

Notice of Meeting

Cabinet Member for Transport, Infrastructure and Growth Decisions

**Date & time**

Tuesday, 28 March
2023 at 12.00 pm

Place

Woodhatch Place, 11
Cockshot Hill,
Woodhatch, Reigate,
RH2 8EF

Contact

Joss Butler
Woodhatch Place,
Cockshot Hill, Reigate,
RH2 8EF
joss.butler@surreycc.gov.uk

Chief Executive

Joanna Killian

Cabinet Member

Matt Furniss

AGENDA

1 DECLARATIONS OF INTEREST

All Members present are required to declare, at this point in the meeting or as soon as possible thereafter

- i. Any disclosable pecuniary interests and / or
- ii. Other interests arising under the Code of Conduct in respect of any item(s) of business being considered at this meeting

NOTES:

- Members are reminded that they must not participate in any item where they have a disclosable pecuniary interest
- As well as an interest of the Member, this includes any interest, of which the Member is aware, that relates to the Member's spouse or civil partner (or any person with whom the Member is living as a spouse or civil partner)
- Members with a significant personal interest may participate in the discussion and vote on that matter unless that interest could be reasonably regarded as prejudicial.

2 PROCEDURAL MATTERS

a Members' Questions

The deadline for Members' questions is 12pm four working days before the meeting (22 March 2023).

b Public Questions

The deadline for public questions is seven days before the meeting (21 March 2023).

3 PETITION: REINSTATE THE 93 BUS SERVICE BACK TO PRE-COVID TIMETABLE (Pages 5 - 6)

A petition has been submitted by Louise Waterton and has received 130 signatories. The petition requests Surrey County Council to increase the Dorking-Horsham 93 bus service back to its pre pandemic timetable. The full petition wording and response is attached.

4 PETITION: WALNUT TREE CLOSE (Pages 7 - 8)

A petition has been submitted by Joan Donnelly and has received 284 signatories (as of 20 March 2023). The petition requests that Surrey County Council return Walnut Tree Close to two way traffic and stop the one way system that forces all traffic going to the railway station through the town centre. The full petition wording and response is attached.

5 WALNUT TREE CLOSE, GUILDFORD - ONE-WAY SYSTEM AND CYCLE LANE

(Pages 9
- 58)

The purpose of this report is to recommend a decision as to whether to make the southbound closure of Walnut Tree Close in Guildford permanent, following a period of implementing the proposal as a trial, and the associated review of traffic and air quality data along with resident and stakeholder feedback. The recommendation included in this report is to make the closure permanent. This will return Walnut Tree Close to its original state as a local road providing access to businesses and residents and not as a commuter rat-run route to Guildford Station. Air quality will also be improved with the associated reduction in traffic along Walnut Tree Close.

**Joanna Killian
Chief Executive**

Published: 20 March 2023

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Title: Reinstate the 93 bus service back to pre-covid timetable

Statement:

We the undersigned petition Surrey County Council to Increase the Dorking-Horsham 93 bus service back to its pre pandemic timetable.

Justification:

The 93 bus service always used to be inadequate at peak times even before the pandemic. It ran every 20 minutes Mon-Sat and is now only running once an hour and hasn't returned back to its pre-pandemic timetable. Now there is only one school bus in the morning and afternoon and it very often drives past people at the bus stops because it's full to capacity. People have no other choice but to drive to school/work or wait out in the cold for the next bus. This is increasing car traffic which is having an environmental impact on our town.

Submitted by: Louise Waterton

Signatures: 130

Response:

Bus Service 93 operates hourly between Horsham and Dorking on Monday to Saturday, every two hours on Sundays. This is partly funded by the County Council and partly operated on a commercial basis by Metrobus.

Prior to the pandemic the passenger numbers had unfortunately already been declining and Metrobus had previously expressed concerns about the sustainability of the service with a significant reduction seen in school travel patronage in recent years which had challenged the financial viability of the route.

During the pandemic, with little passenger usage on bus services, timetables were reduced and service 93 was reduced to an hourly frequency which still catered for all school requirements.

The transport industry has been very slow in recovering from the effects of the pandemic. This is partly due to the change in travel patterns, with more people working from home and online shopping deliveries which have had a negative effect on the patronage levels; some bus routes may never recover to the pre pandemic levels. The cost of running buses has also significantly increased since covid and we need to ensure the services being supported are sustainable while also meeting resident's needs.

The overall capacity of the buses used on service 93 is 67 passengers, which is a seated capacity of 37 and standing capacity of 30.

From the initial analysis of three weeks passenger loadings data, commencing 16th January 2023 and covering all Monday to Friday journeys, there doesn't appear to be any journeys that would be classed as requiring additional capacity. For example, the busiest journeys had a maximum of 46 and 51 passengers travelling, (Note: that the maximum number of passengers travelling is across the whole journey and occupancy at any one time would be lower).

- 07.30 from Warnham (arrival in Dorking 08.24) the average number of passengers travelling was 43, the maximum was 51, capacity for a further 16 passengers.
- 15.14 from Horsham (arrival in Dorking 16.46) the average number of passengers travelling was 35, the maximum was 46, capacity for a further 21 passengers.

At the current time, with patronage levels still within the capacity being provided, we are unable to fund an increase in the frequency on this service. We sympathise with the concerns of residents and are genuinely saddened that the loadings remain low. We have raised the concerns with Metrobus, and they will investigate any specific incidents where passengers report overloading has occurred.

Matt Furniss

Cabinet Member for Transport, Infrastructure and Growth

Date of meeting – 28 March 2023

Title: Walnut Tree Close

Statement:

We the undersigned petition Surrey County Council to Return Walnut Tree Close to two way traffic and stop the one way system that forces all traffic going to the railway station through the town centre.

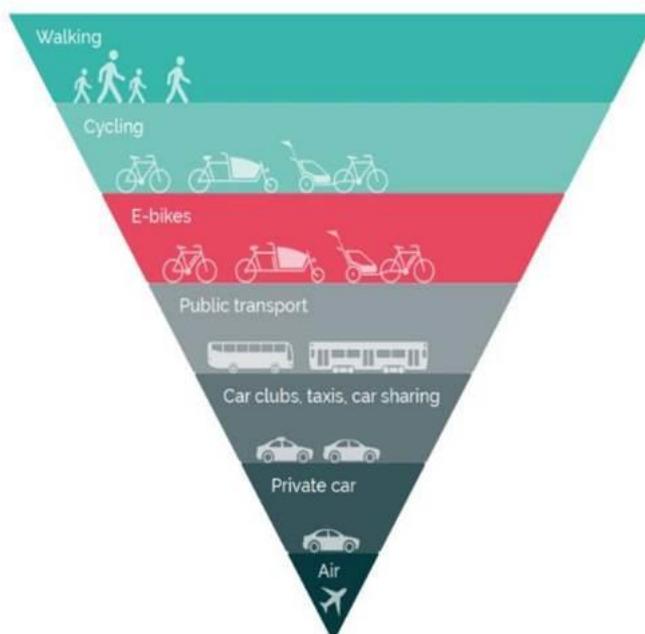
Justification:

The Council is trialling a one way system through Walnut Tree Close. This is causing all traffic coming to the railway station from Bellfields and Stoughton, and the A3 Wooden Bridge direction through the town centre instead. It's adding considerably to many people's journeys and causing congestion and inconvenience. The supposed intention is to increase cycling. The Council's method of evaluation is seriously flawed and biased towards gathering opinions of those living in the Walnut Tree Close area, which largely consists of student flats - and not the working population of Guildford who need to commute via the train station. (And who are trying to use the train as a means of sustainable travel). Please help stop this poorly thought out and punitive system.

Submitted by: Joan Donnelly
Signatures: 284 (as of 20 March 2023)

Response:

The trialled one-way & cycle lane changes contribute positively to the original aims of the scheme and both the County Council's and Borough Council's future aspirations on air quality reduction. The scheme supports Surrey's Sustainable Travel Hierarchy as set out in Surrey's LTP4 which provides a decision-making framework to prioritise active travel measures to increase levels of walking and cycling.



The trial has led to an increase in walking and cycling activity along Walnut Tree Close and is supported by G-BUG. (Refer to Traffic Analysis Report – Annex A, of the Cabinet Member

report published for the Cabinet Member Meeting on 28/03/23 for more details).

Surrey County Council have been monitoring traffic and air quality impacts of the trial and have determined that there has been no detrimental impact on adjacent roads as a result of the one-way scheme.

(Refer to Traffic Analysis Report – Annex A, of the Cabinet Member report published for the Cabinet Member Meeting on 28/03/23 for more details).

Walnut Tree Close is classified as a D class road that serves as a local road for residents. The road was not designed to cope with the current levels of traffic that is generated by Guildford Station. This has created an increase in road safety risk and worsening in air quality for residents, pedestrians and cyclists who use this road. Other roads around Guildford, i.e., Woodbridge Road and Stoke Road have been designed and have greater capacity to cope with higher traffic volumes. It is the intention of Surrey County Council that making the one-way permanent will return Walnut Tree Close to its intended use as a D class road.

Surrey County Council have obtained online feedback from all users of Walnut Tree Close via a dedicated email address set up for this project and also through face to face and online surveys. During the trial, feedback has been received from a wide range of affected users including residents, businesses and those using Walnut Tree Close to access the station and/or the town centre.

The decision-making process to make the scheme permanent was made on the balance of the feedback from the trial and the outcomes meeting Surrey County Council's LTP4 objectives. This includes consideration of the traffic impacts and impacts on air quality, in addition to enabling increased sustainable travel.

Matt Furniss

Cabinet Member for Transport, Infrastructure and Growth

Date of meeting – 28 March 2023

SURREY COUNTY COUNCIL**CABINET MEMBER FOR TRANSPORT, INFRASTRUCTURE AND GROWTH****DATE: 28 MARCH 2023****LEAD OFFICER: KATIE STEWART – EXECUTIVE DIRECTOR FOR ENVIRONMENT, TRANSPORT AND INFRASTRUCTURE****SUBJECT: WALNUT TREE CLOSE, GUILDFORD – ONE-WAY SYSTEM AND CYCLE LANE****SURREY**

ORGANISATION STRATEGY GROWING A SUSTAINABLE ECONOMY SO EVERYONE CAN BENEFIT/ TACKLING HEALTH INEQUALITY/ENABLING A
PRIORITY AREA: GREENER FUTURE/EMPOWERING COMMUNITIES/ROAD SAFETY

SUMMARY OF ISSUE:

The purpose of this report is to recommend a decision as to whether to make the southbound closure of Walnut Tree Close in Guildford permanent, following a period of implementing the proposal as a trial, and the associated review of traffic and air quality data along with resident and stakeholder feedback. The recommendation included in this report is to make the closure permanent. This will return Walnut Tree Close to its original state as a local road providing access to businesses and residents and not as a commuter rat-run route to Guildford Station. Air quality will also be improved with the associated reduction in traffic along Walnut Tree Close.

RECOMMENDATIONS:

It is recommended that the Cabinet Member agrees to make the one-way system trial along Walnut Tree Close permanent.

REASON FOR RECOMMENDATIONS:

1. Following a second trial which was undertaken from 29th May 2022 to 30th November 2022, it has been demonstrated by the data collected during this period that there has been no detrimental impact on traffic or air quality from the trial, and the one-way system achieves most of the objectives set for the scheme, it is recommended that the changes are made permanent.

DETAILS:**Background**

2. The scheme is part of the Guildford Town Centre Master Plan, which aims to create a more attractive pedestrian environment, reconnecting the town

centre to the river and creating a sequence of appealing streets and spaces, redefining the Guildford resident and visitor experience.

3. The scheme will also deliver against the objectives in Surrey's Local Transport Plan (LTP4) to prioritise walking and cycling over less sustainable modes through the delivery of facilities which make active travel more convenient, pleasant and safe.
4. The scheme originated from a petition in 2013 that was created by residents on Walnut Tree Close and gained 342 signatures at the time. The petition stated that residents experienced noise from HGVs and water ingress caused by having low thresholds again caused by HGVs displacing standing water. Other issues included in the 2013 petition were accidents and damage caused to parked cars due to narrow lanes and 2-way traffic. The link to the full committee report and minutes can be found here:

<https://mycouncil.surreycc.gov.uk/ieListDocuments.aspx?CId=196&MId=3031&Ver=4>

5. In order to respond to the concerns raised by residents, Surrey County Council implemented an experimental Traffic Regulation Order (TRO) for this one-way trial, which allows local traffic authorities to implement traffic controls on their roads.
6. A temporary southbound closure of Walnut Tree Close, Guildford was initially implemented on 29 November 2020 and ran until 17 February 2021. Alongside the closure, a segregated cycle lane was created on both sides of the road to provide a safer and more attractive route for cyclists which was in line with Surrey's LTP4 objectives and also compliant with LTN 1/20 which is the standard required by the Department for Transport (DfT).
7. The aim of the trial was to reduce the amount of traffic using the road, particularly vehicles that use the road as a through route between the A25 and the town centre gyratory. The trial sought to:
 - a. Reduce peak-hour queuing along Walnut Tree Close;
 - b. Improve safety for all road users;
 - c. Reduce the conflict between traffic exiting Walnut Tree Close and the gyratory; and
 - d. Create a more pleasant environment along Walnut Tree Close to encourage more walking and cycling
8. The initial trial period was meant to be in place for 6 months; however, it had to be completed prior to the start date of separate works on Walnut Bridge. The one-way trial was removed to accommodate the Walnut Bridge works that commenced on 18 February 2021. The road was reinstated to full two-way operation at that point. Due to the Covid-19 pandemic reducing travel and a national lockdown being imposed during the first trial period, Surrey County Council was not able to obtain sufficiently robust data on changes to travel pattern resulting from the trial to assess the benefit of the trial.

9. A post-pandemic repeat of the trial was implemented on 29 May 2022 and ran until 30 Nov 2022.

Results of the trial

10. The effect of the trial was measured by a number of means. This included collecting traffic data along Walnut Tree Close, Woodbridge Road and Stoke Road, as well as collecting Air Quality data on Walnut Tree Close and Woodbridge Road. The views of residents and stakeholders on Walnut Tree Close trial were also obtained, which are summarised alongside traffic data from the trial in the report.

Traffic impacts

11. Traffic data was collected both before the trial in 2019 and during the second trial in 2022 to help inform the impact of the trial on traffic rerouting due to the one-way system.
12. The data on traffic impacts showed that southbound traffic on the A322 Woodbridge Road increased by 100 to 200 cars over 24 hours on weekdays between 2019 and the second trial 2022. However, this impact on the A322 was within the limits of typical daily fluctuation and would not be discernible to other road users.
13. The traffic data does not show an increase in southbound traffic on the A320 as a result of the trial being in place. In fact, vehicle volumes were found to have decreased on the A320 during the trial in comparison to the 2019 baseline.

Pedestrian and cycle surveys

14. Surrey County Council conducted pedestrian and cycle surveys before the trial in October 2019 and also during the trial in May/July/September 2022.
15. The timing of the trials meant that the pre-trial survey was undertaken when the University was in session, whilst the mid-trial survey was undertaken during the summer – meaning there is an external effect not related to the trial itself that needs to be factored into any assessment of the survey data. As a result, overall pedestrian numbers were significantly higher in October 2019 as university was fully in session, whereas the surveys in 2022 showed lighter numbers due to exam periods and completion of the university semester.
16. That said, although overall numbers were lower across the week during the trial, weekend data – when the effect of the University being in session is less dominant as a factor in the usage of the transport network – showed a positive impact from the trial. In fact, walking levels were higher over the weekend in 2022 in comparison to the pre-trial levels in 2019, with an 89% increase in footfall in September 2022 compared to October 2019.
17. As with the pedestrian counts, overall cycling numbers decreased between October 2019 and May 2022. However, cycling levels were higher over the weekends in 2022 in comparison to the pre-trial survey in October 2019. The drop in levels is again likely due to exam periods and completion of the university semester.

18. A more detailed breakdown of the traffic data and pedestrian and cycle counts can be found in Annex 1.
19. On balance, it appears that the trial has led to an increase in walking and cycling activity along Walnut Tree Close. This is because the walking and cycling flows have generally increased between May and September 2022, especially over the weekends where university term time is not a dominant factor, whereas the numbers of vehicles have fallen along Walnut Tree Close. It is likely that when university is in term, that levels will increase further.

Air quality impacts

20. The data on air quality was obtained via diffusion tube monitoring of the nitrogen dioxide (NO₂) levels as part of an annual programme carried out by Guildford Borough Council (GBC). GBC's Regulatory Services provided SCC with their feedback on the impact of the trial and suggested that the trial had some positive benefit to air quality, and no significant negative change to the routes onto which traffic has been rerouted. An excerpt from their email feedback is included here:

- a. *"The traffic scheme is on one of the feeder roads leading on and off the Guildford Town Centre Air Quality Management Area declared October 2021. Therefore, any initiative to improve vehicle flow is welcomed, the elimination of southern bound traffic queuing and entering the gyratory was of interest."*
- b. *"Monitoring from July to November 2023 in Walnut Tree Close appeared to show a slight reduction in levels compared with historic data. Furthermore, there has not been any significant change in the levels monitored on the rerouted approaches of both Woodbridge and Stoke Roads. The time period covered is somewhat shorter than is recommended by Defra, hence Guildford Borough Council continue to monitor these locations and will provide a full year's profile in August 2023."*

Public consultation

21. A public consultation was undertaken during June and July 2016, during which the public were asked to express their preferred option as part of their consultation response. The three presented options were:
 - a. Option 1 – Closure to all through traffic
 - b. Option 2 – One-way traffic restriction upon southbound vehicles
 - c. Option 3 – Neither option 1 nor 2
22. A total of 630 responses were received and the results indicated that there was a broadly even split amongst all questionnaire respondents over which option they would like to see delivered, with roughly one third each supporting 'Option 1', 'Option 2' and 'Neither Option 1 nor Option 2'. From these responses it can be inferred that the majority of respondents (63%) expressed support for some level of restriction to through-traffic along Walnut Tree Close.

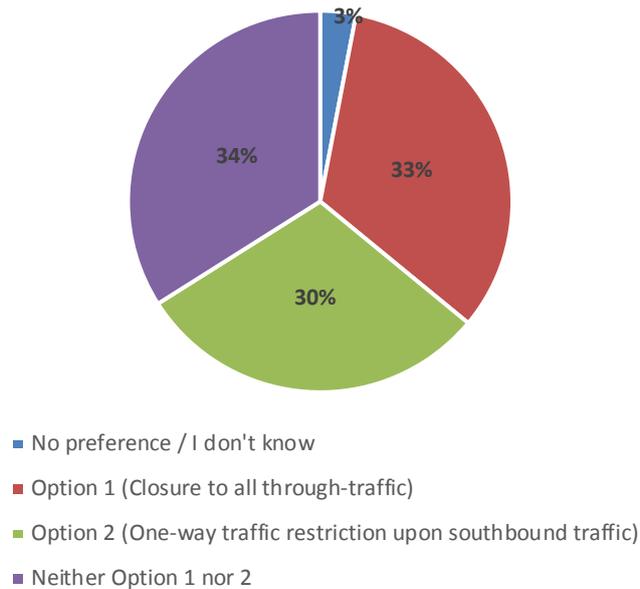


Figure 1 Responses to 2016 public consultation

23. Upon commencing the second trial, a dedicated email address was made available for the public to feedback their thoughts. A total of 195 responses were received during this second trial period, with 69% objecting and 31% approving the trial.
24. It should be noted however that of those 195 responses, 123 provided their point of origin, of which 16% were residents, 6% worked on Walnut Tree Close, and the remaining 78% either lived outside of Walnut Tree Close or did not provide an origin and likely to be through traffic. Traffic that previously would have used Walnut Tree Close as a through-route is mitigated by the fact that they are still able to access the station and Guildford town centre via alternate routes, including Woodbridge Road, Stoke Road, A3100 London Road and also The Chase.

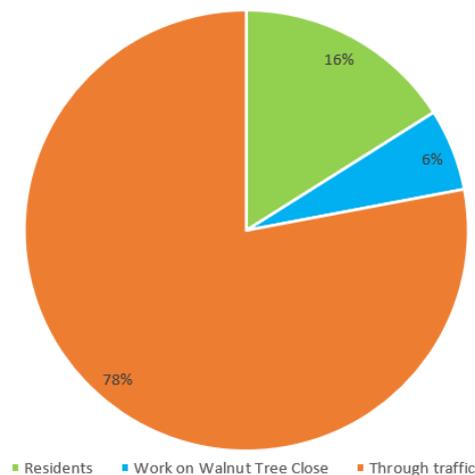


Figure 2 Response breakdown

25. Of the responses that were residents, 81% were in support of the scheme and 19% objected. Out of the responses from those who worked on Walnut Tree Close, 100% objected. Of those who lived outside Walnut Tree Close or did not provide a point of origin, 75% objected and 25% supported the scheme.
26. Surrey County Council also conducted face to face surveys of pedestrians and cyclists along Walnut Tree Close on the 29th of November 2022. In this survey, users were asked whether they would like to see the trial made permanent. Of a total of 65 responses, 85% said they would like the trial to become permanent, 5% said they would not want the trial to be permanent, with the remaining 10% saying they had no opinion on the trial.

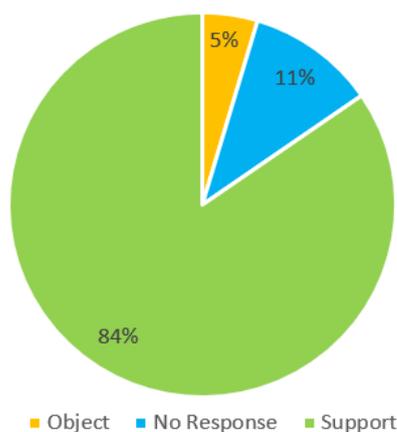


Figure 3 Pedestrian/cyclists survey responses

27. Surrey County Council conducted face to face surveys with businesses situated on Walnut Tree Close in December 2022, where businesses were asked whether they would like the trial to be made permanent. A total of 28 businesses were contacted, with 39% objecting to the scheme. The remaining 61% either did not respond or had no opinion on the scheme.
28. Surrey County Council also conducted an onsite walk-through with Surrey Coalition Disabled Group who expressed their support to the scheme while also identifying areas where improvements could be made to improve accessibility to their users.
29. On balance, the responses received show that the scheme has the support of residents and will continue to encourage active travel in the area, thereby supporting the objectives of the scheme.
30. Across all data assessed from the trial, following consideration of the traffic & air quality data sets and the engagement & consultation responses received, it is believed that the trialled one-way & cycle lane changes contribute positively to the original aims of the scheme and both the County Council's and Borough Council's future aspirations on air quality reduction. The scheme also supports Surrey's Sustainable Travel Hierarchy as set out in Surrey's LTP4 which provides a decision-making framework to prioritise active travel measures to increase levels of walking and cycling.

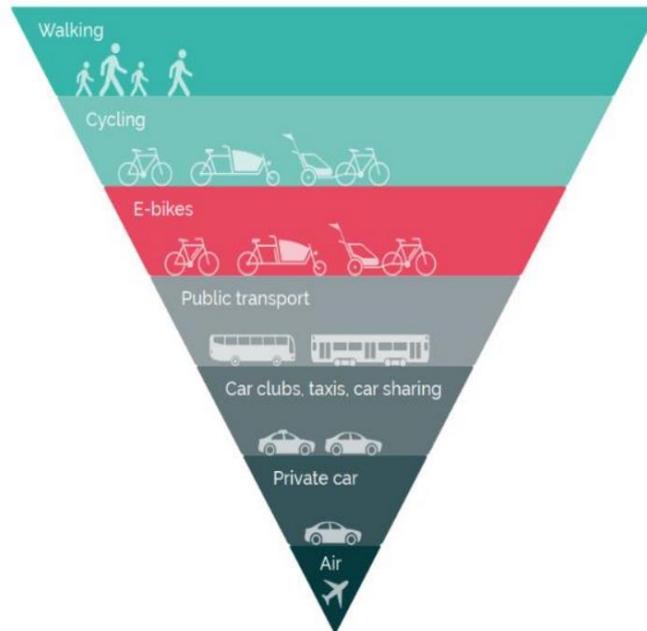


Figure 4 Sustainable Travel Hierarchy

CONSULTATION:

31. A public consultation was held in 2016 prior to the trial commencing. A separate stakeholder engagement session was also held in 2020 to explain what the trial would entail and to seek feedback from attendees.
32. Residents and stakeholders were consulted again in 2022 on the trial held by Surrey County Council, this included obtaining the views of:
 - a. Guildford Borough Councillors: Angela Goodwin, Tom Hunt and Cait Taylor.
 - b. Guildford G-Bug (Letter of support included in Annex 2)
 - c. University of Surrey
 - d. Residents on Walnut Tree Close (via feedback survey and dedicated email address)
 - e. Businesses on Walnut Tree Close (via stakeholder engagement and feedback survey)
 - f. Pedestrians and Cyclists on Walnut Tree Close (via feedback survey)
 - g. Commuters who park at Guildford station (via feedback survey)
 - h. Surrey Coalition of Disabled People
33. Surrey County Council posted a dedicated email address walnuttreeclose.trial@surreycc.gov.uk for any stakeholder or interested party to provide feedback during the trial.

34. A webpage was created on the Council's website providing an overview of the scheme and the process. This included details of why we were doing the trial and updates in relation to the progress of the trial and decision making. The link to the webpage is:

<https://www.surreycc.gov.uk/roads-and-transport/roadworks-and-maintenance/roadworks/walnut-tree-close-guildford-one-way-system>

RISK MANAGEMENT AND IMPLICATIONS:

35. The proposals to make Walnut Tree Close a one-way system and cycle lane responds to Surrey County Council's LTP4 objectives. This will return Walnut Tree Close to its original state as a local road providing access to businesses and residents and not as a commuter rat-run route to Guildford Station.
36. Drivers who would not be able to use Walnut Tree Close due to the one-way system will be required to reroute to more suitable alternative routes. The traffic assessments by Surrey County Council confirm that the impacts of this rerouting can be successfully managed by the local road network in Guildford.
37. The one-way scheme was constructed as part of the trial and is currently still in operation. The existing infrastructure is sufficient to enable the one-way trial to be made permanent. There are no road safety risks which have been identified. Surrey County Council will be monitoring this scheme and will implement changes as required to further improve safety for all road users.

Financial and value for money implications:

38. The costs of the improvements are jointly funded by the County Council and the EM3 Local Enterprise Partnership.
39. This scheme has been delivered under budget, and there are no additional financial implications if the scheme is made permanent. There are no significant additional infrastructure costs other than the cost of new traffic orders to make the scheme permanent.

Section 151 Officer commentary:

40. Although significant progress has been made to improve the Council's financial position, the financial environment remains challenging. The UK is experiencing the highest levels of inflation for decades, putting significant pressure on the cost of delivering our services. Coupled with continued increasing demand and fixed Government funding this requires an increased focus on financial management to ensure we can continue to deliver services within available funding.
41. In addition to these immediate challenges, the medium-term financial outlook beyond 2022/23 remains uncertain. With no clarity on central government funding in the medium term, our working assumption is that financial resources will continue to be constrained, as they have been for the majority of the past decade. This places an onus on the Council to continue to consider issues of financial sustainability as a priority in order to ensure stable provision of services in the medium term.

Legal implications – Monitoring Officer:

42. An experimental traffic regulation order is currently in place. The 1996 Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations provide that an experimental traffic regulation order may be given permanent effect where certain prescribed requirements have been met in relation to the giving of notice, consultation and the handling of objections made. Officers advise that all relevant legal requirements have been met.

Equalities and diversity:

43. The County must abide by its Public Sector Equality Duty (s149 of the Equality Act 2010) when exercising its public functions. There is a requirement when deciding upon the recommendations to have due regard to the need to advance equality of opportunity for people with protected characteristics, foster good relations between such groups, and eliminate any unlawful discrimination. These matters are dealt with in the Equality Impact Assessment (EQIA) which was undertaken in October 2020 for the wider Guildford Town Centre Transport Package prior to the trial for Walnut Tree Close commencing. This included Walnut Tree Close although no specific EQIA was carried out for the One Way and Cycle scheme. The EQIA was reviewed prior to the repeat of the trial and also prior to the decision made by the Cabinet Member for Transport, Infrastructure and Growth.
44. The EQIA concludes that, following appropriate consultation, in general the impact of the scheme is anticipated to be positive for the majority of the users of the routes and services in question and the residents of Guildford and the wider area.
45. Officers have engaged with the Surrey Coalition of Disabled Persons who will be asked to attend the site and follow the route to identify any needs that the scheme should meet, with a view to incorporating as many of those suggestions in the advertised scheme as practicable.

Other implications:

46. None

Public Health implications:

47. The proposals meet Council aspirations to achieve net zero carbon emissions by 2050 (and intermediate 60% reduction by 2035) by reducing motorised vehicle traffic on Walnut Tree Close. It will encourage more travel by active travel modes.
48. The scheme will improve local air quality, traffic noise and impacts on Walnut Tree Close to benefit residents and those travelling by active travel modes.

WHAT HAPPENS NEXT:

49. The approved scheme will be made permanent with no additional infrastructure required. The current infrastructure which was installed as part of the trial will remain in place.
50. The outcome of the decision at this meeting will be reported on the Council's website and all Members will be contacted on the outcome.
51. Residents and businesses will be informed of the decision through Surrey County Council's website of the decision.

Contact Officer:

Lyndon Mendes – Transport Policy Team Manager

Annexes:

Annex 1 – Walnut Tree Close Traffic Data Analysis Report

Annex 2 – Letter of support from G-BUG

Surrey County Council

Walnut Tree Close Traffic Analysis

Impact of One-Way Trial

Reference:

Draft | 15 February 2023

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63 St Thomas Street
Bristol
BS1 6JZ
United Kingdom
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Draft	12 January 2023	Description	Draft for client comment		
			Prepared by	Checked by	Approved by
		Name	Ann-Cathrin Reissmann	Tansin Brown	
		Signature			
Issue	16 January 2023	Filename			
		Description	Includes traffic flow diagrams and addresses client's comments		
			Prepared by	Checked by	Approved by
		Name	Ann-Cathrin Reissmann	Tansin Brown	Andrew Jenkins
		Signature			
Revised Issue	15 February 2023	Filename			
		Description	Edited based on client's request		
			Prepared by	Checked by	Approved by
		Name	Ann-Cathrin Reissmann		
		Signature			

Issue Document Verification with Document

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Executive Summary

The Scheme

Walnut Tree Close, Guildford is a south-north link from the A322 to the A25. The close caters for Guildford train station at its southern end and the Royal Mail Delivery Office at its northern end. In between, the road is largely residential in character including student accommodation. Alternative north-south routes to Walnut Tree Close include the A322 Woodbridge Road and the A320 Stoke Road, both of which are of a higher classification than the close.

Surveys in year 2019 show that pedestrians and cyclists account for 26% of traffic on Walnut Tree Close and vehicles for 74%. Surrey County Council, as local highway authority, implemented a trial active travel scheme initially in year 2020 and again in 2022. Analysis of the scheme impact is based on the later trial, for which more data is available. The trial consists of a one-way northbound vehicle lane between Bankside Student Living and the turning facility south of the Royal Mail Delivery Office. An advisory cycle lane runs northbound and a segregated contraflow cycle lane southbound. Potential impacts of the scheme include:

- increased active travel on Walnut Tree Close
- redistribution of southbound traffic from Walnut Tree Close to the A322 and A320
- redistribution of turning movements at junctions.

A range of traffic data was analysed to understand the local and wider impacts of the one-way trial. Baseline data is for year 2019, which is pre-pandemic and overcomes any distortions to travel habits during the covid-19 pandemic and recovery period. Scheme data is for year 2022: pre-trial for May 2022, and during the trial for July and September 2022.

Active Travel

As noted, active travel by pedestrians and cyclists accounted for 26% of the Walnut Tree Close traffic in year 2019. New student accommodation built along the close in the intervening years will have increased the numbers of pedestrians and cyclists. The surveys do not show a definitive increase in active travel but the surveys were undertaken at different times of year. Student activity would have been greater in the pre-trial surveys months of May and October, compared to July and September during the trial. However, walking and cycling flows generally increase between May and September whereas the number of northbound vehicles falls. On balance, it seems likely that the trial one-way scheme on Walnut Tree Close did increase the proportion of walking and cycling activity.

Redistribution of Southbound Traffic

Walnut Tree Close

In 2019, the 24-hour southbound traffic flows on a typical weekday were 2,206 vehicles on Walnut Tree Close, 11,291-11,963 on the A322 Woodbridge Road and 5,112-6,712 on the A320 on Stoke Road. Walnut Tree Close traffic comprises three discrete types:

- motorcycles/scooters, which the surveys show continue southbound on Walnut Tree Close using the cycle lanes
- local traffic that starts/ends somewhere off Walnut Tree Close, which would redistribute northbound on the close
- through traffic that would redistribute onto other roads such as the A322 and A320.

With the one-way scheme in place on Walnut Tree Close, approximately 1,700-1,800 vehicles are estimated to redistribute onto other roads.

The table below shows recorded traffic flows on the three key highway links across different times. Data that corresponds to the trial period is **highlighted in blue**.

24-Hour Weekday Southbound Traffic Flows

	24-Hour Weekday Traffic Flows			Difference from 2019 pre-trial		Difference from May 2022 pre-trial	
	Walnut Tree Close	A322	A320	A322	A320	A322	A320
May 2019		11,963	5,112				
June 2019	2,206						
July 2019		11,683	6,712				
September 2019		11,291	6,356				
May 2022	2,353	N/A	6,439				
July 2022	-1,728	11,788	6,083	+105	-629	N/A	-356
September 2022	-1,813	11,491	5,770	+200	-586	N/A	-669

A322 Woodbridge Road

Taking year 2019 as the baseline for the A322, southbound traffic increases by 105 vehicles in the month of July 2022 and by 200 vehicles in September. The southbound traffic flow on the A322 exceeds 11,000 vehicles on a weekday and the scheme impact is less than 2%, which is within the limits for typical daily fluctuation and would not be discernible to users. The data does not show an impact of the trial on the A322.

A320 Stoke Road

Taking year 2019 as the baseline for the A320, traffic fell by 629 vehicles in July 2022 and by 586 vehicles in September. Compared to pre-trial conditions in May 22, traffic fell by 356 vehicles in July and by 669 in September. The ratio of northbound to southbound traffic remained consistent before and during the trial and the data does not show an impact of the trial on the A320.

Redistribution at Junctions

Overall, movements at the Station View junction with Walnut Tree Close decreased after the introduction of the trial. An increase in northbound traffic through the junction appears to be local trips that end somewhere off Walnut Tree Close, which has redistributed from a southbound direction to northbound. Changes in the turning movements at the Station View junction are largely because of construction works being completed during the trial, which opened up access to the station car park.

Conclusions

It seems likely that the trial one-way scheme on Walnut Tree Close has led to an increase in walking and cycling activity. However, the outcome is inconclusive due to the timing of the surveys, and particularly in the context of university term times, extreme weather and gaps in data. The analysis does not show an increase in traffic on the A322 and A320 because of the one-way trial on Walnut Tree Close. It is likely that the remaining traffic that can't be accounted for redistributed via The Chase.

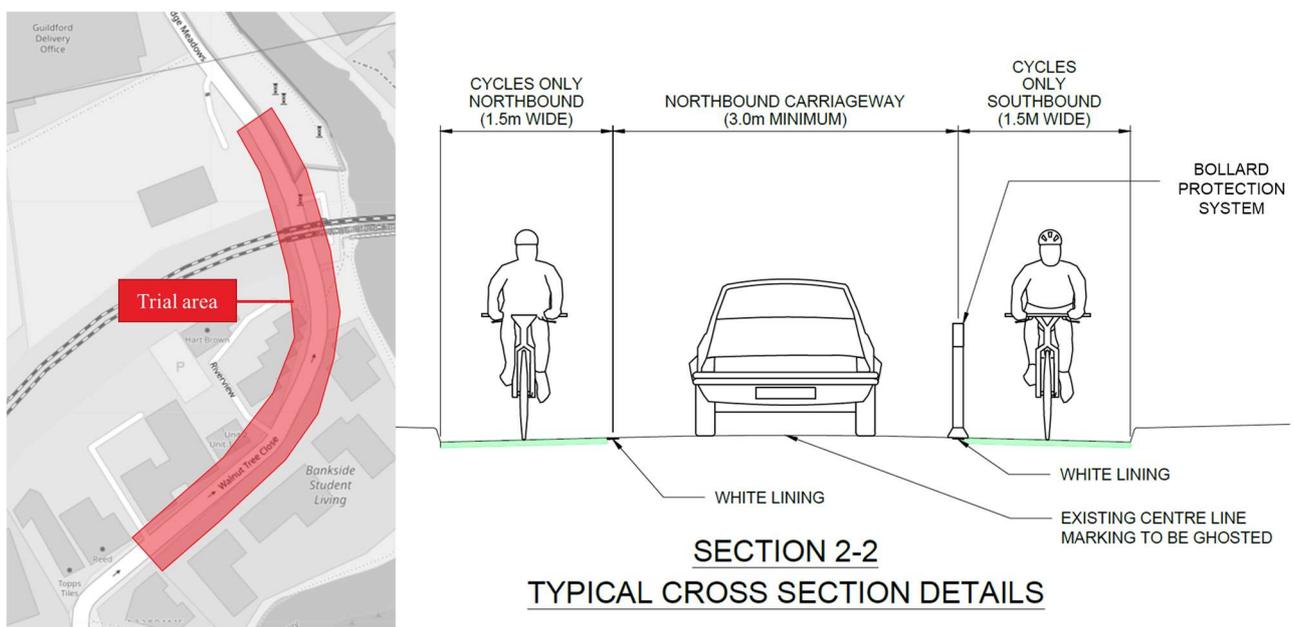
1. Introduction

1.1 The Scheme

Walnut Tree Close, Guildford is a south-north link from the A322 to the A25. The close caters for Guildford train station at its southern end and the Royal Mail Delivery Office at its northern end. In between, the road is largely residential in character including student accommodation. Surrey County Council, as local highway authority, implemented a trial active travel scheme initially in year 2020 and again in 2022.

Ove Arup and Partners Ltd (Arup) is commissioned to assess the impact of the Walnut Tree Close active travel scheme on traffic in the local area, in terms of cycling and pedestrian numbers as well as the redistribution of vehicular traffic onto neighbouring roads. The principal concern is the vehicular impact of the scheme on the A322 and A320 as well as on the exit from Guildford train station.

This report analyses the impact of the scheme for the year 2022 trial, for which more data is available. The scheme was introduced on 29 May 2022 and consists of a one-way northbound vehicle lane between Bankside Student Living and the turning facility south of the Royal Mail Delivery Office as well as an advisory cycle lane northbound and a segregated contraflow cycle lane southbound. Figure 1.1 shows the location and layout of the trial.



Source: excerpt from General Arrangement SCCWTCEC-ATK-HML-S1_XS-DR-CH-000311

Figure 1.1: Trial Location and Layout

1.2 Scope of Analysis

The local area, A322 Woodbridge Road and A320 Stoke Road are the key areas of concern for residents and are the focus of the traffic analysis. It should be noted that there are alternative routes available, and a wider the area of redistribution leads to less impact on any particular link. Figure 1.2 shows these alternative routes.

Construction works on Walnut Tree Close appear to have been ongoing for some time, both at the station and near the trial area. In combination with temporary road closures in 2022 prior to the introduction of the trial, drivers may have sought long-term alternative routes to avoid the works before the one-way restriction was even imposed.

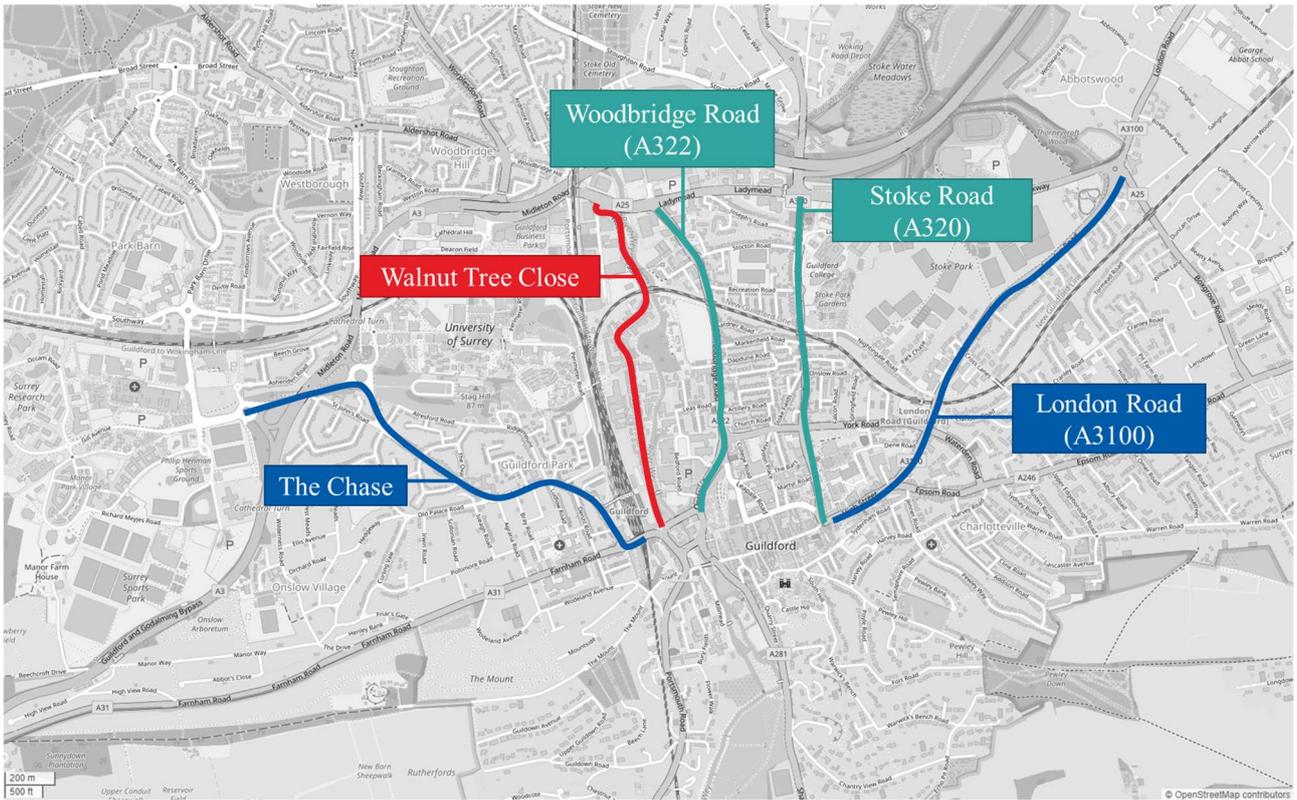


Figure 1.2: Alternative Routes for Southbound Traffic

2. Incoming Data

2.1 Count Data

Surrey County Council provided a range of traffic data across the road network comprising automatic traffic counts (ATCs) including induction loops and manual traffic counts (MCCs). Figure 2.1 shows the location of the count points in relation to the wider Guildford transport network. The numbering for the locations on Walnut Tree Close is unique to this report and does not reflect how the locations may have been classified at the time the surveys were undertaken.

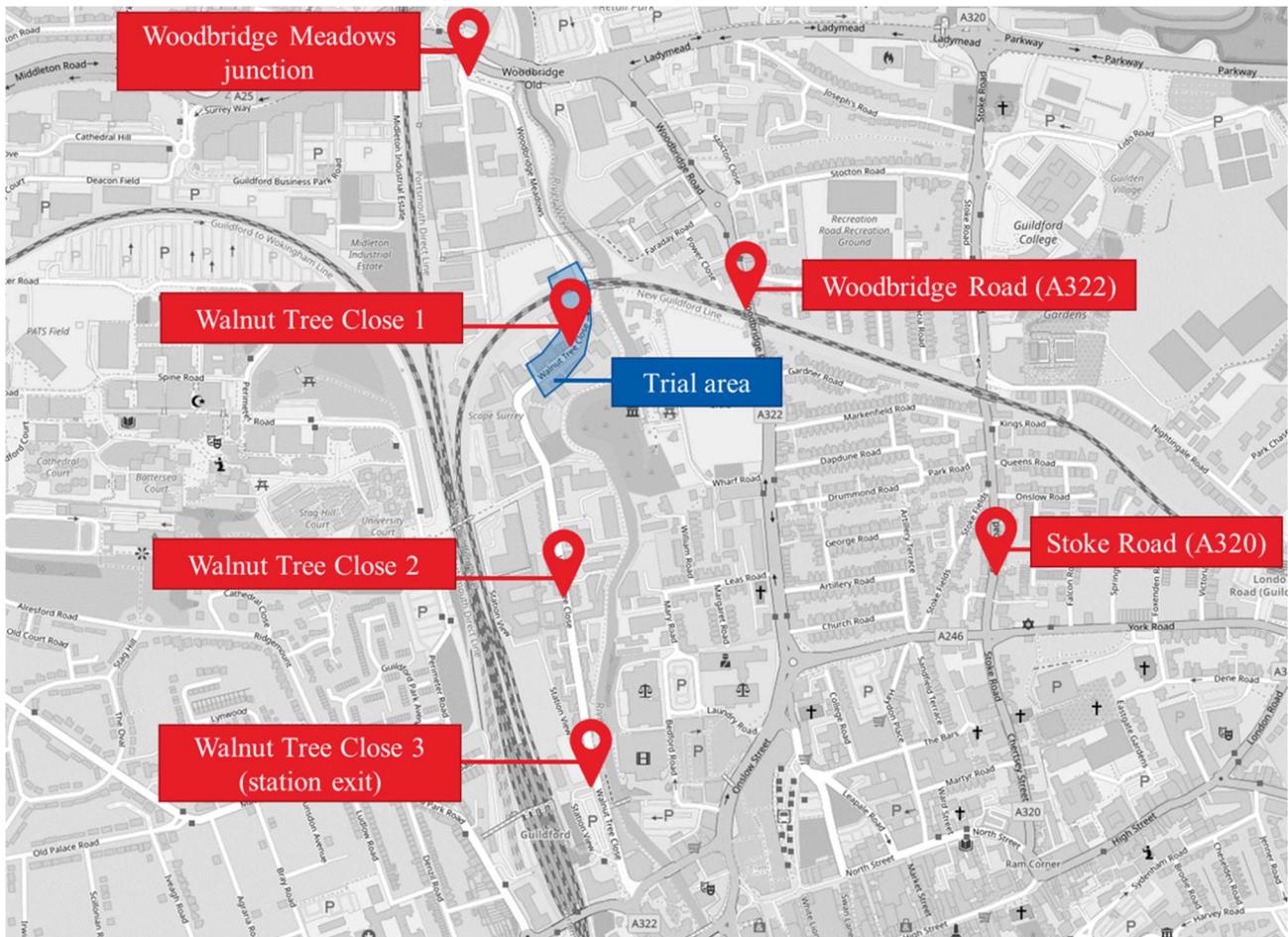


Figure 2.1: Count Locations

Table 2.1 summarises the location, type and extent of traffic count data. The data for Walnut Tree Close generally covers four periods: prior to the covid-19 pandemic, year 2022 before the scheme was implemented, two months after implementation and four months after. For clarity, data that corresponds to the trial period is highlighted in blue. The induction loop data covers the wider road network beyond Walnut Tree Close and covers years 2018 to 2022.

Table 2.1: Received Count Data

Count Location*	Count Type	Date Range
Woodbridge Meadows junction (with A25 Woodbridge Rd)	Manual classified count (MCC)	12 hr/day data for: 19/07/22 21/07/22 13/09/22 15/09/22
Walnut Tree Close 1 (between Riverview and Woodbridge Meadows)	Pedestrian and cycle count (MCC)	24/10/19 - 30/10/19 (24 hr/day) 09/05/22 - 15/05/22 (24 hr/day) 14/07/22 - 20/07/22 (24 hr/day) 13/09/22 - 18/09/22 (12 hr/day)
	Automatic traffic count (ATC)	24 hr/day data for: 19/06/19 - 25/06/19 09/05/22 - 16/05/22 14/07/22 - 24/07/22 14/09/22 - 19/09/22
Walnut Tree Close 2 (near Rectory Court)	Automatic traffic count (ATC)	24 hr/day data for: 19/06/19-25/06/19
Walnut Tree Close 3 (junction with Station View, i.e. station exit and access to/from station car park)	Manual classified count (MCC)	12 hr/day data for: 10/05/22
		19/07/22 21/07/22 13/09/22 15/09/22
Woodbridge Road (A322) (between Recreation Road and the railway bridge)	Induction loop	24hr/day data for: 01/01/2018 - 05/07/2018; 27/07/2018 - 31/12/2018; 2019-2020; 01/01/21 - 03/08/21; 05/07/22 - 09/10/22
Stoke Road (A320) (between Stoke Mews and Onslow Road)	Induction loop	24hr/day data for: 2018 - 2021 01/01/22 - 09/10/22
*See Figure 2.1		

The Walnut Tree Close 1 data is incomplete because the pedestrian and cycle counts for September 2022 were carried out over a six-day period, excluding Monday, whereas other pedestrian and cycle counts were carried out over a seven-day period. There is also insufficient data for the Sunday because pedestrian and cycle count footage is missing for the afternoon.

The MCC data is for year 2022 only and does not include pre-pandemic counts. For Walnut Tree Close 3, May 2022 count, the survey company noted that: “Due to roadworks and the camera view, we are not able to view the junction directly.” This may affect the reliability of data provided. Furthermore, construction on Station View concluded between July and September 2022, resulting in a noticeable change in turning movements for the September datasets.

The dataset for the A322 does not include pre-trial counts for May 2022, and as such it is not possible to carry out a direct comparison of traffic on the A322 between the pre-trial period and other periods.

2.2 External Influences

Analysis of the pedestrian and cycle data suggests the potential presence of external influences. Firstly, during the July 2022 survey, a heatwave caused peak temperatures close to 40°C¹, which may have discouraged people to walk and cycle. Nationally, a reduction in cycle traffic during the count week recorded an average of 7% fewer trips compared preceding four weeks². During the two hottest days (18-19 July 2022), 22% fewer trips were recorded. In contrast, vehicle traffic by only reduced 2% across the week and by 7% on the hottest days.

Secondly, the last day of term for state schools was 22 July 2022, which may have had an impact on the traffic counts on 23 July and 24 July. School was back in session for the September count.

Furthermore, the University of Surrey revision week took place between 16 May and 20 May 2022 and the summer break between 13 June and 16 September 2022³. The trial area is near the university and several student residences lie along Walnut Tree Close. The university semester was nearing revision week when the May count took place, and it was not in session during the July count and only partially in September. Additionally, several student residences opened on Walnut Tree Close during the trial, with students moving in during the September count, which may have had an impact on walking and cycling numbers.

Construction works on Walnut Tree Close - both at the station and near the trial area - in combination with temporary road closures in 2022 prior to the introduction of the trial may have led drivers to look for a long-term alternative route to avoid the works before the one-way restriction was even imposed.

Lastly, the covid-19 pandemic continues to affect the way people work and how they travel to work. To limit the impact of these changes on the data analysis, the average weekday for all modes within this report is calculated using data for Tuesday to Thursday. This ensures a robust analysis that takes account of less commuting on Mondays and Fridays when people are more inclined to work from home.

2.3 Traffic Flow Diagrams

The following figures show the recorded data in years 2019 and 2022 that inform the analysis in this report. Weekday flows are illustrated for cycle and vehicle flows for 12-hour (7AM-7PM) and 24-hour periods, and turning movements at junctions for a 12-hour period.

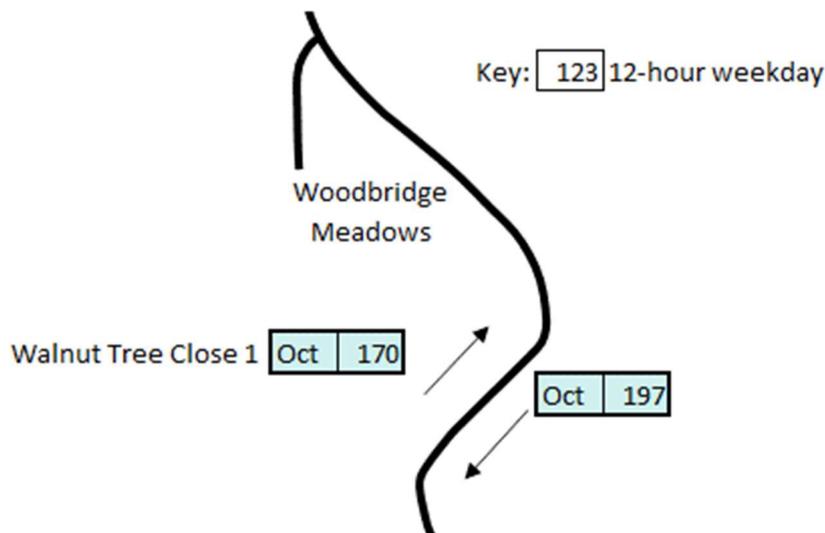


Figure 2.2: 12-Hour Cycle Flows, 2019

¹ [National Climate Information Centre Monthly Summary July 2022 \(metoffice.gov.uk\)](https://www.metoffice.gov.uk/news/2022/07/01/heatwave)

² [Daily domestic transport use by mode \(www.gov.uk\)](https://www.gov.uk/government/statistics/daily-domestic-transport-use-by-mode)

³ [Important dates | University of Surrey](https://www.surrey.ac.uk/about-us/important-dates)

Key: 123 12-hour weekday

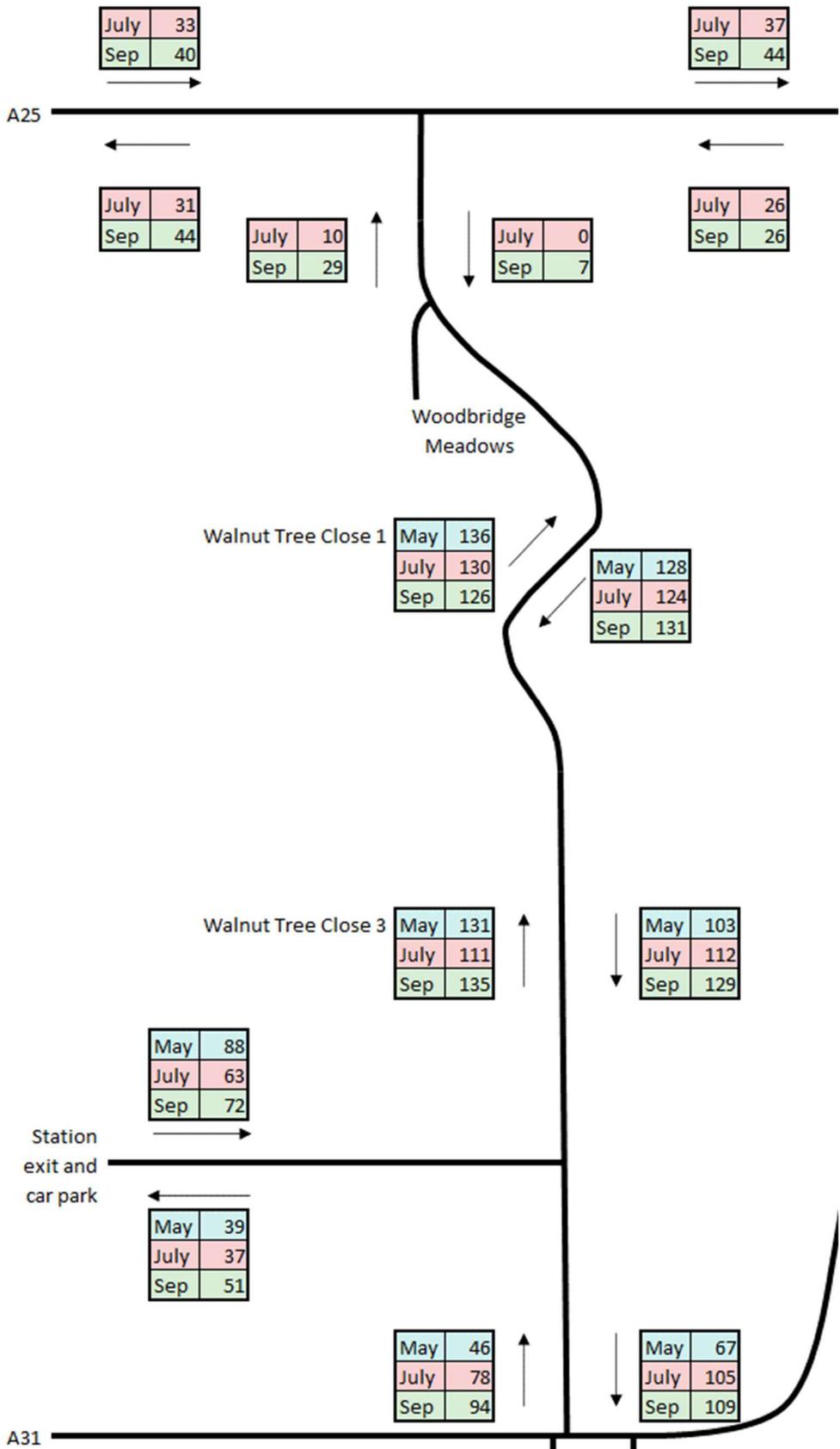


Figure 2.3: 12-Hour Cycle Flows, 2022

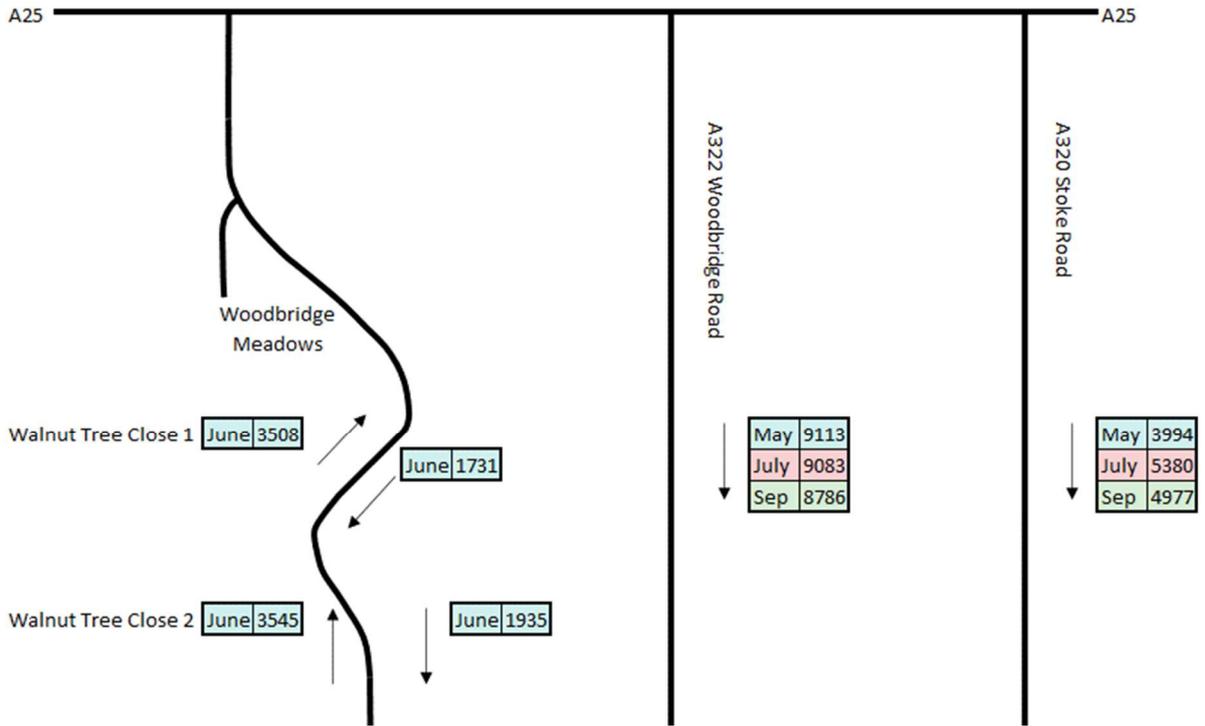


Figure 2.4: 12-Hour Link Flows, 2019

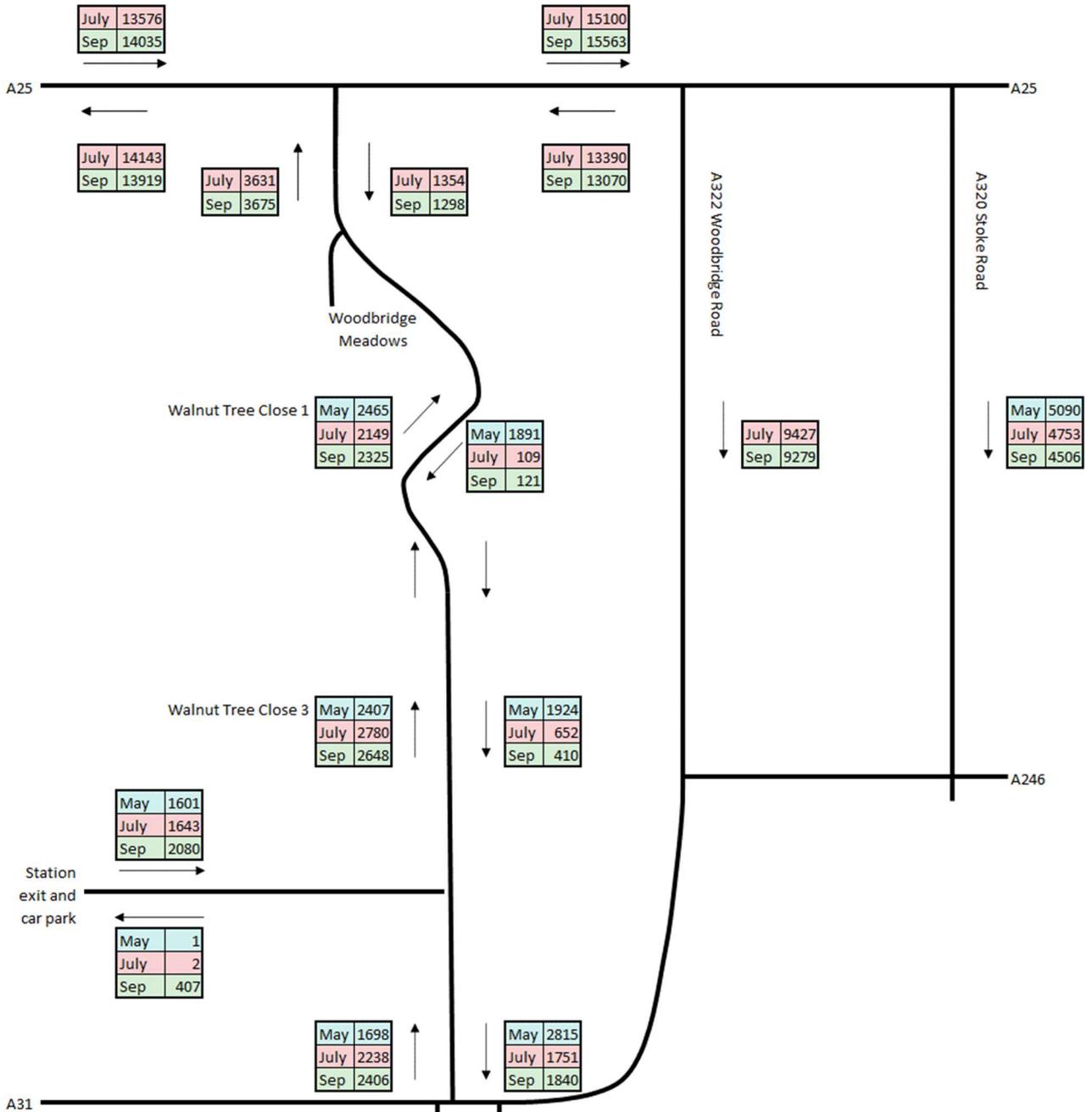


Figure 2.5: 12-Hour Link Flows, 2022

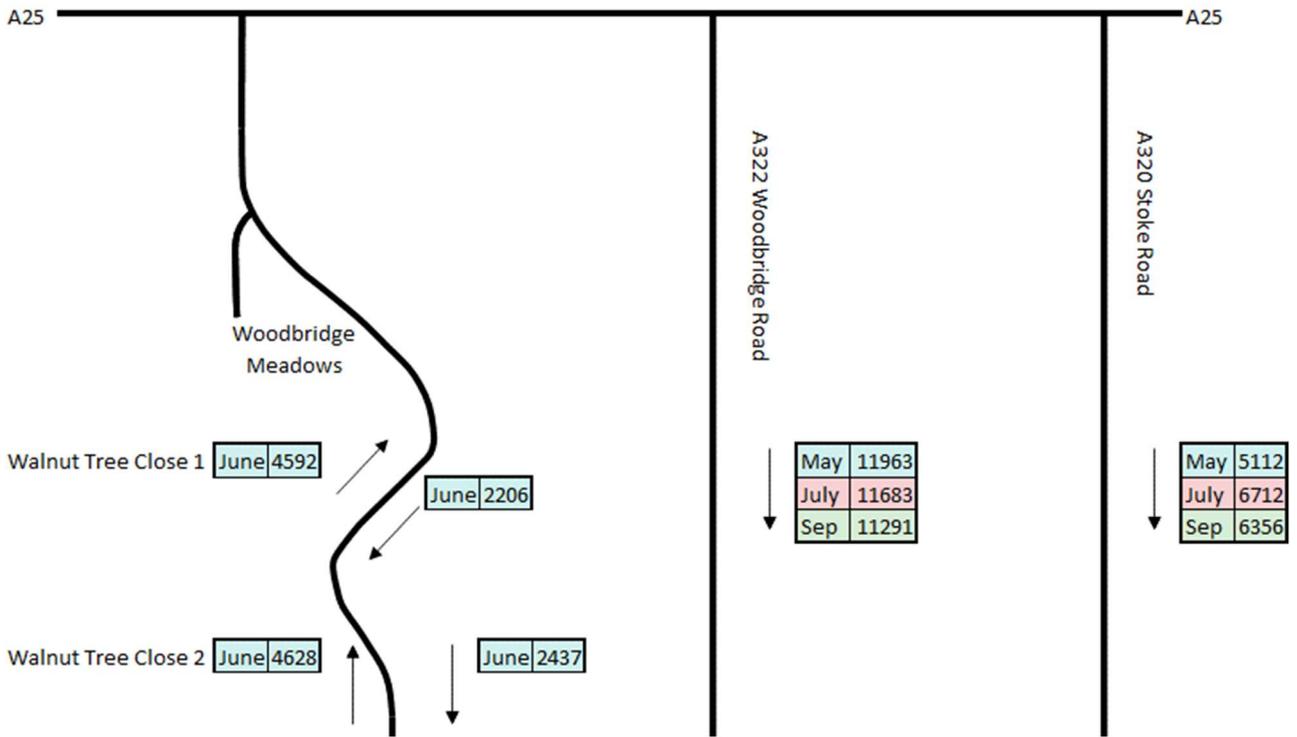


Figure 2.6: 24-Hour Link Flows, 2019

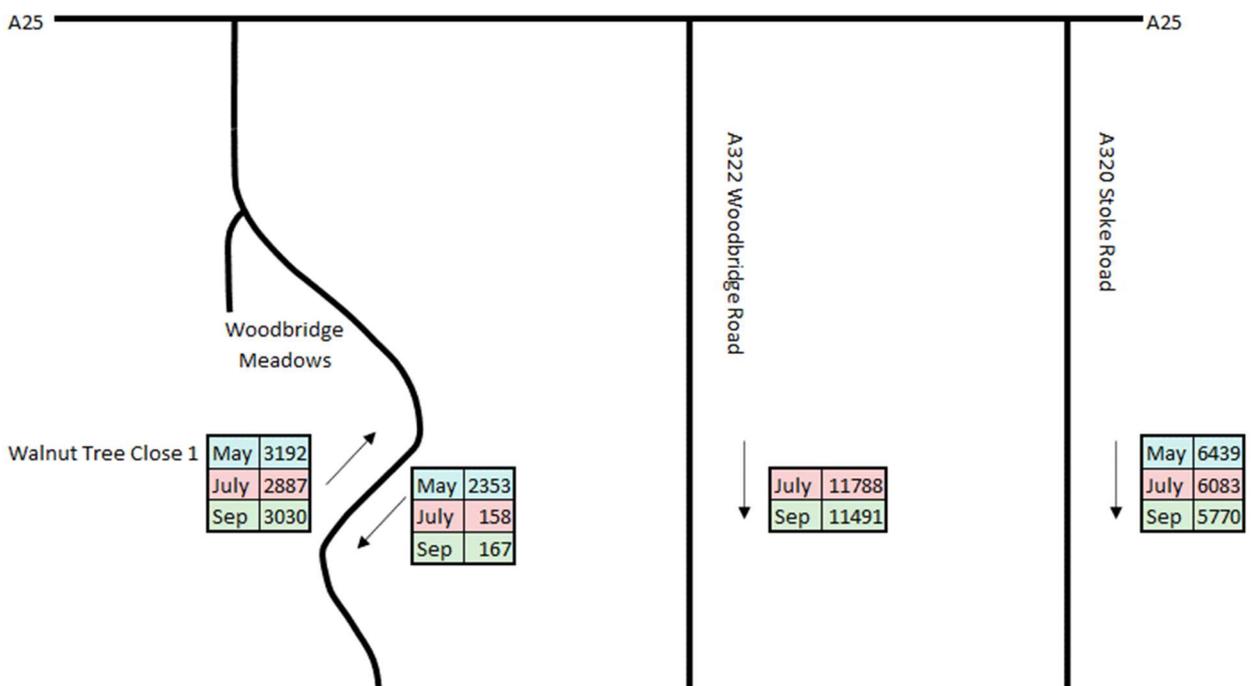


Figure 2.7: 24-Hour Link Flows, 2022

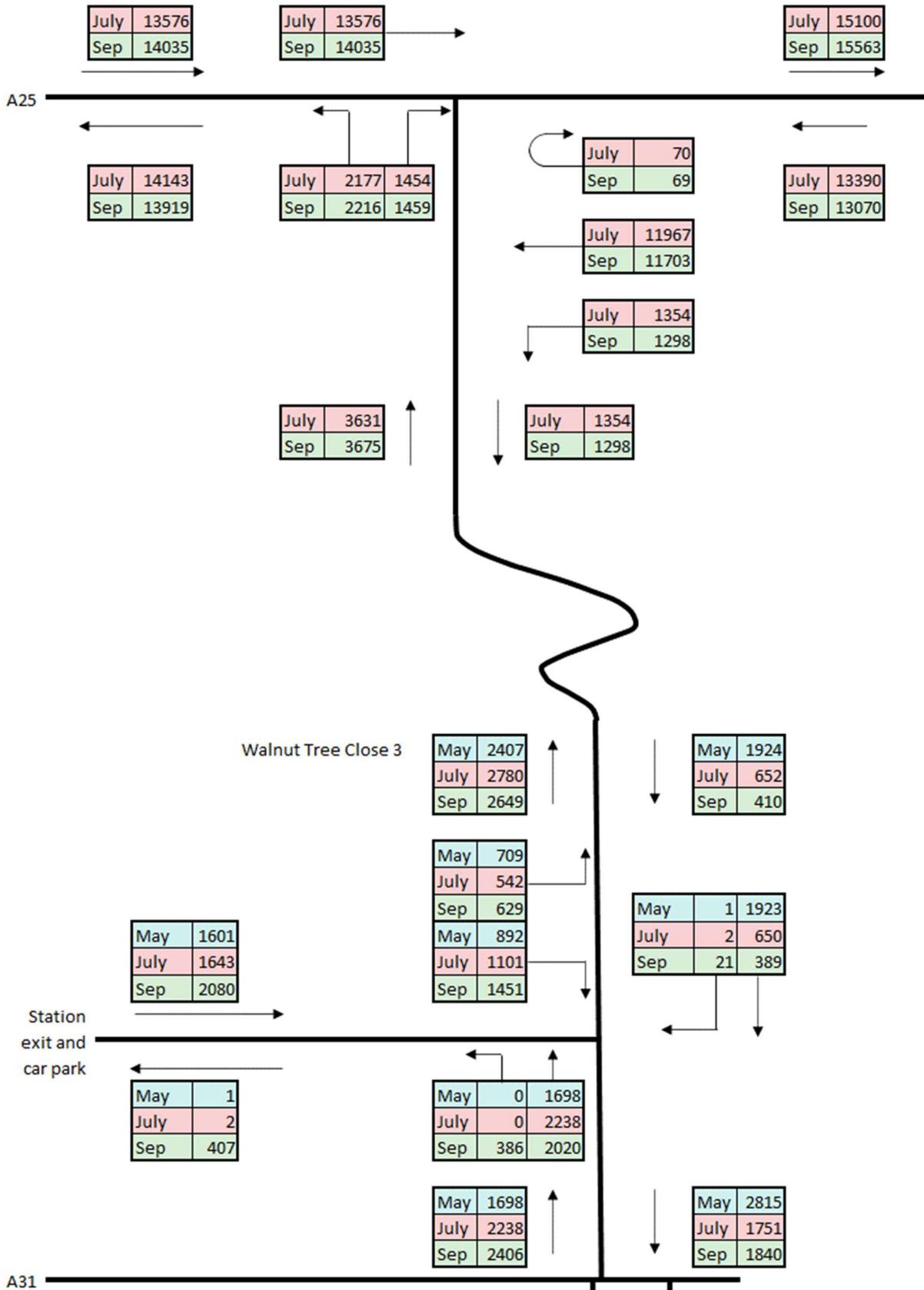


Figure 2.8: Junction Turning Movements, 2022

3. Pedestrians and Cyclists

3.1 Walking

Pedestrian numbers were significantly higher in October 2019 compared to the May 2022 survey. During the 2019 survey, the university was fully in session whereas the semester was nearing revision week in 2022. Pedestrian numbers drop between the May and July 2022 survey. Considering that the trial did not change the walking environment (width of footways, crossing provision), we assume that the decrease in walking rates was due to external factors, such as the university being on leave and the heatwave. The numbers rose again in September but with fewer pedestrians on a weekday compared to July and more on a Saturday.

Table 3.1 provides details for the pedestrian numbers and compares these to the 2019 baseline, with data that corresponds to the trial period highlighted in blue. Figure 3.1 shows the profile of pedestrians across the assessed weeks. It should be noted that the September count period did not include a Monday and that there is no data for the Sunday because pedestrian and cycle count footage is missing for the afternoon.

Table 3.1: 12-Hour Pedestrian Numbers by Month

Month	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
October 2019	1,995	742	903	100%	100%	100%
May 2022	1,545	1,233	818	-23%	+66%	-9%
July 2022	1,045	863	863	-48%	+16%	-4%
September 2022	1,227	1,399	N/A	-38%	+89%	N/A

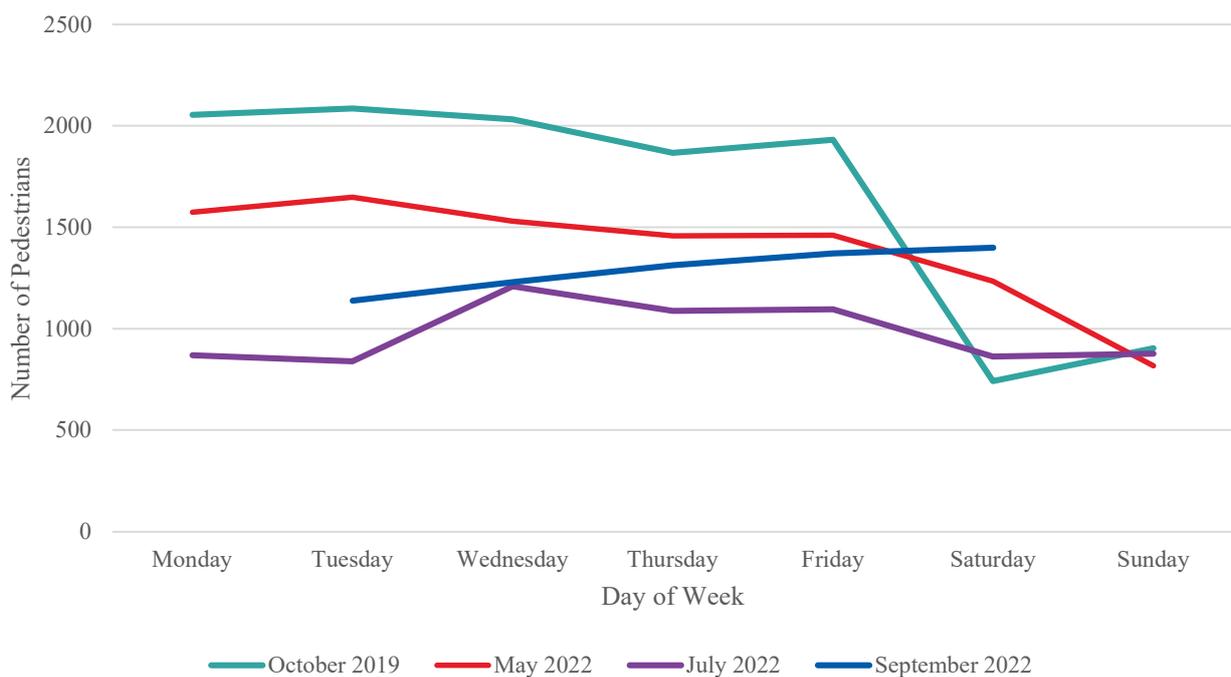


Figure 3.1: 12-Hour Pedestrian Numbers by Day of Week

3.2 Cycling

As with the pedestrian counts, cycling numbers decreased between October 2019 and May 2022. Cycling numbers on a typical weekday stayed consistent before and during the trial period in 2022 with approximately 265 cyclists between 7AM and 7PM. Recordings show fewer cyclists on the Saturday in July, compared to May and September. The lowest cycling activity occurs on Sundays, although this day sees an increase in numbers after the introduction of the trial. Table 3.2 provides details on the cycling numbers and compares these to the 2019 baseline with data that corresponds to the trial period highlighted in blue. Figure 3.2 shows the profile of cyclists across the assessed weeks. As before, there is no data for the Monday and Sunday in September.

Table 3.2: 12-Hour Cyclists by Month

Month	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
October 2019	366	94	168	100%	100%	100%
May 2022	264	229	108	-28%	+144%	-36%
July 2022	254	205	172	-31%	+118%	+2%
September 2022	257	238	N/A	-30%	+153%	N/A

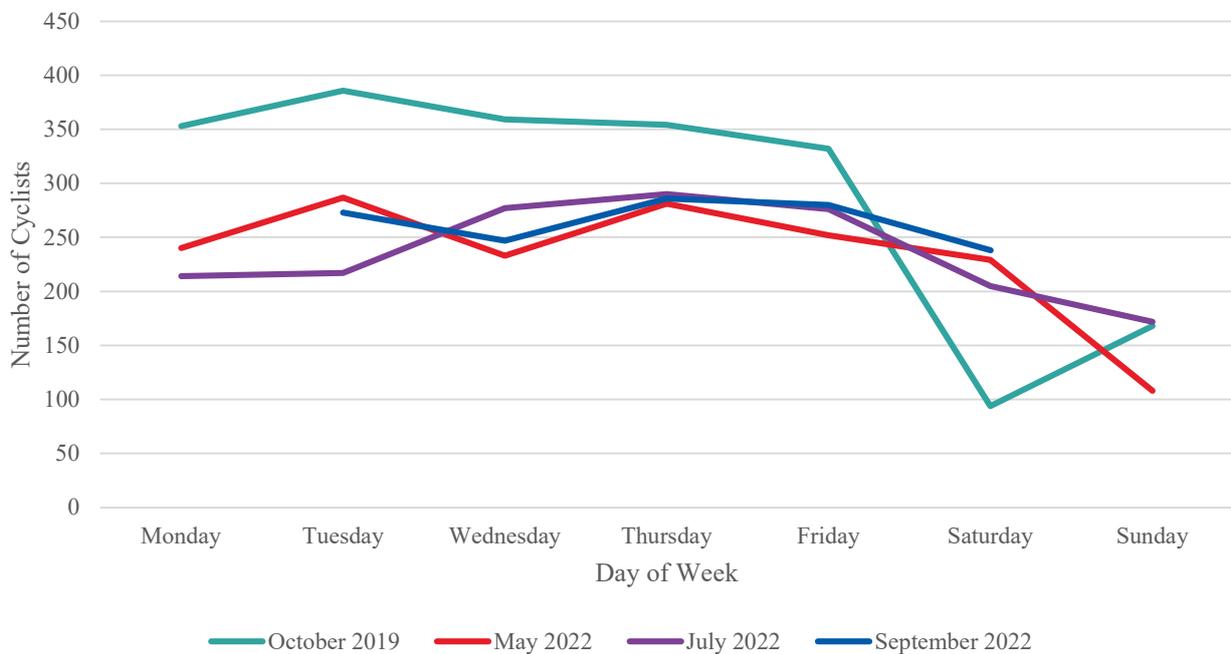


Figure 3.2: 12-Hour Cycling Numbers by Day of Week

3.3 Peak Hours

The introduction of the trial did not affect peak hour behaviour of pedestrians and cyclists on Walnut Tree Close. The AM peak hour typically took place between 8-9AM on a weekday, with a slightly earlier peak of 7.30-8.30AM in September. The PM peak hour varied with a later peak in July, but this may have been due to the high temperatures, as discussed previously. Table 3.3 details the peak hours for the months' counts and Figure 3.3 shows the average profile of users across a 24-hour weekday period.

Table 3.3: Weekday Peak Hours - Combined Pedestrians and Cyclists

Month	AM	PM
October 2019	8:00-9:00	17:00-18:00
May 2022	8:00-9:00	17:30-18:30
July 2022	8:00-9:00	18:00-19:00
September 2022	7:30-8:30	17:00-18:00

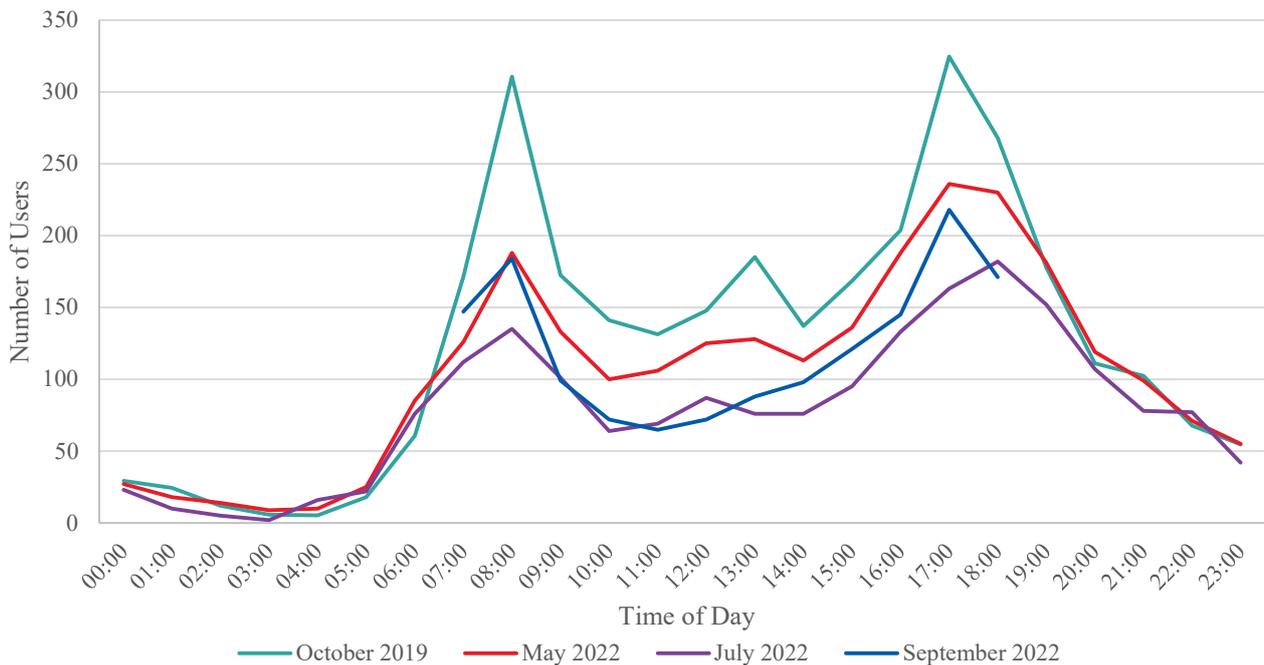


Figure 3.3: 24-Hour Weekday Profile - Combined Pedestrians and Cyclists

The weekday peak hours had a clear tidality, with users in the morning mostly traveling south towards central Guildford and those in the evening traveling north. This was especially evident for cyclists but was also the case for pedestrians. Across all months, the ratio of northbound to southbound trips was approximately 50:50 across the 24-hour period.

Saturdays and Sundays do not exhibit peak hours, as shown in Figure 3.4 and Figure 3.5. Behaviour remained consistent between 2019 and 2022, as well as before and during the trial in 2022, with the lower July numbers caused by the drop in pedestrian numbers discussed above.

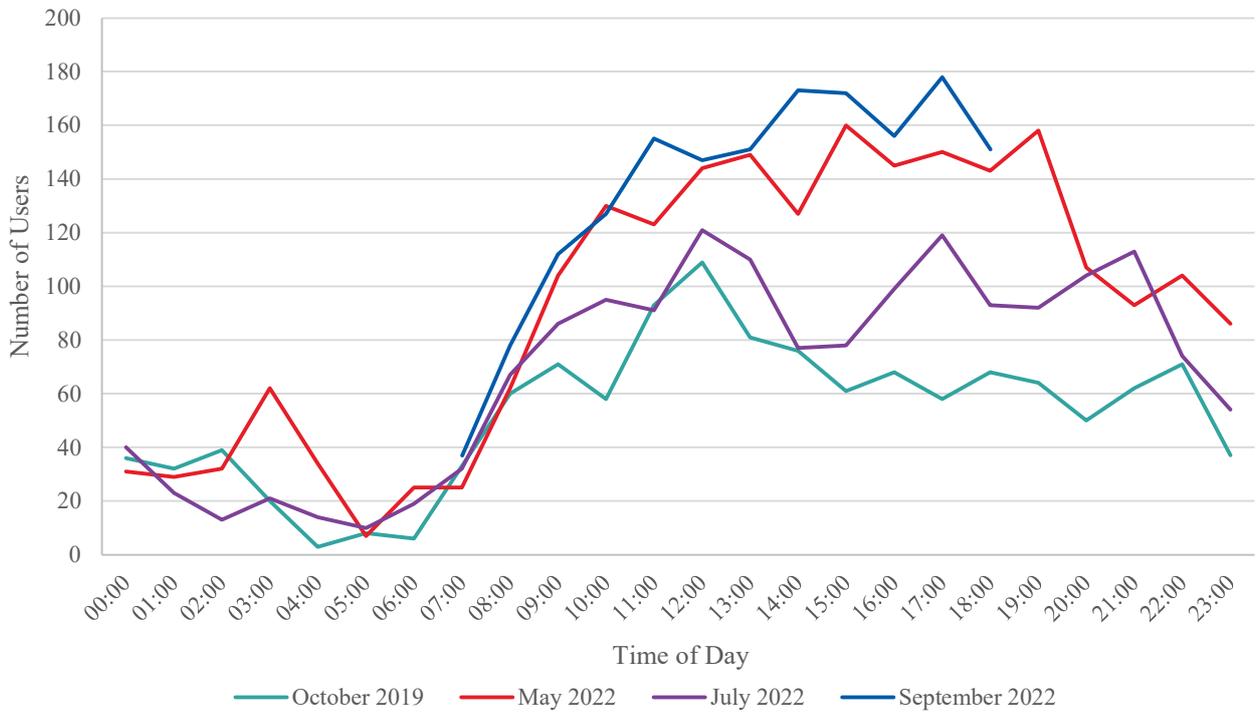


Figure 3.4: 24-Hour Saturday Profile - Combined Pedestrians and Cyclists

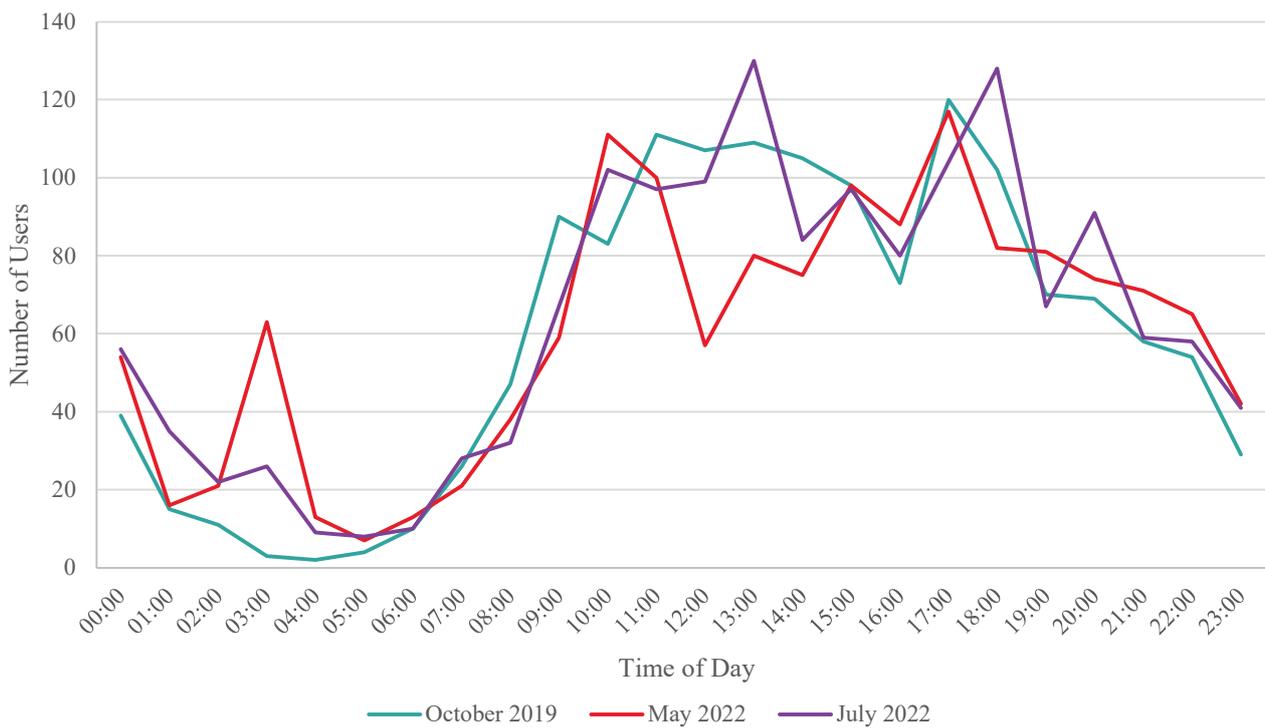


Figure 3.5: 24-Hour Sunday Profile - Combined Pedestrians and Cyclists

Historically, pedestrians and cyclists comprise approximately 30% of all movements on Walnut Tree Close. Figure 3.6 shows the composition of traffic on Walnut Tree Close before and during the trial. The proportion of pedestrians and cyclists is likely to be higher now than in 2019 because of the new student accommodation that has been constructed in the meantime. After the introduction of the trial, pedestrians and cyclists increased to 38% due to the removal of southbound vehicle traffic. Considering the proximity to the university campus, and that the July and September surveys occurred outside of term time, Walnut Tree Close is likely a key walking and cycling route. It is expected that the pedestrian and cyclist share could make up more than half movements on the road during term time.

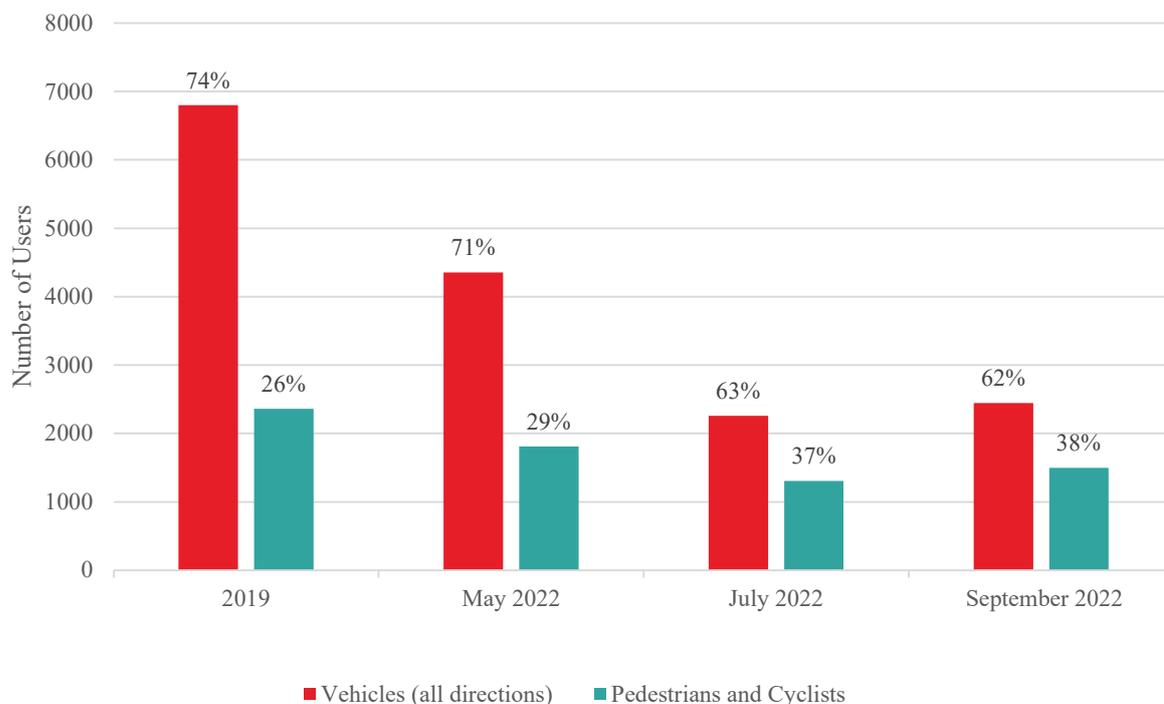


Figure 3.6: Composition of Traffic on Walnut Tree Close

3.4 Impact of the Trial

Table 3.4 shows the fluctuations in northbound vehicles compared to pedestrians and cyclists, based on pre-trial flows in May 2022.

- Pedestrian numbers in July on a weekday and Saturday fall more than both cyclists and vehicles. Numbers on a weekday in September remain fewer than in May and to a greater extent than vehicles. On a Saturday, pedestrian numbers rise above May levels although vehicle numbers are fewer.
- Numbers of cyclists on a weekday and Saturday in July do not fall as much as vehicles, and show a substantial rise on a Sunday. In September, cycling increases although vehicle numbers are fewer.

Table 3.4: Trial Area 12-Hour Traffic Fluctuations

	Pedestrians			Cyclists			Vehicles		
	W'day	Sat	Sun	W'day	Sat	Sun	W'day	Sat	Sun
May 2022	100%	100%	100%	100%	100%	100%	100%	100%	100%
July 2022	-32%	-30%	6%	-4%	-10%	59%	-13%	-17%	-3%
September 2022	-21%	13%	N/A	-3%	4%	N/A	-6%	-1%	17%

On balance, it seems likely that the trial one-way scheme on Walnut Tree Close has led to an increase in walking and cycling activity because numbers of people generally increase whereas the numbers of vehicles fall. However, the outcome is inconclusive due to the timing of the surveys, particularly in the context of university term times, extreme weather conditions and gaps in data.

4. Walnut Tree Close

4.1.1 Northbound Traffic

Northbound traffic on Walnut Tree Close reduced between June 2019 and May 2022. In 2022, northbound vehicle travel remained at similar levels before and during the trial, with slightly lower numbers in July. Table 4.1 shows the total northbound vehicle counts between 7AM-7PM for the four survey periods and relates these to the 2019 baseline. Data that corresponds to the trial period is highlighted in blue.

Table 4.1: 12-Hour Northbound Vehicles on Walnut Tree Close

	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
June 2019	3,508	2,588	2,219	100%	100%	100%
May 2022	2,465	2,051	1,471	-30%	-21%	-34%
July 2022	2,149	1,702	1,432	-39%	-34%	-35%
September 2022	2,325	2,039	1,714	-34%	-21%	-23%

The AM and PM peak hours stayed consistent with a weekday AM peak between 7.15-8.15AM and a PM peak between 5-6PM. Saturday and Sunday typically peak periods occurred between 11.15AM-6.15PM and 12.00-4.00PM, respectively. June 2019 experienced a more defined Sunday peak behaviour with a peak between 12-1PM and a second one between 5-6PM. Figure 4.1 to Figure 4.3 show the 24-hour profiles for weekdays, Saturdays and Sundays across the four survey dates.

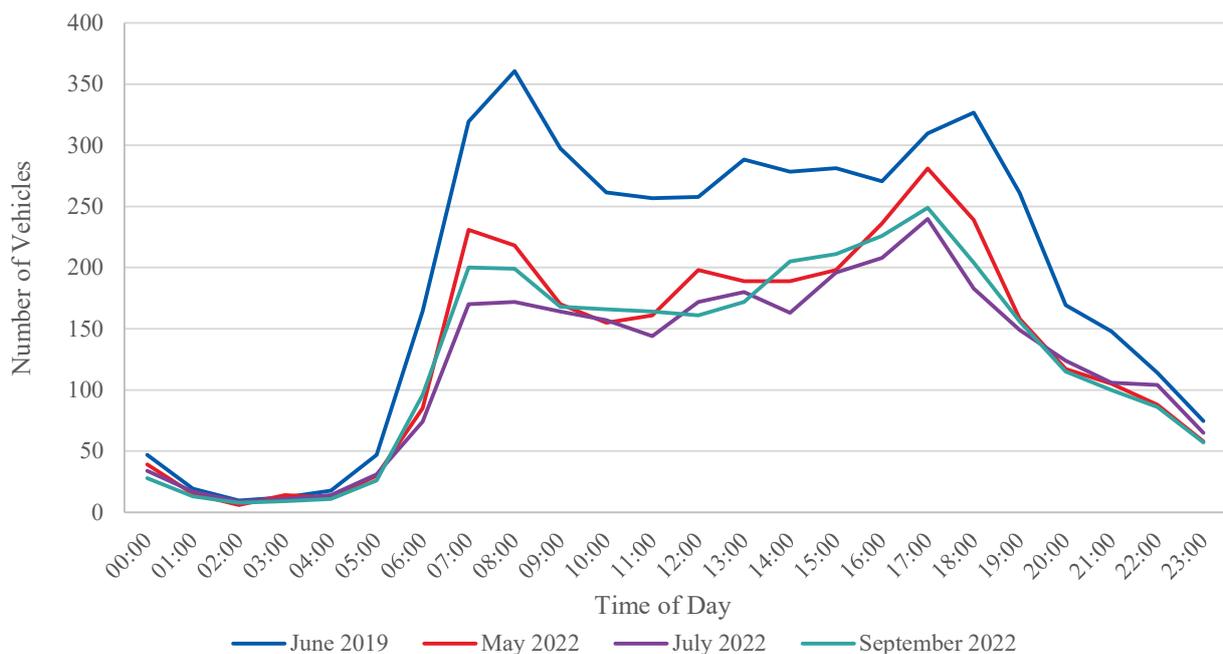


Figure 4.1: 24-Hour Northbound Weekday Vehicle Profile on Walnut Tree Close

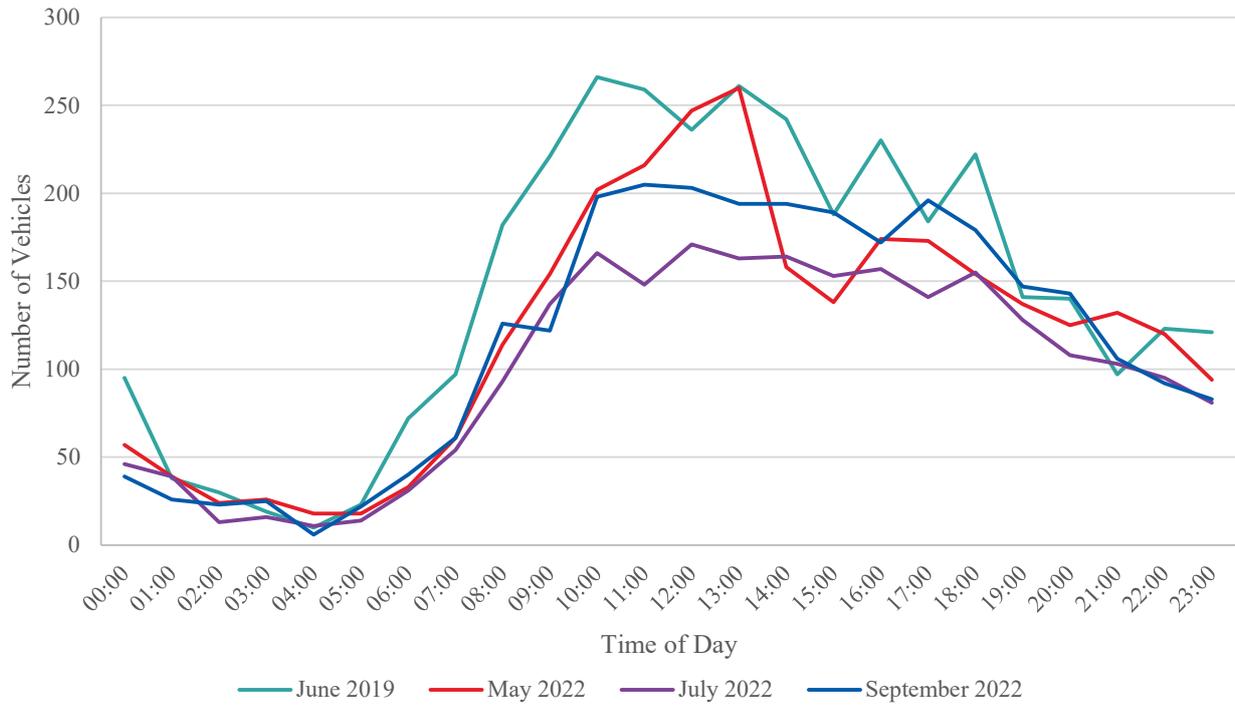


Figure 4.2: 24-Hour Northbound Saturday Vehicle Profile on Walnut Tree Close

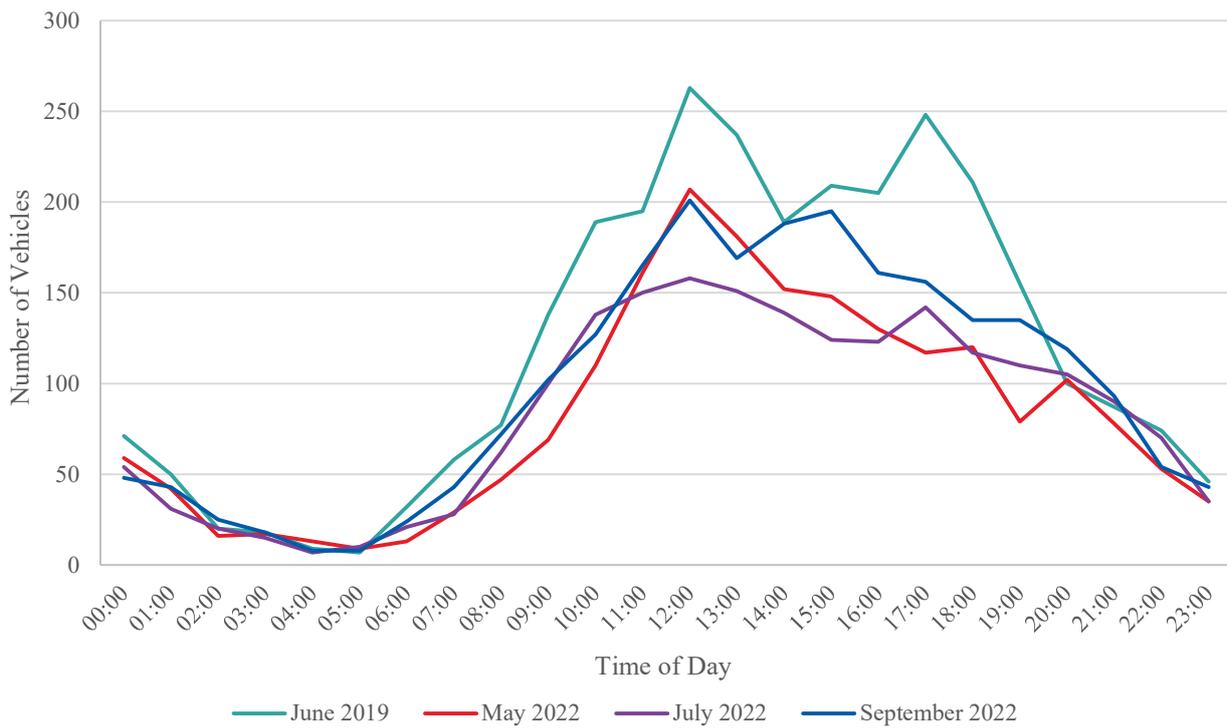


Figure 4.3: 24-Hour Northbound Sunday Vehicle Profile on Walnut Tree Close

4.1.2 Southbound Traffic

Southbound traffic increased between June 2019 and May 2022, both during the week as well as at weekends. The introduction of the northbound one-way as part of the trial prohibited southbound vehicle movements, which resulted in a significant reduction in overall vehicle traffic. Table 4.2 shows the total southbound vehicle counts between 7AM-7PM for the four survey periods and relates these to the 2019 baseline.

It should be noted that the ATC classified a majority of the remaining July and September 2022 southbound movements as motorcycles. As no video footage is available, it could not be confirmed if these were in fact motorcycles or if the system incorrectly classified pedal cycles.

Table 4.2: 12-Hour Southbound Vehicles on Walnut Tree Close

	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
June 2019	1,731	1,146	802	100%	100%	100%
May 2022	1,891	1,590	1,012	+9%	+39%	+26%
July 2022	109	90	70	-94%	-92%	-91%
September 2022	121	86	52	-93%	-92%	-94%

Figure 4.4 shows the average profile of southbound vehicles across a 24-hour weekday period. The AM and PM peak hours stayed relatively consistent between June 2019 and May 2022. The weekday peak in June 2019 took place between 8-9AM with a slightly earlier peak of 7.30-8.30AM in May 2022 and a PM peak between 5-6PM. Weekends did not exhibit peak hours, apart from a May 2022 Saturday peak between 10AM-1PM, as shown in Figure 4.5 and Figure 4.6.

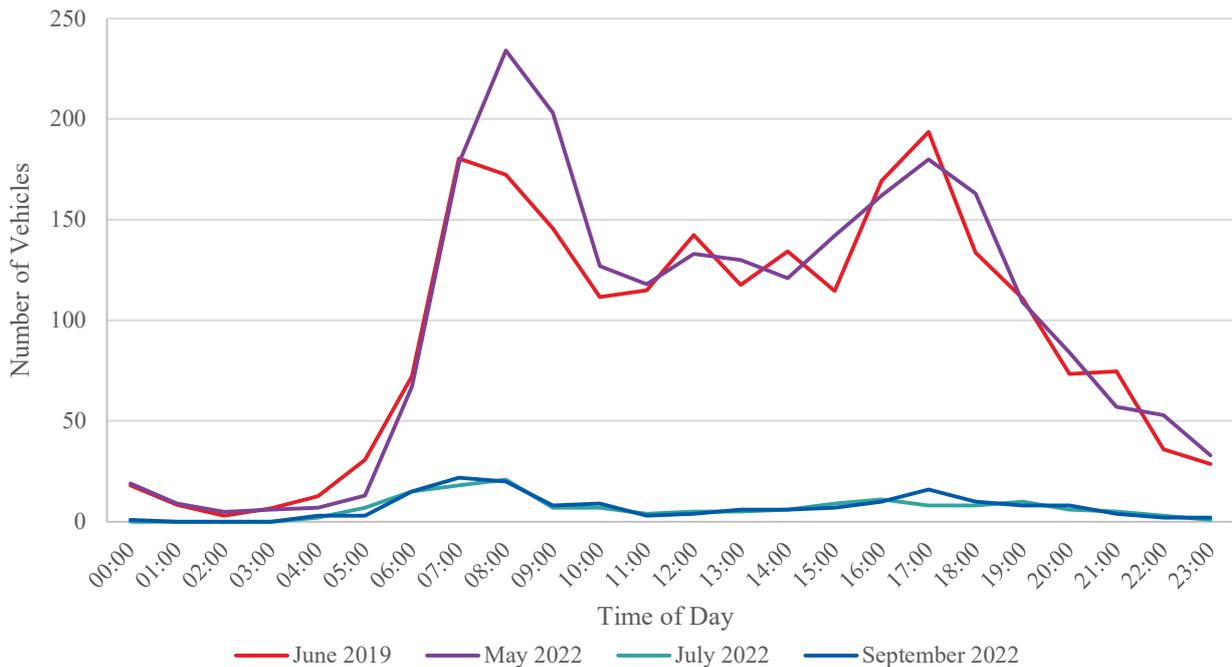


Figure 4.4: 24-Hour Southbound Weekday Vehicle Profile on Walnut Tree Close

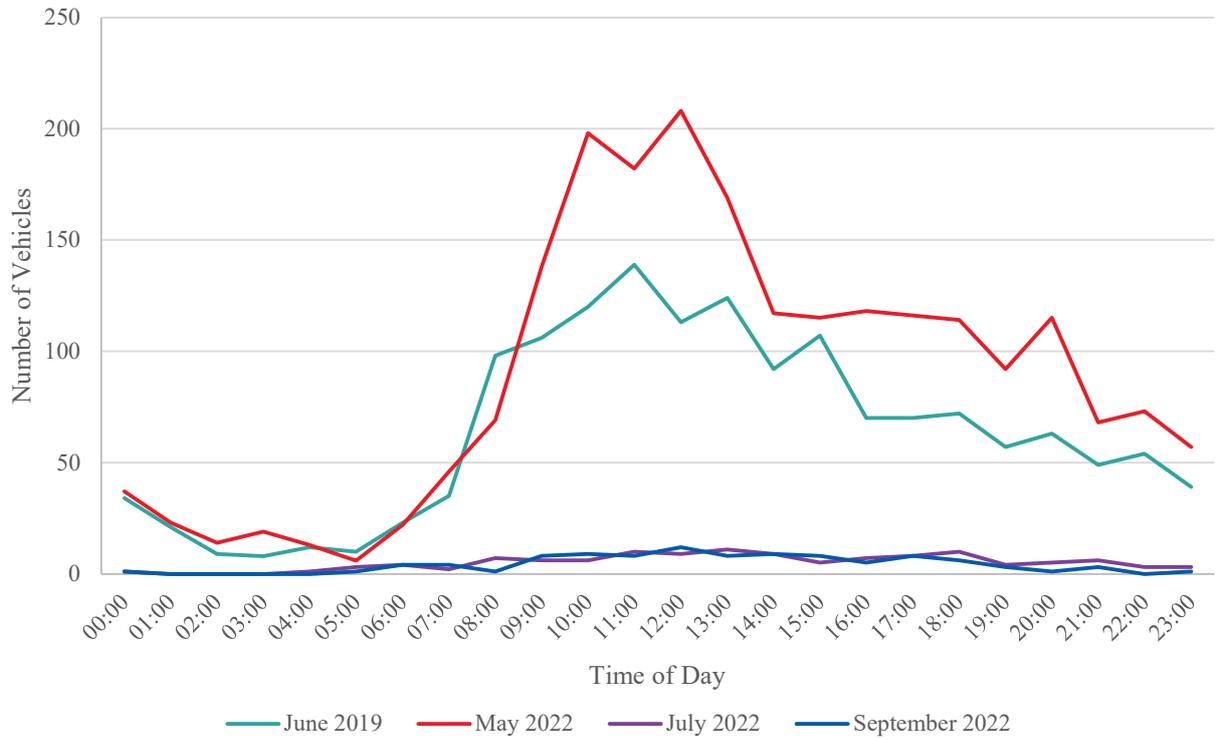


Figure 4.5: 24-Hour Southbound Saturday Vehicle Profile on Walnut Tree Close

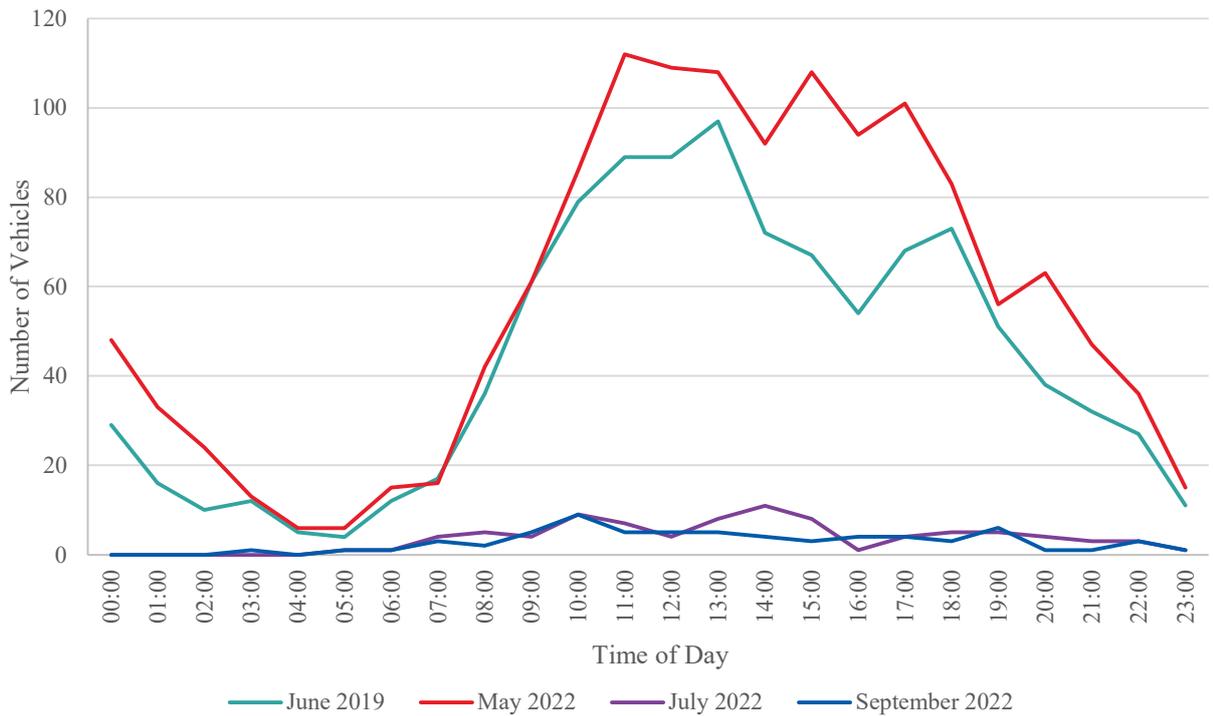


Figure 4.6: 24-Hour Southbound Sunday Vehicle Profile on Walnut Tree Close

The split of traffic on Walnut Tree Close prior to the introduction of the trial is biased northbound rather than southbound. In June 2019, southbound traffic made up 32% of vehicle traffic on Walnut Tree Close, which increased to 42% by May 2022, as shown in Table 4.3. Taking an average southbound split of 37%, approximately 1,700-1,800 vehicles would have travelled south in July and September 2022 respectively, if the one-way restriction had not been in place. This estimate is summarized in Table 4.3 and sections 5 and 6 discuss the redistribution in further detail.

Table 4.3: Estimated 24-Hour Weekday Redistributed Southbound Traffic from Walnut Tree Close

Month	Northbound		Southbound on Walnut Tree Close		Southbound Redistributed	
June 2019	4,592	68%	2,206	32%		
May 2022	3,192	58%	2,353	42%		
Average				37%		
July 2022	2,887	63%			1,728	37%
September 2022	3,030	63%			1,813	37%

5. A322 Woodbridge Road

The trial may have caused an increase in traffic on the A322. However, as identified in Table 2.1, the dataset for the A322 is incomplete, which makes a direct comparison of before and during the trial difficult. Figure 5.1 shows the evolution of traffic on the A322 between May 2018 and September 2022, based on the three count time periods. The covid-19 pandemic caused a significant drop in vehicle volumes in May 2020, but volumes have recovered and stayed consistent with pre-pandemic levels. A small increase in total traffic occurred in September 2022. This was more pronounced on Saturdays and Sundays.

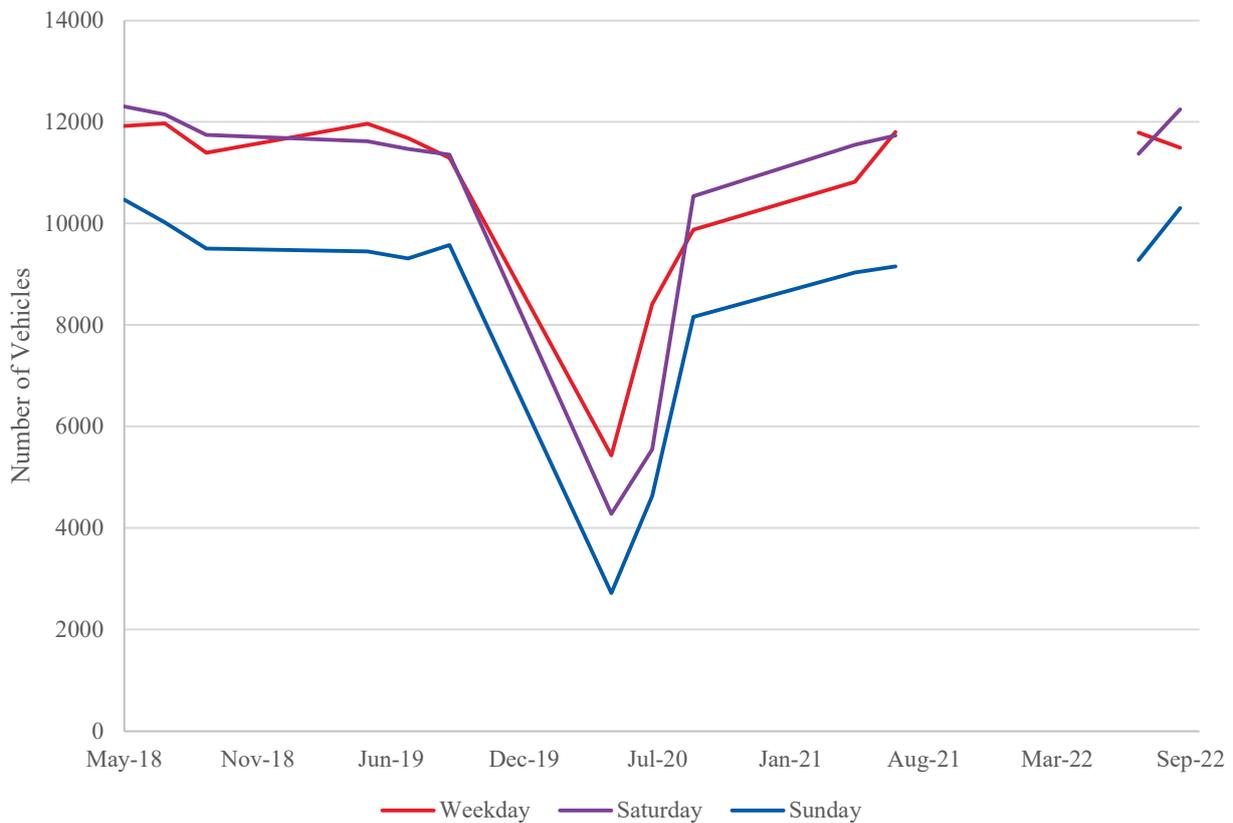


Figure 5.1: Historical 24-Hour Southbound Traffic Volumes on the A322

Note: data missing for a few months in 2021/2022

Table 5.1 details the differences in traffic volumes between 2019 and 2022. Overall, traffic behaviour remained consistent across the different time periods, with the trial period (September 2022) recording 2% more southbound vehicles on an average weekday than September 2019. Due to the lack of data, the July and September data could not be compared to a May 2022, pre-trial baseline.

Weekday flows for the A322 show an 8% increase in traffic in September 2022 compared to the 2019 baseline. Further investigation of the data indicates that the northbound flow increased by 23%, so the 8% increase southbound is an anomaly and not due to redistribution from Walnut Tree Close. Initial thoughts were that car free Sunday on 25 September 2022 may have affected traffic but the data is mid-month and does not include the 25th.

Table 5.1: Evolution of 24-Hour Southbound Traffic between 2019 and 2022 on the A322

Weekday	May	July	September	May	July	September
2019	11,963	11,683	11,291	100%	100%	100%
2022	N/A	11,788	11,491	N/A	1%	+2%
Saturday	May	July	September	May	July	September
2019	11,618	11,469	11,352	100%	100%	100%
2022	N/A	11,372	12,249	N/A	-1%	+8%
Sunday	May	July	September	May	July	September
2019	9,449	9,310	9,573	100%	100%	100%
2022	N/A	9,281	10,301	N/A	0%	+8%

Figure 5.2 shows the average September weekday profile for the southbound lane of the A322 over the past five years. The graph does not include September 2021, due to the gap in data. Overall, traffic behaviour remained consistent across the different time periods, with the trial period (September 2022) recording 2% more southbound vehicles on an average weekday than September 2019. September 2022 exhibits a more significant morning peak between 8-10AM, compared to the previous years. However, it also records lower volumes during the evening peak. A similar higher morning peak also occurs on Saturdays and Sundays as shown in Figure 5.3 to Figure 5.4. Due to the lack of data, the July and September data could not be compared to a March 2022, pre-trial baseline.

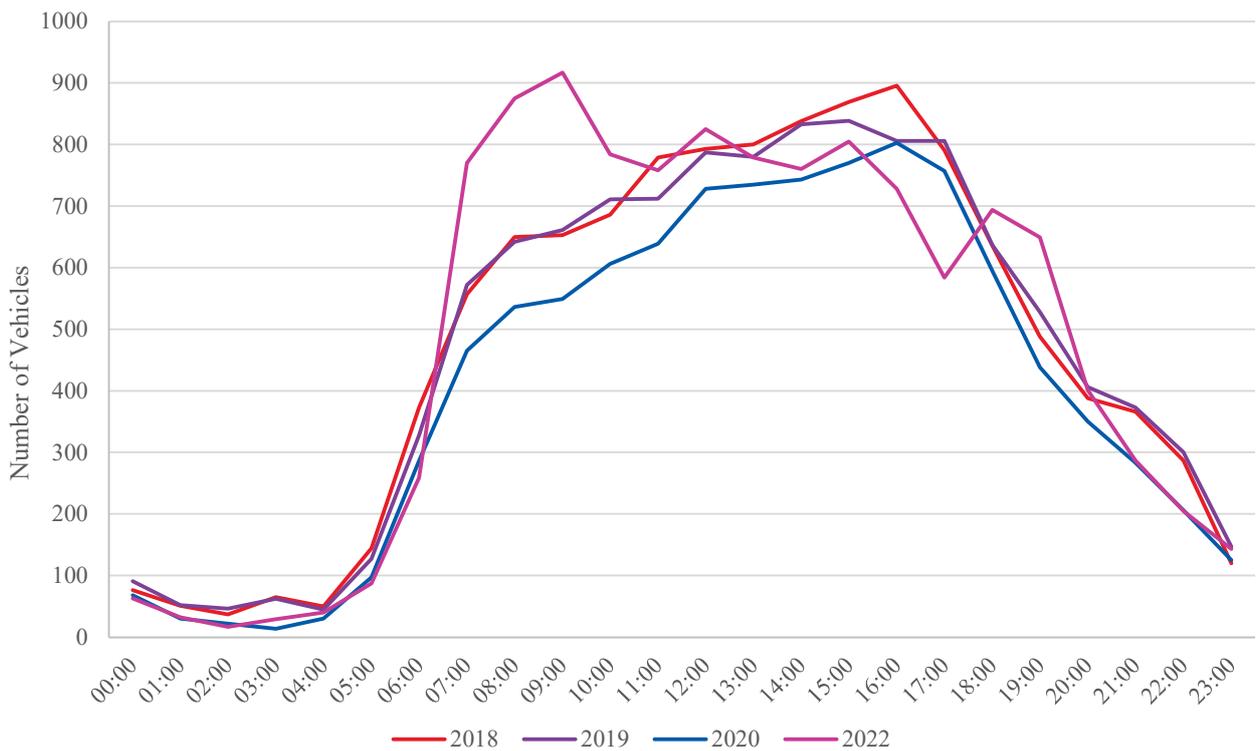


Figure 5.2: Average Southbound 24-Hour Weekday Profile on the A322



Figure 5.3: Average Southbound 24-Hour Saturday Profile on the A322

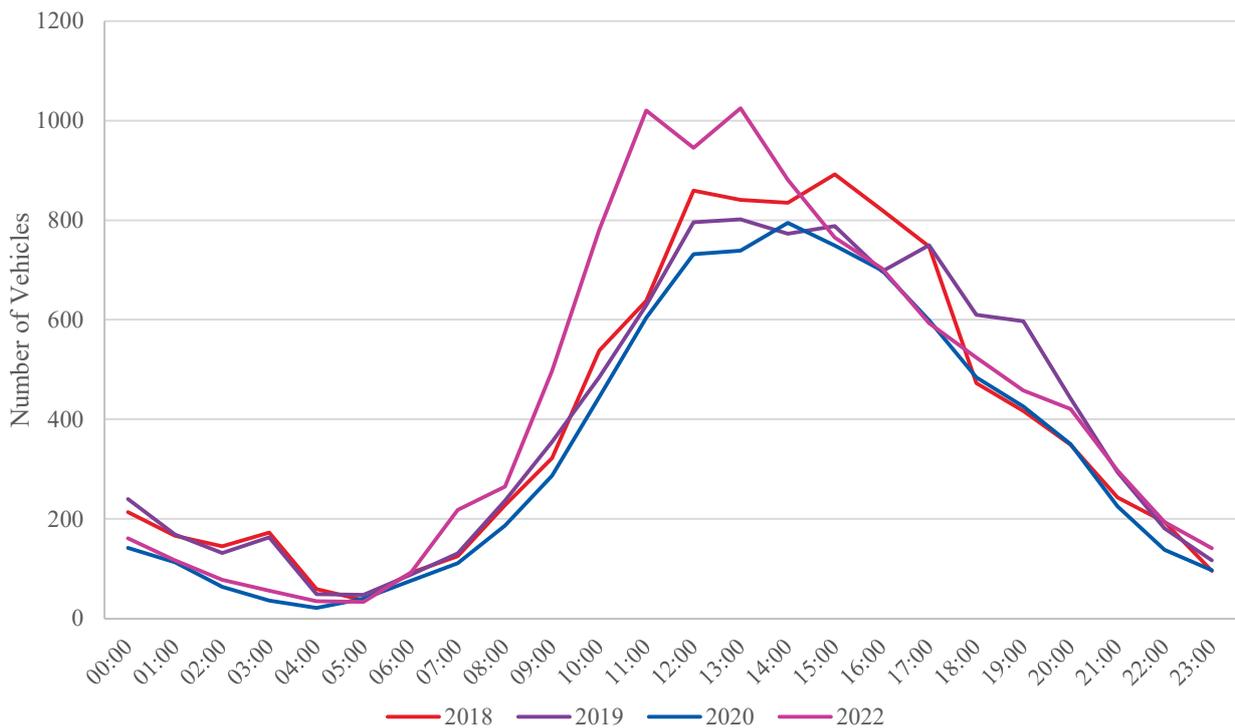


Figure 5.4: Average Southbound 24-Hour Sunday Profile on the A322

On an average weekday, 100-200 more vehicles used the southbound lane of the A320 after the implementation of the trial. This is a small proportion of the estimated 1,700-1,800 redistributed trips from Walnut Tree Close (section 4.1.2 refers).

6. A320 Stoke Road

The trial did not cause an increase in southbound traffic volumes on the A320. Figure 6.1 shows the evolution of traffic on the southbound lane of the A320 between May 2018 and September 2022, based on the three count time periods of May, July and September. As with the A320, the covid-19 pandemic caused a significant drop in vehicle volumes in May 2020, but volumes have recovered and have stayed consistent with pre-pandemic levels. Table 6.1 details the differences in traffic volumes between 2019 and 2022. Southbound weekday traffic volumes decreased by 9% after the introduction of the trial, compared to the 2019 baseline. Saturday volumes decreased by 13-15% and those on Sunday by 26-29%.

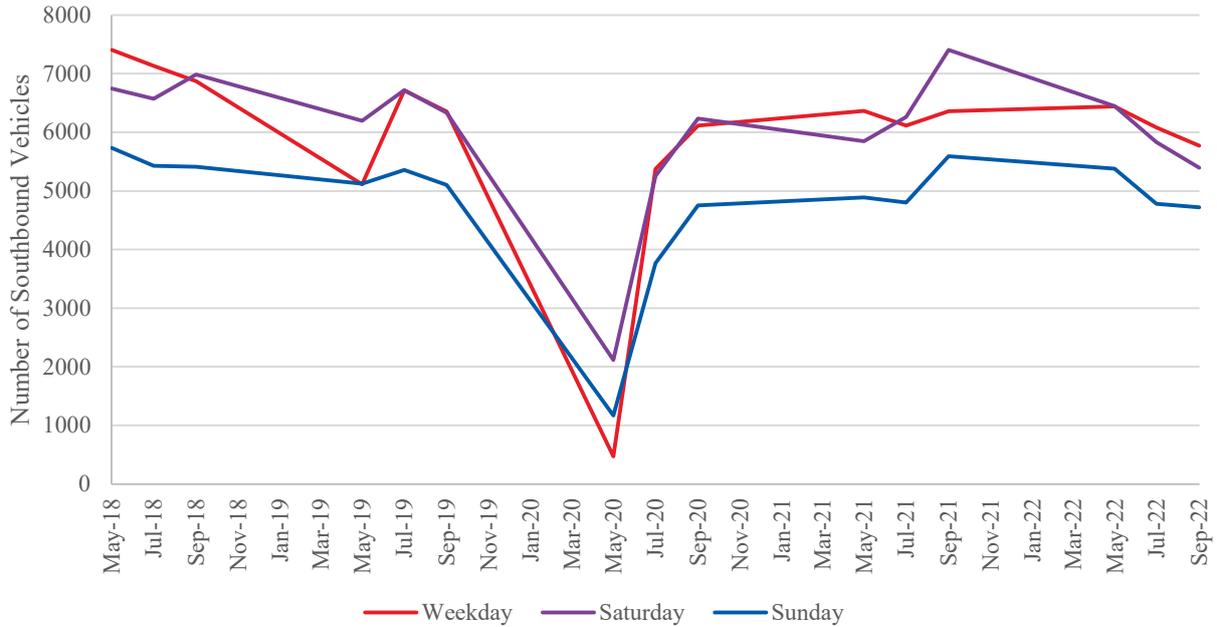


Figure 6.1: Historical 24-Hour Southbound Traffic Volumes on the A320

Table 6.1: Evolution of 24-Hour Southbound Traffic between 2019 and 2022 on the A320

Weekday	May	July	September	May	July	September
2019	5,112	6,712	6,356	100%	100%	100%
2022	6,439	6,083	5,770	+26%	-9%	-9%
Saturday	May	July	September	May	July	September
2019	6,198	6,721	6,334	100%	100%	100%
2022	6,444	5,829	5,394	+26%	-13%	-15%
Sunday	May	July	September	May	July	September
2019	5,125	5,357	5,103	100%	100%	100%
2022	5,376	4,781	4,719	+5%	-29%	-26%

Figure 6.2 shows the average southbound September weekday profile for the A320 over the past five years. September was selected as the comparative month because this experienced the least covid-19 impact in 2020 and because traffic patterns are expected to have settled after the introduction of the trial in 2022. Overall, traffic behaviour remained consistent across the different time periods, with the trial period (September 2022) recording slightly fewer vehicles than the previous years.

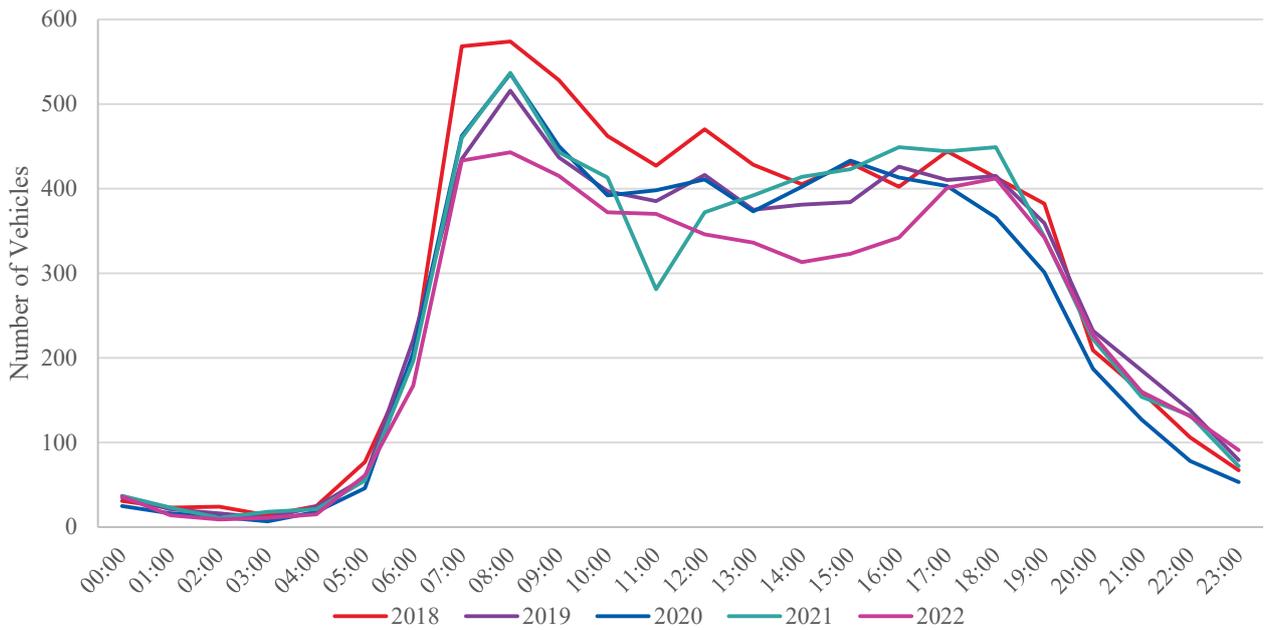


Figure 6.2: Average Historical 24-Hour Southbound Weekday Profile on the A320

Table 6.2 compares the three count periods in May, July and September 2022 and shows that the A320 had slightly lower vehicle counts after the introduction of the trial on Walnut Tree Close. Traffic reduced by up to 10% on weekdays and up to 16% on weekends, compared to May 2022. Figure 6.3 shows the average profile of southbound vehicles across a 24-hour weekday period, which reflects the reduction of overall southbound traffic.

Table 6.2: Evolution of Southbound Traffic Volumes on the A320

Month	Weekday	Saturday	Sunday
May 2022	100%	100%	100%
July 2022	-6%	-10%	-11%
September 2022	-10%	-16%	-12%

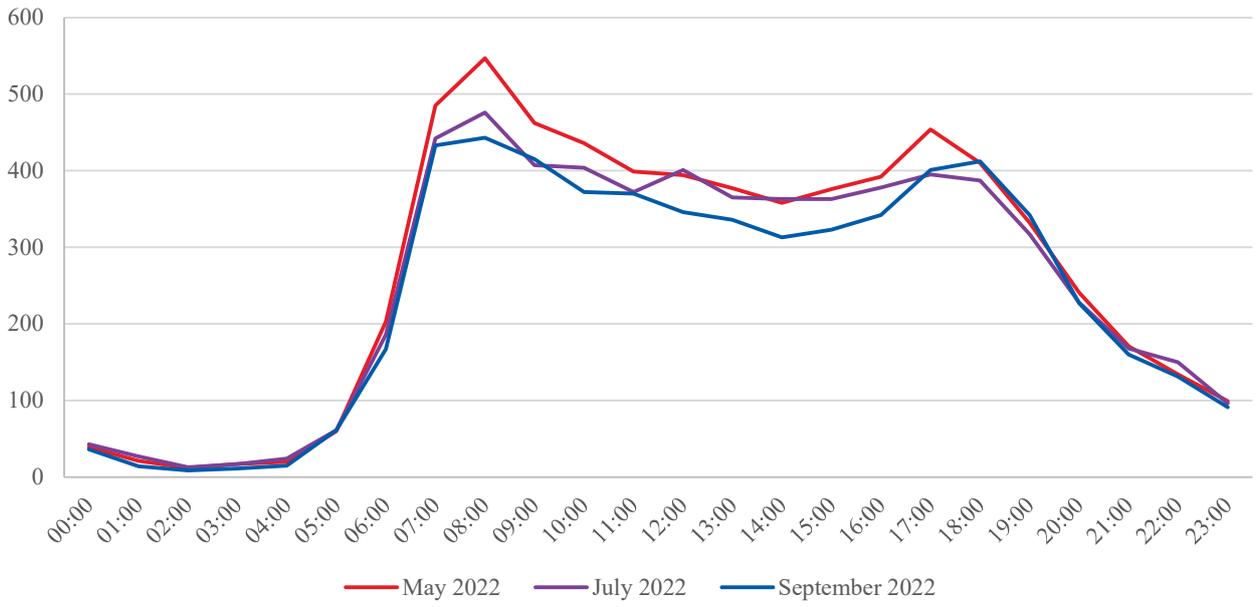


Figure 6.3: Average Southbound 24-Hour Weekday Profiles May-September 2022 on the A320

7. Junctions

7.1 Station View

Overall, movements at the Station View junction with Walnut Tree Close decreased after the introduction of the trial. Figure 7.1 outlines the junction arrangement and the turning movements for the three survey dates.

Southbound movements on Walnut Tree Close (arm A to arm B) decreased during the trial, due to the introduction of the one-way restriction. Movements in the northbound direction (arm B to arm A) were 32% higher in July 2022 and 19% higher in September 2022, both compared to the May 2022 baseline. The increase northbound may be local traffic that ends somewhere off Walnut Tree Close, which has redistributed from a southbound direction to northbound.

Comparing May and July 2022, the reduction in vehicles turning left from Station View (arm C to arm A) matches the increase in vehicles turning right (arm C to arm B). The overall exit volume stayed similar at 1,601 vehicles in May 2022 and 1,643 in July 2022.

Construction on the access to/from the station car park concluded between July and September 2022, which opened up arm D, as shown in Figure 7.2. For comparability, turning movements from arm D are summed to arm C in Figure 7.1, as both arms turn onto Walnut Tree Close. However, the addition of arm D increased traffic turning out onto Walnut Tree Close. Additionally, this also enabled in-turning movements from Walnut Tree Close towards Station View.

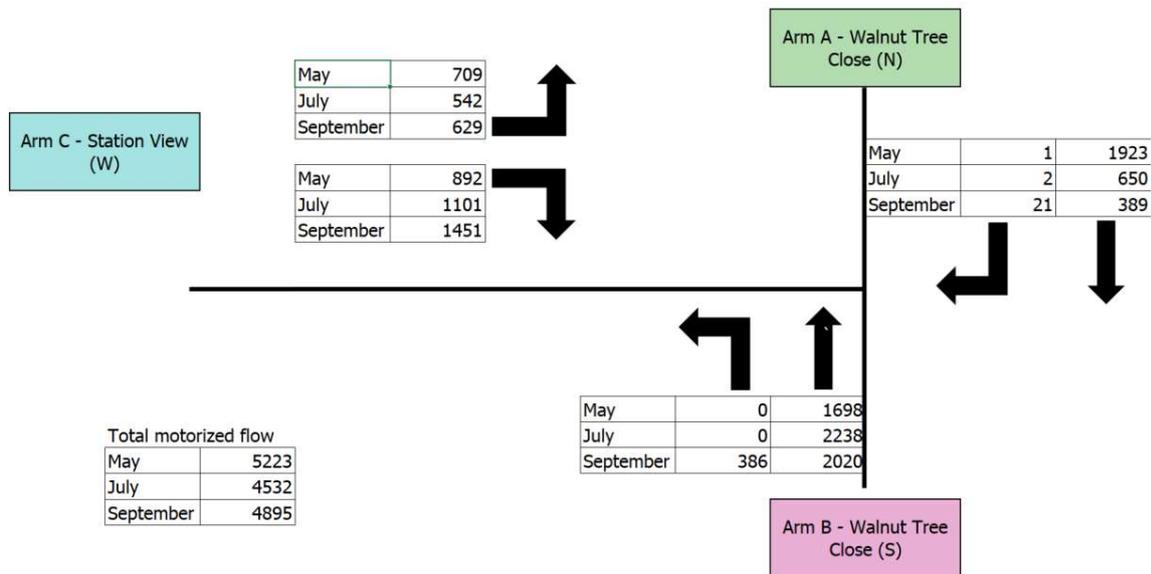


Figure 7.1: Turning Movements at the Station View Junction, May to September 2022

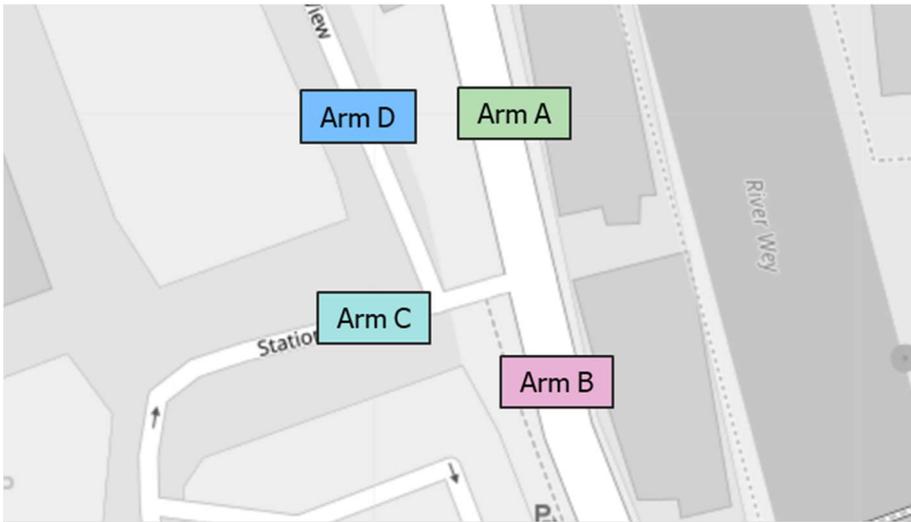


Figure 7.2: Updated Station View Junction Arrangement, September 2022

7.2 A25/Woodbridge Meadows

Data for the A25/Woodbridge Meadows junction is for July and September 2022 only. Hence, it is not possible to compare turning movements to the pre-trial state. Figure 7.3: shows the turning movements which stayed consistent between July and September.

We attempted to use the trial area ATC data as a proxy for the pre-trial in- and out-turns from Woodbridge Meadows. However, the presence of busy industrial units including the Royal Mail Delivery Centre means that the trial area data would not be representative as these units are likely predominantly accessed from the north via the A25. The trial area data would subsequently not capture these trips.

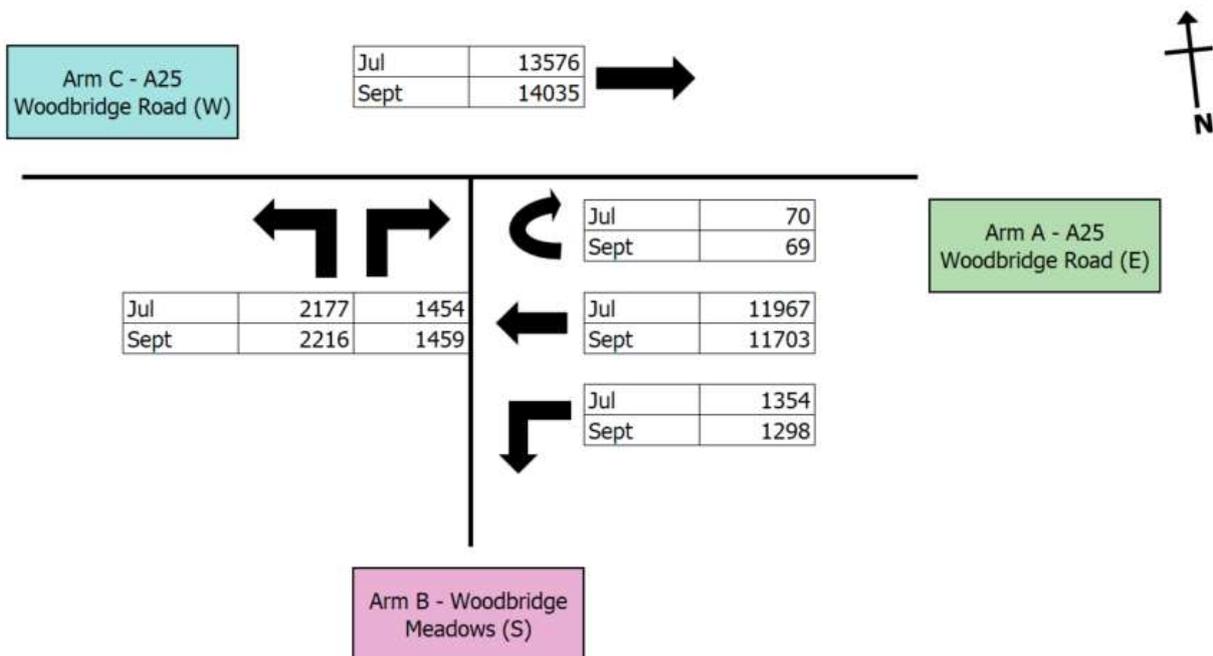


Figure 7.3: Turning Movements at the Woodbridge Meadows Junction, July to September 2022

8. Conclusions

This report assesses the impact of the Walnut Tree Close one-way trial on walking, cycling and vehicle flows. The assessment compares traffic data for four periods: prior to the covid-19 pandemic, year 2022 before the scheme was implemented, two months after implementation and four months after.

On balance, it seems likely that the trial one-way scheme on Walnut Tree Close has led to an increase in walking and cycling activity. This is because the walking and cycling flows generally increase between May and September whereas the numbers of vehicles fall. However, the outcome is inconclusive due to the timing of the surveys, and particularly in the context of university term times, extreme weather and gaps in data.

Peak hour behaviour remained consistent across all months and types of users on Walnut Tree Close. Cyclist peak behaviour showed a strong tidality, with most cyclists travelling south in the mornings and north in the evenings.

Northbound vehicles numbers within the trial area did not change because of the trial. It is estimated that approximately 1,700-1,800 vehicles in a 24-hour period on a typical weekday redistributed from Walnut Tree Close to other roads within the network because of the trial.

In the wider area beyond Walnut Tree Close, southbound traffic on the A322 increased by 100-200 cars between 2019 and 2022 over 24 hours on weekdays. Attributing this solely to the trial is difficult, as 2022 data prior to the trial is not available. The increase in traffic on the A322 only accounts for about 10% of the redistributed Walnut Tree Close traffic. The impact on the A322 is only 2%, which is within the limits of typical daily fluctuation and would not be discernible to other road users.

The data does not show an increase in southbound traffic on the A320 because of the trial. Vehicle volumes during the trial decreased in comparison to the 2019 and May 2022 baselines. The typical weekday flow fell by 586-629 vehicles compared with 2019, and by 356-669 compared to May 2022.

The analysis does not show an increase in traffic on the A322 and A320 because of the one-way trial on Walnut Tree Close. Figure 8.1 summarises the vehicle volumes on all three roads and shows the difference in volumes between the 2019 baseline and July 2022. It is likely that the remaining traffic that can't be accounted for redistributed via The Chase. It may be appropriate to assess traffic flows on The Chase, subject to the availability of historical traffic count data.

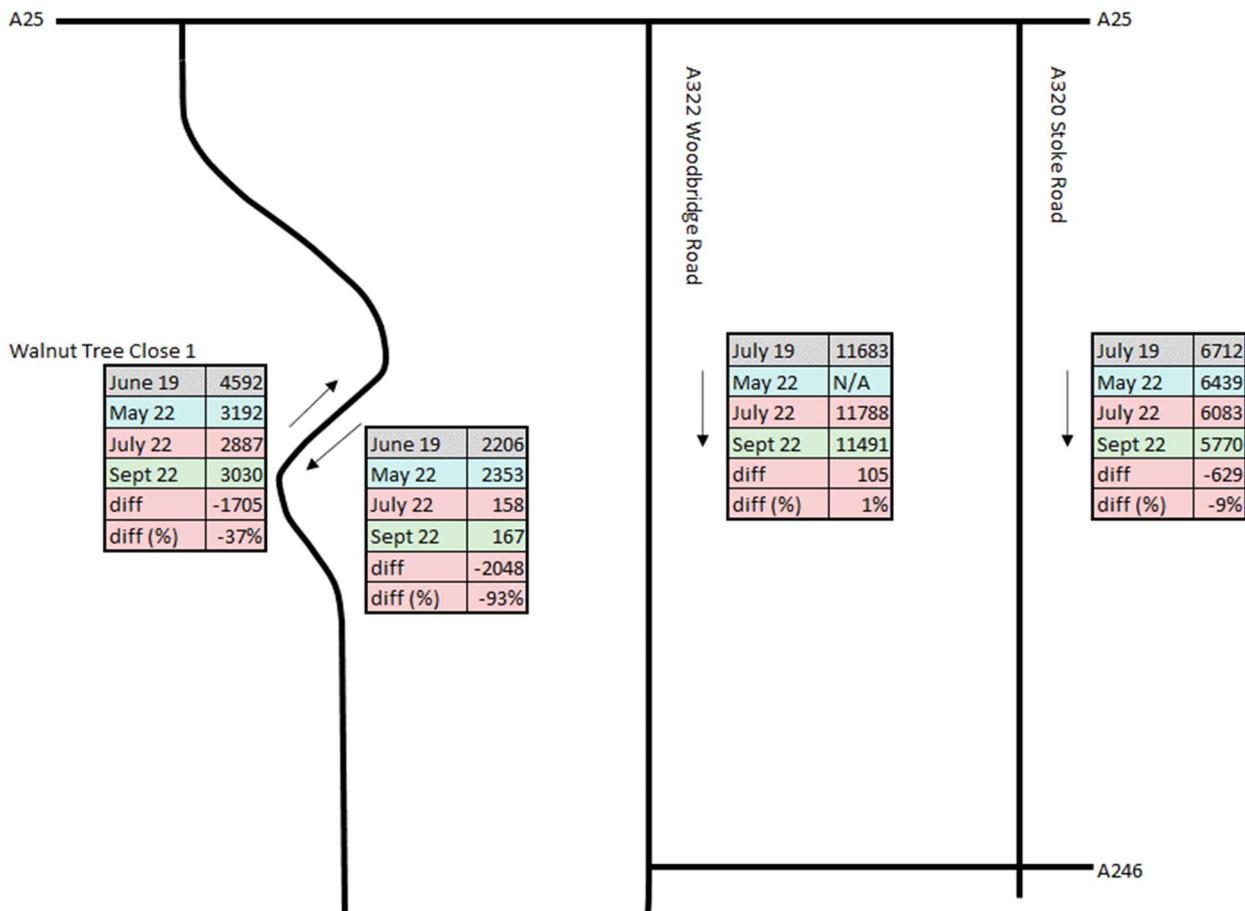


Figure 8.1: Summary of Scheme Impact

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G-BUG: Better Streets for Guildford

Date 14th March 2023

G-BUG

G-BUG is the leading voice for cyclists in Guildford and the surrounding area. We work closely with Guildford Borough Council and Surrey County Council to push for cycling-friendly design whenever roads are up-graded or public spaces are regenerated. As well as campaigning for segregated cycle lanes in the centre of Guildford, G-BUG pushes for longer-distance cycle routes to connect up Guildford to the surrounding towns and villages. We seek common interest with other 'non-motorised users', notably pedestrians and the disabled, encouraging initiatives and infrastructure design which benefit all these groups. For further information see <<https://www.g-bug.org/aboutus/>>

FAO Surrey County Council Policy Team

Dear SCC

On behalf of G-Bug and our 300+ members we write to confirm that with regard to the Walnut Tree Close One-Way Trial we are in total support of the scheme. We feel it has worked well and two-way cycling along Walnut Tree Close is now a much safer experience.

We understand that the scheme is stand-alone at the moment, but we look forward to seeing Walnut Tree Close cycling integrated into the Sustainable Movement Corridors proposed for Guildford.

We trust that Walnut Tree Close will be ratified by Surrey CC as a permanent scheme and look forward to cycling along it for many years to come.

Yours sincerely

G-Bug Committee

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