



OXFORDSHIRE COUNTY COUNCIL

## Headington Transport Strategy

Baseline Conditions Report

Report No. RT-A082520-01

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# Contents

1	Introduction.....	5
	Background and context to the Transport Strategy.....	5
2	Baseline Review .....	9
	Introduction.....	9
	Policy Context .....	9
	Consistent Themes – Policy.....	11
	Previous Studies.....	12
	Consistent Themes – Previous Studies.....	15
3	Traffic Trends .....	16
	Annual Trends.....	16
	Seasonal Trends.....	17
	Daily Trends .....	18
	Consistent Themes – Traffic Trends.....	19
4	Trip Generators and Attractors .....	21
	Travel to Work Patterns.....	23
	Consistent Themes – Trip Generators and Attractors .....	33
5	Current Operation - Highway Network .....	35
	Consistent Themes – Highway Network .....	41
6	Current Operation - Parking .....	42
	Consistent Themes – Car Parking .....	48
7	Current Operation - Public Transport .....	50
	Consistent Themes – Public Transport .....	54
8	Current Operation – Cycling & Walking .....	56
	Cycling .....	56
	Walking .....	61
	Access to Services .....	63
	Consistent Themes – Cycling and Walking .....	64
9	Consultation.....	65
	introduction .....	65
10	Baseline Review – Summary .....	70

## Appendices

- Appendix A – Local Facilities
- Appendix B – Wider Journey to Work Trips
- Appendix C – Local (within Study Area) Journey to Work Trips
- Appendix D – Controlled Parking Zone Summary Plan
- Appendix E – Bus Access by Area
- Appendix F – Consultation Summary

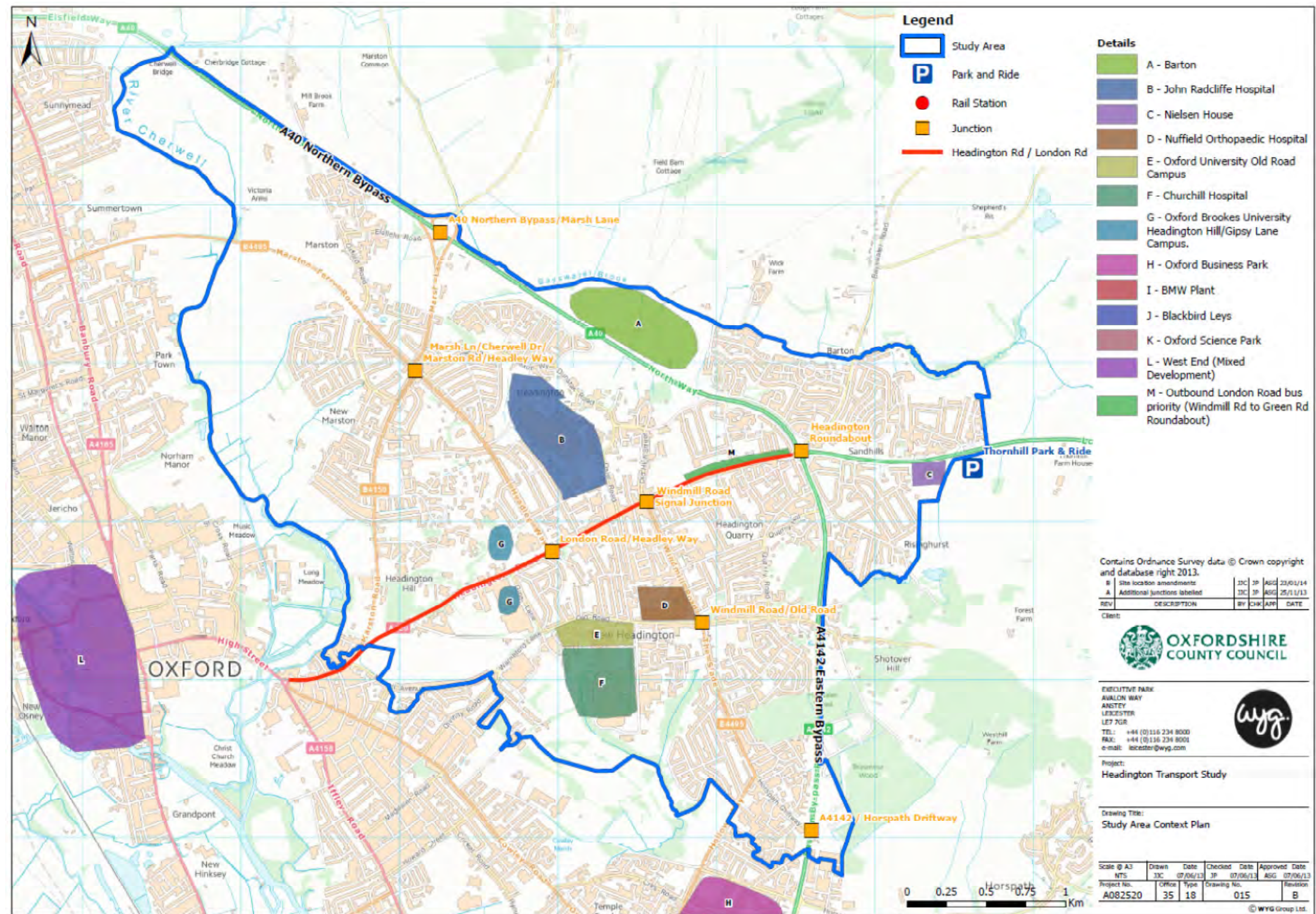
# 1 Introduction

## BACKGROUND AND CONTEXT TO THE TRANSPORT STRATEGY

- 1.1 Located on the eastern side of Oxford, with good access to both the City Centre and the major road network via the A40 (northern bypass) and A4142 (eastern bypass), Headington has been identified as an area of Oxford expected to undergo further employment led growth as a result of development opportunities expected over the next plan period.
- 1.2 The Headington area has historically been an area where the employment offer is focused on healthcare, education and research, with major employers in the area including:
- The Oxford University Trust, consisting of three main sites at:
    - The John Radcliffe Hospital;
    - The Churchill Hospital;
    - Nuffield Orthopaedic Centre;
  - Oxford University Old Road Campus;
  - Warneford Hospital; and
  - Oxford Brookes University
- 1.3 Development growth over the plan period is expected to be delivered as a balanced mix of expansion at existing sites, (including 160 new jobs planned at the John Radcliffe Hospital site), redevelopment, (including 1,000 new jobs at the Old Road Campus site) and new development (including 120 new jobs as part of the Barton development).
- 1.4 This growth does however bring a number of challenges. Headington is generally considered to be in a good location for employment and services for people travelling from within the city, because it is well situated in relation to the city's population and main bus routes, so many people who need to come to Headington can walk, cycle or use the bus to get there. However, an increasing proportion of people working in Headington are living outside of the city and any new growth is likely to attract more and more people from outside the city boundary. For these trips the car is often still people's first choice.

- 1.5 Headington and the surrounding areas already experience periods of congestion and delay during peak periods, resulting in a poor journey experience and reliability issues. Further to this, there are significant concerns about local access, safety and environmental issues. A proper long-term transport strategy is therefore required that takes into account these existing issues alongside additional travel demands that could be expected from development within Headington, in combination with wider growth in and around Oxford and the surrounding districts.. A plan detailing the extent of the study area and key local employment areas, transport hubs and development sites is provided on the following page.





- 1.6 In light of both the existing situation and the development and growth planned for the Headington area, particularly when considered against the background of wider development in Oxford and the surrounding areas, there is an identified need for a pro-active and comprehensive transport strategy for the area. This is to support economic development as well as addressing existing issues and promoting more sustainable patterns of travel.
- 1.7 Oxfordshire County Council have therefore commissioned this Transport Study, which aims to identify the range of existing and predicted transport pressures, constraints and opportunities relevant to the Headington area, so that the county council can develop a deliverable transport strategy responding to these issues.
- 1.8 This remainder of this report covers the following main areas:
- Section 2:** Provides a review of previous study work and outlines the policy framework relevant to the preparation of the study;
- Section 3:** Summarises traffic patterns and trends;
- Section 4:** Identifies the main trip generators and attractors expected to influence movement patterns to, from and within the area;
- Section 5:** Provides a summary of the current operation of the Highway Network in the Headington area;
- Section 6:** Reviews current parking provision and practices;
- Section 7:** Reviews local public transport provision;
- Section 8:** Reviews local walking and cycling provision;
- Section 9:** Provides details of the public consultation exercise undertaken and provides a summary of the main issues identified through the consultation; and
- Section 10:** Provides a summary and conclusions.



## 2 Baseline Review

### INTRODUCTION

- 2.1 In order to develop a robust baseline from which a Transport Strategy can be developed a review of the main factors which currently influence travel patterns and behaviour in and around the Headington area has been carried out. The review includes a consideration of the following:
- Policy Context;
  - Previous study and assessment work;
  - Details of existing main traffic generators and attractors within the Headington area;
  - A review of existing traffic levels; and
  - A summary of existing facilities (highway, public transport, cycling and walking).
- 2.2 This information has then been summarised to provide details of currently identified issues, challenges and opportunities relevant to the study area and the development of the Headington Transport Strategy.
- 2.3 Baseline work has also included initial engagement with local residents, community groups, County and City Councillors, and representatives from the main employment sites in Headington. The outcomes of this engagement, and the key issues and potential solutions identified by the various individuals and groups are also presented within this report (see **Section 9**).

### POLICY CONTEXT

#### Third Local Transport Plan

- 2.4 The Third Oxfordshire Transport Plan was updated in April 2012 and provides details of the County Council's future priorities for the third plan period. The document includes a series of objectives which are relevant to the County as a whole and which are given various levels of weighting according to the area in which they are to be applied, (split between Oxford, Larger Towns, Smaller Towns and Rural Oxfordshire).

- 2.5 This would result in the following levels of weighting being applied to the overall LTP3 objectives when considering a transport strategy for Headington and surrounding areas.

**Table 1 - Oxfordshire Third Local Transport Plan Objectives**

Objective	Weighting
Reduce congestion	High
Develop and increase the use of high quality, welcoming public transport	High
Develop and increase cycling and walking for local journeys, recreation and health	High
Improve the condition of local roads, footways and cycleways, including resilience to climate change	Medium
Secure infrastructure and services to support development	Medium
Reduce carbon emissions from transport	Medium
Improve air quality, reduce other environmental impacts and enhance the street environment	Medium
Reduce casualties and the dangers associated with travel	Low
Improve accessibility to work, education and services	Low

- 2.6 Based upon the weightings identified within **Table 1**, the most important Local Transport Plan priorities for Headington area are therefore reducing congestion, and promoting sustainable modes of transport.

#### Oxford City Deal

- 2.7 Oxford was awarded 'City Deal' status by Central Government following a joint bid by the County's 6 Councils, the LEP and the City's Universities and Science Parks. The initial bid was worked up into a full 'City Deal' document and submitted in November 2013. It outlines how Oxfordshire can make the most of the economic opportunities offered by the growing knowledge economy.

- 2.8 Enabling growth and development in the Headington area forms an important element of the future growth of the Oxford knowledge and research economy, particularly with regards to the fields of medical and clinical research.

#### Oxford Core Strategy

- 2.9 The Oxford City Core Strategy was adopted in March 2011 and provides the overarching policy framework for the future development of the City.

- 2.10 The Core Strategy details Headington Centre as one of the four District Centres serving the wider Oxford area with the area surrounding Headington, particularly the Barton development, being considered as central to the delivery of the Core Strategies growth plans (providing 65% of the housing land identified in the SHLAA).
- 2.11 The area is also expected to accommodate significant growth in jobs, with the Oxford Local Investment Plan predicts 2,100 'B' Class and 345 other jobs in the Headington area.
- 2.12 In terms of the relationship between Headington and the wider Oxford network, Policy CS14 proposes the promotion of further sustainable transport initiatives within Headington, including:
- Further development of an orbital bus service linking Cowley, Headington and Summertown (as the strategic locations for development identified within the Core Strategy); and
  - The promotion of greater pedestrian and cycle priority through the Headington District Centre.
- 2.13 Policy CS30 states that Healthcare related development will continue to be focused in the Headington and Marston areas, with development expected to minimise additional traffic through improved accessibility and Travel Planning, particularly as the Core Strategy identifies traffic congestion on the London Road corridor as one of the key drivers for change in the area.

## CONSISTENT THEMES – POLICY

- 2.14 The main consistent themes within current and emerging policy are:
- The importance of reducing congestion, particularly where it impacts on the economic competitiveness of Oxford and the wider area;
  - That Headington will continue to be a focus for education and health related development;
  - The continued promotion of sustainable transport options for travel to, from and within Headington, particularly when considering links to major employers and planned development sites.

## PREVIOUS STUDIES

### HAMATS Report

2.15 The Headington and Marston area Transport Strategy (HAMATS) was developed between 2000 and 2002, identifying a series of sustainable transport measures to improve the movement of traffic in and around the Headington area. The study was aimed at addressing a range of transport issues, including existing transport pressures and also those associated with the expected development, including the planned expansion of the John Radcliffe Hospital site. The measures proposed for delivery through the HAMATS study included the following:

- Significant cycle and pedestrian improvements aimed at achieving a comprehensive network across the area;
- Improved bus services into the area from Park and Ride sites;
- New and improved bus services;
- Improved public transport infrastructure, including new bus stops, bus priority at signal junctions and on Marston Road;
- Considering new bus links between Marsh Lane / Maltfield Road, A40 / Foxwell Drive and Saxon Way / the John Radcliffe Hospital;
- Traffic calming and parking control measures on side roads throughout Headington; and
- Travel Plan measures at major employers across the site.

### London Road Corridor Study

2.16 In 2004 Oxfordshire County Council commissioned a study looking at the potential to deliver improvement works on the London Road corridor, running between The Plain and the Headington Roundabout (London Road / Northern Bypass / Eastern Bypass).

2.17 The study had two main goals, firstly to improve the operation and convenience of bus services and secondly to improve road safety.

2.18 The consultation carried out on the study work proposed two main approaches to the treatment of the London Road corridor:

- An engineering led solution with measures to reduce traffic speeds, improve bus stop facilities and enhance public transport priority; and

- A more radical solution which would restrict access to some sections of London Road, removing through traffic.

2.19 During the consultation exercise carried out considerable concerns were expressed with regards to options which removed traffic from London Road, due to the potential for displacing traffic onto side roads and into residential areas.

2.20 More detailed comments were also made with regards to local factors which negatively influence the operation of the London Road corridor:

- On-carriageway bus stops creating delays;
- The proximity of bus stops to junctions; and
- The grouping of bus stops close together in some areas causing delay and congestion

#### Marsh Lane / Marston Road / Cherwell Drive Study

2.21 In September 2007 a study of the Marsh Lane, Marston Road and Cherwell Drive area was carried out by Halcrow on behalf of Oxfordshire County Council, which identified the following:

- Delays to public transport in the area were largely related to peak hour operations;
- Accident records show the existing double roundabout arrangement to be poor for cyclists, with more than half of all recorded accidents involving cyclists;

2.22 The report identified a potential preferred signal solution for the double roundabout junction of Cherwell Drive / Marsh Lane / Headley Road / Marston Road. A signal improvement to this junction was expected to offer the greatest benefits to public transport, walking and cycling movements and improved safety, although none of the options considered were expected to have a significant impact on overall levels of queuing and delay.

#### Delivered Schemes

2.23 Many of the schemes identified through the previous study work undertaken have been delivered and form part of the context against which further transport strategy proposals need to be considered, delivered schemes include:

- The provision of outbound bus priority works on London Road;
- Improved cycle infrastructure;



- The expansion of Park and Ride and implementation of Park and Ride services into the Headington area from the Thornhill and Water Eaton sites; and
- Extended Controlled Parking Zones

2.24 A series of transport measures funded through the Oxfordshire Local Sustainable Transport Fund Bid have also been recently delivered; these include the following:

- Increased capacity at the Thornhill Park and Ride site (from 834 to 1380 spaces)
- Headington cycle hire pilot scheme
- Pump priming new and enhanced bus services, including:
  - A new service from Thornhill Park and Ride to John Radcliffe Hospital;
  - An extended service from Thornhill Park and Ride to the Nuffield Orthopaedic Hospital, Churchill Hospital, Old Road Campus, Warneford Hospital, Oxford Brookes Gypsy Lane Campus, City Centre and Rail Station;

#### Planned Schemes

2.25 In addition to schemes which have already been delivered, a number of further improvement works are programmed for the Headington area, these include:

- Improvements to the Cherwell Drive / Marsh Lane / Headley Road / Marston Road double roundabout to provide signal controlled option, to be funded by the Barton development;
- Further bus priority on the London Road corridor, linking Headington Centre to the Ring Road and the Thornhill Park and Ride;
- ANPR and Smart Ticketing at the Thornhill Park and Ride site; and
- Personalised Travel Planning, monitoring and evaluation programme (ongoing).

2.26 This study and the strategy it will lead to therefore represents the continuation of a prolonged period of investment in transport measures in and around the Headington area, recognising the continuing pressures and demand for travel relevant to the study area.

## CONSISTENT THEMES – PREVIOUS STUDIES

2.27

There have been a number of area-wide or corridor specific related transport studies within the Headington area over the last 15 year period. These have led to the introduction of transport improvements being delivered by the County Council within Headington including improved public transport services and priority, enhanced walking and cycling facilities and increased control over on street parking. Whilst these improvements have undoubtedly had a positive impact, with little traffic growth having taken place over the last 10 years across the study area, a number of the main issues identified in previous study work are still expected to be relevant to the development of a new Headington Transport Strategy:

- The need to continue to improve public transport reliability and attractiveness;
- The preferred option for the treatment of London Road being to maintain it as a through route, but with works to maintain appropriate vehicle speeds and priority for bus, pedestrian and cycle journeys;
- The need to protect residential roads from rat-running traffic and overspill parking; and
- The importance of factors which create 'edge friction', i.e. the impacts of bus stop locations and types, pedestrian movements, parking and other factors which effect the free flow of traffic, particularly on the London Road and B4495 corridor.

## 3 Traffic Trends

- 3.1 Oxfordshire County Council maintain a number of permanent automatic traffic count sites across Headington, which provide summary data for average weekday recorded traffic flows for the period covering 2002 – 2012.

### ANNUAL TRENDS

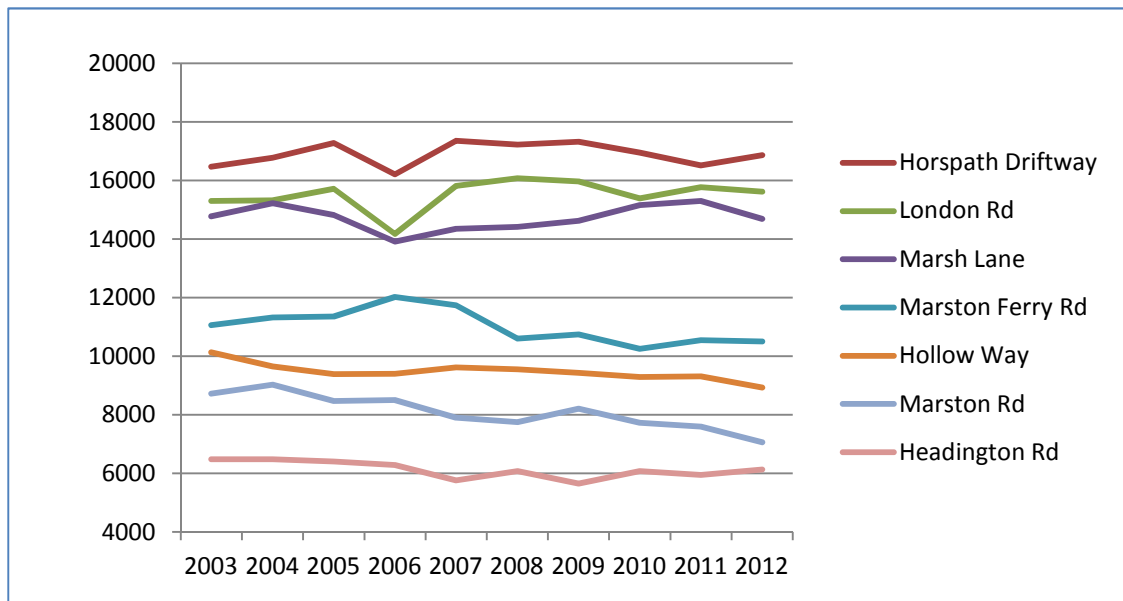
- 3.2 The following section outlines the main annual trends identified for traffic on main routes within the Headington area.
- 3.3 12 hour traffic count data, obtained on the main highway entry and exit points to / from Headington is provided in summary form in **Table 2**. The summary data shows a remarkably consistent level of traffic on the main routes in Headington across the 10 year period reviewed. In term of overall trends there has actually been a slight reduction in overall traffic levels over the course of the period monitored, with the exception of Horspath Driftway and the Eastern End of London Road during the evening peak hour, which saw a significant increase in traffic levels following the initial 2006 dip, related to the roadworks for the Headington roundabout, resulting in an increase of 317 two-way trips in 2012 than the 2003 counts.

**Table 2 – Total 12 hour (7am -7pm) two-way traffic**

Year	Hollow Way	Marston Ferry Rd	Marsh Lane	London Rd	Horspath Driftway	Headington Rd	Marston Rd	Total
2003	10133	11063	14775	15308	16468	6479	8726	82952
2004	9652	11322	15226	15328	16777	6485	9026	83816
2005	9388	11353	14823	15715	17279	6409	8468	83435
2006	9405	12029	13917	14179	16215	6285	8509	80539
2007	9623	11736	14353	15821	17363	5760	7900	82556
2008	9556	10608	14423	16077	17228	6077	7748	81717
2009	9429	10750	14626	15975	17328	5652	8205	81965
2010	9288	10258	15160	15389	16953	6073	7732	80853
2011	9318	10548	15300	15772	16515	5947	7597	80997
2012	8926	10508	14694	15625	16866	6128	7062	79809
03-12 % Change	-12%	-5%	-1%	+2%	+2%	-5%	-19%	-4%

- 3.4 This information is also summarised graphically in **Figure 1**, which shows the consistent levels of recorded traffic across the 10 year period assessed clearly, including the noticeable temporary dip in 2006.

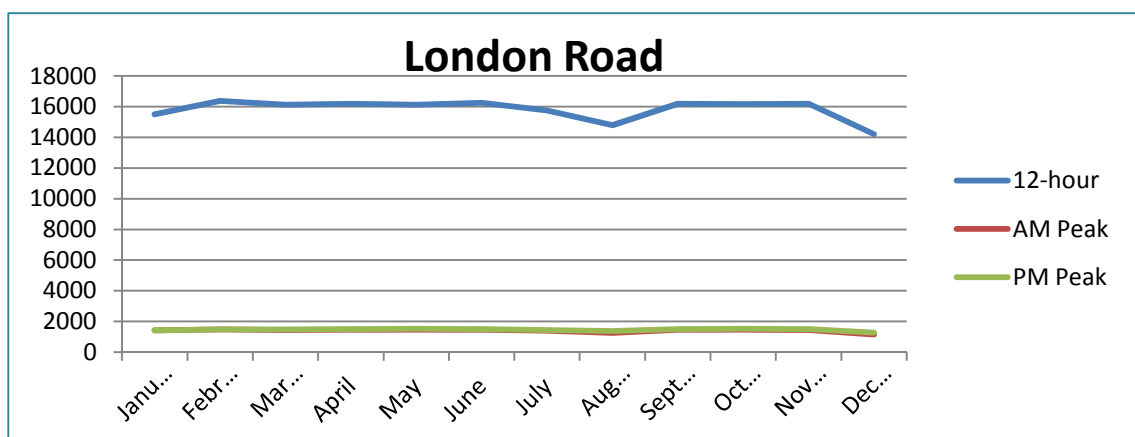
**Figure 1 – Total 12 hour (7am -7pm) two-way traffic**



## SEASONAL TRENDS

- 3.5 The following chart provides details of the main seasonal trends identified for traffic levels on the main road through Headington, London Road.

**Figure 2- Seasonal Trends - London Road (2012 two way flows)**



- 3.6 The traffic information (taken from fixed County Council automatic traffic count sites) shows traffic levels remaining at consistent levels throughout the year, particularly during peak hour periods, whilst daily overall flows dip slightly during the summer holiday period. This could suggest that traffic levels may be constrained by available capacity during peak hour periods, rather than seasonal factor such as school or university holiday periods.

## DAILY TRENDS

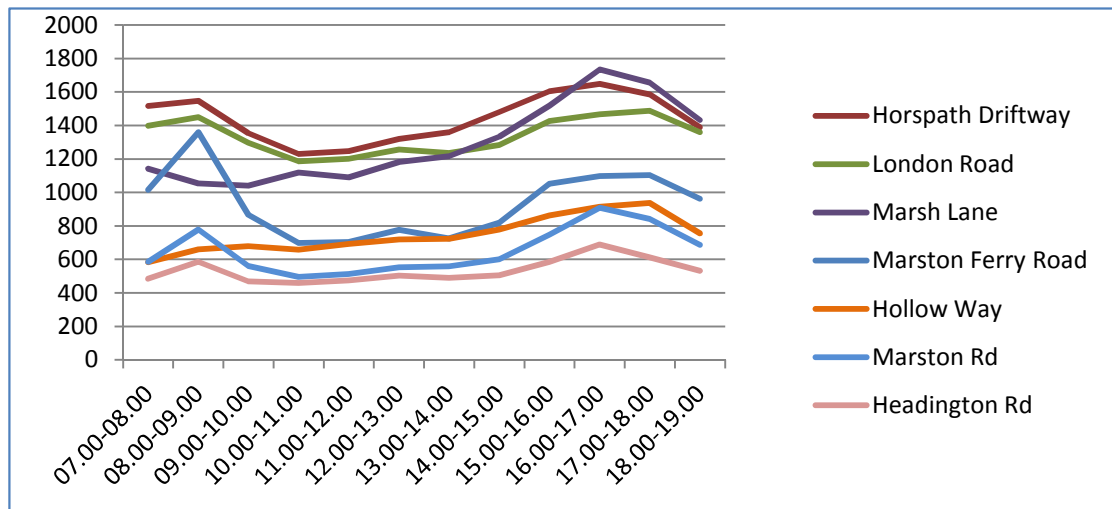
- 3.7 Hourly traffic information across the 12 hour period 07.00 – 19.00 is provided in **Table 3** and presented graphically in **Figure 3**.

**Table 3 - Daily Traffic Profile (7am to 7pm) two way traffic**

Time Period	Hollow Way	Marston Ferry Road	Marsh Lane	London Road	Hors-path Drift-way	Head-ington Rd	Marston Rd	Total	%age of 12 hour flow
07.00-08.00	583	1016	1141	1397	1516	485	586	6724	8%
08.00-09.00	661	1359	1053	1450	1546	585	779	7433	9%
09.00-10.00	679	867	1040	1296	1354	469	560	6265	8%
10.00-11.00	658	699	1119	1186	1229	460	495	5846	7%
11.00-12.00	692	704	1091	1201	1247	475	513	5923	7%
12.00-13.00	719	777	1181	1257	1320	503	553	6310	8%
13.00-14.00	724	725	1216	1236	1359	491	558	6309	8%
14.00-15.00	778	818	1332	1284	1479	506	601	6798	8%
15.00-16.00	863	1051	1518	1426	1605	585	749	7797	9%
16.00-17.00	914	1097	1735	1466	1649	689	908	8458	10%
17.00-18.00	938	1104	1655	1488	1586	613	842	8226	10%
18.00-19.00	756	962	1432	1360	1389	533	686	7118	9%



**Figure 3 – Daily Traffic Profile (7am to 7pm) two way traffic**

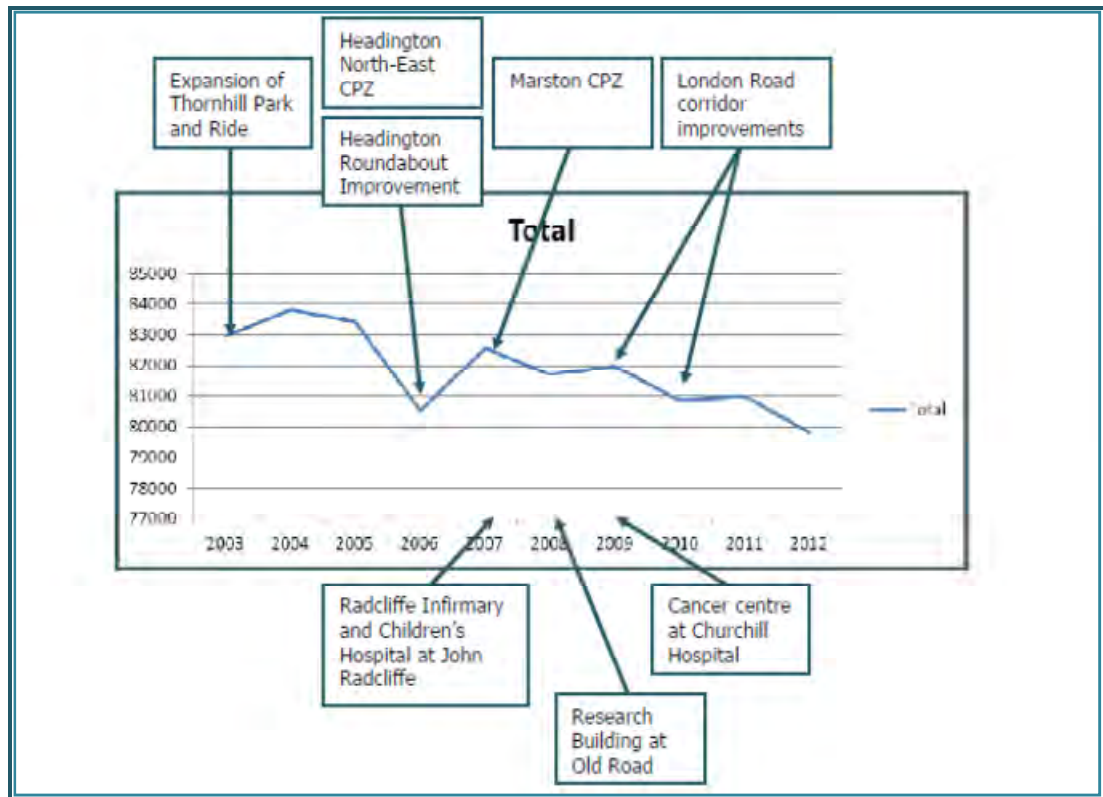


- 3.8 This summary data identifies a daily trip profile for the major roads within Headington which shows a relatively pronounced traditional morning peak hour period for traffic, with a much longer evening peak, which starts to build from 2.00pm onwards and continues until 6.00-7.00pm. As a result traffic levels in the study area are higher during the inter-peak periods than might generally be expected, potentially due to the types of predominant land-uses in the Headington area, specifically healthcare and education / research which generate trip demands over longer periods of the day than other employment uses.

### CONSISTENT THEMES – TRAFFIC TRENDS

- 3.9 A review of the historic traffic levels and patterns of daily activity across the study area identifies relatively stable levels of daily traffic within the Headington area over the last 10 year period. Levels of overall daily traffic appear to have remained at relatively consistent levels on major routes, with an overall reduction in total recorded flows. **Figure 4** below provides an overview of the total 12 hour traffic counts for the Headington areas between 2003 and 2012, including details of when major development or transport changes took place.

**Figure 4 – Headington Timeline**



## 4 Trip Generators and Attractors

- 4.1 A review of current major trip attractors and generators was initially carried out to add context to the baseline review of travel patterns to, from and within Headington, covering employment, education, retail, health and leisure facilities.

### Context

- 4.2 An individual's choice of travel is influenced by a combination of the proximity and accessibility of desirable destinations and the availability and relative attractiveness of travel options to those destinations. Whilst subsequent sections of this report consider the main modes of travel to, from and within Headington in more detail, the following provides a broad summary of available travel options relevant to the Headington area and which provides some context to the review of major trip generators and attractors.

- Proximity to the Northern (A40) and Eastern (A4142) Bypass Roads, which provide strong highway links to the east of Headington connecting the wider strategic road network.
- A strong public transport spine along the Headington Road / London Road, which serves the majority of main bus routes to and from the City Centre and also links to the Thornhill Park and Ride site, including areas of current and planned public transport priority.
- A mix of on and off-carriageway cycle routes, connecting Headington with Thornhill Park and Ride (to the East), Oxford City Centre (to the West) and a number of University and other education and research sites.

## Local Employment

- 4.3 A number of the major employers are summarised in **Table 4** which provides details of numbers of full and part time staff, (taken from a range of sources including information provided directly by employers and the 2012 Low Carbon Oxford Pathfinder Survey).

**Table 4 – Major Employers**

Organisation	Staff
John Radcliffe Hospital	6694
Churchill Hospital	2204
Nuffield Orthopaedic Centre	977
Old Road Campus	1600
Oxford Brookes University	563
Total	11,061

## Wider Employment

- 4.4 The 2013 Oxford Economic Growth Strategy identifies the Headington area as providing approximately 10,600 jobs. Comparing this number to the individual jobs related to the Oxford University Trust, University of Oxford and Oxford Brookes University summarised in **Table 4** would therefore suggest that most jobs in the Headington area are linked to one of these major employers.
- 4.5 In addition to the major employers within the Headington area summarised in **Table 4**, there are a number of other significant trip attractors surrounding the study area as part of the wider Eastern Arc, which have a cumulative traffic impact on the main routes to, from and within Headington. In particular the Cowley area to the south is detailed within the Economic Growth Strategy as providing 10,500 jobs, whilst Oxford city centre is estimated to provide 47,200 jobs (or 42.5% of all local employment).
- 4.6 These three areas, i.e. Oxford centre, Headington and Cowley represent the three main employment areas within Oxford and as such would be the main destinations for the majority of employment trips within Oxford.

### Other Local Trip Generators and Attractors

- 4.7 In addition to trips related to employment uses, which could be expected to result in a significant number of peak hour trips, there are a range of other local facilities which generate travel demands both during and between traditional peak hour periods.
- 4.8 The plan provided in **Appendix A** provides a summary of the locations of the main schools, retail areas and health and leisure facilities expected to have the most impact on travel choices in the Headington area. These are considered in greater detail in Section **8.16** onwards.

### TRAVEL TO WORK PATTERNS

- 4.9 In order to further understand the demands for travel resulting from journey to work trips two main sources of data were reviewed:
- 2001 census journey to work data, in order to get a broad overview of the main likely movements into and through the Headington study area as individuals travel to work; and
  - More detailed & recent staff travel information, provided by the main employers considered within this study.

### Census Data

- 4.10 Census 2001 Origin and Destination Travel to Work data is used because the 2011 dataset will not be available until spring 2014. The data is presented for information only as there will have inevitably been changes to trip patterns over the interim period. In particular, some of the major employees have been very active in developing their workplace travel plans and separately, OCC has implemented a number of Controlled Parking Zones in the study area. Both will have had an impact on access mode to/from work. However, the 2001 dataset is still considered useful as a proxy of where staff are travelling from.
- 4.11 The census data reviewed was split into two main categories; trips which remained within the study area (split between 6 main wards), and those which travel to and from the study area from the rest of Oxford and the wider surrounding area.
- 4.12 The total number of trips recorded as commuting to and from Headington within the 2001 census is summarised and split by origin in the following table (**Table 5**).



**Table 5 – Journey to work trips to / from Headington (2001 Census)**

	Incoming To Headington	%age	Outgoing From Headington	%age
<i><b>Oxford City</b></i>				
Headington / Marston / Barton	6075	35%	6075	37%
Cowley	1051	6%	1298	8%
Blackbird Leys / Littlemore	768	4%	484	3%
Central Oxford	85	0%	2552	15%
North Oxford	731	4%	1072	6%
West Oxford	193	1%	449	3%
New Hinksey	194	1%	48	0%
Iffley / Rose Hill	998	6%	578	4%
<b>Sub-total</b>	<b>10095</b>	<b>57%</b>	<b>12556</b>	<b>76%</b>
<i><b>Market Towns</b></i>				
Abingdon	506	3%	284	2%
Banbury	117	1%	48	0%
Bicester	528	3%	132	1%
Chipping Norton / Woodstock	313	2%	59	0%
Didcot	240	1%	264	2%
Kidlington	453	3%	245	1%
Witney/Carterton	501	3%	104	1%
<b>Sub-total</b>	<b>2658</b>	<b>15%</b>	<b>1136</b>	<b>7%</b>
<i><b>Rest of Oxfordshire</b></i>				
NW Oxfordshire	796	5%	288	2%
NE Oxfordshire	384	2%	174	1%
SW Oxfordshire	1054	6%	418	3%
SE Oxfordshire	1183	7%	525	3%
<b>Sub-total</b>	<b>3417</b>	<b>19%</b>	<b>1405</b>	<b>9%</b>
<i><b>Outside Oxon</b></i>	<b>1399</b>	<b>8%</b>	<b>1406</b>	<b>9%</b>
<b>Totals</b>	<b>17569</b>	<b>100%</b>	<b>16503</b>	<b>100%</b>

- 4.13 In 2001 just over a 1/3<sup>rd</sup> of trips are 'internal', i.e. they have an origin and destination within the study area itself. Based on the short distances travelled alone, a high proportion of these trips have the potential to use more sustainable and active modes, such as on foot, cycle or public transport.

- 4.14 A significant number of trips also come from other areas within the city which are also considered to be within a reasonable cycle or public transport distance, however cycle connections to/from these are often limited and not all areas have a direct bus service to the study area. These areas include Blackbird Leys, Littlemore, Iffley and Rose Hill. As discussed later, this has a significant influence on travel choices, particularly a higher per cent of employees from these areas using the car for their travel to work.
- 4.15 A reasonable level of in-commuting has origins within Oxfordshire but outside of Oxford itself, with approximately 1/3<sup>rd</sup> of all inbound trips being from the surrounding villages and market towns. This obviously has implications for access mode choice to the study area, and in particular, the 1 in 5 trips from surrounding villages which are less likely to have a direct bus service to the study area. There are also a considerable number of trips from market towns which have no direct bus service including Witney and Carterton. Park & Ride will be important for these trips.
- 4.16 It is noted that whilst Headington is recognised as a major employment area, there were still significant levels of out-commuting to other areas from Headington, with greater levels of outbound than inbound travel from Headington to Central Oxford, Cowley and North Oxford in particular. As such any transport strategy for Headington would have to be mindful of reinforcing links out from Headington as well as strengthening links providing access to the area.
- 4.17 An initial check comparing the overall journey to work census data for Headington from 2001 was compared with the site specific data gathered for Oxford University Trust and Oxford Brookes staff (as the largest single group of employees in the Headington area) as part of the University Hospital NHS Trust Travel Plan Monitoring report. This survey was carried out in 2011 and split staff home postcodes between the four Oxford City Postcodes, other Oxfordshire postcodes and the wider area (more analysis of this data is provided in **Section 4.24** onwards). A summary comparison by percentage is provided in **Table 6**.

**Table 6 – Comparison of 2001 census and major site employees' home locations**

Postcode area	2001 Census (total distribution)	2011 John Radcliffe (Staff)	2011 Churchill (Staff)	2011 Nuffield (Staff)	2012 Brookes (Staff)
OX1	2%	2%	2%	2%	4%
OX2	7%	5%	5%	6%	6%
OX3	36%	24%	25%	25%	21%
OX4	16%	11%	13%	16%	16%
Other OX	30%	39%	36%	38%	40%
Other	9%	19%	18%	14%	13%

4.18 A comparison of the data shows that there is some variation between the overall distribution of inbound journey to work trips recorded in the 2001 census and that recorded at the major sites reviewed, with the main difference being a greater degree of total trips with an origin outside of Headington (and the rest of the City) and a reduced number of trips originating from within the study area, (i.e. OX3 postcodes). There is also a significant difference in staff travelling outside Oxfordshire altogether, with around 1 in 4 staff working at the JR and Churchill Hospitals, travelling from 'other' areas. Whilst the full reasons for the variation in distribution noted are not fully known, a number of likely reasons could include:

- The temporary nature of some staff (including Junior Doctors) meaning that older home postcode information is given not always reflecting current home locations;
- House prices within Headington requiring some staff to live outside of the area and commute to / from work; and
- The specialist nature of the work carried out leading to a wider staff catchment area.

4.19 Further detail on the modal split for journeys to and from the Headington area from adjacent wards is provided in **Appendix B**.

4.20 Both inbound and outbound work related journeys were recorded in the census as having higher walking, cycling and public transport mode share to and from wards which are located close to the central route between Oxford City Centre and Headington, with the associated stronger public transport links.

- 4.21 Journeys to and from the areas to the south, including Littlemore, Cowley and Iffley had notably higher car driver and lower public transport mode shares at the time of the census. This appeared to be particularly the case for trips from Headington accessing employment areas to the south east of the city.
- 4.22 A plan detailing the split of the most local inter-ward trips which remain within the Headington Study area by main mode (split between pedestrian, cycle, bus and car) is provided in **Appendix C**.
- 4.23 This shows, as might be expected, the greatest proportion of local trips by sustainable modes having been between the more central wards, i.e. trips between Headington, Churchill and Headington Hill and Northway. Journeys to and from remainder of the wards were recorded as including a noticeably higher proportion of car drivers, including Marston to Headington (JR Hospital) and Headington Quarry to Churchill, despite these trips being relatively short distances.

#### Data provided by major employers – University Hospital NHS Trust sites

- 4.24 As previously discussed in **Section 4.4** onwards, the University Hospital Trust, University of Oxford and Oxford Brookes University site provide the majority of the employment offer within Headington. As such it is important to understand the specific travel patterns related to these uses, both in terms of current impacts on the highway network and also with regards to the effect that further development or changes to the transport network could be expected to have.
- 4.25 The January 2012 Travel Plan Monitoring Report for the University Hospital Trust NHS sites provides summary data for the broad home postcode area for staff, visitors and patients for the two largest Hospital sites, John Radcliffe and Churchill, with percentage splits provided in terms of mode of travel to the site.
- 4.26 This information is provided in summary form in two tables on the following pages (**Table 7** and **Table 8**).
- 4.27 This summary information shows relatively consistent patterns of travel across both hospital sites, with Hospital Trust staff car driver mode share totalling 57.2% at the John Radcliffe and

58.8% at the Churchill. The majority of the car drivers in both cases originating from Oxfordshire postcodes outside of the City wards.

- 4.28 A total of 43.4% of Trust staff working at the John Radcliffe site were recorded as living within one of the Oxford City wards, of which approximately 2/3<sup>rds</sup> stated that they travelled by sustainable modes (walking, cycling or public transport).
- 4.29 At the Churchill Hospital site, 48.9% of staff were recorded as living within one of the Oxford City wards, with just below 2/3<sup>rds</sup> travelling by sustainable modes.
- 4.30 The proportion of trips by modes other than private car then drops as home locations move further from the City, as would be expected, with other OX postcodes making up a further 43.1% of trips at John Radcliffe (of which less than 1/3<sup>rd</sup> are by sustainable modes) and 38.6% at the Churchill (of which 1/5<sup>th</sup> are by sustainable modes).



**Table 7 – Summary Travel Data – John Radcliffe Hospital**

John Radcliffe Hospital						
Trust Staff						
Postcode area	Car	Bus	cycle	Walk	Other	Totals
OX1	1.0	0.4	0.4	0.1	0.0	<b>1.9</b>
OX2	3.2	2.0	1.9	0.1	0.1	<b>7.3</b>
OX3	4.7	3.5	4.4	9.8	0.1	<b>22.5</b>
OX4	5.2	1.9	2.8	1.5	0.3	<b>11.7</b>
Other OX	30.8	8.9	2.2	0.9	0.3	<b>43.1</b>
Neighbouring	5.7	0.1	0.0	0.3	0.0	<b>6.1</b>
Other	6.6	0.4	0.0	0.3	0.0	<b>7.3</b>
Totals	<b>57.2</b>	<b>17.2</b>	<b>11.7</b>	<b>13</b>	<b>0.8</b>	<b>99.9</b>
University Staff						
Postcode area	Car	Bus	cycle	Walk	Other	Totals
OX1	0.0	0.5	1.4	3.3	0.0	<b>5.2</b>
OX2	2.8	0.5	3.3	0.9	0.5	<b>8.0</b>
OX3	9.4	3.8	9	8.5	0.5	<b>31.2</b>
OX4	3.3	1.4	4.2	2.8	0.5	<b>12.2</b>
Other OX	15.1	5.7	7.1	0.5	0.9	<b>29.3</b>
Neighbouring	2.4	0.5	1.9	0.9	0.0	<b>5.7</b>
Other	2.8	0.5	3.3	1.4	0.5	<b>8.5</b>
Totals	<b>35.8</b>	<b>12.9</b>	<b>30.2</b>	<b>18.3</b>	<b>2.9</b>	<b>100.1</b>
Visitors and Patients						
Postcode area	Car	Bus	cycle	Walk	Other	Totals
OX1	1.4	1.1	0.2	0.3	0.3	<b>3.3</b>
OX2	3.2	1.1	0.3	0.5	0.3	<b>5.4</b>
OX3	3.7	1.3	0.5	3.0	0.6	<b>9.1</b>
OX4	5.4	1.3	0.0	0.2	0.6	<b>7.5</b>
Other OX	43.8	4.0	0.3	0.8	0.8	<b>49.7</b>
Neighbouring	11.3	0.8	0.0	0.3	0.5	<b>12.9</b>
Other	9.9	0.8	0.0	0.3	1.0	<b>12.0</b>
Totals	<b>78.7</b>	<b>10.4</b>	<b>1.3</b>	<b>5.4</b>	<b>4.1</b>	<b>99.9</b>

**Table 8 – Summary Travel Information – Churchill Hospital**

Churchill Hospital						
Trust Staff						
Postcode area	Car	Bus	cycle	walk	Other	Totals
OX1	1.1	0.4	1.3	0.9	0	<b>3.7</b>
OX2	3.5	0.9	0.2	0.2	0.6	<b>5.4</b>
OX3	6.8	1.7	3.5	10.1	0.2	<b>22.3</b>
OX4	7.4	2	5	2.9	0.2	<b>17.5</b>
Other OX	30.1	5.5	1.1	0.6	1.3	<b>38.6</b>
Neighbouring	5.1	0	0	0.2	0.6	<b>5.9</b>
Other	4.8	0.4	0	0	0.9	<b>6.1</b>
Totals	<b>58.8</b>	<b>10.9</b>	<b>11.1</b>	<b>14.9</b>	<b>3.8</b>	<b>99.5</b>
University Staff						
Postcode area	Car	Bus	cycle	walk	Other	Totals
OX1	2.3	1.2	0	0	0	<b>3.5</b>
OX2	0	0	2.3	1.2	0	<b>3.5</b>
OX3	4.7	3.5	5.8	15.1	0	<b>29.1</b>
OX4	7	0	3.5	2.3	1.2	<b>14</b>
Other OX	17.4	7	2.3	2.3	3.5	<b>32.5</b>
Neighbouring	7	1.2	0	0	0	<b>8.2</b>
Other	7	0	0	1.2	1.2	<b>9.4</b>
Totals	<b>45.4</b>	<b>12.9</b>	<b>13.9</b>	<b>22.1</b>	<b>5.9</b>	<b>100.2</b>
Visitors and Patients						
Postcode area	Car	Bus	cycle	walk	Other	Totals
OX1	0.6	0.6	0.4	0	0.2	<b>1.8</b>
OX2	3	0.8	0.2	0.2	0.6	<b>4.8</b>
OX3	5.8	1.1	0.4	1.5	0.4	<b>9.2</b>
OX4	4.9	0.9	0.8	0.6	0.2	<b>7.4</b>
Other OX	42.3	3.2	0	0.2	2.4	<b>48.1</b>
Neighbouring	11.1	0.2	0	0.2	0.9	<b>12.4</b>
Other	15	0.2	0	0	1.3	<b>16.5</b>
Totals	<b>82.7</b>	<b>7</b>	<b>1.8</b>	<b>2.7</b>	<b>6</b>	<b>100.2</b>

Data provided by major employers – Oxford Brookes Headington Campus

- 4.31 Information with regards to the specific travel patterns for journeys to and from the Oxford Brookes Headington Campus was obtained from the 2012 Travel Survey 'Key Survey Findings' report.
- 4.32 This report includes summary data on the main modes of travel used for staff and student journeys to and from the Headington Campus site, which are summarised in **Table 9** (below).

**Table 9 – Modal Share – Headington Campus**

Mode	Staff	Students
Pedestrian	16%	50%
Cycle	21%	13%
Brookes Bus	8%	17%
Park and Ride	1%	2%
Other bus	10%	7%
Drive (alone)	28%	6%
Drive (others)	5%	1%
Car Passenger	7%	2%
Powered Two Wheelers	1%	0%
Other	3%	2%
Total	100%	100%

- 4.33 The staff travel information obtained from Oxford Brookes University was then combined with home postcode area data to provide travel summary information in the same format as that used for the University Hospital Trust sites, with the results given in **Table 10**.

**Table 10 – Summary Travel Information – Oxford Brookes Staff**

Oxford Brookes University Staff						
Postcode area	Car	Bus	cycle	Walk	Other	Totals
OX1	0.2%	1.4%	1.4%	0.4%	0.4%	<b>3.7%</b>
OX2	0.5%	1.8%	2.5%	0.5%	1.1%	<b>6.4%</b>
OX3	1.6%	1.4%	7.6%	8.7%	1.8%	<b>21.1%</b>
OX4	2.5%	3.0%	3.7%	4.4%	2.7%	<b>16.3%</b>
Other OX	21.3%	6.4%	3.9%	0.7%	7.4%	<b>39.7%</b>
Other	8.5%	1.8%	0.2%	0.0%	2.3%	<b>12.8%</b>
Totals	<b>34.6%</b>	<b>15.8%</b>	<b>19.3%</b>	<b>14.7%</b>	<b>15.6%</b>	<b>100.0%</b>

- 4.34 The summary data for Oxford Brookes staff reflects a similar pattern to that for the Hospital sites, with approximately 21.1% of staff giving a local (OX3) postcode (compared to 22.5% of

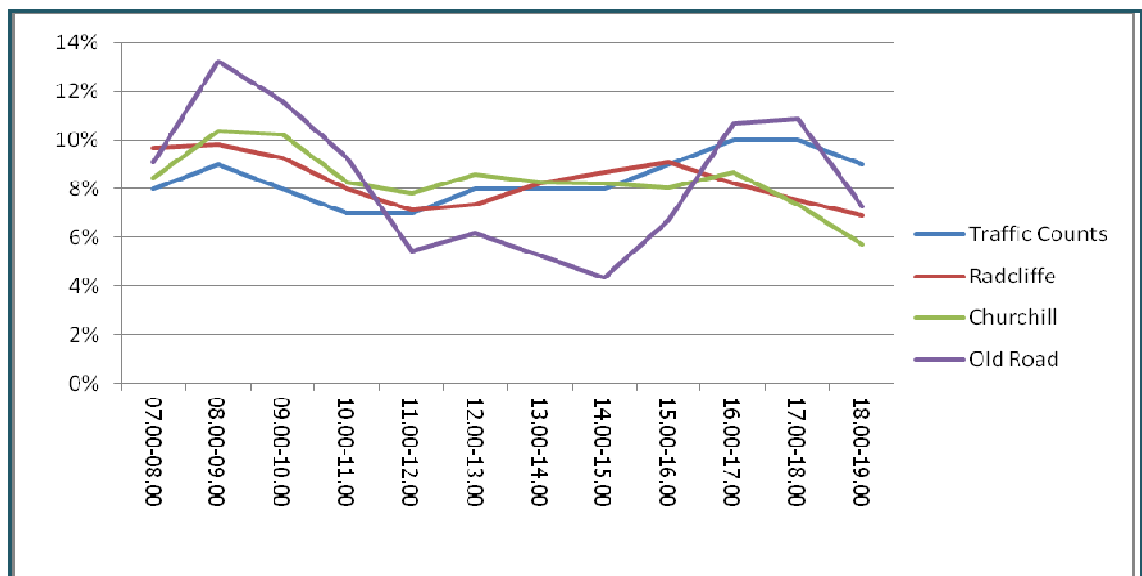
staff at the John Radcliffe and 22.3% of staff at the Churchill), with the majority of local resident staff walking or cycling to and from work.

- 4.35 Similarly 39.7% of staff gave OX postcode areas outside of Oxford City itself (compared to 43.1% at the John Radcliffe and 38.6% at the Churchill), with the majority of these trips being undertaken by car.

#### Major Employment sites Daily Trip Profile

- 4.36 In order to identify the time periods most effected by major traffic demands related to the larger employers in the Headington area a review of the arrival / departure profile of traffic recorded at the John Radcliffe and Churchill Hospital sites was carried out (using data from the January 2012 Travel Plan Monitoring Report), along with a summary of the daily arrival / departure profile for traffic related to the Old Road Campus site, (obtained from the Old Road Campus Planning Application Transport Assessment).
- 4.37 The graph provided below in **Figure 5** provides a summary of the daily (12 hour) 2 way traffic profile for the Radcliffe, Churchill and Old Road sites along with a summary of the wider traffic count data held by the County Council (using the data from **Table 3**).

**Figure 5 – Hourly (2way) Trip Profiles**



- 4.38 The morning peak at both sites was consistent with the generally recognised morning peak period 08.00-09.00, although in both cases traffic levels remained at close to peak levels for the hours either side of this. The afternoon peaks at both the Hospital sites fall earlier than the generally recognised peak of 17.00-18.00, with the highest number of two-way trips being between 15.00-16.00 at the John Radcliffe and 16.00-17.00 at the Churchill. As with morning peak, the levels of traffic remain close to peak levels for much of the afternoon, as a result it appears that the peak demands for traffic are relatively spread throughout both the morning and evening peak periods, which is also reflected in the daily traffic trend information on the main roads in Headington, which show a broadly spread peak. Whilst there is therefore some potential for further peak spreading through site Travel Plan activities
- 4.39 Whilst total two-way trips remain relatively consistent, the tidality of movements changes throughout the day at both sites, with a weighting towards arrivals in the early to mid morning and a greater proportion of trips being departures from early afternoon onwards.

## CONSISTENT THEMES – TRIP GENERATORS AND ATTRACTORS

- 4.40 Following a review of the major trip generation and attraction factors influencing travel behaviour in the Headington area, the following main themes have been identified:
- The major employment areas considered within this study represent the majority of employment within the Headington Study area.
  - A review of the travel patterns associated with major employers within the Headington area appears to confirm that the majority of staff who live within the study area (i.e. OX3 postcode area) travel to and from work via sustainable modes, with high proportions of walking and cycling journeys. Albeit, there is still a small yet significant number, if taken together, of very local trips that also use a car. This suggests there is still further scope to influence travel behaviour at the workplace to more active modes, given the relatively short distances travelled.
  - A significant relationship between Headington and other employment areas to the south-east, particularly Central Oxford, Cowley and North Oxford with large numbers of employment related trips in both directions. In terms of those accessing employment sites in Headington, the postcode data analysed suggests around 10% of staff travel by car from within the city. Again, at an aggregate level, this is a considerable number, and given

the distance travelled, suggests there is scope to further influence travel behaviour to cycling or public transport.

- There are however a large proportion of staff who live within Oxfordshire but outside the city itself who predominantly travel to and from work by car, making up between approximately 20% and 30% of all journeys at major local employers. This appears to represent the biggest potential group with the potential to use options such as public transport and park and ride, although there are a number of intrinsic challenges due to the relatively dispersed origins of these trips from across the County.
- Comparisons between Census 2001 and more recent employee home postcodes suggest that this group has got larger, along with the number of people travelling from outside Oxfordshire itself. Again, this is a challenge, particularly as the car is likely to be the first choice for many trips, but also, because any growth in jobs may lead to greater levels of commuting from these more dispersed areas.
- Major employment at the John Radcliffe and Churchill Hospital sites generating consistent levels of traffic throughout the day, weighted towards inbound movements until mid-morning and outbound movements from early afternoon, the total hourly trip profile related to the hospital sites is consistent with that of the overall traffic recorded for the Headington area as a whole, although as a comparison the Old Road campus has a slightly different trip profile more consistent with traditional employment uses. This suggests there might be some opportunity to influence travel to work times at the Old Road campus, particularly as they carry out office-based work which may be able to operate flexible working practices, so that trips are more spread, especially in the morning period.
- Based on employment in the Headington area being heavily weighted towards healthcare uses related to the hospital sites it appears that the relatively flat profile of car traffic throughout the day could be largely reflective of the trip generation / attraction associated with these uses.

## 5 Current Operation - Highway Network

5.1 The baseline assessment included a review of the current operation of the road network in the study area, with traffic levels used in the assessment based on available data sources, including:

- Existing traffic counts and surveys;
- Data from base year transport models held by Oxfordshire County Council; and
- Traffic data from recent Transport Assessments

5.2 The ability of the highway network to accommodate the levels of traffic identified is based upon a number of factors, which are summarised below:

- Link (street/road) capacity
- Junction capacity
- Other factors

5.3 The following section of this report considers each of these in more detail.

### Link Capacity

5.4 In order to assess the levels of current network stress on the main routes within Headington a comparison of recorded vehicle trip levels with the theoretical link capacity of individual streets was carried out.

5.5 The capacity of individual streets was calculated based upon Congestion Reference Flows (CRF), estimated based upon factors including usable carriageway widths (taking into account reductions in available widths resulting from on-street parking or bus lanes), numbers of lanes and directional split of traffic flow.

5.6 Traffic demands were based upon factored traffic count information for a number of the main roads and junctions within the Headington area.



5.7 The findings of the link capacity review are provided in **Table 11**.

**Table 11 – Ratio of Link Capacity to Traffic Demand**

Location	Congestion reference flows (CRF)	Average Annual Weekday Traffic AAWT	% of AAWT to CRF
Old Road (between Lime Walk and Windmill Drive)	13,170	13,661	104.10%
London Road (West of A40)	14,660	13,565	92.50%
London Road (between Headley Way and Lime Walk)	15,410	13,310	86.40%
Marsh Lane	15,540	12,451	80.10%
London Road (between Lime Walk and Windmill Drive)	19,990	12,965	64.80%
Headley Way (South of Staunton Road)	17,460	10,891	62.40%
Old Road (between Gypsy Lane and Lime Walk)	13,310	8,059	60.50%
Marston Ferry Road	22,100	10,723	48.50%
Gypsy Lane	15,830	7,277	45.90%
Churchill Drive	11,360	4,882	43.00%
Beaumont Road	9,140	3,912	42.80%
Marston Road	16,700	6,850	41.00%
Windmill Drive	17,930	7,080	39.50%
Hollow Way	23,140	8,222	35.50%
Headington Road (West of Gypsy Lane)	16,120	5,371	33.30%
Lime Walk	10,510	2,904	27.60%
A40 (north of Marsh Lane junction)	147,430	33,312	22.60%
A40 (north of Eastern Bypass junction)	166,300	30,211	18.20%

5.8 This initial assessment shows the following streets as currently subject to levels of traffic above the theoretical reasonable link capacity during at least one peak period, so would be expected to experience significant levels of congestion and delay:

- London Road between Windmill Avenue and the A40; and
- Old Road between the Slade and Churchill Drive;

5.9 In addition the following streets are approaching levels of link capacity (considered to be between 80 and 90%) where any additional traffic might negatively impact on its operation:

- London Road between Headley Way and Lime Walk; and
- Marsh Lane

### Junctions

5.10 Whilst the capacity of streets to accommodate traffic levels is one important factor in the way a transport network operates, in many instances the operation of major junctions rather than the links connecting them can be the determining factor in the levels of congestion or delay experienced, especially in urban areas like Headington.

5.11 Within the Headington Study area the following junctions in particular are considered to have a significant effect on the overall operation of the local transport network:

- Signal crossroads junction of Windmill Road / London Road / Old High Street;
- Signal crossroads junction of London Road / Headley Way;
- Junction of Old Road / the Slade / Windmill Road;
- Priority junction of Old Road / Churchill Drive;
- The double roundabout junction of Cherwell Drive / Marsh Lane / Headley Way / Marston Road; and
- The Headington Roundabout junction London Road / A40 / A4142

5.12 Congestion at these junctions results in peak hour queuing and delay on routes including:

- London Road;
- Horspath Driftway / The B4495;
- Headley Way; and
- Marston Road

5.13 It is understood that improvements to both the Headington Roundabout junction (London Road / A40 / A4142) and the double junction of Cherwell Drive / Marsh Lane / Headley Way / Marston Road), are proposed as part of the mitigation works associated with the Barton development, as such these junctions have not been assessed in detail. However, these

junctions clearly already experience significant congestion which effects bus journey reliability, particularly bus access out of Bayswater Road onto Headington Roundabout, which is unlikely to be resolved through Barton mitigation measures. Further improvements might be required to ensure these schemes provide specific benefits to buses, rather than just general traffic.

5.14 Traffic signal information and traffic counts provided by Oxfordshire County Council were used to carry out an initial assessment of the current level of operation of a number of the other key signal junctions on the Headington Road network, consisting of the following:

- Headington Road / Gipsy Lane;
- Gipsy Lane / Old Road;
- London Road / Headley Way;
- London Road / Windmill Road; and
- Windmill Road / Old Road

5.15 These junctions were assessed using the industry standard software package LINSIG, taking into account other relevant influences on the London Road corridor, including the controlled bus gate at the Osler Road junction and signal controlled pedestrian crossing facilities.

5.16 A summary of the model results for the base year (2012) is provided in **Table 12** (below), which provides details of the percentage of available capacity used and queuing on the worst affected approach to each junction. The table also provides details of the overall operation of the junction in the form of Practical Reserve Capacity (PRC) percentages, with a negative value denoting a junction which is catering for traffic levels above its theoretical capacity.

5.17 It can be seen that the London Road / Windmill Road junction is operating over capacity during both peak hour periods, whilst the signal junctions of Old Road with Gipsy Lane and Windmill Road are both operating over capacity during the PM peak hour.

5.18 Whilst the other junctions / time periods assessed do not result in negative PRC values, these junctions generally operate with only limited reserve capacity, suggesting that relatively minor increases in traffic could have significant detrimental effects upon their operation.

**Table 12 – Signal Junction Summary**

Junction	AM Peak			PM Peak		
	Highest Degree of Sat (max %)	Largest Queue (Total)	PRC (%)	Highest Degree of Sat (max %)	Largest Queue (Total)	PRC (%)
Headington Road / Gipsy Lane	88.9	16.0	1.3	86.1	15.0	4.6
Gipsy Lane / Old Road	81.0	16.0	11.2	96.5	23.0	-7.2
London Road / Headley Way	85.6	17.0	5.1	84.5	16.0	6.3
London Road / Windmill Road	94.8	33.0	-5.4	98.7	32.0	-9.7
Windmill Road / Old Road	86.5	19.0	4.1	98.0	25.0	-8.8

### Other Factors

- 5.19 In addition to issues of capacity on either individual streets (links) or at junctions, there are a range of other factors which can influence levels of experienced traffic congestion and delay.
- 5.20 One of the major influences on traffic movements in the Headington area is on-street parking provision. On-street parking has the effect of limiting usable carriageway width, (as is the case on sections of Old Road, London Road in Headington Centre and many of the side roads within Headington), which subsequently reduces the capacity of the street. The effect of on-street parking was included in the assessment of Link Flows and capacity detailed in **paragraph 5.4** onwards and is particularly noticeable when considering some of the narrower roads such as Old Road, Windmill Road and Headley Way.
- 5.21 On street parking can also have the effect of creating increased areas of potential conflict and delay as drivers enter and exit parking spaces and enter / leave the stream of passing traffic. This appears to particularly be the case on London Road, where much of the on street parking is in formalised bays accommodated within pavement build-outs and an increased turnover of parking space is expected as a result of individuals accessing local retail.
- 5.22 Parking close to junctions can have a similar effect, resulting in localised queuing and delay as vehicles navigate the reduced road space close to the junction. Vehicles with a larger turning

circle, such as delivery vehicles, refuse vehicles and buses can be particularly affected by this. From on-site observation it appears that parking on a number of the side roads feeding onto London Road does result in delay, with vehicles turning off the main road having to wait on the main line carriageway to give way to vehicles exiting the side road.

5.23 The central section of the Headington Road / London Road provides a District Centre function for the surrounding area, with a range of local retail and leisure facilities, including local supermarkets, retailers, cafes and other establishments. This results in considerable on street activity in terms of pedestrian and cycle movements (both along and across the road), and activity on the road edge with cars parking and maneuvering and buses loading and unloading, all within a relatively short distance. This creates 'edge friction' in terms of a number of individually minor, but cumulatively significant causes for delay, which result in slower overall movement of traffic and localised queuing and congestion.

5.24 Areas which are considered to be particularly effected by 'edge friction' include:

- The junction of Osler Road with London Road, and to a lesser extent along Osler Road itself (caused by on-street parking close to the mouth of the junction). Observations confirm this is particularly problematic when buses turn right into Osler Road and wait for an on-coming vehicle to pass. This also impacts on vehicles travelling along London Road within the vicinity of the junction, as they wait for the bus to move into the junction.
- Sections of The Slade and Windmill Road where on-street parking is in-place. From observations, this can disrupt bus movements, particularly northbound along Windmill Road south of its junctions with London Road, and also on The Slade north of its junction with Horspath Driftway. The cumulative impact of these small delays, along with congestion at junctions, means that bus reliability is undermined. On-street parking along The Slade and Windmill Road also disrupts the continuity of on-street cycle infrastructure, resulting in cyclists having to mix with traffic on parts of this route.
- Parts of Headley Way where there is on-street parking i.e. between the entrance to the JR Hospital and the junction with Marston Road.
- As noted above, on street activity in Headington District Centre can cause delay. This is sometimes exacerbated by large vehicles parking in the carriageway to make deliveries and also accessing their properties via side roads (with access sometimes restricted by on-street parking close to the junction).

## CONSISTENT THEMES – HIGHWAY NETWORK

- 5.25 The operation of the highway network in and around Headington is currently affected by a range of influencing factors including:
- Links operating at or near capacity on a number of streets, in particular the eastern end of London Road and the section of Old Road approaching the Churchill Hospital. This would suggest that there is little scope for additional traffic to be accommodated on these routes at peak periods, due to the available widths and standards of usable carriageway.
  - Junction Capacity at a number of key junctions creates delay and significant queues. Whilst many of the roads within the study area are well within reasonable levels of link capacity, a number of major junctions represent network 'pinch-points', where traffic is obliged to wait or give way. This is particularly relevant at locations such as the London Road / Windmill Road junction where the signal control junction provides for both traffic control and pedestrian crossing facilities within a busy local centre.
  - On Street and Road Edge activity, including on street parking (both adjacent to the carriageway and using formalised bays), pedestrian activity and crossing points, areas of shared carriageway (car, bus and cycles) and bus stop facilities.
- 5.26 Due to the relatively high flows of traffic on the major routes within Headington, minor factors can result in queues quickly forming and resulting congestion and further delay.
- 5.27 It therefore appears likely that individual or isolated measures or activities are unlikely to provide a solution to current traffic issues and that a comprehensive package of works that considers each of the individual areas contributing to overall levels of delay will be required.

## 6 Current Operation - Parking

- 6.1 Due to the major forms of development within Headington often having significant and fluctuating parking demands, the management of on and off street parking provision is an important transport consideration, with a number of the individual elements which inform the way parking operates in the study area reviewed below.

### Parking numbers and occupancy

- 6.2 The major employment sites within Headington provide a significant number of total car parking spaces, with the following summary information provided for 2012.

**Table 13 – Available Car Parking at Major Sites**

Site	Number of staff parking spaces	Number of visitor parking spaces
John Radcliffe	1626	734
Churchill	838	399
Old Road Campus	210	55

- 6.3 The car parking provision at main sites within Headington tends to be well utilised, with the parking associated with the hospital sites in particular reported as being under considerable pressure during some periods of the day.
- 6.4 The Oxford University Hospital NHS Travel Plan Monitoring Report (January 2012) included an assessment of car parking occupancy at the John Radcliffe and Churchill Hospital sites, with a summary of the daily levels of occupancy for staff and visitor parking summarised in the **Table 14**.



**Table 14 - Hospital site car park occupancy**

Time Period	John Radcliffe Occupancy (%)		Churchill Occupancy (%)	
	Staff	Visitors	Staff	Visitors
07.00-08.00	44.9	10.1	24.3	18.0
08.00-09.00	78.3	21.0	50.5	39.3
09.00-10.00	99.7	63.8	77.7	54.1
10.00-11.00	104.5	85.8	89.6	90.2
11.00-12.00	105.8	90.2	89.8	95.2
12.00-13.00	103.4	85.4	90.0	87.2
13.00-14.00	105.2	82.9	87.2	78.4
14.00-15.00	104.6	89.3	87.6	86.0
15.00-16.00	95.1	89.8	80.1	81.0
16.00-17.00	80.3	78.9	67.4	61.2
17.00-18.00	56.7	61.3	36.9	43.9
18.00-19.00	37.4	51.0	23.3	33.3

- 6.5 The Institute of Highways and Transportation publication "Parking Strategies and Management" recommends target occupancy levels of 85%, with this being the level at which there is sufficient capacity for drivers to find a car parking space without the need to circulate or wait unnecessarily.
- 6.6 Time periods where parking occupancy was recorded as exceeding this level are highlighted in red in **Table 14**, which shows both staff and visitor parking being above these recommended levels of occupancy for much of the day between 10.00 am and 4.00 pm.
- 6.7 However it is also noted that only the staff parking at John Radcliffe was recorded as having demand exceeding actual parking capacity throughout the day, suggesting that there may be some scope to make more efficient use of the existing visitor provision.
- 6.8 The fact that significant delays to visitor parking continue to be reported at John Radcliffe in particular could be due to the demand for parking at the most accessible or popular visitor car parks exceeding demand, whilst other car parking areas may be regularly under-utilised.

#### Parking Charges

- 6.9 Parking charging regimes can have a significant effect upon travel and parking choices, particularly when considered alongside the availability of reasonable sustainable transport options. **Table 15** provides a summary of the current parking regimes at a number of the

major employment sites considered within the study area, with example costs for varying durations of stay for visitors and a summary of overall comparative annual parking costs for staff.

- 6.10 For comparison purposes the table also includes details of the cost associated with using one of the main alternatives to on-site parking, based upon travel from either the Water Eaton or Thornhill Park and Ride. In addition example charging at the Addenbrookes Hospital, Cambridge has been provided as a potential benchmark for comparing parking charges and management.

**Table 15 – Car Parking Charging Summary**

Site	Charge for 1 hour	Charge for 3 hours	Charge for 8 hours	Annual Cost
Churchill	£1.00	£2.50	£7.00	
John Radcliffe	£1.00	£2.50	£7.00	
Nuffield	£2.00	£4.00	£10.00	
Oxford University Hospital sites	Staff charged sliding scale according to pay (between 0.3% – 0.5% salary, i.e. Salary of £30,000 = £138 per year)			£138
Oxford Brookes	Staff charges at 0.6% of salary (Salary of £30,000 = £180 per year).			£180
Oxford Old Road	Staff charges at 0.5% of salary (Salary of £30,000 = £150)			£150
Bus Services / Park and Ride (includes new P&R parking charge)				
Water Eaton Park and Ride	Return trip £4.00	Return trip £6.00		£711
Thornhill Park and Ride	Return trip £2.70	Return trip £4.70		£711
Arriva Shires Bus Ticket	Daily open ticket £8.50			£800
Benchmark				
Addenbrookes	£2.60	£7.00	£13.50	
Addenbrookes (staff)	£2.50	£2.50	£2.50	£650
Park & Ride	£2.60	£2.60	£2.60	

- 6.11 From an initial review all the main sites considered within the Headington Study area have a current parking permit or charged parking system in place, with the cost of staff permits tending to be based upon an annual percentage of salary and visitor and patient parking (where applicable), charged on an hourly basis.

- 6.12 For patient or visitor travel to the main hospital sites the incremental nature of car parking charging means that short to mid length stays tend to be comparable to, or cheaper than, using options such as park and ride, whilst an all day stay would be more costly.
- 6.13 For staff travel, where staff parking is available and an individual is eligible for a parking permit, on-site parking is cheaper than paying for an annual park and ride ticket.
- 6.14 For comparison current parking charges at the Addenbrookes Hospital site in Cambridge have also been provided, where visitor / patient parking is approximately twice the cost of the charges at the John Radcliffe and Churchill sites, ranging from £2.60 for an hour stay to £13.50 for a stay of up to 8 hours.
- 6.15 Staff parking is charged at £2.50 per day, intended to provide a cost comparable with Park and Ride, (at £2.60 return); which would equate to approximately £650 per year.
- 6.16 It is important to note that the cost of permits in many cases is not the main limiting factor at several of the sites, with the number of available spaces being well below both the total likely demand for car parking and also the number of permits issued. For example the Oxford University Old Road Campus site issues parking permits at a ratio of 1.8 per parking space.

**Leicester University Hospital Pathways Project:** As part of the redevelopment of three City Hospital sites, resulting in an expected staff increase of 40% and cumulatively providing over 4,700 car parking spaces, a comprehensive review of staff and patient travel was carried out. The proposals for traffic management included ANPR to monitor car park usage and increase efficiency, a single Travel Plan coordinator overseeing the three sites and the commissioning of a new shuttle bus service.

**Addenbrookes Hospital, Cambridge:** In order to manage increasing levels of demand for car travel and associated congestion a series of measures have been introduced at the Addenbrookes site over a number of years, including the introduction of parking charges to match park and ride costs, provision of over 1,300 cycle parking spaces, improved public transport access and Personalised Travel Planning for all new starters. This resulted in car use reducing from 60% in 1999 to 38% in 2006 and an increase in cycle mode share to 25%.

## Parking Management

- 6.17 As detailed in **Table 15** staff parking at the main employers within Headington is based upon two main factors:
- Eligibility: With significantly more staff than available car parking spaces, individuals are assessed on a range of criteria with regards to eligibility for a car parking permit, taking into account factors including proximity to the site, carer and/or family responsibilities and business vehicle requirements.
  - Cost: The cost of a car parking permit for staff is based upon a percentage of staff salary, ranging between 0.3 and 0.6% of annual pay.
- 6.18 The issue of paid staff parking has been the subject of many previous studies, with a range of potential options available, each of which have strengths and weaknesses.
- 6.19 The summary information provided in **Table 16** is taken from the Transport for London Guidance document 'Developing and Implementing Travel Plans: A good practice guide for the NHS in London'. Whilst written with the London Transport network in mind, a number of the constraints and opportunities experienced by London Hospitals are relevant to the Headington area, particularly with regards to limited parking availability, peak hour congestion and potential for travel by other modes.

**Table 16 – Car Parking Payment / Permit Options**

Charging Regime	How it Works	Advantages	Disadvantages
Parking Permit – Standard Annual Charge	Purchase of an annual permit for standard fee	Can provide a deterrent to parking if charges are set high enough	Staff may feel 'locked' into car travel having paid for a permit (unless additional daily charges are also imposed)
Parking Permit – Based on Salary	Purchase of an annual permit with fee based upon salary	Can make charging appear less regressive and therefore more acceptable	Potential for some resentment based upon differing charging levels. Staff may feel 'locked' into car travel having paid for a permit (unless additional daily charges are also imposed)
Pay as you use	Hourly charges, either at point of purchase or as payroll deduction	Paying for what is actually used does not 'lock' users into car use Charges can vary according to time of day and parking pressures	Can be resource / cost intensive
Paying according to distance travelled	Equity of the charging system can be supported by varying charges or eligibility according to proximity of home location to the site	Reflects the potential range of travel choices available for the home to work trip	Complex to administer Those living further from the site may have higher incomes, so charging could be regressive
Cash out approaches	Having established that free parking is a subsidy to drivers, those that forego this receive a cash benefit	The Cash sum can help fund alternative modes of transport Can be partially financed through space savings and parking charges	Expensive if revenue is not found to fund the initiative

### On Street Parking

- 6.20 Much of the Headington study area is covered by a Controlled Parking Zone (CPZ) with the coverage in, or adjacent to, the Headington Study area provided in **Appendix D**; however a review of the Travel Plans for a number of major local organizations suggests that this does not fully control the demand for on-street parking.
- 6.21 For example the 2012 Old Road Campus Travel Plan monitoring report identified 10% of car drivers as regularly parking on-street, whilst the Oxford Brookes Travel Plan 2009 monitoring report detailed approximately 11% of staff and over 31% of students as parking on street at least once or twice a week.
- 6.22 As such, whilst rigorous controls have been put in place by the major local organisations to control car usage and parking, (including the Oxford Brookes Student contract for halls accommodation precluding ownership of a vehicle and providing the Brookes key Travel Pass) and the introduction of extension of the Divinity Road controlled parking zone in 2012, it appears that some overspill on-street parking continues to be an issue for the local area.

### CONSISTENT THEMES – CAR PARKING

- 6.23 An initial review of car parking in the Headington area highlights a number of potential issues for further detailed assessment within this Transport Study:
- A current lack of parity between parking costs and the comparison cost for undertaking trips by sustainable modes. In particular the costs of undertaking longer distance bus trips from locations such as Aylesbury, Thame or Bicester. The introduction of parking charges at the Water Eaton and Thornhill Park and Ride has further reduced any cost benefits associated with using Park and Ride compared to on site car parking (based upon current parking tariffs);
  - The potential for staff to 'lock in' to driving to / from work due to the general use of annual passes, which encourage greater use of on site car parking as they represent a fixed cost regardless of the level of overall usage;
  - That the local major employers have consistently worked to manage car parking demand as efficiently as possible, through the use of both car parking controls (in the form of supporting Controlled Parking Zones around their sites and enforcing car parking charges across their estates) and through the promotion of sustainable travel alternatives for staff;

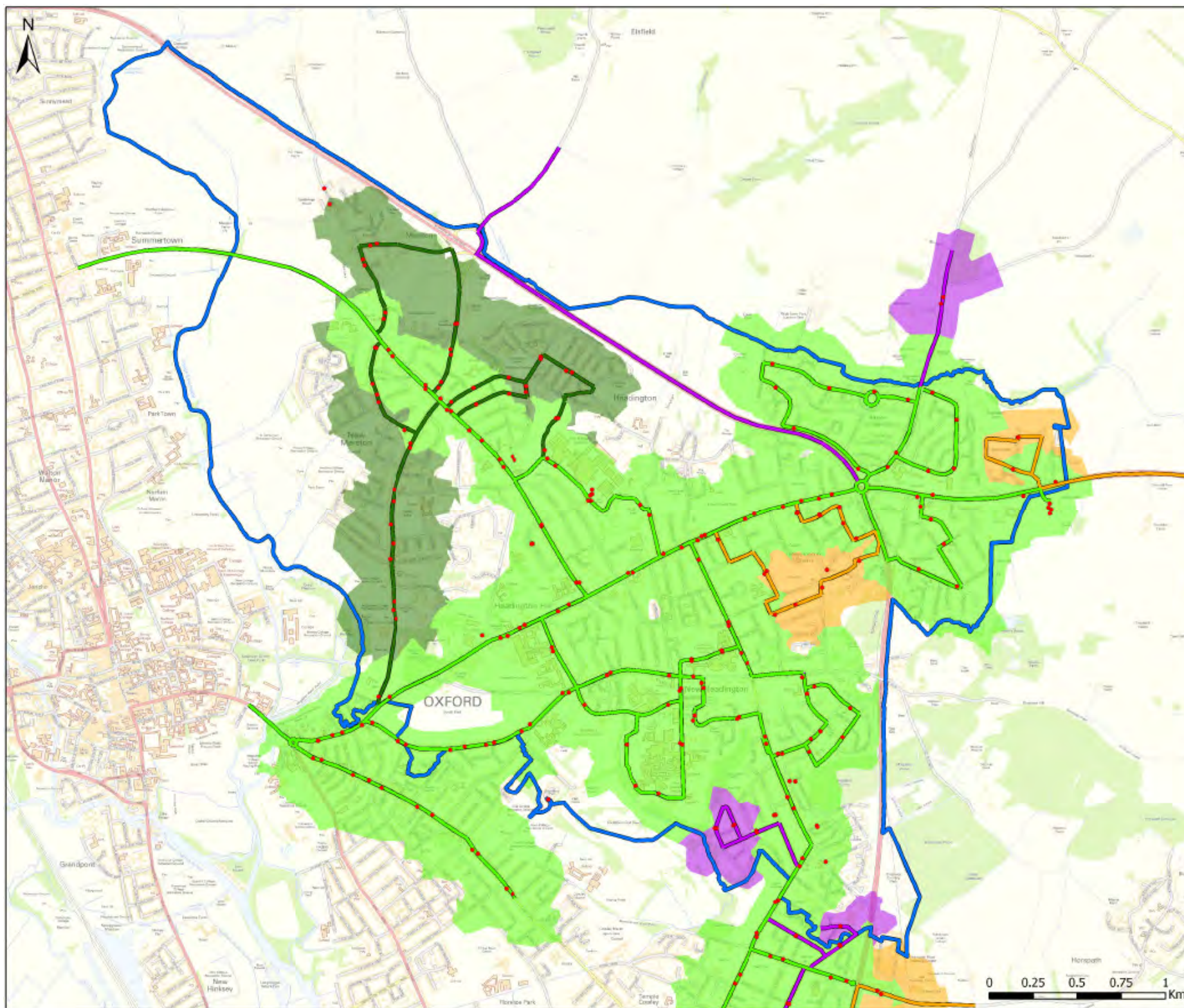
- Car Parks at the Hospital sites generally being at, or above, reasonable capacity for staff parking for the majority of the day, reflecting responses received in the staff travel surveys with regards to the availability of parking and resulting levels of on-street parking still taking place; and
- The potential for staff to view using visitor parking spaces as a viable or economic parking option. The cost of a visitor space is broadly comparable to the combined costs of parking and park and ride from one of the peripheral park and ride sites (such as Thornhill) and may be seen as a more convenient option by some.



## 7 Current Operation - Public Transport

### Bus (services)

- 7.1 Headington is served by a number of bus services which are largely split between local services, which provide a slower service, but greater degree of penetration away from the main road corridors and inter-urban or commuter routes, which are focused on faster, more direct routes on the more major arterial roads.
- 7.2 In addition to regular commercial bus services, the area is also served by a number of Park and Ride routes, including a number of new routes:
- Headington Connect 700 from Kidlington and Water Eaton Park and Ride to the John Radcliffe hospital, Brookes University, Churchill hospital, University of Oxford Old Road Campus and Nuffield Orthopaedic Centre.
  - Headington Connect 800 from Thornhill Park and Ride to Headington and John Radcliffe hospital.
  - Headington Connect 900 from Thornhill Park and Ride to Nuffield Orthopaedic Centre, University of Oxford Old Road Campus and Churchill Hospital.
  - The existing 400 route from Thornhill to the City Centre (and then onwards to Seacourt) runs frequently throughout the day and also runs at the weekend.
- 7.3 The U1 and U5 services (Brookes Bus) provide a high quality link between Oxford Brookes campus sites, which also provide links to the Churchill Hospital site. The use of this service is encouraged for all staff and students, with the promotion of the Brookes Key for staff and students, which gives either free or discounted access to public transport.
- 7.4 The plan provided on the following page details the routes of current services including a 400m walking journey buffer from each route in order to give an indication of the current level of bus service coverage (based upon a 5 minute walk being reasonable for journeys to and from bus routes).



## Legend

- Study Area
- Bus Stop (inc non served)

## Frequency

- 15mins or less
- 16mins to 30mins
- 31mins to 60mins
- Less than hourly/infrequent

## Highest Frequency Within 400m Stop Catchment

- 15mins or less
- 16mins to 30mins
- 31mins to 60mins
- Less than hourly/infrequent

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REV	DESCRIPTION	BY	CHK	APP	DATE

Client:



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Project:  
**Headington Transport Study**

Drawing Title:  
**Headington Bus Routes and  
400m Stop Catchments**

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
475	JJC	15/05/13	JP	15/05/13	ASG	15/05/13
Project No.	Office	Type	Drawing No.	Revision		
A032520	35	18	001			

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7.5

A more detailed set of plans which disaggregates this information further, to provide details of the varying levels of bus frequency from differing quadrants of Oxford and the surrounding area, is provided in **Appendix F**, with a summary of the areas served by existing services also provided in **Table 17** (below). This assessment was based upon a review of services carried out in July 2013.

**Table 17 – Areas outside Headington served by current public transport routes**

Service No	Eastern Arc (Cowley, Blackbird Leys)	South Oxford	North Oxford	City Centre and West Oxford	North Oxford -shire	East Oxford -shire	South Oxford -shire	West Oxford -shire
4/4A/4B /4C				✓			✓	
8/9/N8				✓				
10/N10	✓			✓				
13		✓		✓			✓	
14/14A			✓	✓				
17A/17 C			✓	✓				
23/X13		✓		✓			✓	
86	✓							
108/11 8				✓	✓ (118 only)	✓ (108 only)		
275				✓		✓		
280				✓		✓		
400				✓				
700			✓					
800	Remains within Headington							
900	Remains within Headington							
U1				✓				
U5	✓			✓				
U5x						✓		
S5			✓		✓			
H1	Remains within Headington							
H2	Remains within Headington							

7.6 When considering individual levels of public transport connectivity between Headington and the rest of the Oxford / Oxfordshire, there is a considerable variation between areas, with the City Centre and West Oxford being very well served by a wide range of services, with areas such as South and East Oxfordshire having very limited connectivity.

7.7 The level of public transport connectivity between Headington and the remainder of the Eastern Arc is also limited, particular when considering links with areas to the northern side of London Road. There is a frequent service to and from the John Radcliffe, but current links between Headington and the employment areas in Cowley are more limited.

#### Park and Ride

7.8 Two main Park and Ride sites provide direct access to a number of the employment areas within Headington, with Water Eaton to the north via the 700 service and Thornhill to the east via the 800 and 900.

7.9 The Thornhill Park and Ride site has recently been expanded as part of the LSTF funded improvements to the east of Oxford, with the car park being extended from the current 874 spaces to provide a total of 1380 spaces.

7.10 This follows a capacity / demand study undertaken by the Council, which identified suppressed current demand for approximately 300 additional cars above that which the site could accommodate, increasing to 540 additional cars by 2026.

7.11 The extension of the site to 1380 spaces largely provides the number of spaces (all but 20) predicted to be required through the study work. However when considering the role of Park and Ride with relation to Headington there are two initial factors to consider:

- Park and Ride does not appear to be one of the main current transport options for major employers within Headington, with the 2011 Travel Monitoring Survey at the University Hospital Trust sites identifying only 3.5% of trust staff at the John Radcliffe and 2.2% of trust staff at the Churchill Hospital site using Park and Ride. Individual survey questions related to the use of public transport also expressed little enthusiasm for Park and Ride as a travel option.
- The modelling work undertaken in 2009 predicted the continued use of a large degree of the car parking at the Thornhill Park and Ride site as being for non Park and Ride uses,

with 32% of cars parked being predicted as related to the use of coach services (predominantly linking to London / Airport) and a further 16% for overnight stays. With the introduction of parking charges at Thornhill Park and Ride, and specifically, increased charges for longer stay parking, suggests the profile of potential users could change.

### Bus Journey Reliability

7.12 The link and junction capacity issues, and 'edge friction' previously identified, all have an impact on bus service reliability. Nearly all buses serving Headington experience unreliability issues because of congestion, which impacts on the ability of operators to plan and run their buses, and also leads to dissatisfaction with services. Areas noted to be particularly acute include:

- Access onto London Road Roundabout from Bayswater Road
- The London Road / Windmill Road junction, particularly on the westbound approach on London Road, and northbound approach on Windmill Road
- The Windmill Road / Old Road junction, which causes blocking back along The Slade
- The Cherwell Drive / Headley Way double mini roundabouts

### CONSISTENT THEMES – PUBLIC TRANSPORT

7.13 Following a review of the current public transport provision for the Headington area there are a number of identified consistent issues relevant to the further development of the Headington Strategy:

- There are strong public transport links on the main arterial routes between Headington and the City Centre, these are focused on the Headington Road / London Road corridor, with few alternative east-west alternative routes available;
- Good linkages with the Park and Ride sites at Water Eaton and Thornhill, particularly with the recent introduction of more direct Park and Ride services;
- The connections to other areas of the City are less well developed (with some notable exceptions e.g. the number 10), including links between Headington and the remainder of the Eastern Arc; and
- Limited connections to the wider Oxfordshire area (without inter-change).

- 7.14 The above factors appear particularly relevant when considered in the context of the Trip Generation and Attraction review summarised in **Section 4.1**, which identify a large number of inbound and outbound trips being between Headington and the rest of the Eastern Arc and a large number of inbound trips originating within the surrounding market towns, with only a limited percentage of journeys being to and from the centre and west of Oxford.
- 7.15 Although bus priority has been implemented on parts of London Road, there is also a need to tackle congestion and delay points along other bus routes, such as those that now directly serve the hospitals (e.g. Old Road), and existing services from areas like Cowley (via The Slade), to ensure that buses can operate more reliably and meet greater expectations for speed and quality. Given the limited availability of space, bus lanes are unlikely to be practical in most locations, but other measures such as bus priority at signals, queue relocation, removal of general through traffic and measures to limit the impacts of 'edge friction', are possible.

## 8 Current Operation – Cycling & Walking

### CYCLING

- 8.1 Cycling makes up a reasonable proportion of the current journey to work trips originating within Headington, with 2011 census data detailing approximately 18% of all journey to work trips (as an average) being undertaken by cycle across the 5 Headington Ward areas.

#### Current Demands

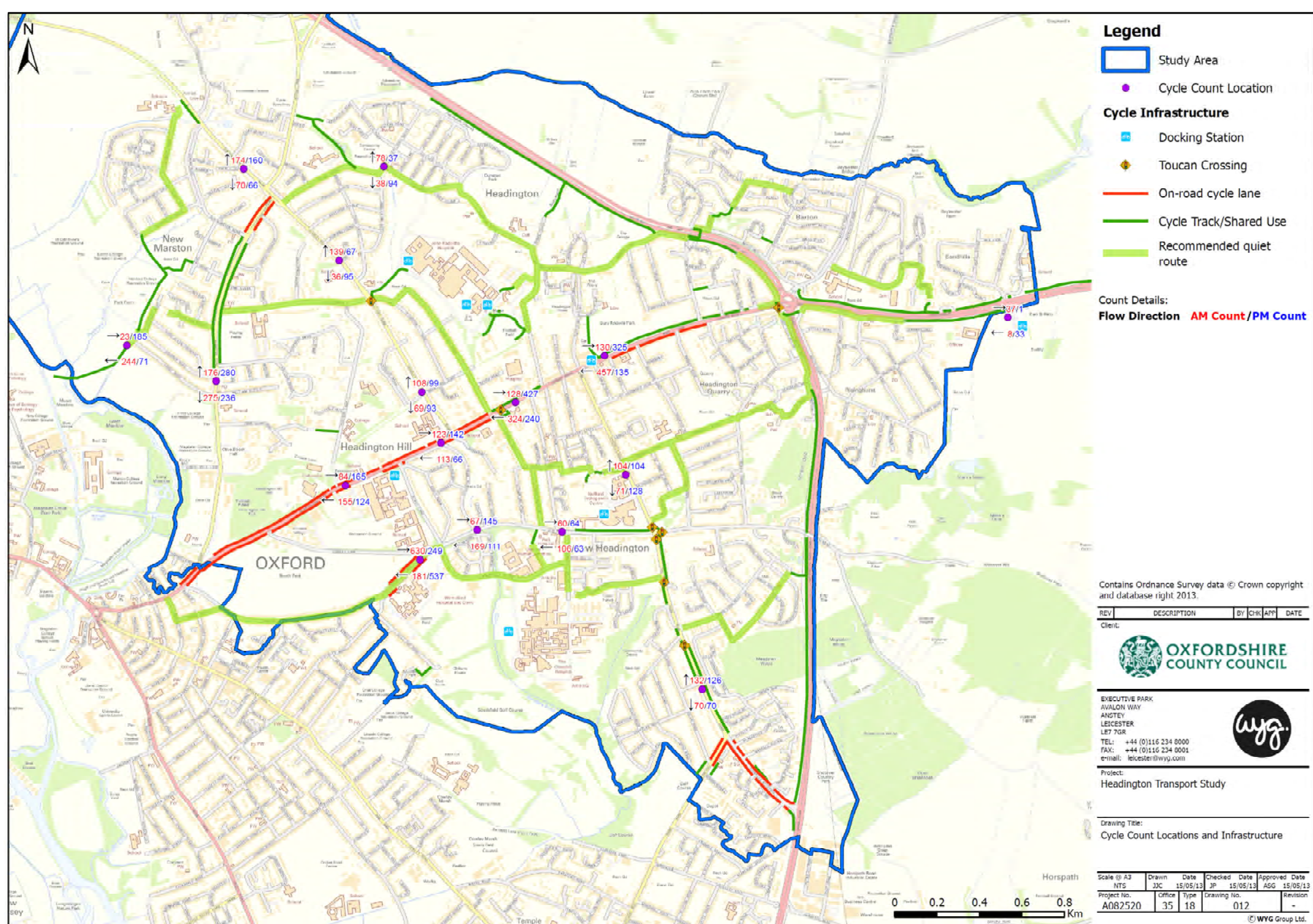
- 8.2 **Table 18** (below) gives a summary of the recorded journey to work trips across Headington wards, highlighting cycle modal share. Marston in particular has a very high Modal share for cycle to work trips, with 27% of all journeys (equating to 804 total trips) being undertaken by cycle.

**Table 18 – Headington Wards Journey to Work Cycle Trips (2011 census)**

Travel to work mode	Marston	Headington Hill and Northway	Headington	Barton and Sandhills	Quarry and Risinghurst	Churchill
Car Driver	1141	954	801	1501	1378	902
Passenger	123	113	56	154	111	109
Bus	396	420	433	732	487	651
Cycle	804 (27% of all trips)	438 (17% of all trips)	488 (18% of all trips)	387 (12% of all trips)	556 (18% of all trips)	430 (15% of all trips)
Pedestrian	401	535	914	407	508	775
Other	130	82	84	98	98	94

- 8.3 A plan detailing summary information from recent cycle surveys undertaken by Oxfordshire County Council is provided on the following page, which gives details of the main peak hour cycle journey flows identified overlaid onto a summary of the current cycle infrastructure within the Headington area.





8.4 The counts detail generally high levels of cycle usage with three main areas with particularly noticeable flows, these being:

- At the far end of Ferry Road, where it connects to the pedestrian / cycle link through from New Marston to South Parks.
- London Road, East of the junction with Headley Way
- Old Road / Warneford Lane, immediately to the south of the Oxford Brookes University Headington Campus.

8.5 The cycle count data therefore appears to show the largest demand for cycle travel during peak hour periods being associated with Education / University sites, with the University Hospital Trust sites also generating a reasonable demand for cycle travel.

#### Current Facilities

8.6 The current formal on and off-carriageway cycle facilities within Headington are also summarised on the cycle plan, including the following:

- National Cycle Route 57 to the south-west of the Study area, passing to the south of Oxford Golf Club
- On and off-carriageway provision to the eastern end of London Road (between Windmill Road and the Headington Roundabout)
- On-carriageway provision on the majority of the remainder of the London Road / Headington Road
- A segregated off-carriageway route to the northern end of Marston Road
- Cycle link from New Marston to South Parks
- A mix of on and off-carriageway provision on Hollow Way, Horspath Driftway and the Slade, (linking to a short section of segregated cycle route fronting the Nuffield Orthopaedic Centre and the entry to Churchill Hospital)

#### Planned Improvements

8.7 As part of the proposals included within the Headington LSTF Bid the implementation of a cycle hire scheme was proposed, including cycle hire hubs located at the Thornhill Park and Ride site, the John Radcliffe Hospital, the Churchill Hospital and Oxford Brookes Headington



Campus. This scheme was delivered in the summer of 2013, with a desire to expand this scheme in the future.

- 8.8 The LSTF bid also detailed proposals to improve the cycle links between Thornhill / Sandhills to the City Centre, with the suggested preferred route between the Park and Ride site and the Headington Hospital sites shown on the cycle facility plan, this route was subsequently delivered in 2013.

### Gaps and Key Issues

- 8.9 Although cycle facilities are provided throughout the study area, these are considered to be of varying quality and standards, and in addition, gaps in the network mean that some areas are not as well connected as others. This is further complicated by high traffic volumes and the generally constrained nature of the road network across the study area.

- 8.10 The Department for Transport's Cycle Infrastructure Design Note, sets out a hierarchy of provision. A combination of these measures is likely to be required in supporting more cycling and the removal of existing barriers. Whichever approach is adopted, cycle infrastructure should be:

- **Convenient:** connecting all destinations with routes providing an advantage over other modes in terms of directness and journey time. All facilities (e.g. cycle parking) should be located in convenient locations.
- **Accessible:** routes should be continuous and coherent, linking origins and destinations, and facilitate access to public transport.
- **Safe:** infrastructure should be well designed so that routes are safe, addressing perceptions of poor safety and vulnerability.
- **Comfortable:** routes should be of sufficient quality in terms of gradient and surfacing, and should cater for all users, including children and those with mobility issues.
- **Attractive:** the environment needs to be attractive and well maintained.

- 8.11 Observations confirm there to be a number of common key issues across Headington in relation to existing cycle infrastructure and facilities. These are:

- A lack of coherence, particularly where a combination of on and off-street facilities are provided. This includes sections of London Road and Windmill Road/The Slade.

- A lack of continuous and joined-up cycle routes, particularly from origins/destination outside the study area.
- The high traffic volumes during peak periods resulting in cyclists feeling marginalised and concerned about their safety
- Pinch points (e.g. Old Road) and junctions creating conflicts and uncertainty about priorities.
- Limited facilities for different users, including children, potential and recreational cyclists.

8.12 Census and employee postcode data confirms that a considerable number of work related trips to and from the study area are within what is considered a reasonable cycle distance. This suggests there is considerable opportunity to increase levels of cycling from areas to the south (e.g. Cowley, Blackbird Leys/Littlemore, Iffley/Rose Hill) and north (e.g. Summertown), if supported by improvements to, and marketing of, cycle access. Cycling also has a greater role to play from areas where public transport is less dense, which also includes the same areas mentioned.

## WALKING

- 8.13 Pedestrian journeys also make up a large proportion of locally based journeys within Headington, with approximately 20% of all journey to work trips originating within Headington being undertaken on foot.

### Current Demands

- 8.14 **Table 19** (below) gives a summary of the recorded journey to work trips across Headington wards, highlighting pedestrian modal share

**Table 19 – Headington Wards Journey to Work Pedestrian Trips (2011 census)**

Travel to work mode	Marston	Headington Hill and Northway	Headington	Barton and Sandhills	Quarry and Risinghurst	Churchill
Car Driver	1141	954	801	1501	1378	902
Passenger	123	113	56	154	111	109
Bus	396	420	433	732	487	651
Cycle	804	438	488	387	556	430
Pedestrian	401 (13% of all trips)	535 (21% of all trips)	914 (33% of all trips)	407 (12% of all trips)	508 (16% of all trips)	775 (26% of all trips)
Other	130	82	84	98	98	94

- 8.15 A plan detailing summary information from recent pedestrian surveys undertaken by Oxfordshire County Council is provided on the following page, which gives details of the main peak hour pedestrian flows identified in the Headington area.





## ACCESS TO SERVICES

- 8.16 In order to assess current levels of accessibility to core facilities within the Headington area, local facilities including;
- Primary Schools;
  - Secondary Schools; and
  - Food Retailers.
- 8.17 Catchments for each of these facilities, based upon the walking distances recommended by the DfT, were mapped in order to identify variations in current accessibility to services, with the resulting plan provided in **Appendix A**.
- 8.18 The Headington Area is generally well served with regards to access to local retail, with a reasonable walking distance providing much of the area with access to one or more food stores.
- 8.19 Similarly the levels of access to Primary Education appear to be good, with an 800m walk distance suggesting large residential catchments have one or more locally accessible primary schools (although it is appreciated that the nearest school may not be the preferred option in some cases).
- 8.20 Access to secondary education appears more limited, with most of the residential areas within the study area being outside a reasonable walking distance of the local secondary school.



## CONSISTENT THEMES – CYCLING AND WALKING

8.21 Following a review of the current walking and cycling provision for the Headington area there are a number of identified consistent relevant issues:

- Although cycle facilities are provided throughout the study area, these are considered to be of varying quality and standards, and in addition, gaps in the network mean that some areas are not as well connected as others. Some busy areas, although having a good level of formal provision, are perceived as being unsafe for cyclists and pedestrians, including locations such as the London Road / Windmill Road signal controlled junction.
- There are some locations where alternate cycling routes across the study area are severed due to current bans on cycle use, for example when crossing Headington Hill Park as an alternative route to the A420 Headington Road.
- There is scope to promote a greater level of cycle use, particularly Park and Cycle, as a result of the LSTF funded cycle hub project.
- Analysis of employee postcode data suggests there is scope for greater levels of walking and cycling across the study area, based on the short distances travelled by a small but still significant number of work-based car trips. This is particularly the case for travel to/from other areas across the Eastern Arc.
- Linked to this, a combination of measures are likely to be required in supporting more cycling and the removal of existing barriers. These will need to be a step-change based on the current offer, with a particular need to more direct and continuous routes to areas starting and finishing beyond the study area.
- Walking remains a popular mode choice for shorter distance journeys, with a high proportion of walk to work trips recorded in 2011 census data for those wards containing the largest employment draws, specifically Headington and Churchill.

## 9 Consultation

### INTRODUCTION

- 9.1 To help inform the baseline work, the County Council asked members of the public for their views on what they consider to be the main transport issues, and potential solutions, in the study area. People were asked to write in or respond via an on-line consultation page which was made available between 27 August and 11 October 2013. A total of 257 responses were received.
- 9.2 In addition, several meetings were held with members of the public organised by local councillors and a neighbourhood planning group.
- 9.3 A summary of the common ('top' ten) issues and solutions put forward are presented in **Table 20** and **Table 21** respectively. A summary of all comments is contained within **Appendix G**.

## Issues

9.4 A summary of the main issues raised are shown in **Table 20**. These have been ranked in terms of the number of times they were mentioned.

**Table 20 – Top 10 Areas of Concern**

Frequency	Issue	Area (number of comments)
120	Traffic – congestion	General (40), London Road (38), JR Hospital and surrounding rounds (14), and Churchill Hospital and surrounding roads (13)
37	Cycleways – unsafe	General (15), London Road (11), Churchill and surrounding roads (4)
37	Parking – availability	General (21), JR Hospital and surrounding roads (6), Churchill and surrounding roads (6)
33	Traffic – road condition	London Road (31)
31	Cycleways – disconnected	General (17), London Road (9)
31	Public transport – connections	General (13), Churchill and surrounding roads (7), to/from market towns (4)
31	Traffic – safety/speed	General (15), JR Hospital and surrounding roads (7)
23	Public transport - quality	General (13), JR Hospital and surrounding roads (4)
17	Parking – obstruction	General (11)
16	Public transport – other	General (8), London Road (4), JR Hospital and surrounding roads (3)

9.5 Traffic congestion is by far the most common concern raised by respondents. London Road and roads to/from and surrounding the JR Hospital and Churchill Hospital are identified as particular issues. Issues with safety and speed were also frequently mentioned. Some comments included:

*"There is too much traffic for the roads. No vehicles are able to move at certain times of day, including buses"*

*"The London Road has too much traffic using it, causing delays, pollution and creating a poor living environment"*

*"Speeding on roads which are used at rat runs..."*

- 9.6 Some respondents consider cycle routes to be unsafe and disconnected. Most issues raised were applicable across the area, but London Road was mentioned frequently.

*"...Many of the cycle paths are too disconnected, especially along the main London Road route towards and away from the city, for example a short stretch that plunges back into heavy traffic or simply disappears..."*

*"Cycling provision is not good for children and less confident cyclists..."*

*"Lack of infrastructure making the area safer for cyclists e.g. Old Road..."*

- 9.7 The availability of parking, and to a lesser extent, the obstruction of parking, was a common issue raised:

*"...There is inadequate parking or means of getting to work for all the thousands of staff working at the hospital and University campuses in Headington..."*

*"It's difficult to find a parking space. Public transport is not practical for some - e.g. People commuting from places with a poor bus service..."*

*"Lack of parking for the workers at the Universities and hospitals. Park and ride does not work for Mothers that work part time and have school collection duties."*

- 9.8 The condition of London Road is a particular issue:

*"Potholes, particularly the bus lane on London Road. As a cyclist the potholes are even more problematic than to motorists."*

*"...The road is in a very bad level of repair..."*

9.9 Public transport and in particular, aspects of linked to connections and quality of service were the most common themes raised, including:

*"Public transport to places other than the city centre is not good e.g. to take children bowling at the Kassam Stadium you need a car..."*

*"Not enough direct buses to other areas of Oxford. I would like to use Ferry pool at evenings and weekends and as I don't drive need to use the bus..."*

*"The JR Hospital needs direct bus links to more places and not enough of the little streets have a bus service."*

## Solutions

- 9.10 Respondents were also encouraged to suggest potential improvements which could be implemented. These are summarised in **Table 21** (following page).
- 9.11 This provides a summary of the main areas where improvements were proposed and the types of improvements most regularly suggested ranked in descending order based upon the numbers of respondents who referenced each kind of scheme.

**Table 21 – Top 10 Suggestions for Potential Improvements**

Frequency	Solution	Area (number of comments)
45	Cycleways - New / Improved Off-Road Routes	General (19), London Road (14),
26	Parking - controls	General (11), JR Hospital and surrounding roads (8), Churchill and surrounding roads (3)
22	Public transport - New / Improved Park and Ride	n/a
22	Traffic - traffic calming	General (11), JR Hospital and surrounding roads (5)
21	Footways - New / Improved crossings	General (6), London Road (5), JR Hospital and surrounding roads (4)
19	Traffic - New / Improved Road Links	JR Hospital and surrounding roads (11), Churchill and surrounding roads (3)
18	Traffic - patching / repair	London Road (16)
17	Public transport - Improved existing routes	General (6), JR Hospital and surrounding roads (5), Churchill and surrounding roads (3)
17	Parking - new provision	General (6), JR Hospital and surrounding roads (5), Churchill and surrounding roads (4)
15	Public transport - bus lanes	London Road (6), general (3), JR Hospital and surrounding roads (2), Churchill and surrounding roads (2)

## 10 Baseline Review – Summary

10.1 The review of the current movement and travel patterns across the Headington area identifies the following main themes:

- The cumulative effect of link and junction capacity constraints with edge of carriageway activity results in significant areas of queuing and delay, particularly during peak periods. In most cases there appears to be little scope to accommodate additional traffic in peak periods due to limited availability of usable carriageway, unless available space is reallocated. In some circumstances however, even this is not feasible, such as Old Road.
- Given existing highway constraints, particularly on the main routes to/from and surrounding the major employers, it would appear that more intensive use of public transport, walk and cycle modes, is the only way future travel demands can be accommodated successfully (assuming it is not possible to significantly increase highway capacity in the area).
- There are significant demands for travel to, from and within Headington, with historic travel patterns suggesting a greater degree of sustainable trip making from areas with good access to arterial routes (e.g. London Road), whilst areas served by more orbital routes (e.g. Cowley) appear to have had a greater reliance on car travel.
- A review of Census and employee home postcode data suggests there is however scope for further sustainability of trip-making, with a small but still significant number of car journeys with both an origin and destination within the study area.
- Areas which show greater reliance on the car for travel into and out of Headington, yet which are considered to be within acceptable cycle or public transport distances, also have significant potential for increased take-up of these modes. However, this is likely to require a step-change in facilities compared to the current offer. In particular, cycle and public transport will need to link with more origins and destinations and offer an advantage over the car in terms of journey time and convenience (similar for travel into and out of the city centre). This will require improvements beyond the study area, covering the rest of the Eastern Arc.
- A significant demand for travel into Headington originating from the surrounding Villages and Market Towns, particularly for the major employers such as the Oxford University NHS Trust. These trips make up the largest proportion of car driver journeys in all of the



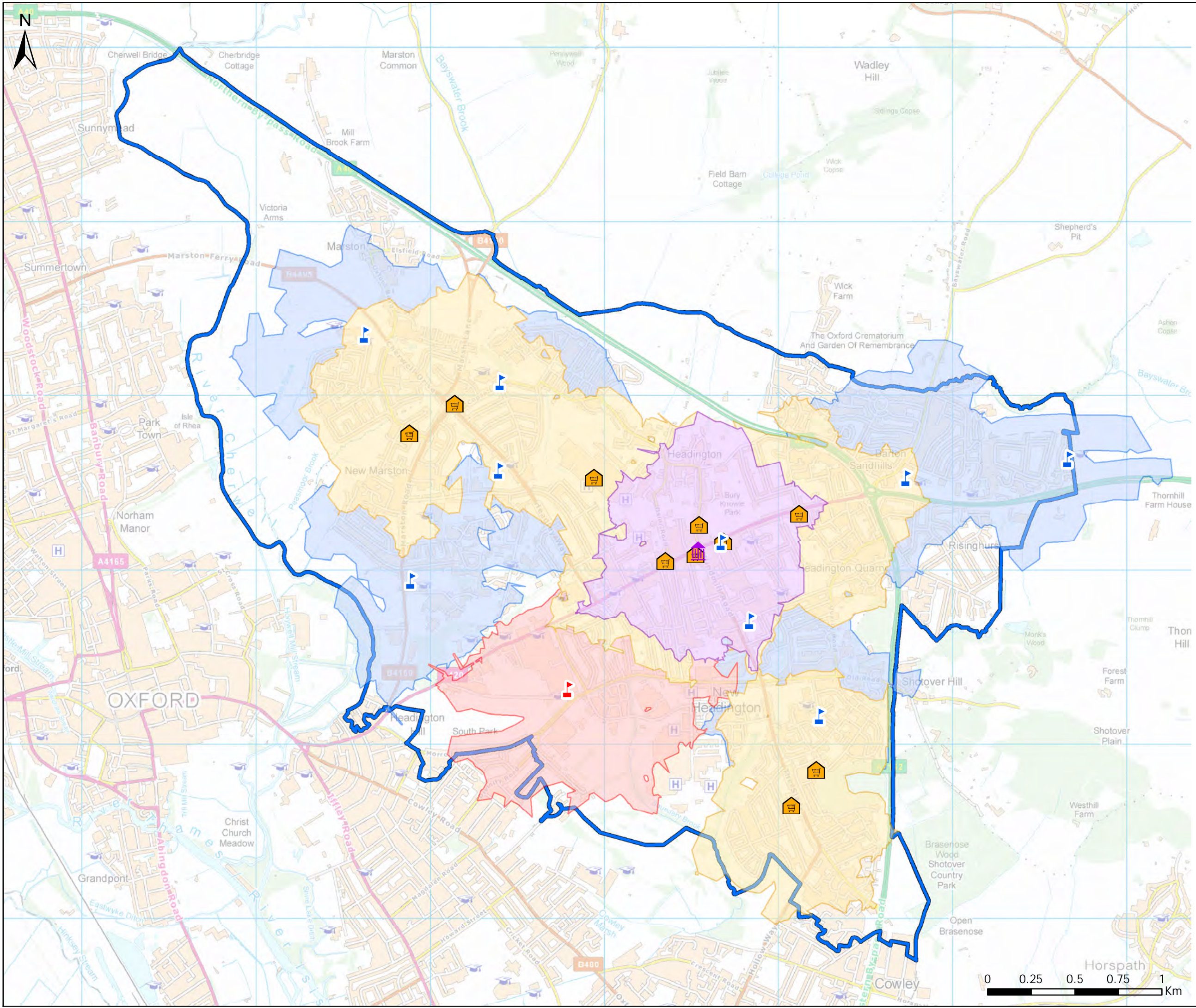
employer specific staff travel surveys and may offer the greatest scope for reducing or managing traffic congestion within Headington, if some of these journeys can be transferred to traditional public transport or park and ride. However this is likely to remain challenging due to the relatively dispersed nature of journey origins.

- Parking is a key issue for the area, both in terms of private parking related to major employers and institutions within the study area and also the management of on-street parking.
- Providing parity between Public Transport and car travel as competing transport options appears to be challenging, with parking charges often offering a cheaper option than public transport and journey time reliability on some public transport routes being affected by constraints including on-street parking and general levels of congestion.

10.2 Initial engagement with members of the public and stakeholders across the study area confirms that the over-riding issue is traffic congestion, and in particular, congestion on parts of London Road and on roads surrounding the John Radcliffe and Churchill Hospitals. Other common issues raised include cycle access, which respondents consider to be unsafe and disconnected. The availability of parking is also considered to be a key issue, with respondents working in Headington concerned that there is insufficient space to park at their workplace and citing a need to use their car because of a lack of alternatives. Aspects of public transport, specifically, connections and quality, are also considered to be issues. Traffic speeds and safety was also raised by a number of respondents.

## Appendix A – Local Facilities





Legend

Study Area

Local Facilities

Primary School

Secondary School

Supermarket

District Centre

Catchment

District Centre - 800m

Supermarket - 800m

Primary School - 800m

Secondary School - 1000m

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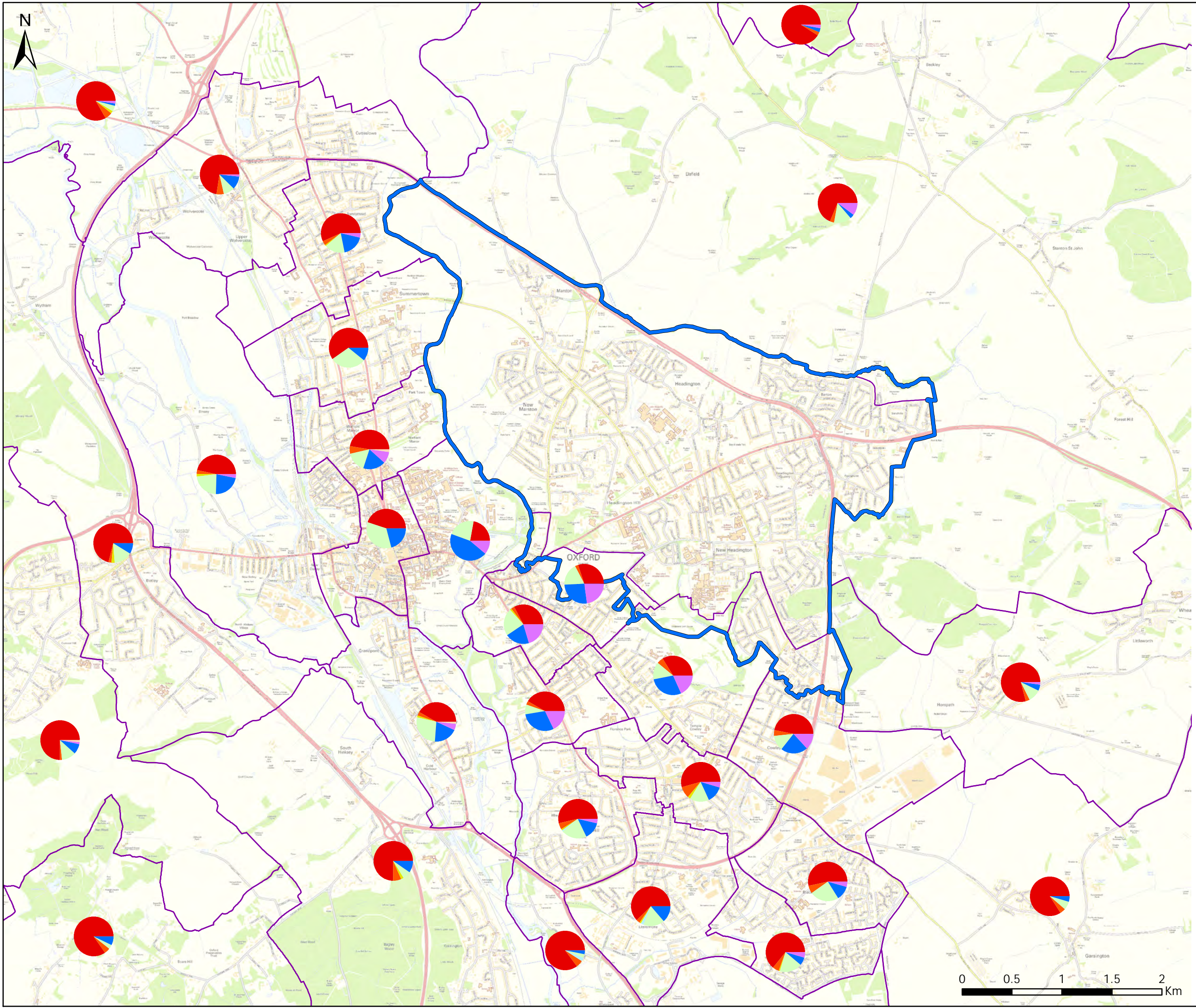
Drawing Title:  
Local Facilities and 400m Catchments

Scale @ A3 NTS	Drawn JJC	Date 15/05/13	Checked JP	Date 15/05/13	Approved ASG	Date 15/05/13
Project No. A082520	Office 35	Type 18	Drawing No. 006	Revision -		



## Appendix B – Wider Journey to Work Trips





**Legend**

Study Area

**Travel to Headington Mode**

Car driver  
Car passenger  
Motorcycle  
Taxi  
Bus  
Bicycle  
Walk  
Other

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Drawing Title:  
Mode Split of Work Journeys (2001) by Ward  
Travelling Into Headington Study Area

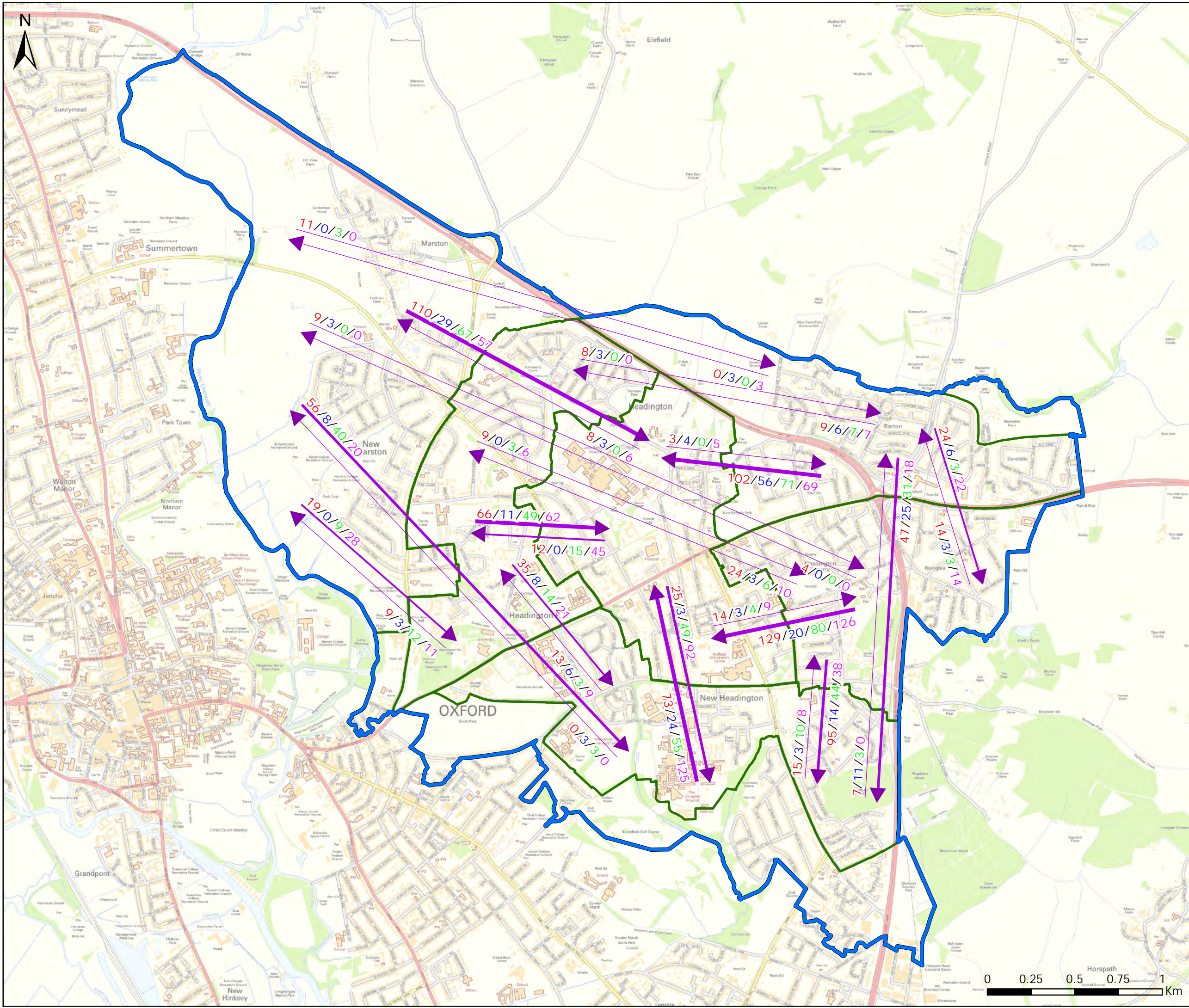
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Project No. A082520	Office 35	Type 18	Drawing No. 004	Revision -		





## **Appendix C – Local (within Study Area) Journey to Work Trips**





Legend

Study Area

Ward Boundaries

Total Flow

6 - 50

51 - 100

101 - 200

201 - 500

501 - 1000

Mode Split Labels

Car Driver / Bus / Bicycle / Walk

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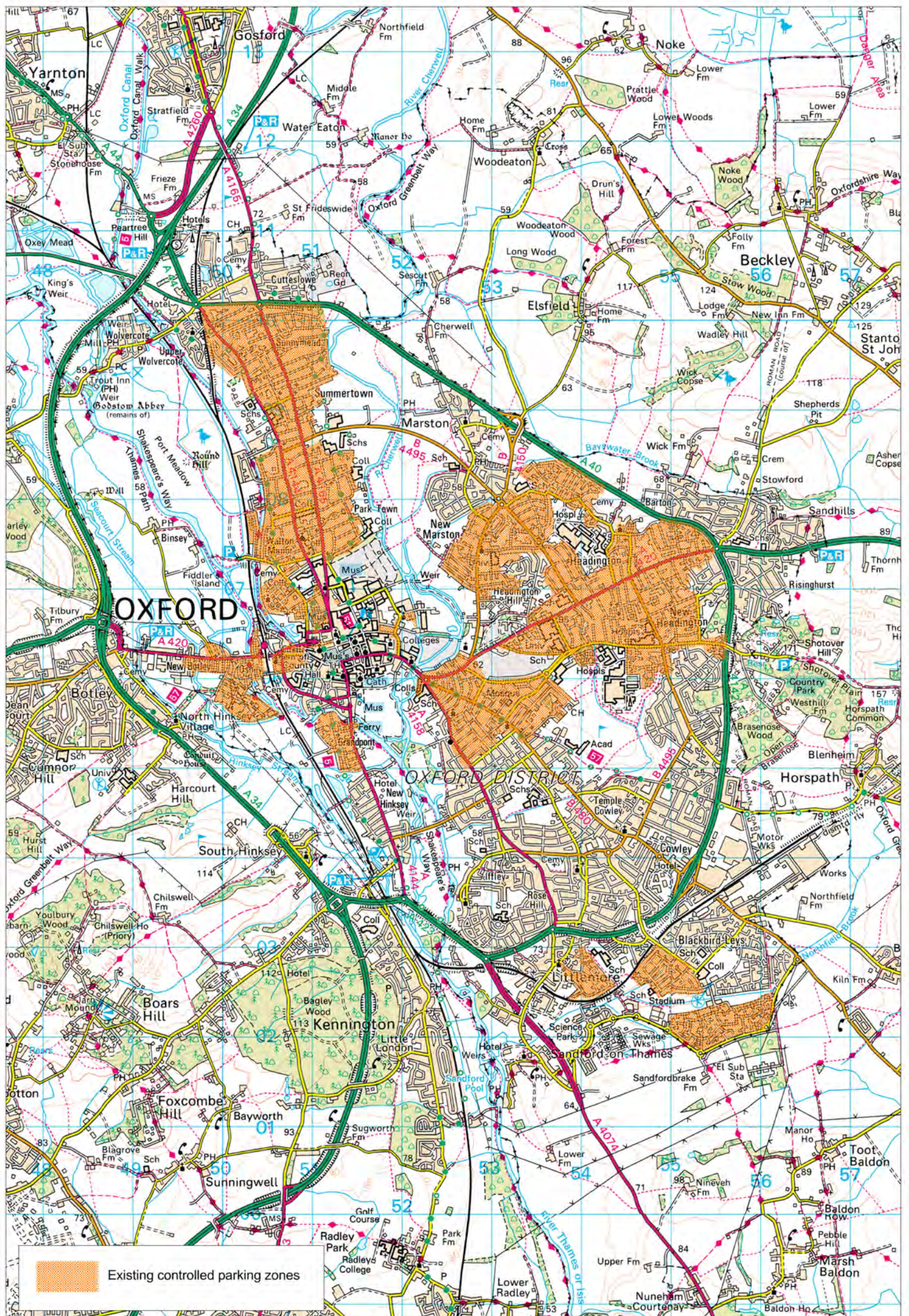
Drawing Title:  
Interward Journey to Work Movements (2001)  
By Mode Within Headington Study Area

Scale @ A3 NTS	Drawn JJC	Date 15/05/13	Checked JP	Date 15/05/13	Approved ASG	Date 15/05/13
Project No. A082520	Office 35	Type 18	Drawing No. 002	Revision -		



## Appendix D – Controlled Parking Zone Summary Plan

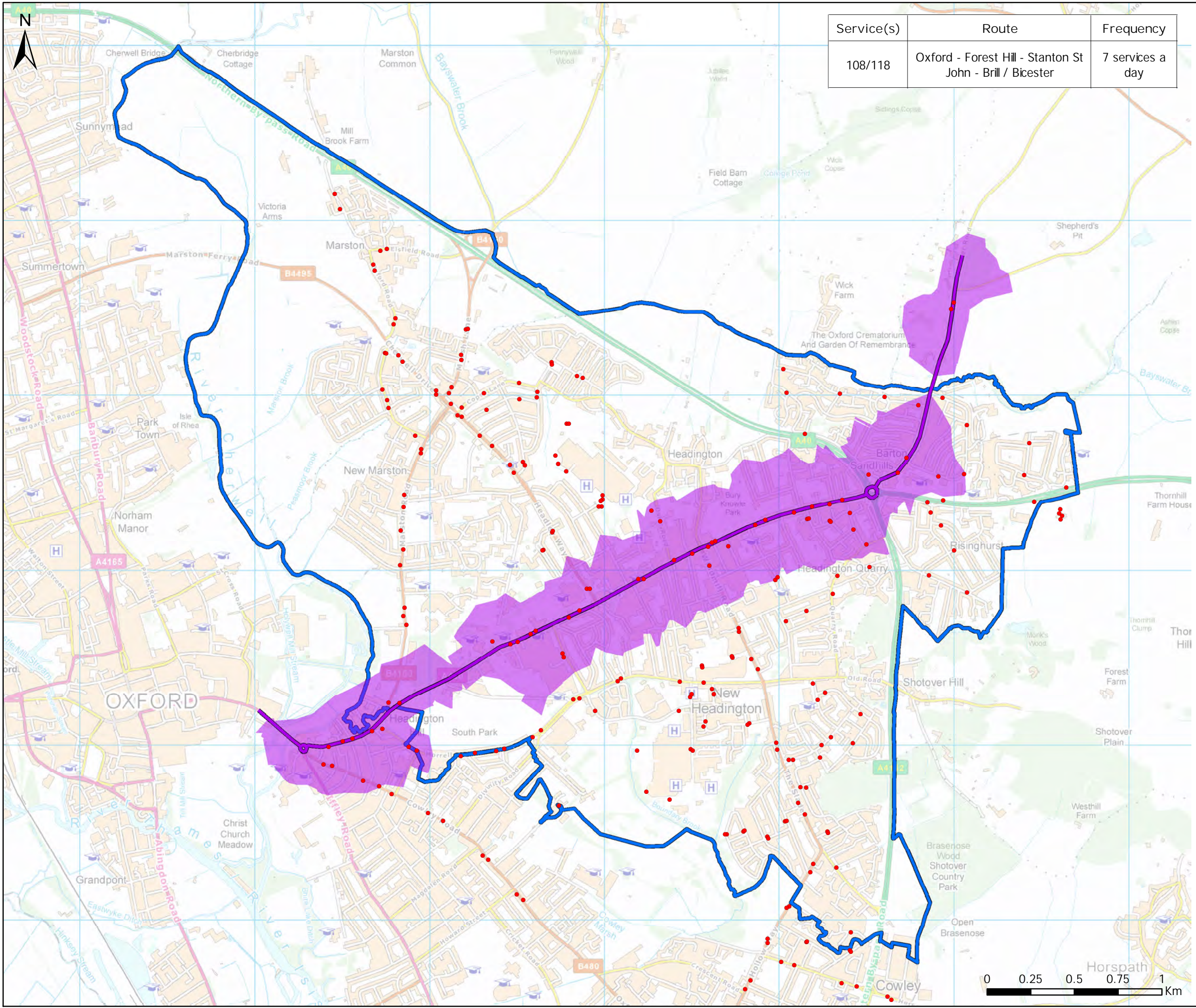








## Appendix E – Bus Access by Area







Service(s)	Route	Frequency
108/118	Oxford - Forest Hill - Stanton St John - Brill / Bicester	7 services a day


 Study


 Bus Stop (inc non

**North Oxon Routes & Frequency**

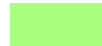
 15mins or less


 16mins to 30mins


 31mins to 60mins


 Less than hourly/infrequent

**400m Stop**

 15mins or less

 16mins to 30mins

 31mins to 60mins

 Less than hourly/infrequent

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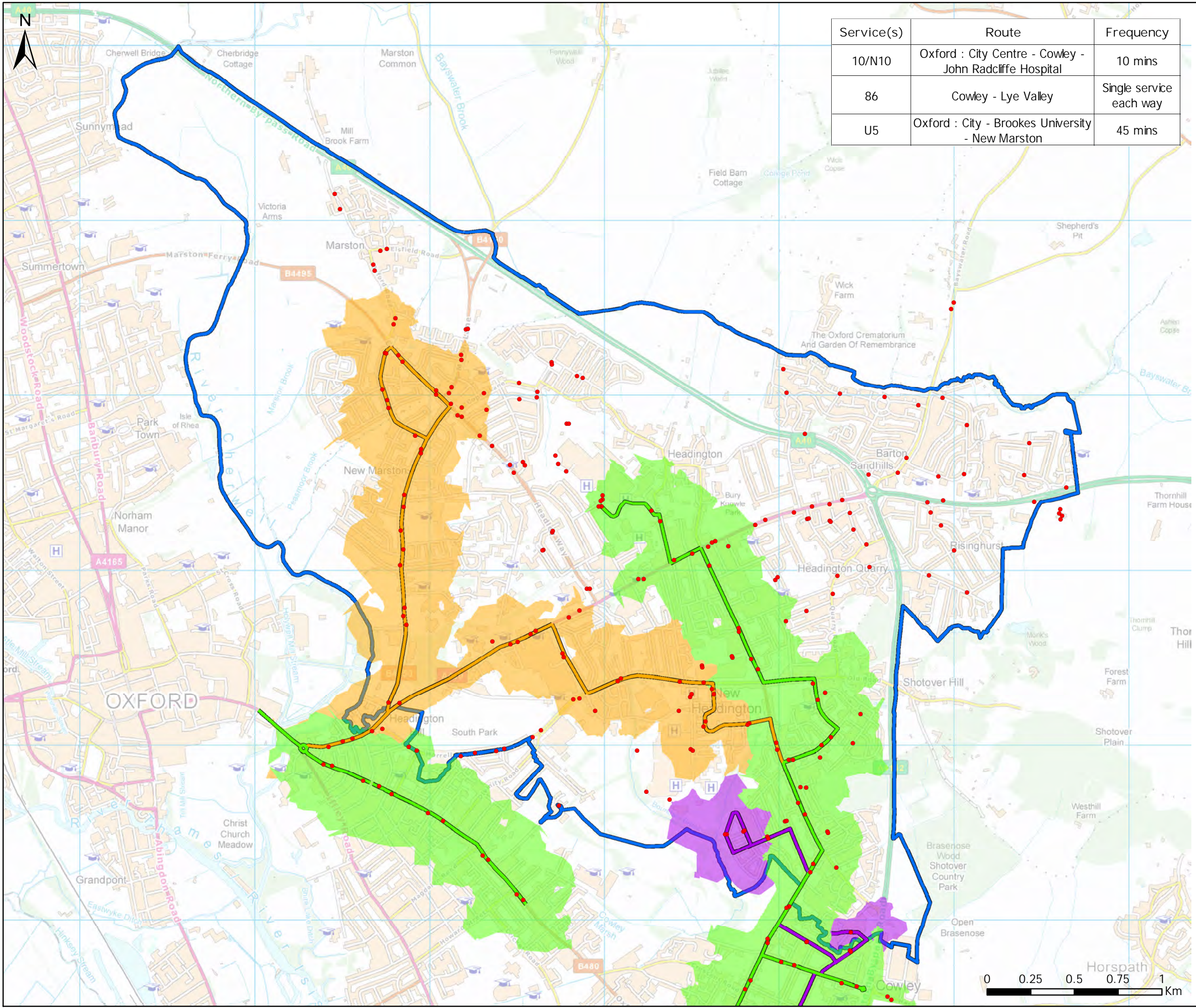


Project:  
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Drawing Title:  
Bus Routes Serving North Oxon

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
NTS	JJC	07/06/13	JP	07/06/13	ASG	07/06/13
Project No.	Office	Type	Drawing No.	Revision		
A082520	35	18	017	-		





Service(s)	Route	Frequency
10/N10	Oxford : City Centre - Cowley - John Radcliffe Hospital	10 mins
86	Cowley - Lye Valley	Single service each way
U5	Oxford : City - Brookes University - New Marston	45 mins

**Legend**

 Study Area

 Bus Stop (inc non served)

**Eastern Arc Routes & Frequency**

 15mins or less

 16mins to 30mins

 31mins to 60mins

 Less than hourly/infrequent

**400m Stop Catchment**

 15mins or less

 16mins to 30mins

 31mins to 60mins

 Less than hourly/infrequent

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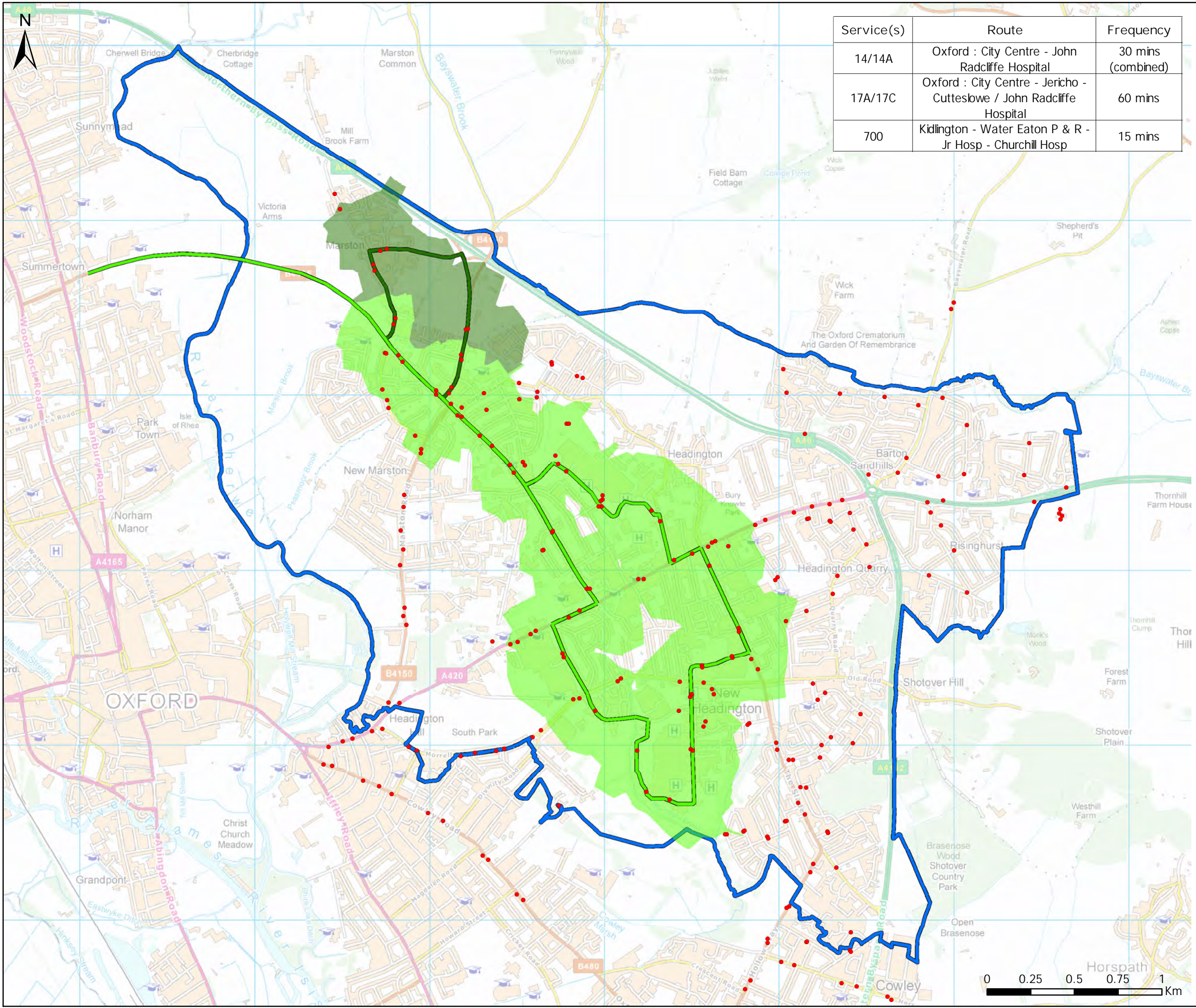


Project:  
Headington Transport Study

Drawing Title:  
Bus Routes Serving the Eastern Arc

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
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Project No.	Office	Type	Drawing No.	Revision		
A082520	35	18	018	-		





Service(s)	Route	Frequency
14/14A	Oxford : City Centre - John Radcliffe Hospital	30 mins (combined)
17A/17C	Oxford : City Centre - Jericho - Cutteslowe / John Radcliffe Hospital	60 mins
700	Kidlington - Water Eaton P & R - Jr Hosp - Churchill Hosp	15 mins

Legend



Study Area



Bus Stop (inc non served)

North Oxford Routes & Frequency

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

400m Stop Catchment

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

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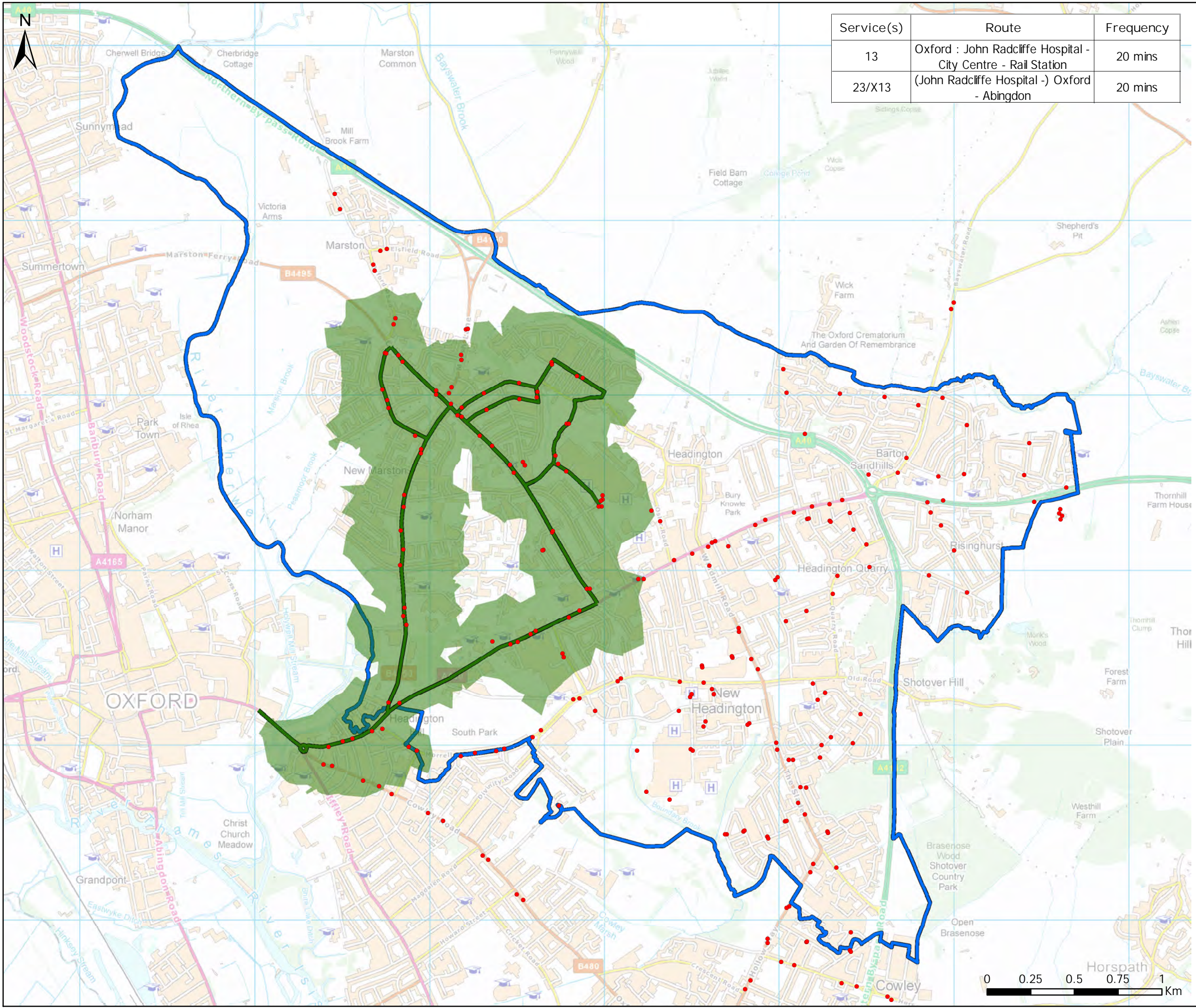


Project:  
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Drawing Title:  
Bus Routes Serving the North Oxford

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
NTS	JJC	07/06/13	JP	07/06/13	ASG	07/06/13
Project No.	Office	Type	Drawing No.	Revision		
A082520	35	18	019	-		





Service(s)	Route	Frequency
13	Oxford : John Radcliffe Hospital - City Centre - Rail Station	20 mins
23/X13	(John Radcliffe Hospital -) Oxford - Abingdon	20 mins

Legend

Study Area

Bus Stop (inc non served)

South Oxford Routes & Frequency

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

400m Stop Catchment

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

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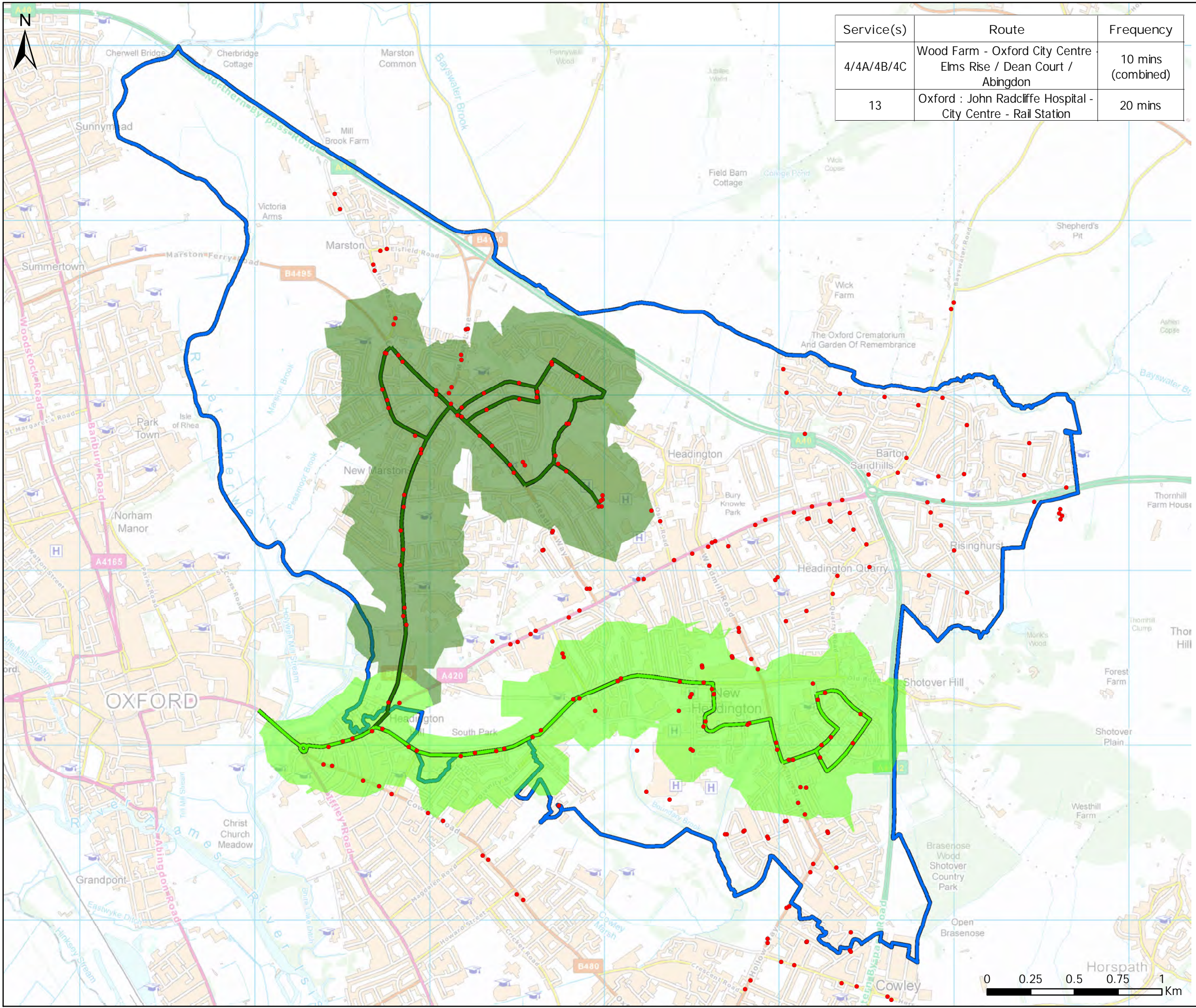


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Drawing Title:  
Bus Routes Serving the South Oxford

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Project No.	Office	Type	Drawing No.	Revision		
A082520	35	18	020	-		





Service(s)	Route	Frequency
4/4A/4B/4C	Wood Farm - Oxford City Centre Elms Rise / Dean Court / Abingdon	10 mins (combined)
13	Oxford : John Radcliffe Hospital - City Centre - Rail Station	20 mins

Legend

Study Area

Bus Stop (inc non served)

South Oxon Routes & Frequency

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

400m Stop Catchment

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

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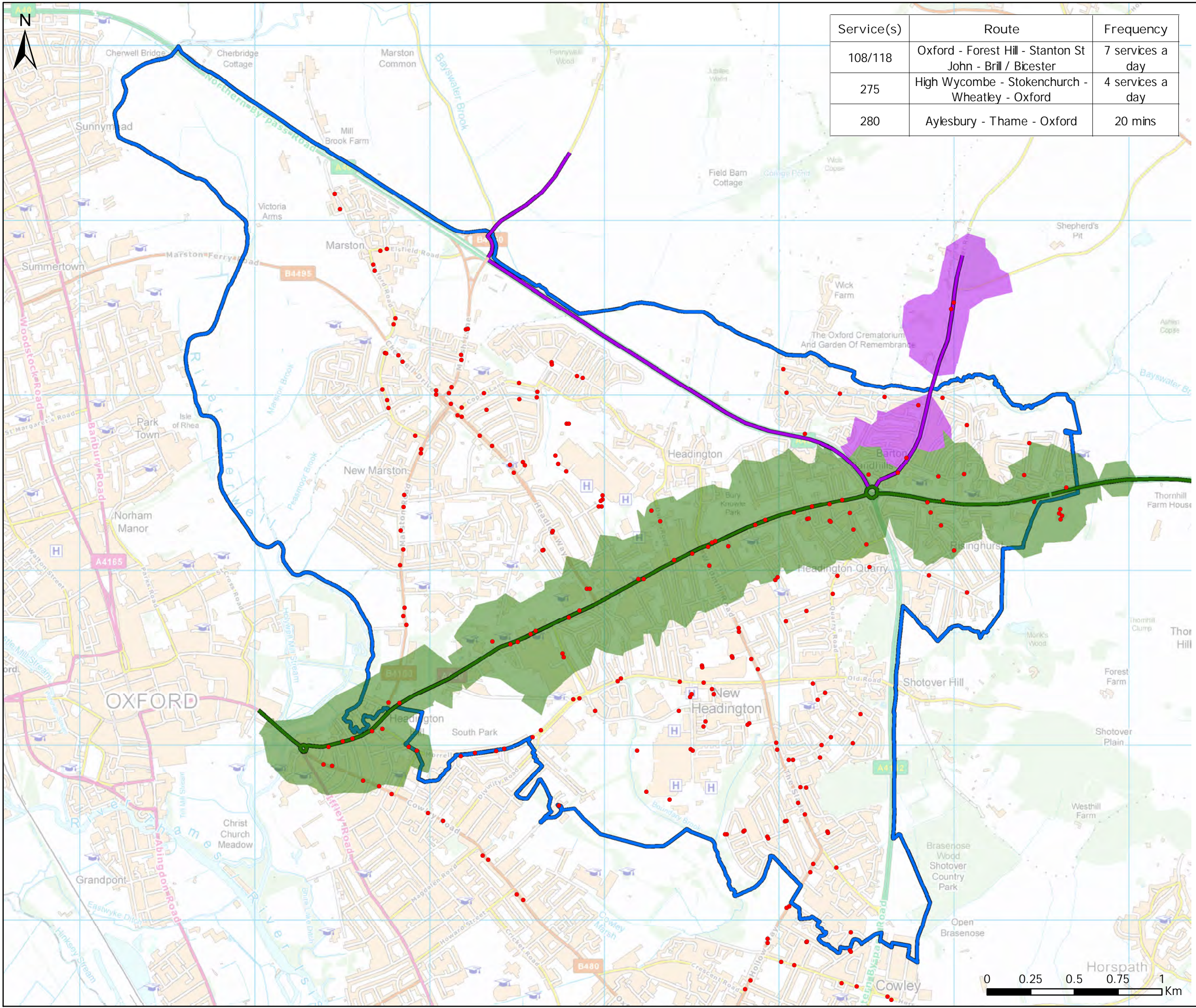


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Drawing Title:  
Bus Routes Serving the South Oxon

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
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Project No.	Office	Type	Drawing No.	Revision		
A082520	35	18	021	-		





Service(s)	Route	Frequency
108/118	Oxford - Forest Hill - Stanton St John - Brill / Bicester	7 services a day
275	High Wycombe - Stokenchurch - Wheatley - Oxford	4 services a day
280	Aylesbury - Thame - Oxford	20 mins

### Legend

Study Area

Bus Stop (inc non served)

#### East Oxon Routes & Frequency

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

#### 400m Stop Catchment

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

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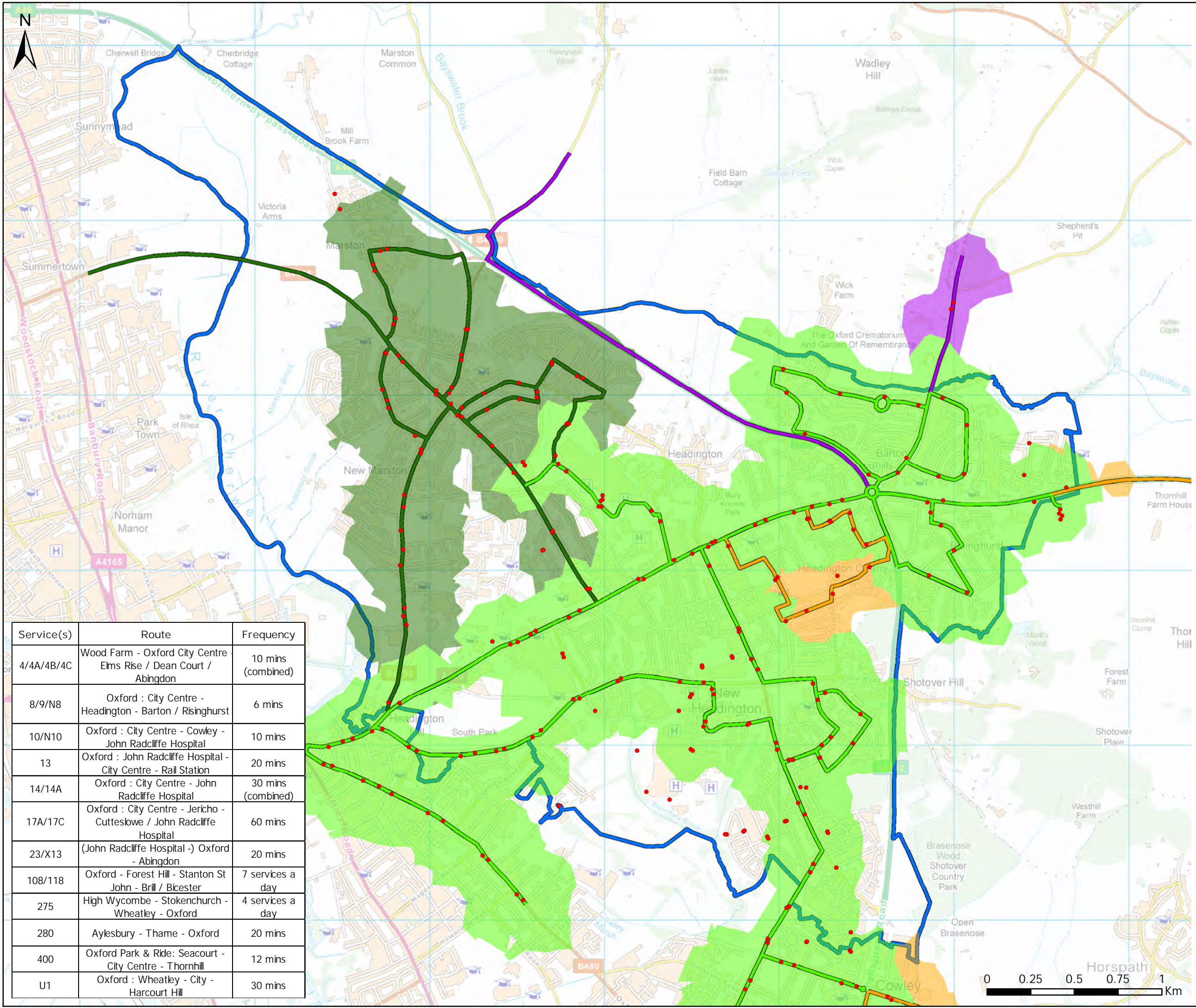


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Drawing Title:  
Bus Routes Serving the East Oxon

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
NTS	JJC	07/06/13	JP	07/06/13	ASG	07/06/13
Project No.	Office	Type	Drawing No.	Revision		
A082520	35	18	022	-		





**Legend**

Study Area

Bus Stop (inc non served)

**City Centre And West Routes & Frequency**

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

**400m Stop Catchment**

15mins or less

16mins to 30mins

31mins to 60mins

Less than hourly/infrequent

Service(s)	Route	Frequency
4/4A/4B/4C	Wood Farm - Oxford City Centre Elms Rise / Dean Court / Abingdon	10 mins (combined)
8/9/N8	Oxford : City Centre - Headington - Barton / Risinghurst	6 mins
10/N10	Oxford : City Centre - Cowley - John Radcliffe Hospital	10 mins
13	Oxford : John Radcliffe Hospital - City Centre - Rail Station	20 mins
14/14A	Oxford : City Centre - John Radcliffe Hospital	30 mins (combined)
17A/17C	Oxford : City Centre - Jericho - Cutteslowe / John Radcliffe Hospital	60 mins
23/X13	(John Radcliffe Hospital -) Oxford - Abingdon	20 mins
108/118	Oxford - Forest Hill - Stanton St John - Brill / Bicester	7 services a day
275	High Wycombe - Stokenchurch - Wheatley - Oxford	4 services a day
280	Aylesbury - Thame - Oxford	20 mins
400	Oxford Park & Ride: Seacourt - City Centre - Thornhill	12 mins
U1	Oxford : Wheatley - City - Harcourt Hill	30 mins

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Project:  
Headington Transport Study

Drawing Title:  
Bus Routes Serving the City Centre and West

Scale @ A3 NTS	Drawn JJC	Date 07/06/13	Checked JP	Date 07/06/13	Approved ASG	Date 07/06/13
Project No. A082520	Office 35	Type 18	Drawing No. 023	Revision -		

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## Appendix F – Consultation Summary

Response ID	Main Issue/s	Location	Main Solutions	Location	Comments
1	41508	Cycleways – disconnected	London Road (west of Ring Road)	Cycleways - Priority at junctions	
		Footways – disconnected	Risinghurst and Sandhills	Cycleways - New / Improved Off-Road Routes	Risinghurst and Sandhills
		Public transport – connection	Risinghurst and Sandhills	Footways - New / Improved crossings	Risinghurst and Sandhills
		Traffic - Road condition	London Road (west of Ring Road)	Traffic - New / Improved Junctions	Risinghurst and Sandhills
		Traffic – congestion	London Road (west of Ring Road)		Re-open junction on A40 into Risinghurst
2	41509	Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Road Links	London Road (west of Ring Road)
3	41511	Traffic – congestion	Risinghurst and Sandhills	Traffic - New / Improved Junctions	Risinghurst and Sandhills
		Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)
4	41512	Public transport – connection	To / from City Centre	Public transport - New north - south route	To / from other
		Public transport – other		Public transport - Increase capacity	To / from City Centre
		Traffic – congestion	London Road (west of Ring Road)		
		Traffic - HGVs	London Road (west of Ring Road)	Traffic - weight restrictions	
5	41513	Traffic – safety / speed		Traffic - traffic calming	
		Traffic – congestion			
		Parking – obstruction	John Radcliffe and surrounding Roads	Parking - controls	John Radcliffe and surrounding Roads
6	41514	Public transport – connection	To / from City Centre		
		Public transport – connection	To / from Market Towns		
7	41535	Traffic - Road condition	London Road (west of Ring Road)	Public transport - bus lanes	London Road (west of Ring Road)
8	41536	Traffic – congestion	Churchill and surrounding Roads	Traffic - New / Improved Road Links	Churchill and surrounding Roads
		Traffic – congestion	The Slade / Hollow Way		
		Traffic – safety / speed			
9	41538	Public transport – quality	To / from City Centre		
10	41539	Traffic - Road condition	London Road (west of Ring Road)		
11	41543	Traffic – congestion			
		Cycleways – disconnected	London Road (west of Ring Road)	Cycleways - New / Improved Carriageway	London Road (west of Ring Road)
		Footways – unsafe	London Road (west of Ring Road)		
				Public transport - New / Improved bus stop	London Road (west of Ring Road)
12	41544	Cycleways – disconnected	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)
				Travel Planning	
13	41545	Cycleways – disconnected	Churchill and surrounding Roads	Cycleways - New / Improved Off-Road Routes	
		Public transport – connection	To / from Market Towns	Public transport - Ticketing	
		Public transport – other			
				Traffic - traffic calming	
14	41547	Traffic – congestion	London Road (west of Ring Road)	Public transport - Improved existing route	John Radcliffe and surrounding Roads
		Traffic – congestion	Churchill and surrounding Roads		
15	41552	Traffic – congestion			
16	41553	Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)

17	41557	Public transport – interchange	To / from City Centre	Public Transport - New east - west routes	To / from other	East - West routes to reduce the need to interchange in the City Centre
18	41564	Public transport – connection	John Radcliffe and surrounding Roads			Reroute the H1 / H2 free services to cover a greater area
19	41566	Public transport – other	John Radcliffe and surrounding Roads			Too many buses causes congestion
		Public transport – other	London Road (west of Ring Road)			Too many buses causes congestion
20	41577	Traffic – congestion		Other		Reduce number of taxis
		Traffic – safety / speed		Traffic - traffic calming		Enforce 20mph zones
21	41589	Public transport – interchange	John Radcliffe and surrounding Roads	Public transport - New / Improved bus stop	John Radcliffe and surrounding Roads	Bus stop closer to Ruskin College
22	41590	Traffic – congestion	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)	Segregate cyclists and move bus lane to the centre
		Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	Proper resurfacing (not patching)
23	41591	Traffic – congestion				
		Footways – crossing locations		Footways - New / Improved crossings	John Radcliffe and surrounding Roads	Between Latimer Road and Headley Way
		Public transport – other				Allow school minibuses at P&R sites
24	41593	Parking – availability	John Radcliffe and surrounding Roads			
		Parking – availability	Churchill and surrounding Roads			
				Travel Planning		Get major employers to stagger start times and use minibus services
25	41606			Public transport - New / Improved Park and Ride	To / from Market Towns	
26	41628	Public transport – park and ride	Risinghurst and Sandhills	Public Transport - New east - west routes	To / from Market Towns	Park and Ride dominates the area
27	41671	Traffic – congestion	London Road (west of Ring Road)			
		Traffic - Road condition	London Road (west of Ring Road)			
		Cycleways – disconnected	London Road (west of Ring Road)			
		Footways – crossing locations	London Road (west of Ring Road)			
28	41701	Footways – unsafe	London Road (west of Ring Road)	Parking - controls	London Road (west of Ring Road)	
		Cycleways – unsafe	London Road (west of Ring Road)	Parking - enforcement	London Road (west of Ring Road)	
29	41707	Traffic – safety / speed	London Road (west of Ring Road)	Footways - New / Improved crossings	London Road (west of Ring Road)	Eastern end of Bury Knowle Park
		Footways – crossing locations	London Road (west of Ring Road)	Cycleways - Priority at junctions	London Road (west of Ring Road)	Island at Junction of London Road / Osler Road to protect cyclists
		Cycleways – unsafe	London Road (west of Ring Road)			
30	41731	Cycleways – unsafe		Cycleways - Other		More rental cycles - it is a great scheme
31	41817	Traffic – congestion	Churchill and surrounding Roads	Parking - controls	Churchill and surrounding Roads	
32	41920	Public transport – interchange	To / from other	Public transport - New north - south routes	To / from other	Links between Headington and Summertown

32	41042					
33	41881	Traffic – congestion	London Road (west of Ring Road)	Public transport - bus lanes	John Radcliffe and surrounding Roads	New bus only link
				Public transport - bus lanes	Churchill and surrounding Roads	New bus only link
34	41890	Traffic – congestion				
35	41899	Traffic – congestion	Marsh Lane / Marston Ferry Road	Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	New road link to JR
		Public transport – other	John Radcliffe and surrounding Roads			Too many buses on Osler Road
36	41917	Public transport – other				Too many buses
				Cycleways - New / Improved Off-Road Ro	London Road (west of Ring Road)	
37	41959	Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	
		Cycleways – disconnected	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Ro	London Road (west of Ring Road)	
				Public transport - priority at junctions		Bus Scoot
38	41970	Traffic – congestion	London Road (west of Ring Road)	Public transport - bus lanes	London Road (east of Ring Road)	Bus Lane on Bayswater Road
				Public transport - priority at junctions	London Road (west of Ring Road)	Junction with Windmill
				Public transport - bus lanes	London Road (west of Ring Road)	
				Public transport - bus lanes	John Radcliffe and surrounding Roads	Headley Way
				Parking - controls	John Radcliffe and surrounding Roads	Osler Road
39	42033	Traffic – congestion	London Road (west of Ring Road)			Bus Movements through Osler Road
		Public transport – other	John Radcliffe and surrounding Roads			Between roundabout and shops
		Cycleways – disconnected	London Road (west of Ring Road)			Osler Road
				Parking - controls	John Radcliffe and surrounding Roads	
				Travel Planning		
40	42042	Traffic – safety / speed				Quarry High Street people drive on the pavements
41	42046	Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	Repairs to bus lane
42	42108	Traffic – congestion	London Road (west of Ring Road)			Private Schools generate the most traffic
		Public transport – other	London Road (west of Ring Road)			Bus Lanes are not necessary
43	42167	Traffic – congestion	London Road (west of Ring Road)			
		Traffic - Road condition	London Road (west of Ring Road)			
44	42194	Cycleways – unsafe	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Ro	London Road (west of Ring Road)	
		Traffic - Road condition	London Road (west of Ring Road)	Traffic - New / Improved Junctions	London Road (east of Ring Road)	Signals on Barton exit onto London Road
45	42206	Traffic – congestion	John Radcliffe and surrounding Roads	Parking - controls	John Radcliffe and surrounding Roads	Osler Road
46	42318	Traffic – congestion	John Radcliffe and surrounding Roads			
47	42320	Traffic – congestion	London Road (east of Ring Road)			
		Traffic – congestion	John Radcliffe and surrounding Roads			
		Traffic – congestion	Churchill and surrounding Roads			
		Public transport – connection	To / from other	Public Transport - New east - west routes	To / from other	Direct cross town movements need to be accommodated by public transport
48	42321	Traffic – congestion	John Radcliffe and surrounding Roads	Parking - controls	John Radcliffe and surrounding Roads	Osler Road car parking
		Traffic - Road condition	John Radcliffe and surrounding Roads			
		Traffic – congestion	London Road (west of Ring Road)			
49	42322	Public transport – other	London Road (west of Ring Road)	Parking - enforcement		



50	42333			John Radcliffe and surrounding Roads	Close St. Andrews Road to through traffic
51	42350	Public transport – connection	Churchill and surrounding Roads		
52	42351	Traffic – congestion		Public transport - Improved existing route	John Radcliffe and surrounding Roads
				Public transport - Improved existing route	Churchill and surrounding Roads
53	42354	Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)
					Proper resurfacing (not patching)
54	42362	Cycleways – disconnected			Too much street furniture in cycle areas
55	42364	Public transport – other	To / from City Centre	Public transport - Increase capacity	To / from City Centre
				Public transport - Realtime	Better regulation of bus services
56	42365	Traffic – congestion	The Slade / Hollow Way		
57	42366	Parking – availability	Churchill and surrounding Roads	Parking - new provision	Churchill and surrounding Roads
58	42367	Public transport – other			Services take too long
				Parking - controls	Allow 2-3 hour on street parking during 9-5
59	42370	Traffic – congestion	Risinghurst and Sandhills	Footways - New / Improved crossings	Risinghurst and Sandhills
		Traffic – congestion	London Road (west of Ring Road)		Crossing or lights on the A40
60	42373	Public transport – connection	Churchill and surrounding Roads	Parking - new provision	Churchill and surrounding Roads
				Traffic - New / Improved Junctions	Churchill and surrounding Roads
					Old Road / Churchill Drive
61	42376	Traffic – congestion		Cycleways - New / Improved Off-Road Routes	Headington Road
					Through South Park
62	42379	Traffic – congestion	London Road (west of Ring Road)		Windmill Road Junction
		Traffic – congestion	Churchill and surrounding Roads	Traffic - New / Improved Junctions	Churchill and surrounding Roads
					Old Road
63	42381	Traffic - Road condition	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	
		Cycleways – unsafe	London Road (west of Ring Road)	Cycleways - Other	Improved signage
64	42382	Parking – availability			
65	42384	Public transport – quality			Congestion makes services unreliable
				Cycleways - Other	London Road (east of Ring Road)
					More hire cycle stations
66	42386	Public transport – other			Charges at Thornhill are too high
		Parking – availability			
		Traffic – congestion			

67	42389	Cycleways – unsafe				
		Public transport – connection	To / from other			More services that do not go to the City Centre
68	42391			Public transport - New north - south route	To / from Market Towns	Abingdon and Wantage
69	42392	Parking – availability	John Radcliffe and surrounding Roads	Public transport - Improved existing routes	John Radcliffe and surrounding Roads	
70	42396	Public transport – connection	To / from other	Public transport - New north - south route	To / from other	More direct cross town services - Summertown
71	42399	Cycleways – unsafe	Headington Road	Cycleways - New / Improved Off-Road Routes	Headington Road	
		Traffic – congestion				
		Parking – obstruction				
72	42400	Cycleways – unsafe				
73	42401	Public transport – quality	Marsh Lane / Marston Ferry Road			700 service is not frequent enough and stops for too long at various locations
74	42402	Cycleways – disconnected		Cycleways - New / Improved Off-Road Routes	Churchill and surrounding Roads	Old Road
		Parking – availability				
75	42412	Cycleways – unsafe	Churchill and surrounding Roads			Too many empty buses
		Public transport – other				
76	42415	Public transport – quality	To / from other	Public transport - Improved existing routes	To / from other	Summertown
77	42416	Traffic – congestion	London Road (west of Ring Road)			Bus laybys to reduce delays to traffic
78	42417	Public transport – connection	To / from other			Northway
79	42418	Public transport – quality	Churchill and surrounding Roads			Buses run too close together, scheduling could be improved
80	42419	Traffic – congestion	Churchill and surrounding Roads	Traffic - New / Improved Junctions	The Slade / Hollow Way	Signal junction onto ring road
81	42420	Cycleways – unsafe		Cycleways - New / Improved Off-Road Routes		More Cycle Parking
		Parking – availability		Cycleways - Other		Abingdon
		Traffic – congestion	John Radcliffe and surrounding Roads	Public transport - New north - south route	To / from Market Towns	
82	42421	Public transport – quality		Public transport - Improved existing routes		Bus Route 4 to / from Woodfarm
83	42422	Parking – availability				
84	42424	Cycleways – unsafe		Cycleways - New / Improved Off-Road Routes		Access to Hospital site
		Traffic – congestion	Churchill and surrounding Roads	Traffic - New / Improved Junctions	Churchill and surrounding Roads	

85	42425	Traffic – safety / speed	Churchill and surrounding Roads	Traffic - traffic calming	Churchill and surrounding Roads	Enforce Speed Limits - Old Road and Highfield Ave junction.
86	42426	Cycleways – unsafe	Churchill and surrounding Roads			
		Public transport – connection	Churchill and surrounding Roads			Links between Churchill / Old Road and John Radcliffe needs improving
87	42427	Traffic – congestion	Churchill and surrounding Roads			
		Cycleways – unsafe	Churchill and surrounding Roads	Cycleways - New / Improved Carriageway	Churchill and surrounding Roads	Winmill to Churchill Site - cycleway too narrow
		Public transport – park and ride	Churchill and surrounding Roads	Public transport - New / Improved Park and Ride	Churchill and surrounding Roads	Need more regular and cheaper services - particularly late evening
88	42428	Parking – availability		Parking - new provision		
		Traffic - Road condition		Traffic - patching / repair		
89	42429	Traffic – congestion		Parking - new provision	John Radcliffe and surrounding Roads	
		Cycleways – unsafe		Parking - new provision	Churchill and surrounding Roads	
				Public transport - New / Improved Park and Ride		Need more capacity
90	42433	Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	Resurfacing rather than patching
		Traffic – congestion	London Road (west of Ring Road)	Footways - New / Improved crossings		Wharton Road / Margaret Road junction
		Parking – obstruction				
91	42444	Traffic – congestion	London Road (east of Ring Road)	Traffic - New / Improved Junctions	London Road (east of Ring Road)	Signals on Barton exit onto London Road
92	42445	Traffic – congestion	Churchill and surrounding Roads			
		Public transport – connection	Churchill and surrounding Roads	Public transport - New / Improved Park and Ride	Churchill and surrounding Roads	
93	42447	Traffic – congestion		Cycleways - New / Improved Off-Road Routes	Marsh Lane / Marston Ferry Road	Link connecting Ferry Road to Marston Ferry Road
				Traffic - New / Improved Junctions	Marsh Lane / Marston Ferry Road	Replace roundabouts at junction with signals
94	42448	Cycleways – unsafe	London Road (west of Ring Road)			Congestion charge
		Traffic - Road condition	London Road (west of Ring Road)			
95	42449	Traffic - Road condition	London Road (west of Ring Road)			
		Traffic – congestion	London Road (west of Ring Road)	Public transport - bus lanes	London Road (west of Ring Road)	Congestion particularly due to buses
96	42450	Cycleways – unsafe	John Radcliffe and surrounding Roads	Cycleways - New / Improved Carriageway	John Radcliffe and surrounding Roads	Cherwell Drive / Headley Way
97	42451	Traffic – congestion	Marsh Lane / Marston Ferry Road			
		Cycleways – unsafe	Marsh Lane / Marston Ferry Road	Cycleways - New / Improved Carriageway	John Radcliffe and surrounding Roads	Ring Road to Marsh Lane
98	42452	Public transport – connection	Churchill and surrounding Roads	Public Transport - New east - west routes	Churchill and surrounding Roads	South Parks Road to Headington
99	42453	Public transport – connection	Churchill and surrounding Roads	Public transport - New routes to City Centre	Churchill and surrounding Roads	Route from centre to Churchill, shuttle from Headington to Churchill
100	42454	Cycleways – signage and wayfinding	London Road (west of Ring Road)			Windmill Road Junction

101	42455	Cycleways – unsafe	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)	Windmill Road and Junction
102	42456	Public transport – park and ride				Charging for parking is not a good idea
103	42457	Public transport – connection	To / from other			Connections with the north are poor
104	42458	Footways – unsafe				Footways unsafe due to use by cyclists
		Traffic – safety / speed	London Road (west of Ring Road)			
105	42459	Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Junctions	London Road (west of Ring Road)	Windmill Road Junction
106	42460	Public transport – connection	To / from other	Public transport - New north - south route	To / from other	To / from Summertown
107	42462	Traffic – congestion		Public transport - New / Improved Park and Ride	John Radcliffe and surrounding Roads	New Park and Ride to John Radcliffe from Redbridge
108	42470	Parking – availability		Parking - new provision		
		Traffic – congestion				
109	42471	Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	New link from ring road to John Radcliffe
110	42472	Parking – availability		Parking - controls		Remove unnecessary parking controls
				Parking - new provision		
						Cable cars from Park and Ride sites
111	42473	Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Road Links	London Road (west of Ring Road)	New road link into John Radcliffe from Osler Road
		Traffic – congestion	John Radcliffe and surrounding Roads	Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	Make some residents parking available to other users on Sundays
		Parking – availability		Parking - controls		
112	42474	Traffic – congestion	London Road (west of Ring Road)	Footways - New / Improved crossings	London Road (west of Ring Road)	Signal crossing near to Risinghurst Turn
		Traffic - Road condition	London Road (west of Ring Road)			
		Parking – obstruction	London Road (west of Ring Road)			
113	42481	Cycleways – unsafe		Cycleways - New / Improved Off-Road Routes		
		Public transport – quality		Public transport - bus lanes		
114	42482	Traffic – congestion	Eastern Bypass			
		Parking – availability				
		Public transport – connection	To / from Market Towns	Public transport - New north - south route	To / from Market Towns	Abingdon
		Cycleways – unsafe	John Radcliffe and surrounding Roads			
115	42489	Traffic – congestion	John Radcliffe and surrounding Roads	Traffic - New / Improved Road Links	Marsh Lane / Marston Ferry Road	
				Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	Also widen Cherwell Drive, Headley Way, Marsh Lane, Osler Road
				Public transport - bus lanes	Marsh Lane / Marston Ferry Road	
116	42490	Traffic – congestion	Churchill and surrounding Roads			
117	42492	Public transport – quality	Risinghurst and Sandhills	Public transport - Improved existing route	Risinghurst and Sandhills	Increase regularity of No 9 Service

117	42494					
118	42494	Traffic – congestion	London Road (west of Ring Road)	Public transport - New / Improved Park and Ride		
				Cycleways - New / Improved Off-Road Routes		
119	42496	Traffic – congestion	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)	
		Traffic - Road condition	London Road (west of Ring Road)	Public transport - New / Improved Park and Ride		Make it cheaper to use Park and Ride
		Parking – availability				
120	42497	Traffic – congestion		Public transport - Improved existing routes		Service Number 4 to / from Wood Farm
121	42501	Traffic – congestion				
		Parking – availability				
122	42503	Cycleways – disconnected		Cycleways - New / Improved Off-Road Routes		
		Cycleways – unsafe		Traffic - New / Improved signage		New signage warning drivers of cyclists in carriageway
		Traffic – safety / speed				
123	42507	Traffic – congestion		Travel Planning		Reduce car trips associated with schools
		Parking – availability	John Radcliffe and surrounding Roads	Parking - enforcement	John Radcliffe and surrounding Roads	Remove unnecessary parking controls
124	42508	Public transport – connection	To / from Market Towns	Public transport - New north - south routes	To / from Market Towns	Kennington and Abingdon
125	42509	Public transport – quality	John Radcliffe and surrounding Roads	Public transport - Improved existing routes	John Radcliffe and surrounding Roads	Bus route 10
126	42510	Traffic – congestion		Travel Planning		Reduce car trips associated with schools
				Parking - new provision	John Radcliffe and surrounding Roads	Provide more parking
127	42511	Parking – availability	John Radcliffe and surrounding Roads	Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	New road links into John Radcliffe from Marsh Lane
		Public transport – park and ride	John Radcliffe and surrounding Roads			
		Cycleways – unsafe	John Radcliffe and surrounding Roads			
128	42512	Traffic – congestion		Public transport - Improved existing routes		
				Cycleways - New / Improved Off-Road Routes		
129	42513	Public transport – connection	Churchill and surrounding Roads	Public Transport - New east - west routes	Churchill and surrounding Roads	New route between South Parks Road and Old Road
130	42516	Public transport – quality		Public transport - Improved existing routes		Improve reliability of bus service number 4
131	42517	Public transport – quality		Cycleways - New / Improved Off-Road Routes		
		Cycleways – disconnected				
132	42525	Cycleways – disconnected		Cycleways - New / Improved Carriageway Routes		
133	42530	Traffic – congestion		Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	New road link from the bypass
		Cycleways – unsafe	Headington Road			
134	42532	Cycleways – disconnected	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)	

135	42535	Traffic – congestion Parking – obstruction Cycleways – unsafe	London Road (west of Ring Road) London Road (west of Ring Road)	Parking - controls	
136	42536	Traffic – congestion		Cycleways - New / Improved Off-Road Routes Public Transport - New east - west routes	New route Barton to Cheney School
137	42537	Traffic – congestion Parking – obstruction	John Radcliffe and surrounding Roads John Radcliffe and surrounding Roads	Parking - new provision	John Radcliffe and surrounding Roads Remove grass banks on Headley Way and provide parking bays
138	42538	Parking – obstruction Cycleways – unsafe	Risinghurst and Sandhills	Public transport - New / Improved Park a	To / from other Thornhill Terminus for London buses
139	42539	Traffic – safety / speed		Traffic - traffic calming	Margaret Road / St. Leonard Road
140	42548	Traffic – congestion	London Road (east of Ring Road)	Traffic - New / Improved Junctions Public transport - New / Improved Park a	London Road (east of Ring Road) To / from other Grade separate Green Road roundabout Thornhill Terminus for London buses
141	42549	Public transport – connection	To / from City Centre	Public Transport - New east - west routes	To / from City Centre Link between John Radcliffe and south of Cornmarket Street
142	42552	Public transport – connection	To / from other	Public transport - New north - south route	To / from other New route linking to Marston / Summertown
143	42553	Cycleways – unsafe	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)
144	42559	Parking – availability		Public transport - New / Improved Park a	London Road (east of Ring Road) Expand Thornhill, increase services to Hospital sites, allow longer parking
145	42568	Traffic – congestion Traffic – congestion	Churchill and surrounding Roads Marsh Lane / Marston Ferry Road	Traffic - New / Improved Road Links Traffic - New / Improved Junctions	Churchill and surrounding Roads Marsh Lane / Marston Ferry Road New access route into the campus Provide right turn lane at junction onto slip road from Elsfield and Woodeaton
146	42570	Traffic - Road condition Traffic – congestion	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)
147	42571	Parking – obstruction Traffic – congestion Traffic - Road condition	London Road (east of Ring Road) London Road (west of Ring Road) London Road (west of Ring Road)	Public transport - New / Improved Park a Traffic - patching / repair	London Road (east of Ring Road) London Road (west of Ring Road) Do not charge for parking at Thornhill
148	42572	Cycleways – disconnected	John Radcliffe and surrounding Roads	Cycleways - New / Improved Carriageway	John Radcliffe and surrounding Roads Headley Way
149	42573	Traffic – congestion	Marsh Lane / Marston Ferry Road	Traffic - New / Improved Junctions	Marsh Lane / Marston Ferry Road Change junction to traffic lights to free traffic movements



150	42574	Parking – availability				
		Public transport – connections				Brookes and John Radcliffe could team up to support public transport
151	42575	Footways – crossing locations	Risinghurst and Sandhills			
		Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	
152	42576	Traffic – congestion	London Road (west of Ring Road)	Other		Congestion charges for non-residents
				Parking - new provision		Allow companies within the ring road to have more parking
153	42578	Traffic – congestion				
		Parking – availability		Public transport - New / Improved Park	London Road (east of Ring Road)	Don't charge for parking at Thornhill
154	42579	Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Junctions	London Road (west of Ring Road)	Changes to Windmill Junction
				Public transport - bus lanes	London Road (west of Ring Road)	Bus Lanes both directions on London Road
155	42580	Traffic – congestion	London Road (west of Ring Road)	Public transport - bus lanes	London Road (west of Ring Road)	Allow use of bus lanes by high occupancy cars (3 people plus)
		Cycleways – disconnected				
156	42582	Public transport – quality	Churchill and surrounding Roads	Public transport - Improved existing route	Churchill and surrounding Roads	Improve reliability of bus service number 4 or reintroduce the number 15 service
157	42586	Cycleways – disconnected		Cycleways - New / Improved Off-Road Routes		
		Cycleways – signage and wayfinding		Cycleways - Priority at junctions		
158	42587	Traffic – congestion	John Radcliffe and surrounding Roads			No more development at Old Road or John Radcliffe
		Parking – availability	London Road (west of Ring Road)			
159	42588	Cycleways – unsafe	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)	
		Cycleways – signage and wayfinding				
160	42589	Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	Particularlry the bus lane/s
		Cycleways – signage and wayfinding	London Road (west of Ring Road)			
161	42590	Traffic – congestion	London Road (west of Ring Road)	Travel Planning		Traffic caused by schools, provide school transport
162	42594	Cycleways – disconnected				
		Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Junctions	London Road (west of Ring Road)	Junction with Windmill Road
163	42603	Parking – availability		Parking - new provision		
		Public transport – park and ride		Public transport - New / Improved Park	London Road (east of Ring Road)	Free parking and free transport from P&R
		Public transport – connections		Public transport - New north - south route	To / from other	Routes connecting areas away from the centre
164	42608	Public transport – quality		Public transport - Improved existing route	To / from other	Buses to / from Woodfarm
165	42609	Footways – unsafe				
		Cycleways – unsafe		Cycleways - New / Improved Off-Road Routes		Separate pedestrians and cyclists

166	42610	Parking – availability	Churchill and surrounding Roads	Parking - new provision	Churchill and surrounding Roads
		Cycleways – unsafe	Churchill and surrounding Roads	Cycleways - New / Improved Carriageway Routes	
167	42611	Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)
				Traffic - traffic calming	Remove unnecessary traffic calming and road humps
168	42612	Cycleways – disconnected		Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)
		Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Junctions	London Road (west of Ring Road)
					Junction with Windmill Road
					Smaller buses
169	42613	Public transport – connection	John Radcliffe and surrounding Roads	Public transport - New north - south routes	John Radcliffe and surrounding Roads
					Shuttle linking John Radcliffe and Churchill
170	42614	Traffic – congestion	London Road (west of Ring Road)		
		Footways – signage and wayfinding	Risinghurst and Sandhills	Footways - New / Improved crossings	Risinghurst and Sandhills
					Crossing on Collinwood Road junction
171	42615	Traffic – safety / speed	London Road (west of Ring Road)		
		Public transport – park and ride	London Road (east of Ring Road)	Public transport - New / Improved Park and Ride	London Road (east of Ring Road)
					Need more capacity and cheaper fares / parking
172	42616	Traffic – congestion		Public transport - New / Improved Park and Ride	To / from Market Towns
		Public transport – connections		Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads
					Remote park and ride at Market Towns
					New direct road link into the John Radcliffe site
173	42620			Public transport - New / Improved Park and Ride	Introduce free (or cheaper) P&R tickets for cyclists
174	42630	Traffic – congestion		Public transport - New north - south routes	To / from Market Towns
		Parking – obstruction		Travel Planning	Reduce traffic associated with schools
		Cycleways – disconnected			
175	42631	Traffic – safety / speed			
		Footways – crossing locations		Footways - New / Improved crossings	Quarry Road
176	42636	Parking – availability		Parking - new provision	
177	42638	Traffic – congestion			
		Traffic – safety / speed		Footways - New / Improved crossings	Quarry Road and Margaret Road
		Parking – obstruction		Parking - enforcement	
178	42642	Parking – availability		Parking - controls	London Road (west of Ring Road)
				Public transport - New / Improved Park and Ride	London Road (east of Ring Road)
					Allow parking outside shops in Headington Centre
					Don't charge for P7R
179	42646	Traffic – congestion		Travel Planning	Reduce traffic associated with schools
180	42647	Public transport – quality			
181	42648			Public transport - New / Improved Park and Ride	London Road (east of Ring Road)
					Don't charge for parking at Thornhill

182	42649	Traffic – congestion	Marsh Lane / Marston Ferry Road	Footways - New / Improved crossings	John Radcliffe and surrounding Roads	Sequencing of pedestrian crossing at the bottom of Headley Way
183	42652	Parking – obstruction		Parking - enforcement		
		Cycleways – disconnected		Cycleways - Other		Provide better cycle signage and awareness campaigns
		Traffic – safety / speed				
184	42674	Cycleways – disconnected	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes		
		Traffic – congestion	London Road (west of Ring Road)	Cycleways - Priority at junctions		
		Traffic – safety / speed		Traffic - traffic calming		Wharton Road
		Parking – availability	London Road (west of Ring Road)	Footways - New / Improved crossings		
		Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair		
185	42695	Cycleways – unsafe	London Road (west of Ring Road)	Cycleways - New / Improved Carriageway	London Road (west of Ring Road)	
		Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	
186	42697	Cycleways – disconnected	Marsh Lane / Marston Ferry Road	Cycleways - New / Improved Off-Road Routes	Marsh Lane / Marston Ferry Road	Provide a new parallel route (i.e. Eden Drive to Sandfield Road)
		Parking – availability		Parking - controls		More parking on Copse Lane for residents
187	42714	Cycleways – unsafe	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)	
						Osler Road is not suitable for buses
188	42734	Traffic – safety / speed	John Radcliffe and surrounding Roads	Traffic - traffic calming	John Radcliffe and surrounding Roads	Copse Lane around School
189	42735	Traffic – safety / speed	John Radcliffe and surrounding Roads			
190	42738	Traffic – safety / speed	John Radcliffe and surrounding Roads	Traffic - traffic calming	John Radcliffe and surrounding Roads	Copse Lane around School
		Footways – crossing locations	John Radcliffe and surrounding Roads	Footways - New / Improved crossings	John Radcliffe and surrounding Roads	Copse Lane around School
191	42747	Traffic – safety / speed	John Radcliffe and surrounding Roads	Traffic - traffic calming	John Radcliffe and surrounding Roads	Copse Lane around School
		Footways – crossing locations	John Radcliffe and surrounding Roads	Footways - New / Improved crossings	John Radcliffe and surrounding Roads	Copse Lane around School
				Parking - new provision	John Radcliffe and surrounding Roads	Allow parking on both sides of Copse Lane to slow traffic speeds
192	42749	Traffic – congestion				
		Parking – availability	John Radcliffe and surrounding Roads	Parking - controls	John Radcliffe and surrounding Roads	Needs more control of parking at development sites
				Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	New road link into John Radcliffe from ring road
				Traffic - New / Improved Road Links	Churchill and surrounding Roads	New road links into Churchill from ring road
						New mass transit rail system
193	42756	Traffic – congestion				
		Footways – unsafe		Cycleways - New / Improved Off-Road Routes		Separate pedestrians and cyclists
194	42757					A turn from Middle Lane South would be better for residents than the link road proposed as part of the Barton development
195	42759	Traffic – congestion				
		Parking – obstruction				
		Public transport – other		Public transport - bus lanes		Currently there is a lack of continuous bus lanes
		Cycleways – disconnected				
		Public transport – park and ride		Public transport - New / Improved Park & Ride	London Road (east of Ring Road)	Maintain fee parking at Thornhill
196	42761	Traffic – safety / speed	Marsh Lane / Marston Ferry Road	Traffic - traffic calming	Marsh Lane / Marston Ferry Road	Outside New Marston Primary School
				Footways - New / Improved crossings	Marsh Lane / Marston Ferry Road	Outside New Marston Primary School
				Parking - controls	Marsh Lane / Marston Ferry Road	Outside New Marston Primary School

197	42762	Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Road Links	Risinghurst and Sandhills	Re-open Risinghurst Gap
198	42777	Public transport – quality				Provide audible announcements to provide for the needs of partially sighted / blind users
199	42784	Traffic – congestion		Traffic - traffic calming		
				Cycleways - New / Improved Off-Road Routes		
				Public transport - bus lanes		
						Limit access to the John Radcliffe via Osler Road
200	42785	Public transport – connections		Public Transpor - New east - west routes	To / from other	Links between Science Area and Science Parks at Harwell and Begbroke
201	42788	Traffic – congestion				Wharton Road
		Traffic – safety / speed		Traffic - traffic calming		Wharton Road
		Parking – availability	London Road (west of Ring Road)	Parking - new provision	London Road (west of Ring Road)	Outside shops (30-60mins)
		Cycleways – disconnected	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)	
		Traffic - Road condition	London Road (west of Ring Road)			
202	42789	Public transport – quality		Public transport - Increase capacity		Need additional capacity due to use of buses by school children in the peak hours
203	42790	Cycleways – unsafe		Cycleways - New / Improved Off-Road Routes	Risinghurst and Sandhills	From Risinghurst on the inbound side of London Road
		Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	
				Traffic - New / Improved Junctions		Central reservation at junction of Gladstone Road
						Change zebra at Stile Road to Pelican and link to lights at junction with Windmill
				Footways - New / Improved crossings		
204	42791	Traffic – safety / speed	London Road (east of Ring Road)	Traffic - traffic calming	London Road (east of Ring Road)	Install additional 30mph signage and / or speed camera
		Footways – crossing locations	London Road (east of Ring Road)	Footways - New / Improved crossings	London Road (east of Ring Road)	Install a more formal crossing or pedestrian footbridge
205	42794	Traffic – congestion	London Road (west of Ring Road)			Caused by too many signal controlled crossings
206	42802	Traffic – congestion	London Road (west of Ring Road)			Related to the local schools
		Traffic – safety / speed				Windmill Road
		Parking – obstruction				Windmill Road
207	42803	Public transport – connection	Marsh Lane / Marston Ferry Road	Public transport - New north - south routes	Marsh Lane / Marston Ferry Road	
208	42804	Traffic – safety / speed	Marsh Lane / Marston Ferry Road	Traffic - traffic calming	Marsh Lane / Marston Ferry Road	Outside New Marston Primary School
		Footways – crossing locations	Marsh Lane / Marston Ferry Road	Footways - New / Improved crossings	Marsh Lane / Marston Ferry Road	Outside New Marston Primary School
209	42805	Traffic – congestion				
		Cycleways – disconnected				
		Cycleways – unsafe		Cycleways - New / Improved Off-Road Routes		
				Public transport - New / Improved Parkways	London Road (east of Ring Road)	Use Thornhill as a terminus for London services
210	42806	Traffic – congestion	John Radcliffe and surrounding Roads	Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	New road link into John Radcliffe from Bypass
		Public transport – quality	John Radcliffe and surrounding Roads			
		Cycleways – disconnected		Cycleways - New / Improved Carriageways	John Radcliffe and surrounding Roads	Headley Way
		Public transport – quality	John Radcliffe and surrounding Roads			Osler Road not wide enough for buses

211	42807	Traffic – congestion	Marsh Lane / Marston Ferry Road			Cherwell Drive / Headley Way
		Traffic – safety / speed	Marsh Lane / Marston Ferry Road	Traffic - New / Improved Junctions	Marsh Lane / Marston Ferry Road	Change double roundabout at bottom of Headley Way to signals
		Cycleways – disconnected	Marsh Lane / Marston Ferry Road	Cycleways - New / Improved Off-Road Routes	Marsh Lane / Marston Ferry Road	Cherwell Drive
				Parking - enforcement	Marsh Lane / Marston Ferry Road	Are the parking bays on Cherwell Drive needed?
212	42840			Traffic - New / Improved Junctions	Marsh Lane / Marston Ferry Road	Junction of Oxford Road with Cherwell Drive
		Traffic – congestion	John Radcliffe and surrounding Roads			
		Traffic – safety / speed	John Radcliffe and surrounding Roads	Traffic - traffic calming	John Radcliffe and surrounding Roads	Old High Street
213	42846	Traffic – congestion				
		Cycleways – disconnected				
				Traffic - traffic calming	Churchill and surrounding Roads	Speed cameras on Old Road and Windmill Road
				Public transport - Improved existing routes	Churchill and surrounding Roads	Improved shuttle bus services between Old Road and John Radcliffe
214	42847					
		Traffic – safety / speed		Traffic - traffic calming		Quarry Hollow / Quarry High Street
215	42815					
						Want to see a wider strategy context before consultation therefore comments are strategic in nature
216	42798	Public transport – quality				
		Traffic – congestion				
				Public transport - bus lanes	Churchill and surrounding Roads	Old Road
				Cycleways - New / Improved Off-Road Routes	Churchill and surrounding Roads	Old Road
217	41551					
		Traffic - Road condition	London Road (west of Ring Road)			Drain covers higher than road level
		Traffic – congestion	Churchill and surrounding Roads			
		Cycleways – unsafe	The Slade / Hollow Way			
218	41510					
		Traffic – congestion				
		Public transport – quality		Public transport - Ticketing		Provide more integrated ticketing / cheaper or free travel for under 16s
				Public transport - New / Improved Park and Ride		No charging for parking at Thornhill
219	42641					
		Parking – availability		Parking - controls		Quarry CPZ is not appropriate and will limit parking for residents too severely
220	42423	Public transport – quality				
		Traffic – congestion	London Road (east of Ring Road)			Barton exit onto Headington Roundabout
		Parking – availability		Public transport - New / Improved Park and Ride	London Road (east of Ring Road)	Don't charge for parking at Thornhill
221	42640	Parking – availability	John Radcliffe and surrounding Roads	Parking - new provision	John Radcliffe and surrounding Roads	
				Parking - controls	John Radcliffe and surrounding Roads	
222	42816	Traffic – congestion		Traffic - New / Improved signage		Windmill Road
		Traffic – safety / speed		Traffic - traffic calming		Windmill Road
223	42817	Footways – unsafe		Cycleways - New / Improved Off-Road Routes		Separate pedestrians and cyclists
224	42819	Traffic – congestion	John Radcliffe and surrounding Roads	Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	New road link into John Radcliffe from Bypass
		Traffic – safety / speed	John Radcliffe and surrounding Roads	Cycleways - New / Improved Off-Road Routes	John Radcliffe and surrounding Roads	Stoke Place to link Barton with the John Radcliffe
225	42820	Traffic – congestion	John Radcliffe and surrounding Roads	Traffic - New / Improved Road Links	John Radcliffe and surrounding Roads	New road link into John Radcliffe from Bypass

225	42820					
226	42821	Traffic - Road condition	London Road (west of Ring Road)	Traffic - patching / repair	London Road (west of Ring Road)	Drainage needs improving
		Footways – unsafe	London Road (west of Ring Road)	Cycleways - New / Improved Off-Road Routes	London Road (west of Ring Road)	To separate pedestrians and cyclists
		Traffic – safety / speed	London Road (west of Ring Road)	Cycleways - New / Improved crossings		New crossing at junction of Windmill Road / St. Leonards Road
				Footways - New / Improved crossings	London Road (west of Ring Road)	At junctions with side roads
227	42822	Cycleways – disconnected	Churchill and surrounding Roads	Cycleways - New / Improved Off-Road Routes	Churchill and surrounding Roads	From Old Road to London Road on both sides
		Traffic – safety / speed		Traffic - traffic calming		20mph limit extended to cover Windmill Road
228	42823	Traffic - Road condition	London Road (west of Ring Road)			Also repairs needed in York Road and Quarry High Street
		Parking – obstruction				
		Footways – crossing locations		Footways - New / Improved crossings		On Quarry Road linking to Quarry Foundation Stage School
229	42824	Traffic - Road condition	London Road (west of Ring Road)			
		Public transport – other	London Road (west of Ring Road)	Public transport - bus lanes	London Road (west of Ring Road)	Bus lanes either side of the road
230	42825	Traffic – congestion		Parking - controls		
				Travel Planning		Should promote walking buses
231	42826	Traffic – congestion	Churchill and surrounding Roads			
		Parking – availability	Churchill and surrounding Roads	Parking - controls		CPZ in Peat Moors and Lye Valley Estate
232	42827	Parking – availability	Churchill and surrounding Roads	Parking - controls	Churchill and surrounding Roads	CPZ covering Lye Valley Estate
		Public transport – quality	John Radcliffe and surrounding Roads	Public transport - Improved existing routes	John Radcliffe and surrounding Roads	Improve bus service number 10 to / from John Radcliffe
		Cycleways – unsafe		Cycleways - New / Improved Off-Road Routes		
233	42828	Parking – obstruction		Parking - controls		CPZ covering Peat Moors
234	42829	Public transport – quality		Public transport - Improved existing routes		Shouldn't have timetables, just very regular reliable services
		Parking – obstruction		Parking - controls		Residents parking schemes across the board
235	42830	Footways – crossing locations	London Road (west of Ring Road)	Footways - New / Improved crossings	London Road (west of Ring Road)	By the Gladston Road bus stop
						General note to consider raised boarders or other measures to help elderly users to get on / off buses with heavy shopping
				Public transport - Improved existing routes		
236	42831	Parking – obstruction	Churchill and surrounding Roads	Parking - controls	Churchill and surrounding Roads	CPZ covering Lye Valley Estate
237	42834	Traffic – congestion	London Road (west of Ring Road)	Traffic - New / Improved Junctions	London Road (west of Ring Road)	Junction of London Road with Kennett Road
				Parking - controls	London Road (west of Ring Road)	Junction of London Road with Kennett Road
				Cycleways - Other		Wider cycle scheme - similar to Boris Bikes
238	42835	Traffic – congestion	John Radcliffe and surrounding Roads	Traffic - traffic calming	John Radcliffe and surrounding Roads	Old High Street to protect conservation area
				Parking - controls	John Radcliffe and surrounding Roads	
				Cycleways - New / Improved Off-Road Routes	John Radcliffe and surrounding Roads	
				Travel Planning		Car Share Schemes

239	42836	Public transport – connections		Public transport - New north - south routes		New routes connecting areas outside the centre
		Cycleways – disconnected		Cycleways - New / Improved Off-Road Routes		
		Cycleways – unsafe				Reconstruct the London Road subway
		Footways – crossing locations		Footways - New / Improved crossings	London Road (west of Ring Road)	Near Bury Knowle Health Centre
		Traffic – congestion		Traffic - New / Improved Road Links		New links into Churchill and John Radcliffe sites and the Barton development
240	42861	Traffic – congestion	London Road (west of Ring Road)			In particulr concerned about the air quality impacts of congestion
241	42862	Traffic – congestion		Traffic - patching / repair	London Road (west of Ring Road)	
		Footways – crossing locations				
		Cycleways – disconnected				
		Public transport – connections		Public transport - Ticketing	To / from other	Increased cross-ticketing, also provide for links to areas such as Summertown
		Parking – availability	London Road (west of Ring Road)	Parking - new provision	London Road (west of Ring Road)	Allow short stay parking outside Headington Shops
242	43000	Traffic – safety / speed	John Radcliffe and surrounding Roads	Traffic - traffic calming	London Road (west of Ring Road)	Old Headington
		Footways – unsafe	John Radcliffe and surrounding Roads			
243	43001	Cycleways – unsafe		Traffic - weight restrictions		Quarry
				Public transport - Ticketing		Consider Oyster style cards or similar for younger occasional users
244	43002	Parking – availability	Churchill and surrounding Roads	Parking - controls		CPZ for Peat Moors