

**BIDWELLS**

# Transport Appraisal

**Impington Lane, Histon, Cambridge**  
October 2013



Impington Lane, Histon, Cambridge  
October 2013

**BIDWELLS**

## **Quality Assurance**

Site name: Impington Lane, Histon, Cambridge

Client name:

Type of report: Transport Appraisal

Prepared by: Selina Boland

Signed

Date 19 August 2013

Reviewed / Revised by: Andrew Beard BSc(Hons) MCIHT

Signed

Date 04 October 2013

## Table of Contents

1	INTRODUCTION.....	1
	Background.....	1
2	POLICY .....	2
	Context .....	2
	National Policy .....	2
	Local Policy.....	4
3	EXISTING SITE INFORMATION.....	6
	Site Location.....	6
	Bus Accessibility .....	6
	Rail Accessibility .....	8
	Pedestrian Accessibility.....	8
	Cycle Accessibility.....	9
	Highway Safety.....	9
4	PROPOSED DEVELOPMENT .....	11
5	TRAFFIC GENERATION.....	12
	Highway Impact .....	13
6	SUMMARY AND CONCLUSIONS.....	15
	Summary .....	15
	Conclusion.....	15

## **Appendices**

### **Appendix 1**

Site Location Plan

### **Appendix 2**

Bus Based Public Transport Network

### **Appendix 3**

Cycle Network

### **Appendix 4**

Indicative Masterplan and Access Layout

### **Appendix 5**

TRICS Data

### **Appendix 6**

Traffic Survey Data

### **Appendix 7**

Network Diagrams

## 1 INTRODUCTION

### **Background**

- 1.1 Bidwells Transport Planning has been commissioned by [REDACTED] to undertake a Transport Appraisal in relation to the promotion of a residential development allocation on land to the north of Impington Lane, Histon, Cambridge.
- 1.2 The proposed allocation site lies approximately 5 kilometres north of Cambridge City Centre and comprises a disused Nursery site. The proposed allocation site covers 3.293ha.
- 1.3 This report provides an assessment of the proposed allocation site in respect of its suitability as an appropriate location in transport and accessibility terms for the purpose of residential development.
- 1.4 This report assesses the likely travel demand associated with a development of up to 74 residential units.
- 1.5 The Assessment has been informed by the requirements of Cambridgeshire County Council (the Highway Authority) and South Cambridgeshire District Council (the Planning Authority).
- 1.6 Principally, the purpose of this assessment is to demonstrate that the proposed allocation of 74 homes is deliverable in the context of both the existing and proposed transport infrastructure.

## 2 POLICY

### Context

- 2.1 The proposed allocation site is subject to national and local planning policy guidance with respect to transportation, accessibility and traffic impact upon the surrounding infrastructure.

### National Policy

- 2.2 National policy sets out the context for local planning guidance and contains specific advice regarding transportation planning and its integration with land use planning to achieve sustainable development. The principal national policy document of relevance to this proposal is:
- **National Planning Policy Framework (NPPF)**
- 2.3 The National Planning Policy Framework (NPPF) published in March 2012 supercedes all previous Planning Policy Statements (PPS) and Planning Policy Guidance (PPG) and sets out the Government's core principles for the planning system in England, identifying that the purpose of the planning system is to contribute to the achievement of sustainable development.
- 2.4 Specifically the NPPF considers that the planning system should:
- *be genuinely plan-led, empowering local people to shape their surroundings, with succinct local and neighbourhood plans setting out a positive vision for the future of the area. Plans should be kept up-to-date, and be based on joint working and co-operation to address larger than local issues. They should provide a practical framework within which decisions on planning applications can be made with a high degree of predictability and efficiency;*
  - *not simply be about scrutiny, but instead be a creative exercise in finding ways to enhance and improve the places in which people live their lives;*
  - *proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs. Every effort should be made objectively to identify and then meet the housing, business and other development needs of an area, and respond positively to wider opportunities for growth. Plans should take account of market signals, such as land prices and housing affordability, and set out a clear strategy for allocating sufficient*

*land which is suitable for development in their area, taking account of the needs of the residential and business communities;*

- *support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encourage the reuse of existing resources, including conversion of existing buildings, and encourage the use of renewable resources (for example, by the development of renewable energy);*
- *contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in the Framework;*
- *encourage the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value; and*
- *actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.*

2.5 Whilst not prescriptive, Section 4 of the NPPF with regards to transport, entitled **Promoting sustainable transport**, considers in paragraph 29 that:

*'Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives' and that 'The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel'.*

2.6 The NPPF goes on to say in paragraph 30 that:

*'In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport'.*

2.7 The NPPF advises in paragraph 32 that:

*'All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment' and that 'Plans and decisions should take account of whether:*

- *The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*

- ***Safe and suitable access to the site can be achieved for all people; and***
- ***Improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.***

2.8 Section 6 of the NPPF entitled ***Delivering a wide choice of high quality homes*** specifies that Local Planning authorities, to boost significantly the supply of local housing, should ensure that their Local Plan is updated annually to identify a supply of housing land which meets the market needs for housing over a 5 year period.

2.9 Furthermore, it is recommended that housing applications for sustainable developments should be presumed to be acceptable.

### **Local Policy**

2.10 Cambridgeshire County Council policy, with respect to transport, is embodied in the Local Transport Plan. The Council have reviewed their transport strategy as set out in their Local Transport Plan with the creation of a third Local Transport Plan (LTP3) covering the period from 2011-2026. LTP3 policy with particular relevance to the proposals for the development site is set out below.

2.11 LTP3 states that the overriding aim of both the planning and transport strategies is to protect and enhance the quality of life and quality of environment in Cambridgeshire. It sets the following objectives:

- Enabling people to thrive, achieve their potential and improve their quality of life;
- Supporting and protecting vulnerable people;
- Managing and delivering the growth and development of sustainable communities;
- Promoting improved skill levels and economic prosperity across the country helping people into jobs and encouraging enterprise; and
- Meeting the challenges of climate change and enhancing the natural environment.

2.12 The LTP3 goes on to specify user hierarchies, with priority given to pedestrians and cyclists and to emphasise the importance of planning for accessibility, particularly ensuring that the new developments are fully accessible and reach standards for access to local facilities and public transport services.

- 2.13 South Cambridgeshire District Council (SCDC) is at the time of writing currently consulting on its Proposed Submission Local Plan 2011-2031 and Community Infrastructure Levy (CIL) Preliminary Draft Charging Schedule. The Local Plan is a set of policies and land allocations that will guide the future of the district over the next 20 years and replaces the South Cambridgeshire Local Development Framework (LDF). Once adopted, all planning applications will be assessed against the policies in the Local Plan.
- 2.14 Pending the adoption of the Local Plan the following adopted local policy and guidance documents presently constitute the Development Plan for South Cambridgeshire:
- South Cambridgeshire Local Development Framework (LDF) documents incorporating Core Strategy DPD, Development Control Policies DPD and Site Specific Policies DPD.
- 2.15 The Core Strategy Development Plan Document was adopted in January 2007. It sets out a strategic framework to guide the growth of South Cambridgeshire up to the year 2016 and is one of the Development Plan Documents forming the South Cambridgeshire LDF. South Cambridgeshire has identified potential sites for future development in relation to their Site Allocations and Area Action Plan documents for the LDF.
- 2.16 **Policy ST/4 Rural Centres** of the Core Strategy (which is retained by the Proposed Submission Local Plan as Policy S/8) identifies Histon and Impington as a rural centre and states that:
- "Development and redevelopment without any limit on individual scheme size will be permitted within the village frameworks of Rural Centres, as defined on the Proposals Map, provided that adequate services, facilities and infrastructure are available or can be made available as a result of the development"***
- 2.17 The Development Control Policies Development Plan Document was adopted in July 2007 and sets out a number of transport policies within Chapter 9: Travel which provide guidance for decisions on planning applications with South Cambridgeshire. The Development Control Policies DPD will ultimately be superseded by the transport policies contained within Chapter 10: Promoting and Delivering Sustainable Transport and Infrastructure of the Proposed Submission Local Plan upon its adoption.
- 2.18 The proposals being considered and the location of the site reflect and support the aims and objectives of both existing and proposed local transport policy.

### 3 **EXISTING SITE INFORMATION**

#### **Site Location**

- 3.1 The proposal site is located to the north of Impington Lane in Histon approximately 5 kilometres north of Cambridge City Centre. Impington Lane is predominately residential in nature and forms part of a route running from the west at its signalised junction with the B1049 past the site, becoming Burgoyne's Road, Milton Road and Butt Lane before terminating at its signalised junction at the A10 approximately 3.6km to the east. A Site Location Plan is attached at **Appendix 1**.
- 3.2 The proposal site is predominately comprised of a disused Nursery site located to the rear of properties in Impington Lane and Merrington Place. The site abuts open fields to the north and east, with residential properties fronting the site in both directions from the proposed vehicular access location on Impington Lane.
- 3.3 Impington Lane is a 6.0 metre wide single carriageway, with a varied 2.0 to 3.0 metre wide street-lit footway to both sides. It is subject to a 30mph speed limit and has traffic calming by way of vertical deflection speed control measures and a 'School Safety Zone' marked by signs and amber 'Wig-Wag' lights, enforcing a 20mph speed restriction when the lights are operational. Several bus stops are located on Impington Lane adjacent to the proposal site the nearest being less than 40m west of the proposed site access junction.
- 3.4 The B1049 runs in a southerly and northerly direction approximately 270 metres west of the site access and provides the most direct route to Cambridge City Centre, which is located approximately 5 kilometres to the south via Junction 32 of the A14 which is located approximately 2 kilometres south of the site and provides onward connections to other strategic routes including the A10, A11 and the M11.

#### **Bus Accessibility**

- 3.5 The provision of bus based public transport in the area has been assessed in terms of access to routes and frequencies of services. The quality of the bus infrastructure in the area has also been assessed in respect of the provision and quality of shelters, information and seating.
- 3.6 Bus accessibility is measured by reference to the number and frequency of services available within easy walking distance of the site. Easy walking distance is considered to be up to 400m in the case of accessing bus based public transport.

3.7 Bus stops are located on Impington Lane less than 40 metres from the proposed site access. The bus stops are located on street-lit footways. Additionally, access to further bus services is available via stops located approximately 450 metres walk from the site on the B1049.

3.8 The Citi 8 route, operated by Stagecoach in Cambridge, is the principal bus service accessible from the site and provides a 20 minute frequency service from existing bus stops located on Impington Lane within easy walking distance of the site linking to the City Centre and Rail Station. The X8 service, also operated by Stagecoach in Cambridge, serves the B1049 and provides links to the City Centre, Ely, Sutton and Chatteris. **Table 3.1** provides a summary of the bus services available within close proximity of the site.

**Table 3.1 Bus Services Accessible in the Vicinity of the Proposed Allocation Site**

Service	Frequency	First Bus	Last Bus	Operator
Citi 8 Cottenham-Histon-City-Rail Station-Addenbrookes	20 min	06:05	23:25	Stagecoach in Cambridge
110 Ely-Cottenham-Histon-Impington (Thurs Only)	1 bus Thursday only	09:42	-	Freedom Travel
X8 Cambridge-Cottenham-Haddenham-Sutton-Chatteris	1 bus daily in each direction	08:01	18:21	Stagecoach in Cambridge

3.9 Bus based public transport accessibility from the site is considered reasonable with a frequent service available past the frontage of the site providing access to Cambridge City Centre, the Rail Station and Cottenham.

3.10 In addition the site is located within 1.3 kilometres or 16 minutes walk of the Histon and Impington stops on The Busway, the guided bus service linking Huntingdon and St Ives to Cambridge. **Table 3.2** provides a summary of the bus services available on The Busway from Histon and Impington.

**Table 3.2 The Busway - Services Accessible from Histon and Impington**

Service	Frequency	First Bus	Last Bus	Operator
Route A – St Ives to Cambridge	15 minutes	06:11	19:34	Stagecoach
Route B – Huntingdon to Cambridge	15 minutes	06:34	23:03	Stagecoach
Route C – St Ives to Cambridge	Hourly	06:55	17:09	Go Whippet

- 3.11 The journey time on The Busway from Histon and Impington to central Cambridge is approximately 17 minutes and to Cambridge Rail Station approximately 26 minutes. The Busway stops at Histon and Impington can also be accessed from the site via the Citi 8 bus service.
- 3.12 The bus based public transport network accessible from the site is illustrated by the route diagram contained in **Appendix 2**.

### **Rail Accessibility**

- 3.13 The nearest Rail Station to the proposed allocation site is Waterbeach, located approximately 5.8 kilometres northeast of the site. The station is managed by First Capital Connect, is unstaffed and provides a basic level of passenger facilities including passenger shelters, seating, a public telephone and automatic ticket machines. The station has charged car parking facilities for 40 vehicles and provides 12 uncovered cycle racks. Waterbeach Station provides access to services for London Kings Cross, Ely, Kings Lynn, and Cambridge.
- 3.14 Cambridge Rail Station is located approximately 6.5 kilometres south of the site and is readily accessible either by car or by bus. Cambridge Rail Station is operated by Greater Anglia and is staffed full-time, offering a range of passenger facilities and benefitting from the provision of 386 car parking spaces and has 213 cycle racks and 20 cycle lockers. This Station provides connections to Stansted Airport, Norwich, London (Kings Cross and Liverpool St), Kings Lynn, Ipswich and Birmingham. The journey time to Cambridge Rail Station by bus is approximately 35 minutes from the nearest stop on Impington Lane utilising the Citi 8 service or 26 minutes on The Busway.

### **Pedestrian Accessibility**

- 3.15 With respect to pedestrian access, a walk time of 10 minutes is generally considered the maximum acceptable to directly access any local facility or amenity and equates to a distance of approximately 800 metres.
- 3.16 There are wide well lit footways in the vicinity of the site, which provide safe and attractive direct access to a variety of education, employment and leisure facilities and amenities within an 800 metre radius from the site including Histon High Street which provides a range of local shops and services including convenience stores, banks, a Post Office, pharmacy, bakery, hair salon, pubs and restaurants.

### **Cycle Accessibility**

- 3.17 Cycle accessibility to the site has been considered in detail. The 5 kilometre catchment accessible from the proposed allocation site by bicycle incorporates a wide range of amenities within Histon and the surrounding area including:
- Education, employment, shopping and leisure facilities in northern Cambridge;
  - Villages of Cottenham, Girton and Milton;
  - Schools and nurseries;
  - Supermarkets, shops and financial services;
  - Pubs and restaurants;
  - Sports Centre;
  - Community Hospital;
  - Doctors' surgeries and dentists;
  - Pharmacies; and
  - Places of Worship.
- 3.18 The proposed allocation site has excellent opportunities for connections to the existing cycle network in Histon and Impington including National Cycle Route 51 which runs along the route of The Busway Cycleway.
- 3.19 The Histon and Impington Busway stop located approximately 1.3 kilometres south of the proposed site has provision for 40 covered cycle parking spaces and provides direct and timely access to Central Cambridge, St Ives and Huntingdon via connections for cycle trips from the site.
- 3.20 The cycle network accessible from the site is illustrated by the route diagram contained in **Appendix 3**.

### **Highway Safety**

- 3.21 Cambridgeshire County Council provide an on-line facility detailing and mapping personal injury road traffic accidents that occurred in the last five year period 2008 to 2012. This has been investigated to ascertain the number and severity of accidents in the immediate vicinity of the site access as well as at the Impington Lane / B1049 junction.

- 3.22 Two Personal Injury Accidents are recorded on Impington Lane within the study period. The first, occurring in 2009 in dry daylight conditions consisted of a collision between two pedal cyclists and was classified as 'Slight'. The second PIA, occurring in 2012 and consisting of a collision between two cars in dark wet conditions was classified as 'Serious'.
- 3.23 A total of 4 Personal Injury Accidents are recorded during the 5 year study period at the Staggered 'T' junctions of the B1049 with Impington Lane and The Green, all recorded as 'Slight'.
- 3.24 Notwithstanding the recorded PIAs on Impington Lane, the foregoing assessment identifies that the highway safety record in the vicinity of the site is generally good and that there are no prevailing highway safety concerns in respect to this proposal.

#### 4 **PROPOSED DEVELOPMENT**

4.1 The site is proposed for a sustainable residential allocation of up to 74 dwellings. An initial site investigation and access appraisal indicated that suitable access can be achieved at the existing access location as follows:

##### **Proposed Access**

4.2 A 5.5m carriageway with 2.0m footways to both sides is proposed to serve the development.

4.3 Guidance in the DfT's publication Manual for Streets specifies that radii of 4.5m at the junction would be acceptable and visibility splays of 2.4 metres by 43 metres would be required in both directions from the access as Impington Lane is subject to a 30mph speed limit past the site. There are no specific restrictions with respect to spacing of junctions however it is considered that approximately 50 metre spacing can be achieved and this is adequate for the purposes of highway safety and access capacity.

4.4 The indicative site layout and access arrangements are attached at **Appendix 4**.

4.5 A secondary access point is proposed adjacent to No 87 Impington Lane, utilising the existing private drive and serving as a cycle and pedestrian route, providing a direct link to the existing pedestrian network. The secondary access also has potential to serve as a controlled emergency vehicular access for the proposed allocation site.

## 5 TRAFFIC GENERATION

- 5.1 In order to accurately assess the impact of the proposal; the previous extant use of the site requires investigation. The proposed allocation site was formerly used by Unwins Seeds as a nursery, comprising growing fields and an 1803m<sup>2</sup> industrial type unit used for seed packing and distribution.
- 5.2 The TRICS 2013(b) database has been investigated to find a similar use to this however no Nursery sites are currently listed; therefore it is considered appropriate to utilise industrial units of a similar size to forecast the likely trip generation for the previous use. To this end **Table 5.1** illustrates the TRICS trip rate and forecast trip generation for an 1803m<sup>2</sup> industrial unit.

**Table 5.1 Industrial Unit Trip Rates & Generation**

Peak	Trip Rate per 100sqm			Trips		
	Arrival Rate	Departure Rate	2-way	Arrivals	Departs	2-way
AM Peak (08:00-09:00)	0.598	0.135	0.733	11	2	13
PM Peak (17:00-18:00)	0.052	0.621	0.673	1	11	12

- 5.3 **Table 5.1** shows that the previous use of the site is likely to have generated approximately 13 two-way trips in the AM peak and 12 two-way trips in the PM peak. In addition to this it should be noted that such a use would also have been likely to generate a number HGV trips outside of peak traffic hours. Given the residential nature of Impington Lane it is considered that a reduction in HGV traffic resulting in a change of permitted use of the proposed allocation site is beneficial.
- 5.4 In order to forecast the likely travel demand associated with a residential development allocation on the site, a detailed interrogation of the TRICS 2013 (b) trip generation database has been undertaken. Information from the TRICS database has been disaggregated by development type, size and location in order to provide a development and trip generation profile that is representative of the characteristics of the proposal site.
- 5.5 **Table 5.2** provides a summary of the TRICS trip rates and forecast trip generation for a development of 74 units as proposed.

**Table 5.2 Residential Vehicular Trip Rates & Generation**

Peak	Trip Rate per unit			Trips		
	Arrival Rate	Departure Rate	2-way	Arrivals	Departs	2-way
AM Peak (08:00-09:00)	0.152	0.393	0.545	11	29	40
PM Peak (17:00-18:00)	0.371	0.210	0.581	27	16	43

- 5.6 **Table 5.2** demonstrates that in unconstrained circumstances the forecast trip generation for an allocation of up to 74 dwellings is likely to be in the region of 40 two-way trips in the AM Peak and 43 two-way trips in the PM Peak.
- 5.7 In consideration of the net trip generation potential of the site, the difference between forecast trip generation for the proposed residential allocation and the previous/extant use of the site has been assessed. The resulting net trip generation equates to 27 two-way trips in the AM peak and 31 two-way trips in the PM peak period.
- 5.8 The trip generation set out in **Table 5.2** represents the base situation for a standalone residential development without the benefit of improvements in public transport, cycle infrastructure, travel planning schemes and measures, enhanced pedestrian infrastructure and complimentary land-use proposals and is therefore considered to represent a robust assessment of the likely traffic generation for the site.
- 5.9 The trip generation set out in **Table 5.2** is considered to represent the primary traffic generation scenario for the purposes of highway impact assessment. Nevertheless considerable opportunity exists to minimise the vehicular trip generation associated with the site through the application of measures and initiatives promoted through a site-wide Travel Plan.
- 5.10 The TRICS output data is attached at **Appendix 5**.

### **Highway Impact**

- 5.11 Traffic surveys have been undertaken to assess the existing level of traffic flow on Impington Lane and at its junction with the B1049 Water Lane to determine the baseline traffic scenario. Forecast vehicular trips for the proposed allocation site have been distributed on to the local highway network in accordance with observed traffic flow proportions. The Traffic Survey Data and Network Diagrams are included at **Appendix 6** and **Appendix 7** respectively.

- 5.12 An assessment of the likely impact of forecast traffic generation upon baseline traffic flows has been undertaken and has indicated that the proposed residential allocation would equate to a less than 2% increase in traffic in the AM peak and PM peak periods at the junction of Impington Lane with the B1049. This level of increase is negligible and falls comfortably within the expected daily variations in traffic flow. As such it is not considered to be material to the operation or safety of the junction and in view of this it is considered that further assessment of the junction is not required.
- 5.13 Forecast traffic flows on Impington Lane in the vicinity of the proposed allocation site have been assessed and indicate a 5.04% increase in two-way traffic flows in the AM Peak and 7.42% increase in two-way traffic flows in the PM Peak. Notwithstanding the forecast percentage increases in two-way traffic flows on Impington Lane it is considered that peak hour traffic flows on the highway network in the vicinity of the site are generally low and that the forecast increases are negligible in real terms, falling generally within the expected daily variation of traffic flow.
- 5.14 It is also germane to note that forecast traffic flows fall comfortably within the theoretical capacity of their respective highway links in terms of hourly traffic flow based upon the guidance contained with the Design Manual for Roads and Bridges (DMRB) Volume 5, Section 1, Part 3 TA79/99.

## 6 SUMMARY AND CONCLUSIONS

### Summary

- 6.1 This appraisal considers the promotion of a residential development allocation for up to 74 dwellings on land to the north of Impington Lane at Histon, Cambridge.
- 6.2 The site is considered to be located suitably to take advantage of existing public transport routes and services, which alongside any development proposals, would be improved to provide a suitable level of access by means other than the private car, thereby promoting a sustainable development allocation site.
- 6.3 Suitable highway access can be provided to the site in accordance with current design standards for access and can accommodate the appropriate visibility requirements.
- 6.4 A qualitative highway safety assessment has been undertaken for the highway network surrounding the site and it is considered that there are no significant prevailing highway safety concerns in relation to the proposed land use.
- 6.5 A comprehensive trip generation analysis has been undertaken in order to understand the impacts in terms of transport and traffic that the proposals will engender. A total of 40 and 43 two-way trips have been forecast for the AM and PM peaks respectively. This level of additional trip generation is not considered material in the context of current traffic volume on the highway network.
- 6.6 An assessment of the impact of the forecast traffic flows upon the highway network has been undertaken and has demonstrated that the forecast increase in traffic flows is not material in real terms, falling comfortably within the expected daily variation in traffic flow.
- 6.7 An allocation is therefore considered deliverable in the context of the accessibility of the site, the location of the site in terms of its proximity to key facilities and services and the capacity of the existing highway infrastructure.

### Conclusion

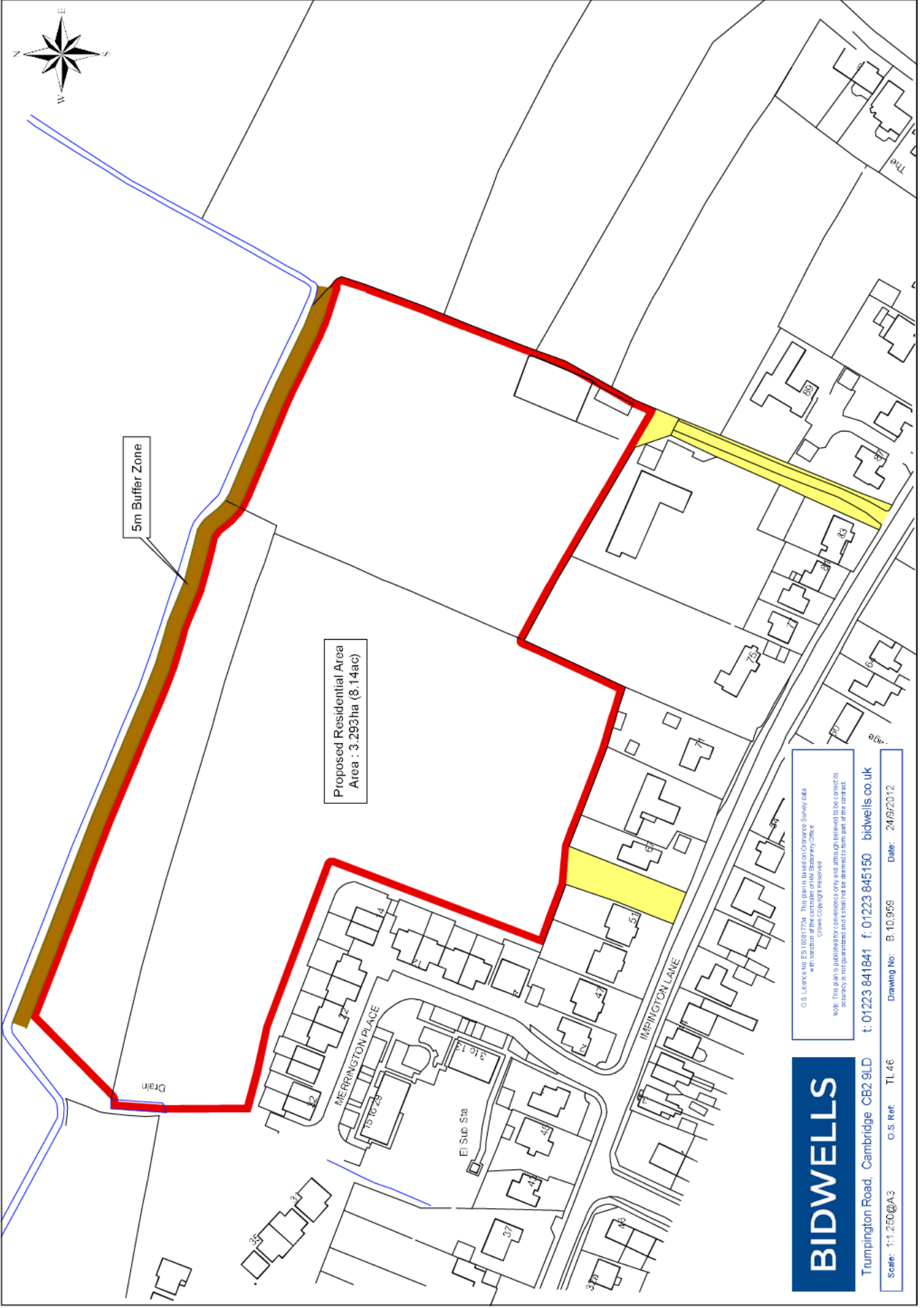
- 6.8 The foregoing appraisal demonstrates that a residential development of up to 74 dwellings can be accommodated on the proposed site without prejudicing the ability of the highway network to transport people and goods around the local and wider area.
- 6.9 In conclusion, it is considered that there are no overriding transport or highway reasons why the proposed development on land to the north of Impington Lane, Histon should not be allocated.

# Appendices

# Appendix 1

**Site Location Plan**

Land r/o 49-83 Impington Lane, Histon



Proposed Residential Area  
Area : 3.293ha (8.14ac)

5m Buffer Zone

Drain

**BIDWELLS**  
Trumpington Road, Cambridge CB2 9LD  
Scale: 1:1,250@A3 O.S. Ref: TL 46

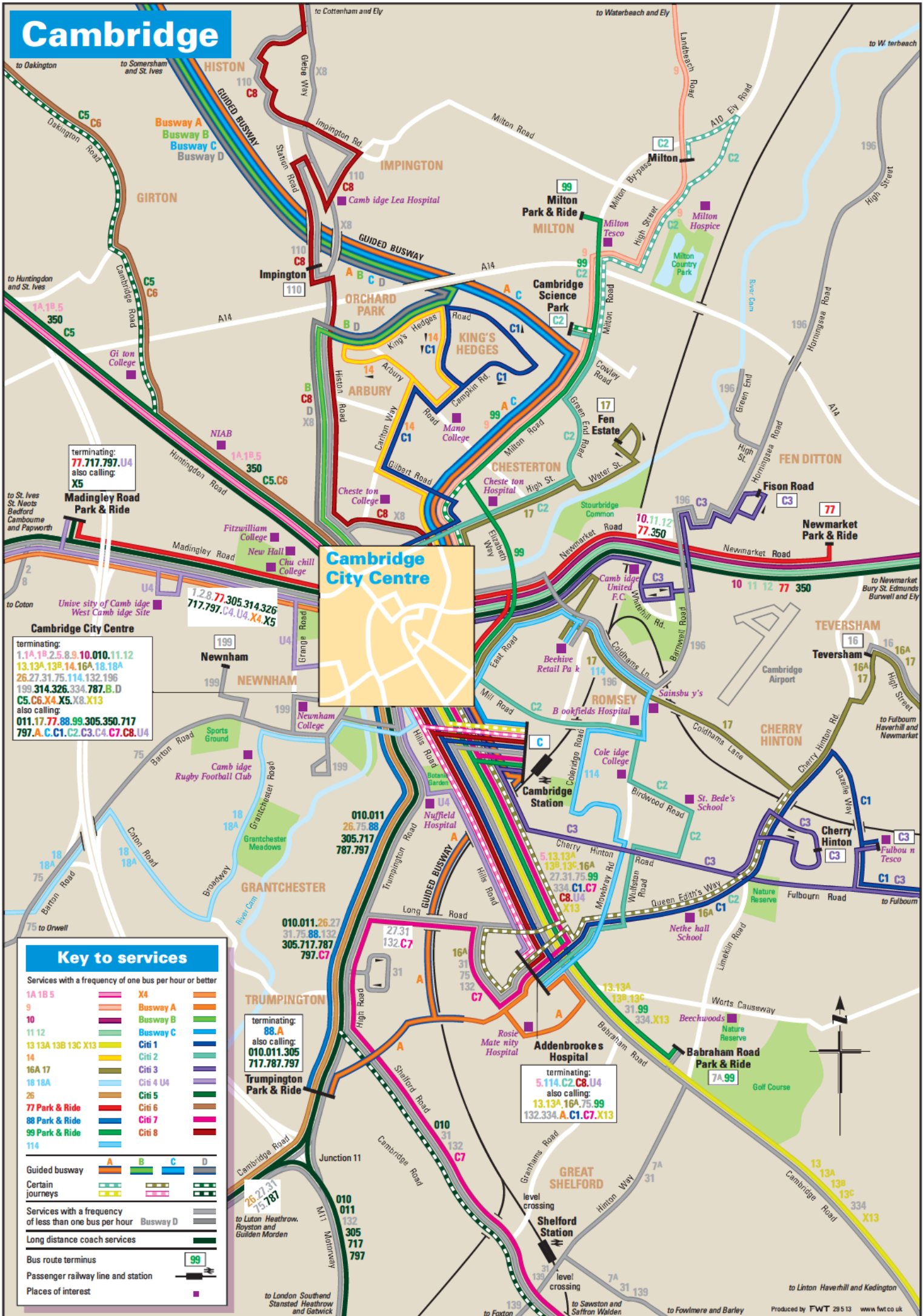
O.S. Licence No. ES 10017254. This plan is based on Ordnance Survey data with permission of the controller of Her Majesty's Stationery Office. Crown Copyright Reserved.  
Note: This plan is published for convenience only and although believed to be correct its accuracy is not guaranteed and shall not be deemed to form part of the contract.

t: 01223 841841 f: 01223 845150 bidwells.co.uk  
Drawing No. B.10.959 Date: 24/3/2012

# Appendix 2

## **Bus Based Public Transport Network**

# Cambridge



terminating:  
**77.717.797.U4**  
 also calling:  
**X5**

**Cambridge City Centre**  
 terminating:  
**1.1A.1B.2.5.8.9.10.10.11.12**  
**13.13A.13B.14.16A.18.18A**  
**26.27.31.75.114.132.196**  
**199.314.326.334.787.B.D**  
**C5.C6.X4.X5.X8.X13**  
 also calling:  
**011.17.77.88.99.305.350.717**  
**797.A.C.C1.C2.C3.C4.C7.C8.U4**

terminating:  
**88.A**  
 also calling:  
**010.011.305**  
**717.787.797**

terminating:  
**5.114.C2.C8.U4**  
 also calling:  
**13.13A.16A.75.99**  
**132.334.A.C1.C7.X13**

### Key to services

Services with a frequency of one bus per hour or better

1A 1B 5	X4
9	Busway A
10	Busway B
11 12	Busway C
13 13A 13B 13C X13	Citi 1
14	Citi 2
16A 17	Citi 3
18 18A	Citi 4 U4
26	Citi 5
77 Park & Ride	Citi 6
88 Park & Ride	Citi 7
99 Park & Ride	Citi 8
114	

Guided busway	A	B	C	D
Certain journeys				
Services with a frequency of less than one bus per hour				Busway D
Long distance coach services				
Bus route terminus				99
Passenger railway line and station				
Places of interest				



city life, citi travel



unlimited travel tickets  
use anywhere above plus to Bar Hill & Hardwick

1 day **dayrider** £3.90  
7 days **megarider** £13

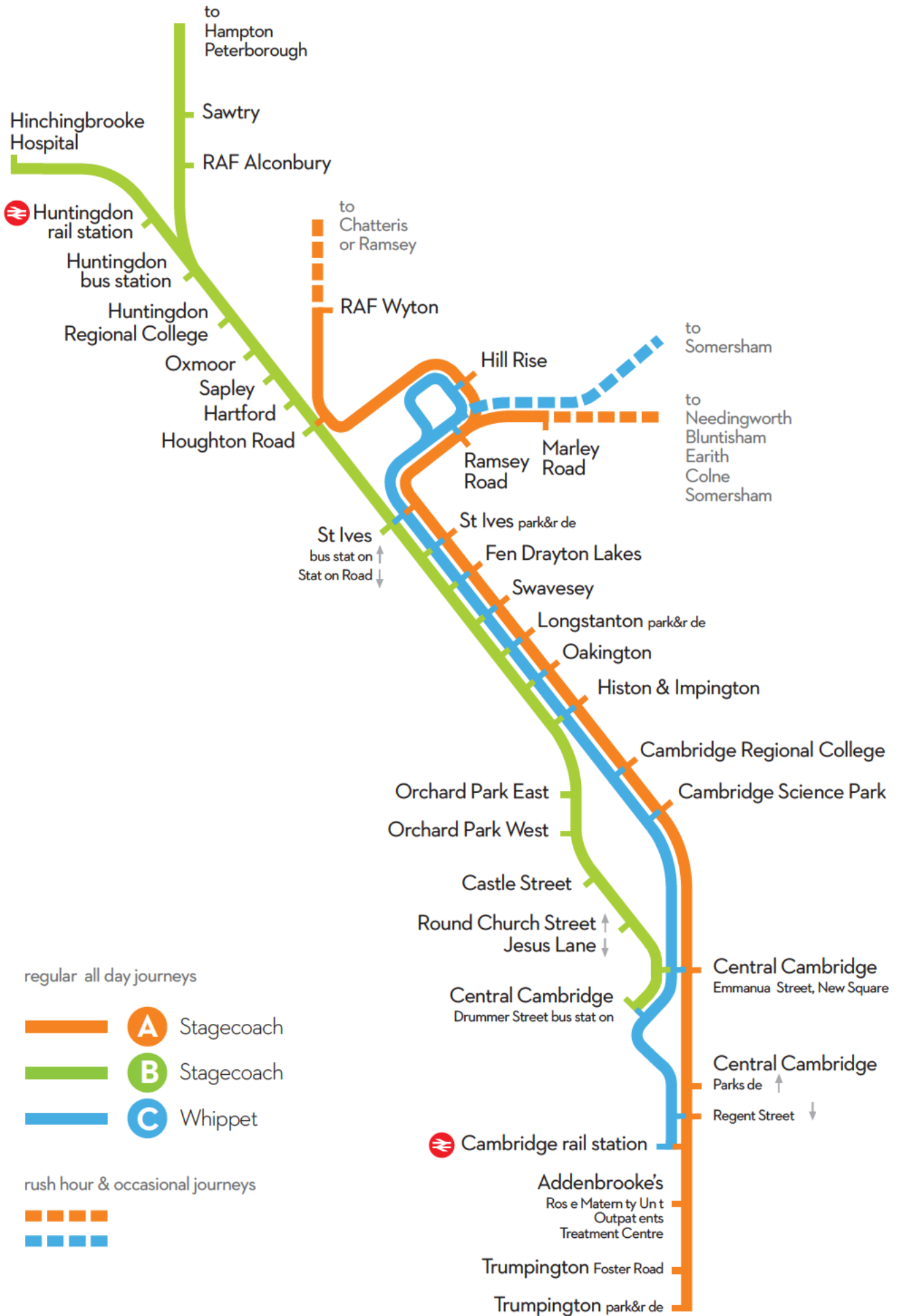
fares correct at time of print

bus times **0871 200 22 33**  
calls from landlines cost 10p per minute

fares & lost property **01223 433 250**

[www.stagecoachbus.com](http://www.stagecoachbus.com)








# the busway routes



# Appendix 3

**Cycle Network**



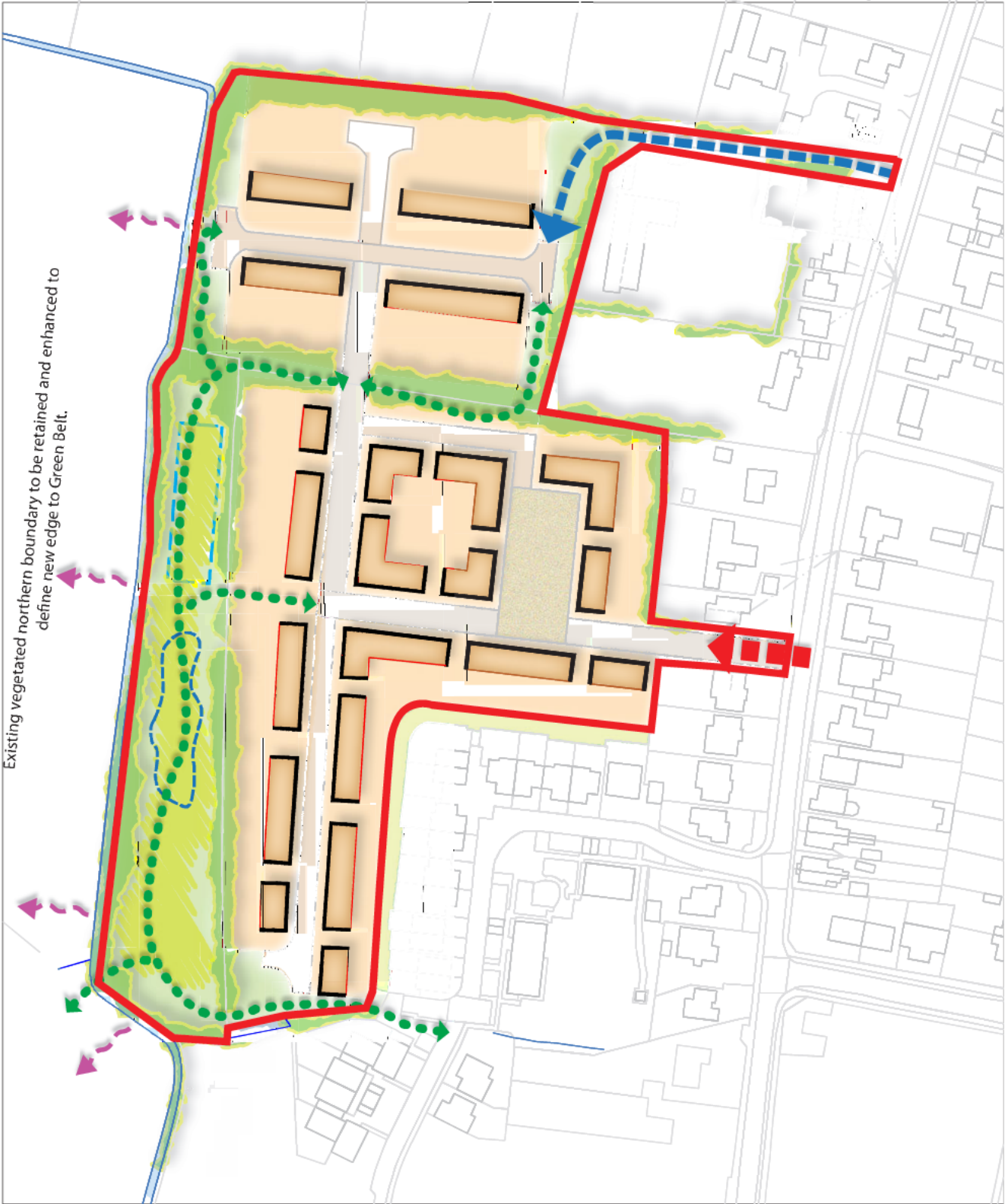
-  Signed primary network on-road / separate from traffic
-  Local links and links to villages on-road / separate from traffic
-  On-road cycle lane / Cycle and bus lane
-  Bridleway (useable when dry)
-  National Cycle Network / Sustrans' local route
-  Railway line
-  Bike shops

# Appendix 4

**Indicative Masterplan and Access Layout**



Figure 9 -  
Concept Development Framework  
Plan

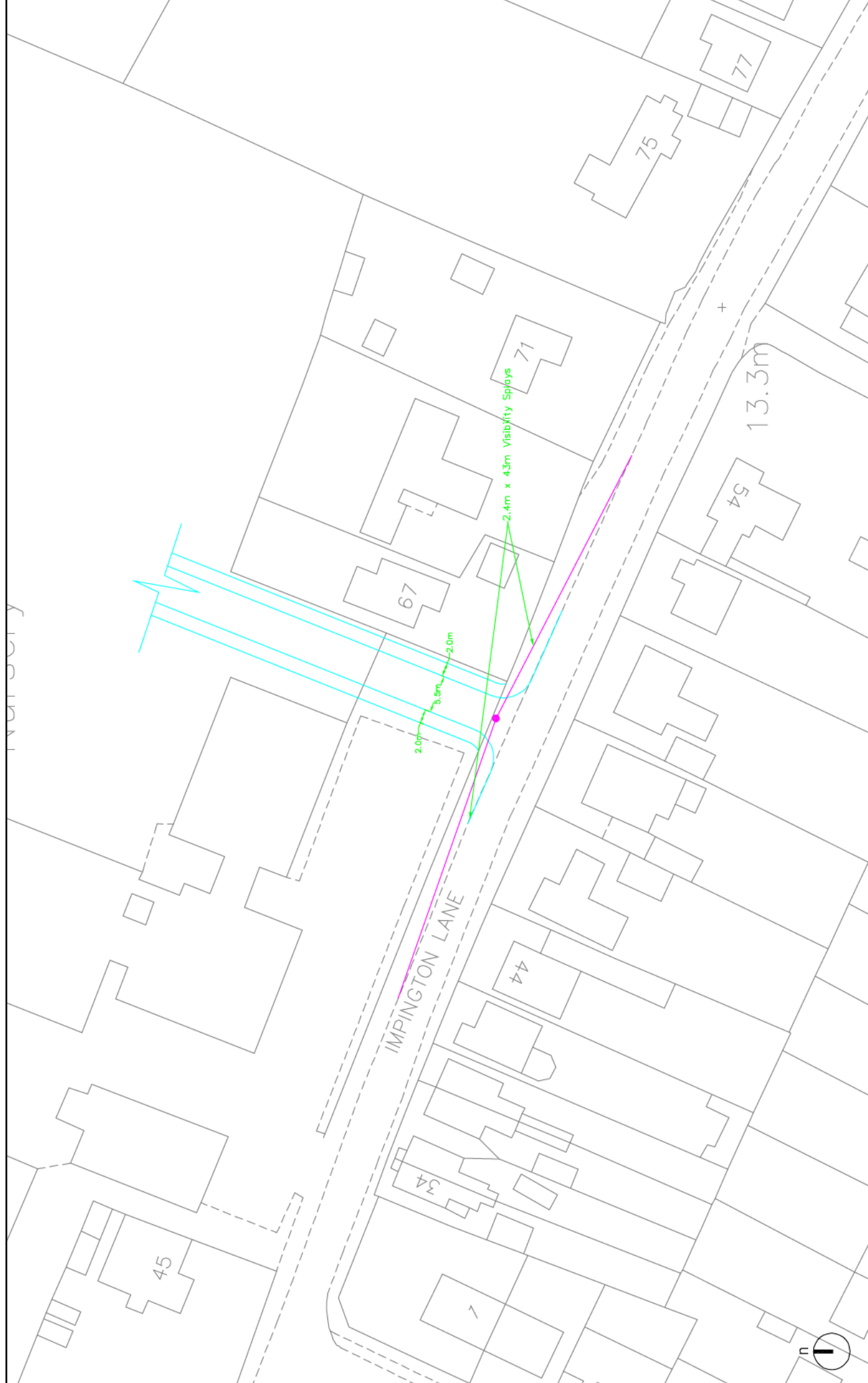


KEY

- Proposed houses
- Proposed main circulation roads
- Proposed access only roads
- Proposed central shared space
- Proposed main vehicular access
- Proposed pedestrian/cycle and emergency access
- Proposed pedestrian routes
- Framed views out of the site to be retained
- Existing and proposed significant vegetation
- Existing landscape buffer
- Existing ditch
- Proposed public green space
- Approximate position of proposed underground water storage tanks
- Approximate position of proposed storm water lagoons
- Site boundary

Existing vegetated northern boundary to be retained and enhanced to define new edge to Green Belt.





**building consultancy** 33  
 33oon House, 27 Duke Street, Cambridge CB1 1HT 01248 250986  
**CIDWELL 3**

client	Units	title	Indicative Access Arrangement
project	Impington Lane, Histon	status	-
document	Transport Planning	project ID	VR9080001
		drawing no.	TR_001

sheet: SB 25/08/12  
 client: CAJ SA 1:500  
 rev: -

**NOTES**

- Do not scale from this drawing, use figure dimensions only.
- All dimensions to be checked on site.
- All drawings to be read in conjunction with other contract documentation.
- Any discrepancies to be referred to the Contract Administrator before any work commences.


# Appendix 5

**TRICS Data**

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 02 - EMPLOYMENT  
 Category : C - INDUSTRIAL UNIT

**VEHICLES**Selected regions and areas:

<b>02 SOUTH EAST</b>		
HF	HERTFORDSHIRE	1 days
RE	READING	1 days
<b>03 SOUTH WEST</b>		
BR	BRISTOL CITY	1 days
<b>06 WEST MIDLANDS</b>		
HE	HEREFORDSHIRE	1 days
WM	WEST MIDLANDS	2 days
<b>07 YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>		
NY	NORTH YORKSHIRE	1 days
<b>09 NORTH</b>		
TW	TYNE & WEAR	1 days

**Filtering Stage 2 selection:**

Parameter: Gross floor area  
 Actual Range: 300 to 4200 (units: sqm)  
 Range Selected by User: 300 to 5000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 22/11/12

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	1 days
Thursday	4 days

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	1

Selected Location Sub Categories:

Industrial Zone	5
Commercial Zone	2
Village	1

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

B1	4 days
B2	4 days

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

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

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	3 days

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 days
1.1 to 1.5	4 days

Travel Plan:

No	8 days
----	--------



Bidwells Legg Street Chelmsford

Licence No: 343901

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

**VEHICLES****Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	8	1671	0.135	8	1671	0.022	8	1671	0.157
07:30 - 08:00	8	1671	0.262	8	1671	0.022	8	1671	0.284
08:00 - 08:30	<b>8</b>	<b>1671</b>	<b>0.299</b>	8	1671	0.060	8	1671	0.359
08:30 - 09:00	8	1671	0.299	8	1671	0.075	<b>8</b>	<b>1671</b>	<b>0.374</b>
09:00 - 09:30	8	1671	0.172	8	1671	0.090	8	1671	0.262
09:30 - 10:00	8	1671	0.150	8	1671	0.082	8	1671	0.232
10:00 - 10:30	8	1671	0.105	8	1671	0.097	8	1671	0.202
10:30 - 11:00	8	1671	0.105	8	1671	0.082	8	1671	0.187
11:00 - 11:30	8	1671	0.082	8	1671	0.060	8	1671	0.142
11:30 - 12:00	8	1671	0.082	8	1671	0.082	8	1671	0.164
12:00 - 12:30	8	1671	0.067	8	1671	0.090	8	1671	0.157
12:30 - 13:00	8	1671	0.082	8	1671	0.165	8	1671	0.247
13:00 - 13:30	8	1671	0.157	8	1671	0.112	8	1671	0.269
13:30 - 14:00	8	1671	0.187	8	1671	0.075	8	1671	0.262
14:00 - 14:30	8	1671	0.150	8	1671	0.112	8	1671	0.262
14:30 - 15:00	8	1671	0.157	8	1671	0.150	8	1671	0.307
15:00 - 15:30	8	1671	0.090	8	1671	0.157	8	1671	0.247
15:30 - 16:00	8	1671	0.165	8	1671	0.195	8	1671	0.360
16:00 - 16:30	8	1671	0.105	8	1671	0.262	8	1671	0.367
16:30 - 17:00	8	1671	0.082	8	1671	0.292	8	1671	0.374
17:00 - 17:30	8	1671	0.015	<b>8</b>	<b>1671</b>	<b>0.359</b>	8	1671	0.374
17:30 - 18:00	8	1671	0.037	8	1671	0.262	8	1671	0.299
18:00 - 18:30	8	1671	0.000	8	1671	0.082	8	1671	0.082
18:30 - 19:00	8	1671	0.000	8	1671	0.037	8	1671	0.037
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.985			3.022			6.007

**Parameter summary**

Trip rate parameter range selected:	300 - 4200 (units: sqm)
Survey date date range:	01/01/05 - 22/11/12
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 03 - RESIDENTIAL  
Category : A - HOUSES PRIVATELY OWNED

**VEHICLES**Selected regions and areas:

<b>02</b>	<b>SOUTH EAST</b>	
	ES EAST SUSSEX	1 days
<b>03</b>	<b>SOUTH WEST</b>	
	CW CORNWALL	2 days
	DC DORSET	1 days
	WL WILTSHIRE	1 days
<b>04</b>	<b>EAST ANGLIA</b>	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
	SF SUFFOLK	3 days
<b>05</b>	<b>EAST MIDLANDS</b>	
	DS DERBYSHIRE	1 days
	LE LEICESTERSHIRE	1 days
	LN LINCOLNSHIRE	1 days
<b>06</b>	<b>WEST MIDLANDS</b>	
	SH SHROPSHIRE	2 days
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	3 days
	WO WORCESTERSHIRE	2 days
<b>07</b>	<b>YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
	NY NORTH YORKSHIRE	5 days
<b>08</b>	<b>NORTH WEST</b>	
	CH CHESHIRE	2 days
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
<b>09</b>	<b>NORTH</b>	
	CB CUMBRIA	2 days

**Filtering Stage 2 selection:**

Parameter: Number of dwellings  
Actual Range: 6 to 115 (units: )  
Range Selected by User: 6 to 125 (units: )

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 23/10/12

Selected survey days:

Monday	6 days
Tuesday	12 days
Wednesday	5 days
Thursday	5 days
Friday	6 days

Selected survey types:

Manual count	34 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	18
Edge of Town	14
Neighbourhood Centre (PPS6 Local Centre)	1

Selected Location Sub Categories:

Residential Zone	27
Out of Town	1
No Sub Category	6

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

**VEHICLES****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

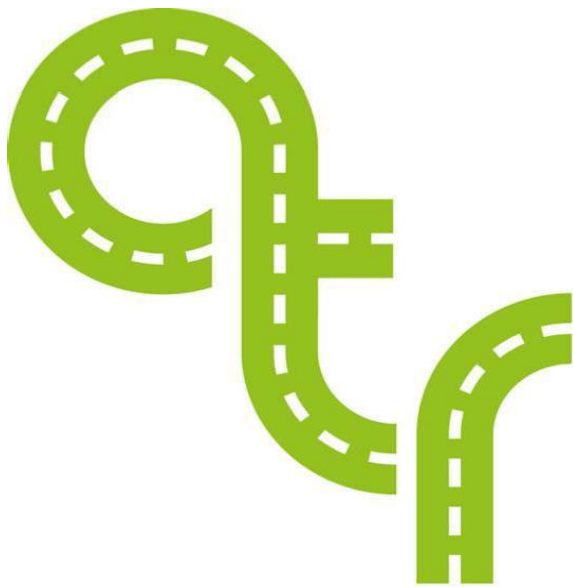
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	34	46	0.063	34	46	0.283	34	46	0.346
08:00 - 09:00	34	46	0.152	<b>34</b>	<b>46</b>	<b>0.393</b>	34	46	0.545
09:00 - 10:00	34	46	0.183	34	46	0.219	34	46	0.402
10:00 - 11:00	34	46	0.158	34	46	0.191	34	46	0.349
11:00 - 12:00	34	46	0.180	34	46	0.173	34	46	0.353
12:00 - 13:00	34	46	0.207	34	46	0.167	34	46	0.374
13:00 - 14:00	34	46	0.184	34	46	0.177	34	46	0.361
14:00 - 15:00	34	46	0.190	34	46	0.200	34	46	0.390
15:00 - 16:00	34	46	0.261	34	46	0.206	34	46	0.467
16:00 - 17:00	34	46	0.330	34	46	0.195	34	46	0.525
17:00 - 18:00	<b>34</b>	<b>46</b>	<b>0.371</b>	34	46	0.210	<b>34</b>	<b>46</b>	<b>0.581</b>
18:00 - 19:00	34	46	0.251	34	46	0.179	34	46	0.430
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.530			2.593			5.123

**Parameter summary**

Trip rate parameter range selected: 6 - 115 (units: )  
 Survey date date range: 01/01/05 - 23/10/12  
 Number of weekdays (Monday-Friday): 34  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 1

# Appendix 6

**Traffic Survey Data**



# advanced transport research

*Job Number & Name:* 3375 Histon

*Site Number/Name:* Site 1 - Water Lane/Impington Lane

*Client:* Bidwells

*Date:* 10/07/2012

*Weather:* Cloudy, Wet

*Comments:* None

**Advanced Transport Research**

**Site 1 - Water Lane/Impington Lane**

**Site Plan**

**Job Number & Name:**

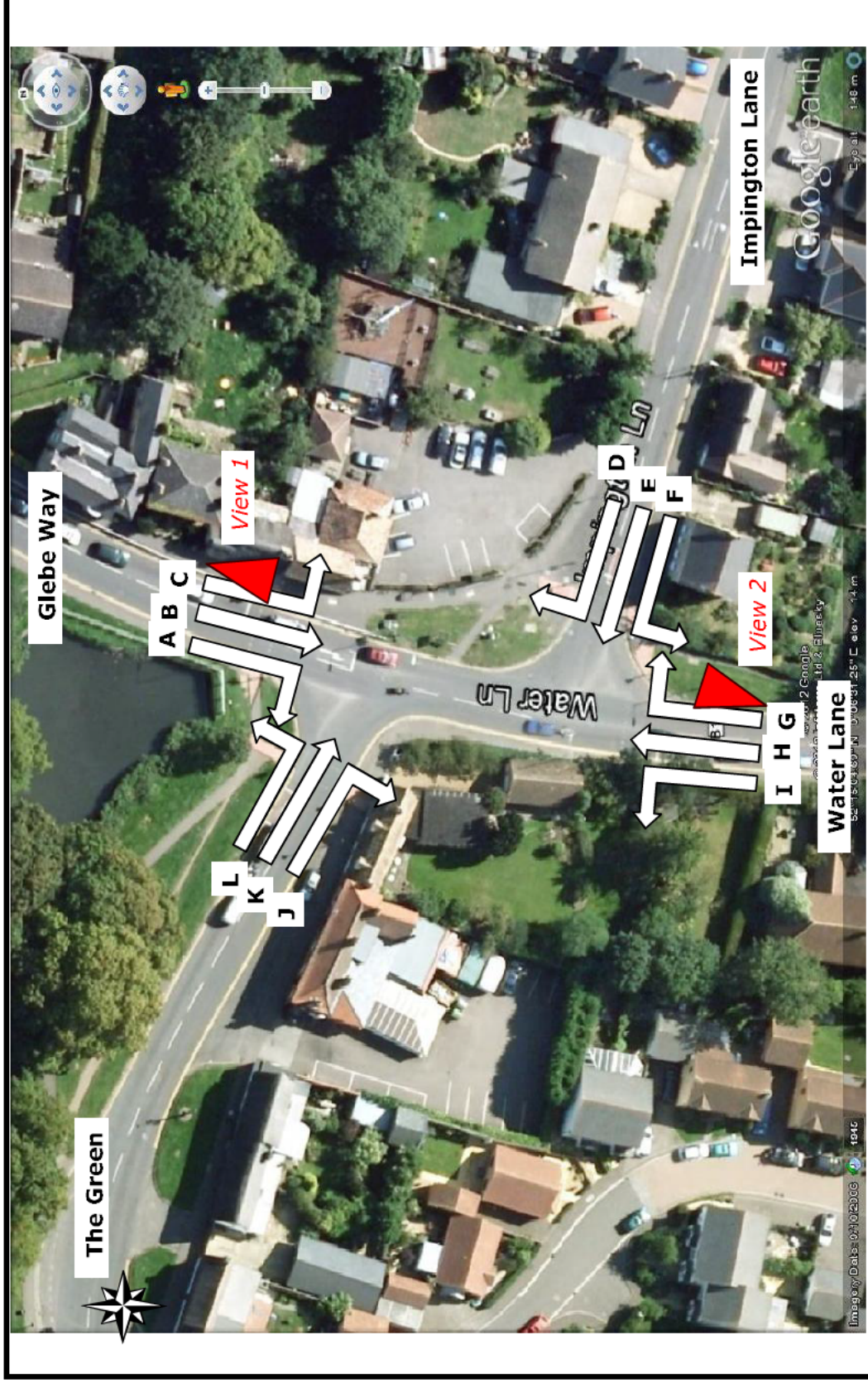
**Client:**

**Date:**

**3375 Histon**

**Bidwells**

**Tuesday 10 Jul 2012**



Times	Movement A							Movement B							Movement C						
	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc
07 00 - 07 15	2	0	0	0	0	0	0	107	16	3	0	0	2	4	5	3	0	0	0	0	0
07 15 - 07 30	2	0	0	0	0	0	1	118	21	4	0	0	0	9	5	3	0	0	0	0	0
07 30 - 07 45	5	0	1	0	0	0	0	167	23	3	1	0	3	9	7	1	2	0	0	0	0
07 45 - 08 00	3	3	0	0	0	1	1	93	17	1	1	0	4	10	12	2	0	0	0	0	0
<b>Hourly Total</b>	<b>12</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>485</b>	<b>77</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>9</b>	<b>32</b>	<b>29</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
08 00 - 08 15	5	0	0	0	0	0	0	169	14	4	2	3	3	17	13	0	0	0	1	0	0
08 15 - 08 30	2	0	0	0	0	0	0	113	16	5	0	1	2	19	29	1	0	0	0	0	3
08 30 - 08 45	7	2	0	0	0	0	0	93	5	2	0	1	3	2	34	0	1	0	0	1	0
08 45 - 09 00	2	0	0	0	0	0	2	86	8	1	0	2	1	5	14	0	0	0	0	0	2
<b>Hourly Total</b>	<b>16</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>461</b>	<b>43</b>	<b>12</b>	<b>2</b>	<b>7</b>	<b>9</b>	<b>43</b>	<b>90</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>
09 00 - 09 15	11	4	0	0	0	0	1	109	8	1	2	0	1	6	23	3	2	1	0	1	0
09 15 - 09 30	9	0	0	0	0	0	0	129	10	4	1	0	2	8	11	0	1	0	0	0	0
09 30 - 09 45	9	1	0	0	0	0	0	84	8	0	1	0	2	1	11	0	2	0	0	0	0
09 45 - 10 00	7	2	1	0	0	0	0	61	9	7	1	0	0	6	19	1	0	0	0	0	0
<b>Hourly Total</b>	<b>36</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>383</b>	<b>35</b>	<b>12</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>21</b>	<b>64</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>

16 00 - 16 15	7	0	1	0	0	0	0	47	3	0	0	0	0	0	5	1	0	0	0	0	0
16 15 - 16 30	5	1	0	0	0	0	0	53	6	4	0	0	0	1	9	1	0	0	0	0	0
16 30 - 16 45	11	0	0	0	0	0	0	56	6	2	2	0	0	0	12	0	0	0	0	1	0
16 45 - 17 00	7	0	0	0	0	0	0	44	6	1	1	0	2	0	12	2	0	0	0	0	0
<b>Hourly Total</b>	<b>30</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>21</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>38</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
17 00 - 17 15	3	0	0	0	0	0	0	49	4	1	0	0	0	0	4	1	0	0	0	0	0
17 15 - 17 30	6	0	0	0	0	0	0	45	5	2	0	0	0	1	6	0	0	0	0	0	0
17 30 - 17 45	12	1	0	0	0	1	0	54	4	0	0	0	1	1	8	0	0	0	0	1	0
17 45 - 18 00	9	0	0	0	0	0	1	69	10	1	0	0	1	2	7	2	0	0	0	0	0
<b>Hourly Total</b>	<b>30</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>217</b>	<b>23</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>25</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
18 00 - 18 15	2	2	0	0	0	0	0	51	3	1	0	0	1	1	14	1	0	0	0	0	0
18 15 - 18 30	6	0	0	0	0	0	0	48	5	0	0	0	1	3	10	0	0	0	0	0	0
18 30 - 18 45	8	1	0	0	0	0	1	52	10	0	0	0	0	1	12	0	0	0	0	0	0
18 45 - 19 00	4	2	0	0	0	0	1	42	5	0	0	1	3	2	4	0	0	0	0	2	0
<b>Hourly Total</b>	<b>20</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>193</b>	<b>23</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>7</b>	<b>40</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>

Times	Movement D							Movement E							Movement F						
	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc
07 00 - 07 15	1	0	0	0	0	0	0	2	0	2	0	0	0	3	0	0	0	0	0	0	0
07 15 - 07 30	2	0	0	0	0	0	0	7	0	0	0	0	0	2	3	0	0	0	0	0	0
07 30 - 07 45	4	0	0	0	0	0	0	7	1	0	0	1	0	7	2	0	0	0	0	0	0
07 45 - 08 00	3	1	0	0	0	0	0	6	2	0	0	1	0	3	0	0	0	0	0	0	0
<b>Hourly Total</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>15</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
08 00 - 08 15	6	0	0	0	0	0	0	11	2	1	0	0	0	13	1	0	0	0	0	0	0
08 15 - 08 30	2	0	0	0	0	0	0	19	2	2	0	0	2	5	2	1	0	0	0	0	0
08 30 - 08 45	7	1	0	0	0	0	0	23	0	0	0	0	1	7	0	0	0	0	0	0	2
08 45 - 09 00	4	1	0	0	1	0	0	20	1	0	0	0	2	9	0	0	0	0	0	0	0
<b>Hourly Total</b>	<b>19</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>73</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>34</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
09 00 - 09 15	5	0	0	0	0	0	0	15	1	0	0	1	1	6	1	0	0	0	0	0	0
09 15 - 09 30	4	1	0	0	0	0	0	17	0	0	0	1	0	5	1	2	0	0	0	0	0
09 30 - 09 45	4	1	1	0	0	0	0	11	2	0	0	0	1	8	2	1	0	0	0	0	0
09 45 - 10 00	5	1	0	0	0	0	0	12	0	1	0	1	0	7	1	0	0	0	0	0	0
<b>Hourly Total</b>	<b>18</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>26</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

16 00 - 16 15	2	0	0	0	0	0	0	8	1	0	0	0	4	2	0	0	0	0	0	0	0
16 15 - 16 30	9	1	0	0	0	0	0	12	2	0	0	0	3	9	3	0	0	0	0	0	0
16 30 - 16 45	9	2	0	0	0	0	0	22	2	1	0	1	0	3	2	0	0	0	0	0	1
16 45 - 17 00	12	3	0	0	0	0	0	22	1	1	0	1	1	7	0	0	0	0	0	0	0
<b>Hourly Total</b>	<b>32</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>7</b>	<b>21</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
17 00 - 17 15	8	0	0	0	0	1	0	17	1	0	0	0	0	3	0	0	0	0	0	0	0
17 15 - 17 30	15	1	0	0	0	0	0	19	1	0	0	0	1	2	11	0	0	0	0	0	0
17 30 - 17 45	18	1	0	0	0	0	0	28	2	0	0	1	0	5	0	0	0	0	0	0	0
17 45 - 18 00	12	1	0	0	0	0	0	21	0	0	0	1	0	4	0	0	0	0	0	0	0
<b>Hourly Total</b>	<b>53</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>85</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>23</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
18 00 - 18 15	14	1	0	0	0	1	2	16	3	0	0	0	6	9	0	0	0	0	0	0	0
18 15 - 18 30	16	1	0	0	0	0	0	27	1	0	0	1	1	2	0	0	0	0	0	0	0
18 30 - 18 45	8	1	0	0	0	0	1	23	1	0	0	2	2	7	0	0	0	0	0	0	0
18 45 - 19 00	13	0	0	0	0	0	0	25	0	0	0	0	3	5	1	0	0	0	0	0	0
<b>Hourly Total</b>	<b>51</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>91</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>12</b>	<b>23</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Times	Movement G							Movement H							Movement I						
	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc
07 00 - 07 15	1	2	0	0	0	0	0	16	6	1	0	1	0	1	5	1	0	0	0	1	0
07 15 - 07 30	5	0	0	0	0	0	0	17	7	1	2	1	1	0	14	2	0	1	0	0	0
07 30 - 07 45	5	0	0	0	0	0	0	32	8	7	0	0	0	2	9	3	0	0	0	0	1
07 45 - 08 00	1	0	0	0	0	0	0	16	6	0	0	0	0	0	14	4	2	0	0	0	0
<b>Hourly Total</b>	<b>12</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>81</b>	<b>27</b>	<b>9</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>42</b>	<b>10</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>
08 00 - 08 15	3	1	0	0	0	0	0	40	7	2	0	0	1	0	28	2	2	0	0	0	0
08 15 - 08 30	3	1	0	0	0	0	0	33	5	1	0	0	0	0	21	7	0	0	0	1	0
08 30 - 08 45	4	2	0	0	0	2	0	38	7	0	1	0	0	2	35	3	2	1	0	0	1
08 45 - 09 00	5	1	0	0	0	0	0	20	2	3	0	0	2	1	26	0	1	1	0	1	2
<b>Hourly Total</b>	<b>15</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>131</b>	<b>21</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>110</b>	<b>12</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>3</b>
09 00 - 09 15	12	0	0	0	0	0	0	30	9	4	0	0	0	1	17	5	1	0	0	0	0
09 15 - 09 30	6	0	0	0	0	0	0	31	7	4	0	0	0	0	22	2	1	0	0	0	2
09 30 - 09 45	1	0	0	0	0	0	0	32	4	0	0	0	0	1	15	7	1	0	0	0	0
09 45 - 10 00	1	1	0	0	0	0	0	38	6	3	1	0	0	1	22	3	2	0	0	0	1
<b>Hourly Total</b>	<b>20</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>131</b>	<b>26</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>76</b>	<b>17</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>

16 00 - 16 15	4	1	0	0	0	0	0	79	8	0	0	0	0	0	23	2	1	0	0	1	2
16 15 - 16 30	3	0	0	0	0	0	1	83	11	1	0	0	1	1	21	2	0	0	0	0	1
16 30 - 16 45	4	1	0	0	0	0	0	116	11	0	1	0	2	4	32	4	0	0	0	0	0
16 45 - 17 00	2	0	0	0	0	0	0	111	23	3	0	0	2	5	38	1	0	0	0	0	0
<b>Hourly Total</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>389</b>	<b>53</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>10</b>	<b>114</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>
17 00 - 17 15	5	0	0	0	0	0	0	115	11	0	0	0	3	2	28	4	0	0	0	0	0
17 15 - 17 30	3	1	0	0	0	0	0	116	8	0	1	0	2	6	19	3	0	0	1	0	2
17 30 - 17 45	6	0	0	0	0	0	0	142	11	1	0	0	3	8	33	4	1	0	0	1	0
17 45 - 18 00	4	0	0	0	0	0	0	157	7	0	0	0	5	13	31	1	0	0	0	1	1
<b>Hourly Total</b>	<b>18</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>530</b>	<b>37</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>13</b>	<b>29</b>	<b>111</b>	<b>12</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
18 00 - 18 15	6	1	0	0	0	0	0	88	6	0	0	0	1	7	19	1	1	0	1	1	0
18 15 - 18 30	2	1	0	0	0	0	0	94	7	0	0	1	3	15	29	2	0	0	0	0	0
18 30 - 18 45	0	0	0	0	0	0	0	89	8	0	0	0	1	6	32	3	0	0	0	0	2
18 45 - 19 00	1	0	0	0	0	0	0	61	2	0	0	0	1	2	23	0	0	0	0	0	1
<b>Hourly Total</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>332</b>	<b>23</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>30</b>	<b>103</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>

Times	Movement J							Movement K							Movement L							
	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	Cars	LGV	OGV1	OGV2	PSV	M/B	Cyc	
07 00 - 07 15	13	6	0	0	0	0	0	8	1	0	0	1	0	0	0	0	0	0	0	0	0	0
07 15 - 07 30	24	2	0	0	0	0	0	5	2	0	0	1	0	0	3	0	0	0	0	0	0	0
07 30 - 07 45	35	2	0	0	0	0	0	7	1	0	0	1	0	0	3	1	0	0	0	0	0	0
07 45 - 08 00	15	1	1	1	0	1	2	9	2	0	0	0	0	0	3	0	0	0	0	0	0	0
<b>Hourly Total</b>	<b>87</b>	<b>11</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>29</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
08 00 - 08 15	18	2	0	0	0	0	2	17	0	0	0	1	0	0	2	0	1	0	0	0	0	0
08 15 - 08 30	28	2	0	0	1	1	0	23	1	1	0	1	0	4	3	2	0	0	0	0	0	0
08 30 - 08 45	13	0	0	0	0	0	1	32	1	0	1	0	0	3	3	3	0	0	0	0	0	0
08 45 - 09 00	15	1	0	0	0	0	1	18	2	0	0	1	1	1	2	0	0	0	0	0	0	0
<b>Hourly Total</b>	<b>74</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>90</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>8</b>	<b>10</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
09 00 - 09 15	18	2	1	0	0	0	0	21	3	0	0	1	1	2	4	0	0	0	0	0	0	0
09 15 - 09 30	25	2	0	0	0	1	1	17	0	0	0	0	0	0	4	0	0	0	0	0	0	1
09 30 - 09 45	36	5	2	0	0	0	0	13	3	1	0	1	0	0	9	2	1	0	0	0	0	0
09 45 - 10 00	17	2	2	1	0	0	0	7	2	0	0	0	2	2	7	2	1	0	0	0	0	0
<b>Hourly Total</b>	<b>96</b>	<b>11</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>58</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>24</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

16 00 - 16 15	14	0	0	0	0	0	0	12	2	0	0	0	0	0	4	0	0	0	0	0	0	0
16 15 - 16 30	18	7	1	0	0	0	0	16	0	0	0	1	0	0	9	1	0	0	0	0	0	0
16 30 - 16 45	20	4	2	0	0	0	1	19	2	0	0	1	0	2	7	1	0	0	0	0	0	0
16 45 - 17 00	12	1	0	0	0	0	2	14	3	0	0	0	0	0	9	0	0	0	0	0	1	0
<b>Hourly Total</b>	<b>64</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>61</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>29</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
17 00 - 17 15	17	1	0	0	0	0	1	10	2	0	0	0	0	0	10	0	1	0	0	0	1	0
17 15 - 17 30	11	0	0	0	0	0	0	14	0	0	0	1	0	0	10	2	0	0	0	0	0	0
17 30 - 17 45	23	1	0	0	0	0	1	17	0	0	0	1	0	0	9	1	0	0	0	0	0	0
17 45 - 18 00	23	2	0	0	0	0	1	13	1	0	0	0	0	0	14	1	0	0	0	0	0	0
<b>Hourly Total</b>	<b>74</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>54</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
18 00 - 18 15	21	1	1	0	0	0	0	20	1	0	0	1	0	0	9	0	1	0	0	0	0	0
18 15 - 18 30	17	2	0	0	0	0	0	16	1	0	0	1	2	2	11	0	0	0	0	0	0	0
18 30 - 18 45	25	2	0	0	0	0	1	25	1	0	0	0	0	0	18	3	0	0	0	0	0	0
18 45 - 19 00	18	2	0	0	0	0	0	13	0	0	0	0	0	0	11	0	0	0	0	0	0	1
<b>Hourly Total</b>	<b>81</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>74</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>49</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

# Appendix 7

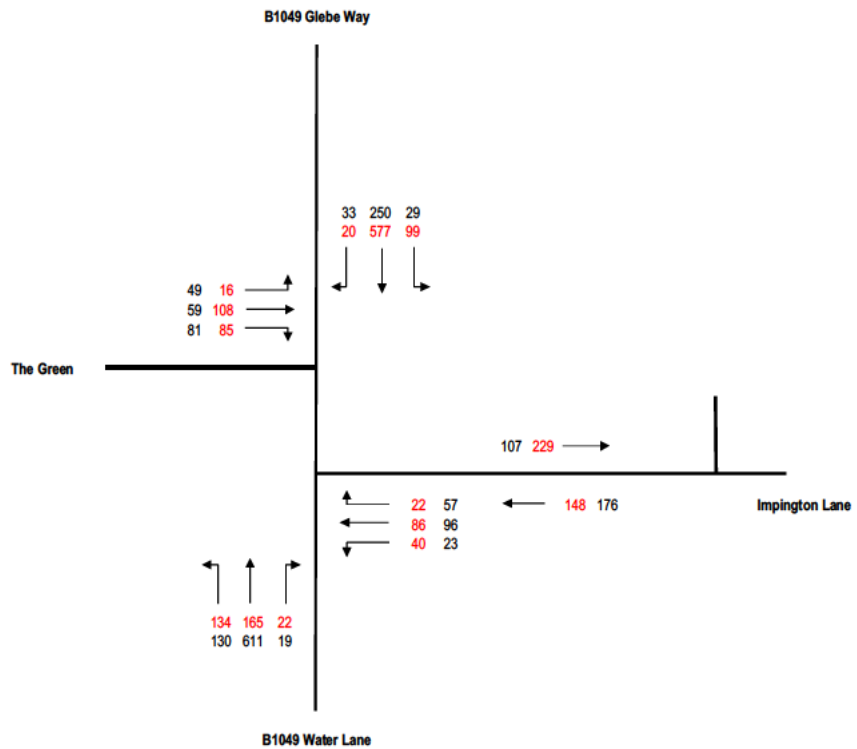
**Network Diagrams**

**Impington Lane, Histon**

**Observed Traffic Flows 10 July 2012**

**250** AM Peak (08 00-09 00)  
**250** PM Peak (17 00-18 00)

NB: All flows in vehicles



DRAWING TITLE

**Peak Hour Observed Traffic Movements (Vehicles)**

PROJECT TITLE

**Impington Lane, Histon**

DRAWN BY

APB

DATE

August 2013

SCALE

NTS

REF

Appendix 7

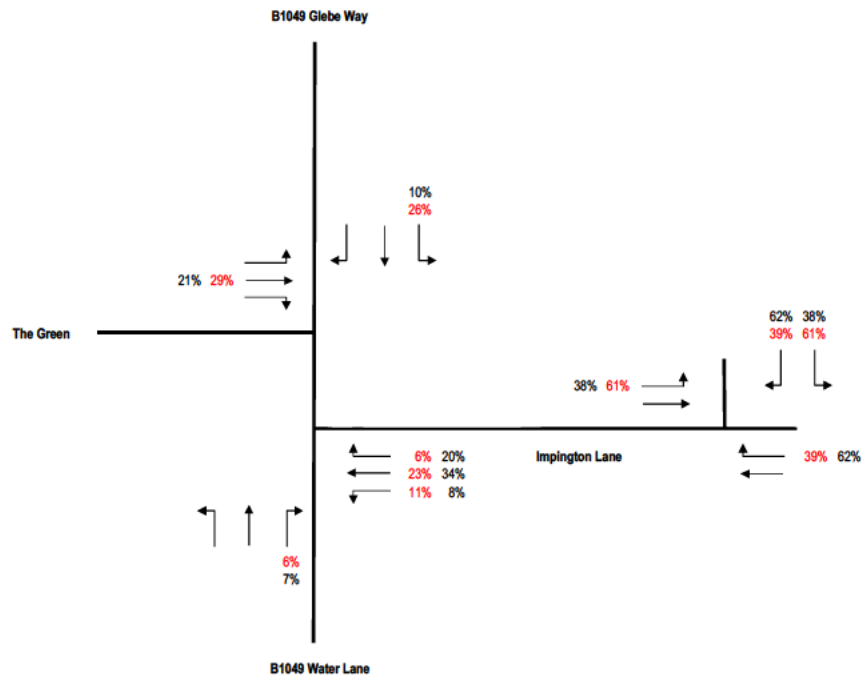
**BIDWELLS**

Saxon House, 27 Duke Street  
 Chelmsford  
 Essex, CM1 1HT  
 t: 01245 250998  
 f: 01245 251214  
 bidwells.co.uk

**Impington Lane, Histon**

**Forecast Development Traffic Distribution**

10% AM Peak (08:00-09:00)  
 10% PM Peak (17:00-18:00)



**DRAWING TITLE**  
 Peak Hour Forecast Development Traffic Distribution (%)

**PROJECT TITLE**  
 Impington Lane, Histon

**DRAWN BY**  
 APB

**DATE**  
 August 2013

**SCALE**  
 NTS

**REF**  
 Appendix 7



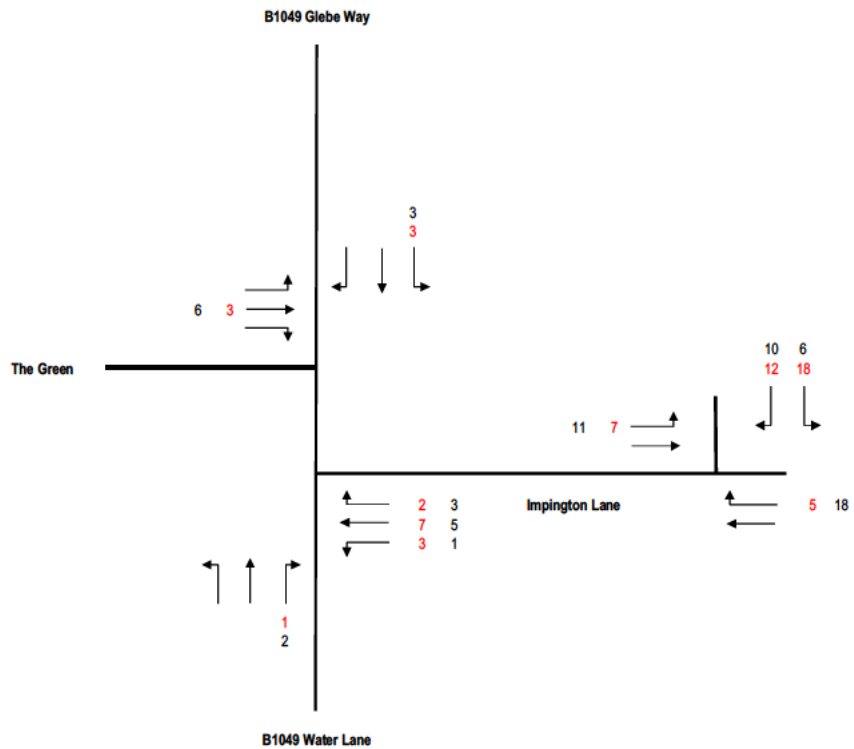
Saxon House, 27 Duke Street  
 Chelmsford  
 Essex, CM1 1HT  
 t: 01245 250998  
 f: 01245 251214  
 bidwells.co.uk

**Impington Lane, Histon**

**Forecast Development Traffic Flows**

**250** AM Peak (08 00-09 00)  
**250** PM Peak (17 00-18 00)

NB: All flows in vehicles



DRAWING FILE

**Peak Hour Forecast Development Traffic Movements  
(Vehicles)**

PROJECT FILE

**Impington Lane, Histon**

**BIDWELLS**

Saxon House, 27 Duke Street  
 Chelmsford  
 Essex, CM1 1HT  
 t: 01245 250998  
 f: 01245 251214  
 bidwells.co.uk

DRAWN BY

APB

DATE

August 2013

SCALE

NTS

REF

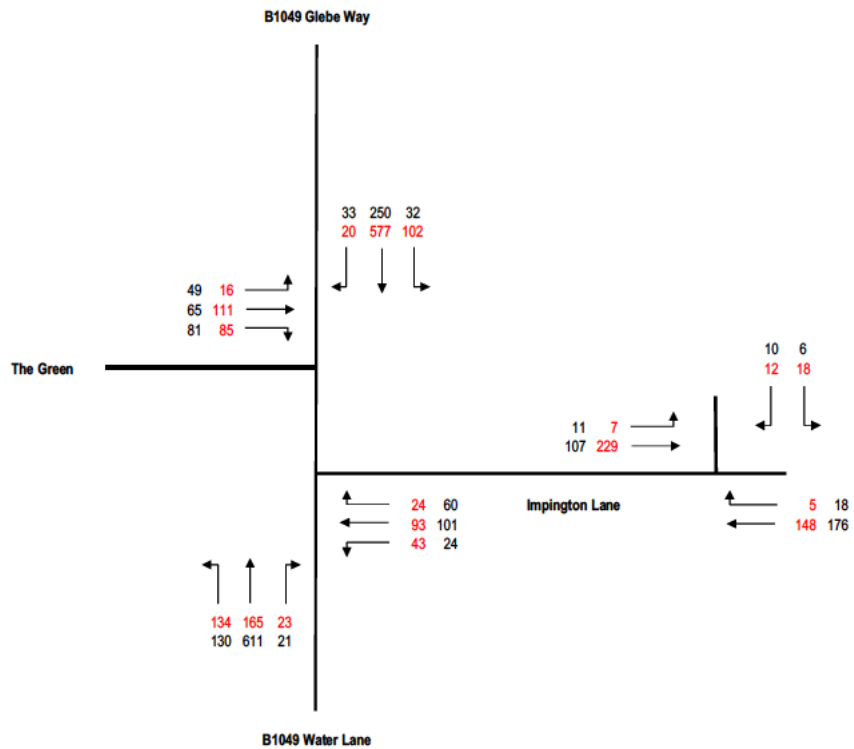
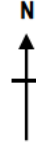
Appendix 7

**Impington Lane, Histon**

**Base plus Development Traffic Flows**

**250** AM Peak (08 00-09 00)  
**250** PM Peak (16 45-17 45)

NB: All flows in vehicles



DRAWING FILE

**Peak Hour Forecast Baseline plus Development  
Traffic Movements (Vehicles)**

PROJECT FILE

**Impington Lane, Histon**

DRAWN BY

APB

DATE

August 2013

SCALE

NTS

REF

Appendix 7

**BIDWELLS**

Saxon House, 27 Duke Street  
 Chelmsford  
 Essex, CM1 1HT  
 t:  
 f:

bidwells.co.uk

**BIDWELLS**

Bidwells is the UK's  
leading regional  
property consultancy.

