

## Chapter 3: What are the actual causes of traffic and congestion in Oxford – and how might they be addressed?

### Overview

1. We have already established that, with the notable (part-time) exception of the Iffley Road, there is typically little congestion in Oxford's centre. Several of the traffic filter sites have no congestion at most times of the day, most days. Those that do are for specific periods on specific days. The justification for introducing congestion charge checkpoints in the non-congested city centre is therefore extremely thin – especially as all four central Oxford ANPR checkpoints are due to operate 7am – 7pm, seven days per week, 365 days per year.
2. By contrast, there is longstanding evidence to indicate that congestion and resulting delays tend to occur in the outer parts<sup>1</sup> of Oxford, often in locations that are not the focus for OCC's planned congestion charge ANPR charging regime. This reinforces our view that the proposed scheme is not only deeply irrational, but it is also practically bound to fail. Worse, the scheme is likely to increase traffic, congestion and pollution in the city's outer edges. There is, therefore, a significant risk that this scheme will actively cause harm in the northern and eastern parts of Oxford.
3. The evidence we have used to reach this conclusion includes Google traffic maps, OCC traffic monitoring locations<sup>2</sup>, existing data sources, direct observations at various times of the day – most of which have been filmed and shared online – together with modelling data supplied by Steer and Ricardo.
4. Based on these data sources, our provisional finding is that there are three main sources of congestion in certain parts of Oxford – albeit typically not for all of the year, and certainly not for the majority of the day:
  - Oxford's two main hospitals – the John Radcliffe and Churchill;
  - Private, not state, schools;
  - Recently introduced low traffic neighbourhoods (LTNs).
5. Below, we set out the evidence which has helped each source of likely congestion. We also set out how the congestion charge scheme is, in all likelihood, predicted to have either no effect on congestion or, in a worst-case scenario, actively make it worse. In light of this, we propose low-cost alternative solutions to reduce congestion in outer Oxford, based on available evidence.

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<sup>1</sup> Oxfordshire County Council. Oxford Transport Strategy – Connecting Oxfordshire. Available [here](#).

<sup>2</sup> Available [here](#).

## The role of Oxford's major hospitals in causing (highly localised) congestion

6. Oxford's two main hospitals are located in the city's outer suburbs: Northway / Headington in the case of The John Radcliffe, and Headington / Wood Farm in the case of the Churchill. The trust that runs both hospitals, the Oxford University Hospitals NHS Foundation Trust, employs in excess of 16,000 staff, making it one of the largest (and most concentrated) employers in the city<sup>3</sup>, just behind Oxford University<sup>4</sup>. This is also far ahead of major private sector employers, such as BMW's Mini factory, which is believed to have around 3,500 employees<sup>5</sup>. Between them, Oxford's hospitals also have more than 1.7 million inpatient and outpatient visits per year. This will also contribute significantly to the city's traffic and congestion levels<sup>6</sup>.
7. As the trust running the hospital itself acknowledges, Oxford's hospitals generate a significant amount of traffic in Oxford. According to a staff survey, more than 61% of staff travel to work alone by car, with a further 6% sharing a car. This compares with just 12% who catch the bus, 8% who walk and 8% who cycle<sup>7</sup>.
8. The trust estimates that 74,524 vehicles each week travel to, and from, its John Radcliffe Hospital site. Given weekends are quieter than weekdays, we estimate that it probably splits into 13,000 vehicles per working day, with 5,000 vehicles per day at the weekend. Indeed, at a large scale, the trust estimates that around 14% of all traffic on the city's ring road is coming from, or going to, its Headington-based hospitals. With 80% of staff living outside the city's ring road<sup>8</sup>, Oxfordshire County Council's normal mantra of cycling and walking as a way to reduce congestion is unlikely to hold much sway – especially for a workforce where shifts in high-pressure departments can last 12.5 hours, typically covering anti-social hours<sup>9</sup>.
9. Yet, despite the clear impact of these vital public services on Oxford traffic volumes and resulting congestion, it is notable that Oxfordshire County Council's congestion charge plans barely mention them. We think this is a significant omission, and fundamentally challenges the credibility of the council's plans. We discuss the role of hospitals in generating traffic and congestion in considerably more detail in chapter four, below.
10. As a result of this apparent gap in Oxfordshire County Council's understanding of traffic and congestion, it appears that its previously-mentioned vehicle reduction targets operate on the assumption that vehicle movements around the city are highly elastic, and can easily be affected by policy interventions such as a congestion charge or traffic filters. The evidence

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<sup>3</sup> Source (Geoff).

<sup>4</sup> Oxford University. Annual staffing data 2023 / 2024 reporting year. Available [here](#).

<sup>5</sup> <https://www.oxfordmail.co.uk/news/25140282.bmw-axes-180-workers-jobs-lost-oxford-mini-plant/>

<sup>6</sup> Oxford University Hospitals NHS Foundation Trust. Annual Report and Accounts 2023 – 2024. Available [here](#)

<sup>7</sup> Oxford University Hospitals NHS Foundation Trust. Healthy Travel Strategy: 2025 – 2027, A framework for travel strategy for the John Radcliffe. Acting CEO's forward. Available [here](#).

<sup>8</sup> Oxford University Hospitals NHS Foundation Trust. As above.

<sup>9</sup> Oxford University Hospitals NHS Foundation Trust. Welcome to the John Radcliffe Emergency department. Available [here](#).

presented in this report indicates that this is not the case – especially in the case of Oxford’s hospitals. The evidence we present below indicates that a significant majority of hospital staff are resistant to any form of modal shift, for perfectly valid reasons. Likewise, expecting a significant percentage of 1.7 million inpatient and outpatient visits per year to evaporate is, unambiguously, wishful thinking – or not thinking at all – by Oxfordshire County Council.

11. Modal shift will only occur if better options to the private car are in place. From its congestion charge consultation documentation, there is no sign from Oxfordshire County Council that it has a strategy for ensuring that modal shift will occur, beyond simply inhibiting access to several of Oxford’s key arterial roads – possibly because the council barely acknowledges the importance of the hospitals in traffic and congestion generation in and around Oxford.
12. Worse, while outlines of credible plans exist (not of the council’s own making) to reduce traffic and congestion caused by Oxford’s hospitals, there is also plausible evidence Oxfordshire County Council’s congestion charge scheme will make traffic and congestion worse on the main approach roads to the John Radcliffe, in particular. We fear this will cause significant inconvenience – potentially even harm – to NHS personnel, patients and nearby residents.
13. Below, we set out how we believe the Marston Ferry Road traffic filter, in particular, will make the congestion situation worse around the John Radcliffe. We also make a number of alternative proposals to improve the situations, building on proposals already made by the NHS trust and others. For completeness, we also indicate the role played by the Churchill Hospital in causing minor, localised congestion.

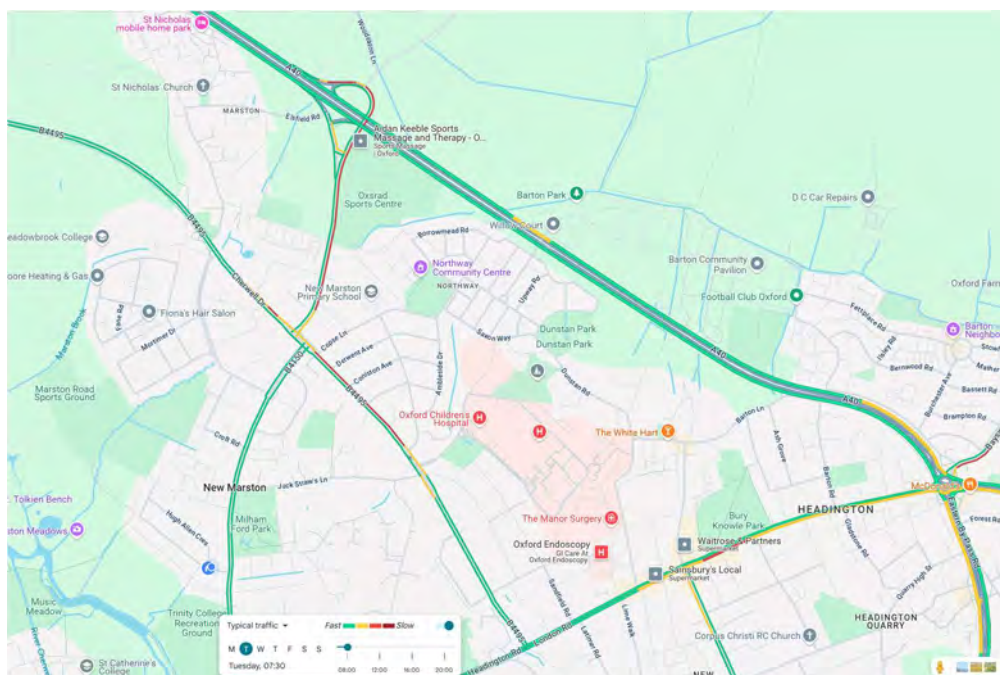
### Example one: the John Radcliffe Hospital

14. Illustration 3.1 shows the level of congestion build-up close to the John Radcliffe Hospital at 7:30am on a typical Tuesday, from two main directions – Marsh Lane in Marston, near the Oxsrads Sports Centre, and London Road in Headington. The time selected in picking this example is based on-the-ground observations regarding the busyness of roads in Oxford. This timing also allows for the discounting of other factors likely to cause congestion – notably the school run.
15. In relation to Marsh Lane, which is a residential road for approximately half its length, congestion often builds up almost as far back as the A40 ring road<sup>10</sup>. Congestion on London Road, Headington, is somewhat lighter – but constant in some form throughout the day and still some of the heaviest in the wider area, especially around the main shopping district. An additional congestion hotspot at peak commuting times also exists on the B4495 (Headley Way). Headley Way is a residential road that connects Marsh Lane in Marston with London Road and Headington. This road is also the main entrance to the John Radcliffe Hospital.

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<sup>10</sup> <https://x.com/ReconnectingOx/status/1947906532600869245>

### Illustration 3.1: congestion build up around the John Radcliffe Hospital



16. Another noticeable feature indicated on illustration 3.1 above is the lack of congestion beyond Marsh Lane in Marston, either along Cherwell Drive toward Marston Ferry Road<sup>11</sup> or along Marston Road, heading into the city centre. Likewise, congestion also largely evaporates in Headington beyond the B4495 turnoff towards the John Radcliffe, with traffic flowing freely down Headington Road<sup>12</sup> (Headington Hill)<sup>13</sup> into the city centre<sup>14</sup>. Marston Ferry Road is, of course, one of the six planned congestion charge ANPR sites, notwithstanding its lack of congestion during its proposed hours of operation (7am – 9am, 3pm – 6pm, Monday to Saturday). Similarly, Headington Hill is one of the main approach roads to the St Clement ANRP site.

17. Notably, the congestion mapping indicated above is not a quirk of sampling, yielded by selecting congestion levels in the area at a specific time, on a certain day. Data released by Oxfordshire County Council<sup>15</sup> under a freedom of information request shows a largely similar picture, when average weekday term time traffic levels are calculated between 7:30 and 9:30 throughout the course of 2024. As with the narrative described above, congestion around the John Radcliffe Hospital is highly concentrated on its main approach roads along Marsh Lane / Headley Way from the North and London Road / Headley Way from the east. After that point, congestion all but evaporates, west along Marston Ferry Road, and south along Marston Road and Headington Hill.

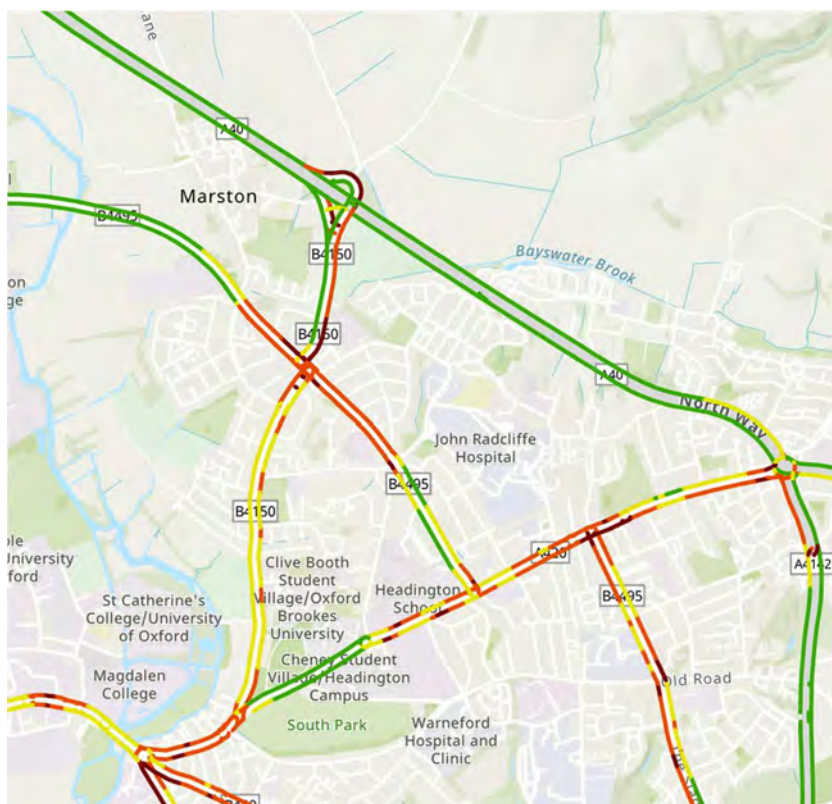
<sup>11</sup> <https://x.com/ReconnectingOx/status/1932738608965804236>

<sup>12</sup> <https://x.com/ReconnectingOx/status/1934536252289687612>

<sup>13</sup> <https://x.com/ReconnectingOx/status/1941443251212607774>

<sup>14</sup> <https://x.com/ReconnectingOx/status/1939592902243434942>

<sup>15</sup> Available [here](#).

**Illustration 3.2: average weekday term-time traffic speeds, 7:30 – 9:30am, 2024**

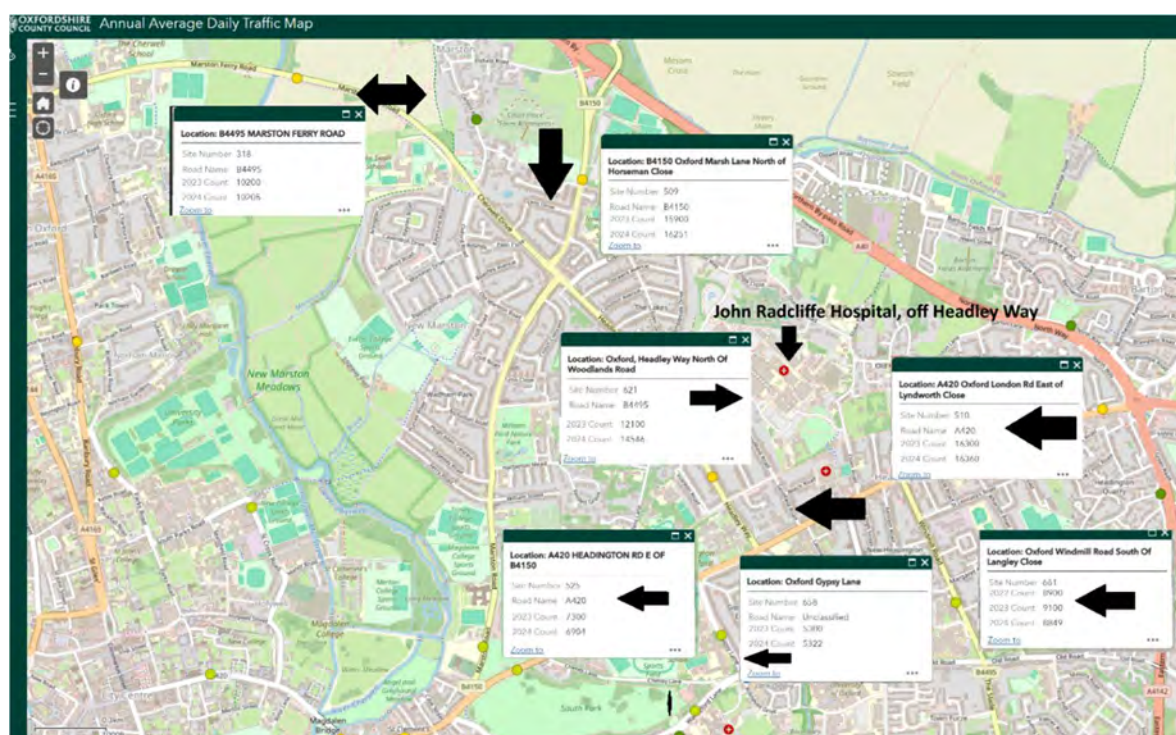
18. A similar picture emerges if one studies recorded annual average daily traffic (AADT) counts, which are available on Oxfordshire County Council's interactive map<sup>16</sup>. As illustration 3.3 below shows, traffic levels fall off significantly between London Road (close to the entrance to the city at the ring road) and Headington Road (Headington Hill), falling from 16,360 on London Road to just 6,904 on Headington Hill. By contrast, traffic levels are largely maintained along Headley Way (14,546) towards the John Radcliffe, with relatively little traffic disappearing off London Road towards Oxford Brookes University off Gypsy Lane (5,322) or towards the Churchill Hospital on Old Road via Windmill Lane (8,849). Likewise, there is a notable drop in AADTs between Marsh Lane (16,251) and Marston Ferry Road (10,205).
19. This behaviour is (more or less) replicated at the junction of London Road and Headley Way. It can also be verified via observation, with a large percentage of traffic either turning right into Headley Way towards the John Radcliffe or turning out of Headley Way onto London Road, heading out towards the ring road during the morning rush hour<sup>17</sup>.

<sup>16</sup> Available [here](#).

<sup>17</sup> <https://x.com/ReconnectingOx/status/1940308086478315778/video/3>



### Illustration 3.3: AADTs near the John Radcliffe Hospital and Marston Ferry Road

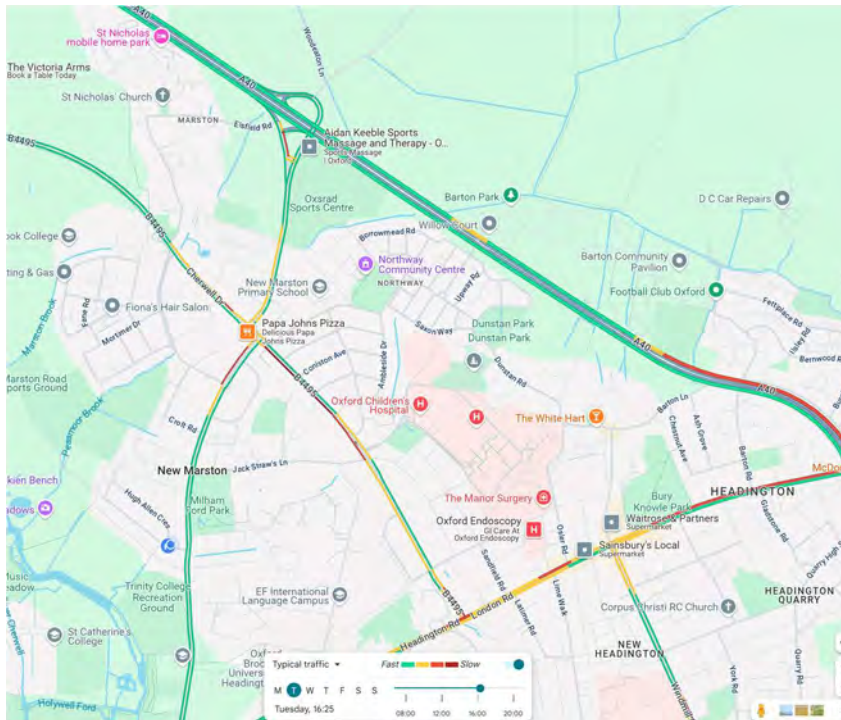


20. Direct observations also reveal – particularly on Marsh Lane, which is narrow towards the Cherwell Drive turning – a very large number of vehicle occupants wearing NHS scrubs and ID badges on NHS lanyards, especially during the 6:45am – 7:30am morning rush hour period. After this time, there is a shift towards car occupants wearing a greater range of clothes – possibly as NHS staff arriving for work gives way to patients visiting the hospital. However, even then, there is a strong tendency for vehicles to turn left towards the John Radcliffe, rather than right towards Marston Ferry Road<sup>18</sup>.
21. Finally in relation to this location, it is also worth noting that (albeit very modest) Oxford-bound congestion on Marsh Lane remain high until relatively late in the day – first becoming partially clear around 4:30pm. Around this time, there is also notable increase in (very modest) congestion heading outbound from Cherwell Drive towards the A40 ring road via Marsh Lane. We presume this traffic reflects the end of school day the nearby Swan School and Meadow Brook College.
22. Elsewhere in this part of Oxford, congestion can also be observed near to the outbound section of London Road, close to the ring road. It is our strong assumption that a significant element of this traffic is likely to be caused by either staff or patients heading away from the John Radcliffe hospital at the end of the working day. Indeed, evidence collected by the John Radcliffe hospital itself<sup>19</sup> – shown in illustration 3.5 – tends to support this proposition. We return to this topic in chapter four.

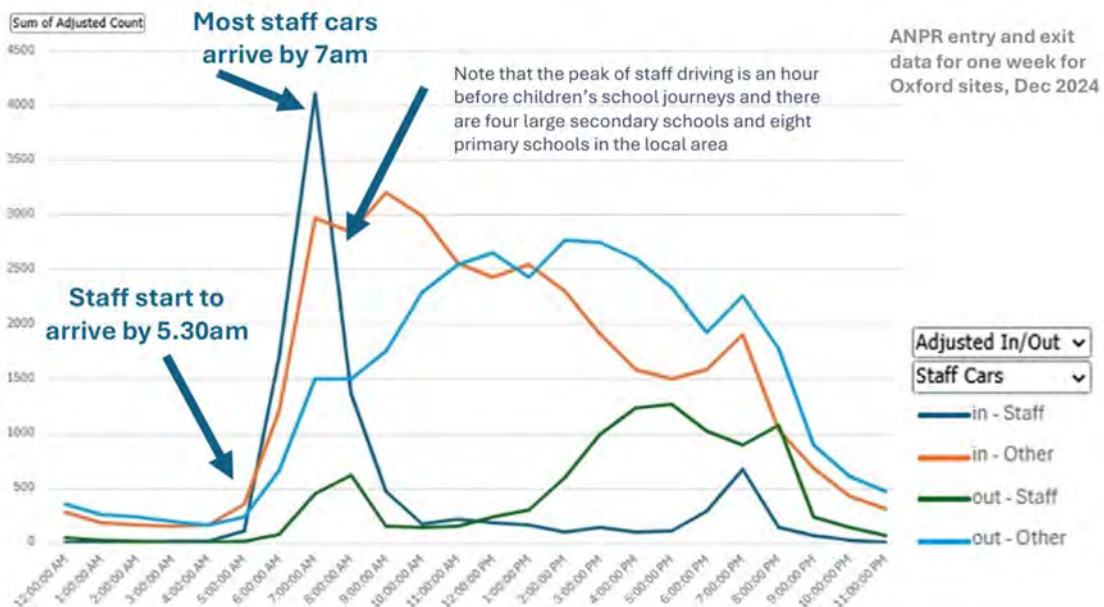
<sup>18</sup> <https://x.com/ReconnectingOx/status/1940351659995209996>

<sup>19</sup> Oxford University Hospitals NHS Foundation Trust. Healthy Travel Strategy: 2025 – 2027, A framework for travel strategy for the John Radcliffe. Acting CEO's forward. Available [here](#).

### Illustration 3.4 congestion at 16:25 around Marston, Northway and Headington

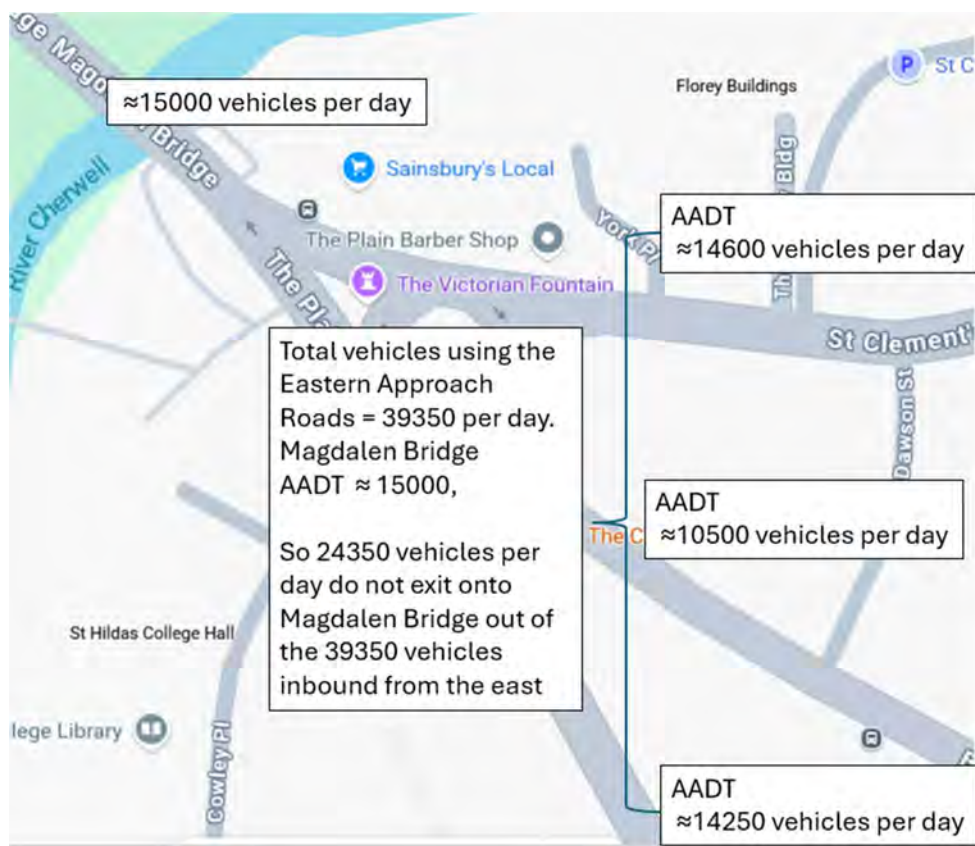


### Illustration 3.5: staff entrants and exits from the John Radcliffe Hospital



23. Another unexplained quirk in traffic that is likely to be hospital-related is that the main flow of traffic around the Plain roundabout circulates around Iffley Road, Cowley Road and St Clements, but does not then cross into the city via Magdalen Bridge.

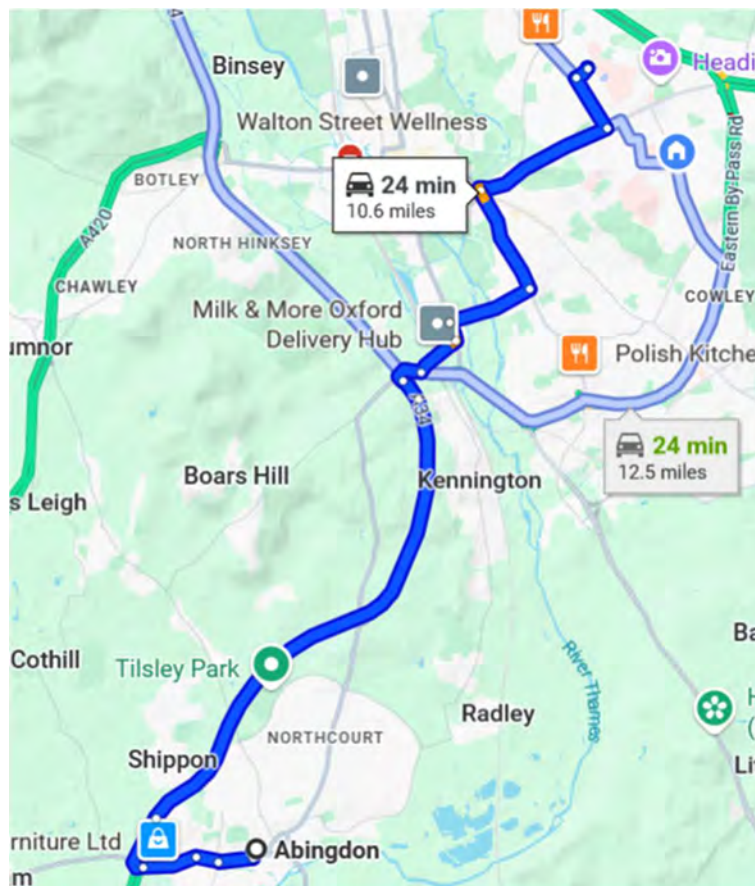
### Illustration 3.6: average daily vehicle movements around the Plain



24. A likely explanation for this traffic flow is Google Maps. On many occasions, Google Maps suggests the best route to take from the south of Oxford – for example, Abingdon – to the John Radcliffe is via Iffley Road and the Plain, and then onwards up Headington Hill.

25. As we shall explain in more detail shortly, the introduction of the LTNs in East Oxford pushed various types of drivers into this one route, concentrating on Iffley Road and the Plain roundabout. Before the LTNs, some hospital-bound traffic – especially local residents with local knowledge – would have filtered between the Iffley and Cowley Roads, notably via Divinity Road. However, once the East Oxford LTNs were introduced, these alternative routes were cut off. Increased traffic on so-called boundary roads is a well-known consequence of LTNs. However, the combination of hospital and private school traffic on this route – which is also a bus route – have significantly magnified congestion problems in this area – a fact that Oxfordshire County Council not only fails to recognise, but actively rebuffs.



**Illustration 3.7: Google Maps routing to the John Radcliffe from Abingdon****Illustration 3.8: Pre-LTN traffic flows from the Abingdon Road roundabout and Iffley Road to the Headington hospitals**

### Illustration 3.9: Post LTN traffic flows from the Abingdon Road roundabout and Iffley Road to the Headington Hospitals



26. Although the routing shown above indicates a high concentration of traffic heading towards the Plain along Iffley Road, one of the surprising things about this traffic is how quickly it dissipates once it passes the Plain. We have observed, and Google Map traffic data largely verifies, that traffic often flows freely in the mornings at St Clements, especially in a Headington-bound direction. We can illustrate this via drawing on Google Map's congestion data, exploring typical levels of traffic at specific times of day. The evidence is unambiguous. There is little traffic on St Clements for much of the day in the direction of Headington, especially in the early mornings. In other words, there is very little traffic whatsoever on this outbound road, except that which is waiting at traffic lights. St Clements is, of course, one of the six proposed congestion charge sites – despite having little outbound congestion at all, let alone sufficient congestion on it to warrant a 7am to 7pm congestion charge timing.

**Table 3.1: Google Map congestion data for St Clements – outbound towards Headington**

	St Clements West to East									
Monday			33				19			
Tuesday			33				75			
Wednesday			19			33	19			
Thursday			19			33	75	19		
Friday					M	19	19	19		
Saturday					35	33				
Sunday										

\* all times shown are shown as seconds

27. Taken in the round, the evidence presented above provides further support for one of our key hypotheses about congestion in Oxford: it is rarely caused by residents moving around their own city. Rather, it is caused by cross-city flows and short-distance infractions into the city's outer edges, by car drivers from outside Oxford who tend not to proceed to the city centre.

28. Further evidence to support this assertion can be verified by observation, also carried out during the morning rush hour<sup>20</sup> – including in the time immediately leading up to the John Radcliffe 7:30am shift change<sup>21</sup>. Video footage collected at both the Marsh Lane / Cherwell Drive / Headley Way interchange shows that, overwhelmingly, traffic turns left onto Cherwell Drive towards the hospital. Additional video evidence, collected a few minutes later<sup>22</sup>, reveals a similar pattern: most vehicles that travel up Cherwell Drive at this time in the morning can then be observed turning left again into the John Radcliffe hospital entrance<sup>23</sup>. This traffic flow can be observed occurring on multiple morning rush hours<sup>24</sup>.
29. For completeness, we also captured evidence immediately before, and on the first day of, the recent doctors' strike. To minimise the likelihood of other outside influences, the "before" data was captured the day after Oxford's state schools broke up for the summer holidays. The difference was stark: queues far out of the city before the strike<sup>25</sup>, on the first day of the school holidays. On the first day of the strike, we observed a complete absence of queuing traffic in the exact same location<sup>26</sup>.

## Example two: the Churchill Hospital

30. A broadly similar picture of peak time morning congestion can also be observed in relation to the Churchill Hospital, based on Old Road. Due to its positioning – the hospital backs onto a golf course – there are just four main approach roads to the Churchill: from the Eastern Bypass (i.e. ring road) along Horspath Driftway and the Slade; along Hollow Way, also via the Slade, both from the south; via Windmill Road (off London Road) from the north; or via Gypsy Lane or Warneford Lane from the west (i.e. Oxford city centre). There is little access from the east: Old Road ends in a country park.
31. As with London Road / Headley Way, average daily traffic counts are highest in suburban Oxford roads in close proximity to the ring road, notably Horspath Driftway (AADT: 19,232) and the Slade (17,781). However, these AADTs fall away sharply once they pass the entrance to the Churchill Hospital (11,567) and become closer to the city centre. Gypsy Road, a short distance to the West of the Churchill entrance, for example, has an AADT of just 5,322, while Warneford Lane has an AADT of 5,038 and Headington Hill has an AADT of 6,904. Anyone who observes these roads during the peak time morning rush hour, especially Headington Hill, will typically find them very quiet<sup>27</sup>, even during term time<sup>28</sup>.

<sup>20</sup> <https://x.com/ReconnectingOx/status/1942477610618863903>

<sup>21</sup> <https://x.com/ReconnectingOx/status/1945730017763246432>

<sup>22</sup> <https://x.com/ReconnectingOx/status/1941443251212607774>

<sup>23</sup> <https://x.com/ReconnectingOx/status/1941443251212607774>

<sup>24</sup> <https://x.com/ReconnectingOx/status/1942477610618863903>

<sup>25</sup> <https://x.com/ReconnectingOx/status/1947906532600869245>

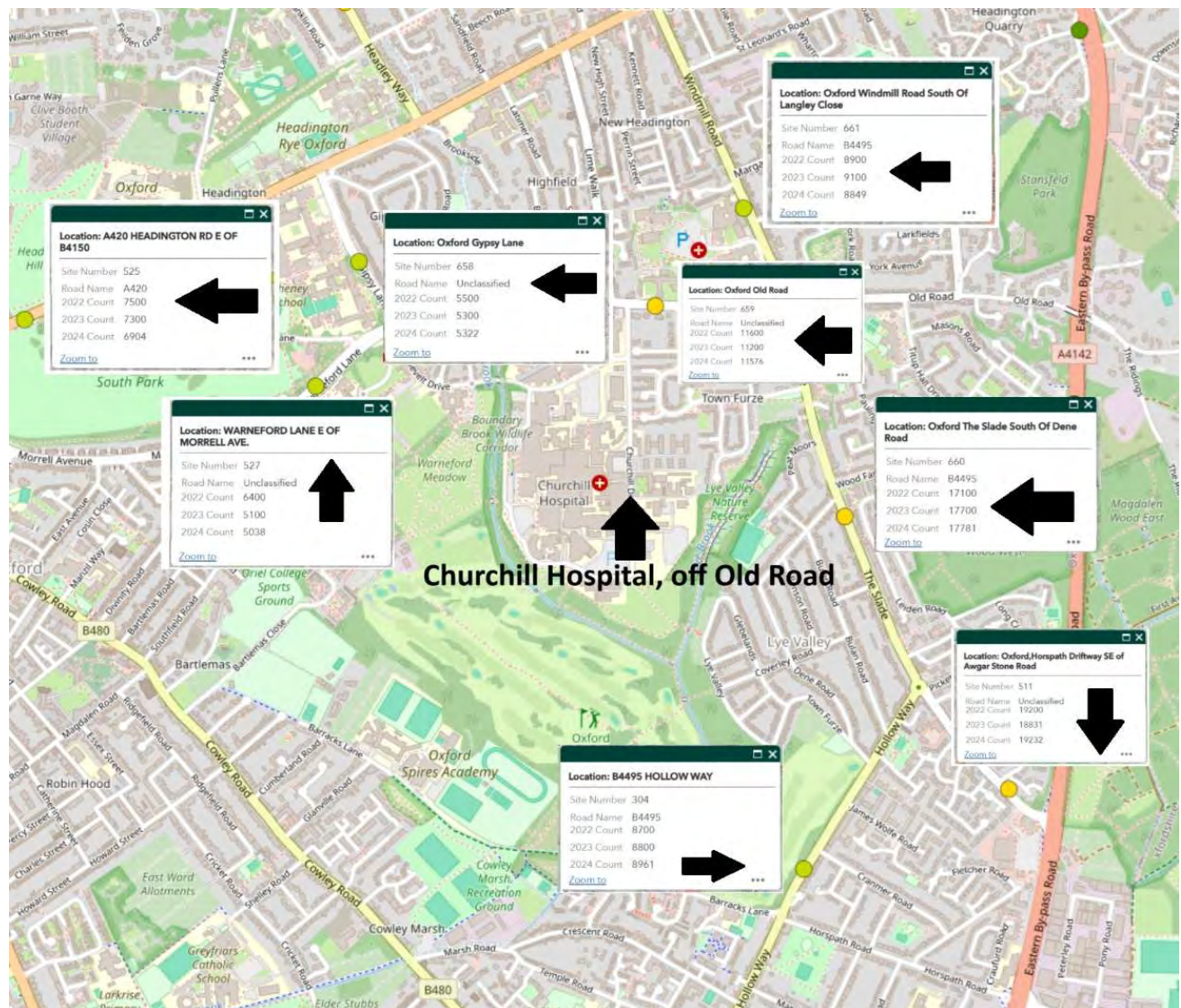
<sup>26</sup> <https://x.com/ReconnectingOx/status/1948626368012358023>

<sup>27</sup> <https://x.com/ReconnectingOx/status/1941443251212607774>

<sup>28</sup> <https://x.com/ReconnectingOx/status/1939592902243434942>



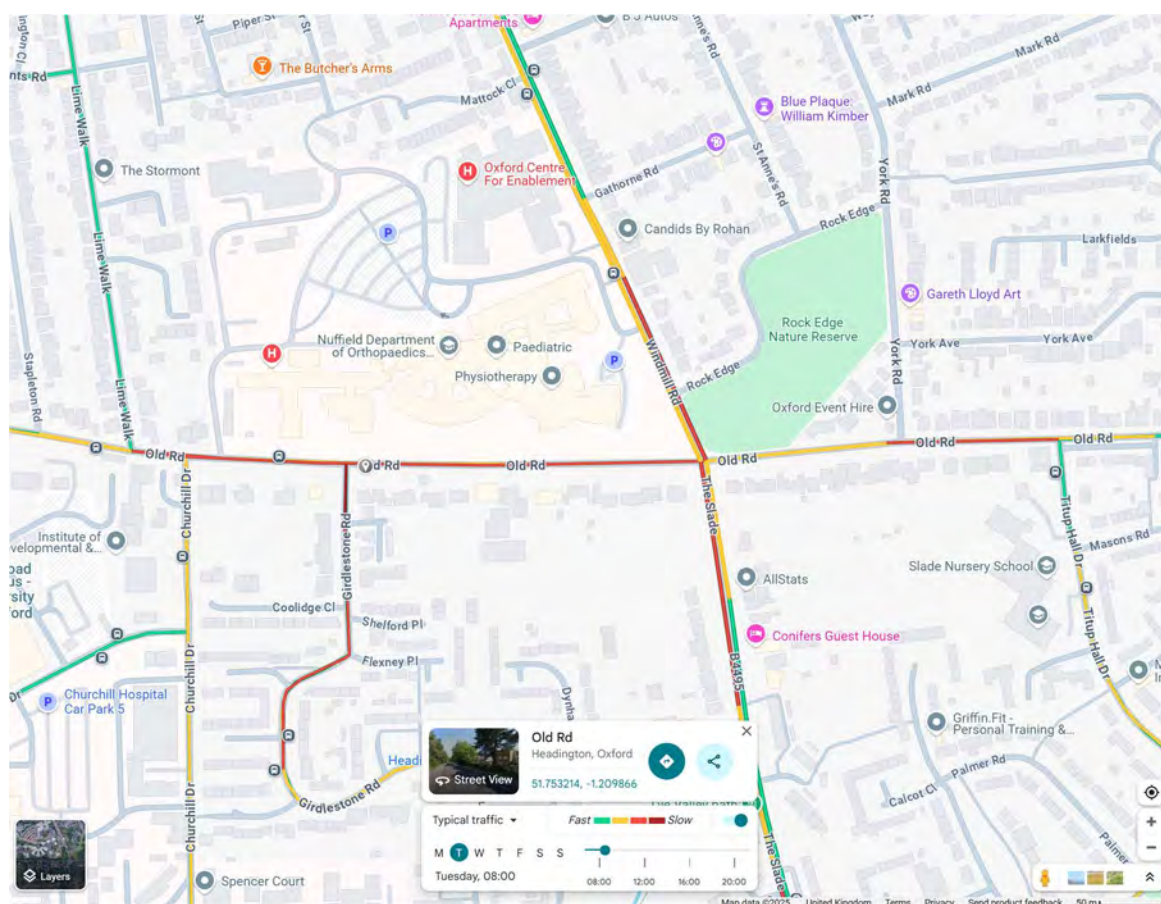
### Illustration 3.10: AADTs near the Churchill Hospital and Hollow Way



32. In sharp contrast, congestion around the entrance to the Churchill Hospital is typically acute, and notably worse than can be observed at several proposed central congestion charge locations, further indicating the fundamental irrationality of their selection.

33. That said, we make an important qualification regarding “how bad is bad?”, even in congestion hotspots such as this. Using the H2 bus timetable as a proxy for journey time congestion impact, we can state that the timetabled journey time to the Churchill Hospital is consistently allocated four minutes to travel between the Nuffield Orthopaedic centre (shown below on the map below) and into the grounds of the Churchill hospital itself (i.e. Roosevelt Drive, accessed off Churchill Drive) – i.e. the whole congested area shown below. While we cannot vouch for the accuracy of this timetabling, our working assumption must be that it is close to on-the-ground reality.



**Illustration 3.11: congestion near the Churchill Hospital, 8:00 on a typical Tuesday****Steer / Ricardo modelling predictions for this area**

34. In light of the pre-existing congestion in close proximity to both the John Radcliffe and Churchill Hospitals, it might be reasonable to assume that Oxford's planned congestion charge would be likely to alleviate this congestion. However, the likely impact, as indicated by traffic modelling by Steer and AtkinsRéalis using the Oxfordshire Strategic Model and pollution modelling by Ricardo Consulting – is “mixed”, to say the least. In Marston, vehicle volumes are predicted to increase on the already-congested Marsh Lane by a daily average of 352 (4.6%). Meanwhile, the already free-flowing Marston Ferry Road is expected to see a daily average decrease in traffic of 645 vehicles, a fall of 15.4%. It is not entirely clear how it advantageous it is to anyone of a quiet country road (Marston Ferry Road) gets even quieter, at the expense of an already busy suburban road (Marsh Lane).
35. There is a slightly more positive predicted outcome on London Road, where average daily traffic volumes are predicted to fall by 1,290 per day (8.3%). It is not entirely clear what is driving this improvement, given that London Road is more than a mile from the nearest congestion charge ANPR sites, at either St Clements or Hollow Way. It is also not clear what impact the congestion charge scheme is likely to have on the roads surrounding the Churchill Hospital. Several key roads in the area are notably absent from the Ricardo evaluation table, including Horspath Driftway, the Slade, Windmill Road and Old Road itself. For that reason, we cannot say with much clarity whether the ANPR camera will cause more,

or less, congestion in this specific congestion hotspot. This is not an ideal scenario, given that Oxfordshire County Council is seeking to reduce congestion in Oxford, drawing on findings contained in the Ricardo report while doing so.

36. Further afield, the Steer / Ricardo modelling indicates a series of outcomes, none of which are likely to be beneficial for those seeking to access the hospital, either as employees or patients. For inbound staff, who will not be issued with any commuting permits under the proposed scheme, any additional traffic and congestion is likely to impact their journey into work by car. Moreover, the Ricardo model expressly states that such increases are likely to occur, in two locations in close proximity to the John Radcliffe Hospital the Northern Bypass near Phillips Tyres, and the Eastern bypass near both Brasenose Farm and Oliver Road.
37. Conversely, the possibility of 25 permits for Oxfordshire residents and frequent hospital visitor permits create perverse incentives for patients and other visitors to continue to rat run through Oxford city centre rather than use the ring road – especially for visitors from the south, who are already routinely directed down Iffley Road via Donnington Bridge, and onwards to the John Radcliffe via St Clements and Headington Hill via numerous mapping solutions. With a predicted fall in traffic volumes on Iffley Road, coupled with the right to use a permit to pass through the St Clements ANPR congestion charge filter, it is difficult to conceive of a more counter-productive approach to congestion reduction around the Plain than the one conceived by Oxfordshire County Council.

## Conclusions

38. Overall, we believe it is unlikely that Oxfordshire County Council's planned ANPR-based congestion charge scheme will reduce congestion around Oxford's two main hospital sites. Currently, both locations have traffic flows that are among the highest in the city. Both also suffer from peak-time congestion. However, in Marsh Lane in Marston, the modelling suggests that traffic will get worse, on a road that already suffers from peak-time congestion.
39. In light of what we have found, we believe there is a significant case for experimenting with a new express bus service to the John Radcliffe Hospital from the county's park and rides, in particular, potentially making use of the Meaden Hill bus gate near the A40 Northern Bypass (i.e. Oxford's ring road). We explain our thinking on this issue in chapter five.
40. Noting our previous observations about traffic on Iffley Road seemingly routing up St Clements, we have an additional tentative proposal regarding this location, which may help everyone navigating this area: peak time traffic lights on the Plain, specifically intended to ease traffic flow from Iffley Road. As previously discussed, the data we collected suggests that Oxford-bound traffic queuing from both St Clements and Cowley Road is notably shorter in length than inbound traffic from Iffley Road. Prioritising Iffley Road via part-time traffic lights might therefore help ease congestion on Iffley Road without unduly adding to it on St Clements or Cowley Road. At the very least, a short-term, term-time trial of temporary traffic lights may be warranted, to evaluate their effects.

41. Our final suggestion regarding the Plain is based on observation rather than traffic data: that a fair amount of inbound traffic proceeds slowly, to make allowances for cycles heading into the city centre via Iffley Road. Given the extreme width of the pavement outside Magdalen College School, we cannot understand why a segregated cycle lane between Iffley Road and Magdalen Bridge is not in place. Given that the Plain is a cycling accident hotspot, we believe that anything that has the dual benefit of freeing up capacity on the Plain roundabout to ease congestion, while also making cycling safer, should be embraced with gusto.

### Illustration 3.12: Room for a segregated cycle lane at the Plain roundabout



### The role of Oxford's private school in causing (highly localised) congestion

42. It is an event that anyone who is familiar with Oxford's traffic situation will instinctively know: the moment the city's private – not state – schools go on holiday, much of Oxford's traffic and congestion (such as it is) instantly disappears<sup>29</sup>.
43. Importantly, this is not merely an anecdote: it can be observed, in various different ways – notably, via Google congestion maps and on-the-ground observation. Perhaps the most visible example of this phenomenon is Iffley Road: a road full of slow-moving traffic during the morning rush hour one week<sup>30</sup>, but practically free-flowing the next<sup>31</sup> – immediately following the end of several private (not state) school terms.
44. To illustrate this point, table 3.2 below summarises the end of summer term dates for some of Oxford's main private schools, together with their approximate location in Oxford.

<sup>29</sup> <https://x.com/ReconnectingOx/status/1928343061630767471>

<sup>30</sup> <https://x.com/ReconnectingOx/status/1939947119873274232>

<sup>31</sup> <https://x.com/ReconnectingOx/status/1942118990244892793>

Notably, eight of the private schools listed end their summer term in the week starting 30 June, with the most common end of term dates being Friday 4 or Saturday 5 July. This is far earlier than Oxford's state schools, for whom term ends Tuesday 22 July. Because of the significant gap between the end of the private and state school term it is possible to disaggregate the likely impact of congestion caused by both.

**Table 3.2: Oxford's main private schools – summer term dates, 2024 - 2025 plus locations**

Oxford area	School name	Summer term 2024 - 2025	
		Term starts	Term ends
North	d'Overbroeck's Oxford	28 April 2025	02 July 2025
North	St Edward's School	23 April 2025	28 June 2025
North	Summer Fields School	23 April 2025	05 July 2025
North	Oxford High School	22 April 2025	11 July 2025
North	Wychwood School	02 June 2025	04 July 2025
North	Dragon School	24 April 2025	05 July 2025
Central	New College School	23 April 2025	04 July 2025
Central	Christ Church Cathedral School	23 April 2025	04 July 2025
Central	Magdalen College School	23 April 2025	05 July 2025
East	Headington Rye Oxford	23 April 2025	05 July 2025
East	EF Academy	23 April 2025	14 June 2025

45. To explore this issue further, we collected Google traffic map traffic data on a weekly basis for four weeks, on Friday 4, 11, 18, and 25 July. The significance of these dates is that they encompass the last day of term for several of Oxford's private schools, but also the end of term for Oxford's state schools. To ensure that monitoring was most likely to capture details of the school run, we focused on capturing Google map data as close to 8am as possible.

46. Our findings, collectively shown on illustration 3.13 - 3.14, show a clear correlation between private school term dates and traffic levels: Friday morning traffic largely evaporates between Friday 4 July and 11 July – the key period when most of Oxford's private schools break up. Moreover, broadly the same scenario occurs, irrespective of whether traffic is monitored in North Oxford or Central Oxford. By contrast, the breakup of Oxford's state schools appears to make comparatively little difference to Oxford's congestion levels which are – by mid-July – generally very low indeed. That said, the picture is somewhat different in Headington, where it is possible that hospital traffic is continuing to maintain local traffic levels, irrespective of the private school break up.

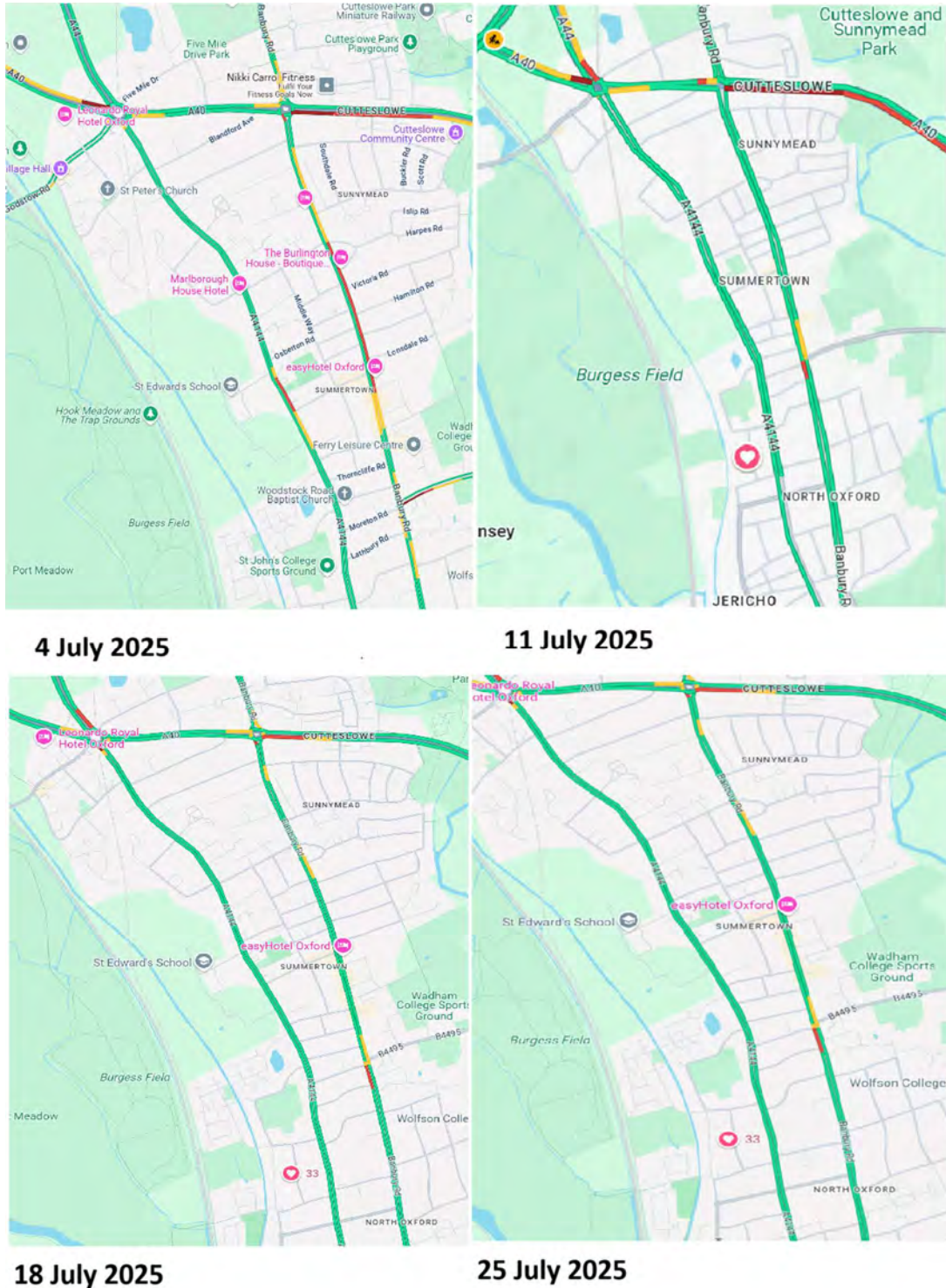
47. One of the more notable features of the North Oxford congestion mapping exercise is the extent to which it appears highly localised: the private schools are largely clustered in the middle of the maps below, with non-located towards the bottom, just north of St Giles. Likewise, the congestion evident on 4 July along the mid points of Woodstock and Banbury Roads does not appear just north of St Giles, and nor on other dates either. This indicates that traffic and congestion may – potentially – be highly localised: that it largely circulates in



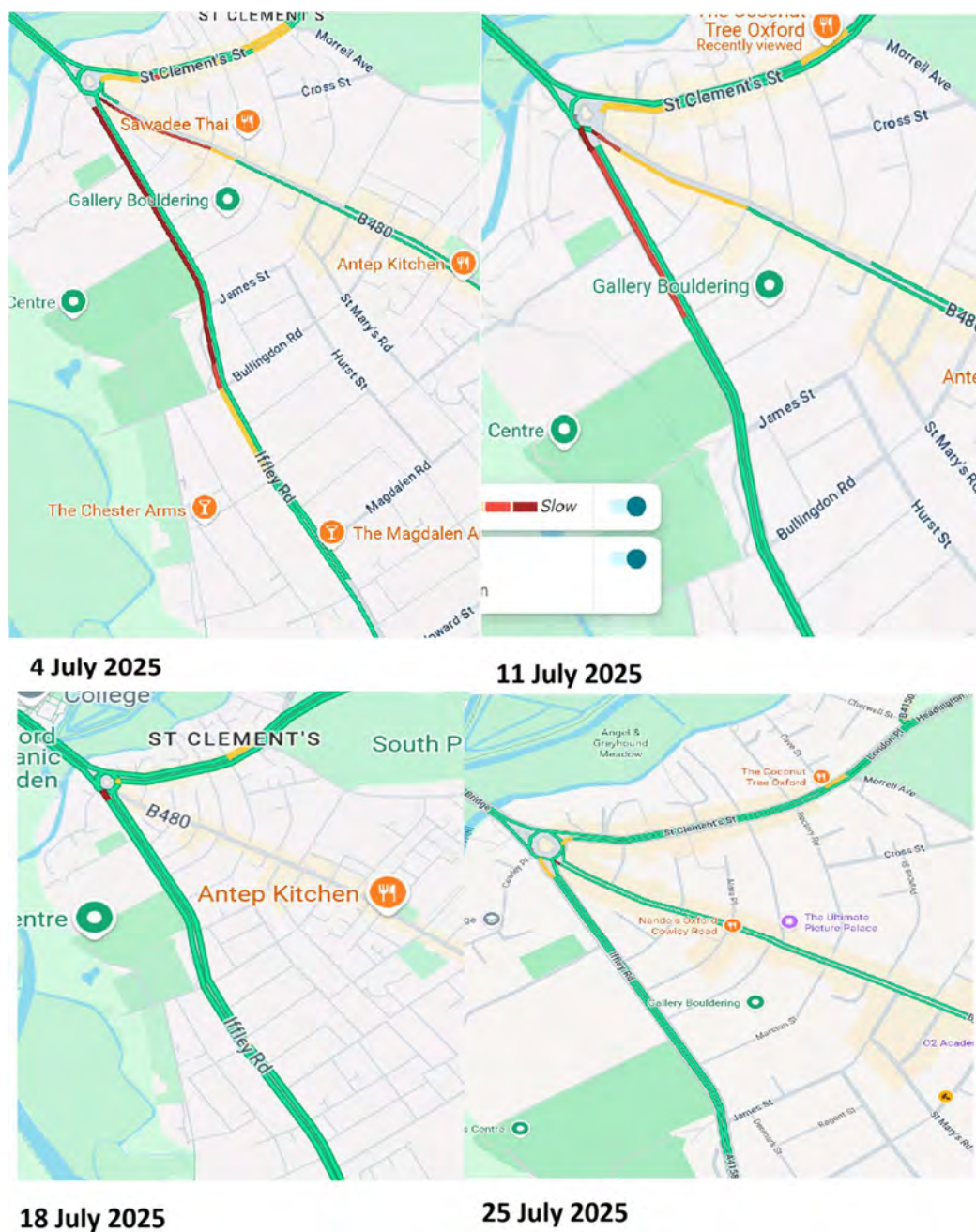
**Reconnecting Oxford****Provisional report, subject to corrections**

and out of North Oxford, and does not generally progress toward the city centre. This may help to explain why measured traffic levels closer to the centre of Oxford – along both Woodstock and Banbury Roads – are generally lower than their edge- of city equivalents.

**Illustration 3.13: The evaporation of congestion in North Oxford, four Friday mornings in July 2025 compared**



### Illustration 3.14: The evaporation of congestion in central Oxford, four Friday mornings in July 2025 compared



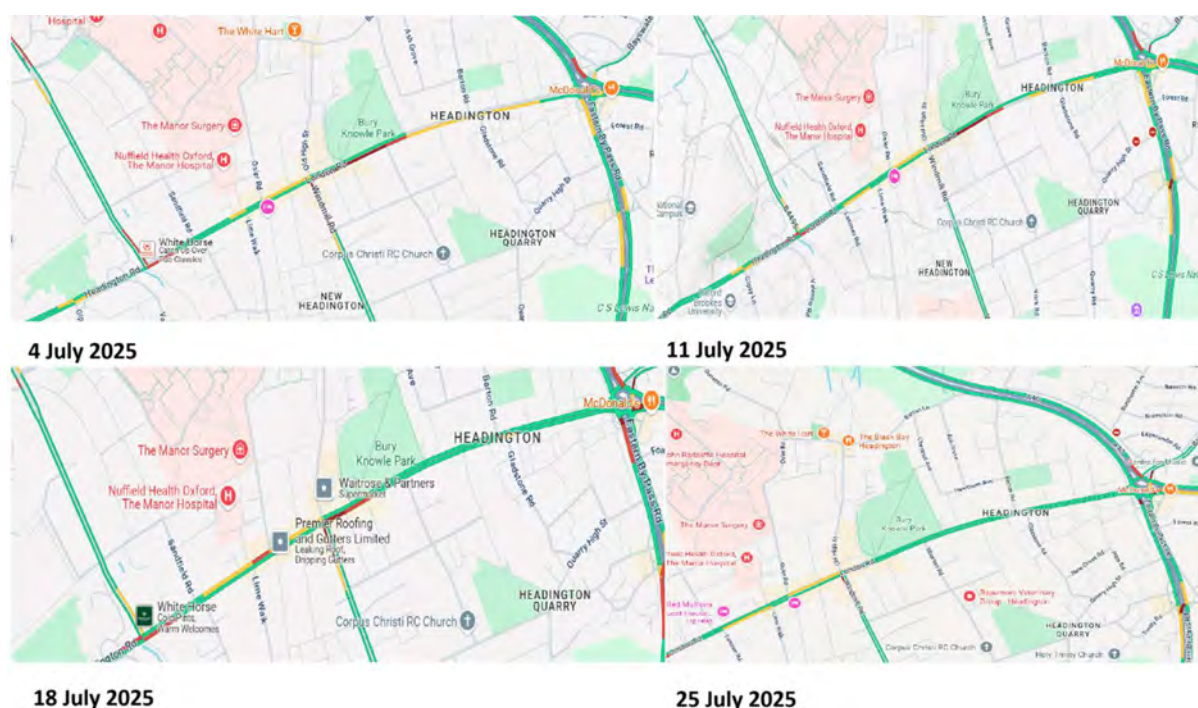
48. For example, average daily traffic counts on Woodstock Road south of the Wolvercote roundabout were 13,700 in 2023, the last year for which data is available. Further down Woodstock Road, near the junction of Leckford Road, average daily traffic levels in 2023 were 10,531 – more than 3,000 vehicles fewer. Likewise, on Banbury Road, average daily traffic levels were 14,407 in the far north of the city, near the Cutteslowe Roundabout, but 12,529 further into towards the city centre – close to 1,900 fewer recorded vehicles.



**Reconnecting Oxford****Provisional report, subject to corrections**

49. While not conclusive evidence of localised traffic circulation of private school traffic in North Oxford, these numbers do speak to a wider trend. As demonstrated by Headington Hill, for example, traffic levels in Oxford often fall as they get closer to the city centre, not increase. This suggests that much of the city's traffic is, in fact, circulating in its outer suburbs rather than concentrating in the city centre. If true, this has some significance for the likely impact of the congestion charge cameras on Oxford congestion: the cameras are often placed in the wrong location in order to catch this traffic.
50. As if to reinforce this point, our Google Maps congestion mapping revealed a somewhat different congestion picture in Headington, compared with north and central Oxford. Although, as table 3.2 above indicates, a small number of private schools do operate in Headington, there was no noticeable fall in congestion between 4 and 11 July 2025, when the Headington Rye private school ended its summer term. One possible reason for this is that traffic levels in Headington are more significantly influenced by hospital traffic than private school traffic – and hospital traffic is not significantly influenced by private school holiday times.

### Illustration 3.15: The (non) evaporation of congestion in Headington, four Friday mornings in July 2025 compared



## Steer / Ricardo modelling predictions for private school hotspots

51. With the nearest ANPR checkpoint in Marston Ferry Road, Summertown, Sunnymead and Cutteslowe will not be directly affected by the congestion charge scheme. However, the Steer modelling does predict significant traffic displacement, particularly in the city's outer edges around the Wolvercote and Cutteslowe roundabouts. Traffic is predicted to increase substantially towards the top of Woodstock Road, rising by an average of 1,217 vehicles per day, taking the average daily total to 8,365.
52. Further back into the city centre, but firmly within the North Oxford private school hub, traffic around the Woodstock Road / Frenchay Road intersection is also predicted to rise by an average of 722 vehicles per day, taking the average daily total to 7,558. In doing so, traffic is predicted to reach higher levels on these two sections of Woodstock road than the proposed congestion charge site of St Cross Road, which currently experiences average daily traffic levels of 7,332 vehicles. There is, therefore, a certain irony in a congestion reduction scheme actively pushing traffic levels in one part of the city higher than levels deemed acceptable in the other.
53. Just outside Oxford's main residential area, on the A44 immediately adjacent to the Peartree Park and ride, the Steer / Ricardo predictions are also poor, with average vehicle numbers increasing by 1,001 per day to 11,558. While this stretch of road does have a bus lane in place to mitigate against the worst impacts of this traffic displacement, any increase in traffic on this road not likely to be welcomed, especially as the wider area is currently a major business and residential development hub.
54. For Banbury Road, the projected impact of the congestion charge scheme is not as bad as Woodstock Road: an increase in traffic levels in the run up towards the Cutteslowe roundabout, at the junction of Woodstock and Squitchey Lane of just 28 cars. However, in the context a road that already carries in excess of 14,400 vehicles per day – far more than most of the planned congestion charge sites – this offers precious little tangible benefit, compared with these sites, where significant falls in traffic volumes are predicted.
55. Finally, and continuing our theme that the proposed congestion appears to push more vehicles to Oxford's periphery while emptying its already quiet centre, the Ricardo / Steer modelling for the city centre end of Banbury Road makes precisely this point. In contrast with the increase in traffic at the top end of Banbury Road, there is a similar (if small) predicted fall in traffic levels at the road's city centre end. Here, the modelling predicts a fall in traffic around its junction with Canterbury Road of approximately 40 cars – also a less than stellar improvement, given the far larger disbenefits on the outer stretches of both Woodstock and Banbury Roads.



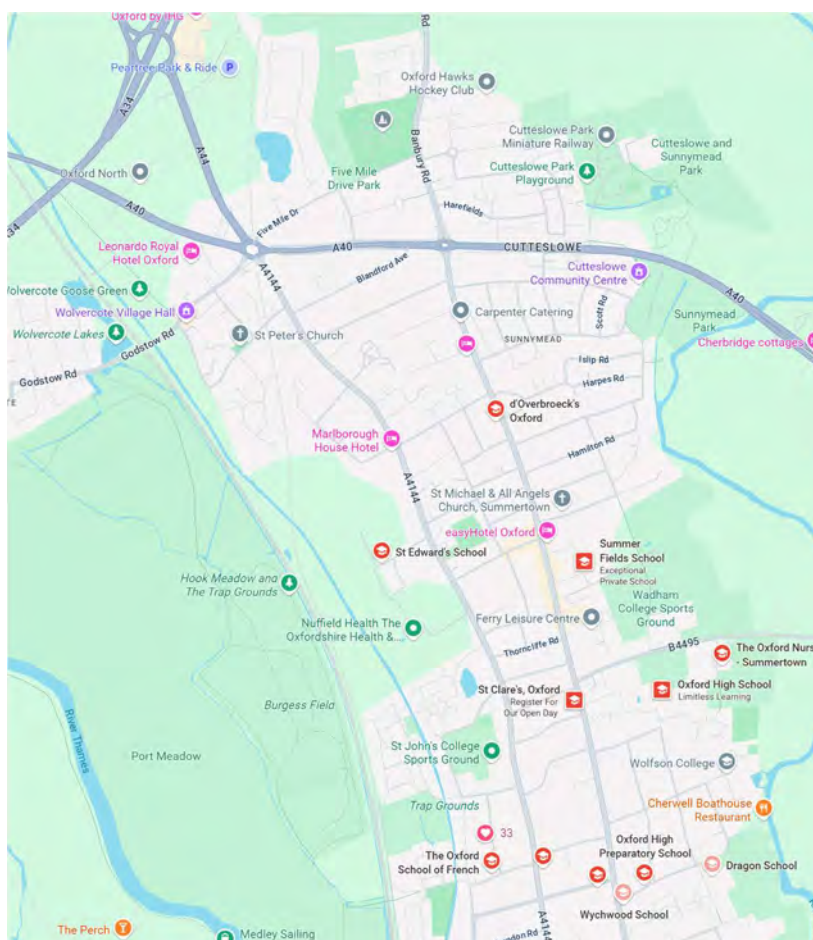
## Conclusions

56. The evidence outlined above indicates a strong correlation between congestion evaporation and the ending of the private – not state – school term dates, particularly in North and central Oxford.
57. This is highly relevant to the proposed positioning of the ANPR congestion charge cameras. An inner Oxford parent who needs to cross the city on the school run every day may face the iniquitous choice of either paying a £5 daily congestion charge for almost half the academic year. Alternatively, they may feel obliged to take a far longer route to avoid the charge. By contrast, many private school parents will be able to travel into the city without hindrance – because their school run could easily involve passing no congestion charge checkpoints.

## Possible solutions

58. With private schools likely to be a significant source of outer Oxford congestion, one possible solution is – once again – Oxford's park and rides. Notably, most of the North Oxford's private schools are within a short distance of Peartree Park and ride (see illustration 3.16 below). We suggest possible park and ride-related solutions in relation to private schools in chapter 5.

### Illustration 3.16: The proximity of Peartree Park and ride to North Oxford's private schools



## The role played by LTNs in contributing to Oxford's traffic and congestion

59. One of the more notable features of Oxfordshire County Council's congestion reduction proposals was its outright refusal to recognise the role of its low traffic neighbourhood (LTN) policy of manufacturing highly localised congestion in Oxford. Notably, the "options considered" outlined in the officer's report ahead of the decision did not even consider the removal of the LTNs as an option<sup>32</sup>. This indicates a closed mind by Oxfordshire County Council to a specific cause of congestion that Oxford's bus companies, to their credit, have explained in significant detail. We return to the bus company's LTN submission shortly.
60. The officers recognised that "direct access to hospitals bus links / park & ride" was an option worth considering, but then failed to explain how introducing measures heavily focused on the city centre would help ease congestion in a completely different part of the city – or, in the case of the Marston Ferry Road filter, actually increase traffic close to the hospital. When challenged about this omission, cabinet member for transport Andrew Gant stated that the bus companies "support the broad intent of traffic restraint policies, including LTNs" and that "The LTNs are part of the solution, not the problem"<sup>33</sup>. In other responses to questions submitted by residents to councillor Gant, he has reiterated his view that "LTNs did not cause Oxford's congestion and removing them will not solve it"<sup>34</sup>.
61. In light of these comments, it is perhaps worth summarising evidence presented by the bus companies in their formal consultation response to the decision on whether or not to make the East Oxford LTNs permanent, made on 17 October 2023. In an 18-page letter of eviscerating detail, the Oxford Bus Company, Stagecoach and Thames Travel described the East Oxford LTNs thus: "The effects of the LTN implementation have been entirely detrimental to bus operations, to a degree that is probably entirely unprecedented, and certainly is within the last 50 years. This has, quite predictably, had a direct impact on bus use and on the current and potentially on longer-term sustainability of many services. In certain cases, especially after 2.30pm, a local bus journey in parts of East Oxford today takes so long to achieve that it is not a credibly relevant choice to any but the most physically infirm."
62. Noting that council officers "have not sought to conduct any kind of detailed or data-driven analysis of what the benefits, or disbenefits have been to bus operations, or the effects of the scheme on bus use in the City," the bus companies added that "at the time of writing – some 14 months after the LTNs were first implemented – no material mitigation measures have been implemented to deliver any meaningful benefit to bus passengers".
63. The letter went onto say: "the introduction of LTNs and their permanent confirmation in the manner proposed, leaves the County in the very uncomfortable position that they have directly caused bus services across the bulk of Oxford to become substantially slower, even

<sup>32</sup> Oxfordshire County Council. Cabinet. Traffic Filter Trial Delay - Mitigation Proposals. 17 June 2025. Available [here](#).

<sup>33</sup> Oxfordshire County Council. Cabinet item 4 – questions from county councillors. Available [here](#).

<sup>34</sup> Oxfordshire County Council. Councillor Gant response to Jelly Wells, County Council, 8 July 2025. Response on file with report author.

less reliable, and as a result have further substantially reduced bus patronage and mileage, seriously aggravating the challenges caused by the COVID crisis.”

64. Explaining the real-world impact of the East Oxford LTNs, the letter went on: “traffic levels at the northern ends of Iffley Road and Cowley Road have grown on an adjusted basis by 33% and 65% respectively. This can only be described as a huge increase in traffic levels on key public transport corridors – higher than even we anticipated. If the intention of the measures was to reduce the impact of car traffic on mobility, and the public realm, it must surely be judged to have failed, and seriously so.”
65. The letter goes on: “It should be stressed that these figures are a result of monitoring throughout the day, and that these figures, if anything significantly understate the impact seen at peak times, when traffic speeds are now so low on these roads owing to the saturation at and around The Plain, that traffic throughput has reached a cap at these times. We find it notable that the Report makes no attempt to quantify impacts on St Clements and the knock-on impacts on either Headington Hill and Marston Road, which are not directly adjacent to the LTN areas. This too has been exceptionally severe.”
66. Delivering the exact opposite of what our suggestions mentioned elsewhere in this report aim to achieve, “bus journey times have become so extended, and as a result, timetable frequencies so reduced, that there has been a greater than 50% drop in one way seat availability between Churchill Hospital and the city centre after 3.30pm; and compounding this, for those journeys, it is actually quicker on many occasions to walk into the city centre, so slowly does the bus progress.”
67. The letter then goes on to explain how bus journey times had been affected by the LTNs – occasionally positively, but mostly negatively (with the proviso that the February / March 2022 baseline was at the tail end of lockdown). “While minimum journey times have overall been broadly unaffected, and in many cases have actually improved, maximum running times have increased dramatically on all corridors, and have almost doubled on some routes. This is of crucial importance, as the achievable “peak” running time is what drives the requirement for vehicle and driver resources and so bus operator costs.”
68. “We should end by highlighting that the maximum running times observed have generally been seen in the morning and evening peak periods: when the greatest number of bus passengers would want to travel. It is apparent that the offer we are able to provide to passengers has materially worsened at the time of greatest demand, and where the potential for mass transit to achieve a full range of transport and social policy goals ought to be the highest.”
69. As a direct result of the chaos caused by the East Oxford LTNs, numerous route changes were made, including:
  - Average scheduled bus run times on Cowley Road on two services was increased by 7%, and maximum scheduled run times was increased by 9%;

- The number 15 service on Morrell Avenue was reduced in frequency from every 12 minutes to every 15 minutes; the average scheduled Wood Farm to Queens Lane service was increased by 12%; maximum scheduled run time was increased by 67%;
- Service 9 to Risinghurst was withdrawn, as was the 13 service on Marston Road, leading to a 50% decrease in daytime frequency on this latter service. The maximum scheduled run time on the replacement service was increased by 45%.

70. The bus companies noted that bus patronage had decreased overall since the pandemic, down by 5%. However, patronage had decreased even further on routes that were affected by the East Oxford LTNs, with reductions ranging from 5% - 27%.
71. The above letter graphically indicates how far Oxfordshire Council is prepared to go to ignore evidence of harm when pursuing its policies of reduced vehicular access – an error the council risks repeating in relation to its congestion charge policy. But, remarkably, bus company letter summarised above isn't the first time that Oxfordshire County Council's transport policies have actively harmed bus services. When a similar LTN scheme was introduced in the Cowley part of Oxford, adverse impacts on bus services were also recorded – this time in the official evaluation report of the scheme<sup>35</sup>.
72. This 2022 evaluation report told a similar story to that later recorded in East Oxford: "PM peak outbound service times along the Cowley Road (although making some improvements between November and April) remain worse in 2021 and 2022 versus the base year of 2019; the impacted route times, were also proportionally higher than the control route."
73. To help identify whether this was a city wide problem, a non-LTN "control" location was used as a comparator. While the report's authors were keen to avoid suggesting causality, there was no getting away from the fact that: "In particular, PM-Peak Outbound journeys in the impacted routes were proportionally higher than the control routes. There was a small period in August when there was some convergence, but overall, there's a significant difference. On the other hand, evening outbound journeys followed a similar trajectory in all months of the year barring March, when the impacted route was much higher, which coincided with the start of the LTNs' implementation."
74. The evaluation concluded: "Once we adjust for the pre-existing difference in difference, the peak increase in PM-peak journey time since LTN implementation is 22% - still a significant increase."
75. The scheme was made permanent regardless, despite failing to meet any of its previously stated objectives<sup>36</sup>.
76. In light of all of the above, our proposals in relation to the Cowley and East Oxford LTNs is clear, and unambiguous: they should be removed, immediately. With these counter-

<sup>35</sup> Oxfordshire County Council. Cabinet, 19 July 2022. Emergency Active Travel Tranche 1: Cowley LTN evaluation report. Available [here](#).

<sup>36</sup> Oxfordshire County Council. Cabinet, 19 July 2022. Addenda. Petitions and public addresses. In particular, the presentation of Richard Parnham. Available [here](#).



productive, congestion manufacturing disasters removed, we can move to a new baseline of “normal” congestion. With that baseline reestablished, we can work out where evidence-based remedial action is needed.

## Conclusions

77. This chapter draws on a wide range of sources to strongly indicate that there are three main sources of traffic and congestion in Oxford; the hospitals (in Headington); the private schools (on Iffley Road and, to a lesser extent, in Summertown and Headington); and, on a very localised basis, the LTNs, in Cowley and East Oxford.
78. We find it remarkable that there is a complete disconnect between the congestion scheme proposed and the causes of traffic and congestion we identify – seemingly caused by Oxfordshire County Council either being unaware of the role played by hospitals in causing traffic, or disregarding exceptionally strong evidence of council policy actively causing harm in the case of the LTNs.
79. It is also remarkable that the role of the private schools in generating a significant amount of traffic and congestion has not been acted upon by Oxfordshire County Council, given the immediate and obvious effect on traffic and congestion levels in the city the moment private schools break up and return from their holidays.
80. The most obvious way to improve life for all stakeholders is, based on the evidence we present, to remove Oxford’s LTNs, which have significantly disrupted existing traffic flows towards the city’s private schools and hospitals. If any morning peak-time traffic remains on Iffley Road after this time, we advocate experimenting with the use of part-time morning traffic lights, prioritising access from Iffley Road.
81. If viable, we also advocate engagement with mapping solutions providers, such as Google Maps, to explore whether recommended routing to services such as the John Radcliffe Hospital should be modified to avoid encouraging drivers to travel via Iffley Road and the Plain. We also advocate the introduction of a segregated cycle lane between Iffley Road and Magdalen Bridge.
82. Having, we believe, correctly identified major sources of traffic and congestion in Oxford, our proposals directly flow from this problem identification. The proposal we suggest, focusing on new express bus services from the park and rides to Oxford’s schools and hospitals are – unlike the policies advocated by Oxfordshire County Council, firmly based on carrots, not sticks. We significantly expand on this proposal in chapter 5.