

20 NF-03-A-25 **MIXED HOUSES & FLATS NORFOLK**

WOODFARM LANE GORLESTON-ON-SEA

Edge of Town Residential Zone

Total No of Dwellings: 55

Survey date: TUESDAY 21/09/21 Survey Type: MANUAL **DETACHED HOUSES** NOTTINGHAMSHIRE NT-03-A-08

WIGHAY ROAD **HUCKNALL**

21

Edge of Town Residentia Zone

Total No of Dwellings: 36 Survey date: MONDAY

18/10/21 Survey Type: MANUAL **NORTH YORKSHIRE**

NY-03-A-13 22 **TERRACED HOUSES**

CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 10

> Survey date: WEDNESDAY 10/05/17 Survey Type: MANUAL

TRICS 7.9.1 300322 B20.41 Database right of TRICS Consortium Limited, 2022. All rights reserved Page 7

Paul Basham Associates Hamble Lane Southampton Licence No: 247601

LIST OF SITES relevant to selection parameters (Cont.)

23 PS-03-A-02 DETACHED/SEMI-DETACHED POWYS

GUNROG ROAD WELSHPOOL

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 28

Survey date: MONDAY 11/05/15 Survey Type: MANUAL

24 SC-03-A-04 DETACHED & TERRACED SURREY

HIGH ROAD BYFLEET

Edge of Town Residential Zone

Total No of Dwellings: 71

Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

25 SF-03-A-05 DETACHED HOUSES SUFFOLK

VALE LANE BURY ST EDMUNDS

Edge of Town Residential Zone

Total No of Dwellings: 18

Survey date: WEDNESDAY 09/09/15 Survey Type: MANUAL

26 SF-03-A-10 TERRACED & SEMI-DETACHED SUFFOLK

LOVETOFTS DRIVE

IPSWICH WHITEHOUSE Edge of Town Residential Zone

Total No of Dwellings: 149

Survey date: TUESDAY 22/06/21 Survey Type: MANUAL

27 SH-03-A-06 BUNGALOWS SHROPSHIRE

ELLESMERE ROAD SHREWSBURY

Edge of Town
Residential Zone

Total No of Dwellings: 16

Survey date: THURSDAY 22/05/14 Survey Type: MANUAL

28 SM-03-A-01 DETACHED & SEMI SOMERSET

WEMBDON ROAD BRIDGWATER NORTHFIELD Edge of Town Residential Zone

Total No of Dwellings: 33

Survey date: THURSDAY 24/09/15 Survey Type: MANUAL

29 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE

BEACONSIDE STAFFORD MARSTON GATE Edge of Town Residential Zone

Total No of Dwellings: 248

Survey date: WEDNESDAY 22/11/17 Survey Type: MANUAL
30 VG-03-A-01 SEMI-DETACHED & TERRACED VALE OF GLAMORGAN

ARTHUR STREET

BARRY

Edge of Town Residentia**l** Zone

Total No of Dwellings: 12

Survey date: MONDAY 08/05/17 Survey Type: MANUAL

TRICS 7.9.1 300322 B20.41 Database right of TRICS Consortium Limited, 2022. All rights reserved Page 8

Paul Basham Associates Hamble Lane Southampton Licence No: 247601

LIST OF SITES relevant to selection parameters (Cont.)

31 WK-03-A-04 DETACHED HOUSES WARWICKSHIRE

DALEHOUSE LANE KENILWORTH

Edge of Town Residential Zone

Total No of Dwellings: 49

Survey date: FRIDAY 27/09/19 Survey Type: MANUAL

32 WL-03-A-02 SEMI DETACHED WILTSHIRE

HEADLANDS GROVE

SWINDON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total No of Dwellings: 27

Survey date: THURSDAY 22/09/16 Survey Type: MANUAL

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

Paul Basham Associates Hamble Lane Southampton

Licence No: 247601

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.77

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
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	32	105	0.072	32	105	0.287	32	105	0.359
08:00 - 09:00	32	105	0.124	32	105	0.373	32	105	0.497
09:00 - 10:00	32	105	0.127	32	105	0.160	32	105	0.287
10:00 - 11:00	32	105	0.127	32	105	0.157	32	105	0.284
11:00 - 12:00	32	105	0.136	32	105	0.148	32	105	0.284
12:00 - 13:00	32	105	0.157	32	105	0.155	32	105	0.312
13:00 - 14:00	32	105	0.160	32	105	0.152	32	105	0.312
14:00 - 15:00	32	105	0.171	32	105	0.168	32	105	0.339
15:00 - 16:00	32	105	0.257	32	105	0.179	32	105	0.436
16:00 - 17:00	32	105	0.283	32	105	0.176	32	105	0.459
17:00 - 18:00	32	105	0.340	32	105	0.156	32	105	0.496
18:00 - 19:00	32	105	0.280	32	105	0.170	32	105	0.450
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.234			2.281			4.515

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected: 10 - 432 (units:) Survey date date range: 01/01/14 - 23/11/21

Number of weekdays (Monday-Friday): 32
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 0

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

0.088

Paul Basham Associates Hamble Lane Southampton Licence No: 247601

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

22:00 - 23:00 23:00 - 24:00

Total Rates:

ARRIVALS			DEPARTURES			TOTALS		
No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
32	105	0.006	32	105	0.008	32	105	0.014
32	105	0.004	32	105	0.006	32	105	0.010
32	105	0.002	32	105	0.002	32	105	0.004
32	105	0.001	32	105	0.002	32	105	0.003
32	105	0.002	32	105	0.004	32	105	0.006
32	105	0.004	32	105	0.003	32	105	0.007
32	105	0.003	32	105	0.001		105	0.004
32	105	0.002	32	105	0.002	32	105	0.004
32	105	0.004	32	105	0.005	32	105	0.009
	105	0.004		105	0.003		105	0.007
32	105	0.007	32	105	0.005	32	105	0.012
32	105	0.004	32	105	0.004	32	105	0.008
	32 32 32 32 32 32 32 32 32 32 32	No. Days DWELLS 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105 32 105	No. Days Ave. DWELLS Trip Rate 32 105 0.006 32 105 0.004 32 105 0.002 32 105 0.001 32 105 0.002 32 105 0.002 32 105 0.003 32 105 0.003 32 105 0.004 32 105 0.004 32 105 0.004 32 105 0.004 32 105 0.004 32 105 0.007	No. Days Ave. DWELLS Trip Rate No. Days 32 105 0.006 32 32 105 0.004 32 32 105 0.004 32 32 105 0.002 32 32 105 0.001 32 32 105 0.002 32 32 105 0.004 32 32 105 0.003 32 32 105 0.002 32 32 105 0.004 32 32 105 0.004 32 32 105 0.004 32 32 105 0.004 32 32 105 0.004 32 32 105 0.007 32	No. Days Ave. DWELLS Trip Rate No. Days Ave. DWELLS 32 105 0.006 32 105 32 105 0.004 32 105 32 105 0.004 32 105 32 105 0.001 32 105 32 105 0.001 32 105 32 105 0.002 32 105 32 105 0.004 32 105 32 105 0.003 32 105 32 105 0.004 32 105 32 105 0.004 32 105 32 105 0.004 32 105 32 105 0.004 32 105 32 105 0.004 32 105 32 105 0.004 32 105 32 105 0.004 32 105 32	No. Days Ave. DWELLS Trip Rate No. Days Ave. DWELLS Trip Rate 32 105 0.006 32 105 0.008 32 105 0.004 32 105 0.006 32 105 0.002 32 105 0.006 32 105 0.001 32 105 0.002 32 105 0.001 32 105 0.002 32 105 0.002 32 105 0.004 32 105 0.004 32 105 0.004 32 105 0.003 32 105 0.001 32 105 0.003 32 105 0.001 32 105 0.002 32 105 0.002 32 105 0.004 32 105 0.005 32 105 0.004 32 105 0.005 32 105 0.004 32	No. Days Ave. DWELLS Trip Rate No. Days Ave. DWELLS Trip Rate No. Days 32 105 0.006 32 105 0.008 32 32 105 0.004 32 105 0.006 32 32 105 0.002 32 105 0.006 32 32 105 0.002 32 105 0.006 32 32 105 0.002 32 105 0.002 32 32 105 0.001 32 105 0.002 32 32 105 0.002 32 105 0.004 32 32 105 0.004 32 105 0.003 32 32 105 0.003 32 105 0.001 32 32 105 0.002 32 105 0.001 32 32 105 0.002 32 105 0.001 32 <td>No. Days Ave. DWELLS Trip Rate No. Days Ave. DWELLS Trip Rate No. Days Ave. DWELLS 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.002 32 105 0.002 32 105 0.002 32 105 0.002 32 105 0.004 32 105 0.004 32 105 0.001 32 105 0.001 32 105 0.001</td>	No. Days Ave. DWELLS Trip Rate No. Days Ave. DWELLS Trip Rate No. Days Ave. DWELLS 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.006 32 105 0.002 32 105 0.002 32 105 0.002 32 105 0.002 32 105 0.004 32 105 0.004 32 105 0.001 32 105 0.001 32 105 0.001

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.

0.045

0.043

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.

Paul Basham Associates Hamble Lane Southampton

Licence No: 247601

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
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	32	105	0.012	32	105	0.034	32	105	0.046
08:00 - 09:00	32	105	0.030	32	105	0.086	32	105	0.116
09:00 - 10:00	32	105	0.035	32	105	0.036	32	105	0.071
10:00 - 11:00	32	105	0.030	32	105	0.043	32	105	0.073
11:00 - 12:00	32	105	0.030	32	105	0.032	32	105	0.062
12:00 - 13:00	32	105	0.030	32	105	0.027	32	105	0.057
13:00 - 14:00	32	105	0.029	32	105	0.024	32	105	0.053
14:00 - 15:00	32	105	0.032	32	105	0.041	32	105	0.073
15:00 - 16:00	32	105	0.080	32	105	0.043	32	105	0.123
16:00 - 17:00	32	105	0.055	32	105	0.029	32	105	0.084
17:00 - 18:00	32	105	0.053	32	105	0.030	32	105	0.083
18:00 - 19:00	32	105	0.032	32	105	0.036	32	105	0.068
19:00 - 20:00									
20:00 - 21:00				·					
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.448			0.461			0.909

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.

WF01BEW - Location of usual residence and place of work (OA level) ONS Crown Copyright Reserved [from Nomis on 10 May 2022]

population All usual residents ages 16 and over in employment the week before the census units Persons date 2011

currently residing in

currently	residing
ir	1

	in E02003700:					
place of work	South Cambridgeshire	Percentage				
	***		Left from Site access	Number	Right from Site Access	Number
Cambridge	2,203	47	100%	2,203		
South Cambridgeshire 006: Histon and Impington	564	12	4000/	420	100%	564
South Cambridgeshire 007: Milton Huntingdonshire	429 144	9	100% 100%	429 144		
South Cambridgeshire 017: Duxford	92	2	100%	92		
East Cambridgeshire	92 82	2 2	100% 100%	92 82		
South Cambridgeshire 011: Fulbourn South Cambridgeshire 002: Cottenham	69	1	100%	02	100%	69
South Cambridgeshire 003: Northstowe	61	1	50%	30.5	50%	30.5
South Cambridgeshire 009: Madingley South Cambridgeshire 004: Waterbeach	61 58	1	100% 100%	61 58		
South Cambridgeshire 005: Bar Hill	56	1	50%	28	50%	28
Forest Heath	55	1	100%	55		
South Cambridgeshire 015: Sawston Peterborough	44 42	1	100% 100%	44 42		
South Cambridgeshire 010: Toft	41	1	100%	41		
South Cambridgeshire 020: Cambourne	38	1	100%	38		
South Cambridgeshire 001: Willingham South Cambridgeshire 014: Harston	33 33	1	100%	33	100%	33
South Cambridgeshire 018: Melbourn	32	1	100%	32		
Uttlesford	32	1	100%	32		
South Cambridgeshire 012: Great Shelford North Hertfordshire	31 29	1	100% 100%	31 29		
St Edmundsbury	26	1	100%	26		
Westminster, City of London	26	1	100%	26		
South Cambridgeshire 016: Balsham Fenland	23 22	0	100%	23	100%	22
South Cambridgeshire 021: Papworth Everard	20	0	100%	20	100%	22
Camden	20	0	100%	20		
Central Bedfordshire East Hertfordshire	18 17	0	100% 100%	18 17		
Bedford	14	0	100%	14		
South Cambridgeshire 013: Hatley St George	12	0	100%	12		
Braintree Tower Hamlets	11 11	0	100% 100%	11 11		
Stevenage	9	0	100%	9		
South Cambridgeshire 019: Litlington	8	0	100%	8		
Luton	8	0	100%	8		
Islington Welwyn Hatfield	8 7	0	100% 100%	8 7		
King's Lynn and West Norfolk	7	0	50%	4	50%	3.5
Hackney	7	0	100%	7		
Milton Keynes South Kesteven	7 6	0	100% 100%	7 6		
Broxbourne	6	ō	100%	6		
Ipswich	6	0	100%	6		
Leeds Lambeth	5 5	0	100% 100%	5 5		
Redbridge	5	0	100%	5		
Gloucestershire	5	0	100%	5		
Mid Suffolk Barnet	4	0	100% 100%	4		
Hillingdon	4	0	100%	4		
Southwark	4	0	100%	4		
Waltham Forest The North	4	0	100% 100%	4		
Northampton	3	0	100%	3		
Harlow	3	0	100%	3		
Broadland Enfield	3	0	100% 100%	3		
Hammersmith and Fulham	3	0	100%	3		
Forest of Dean	3	0	100%	3		
Dacorum Norwich	2 2	0	100% 100%	2		
Hounslow	2	0	100%	2		
Sutton	2	0	100%	2		
Slough Windsor and Maidenhead	2 2	0	100% 100%	2		
Oxford	2	0	100%	2		
Vale of White Horse	2	0	100%	2		
Bury Knowsley	1	0	100% 100%	1		
Bradford	1	0	100%	1		
Leicester	1	0	100%	1		
Lincoln North Kesteven	1	0	100% 100%	1		
South Holland	1	0	100%	1		
Daventry	1	0	100%	1		
East Northamptonshire Kettering	1	0	100% 100%	1		
Broxtowe	1	0	100%	1		
Stafford	1	0	100%	1		
Warwick Birmingham	1	0	100% 100%	1		
Coventry	1	0	100%	1		
Wolverhampton	1	0	100%	1		
Basildon Chelmsford	1	0	100% 100%	1		
Colchester	1	0	100%	1		
Epping Forest St Albans	1	0	100% 100%	1		
St Albans Breckland	1	0	100% 100%	1		
Great Yarmouth	1	0	100%	1		
Suffolk Coastal	1	0	100%	1		
Barking and Dagenham Greenwich	1	0	100% 100%	1		
Kensington and Chelsea	1	0	100%	1		
Merton	1	0	100%	1		
Lewes Wealden	1	0	100% 100%	1		
Rushmoor	1	0	100%	1		
Thanet	1	0	100%	1		
Chichester Cornwall, Isles of Scilly	1	0	100% 100%	1		
Wiltshire	1	0	100%	1		
West Devon	1	0	100%	1		
Isle of Anglesey	1	0	100%	1		
	4,734			3,984		750

84% 16%

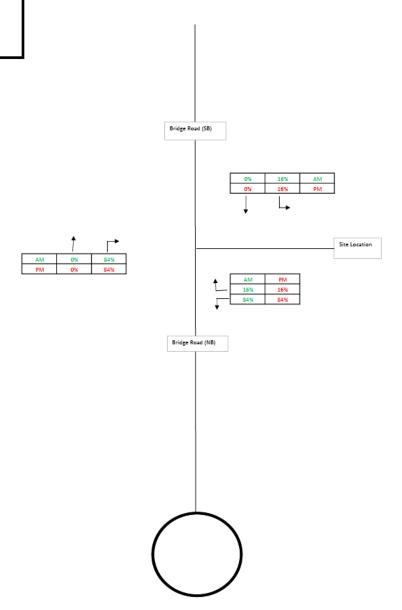


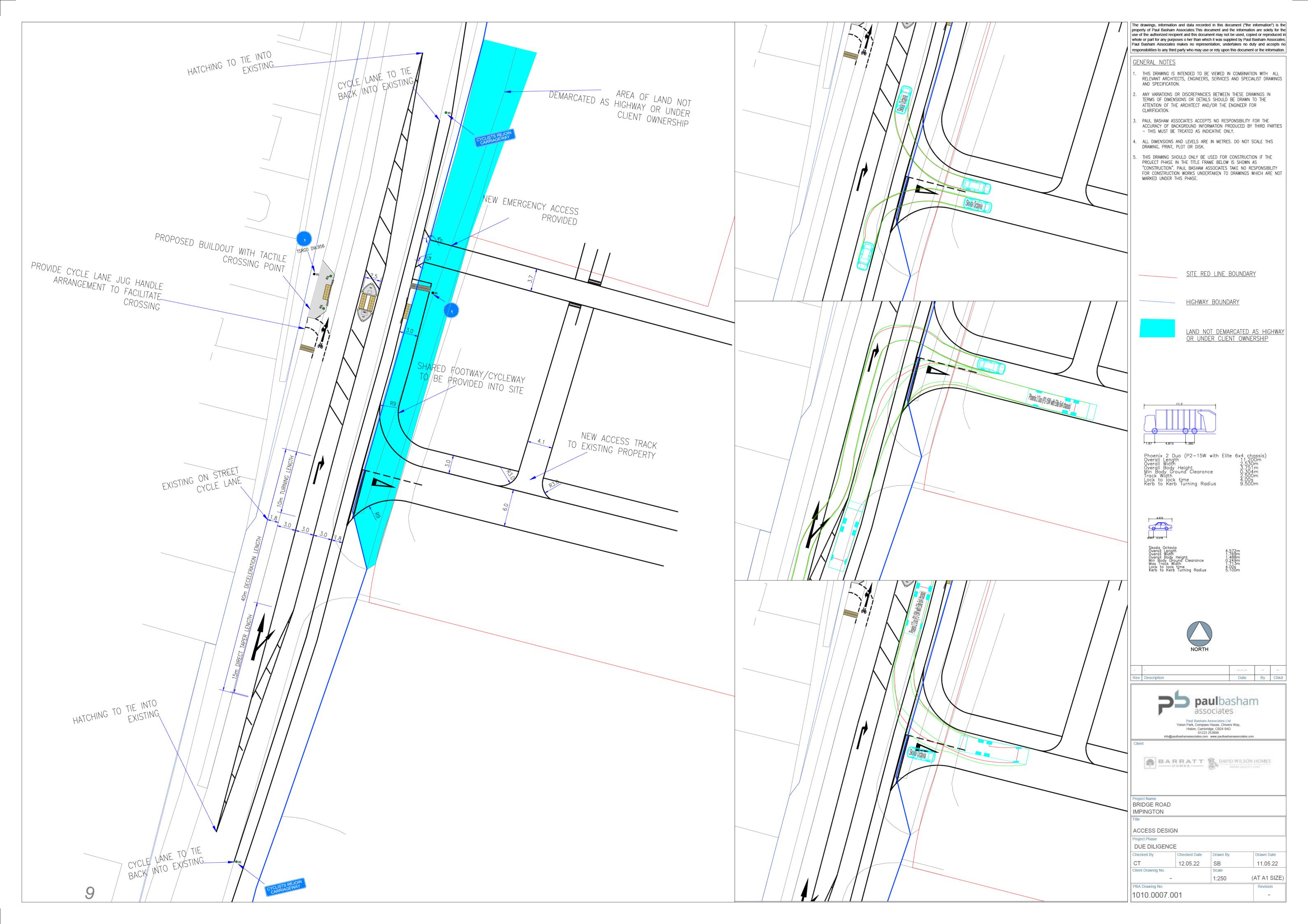
Project Name: Land at Bridge Road, Impington

Project Number: 1010.0007

Drawn By: SB Approved By:

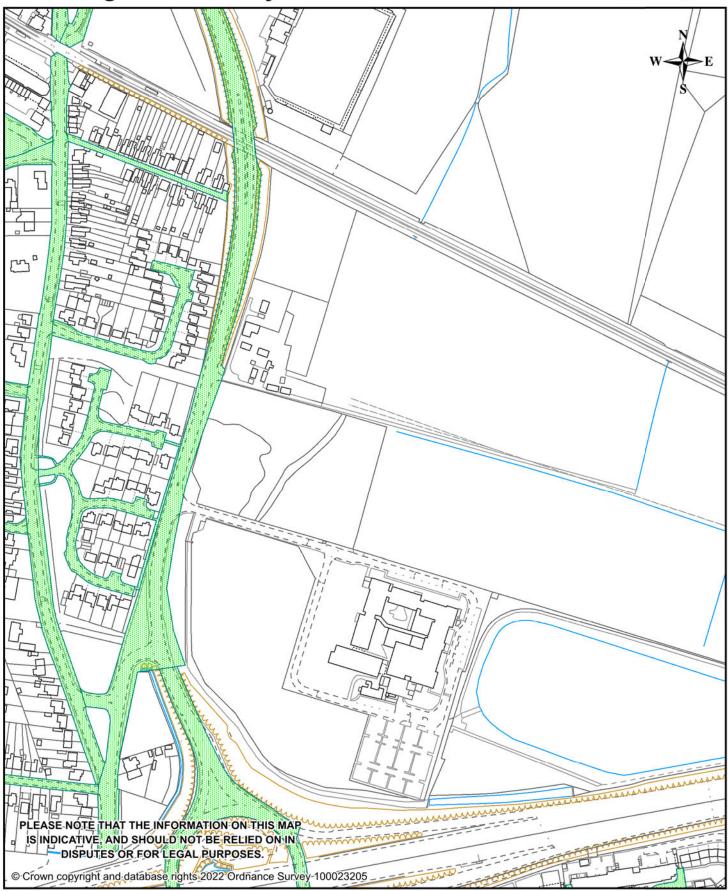
Scenario: Development Distribution Percentages





Cambridgeshire County Council





Scale: 1:3500 Date: 12/05/2022 Ref: CCC420017928 - CH

Highway boundary plans are determined using Ordnance Survey (OS) mapping at a scale of 1:1250 or 1:2500. Please refer to OS's Statement of Accuracy when comparing with a site survey

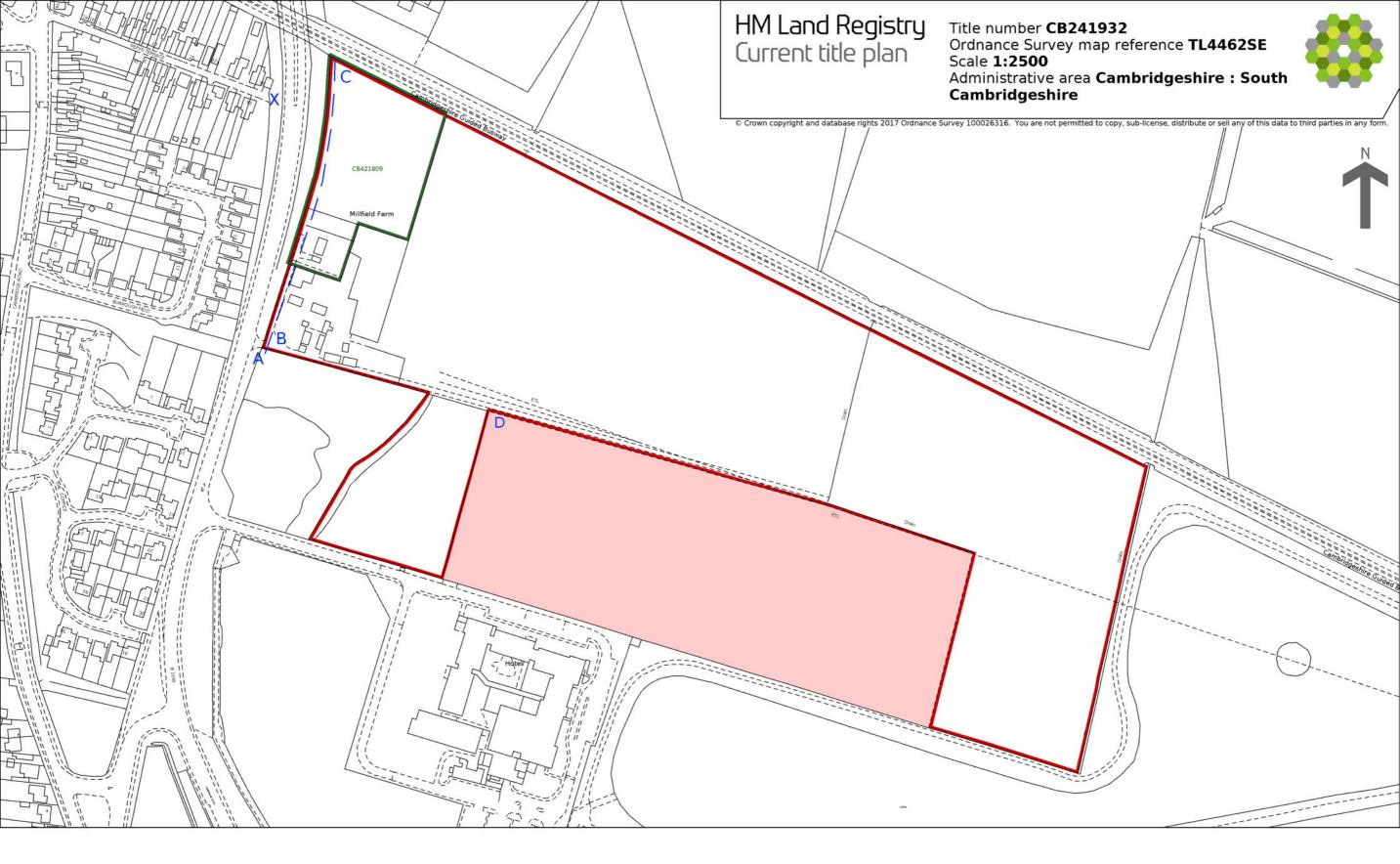
Legend

Public highway (green)

Public highway (blue)

Public highway (red)

The information shown in this search result is a depiction of the highway extent that has been investigated using the highway records available to the County Council. This research has been interpreted and displayed against current Ordnance Survey (OS) map data as accurately as possible. It is possible that the OS mapping for the area searched does not show features that typically form part of the highway boundary, such as (but not limited to) ditches, hedges, fences or embankments. Therefore, please note that owing to the tolerance of accuracy that must be applied to OS maps, the highway boundary 'on the ground' may not be in exactly the same position as the boundary features displayed by OS. If you require a site visit to determine the physical highway extent please contact searches@cambridgeshire.gov.uk. This service is provided on a cost-recoverable basis in accordance with our Schedule of Charges.



This is a print of the view of the title plan obtained from HM Land Registry showing the state of the title plan on 10 May 2022 at 13:57:37. This title plan shows the general position, not the exact line, of the boundaries. It may be subject to distortions in scale. Measurements scaled from this plan may not match measurements between the same points on the ground.

