Jacobs

Project	A582 South Ribble Western Distributor	**Date**	23/02/2024
Project Number	B2327FTK		
Author	Sabin Karimbil	**Reviewer**	Sergey Makov
Subject	Technical Note on Model Benchmarking	**Version**	4

1. Introduction

1.1 Project Overview

Lancashire County Council (LCC) is seeking a funding contribution from the National Roads Fund to enhance economic growth, support housing provision and relieve congestion through the delivery of a significant road improvement scheme on the A582 in South Ribble. Jacobs were commissioned to develop an Outline Business Case (OBC) for the A582 widening scheme and undertake the associated traffic forecasting and economic analysis work.

The Department for Transport (DfT)'s latest guidance on incorporating covid impacts into model forecasts was released in May 2023 and is included in its Transport Analysis Guidance Unit M4. This guidance addresses situations such as A582 OBC project, where projects are at an advanced business case stage and so revising the model to incorporate the impacts of covid becomes impractical within the project's timeline and constraints. The guidance acknowledges this but encourages project teams to provide clear explanations and justifications for the limitations imposed by the advanced business case stage. The key message is that while the ideal approach may not be feasible for projects in advanced stages, it is still crucial to acknowledge the potential impacts of significant changes and strive to account for them as much as possible.

This technical note outlines the methodology and result of the benchmarking exercise to understand the variances between the pre and post covid scenario. Following analysis have been undertaken:

- Analyse the 2019 observed traffic counts (2019 observed ATC and TRIS) by vehicle class in comparison to the 2023 observed counts to assess post-covid traffic growth
- Examine the traffic growth from 2019 to 2023 for NTEM CAS Core, Behavioural, and observed car traffic counts to evaluate how the CAS underestimates the impact of covid
- Examine the traffic growth from 2019 to 2023 for NRTP22, and observed GV traffic counts to evaluate how the impact of covid
- Compare the 2019 traffic model flows with the updated model network, which includes network changes in the scheme study area, against the 2023 traffic counts to comprehend the impact of recent network updates on traffic flow changes
- Review the DfT's published annual road traffic statistics for the North-west region and Lancashire to gain insights into traffic growth during the covid period.

2. Benchmarking Analysis

2.1 Comparison of observed counts between 2019 and 2023

Methodology

Traffic counts sites which had observed data for both 2019 and 2023 were used for this analysis. In addition to the data collected during 2019 and 2023, traffic data from the National Highways TRIS database of long-term traffic counts was also extracted for the motorway sections within the study area. Comparison analysis is shown with and without the TRIS data to understand the impact in the scheme area and motorway in the study area.

The sites for which data was analysed are shown in Figure 2-1.

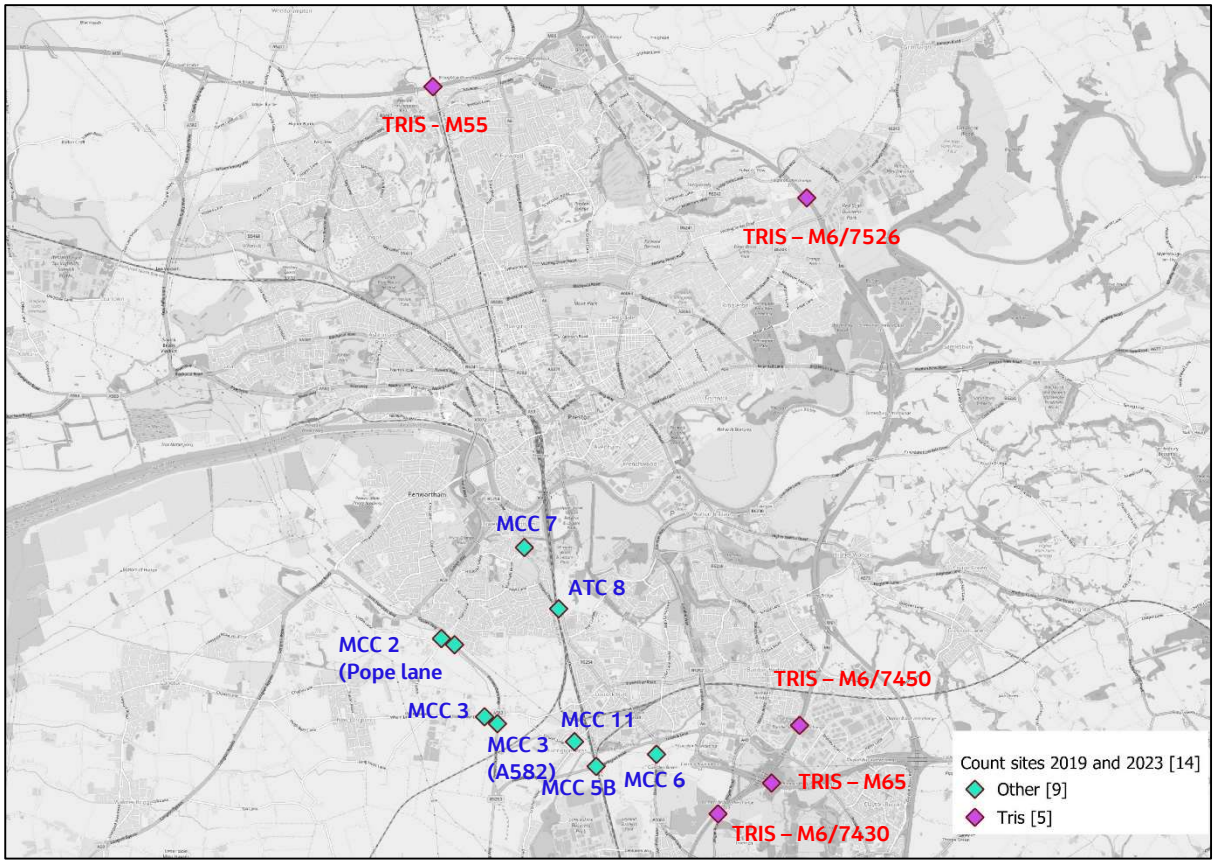


Figure 2-1 Traffic count sites used

Traffic data was extracted for these sites during the AM peak hour (0800-0900), IP (average of 1000-1600) and PM peak hour (1700-1800). The data was extracted for 2019 and 2023, to help identify significant changes that have occurred in traffic volume due to any change in travel patterns following the pandemic.

Information on the 24-hour profile of traffic was also extracted for TRIS sites. This provides a more comprehensive assessment of traffic variations throughout the entire day. This analysis helps to identify if there are consistent changes in traffic flow throughout the day, or if there have been any shifts or flattening in the traditional peak travel times.

Jacobs

Analysis

A comparison of total vehicles for the selected sites was conducted to assess the changes in traffic volume before and after the covid pandemic. The changes for peak hours is shown in Table 2.1 with the changes in total 24hr traffic shown in Table 2.2. Traffic comparison with and without the study area counts have been provided separately to isolate the impact of network changes in the study area.

Below is the summary of key observations:

- Across all sites, the total daily traffic reduced between 2019 and 2023 by 3.9%. There were overall reductions in the AM peak (6.5%), PM peak (6.1%) and slight increase in IP (0.4%).

- For study area sites, the overall reductions in the AM peak is 3.8%, 5.2% in the IP and 3.1% in PM peak. The total daily traffic increased between 2019 and 2023 by 27.2%. *It should be noted that there is only one ATC site in the study area, therefore the 24-hr increase in this scenario is solely because of the traffic increases at this site. This site is located along the B5254, where the traffic model with 2023 network predicts an increase in traffic due to the completion of Cawsey road.*

- For TRIS sites, the overall reductions in the AM peak (7.3%), slight increase in IP (2.2%) and reductions in the PM peak (7.0%). The total daily traffic decreased between 2019 and 2023 by 5.3%.

The traffic changes observed at the TRIS sites exhibit a similar pattern, suggesting some consistency in trends. However, it is worth noting that the traffic in the corridor area varies at each specific site. This variation indicates the impact of network changes between the years 2019 and 2023 and is further discussed in the subsequent sections.

`	Direction	AM			IP			PM		
		Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)
TRIS M6/7430	NB	4,306	4,147	-3.7%	3,146	3,181	1.1%	3,901	3,781	-3.1%
	SB	3,603	3,330	-7.6%	3,392	3,473	2.4%	4,650	4,172	-10.3%
TRIS M65-4014	NB	1,070	1,058	-1.1%	838	864	3.0%	1,322	1,232	-6.8%
	SB	1,558	1,447	-7.2%	871	954	9.6%	1,318	1,353	2.6%
TRIS M6-7450	NB	3,568	3,284	-8.0%	2,608	2,653	1.7%	3,228	3,002	-7.0%
	SB	2,862	2,607	-8.9%	2,733	2,829	3.5%	3,695	3,388	-8.3%
TRIS M6-7526	NB	6,518	5,985	-8.2%	4,676	4,735	1.3%	6,208	5,736	-7.6%
	SB	5,361	4,884	-8.9%	4,893	5,028	2.8%	6,404	5,955	-7.0%
TRIS M55-525	NB	2,017	1,741	-13.7%	1,537	1,538	0.1%	1,997	1,842	-7.8%
	SB	2,813	2,734	-2.8%	1,968	1,991	1.2%	3,245	3,001	-7.5%
ATC 8 Leyland Road	Southbound	511	821	60.7%	533	684	28.4%	685	921	34.5%
	Northbound	934	1,022	9.4%	595	704	18.3%	801	1,065	33.0%
MCC 2 Pope Lane (W)	From	746	440	-41.1%	290	209	-28.0%	387	332	-14.2%
	To	379	279	-26.5%	355	183	-48.5%	597	301	-49.6%
MCC 3 A582 (S)	From	1,182	1,037	-12.3%	834	759	-9.0%	1,197	1,082	-9.6%
	To	980	958	-2.2%	839	770	-8.2%	1,092	977	-10.6%
MCC 3 Chain House Lane (W)	From	441	371	-16.0%	338	309	-8.6%	389	372	-4.5%
	To	472	480	1.6%	385	340	-11.7%	518	485	-6.5%
MCC 5B A582 (E)	From	1,137	973	-14.5%	883	791	-10.4%	1,263	1,051	-16.8%
	To	916	791	-13.6%	852	782	-8.2%	944	792	-16.1%
MCC 6 Stanifield Lane	From	484	495	2.2%	501	439	-12.3%	520	479	-8.0%
	To	617	594	-3.8%	486	470	-3.3%	527	627	18.9%
MCC 7 Leyland Road (N)	From	407	589	44.7%	538	551	2.3%	779	812	4.2%
	To	981	873	-11.1%	512	537	4.9%	579	640	10.4%
MCC 11 Croston Road (N)	From	241	246	1.9%	139	137	-1.3%	192	204	6.3%
	To	279	341	22.0%	181	165	-8.8%	334	336	0.4%
Overall	**All Sites**	**44,384**	**41,520**	**-6.5%**	**34,923**	**35,077**	**0.4%**	**46,772**	**43,934**	**-6.1%**
	Study Area sites	**10,707**	**10,305**	**-3.8%**	**8,261**	**7,831**	**-5.2%**	**10,804**	**10,472**	**-3.1%**
	TRIS sites	**33,677**	**31,215**	**-7.3%**	**26,662**	**27,246**	**2.2%**	**35,968**	**33,462**	**-7.0%**

Table 2.1: - Peak Hour Observed Traffic Growth Percentage (2019 to 2023) – Total Vehicles

Count Location	Direction	24 Hour (Total Vehicle)			
		Observed traffic 2019	2019 traffic uplifted to 2023 using NTEM8 Core	Observed traffic 2023	Observed traffic growth (%)
TRIS M6/7430	NB	54,198	55,637	51,171	-5.6%
	SB	54,647	56,098	51,064	-6.6%
TRIS M65-4014	NB	14,397	14,779	13,917	-3.3%
	SB	15,878	16,300	15,955	0.5%
TRIS M6-7450	NB	44,596	45,780	41,992	-5.8%
	SB	43,159	44,305	41,148	-4.7%
TRIS M6-7526	NB	78,951	81,047	74,941	-5.1%
	SB	77,630	79,691	74,167	-4.5%
TRIS M55-525	NB	25,255	25,925	23,060	-8.7%
	SB	34,286	35,196	32,323	-5.7%
ATC 8 Leyland Road	Southbound	10,067	10,335	12,152	20.7%
	Northbound	8,561	8,788	11,544	34.8%
Overall	**All Sites**	**461,626**	**473,882**	**443,436**	**-3.9%**
	Study Area sites	**18,629**	**19,123**	**23,697**	**27.2%**
	TRIS sites	**442,998**	**454,759**	**419,739**	**-5.3%**

Table 2.2: - Daily Observed Traffic Growth Percentage (2019 to 2023) – Total Vehicles

Similar analysis was undertaken for car and GV's and is included in Appendix B. Table 2.3 summarises observed traffic growth by vehicle class. Considering all sites, the data illustrates traffic volumes for car traffic has decreased from 2019 to 2023 by 6.9%. LGV traffic shows an increase in traffic by 9.1% and HGV's traffic shows an increase in traffic by 2.5%.

Vehicle Category	Count Sites	AM	IP	PM	24-hr
Total Vehicles	**All Sites**	**-6.5%**	**0.4%**	**-6.1%**	**-3.9%**
	Study Area sites	-3.8%	-5.2%	-3.1%	27.2%
	TRIS sites	-7.3%	2.2%	-7.0%	-5.3%
Car	**All Sites**	**-11.5%**	**-3.8%**	**-8.0%**	**-6.9%**
	Study Area sites	-8.1%	-9.7%	-4.4%	40.8%
	TRIS sites	-12.7%	-1.8%	-9.2%	-9.2%
LGV	**All Sites**	**9.5%**	**8.8%**	**4.0%**	**9.1%**
	Study Area sites	-2.4%	-11.7%	-7.0%	-38.6%
	TRIS sites	14.0%	18.0%	7.9%	11.4%
HGV	**All Sites**	**15.5%**	**17.7%**	**7.9%**	**2.5%**
	Study Area sites	230.6%	184.9%	215.4%	-94.8%
	TRIS sites	7.4%	9.6%	1.9%	3.4%

Table 2.3: - Observed Traffic Growth Percentage (2019 to 2023) by Vehicle Class

The daily traffic profiles broadly show similar patterns, and an example for one site is shown in Figure 2-2. Based on the daily profile graphs, the changes in daily traffic patterns are not particularly significant. This suggests that although the overall demand has slightly decreased, the traffic patterns still broadly align with the pre-covid conditions.

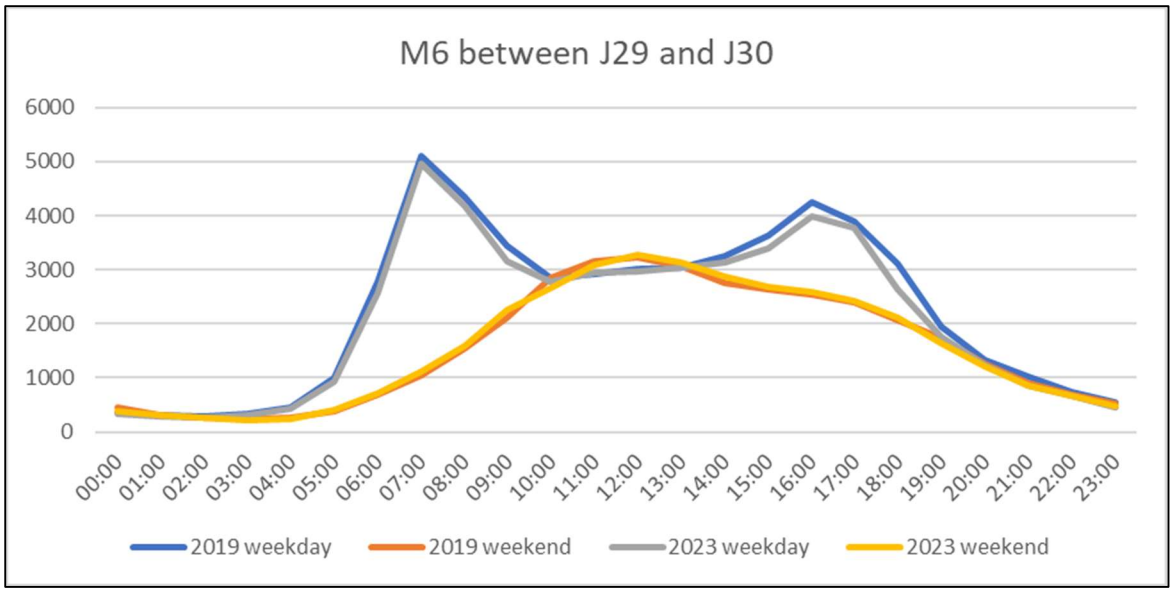


Figure 2-2 Daily total traffic comparison between 2019 and 2023 – M6 (between J29 and J30)

2.2 Car traffic growth comparison observed and NTEM CAS

Methodology

Based on DfT's feedback, an additional assessment has been undertaken to compare the growth between 2019 and 2023 from the NTEM Core and Behavioural Change scenario. The NTEM Core scenario does not explicitly account for the impact of covid and is the traffic growth assumptions used within the A582 traffic core scenario model. The NTEM Behavioural

Change scenario considers the short-term effects of the covid pandemic between 2019 and 2022.

The purpose of this assessment is to determine the extent to which the NTEM Core scenario underestimates the impact of covid and to ascertain whether the NTEM Behavioural Change scenario, which considers the short-term effects of covid, aligns with the actual observed traffic counts in 2023.

Growth factors for the period 2019 to 2023 have been extracted from DfT's NTEM 8.0 core and behavioural scenario dataset for three model time periods and for an average day. This is compared to the observed car traffic growth between 2019 and 2023.

Analysis

The growth factor between 2019 and 2023 from TEMPro 8.0 at the study area level was extracted for the three model time periods and for an average day. This shows a total predicted growth from 2019 to 2023 of just under 3% in each time period for the core scenario. And traffic is expected to decline by 4% in each time period in the behavioural scenario.

Table 2.4 summarizes car traffic growth comparison as per NTEM core and behavioural scenario to the observed growth.

This implies that, across all time period and at a 24-hr level the NTEM overestimates the traffic for both core and behavioural scenario.

Time Period	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	NTEM Core Growth (%)	NTEM Behavioural Growth (%)
AM	34,998	30,978	-11.5%	2.8%	-4.0%
IP	26,248	25,248	-3.8%	2.8%	-4.0%
PM	40,055	36,840	-8.0%	2.8%	-4.0%
24-Hr	349,314	325,245	-6.9%	2.8%	-4.0%

Table 2.4: Observed car traffic growth and NTEM8 predicted traffic growth

2.3 GV traffic growth comparison observed and NRTP22

A similar analysis was undertaken for the GV using NRTP22 growth predictions. It should be noted that NRTP22 only provides an overall growth, and therefore only 24 hr comparison has been undertaken. The comparison shows that the observed growth is slightly above the NRTP 22 predicted growth for both LGV and HGV.

Vehicle Class	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	NRTP 22 predicted Growth (%)
LGV	46,577	50,803	9.1%	8.8%
HGV	65,735	67,387	2.5%	1.9%

Table 2.5: Difference between observed GV traffic growth and NRTP22 predicted traffic growth

2.4 2019 traffic model flows (with the updated model network) comparison with the 2023 traffic counts

Methodology

Traffic data was collected for the study area in 2023, encompassing major roads and junctions. The 2019 Base year SATURN model underwent updates to incorporate road improvements implemented from 2019 to 2023 (highlighted in red in Figure 2-3). However, the base demand was intentionally left unchanged to assess the impact of covid. Subsequently, the traffic counts from 2023 were compared with the corresponding base year model traffic flows. A comprehensive analysis was conducted to identify and comprehend the disparities, aiming to gain insights into the effects of covid on travel demand and network performance.

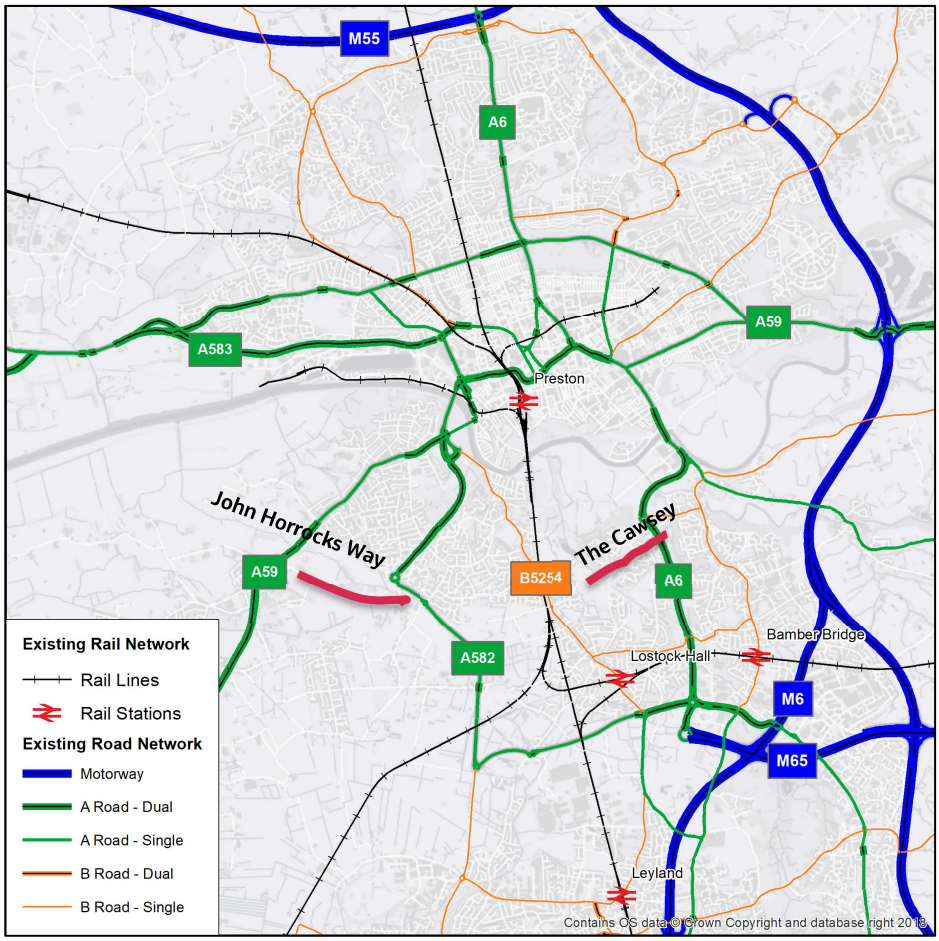


Figure 2-3 Road network in the scheme area

2023 Traffic Surveys

A total of 11 link-based traffic counts and fully classified turning counts (TMC) at 13 junctions were collected across the scheme area. All ATCs captured 1-week of continuous data during the neutral period over a continuous 24-hour period. TMCs were undertaken over 2 weekdays

over the same period as ATCs between the hours of 07.00 and 19.00 continuously. TMC data were recorded using high-definition cameras mounted on street furniture and the cameras checked regularly throughout the survey period. The locations of counts used for the benchmarking exercise is shown in Figure 2-4.

Figure 2-4 Traffic Count Location

Analysis: 2019 updated model comparison with 2023 observed flows

The performance of the model in terms of comparisons with count data is measured in two ways. The first of these is the GEH statistic, as defined below:

$$GEH = \sqrt{\frac{(M-O)^2}{(M+O)/2}}$$

Where: M is the modelled flow on a link, and O is the observed.

The second is made by reference to the following table, extracted from TAG Unit M 3-1:

Table 2.6: Link Flow Validation Criterion

Size of observed flow	Criteria for valid modelled flow
< 700 vehicles/hour	Modelled flow within 100 vehicles/hour of observed flow
700-2,700 vehicles/hour	Modelled flow within 15% of observed flow
> 2,700 vehicles/hour	Modelled flow within 400 vehicles/hour of observed

TAG advises that in ordinary circumstances the practitioner should aim to reach a state where 85% of modelled links have a GEH of less than 5 or satisfy the criterion in link flow.

The comparison of modelled flows against these counts is summarised in Table 2.7. Links meeting either TAG Criteria or GEH individual flows GEH<5 is considered as a pass.

AM	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion
Total Count	85	51	1	116	116	116
Counts Passing	45	29	0	74	75	80
Percentage Pass	53%	57%	0%	64%	65%	69%

IP	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion
Total Count	106	31	0	116	116	116
Counts Passing	79	26	0	105	106	111
Percentage Pass	75%	84%	-	91%	91%	96%

PM	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion
Total Count	75	62	0	116	116	116
Counts Passing	46	54	0	100	81	103
Percentage Pass	61%	87%	-	86%	70%	89%

Table 2.7: - Comparison Summary – Total Vehicles

The comparison shows that the model achieve the TAG criteria of 85% links passing in IP and PM peak and the values fall below the TAG criteria for AM peak.

Figures showing GEH and percentage difference is shown in Appendix C and a full breakdown of comparison at the individual link level is included in Appendix D.

The notable variations in traffic flow are observed primarily along the A582 section between John Horrocks Way and Chain House Lane, as well as on Liverpool Road to the north of John

Horrocks Way. This suggests that the dissimilarities in traffic volume cannot be solely attributed to the effects of covid but rather to the recent introduction of a new bypass – John Horrocks Way.

Overall, the traffic counts in 2023 are lower compared to the modelled traffic flows in 2019. These have been quantified in the previous section. However, since these changes are specific to certain locations, it cannot be inferred as a direct consequence of covid. It is important to recognize that while there have been some overall impacts within the scheme area due to covid, isolating the exact effects is challenging due to the concurrent network improvements in the scheme corridor.

Table 2.8 provides a comparison of observed and modelled traffic flows across all count sites. The comparison indicates that, generally, the model predicts higher flows for cars and LGV across all time periods except for the PM peak. In contrast, the model predicts lower flows for HGV compared to the observed data.

Time Period	Car		%	LGV		%	HGV		%
	Obs	Model	Difference	Obs	Model	Difference	Obs	Model	Difference
AM	79,205	81,413	2.8%	13,316	15,202	14.2%	7,919	4,496	-43.2%
IP	58,837	60,588	3.0%	11,332	13,132	15.9%	8,171	4,456	-45.5%
PM	89,469	88,166	-1.5%	10,044	11,224	11.7%	4,249	2,654	-37.5%

Table 2.8: - Modelled vs Observed flow comparison

Traffic changes due to recent road network completions

As mentioned in the previous section, 2019 base model network was updated to account the network changes from 2019 to 2023. A comparison between the model with and without network changes was undertaken to assess which roads were mainly impacted. Traffic flow differences between the two models for AM, IP and PM peak is shown in Figure 2-5 through Figure 2-7. Green bars represent increases in traffic in the model scenario with network updates while blue bars represent decreases. Following key observations can be made:

- There is a reduction in traffic flow along Liverpool Road between John Horrocks Way and Penwortham Triangle. (ATC6)
- There is an increase in traffic flow accessing Preston City Centre via John Horrocks Way and A582. (MCC 1 A59)
- A reduction in traffic flow along Lindle Lane, which runs parallel to John Horrocks Way, was observed.
- Following the opening of Cawsey, traffic increases along B5254 north of Cawsey road is observed (ATC5/ ATC8/MCC9) and traffic reductions along B5254 south of Cawsey road is observed(MCC6). Increases along A6 SB direction is also observed. (ATC 7)
- Slight traffic reductions is seen along A582 between Tank roundabout and A6 junction. (MCC 4)

- No other significant re-routing or traffic changes were noted in the wider network.

Model comparison with observed 2023 counts shows that the predicted impacts align with the observed traffic patterns and are within the reasonable limits as recommended by TAG. Table 2.9 presents a summary of the comparison for various sites within the corridor. Detailed summary of these counts is provided in Appendix D.

AM	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion
Total Count	7	15	-	22	22	22
Counts Passing	5	11	-	16	21	21
Percentage Pass	71%	73%	-	73%	95%	95%

IP	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion
Total Count	13	9	-	22	22	22
Counts Passing	7	4	-	11	18	18
Percentage Pass	54%	44%	-	50%	82%	82%

PM	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion
Total Count	6	16	-	22	22	22
Counts Passing	4	14	-	18	19	19
Percentage Pass	67%	88%	-	82%	86%	86%

Table 2.9: - Comparison Summary for Selected Counts – Total Vehicles

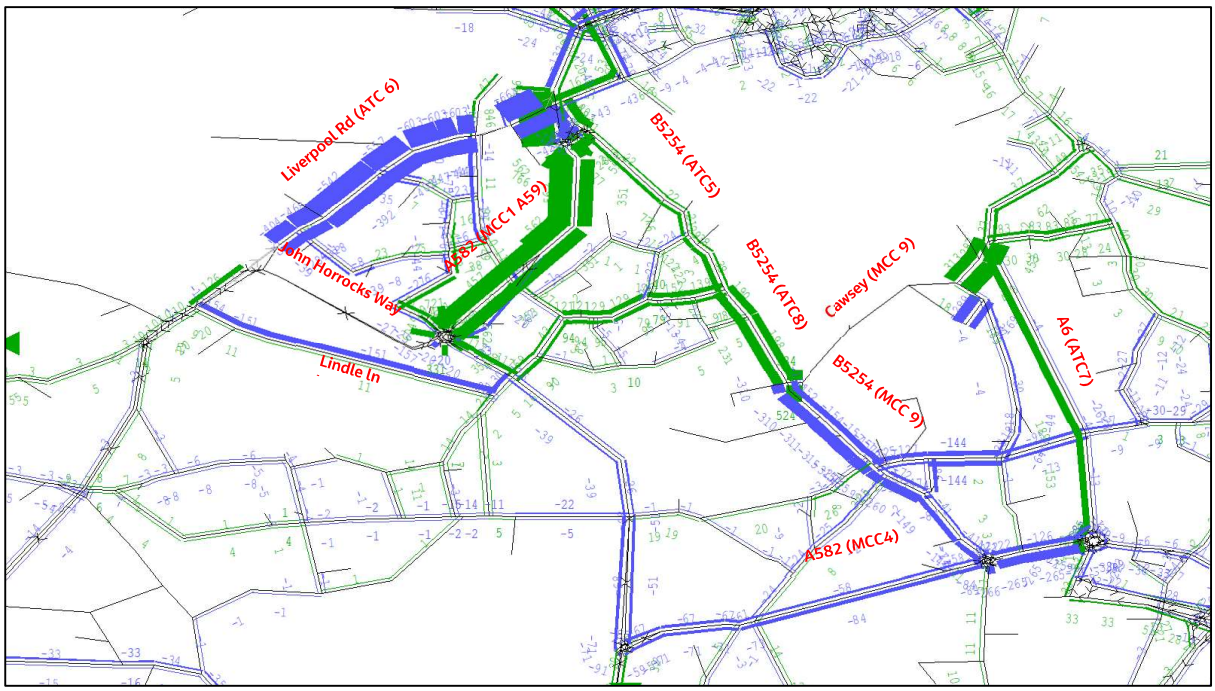
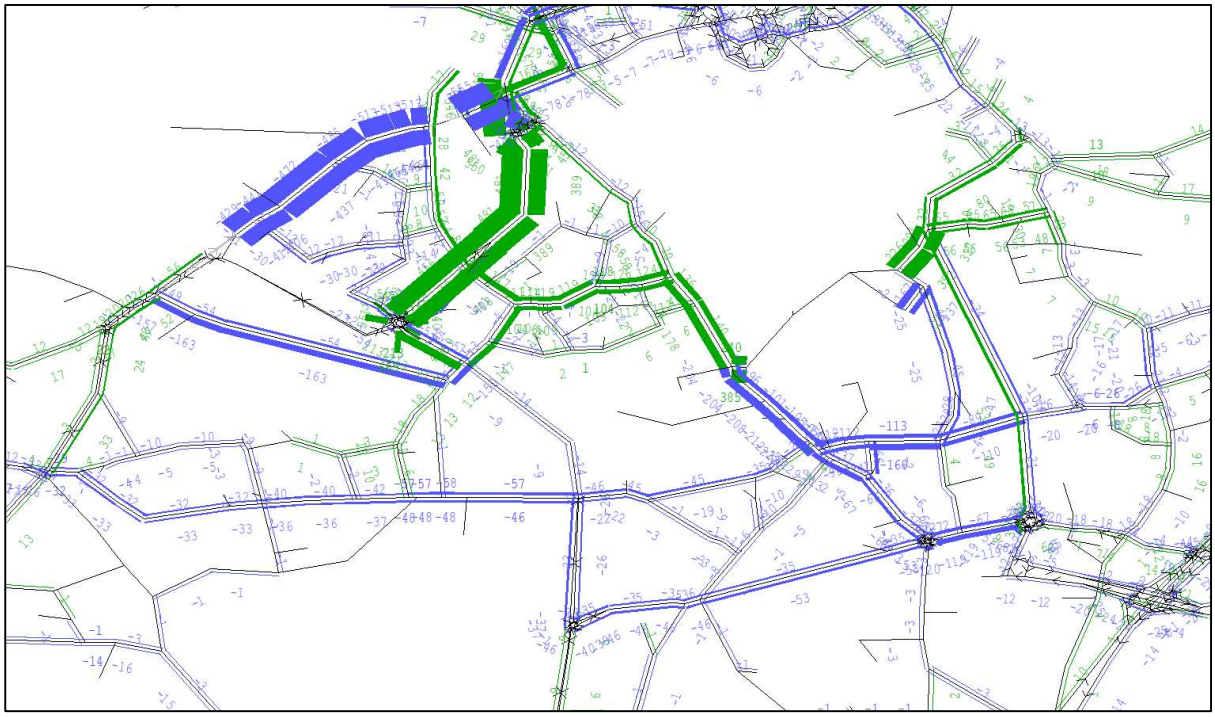


Figure 2-5 Traffic Flow Difference - AM Peak



Jacobs

Figure 2-6 Traffic Flow Difference - IP Peak

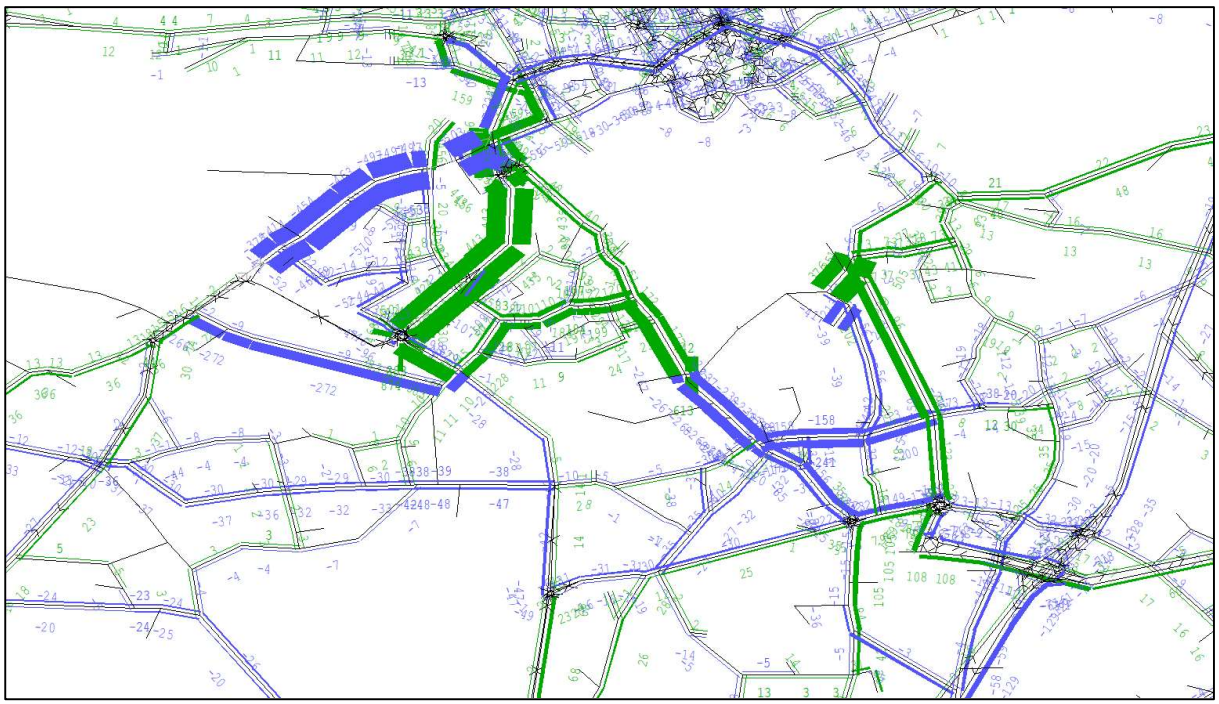
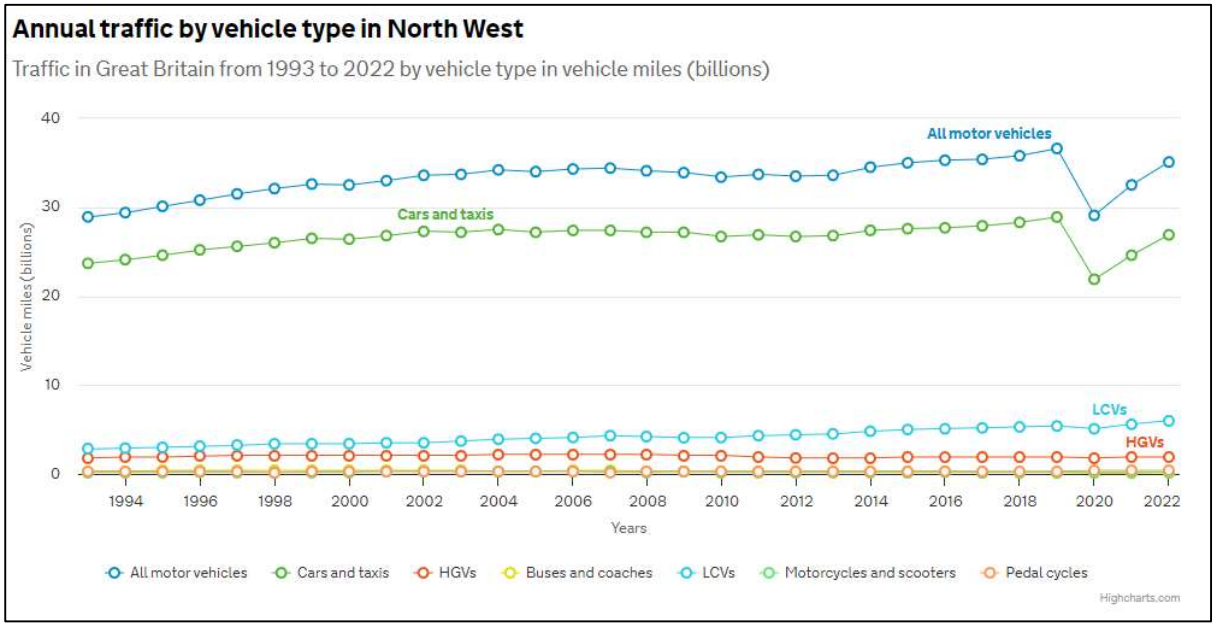


Figure 2-7 Traffic Flow Difference - PM Peak

2.5 Review of DfT's Road Statistics

In order to gain further insights into the covid impacts, we have examined the annual road traffic statistics published by the Department for Transport (DfT) for North-west region. Although historically there has been a consistent year-on-year growth in vehicle miles travelled in Great Britain from 2011 to 2019, it is important to note that the extraordinary circumstances brought about by the coronavirus pandemic can be misleading when considering long-term trends. In 2020, there was a significant decline in traffic levels, followed by a subsequent increase in 2021 compared to the previous year, yet still below the 2011 levels. The overall decrease in traffic levels can be attributed primarily to the decline observed during the estimates of 2020-2021, which aligns with the period of lockdown and restrictions imposed due to the covid pandemic. The subsequent increase in traffic levels after 2021 indicates that the decline was largely confined to the lockdown period and as restrictions eased, traffic began to recover. However, traffic levels still remain lower than pre-pandemic level.



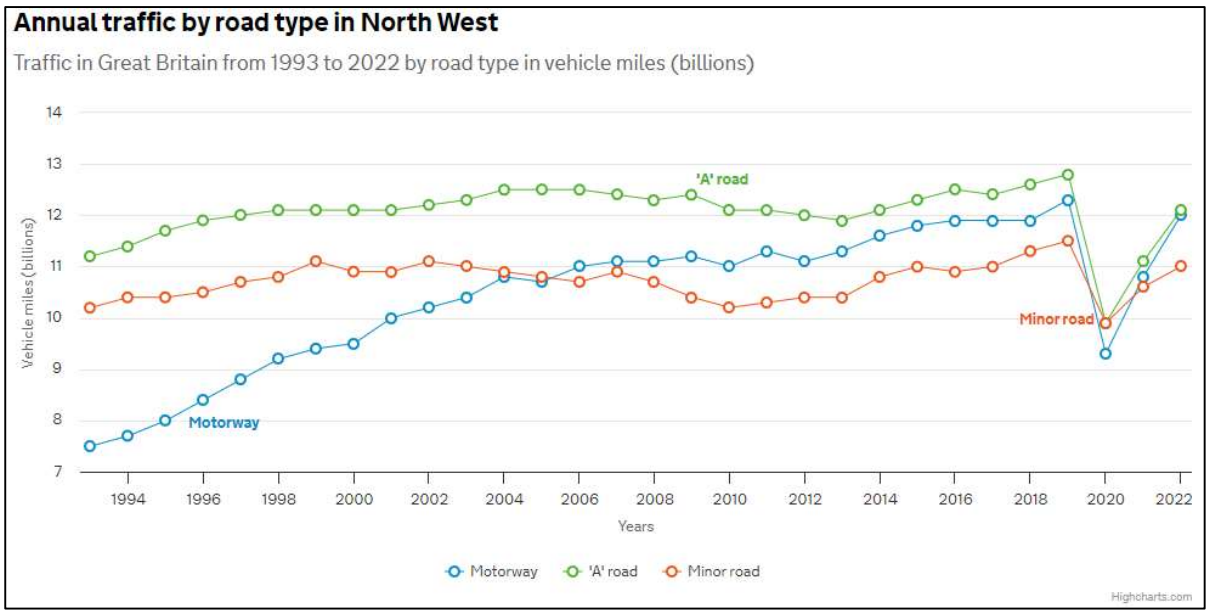
Vehicle class	2019	2022	Percentage Diff (%)
All Motor vehicles	36.6	35.1	-4.1%
Car and Taxis	28.9	26.9	-6.9%
LGV	5.4	6	11.1%
HGV	1.9	1.9	0.0%

Table 2.10: Annual traffic by vehicle type in North West in veh miles (billions)

Table 2.10 provides an overview of traffic growth in the North West region from 2019 to 2022. It indicates a 4.1% reduction in overall traffic and a 6.9% decrease in car traffic following the covid pandemic. Notably, there was an 11.1% increase in LGV traffic, while HGV traffic remained unchanged. This largely aligns with the traffic comparison mentioned in

Section 2.1, which also noted a 3.9% reduction in total traffic, a 6.9% decrease in car traffic, a 6.3% increase in LGV traffic, and 2.5% increase in HGV traffic.

Figure below and Table 2.11 illustrate the traffic growth categorized by road type. The analysis reveals that traffic decreased across all road types during the COVID-19 pandemic, with a subsequent increase in traffic after 2021. The Motorway exhibited the most significant recovery, followed by Minor Roads, while A-roads displayed the lowest level of recovery.



Vehicle class	2019	2022	Percentage Diff (%)
Motorway	12.3	12	-2.4%
A Road	12.8	12.1	-5.5%
Minor Road	11.5	11	-4.3%

Table 2.11: Annual traffic by road type in North West in vehicle miles (billions)

3. Summary

This technical note outlines the methodology and analysis undertaken to ensure compliance with the DfT's requirements for considering transport modelling in the post-covid era. The purpose of this analysis is to assess any significant changes in traffic patterns between the time when the traffic matrix was developed and the present day.

The analysis involved comparing the traffic counts obtained in 2019 and 2023 at specific locations within the study area. Additionally, traffic data from the National Highways TRIS database was utilized for motorway sections within the study area to gain a comprehensive understanding of traffic variations.

Traffic flow scenarios were examined for peak-hour traffic counts and total 24-hour traffic volumes. The comparison was conducted with and without the TRIS data to isolate the impact of network changes within the study area. The analysis also focused on the traffic volumes

categorized by vehicle type, allowing for a deeper understanding of the changes in car, LGV, and HGV traffic.

To explore changes in traffic patterns throughout the day, the daily profiles of traffic for TRIS count sites were analyzed. The data provided insights into any consistent changes in traffic flow throughout the day or shifts in traditional peak travel times.

Furthermore, a comparison was made between the traffic growth predicted by the NTEM Core and Behavioural Change scenarios and the actual observed traffic growth in 2023. This assessment aimed to determine the extent to which the NTEM Core scenario underestimated the impact of covid and whether the NTEM Behavioural Change scenario aligned with the observed traffic counts in 2023.

The analysis demonstrates that the total daily traffic decreased by 3.9% from 2019 to 2023, with reductions observed during the AM peak (6.5%), increases in the IP (0.4%), and reductions in PM peak (6.1%). When compared to the predictions made by NTEM, it becomes evident that the actual traffic growth was lower than what NTEM had projected, underscoring the influence of the covid pandemic on traffic levels. It's important to acknowledge, however, that certain recent road network updates in the study area have also had an impact on traffic flow within that region.

The study also included a thorough examination of the updated traffic model, incorporating changes in the network from 2019 to 2023. By comparing the model with and without network updates to the 2023 traffic counts, the impact of recent network improvements on traffic flow changes was ascertained.

Upon analysis, it has been determined that, with the exception of a few locations, there are no significant or substantial differences between the traffic model flows and the observed traffic flows during the specified time period.

The assessment indicates that although the traffic model developed using the 2019 data provides fair representation of the current traffic conditions in 2023, the traffic flows at an overall level is higher than the observed. As a result, an adjustment to address this is required.

It is acknowledged that traffic patterns may have been influenced by the covid pandemic. However, in this scenario, there are no observed origin-destination surveys available to directly compare and confirm any changes in traffic patterns. The absence of such data makes it challenging to precisely quantify the impacts of covid on specific origin-destination flows within the scheme area. Therefore, it becomes more difficult to ascertain the extent to which the pandemic has affected traffic behavior and to what degree it should be considered in the analysis.

4. Conclusion and proposed approach to account covid

TAG Unit M4 - Forecasting and Uncertainty, issued in May 2023, recommends three options to account for covid in modelling and appraisal. Table 4.1 provides an overview of the main advantages and disadvantages associated with each of these three options.

Jacobs

Based on the analysis results, it is recognized that there has been a decline in traffic from 2019 to 2023. However, accurately isolating the specific impact of covid on this decline is challenging, and the long-term sustainability of these impacts remains uncertain. It is acknowledged that isolating the individual impact of covid is difficult and the extent to which impacts will be sustained long-term is unclear. There is also a debate as to what extent the decrease in traffic volumes seen in 2022 and 2023 has been caused by impacts other than covid, including the general cost of living pressure and the increase in the price of fuel/electricity.

In the short-term, it is understood that DfT does not plan to update the NTEM in accordance with the latest guidance on incorporating covid impacts. Consequently, it becomes the responsibility of each individual modelling team to "predict" the future impact of covid on trip-making behaviour and make necessary adjustments to the NTEM data. However, it is essential to note that producing an adjusted NTEM dataset would be a time-consuming process, and inconsistencies might arise between different scheme appraisals.

Following further discussion, it was agreed with DfT that a future 2023 reference model will be created using the traffic growth analysis conducted within the benchmarking exercise. A high-level validation of the model will be undertaken using the existing traffic survey data. This 2023 model will serve as the new reference year, from which all future years will be pivoted. The methodology and model results is summarised in the Technical note on Rebasing.

Jacobs

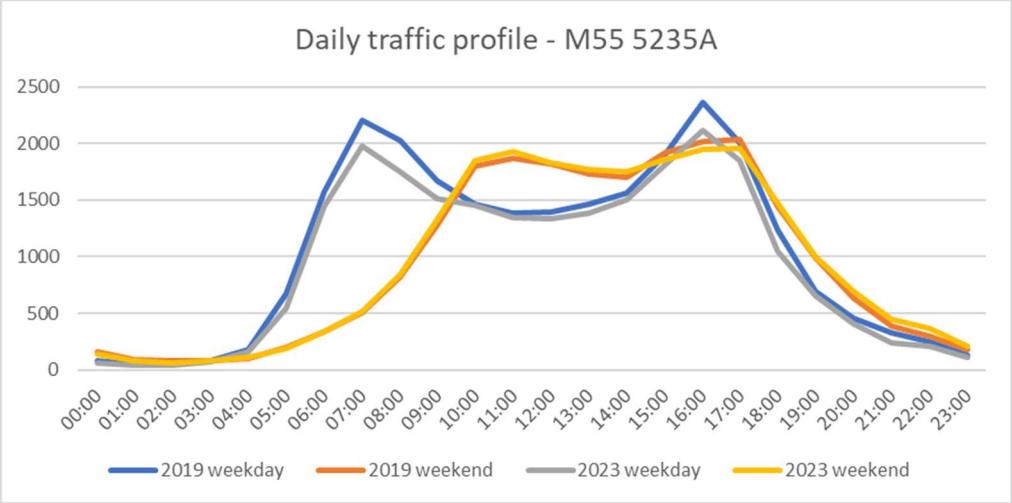
Table 4.1: - Comparison of Options to account for Covid

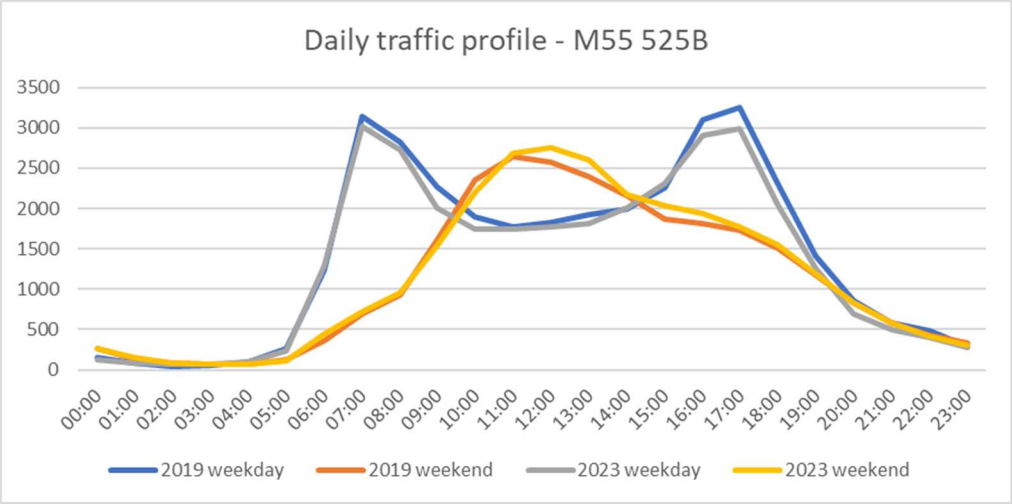
DfT Options for accounting Covid	Pro	Cons
Option 1 - Create a forecast to the present day by applying adjustments to include a COVID-19 impact, based on observed data. This forecast can be used as a "new base year" as a substitute basis for scheme forecast.	This option will allows analysts the potential for a check of travel patterns and/or traffic flow against current observations or statistics in their modelled area	This option is not considered proportionate due to several reasons. Validating and potentially re-calibrating the present year forecast to match post-COVID data sources would be a lengthy and expensive undertaking. The required datasets for such calibration and validation are currently unavailable, making the process even more challenging. Collecting the necessary data would involve significant costs and resources, leading to a considerable delay in scheme programs, possibly extending the timeline by at least one year. Moreover, the observed 2023 data is only available for the scheme corridor, which means that model validation and calibration based solely on this data might produce skewed results when compared to other areas undergoing detailed modelling.
Option 2 - Apply adjustments to a forecast year model to produce a new scheme opening year forecast, or the first required forecast year, that include a COVID-19 impact to that point. This will be the new pivot off which further forecast years are based.	The positive of Option 2 is that it allows the practitioner to account for COVID-19 impacts at the reference case stage (the input to variable demand modelling) and then allow for variable demand impacts to occur.	Implementing Option 2 and creating adjusted trip ends would require additional evidence to accurately isolate the individual impact of COVID-19 on trip ends. Obtaining such evidence could prove challenging.
Option 3 - Apply the adjustment globally to model results as a post-model adjustment.	Option 3 is a low-cost option which can be done quickly and is easily repeatable if the adjustment value changes. It also aligns with the approach taken by DfT in the production of the National Road Traffic Projections 2022.	The downside to Option 3 is that the variable demand model run will not consider COVID-19 impacts. Therefore, traffic will only respond to the demand changes brought about by COVID-19 in terms of re-routing. Variable demand impacts, such as changing trip origins/destinations, and/or changing modes, will not be considered directly.

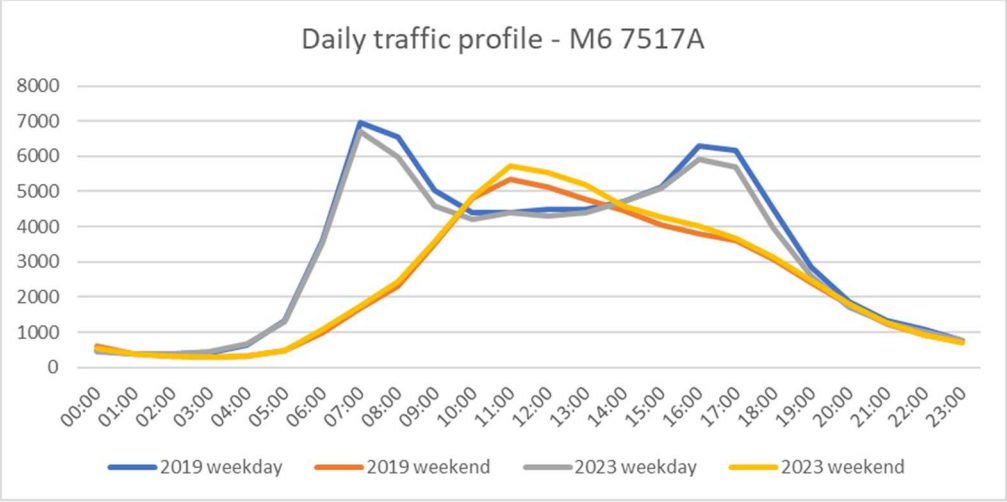
Jacobs

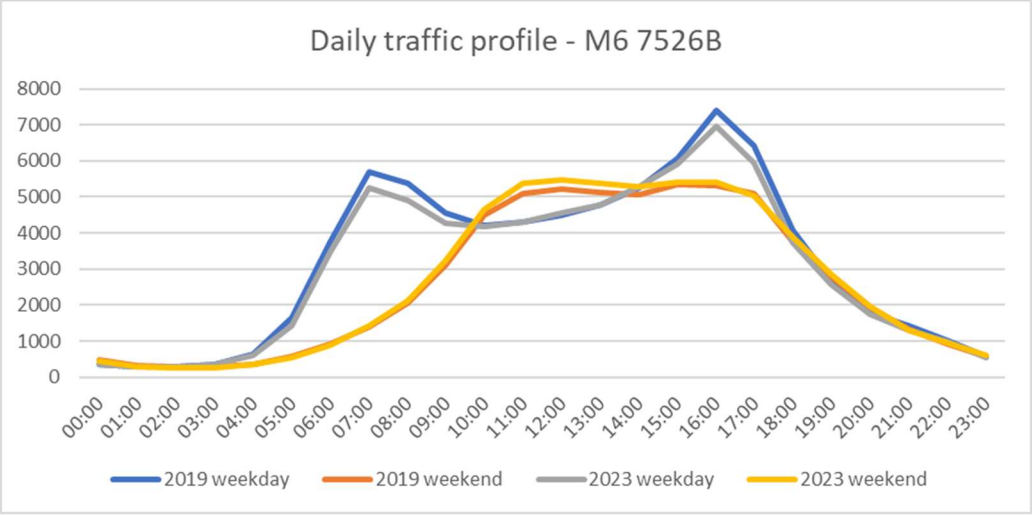
APPENDIX A

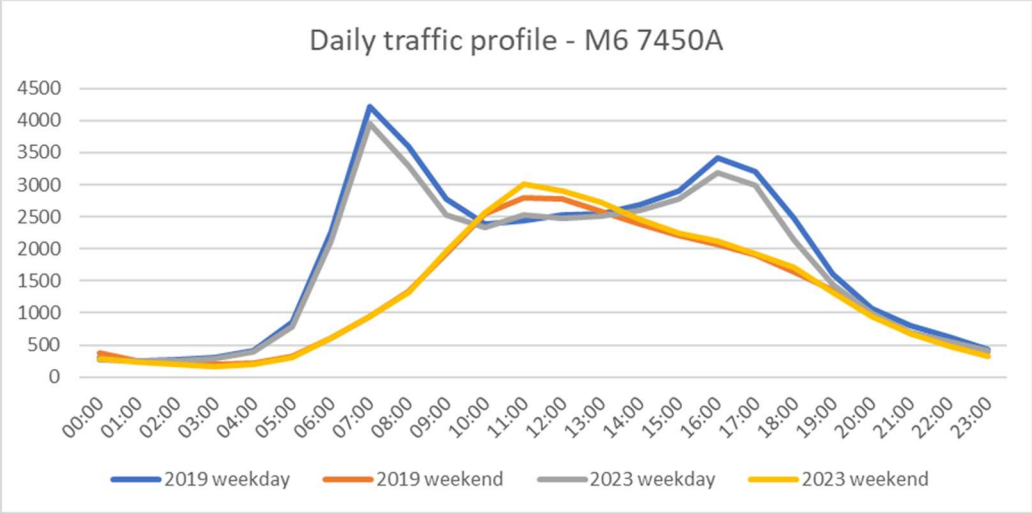
24 Hour Profile – TRIS Sites

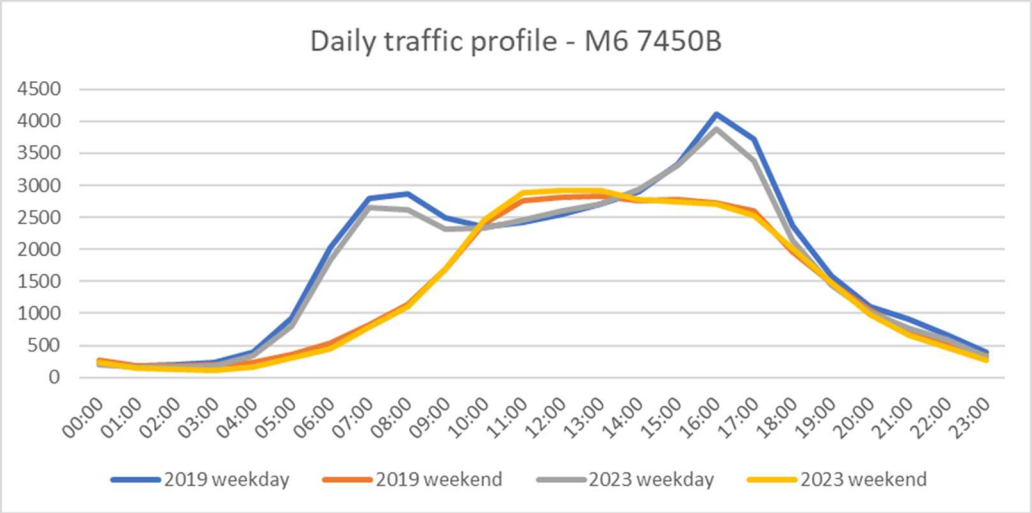


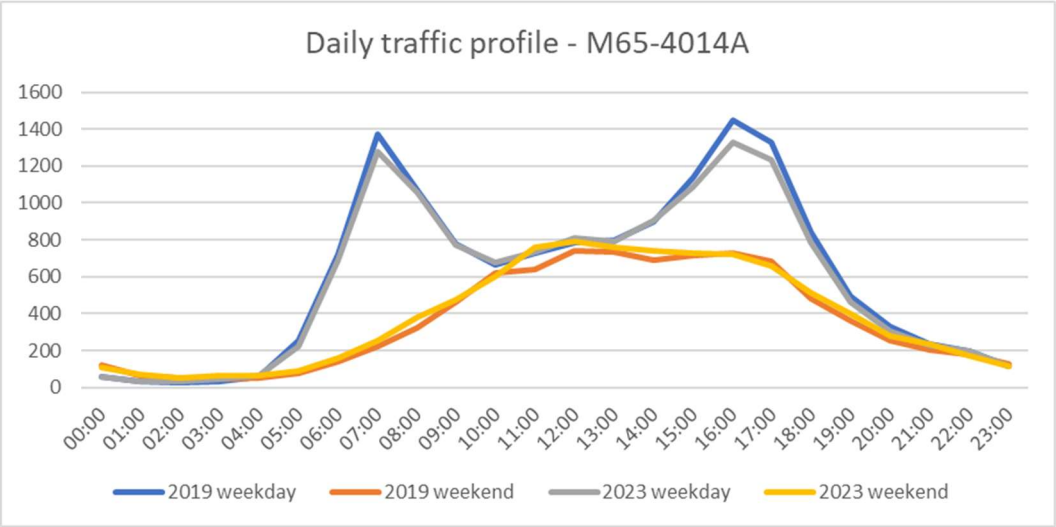


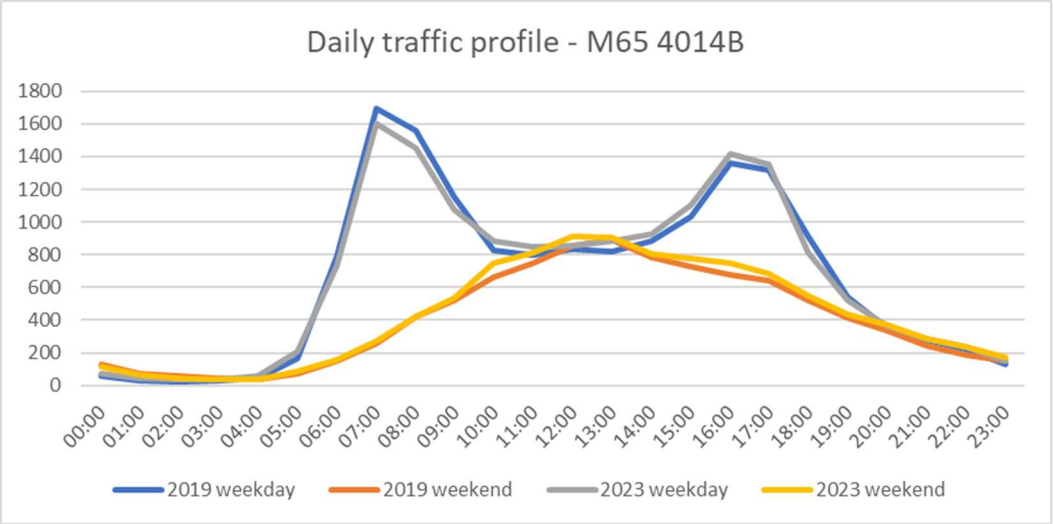



Daily traffic profile - M6 7526B
8000
7000
6000
5000
4000
3000
2000
1000
0
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
2019 weekday
2019 weekend
2023 weekday
2023 weekend


Daily traffic profile - M6 7450A
4500
4000
3500
3000
2500
2000
1500
1000
500
0
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
2019 weekday
2019 weekend
2023 weekday
2023 weekend


Daily traffic profile - M6 7450B
4500
4000
3500
3000
2500
2000
1500
1000
500
0
00:00 01:00 02:00 03:00 04:00 05:00 06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00
2019 weekday
2019 weekend
2023 weekday
2023 weekend


Daily traffic profile - M65-4014A
1600
1400
1200
1000
800
600
400
200
0
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
2019 weekday
2019 weekend
2023 weekday
2023 weekend


Daily traffic profile - M65 4014B
1800
1600
1400
1200
1000
800
600
400
200
0
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
2019 weekday
2019 weekend
2023 weekday
2023 weekend

Jacobs

APPENDIX B

Count Location	Direction	AM			IP			PM		
		Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)
TRIS M6/7430	NB	3,316	2,989	-9.9%	2,286	2,243	-1.9%	3,244	3,074	-5.2%
	SB	2,736	2,371	-13.3%	2,490	2,455	-1.4%	3,981	3,492	-12.3%
TRIS M65-4014	NB	871	797	-8.5%	629	615	-2.2%	1,184	1,080	-8.8%
	SB	1,287	1,153	-10.4%	662	687	3.7%	1,155	1,177	1.9%
TRIS M6-7450	NB	2,673	2,262	-15.4%	1,903	1,864	-2.0%	2,658	2,412	-9.2%
	SB	2,204	1,939	-12.0%	2,011	2,025	0.7%	3,131	2,817	-10.0%
TRIS M6-7526	NB	5,124	4,426	-13.6%	3,614	3,539	-2.1%	5,453	4,924	-9.7%
	SB	3,605	3,072	-14.8%	3,079	2,983	-3.1%	4,716	4,201	-10.9%
TRIS M55-525	NB	1,726	1,415	-18.0%	1,228	1,176	-4.2%	1,827	1,648	-9.8%
	SB	2,292	2,133	-7.0%	1,624	1,592	-2.0%	3,011	2,747	-8.8%
ATC 8 Leyland Road	Southbound	439	778	77.2%	449	629	40.0%	632	888	40.5%
	Northbound	815	977	19.9%	492	663	34.7%	712	1,030	44.7%
MCC 2 Pope Lane (W)	From	667	394	-40.9%	248	176	-29.0%	342	306	-10.7%
	To	354	236	-33.5%	302	153	-49.3%	543	275	-49.4%
MCC 3 A582 (S)	From	997	801	-19.7%	650	561	-13.7%	1,054	917	-13.0%
	To	786	772	-1.8%	652	580	-11.1%	974	867	-11.0%
MCC 3 Chain House Lane (W)	From	410	305	-25.6%	293	247	-15.8%	356	337	-5.3%
	To	401	364	-9.4%	320	259	-19.2%	472	420	-11.0%
MCC 5B A582 (E)	From	913	678	-25.8%	686	508	-26.0%	1,127	853	-24.4%
	To	773	577	-25.4%	664	510	-23.2%	831	678	-18.5%
MCC 6 Stanifield Lane	From	422	387	-8.3%	414	332	-19.7%	461	424	-8.1%
	To	531	459	-13.6%	410	350	-14.5%	486	534	9.8%
MCC 7 Leyland Road (N)	From	350	470	34.1%	453	438	-3.3%	719	725	0.8%
	To	857	726	-15.3%	423	416	-1.7%	514	546	6.2%
MCC 11 Croston Road (N)	From	207	211	1.9%	117	113	-3.1%	177	176	-0.6%
	To	243	290	19.1%	149	136	-8.7%	296	296	-0.2%
Overall	**All Sites**	**34,998**	**30,978**	**-11.5%**	**26,248**	**25,248**	**-3.8%**	**40,055**	**36,840**	**-8.0%**
	Study Area sites	**9,165**	**8,422**	**-8.1%**	**6,722**	**6,070**	**-9.7%**	**9,696**	**9,269**	**-4.4%**
	TRIS sites	**25,833**	**22,556**	**-12.7%**	**19,526**	**19,178**	**-1.8%**	**30,359**	**27,572**	**-9.2%**

Peak Hour Observed Traffic Growth Percentage (2019 to 2023) – Car

Count Location	Direction	24 Hour (Car)		
		Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)
TRIS M6/7430	NB	40,206	36,560	-9.1%
	SB	40,761	36,562	-10.3%
TRIS M65-4014	NB	11,645	10,784	-7.4%
	SB	13,006	12,543	-3.6%
TRIS M6-7450	NB	32,547	29,275	-10.1%
	SB	32,161	29,728	-7.6%
TRIS M6-7526	NB	61,556	56,219	-8.7%
	SB	50,876	45,720	-10.1%
TRIS M55-525	NB	21,320	18,604	-12.7%
	SB	29,367	26,906	-8.4%
ATC 8 Leyland Road	Southbound	8,687	11,568	33.2%
	Northbound	7,182	10,778	50.1%
Overall	**All Sites**	**349,314**	**325,245**	**-6.9%**
	Study Area sites	**15,869**	**22,346**	**40.8%**
	TRIS sites	**333,445**	**302,899**	**-9.2%**

Daily Observed Traffic Growth Percentage (2019 to 2023) – Car

Count Location	Direction	AM			IP			PM		
		Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)
TRIS M6/7430	NB	410	529	29.1%	308	351	13.8%	296	324	9.4%
	SB	317	365	15.0%	313	378	20.8%	265	294	10.8%
TRIS M65-4014	NB	117	152	29.9%	115	142	23.4%	99	111	12.0%
	SB	169	180	6.3%	110	146	32.7%	107	123	14.8%
TRIS M6-7450	NB	378	451	19.4%	267	315	18.1%	274	280	2.3%
	SB	251	247	-1.5%	249	286	15.1%	211	235	11.2%
TRIS M6-7526	NB	576	704	22.3%	366	446	21.8%	324	355	9.4%
	SB	977	991	1.5%	932	1,065	14.2%	1,114	1,154	3.7%
TRIS M55-525	NB	147	171	16.3%	136	163	19.3%	96	119	23.8%
	SB	237	289	22.1%	150	185	23.4%	141	163	15.6%
ATC 8 Leyland Road	Southbound	69	37	-46.4%	80	46	-42.7%	53	30	-43.4%
	Northbound	110	35	-68.2%	99	34	-66.0%	87	27	-69.0%
MCC 2 Pope Lane (W)	From	67	37	-45.5%	38	26	-32.5%	42	23	-45.2%
	To	23	35	50.0%	48	23	-51.2%	54	24	-56.5%
MCC 3 A582 (S)	From	143	159	11.2%	145	129	-10.8%	124	138	11.3%
	To	179	133	-26.0%	149	121	-18.9%	104	85	-18.8%
MCC 3 Chain House Lane (W)	From	29	53	82.8%	40	49	22.9%	32	30	-7.8%
	To	66	99	49.2%	58	64	10.3%	43	58	34.9%
MCC 5B A582 (E)	From	207	174	-15.9%	157	159	1.3%	120	142	18.3%
	To	111	134	20.3%	148	157	6.1%	98	84	-14.3%
MCC 6 Stanifield Lane	From	57	74	28.9%	83	68	-17.7%	57	43	-25.4%
	To	83	99	18.7%	73	75	2.5%	41	62	51.2%
MCC 7 Leyland Road (N)	From	55	91	64.5%	81	88	8.3%	60	75	25.0%
	To	115	126	9.1%	85	100	17.4%	63	82	30.2%
MCC 11 Croston Road (N)	From	33	24	-27.3%	21	18	-13.9%	15	23	50.0%
	To	33	42	27.3%	30	23	-24.2%	37	34	-8.1%
Overall	**All Sites**	**4,959**	**5,428**	**9.5%**	**4,282**	**4,657**	**8.8%**	**3,959**	**4,117**	**4.0%**
	Study Area sites	**1,380**	**1,348**	**-2.4%**	**1,335**	**1,179**	**-11.7%**	**1,030**	**958**	**-7.0%**
	TRIS sites	**3,579**	**4,081**	**14.0%**	**2,947**	**3,477**	**18.0%**	**2,929**	**3,159**	**7.9%**

Peak Hour Observed Traffic Growth Percentage (2019 to 2023) – LGV

Count Location	Direction	24 Hour (LGV)		
		Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)
TRIS M6/7430	NB	4,832	5,364	11.0%
	SB	4,539	5,135	13.1%
TRIS M65-4014	NB	1,625	1,871	15.2%
	SB	1,657	1,995	20.4%
TRIS M6-7450	NB	4,374	4,799	9.7%
	SB	3,529	3,854	9.2%
TRIS M6-7526	NB	5,843	6,729	15.2%
	SB	13,852	14,856	7.2%
TRIS M55-525	NB	1,899	2,267	19.3%
	SB	2,280	2,615	14.7%
ATC 8 Leyland Road	Southbound	1,082	569	-47.4%
	Northbound	1,066	751	-29.6%
Overall	**All Sites**	**46,577**	**50,803**	**9.1%**
	Study Area sites	**2,148**	**1,319**	**-38.6%**
	TRIS sites	**44,429**	**49,484**	**11.4%**

Daily Observed Traffic Growth Percentage (2019 to 2023) – LGV

`	Direction	AM			IP			PM		
		Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)	Observed traffic 2019	Observed traffic 2023	Observed traffic growth (%)
TRIS M6/7430	NB	580	629	8.5%	552	587	6.4%	362	384	6.0%
	SB	551	594	7.9%	589	640	8.7%	403	386	-4.3%
TRIS M65-4014	NB	82	108	32.9%	94	107	13.3%	39	41	5.7%
	SB	103	115	11.7%	98	121	23.6%	56	53	-4.5%
TRIS M6-7450	NB	517	571	10.3%	439	474	8.0%	296	310	4.7%
	SB	407	420	3.1%	474	517	9.3%	353	336	-4.9%
TRIS M6-7526	NB	819	854	4.3%	695	750	7.9%	431	457	6.1%
	SB	778	821	5.5%	882	980	11.2%	575	599	4.2%
TRIS M55-525	NB	144	155	7.7%	173	200	15.3%	74	74	1.0%
	SB	284	312	9.7%	194	215	10.8%	92	90	-2.1%
ATC 8 Leyland Road	Southbound	3	6	100.0%	4	10	150.0%	0	3	0.0%
	Northbound	9	10	11.1%	4	7	79.2%	2	8	300.0%
MCC 2 Pope Lane (W)	From	12	9	-25.0%	4	7	70.8%	3	4	16.7%
	To	2	9	325.0%	5	6	28.3%	0	3	0.0%
MCC 3 A582 (S)	From	42	77	82.1%	39	69	76.1%	19	27	39.5%
	To	15	54	260.0%	38	69	82.5%	14	25	78.6%
MCC 3 Chain House Lane (W)	From	2	13	525.0%	5	13	163.3%	1	5	400.0%
	To	5	18	250.0%	7	17	147.6%	3	7	116.7%
MCC 5B A582 (E)	From	17	121	611.8%	40	125	211.3%	16	57	253.1%
	To	32	81	153.1%	40	116	189.0%	15	31	103.3%
MCC 6 Stanifield Lane	From	5	34	580.0%	4	39	870.8%	2	13	525.0%
	To	3	36	1100.0%	3	45	1394.4%	0	31	0.0%
MCC 7 Leyland Road (N)	From	2	29	1350.0%	4	25	522.9%	0	12	0.0%
	To	9	21	133.3%	4	22	441.7%	2	12	475.0%
MCC 11 Croston Road (N)	From	1	11	950.0%	1	6	475.0%	0	6	0.0%
	To	3	9	200.0%	2	6	208.3%	1	6	500.0%
Overall	**All Sites**	**4,426**	**5,114**	**15.5%**	**4,393**	**5,172**	**17.7%**	**2,758**	**2,977**	**7.9%**
	Study Area sites	**162**	**536**	**230.6%**	**204**	**581**	**184.9%**	**78**	**246**	**215.4%**
	TRIS sites	**4,264**	**4,578**	**7.4%**	**4,189**	**4,591**	**9.6%**	**2,680**	**2,731**	**1.9%**

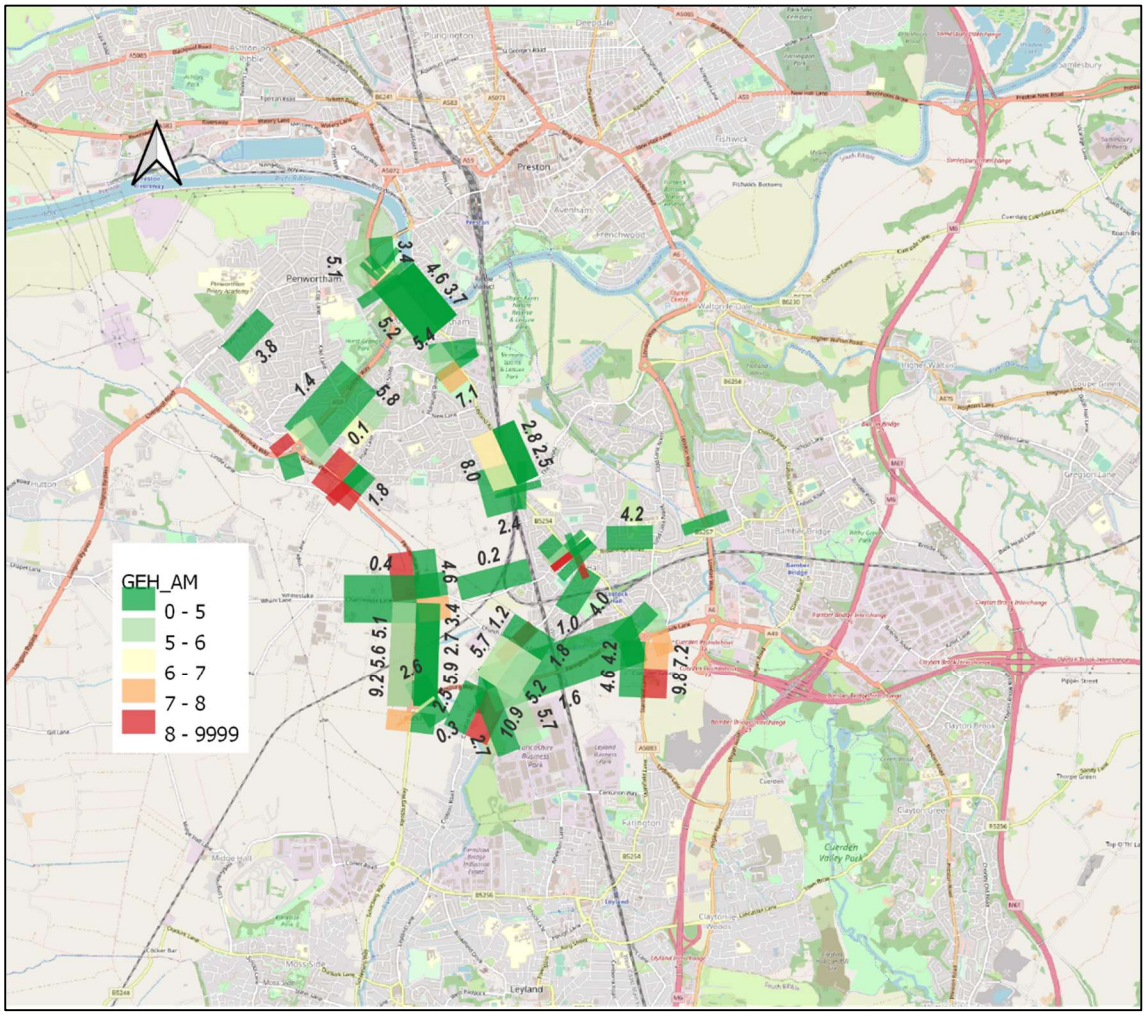
Peak Hour Observed Traffic Growth Percentage (2019 to 2023) – HGV

`	Direction	24 Hour (HGV)				
		Observed traffic 2019	2019 traffic uplifted to 2023 using NTEM8 Core	Observed traffic 2023	Observed traffic growth (%)	Difference between observed 2023 and 'NTEM8 predicted' 2023 traffic
TRIS M6/7430	NB	9,159	9,402	9,248	1.0%	-1.6%
	SB	9,347	9,595	9,367	0.2%	-2.4%
TRIS M65-4014	NB	1,127	1,157	1,262	12.0%	9.1%
	SB	1,216	1,248	1,418	16.7%	13.6%
TRIS M6-7450	NB	7,675	7,878	7,918	3.2%	0.5%
	SB	7,470	7,668	7,566	1.3%	-1.3%
TRIS M6-7526	NB	11,552	11,859	11,994	3.8%	1.1%
	SB	12,903	13,245	13,591	5.3%	2.6%
TRIS M55-525	NB	2,035	2,089	2,190	7.6%	4.8%
	SB	2,640	2,710	2,802	6.1%	3.4%
ATC 8 Leyland Road	Southbound	299	307	16	-94.6%	-94.8%
	Northbound	313	321	16	-95.0%	-95.1%
Overall	**All Sites**	**65,735**	**67,480**	**67,387**	**2.5%**	**-0.1%**
	Study Area sites	**612**	**628**	**32**	**-94.8%**	**-95.0%**
	TRIS sites	**65,123**	**66,852**	**67,356**	**3.4%**	**0.8%**

Daily Observed Traffic Growth Percentage (2019 to 2023) – HGV

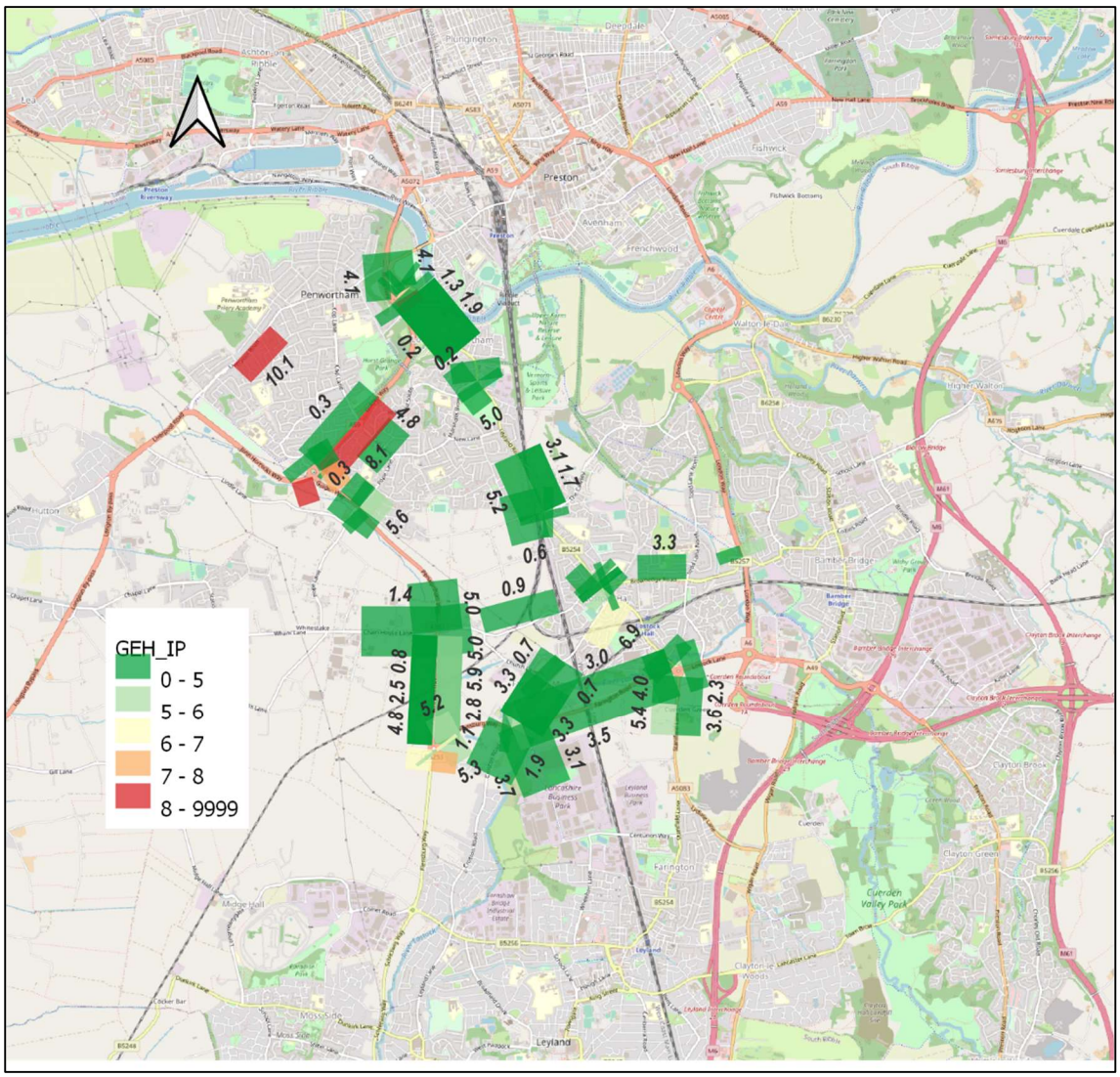
APPENDIX C

GEH STATS – AM Peak



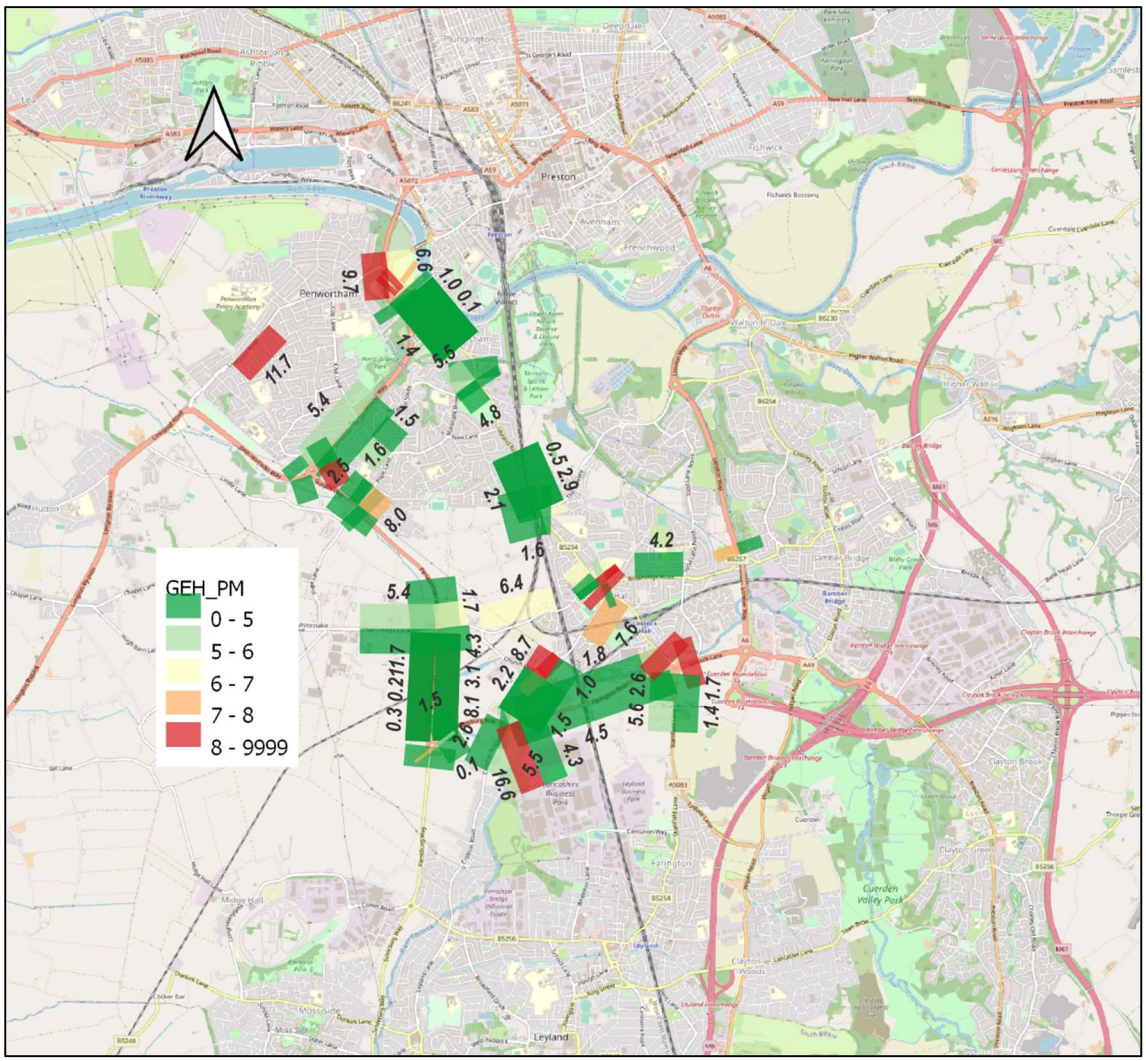
Jacobs

GEH STATS – IP Peak



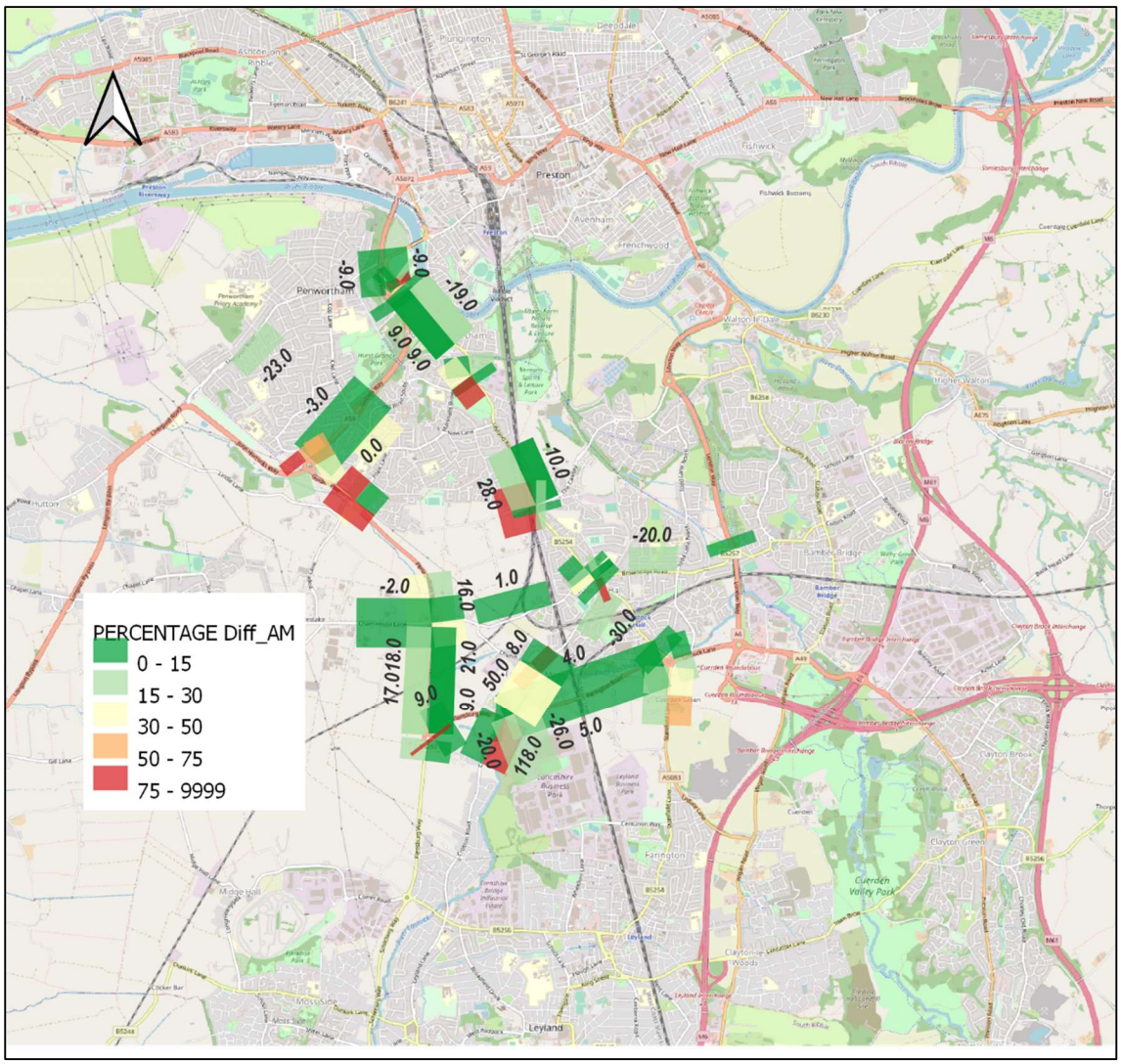
Jacobs

GEH STATS – PM Peak



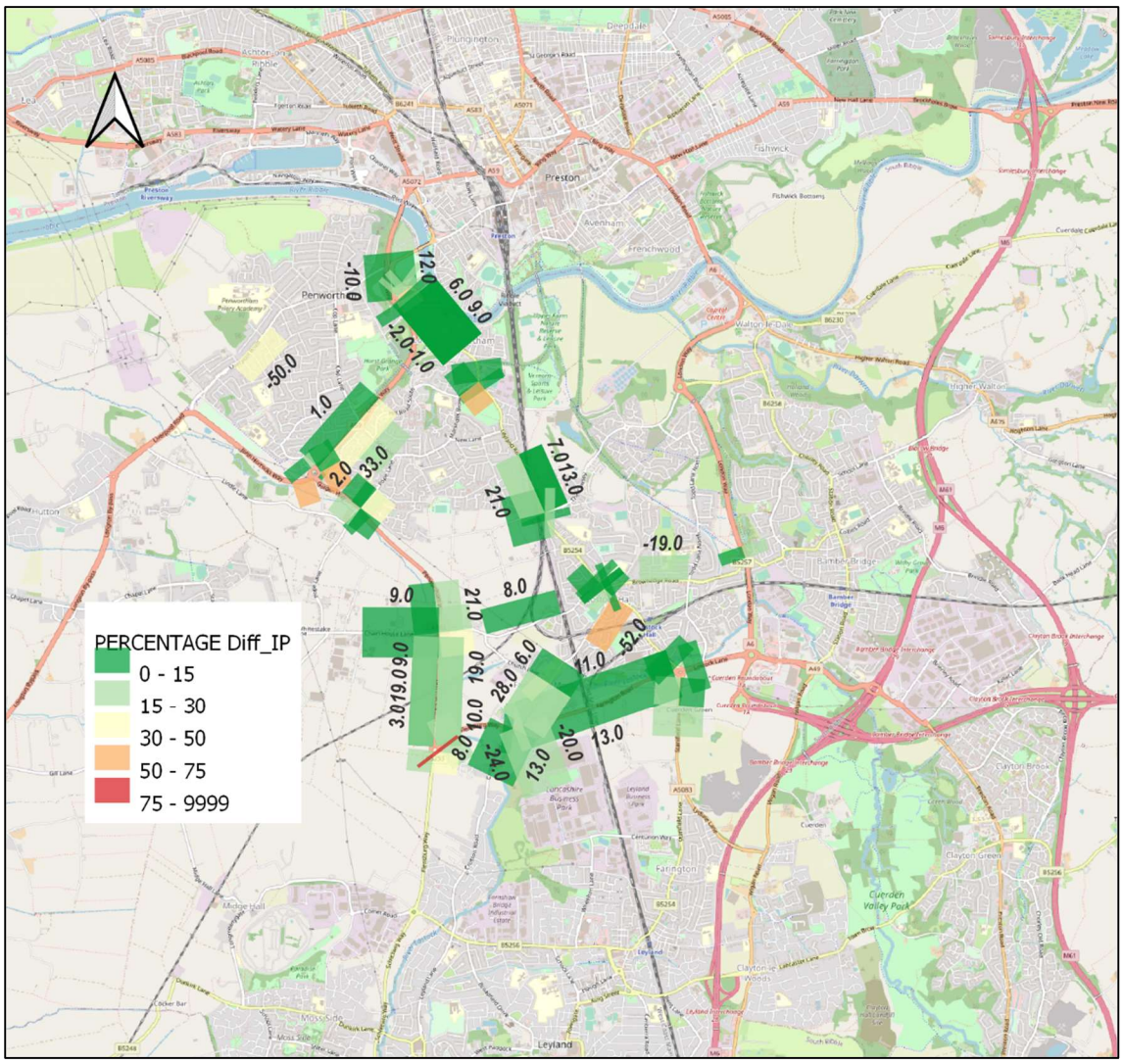
Jacobs

Flow Difference (%) – AM Peak



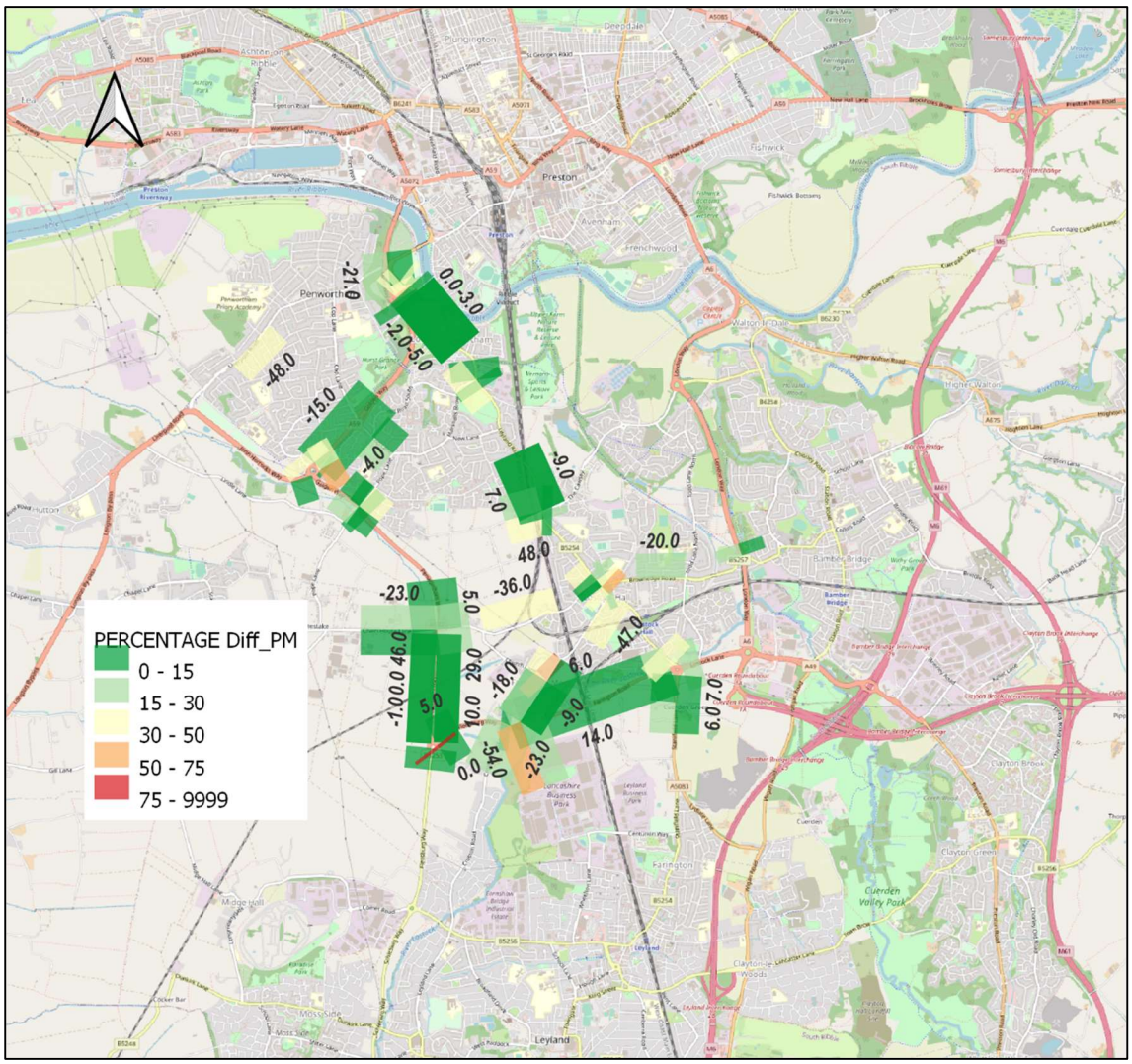
Jacobs

Flow Difference (%) – IP Peak



Jacobs

Flow Difference (%) – PM Peak



Jacobs

APPENDIX D

Link Level Comparison

Jacobs

CountID	Direction	Count_AM	Count_IP	Count_PM	Base6D_AM	Base6D_IP	Base6D_PM	Diff_AM	Diff_IP	Diff_PM	Diff_AM	Diff_IP	Diff_PM	GEH_AM	GEH_IP	GEH_PM	AM						IP						PM					
																	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700)	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion
ATC 1	Eastbound	824	833	876	964	885	1059	-140	-52	-183	17%	6%	21%	4.7	1.8	5.9		Fail		Fail	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Fail	Pass
ATC 1	Westbound	927	773	1032	1006	878	1154	-79	-105	-122	8%	14%	12%	2.5	3.6	3.7		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
ATC 2	Northbound	453	414	466	522	530	569	-69	-116	-103	15%	28%	22%	3.1	5.3	4.5	Pass			Pass	Pass	Pass	Fail			Fail	Pass	Pass	Fail			Fail	Pass	Pass
ATC 2	Southbound	564	454	586	642	524	632	-78	-69	-46	14%	15%	8%	3.2	3.1	1.9	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
ATC 3	Northbound	738	810	1041	1204	826	1159	-466	-17	-118	63%	2%	11%	14.9	0.6	3.5		Fail		Fail	Fail	Fail		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
ATC 3	Southbound	912	811	923	1031	871	1166	-119	-60	-243	13%	7%	26%	3.8	2.1	7.5		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Fail	Pass
ATC 5	Northbound	807	533	612	1005	536	622	-198	-4	-10	25%	1%	2%	6.6	0.2	0.4		Fail		Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
ATC 5	Southbound	569	537	773	424	533	796	145	4	-23	-25%	-1%	3%	6.5	0.2	0.8	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
ATC 6	Southwestbound	433	351	403	186	158	230	247	193	173	-57%	-55%	-43%	14.0	12.1	9.7	Fail			Fail	Fail	Fail	Fail			Fail	Fail	Fail	Fail			Fail	Fail	Fail
ATC 7	Northbound	1451	907	1203	1287	1065	1434	164	-158	-231	-11%	17%	19%	4.4	5.0	6.4		Pass		Pass	Pass	Pass		Fail		Fail	Pass	Pass		Pass		Pass	Fail	Pass
ATC 7	Southbound	1012	1016	1319	885	1079	1610	127	-63	-291	-13%	6%	22%	4.1	2.0	7.6		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Fail	Pass
ATC 8	Southbound	821	684	921	739	704	895	82	-19	26	-10%	3%	-3%	2.9	0.7	0.9		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
ATC 8	Northbound	1022	704	1065	1192	801	1136	-170	-97	-71	17%	14%	7%	5.1	3.5	2.1		Fail		Fail	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
ATC 9	Northwestbound	470	353	463	400	271	352	70	82	111	-15%	-23%	-24%	3.3	4.6	5.5	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Fail			Fail	Fail	Fail
ATC 9	Southeastbound	355	339	452	324	393	406	31	-54	46	-9%	16%	-10%	1.7	2.8	2.2	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
ATC 10	Eastbound	235	165	235	206	164	166	29	1	69	-12%	0%	-29%	2.0	0.1	4.9	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
ATC 11	Southwestbound	184	143	192	104	64	107	80	79	85	-43%	-55%	-44%	6.6	7.8	7.0	Pass			Pass	Fail	Pass	Pass			Pass	Fail	Pass	Pass			Pass	Fail	Pass
ATC 12	Eastbound	473	288	428	310	226	320	163	62	108	-34%	-22%	-25%	8.2	3.9	5.6	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Fail			Fail	Fail	Fail
MCC 1 A582	To	779	648	905	881	649	984	-102	-1	-79	13%	0%	9%	3.5	0.0	2.6		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 1 A59 (N)	From	973	802	1519	929	966	1389	44	-164	130	-5%	20%	-9%	1.4	5.5	3.4		Pass		Pass	Pass	Pass		Fail		Fail	Fail	Fail		Pass		Pass	Pass	Pass
MCC 1 A59 (N)	To	1850	852	1106	1682	896	994	167	-44	112	-9%	5%	-10%	4.0	1.5	3.5		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 1 A59 (W)	To	766	509	965	488	723	969	278	-215	-4	-36%	42%	0%	11.1	8.6	0.1		Fail		Fail	Fail	Fail	Fail			Fail	Fail	Fail		Fail		Fail	Pass	Pass
MCC 1 Bank Top Road	From	257	96	109	272	75	51	-15	20	58	6%	-21%	-53%	0.9	2.2	6.5	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Fail	Pass
MCC 1 Bank Top Road	To	154	98	193	138	93	204	16	5	-12	-10%	-5%	6%	1.3	0.5	0.8	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 1 Millbrook Way	From	182	166	196	74	69	64	107	97	132	-59%	-59%	-67%	9.5	9.0	11.6	Fail			Fail	Fail	Fail	Pass			Pass	Fail	Pass	Fail			Fail	Fail	Fail
MCC 1 Millbrook Way	To	144	140	180	160	120	109	-16	20	71	11%	-15%	-40%	1.3	1.8	5.9	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Fail	Pass
MCC 2 A582 (N)	From	782	649	906	881	649	984	-99	0	-78	13%	0%	9%	3.4	0.0	2.5		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 2 A582 (S)	From	1014	604	964	1227	682	1019	-213	-78	-56	21%	13%	6%	6.4	3.1	1.8		Pass		Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 2 A582 (S)	To	995	686	975	1001	770	1048	-6	-84	-73	1%	12%	7%	0.2	3.1	2.3		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 2 Pope Lane (E)	From	472	238	314	344	312	483	128	-74	-169	-27%	31%	54%	6.4	4.5	8.5	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Fail			Fail	Fail	Fail
MCC 2 Pope Lane (E)	To	292	224	361	352	211	324	-61	12	37	21%	-6%	-10%	3.4	0.8	2.0	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 2 Pope Lane (W)	From	443	212	336	625	265	398	-182	-53	-62	41%	25%	19%	7.9	3.4	3.2	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 2 Pope Lane (W)	To	284	185	305	409	160	319	-125	25	-14	44%	-14%	5%	6.7	1.9	0.8	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 3 A582 (N)	From	961	687	986	1001	770	1048	-40	-83	-62	4%	12%	6%	1.3	3.1	1.9		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 3 A582 (N)	To	993	611	961	1227	682	1019	-234	-71	-59	24%	12%	6%	7.0	2.8	1.9		Fail		Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 3 A582 (S)	From	1042	764	1088	1204	826	1159	-162	-62	-71	16%	8%	7%	4.8	2.2	2.1		Fail		Fail	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 3 A582 (S)	To	965	776	986	1031	871	1166	-66	-95	-180	7%	12%	18%	2.1	3.3	5.5		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 3 Chain House Lane (E)	From	426	185	366	496	247	412	-70	-62	-46	16%	34%	13%	3.3	4.2	2.4	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 3 Chain House Lane (E)	To	363	218	384	350	247	315	13	-29	69	-4%	13%	-18%	0.7	1.9	3.7	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 3 Chain House Lane (W)	From	375	313	378	380	313	355	-5	0	22	1%	0%	-6%	0.2	0.0	1.2	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass				Pass	Pass	Pass
MCC 3 Chain House Lane (W)	To	483	343	486	473	356	475	10	-13	11	-2%	4%	-2%	0.5	0.7	0.5	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 4 A582 (E)	From	470	693	989	879	755	1075	-409	-62	-86	87%	9%	9%	15.7	2.3	2.7	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 4 A582 (E)	To	421	744	853	883	798	898	-462	-55	-46	110%	7%	5%	18.1	2.0	1.5	Fail			Fail	Fail	Fail		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 4 A582 (N)	From	515	815	1017	1031	871	1166	-516	-56	-149	100%	7%	15%	18.5	1.9	4.5	Fail			Fail	Fail	Fail		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 4 A582 (N)	To	556	765	1085	1204	826	1159	-648	-61	-74	116%	8%	7%	21.8	2.2	2.2	Fail			Fail	Fail	Fail		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 4 Flensburg Way	From	452	678	929	1140	784	960	-688	-106	-31	152%	16%	3%	24.4	3.9	1.0	Fail			Fail	Fail	Fail	Fail			Fail	Pass	Pass		Pass		Pass	Pass	Pass
MCC 4 Flensburg Way	To	470	682	989	963	773	1156	-493	-91	-168	105%	13%	17%	18.4	3.4	5.1	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 4 Moss Lane	From	3	6	5	31	28	43	-28	-22	-38	939%	350%	760%	6.8	5.2	7.8	Pass			Pass	Fail	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Fail	Pass
MCC 4 Moss Lane	To	2	6	3	30	40	25	-28	-34	-23	1413%	559%	906%	7.0	7.0	6.1	Pass			Pass	Fail	Pass	Pass			Pass	Fail	Pass	Pass			Pass	Fail	Pass
MCC 5A A582 (E)	From	1096	878	1326	1168	994	1451	-72	-117	-126	7%	13%	9%	2.1	3.8	3.4		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 5A A582 (E)	To	1145	867	984	1184	1015	1176	-39	-149	-192	3%	17%	20%	1.1	4.8	5.9		Pass		Pass	Pass	Pass		Fail		Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 5A A582 (W)	From	868	752	843	883	798	898	-15	-46	-55	2%	6%	7%	0.5	1.7	1.9		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 5A A582 (W)	To	965	719	999	879	755	1075	86	-36	-76	-9%	5%	8%	2.8	1.3	2.4		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 5A Croston Road	From	510	177	224	309	223	284	201	-46	-60	-39%	26%	27%	9.9	3.3	3.8	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 5A Croston Road	To	366	222	409	297	246	383	69	-24	26	-19%	11%	-6%	3.8	1.6	1.3	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 5B A582 (E)	From	975	796	1058	1041	872	1203	-66	-76	-145	7%	10%	14%	2.1	2.6	4.3		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 5B A582 (E)	To	794	787	796	892	857	926	-98	-71	-130	12%	9%	16%	3.4	2.5	4.4		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 5B A582 (W)	From	1145	867	984	1184	1015	1176	-39	-149	-192	3%	17%	20%	1.1	4.8	5.9		Pass		Pass	Pass	Pass		Fail		Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 5B A582 (W)	To	1096	878	1326	1168	994	1451	-72	-117	-126	7%	13%	9%	2.1	3.8	3.4		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 5B Centurion Way	From	218	232	392	139	157	307	79	74	84	-36%	-32%	-22%	5.9	5.3	4.5	Pass			Pass	Fail	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 5B Centurion Way	To	370	206	210	312	175	160	58	31	49	-16%	-15%	-24%	3.1	2.3	3.6	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 5B Croston Road	From	242	144	203	288	181	215	-46	-37	-12	19%	26%	6%	2.8	2.9	0.8	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 5B Croston Road	To	320	167	305	278	199	364	42	-32	-59	-13%	19%	19%	2.4	2.3	3.2	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 6 A582 (E)	From	1654	1351	2032	1394	1280	1561	260	70	471	-16%	-5%	-23%	6.6	1.9	11.1		Fail		Fail	Fail	Fail		Pass		Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 6 A582 (E)	To	1627	1329	1590	1410	1373	1389	217	-44	201	-13%	3%	-13%	5.6	1.2	5.2		Pass		Pass	Fail	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 6 A582 (W)	From	804	779	833	964	885	1059	-160	-106	-226	20%	14%	27%	5.4	3.7	7.4		Fail		Fail	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 6 A582 (W)	To	971	812	1076	1006	878	1154	-35	-66	-78	4%	8%	7%	1.1	2.3	2.3		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 6 Stanifield Lane	From	503	442	485	522	530	569	-19	-88	-84	4%	20%	17%	0.8	4.0	3.6	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 6 Stanifield Lane	To	595	472	633	642	524	632	-48	-51	0	8%	11%	0%	1.9	2.3	0.0	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 6 Watkin Lane	From	736	543	700	692	530	449	44	13	251	-6%	-2%	-36%	1.7	0.6	10.5		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 6 Watkin Lane	To	504	502	751	513	451	462	-9	50	288	2%	-10%	-38%	0.4	2.3	11.7	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 7 Leyland Road (N)	From	594	555	823	454	555	811	139	0	12	-23%	0%	-2%	6.1	0.0	0.4	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 7 Leyland Road (N)	To	884	544	650	1031	570	667	-148	-26	-17	17%	5%	3%	4.8	1.1	0.7		Fail		Fail	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 7 Leyland Road (S)	From	766	493	596	972	579	715	-206	-86	-119	27%	17%	20%	7.0	3.7	4.7		Fail		Fail	Fail	Fail	Pass			Pass	Pass	Pass	Fail			Fail	Pass	Pass
MCC 7 Leyland Road (S)	To	579	522	759	498	520	741	80	2	18	-14%	0%	-2%	3.5	0.1	0.7	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 7 Marshalls Brow	From	212	129	158	245	115	110	-33	13	48	16%	-10%	-30%	2.2	1.2	4.2	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 7 Marshalls Brow	To	109	111	168	142	159	227	-33	-49	-60	30%	44%	36%	2.9	4.2	4.2	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass

Jacobs

																		AM						IP						PM					
CountID	Direction	Count_AM	Count_IP	Count_PM	Base6D_AM	Base6D_IP	Base6D_PM	Diff_AM	Diff_IP	Diff_PM	Diff_AM	Diff_IP	Diff_PM	GEH_AM	GEH_IP	GEH_PM	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion	WebTAG Criteria 1 (<700)	WebTAG Criteria 1 (>700, <2700	WebTAG Criteria 1 (>2700)	WebTAG Criteria 1	GEH Criteria	Passes at least 1 criterion
MCC 8A A59 (N)	From	1458	1327	2347	1190	1335	1954	268	-8	393	-18%	1%	-17%	7.4	0.2	8.5		Fail		Fail	Fail	Fail		Pass		Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 8A A59 (N)	To	3104	1469	1781	2537	1382	1453	567	87	328	-18%	-6%	-18%	10.7	2.3	8.2			Fail	Fail	Fail	Fail		Pass		Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 8A A59 (S)	From	2179	1014	1320	2095	1141	1260	84	-127	59	-4%	13%	-5%	1.8	3.9	1.7		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 8A A59 (S)	To	1132	1006	1870	1112	1242	1848	19	-236	22	-2%	23%	-1%	0.6	7.0	0.5		Pass		Pass	Pass	Pass		Fail		Fail	Fail	Fail		Pass		Pass	Pass	Pass
MCC 8A Leyland Road (via Sli	To	217	188	252	156	137	152	60	52	99	-28%	-28%	-40%	4.4	4.1	7.0	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Fail	Pass
MCC 8A Link Road	To	290	295	493	277	201	333	13	94	160	-5%	-32%	-32%	0.8	6.0	7.9	Pass			Pass	Pass	Pass	Pass			Pass	Fail	Pass	Fail			Fail	Fail	Fail
MCC 8B Leyland Road (N)	From	739	519	675	587	568	873	151	-50	-198	-20%	10%	29%	5.9	2.1	7.1		Fail		Fail	Fail	Fail	Pass			Pass	Pass	Pass	Fail			Fail	Fail	Fail
MCC 8B Leyland Road (S)	From	908	534	617	1005	552	640	-97	-18	-24	11%	3%	4%	3.1	0.8	0.9		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 8B Leyland Road (S)	To	564	555	832	443	547	810	121	8	21	-21%	-1%	-3%	5.4	0.3	0.7	Fail			Fail	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 8B Link Road	From	290	295	493	277	201	333	13	94	160	-5%	-32%	-32%	0.8	6.0	7.9	Pass			Pass	Pass	Pass	Pass			Pass	Fail	Pass	Fail			Fail	Fail	Fail
MCC 9 Bee Lane	From	19	13	13	31	12	9	-12	1	3	61%	-8%	-25%	2.3	0.3	1.0	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 9 Bee Lane	To	10	13	14	16	12	21	-6	1	-7	64%	-11%	48%	1.7	0.4	1.6	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 9 Leyland Road (N)	From	768	660	909	739	704	895	29	-44	14	-4%	7%	-2%	1.0	1.7	0.5		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 9 Leyland Road (N)	To	986	713	1046	1192	801	1136	-206	-88	-90	21%	12%	9%	6.2	3.2	2.7		Fail		Fail	Fail	Fail		Pass		Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 9 Leyland Road (S)	From	508	502	567	641	434	604	-133	68	-37	26%	-14%	7%	5.6	3.2	1.5	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 9 Leyland Road (S)	To	508	487	600	487	487	466	21	0	134	-4%	0%	-22%	0.9	0.0	5.8	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Fail			Fail	Fail	Fail
MCC 9 The Cawsey	From	663	396	694	662	430	643	1	-34	50	0%	9%	-7%	0.0	1.7	2.0	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 9 The Cawsey	To	454	357	522	378	279	528	76	78	-7	-17%	-22%	1%	3.7	4.4	0.3	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 10 Leyland Road (N)	From	559	553	830	424	533	796	134	20	34	-24%	-4%	-4%	6.1	0.9	1.2	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 10 Leyland Road (N)	To	903	530	622	1005	536	622	-102	-6	-1	11%	1%	0%	3.3	0.3	0.0		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 10 Leyland Road (S)	From	900	526	613	1005	536	622	-105	-10	-10	12%	2%	2%	3.4	0.5	0.4		Pass		Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 10 Leyland Road (S)	To	564	551	828	424	533	796	139	18	32	-25%	-3%	-4%	6.3	0.8	1.1	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 11 Church Lane	From	169	77	160	31	37	30	138	39	129	-82%	-51%	-81%	13.8	5.2	13.3	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Fail			Fail	Fail	Fail
MCC 11 Church Lane	To	175	80	138	66	41	58	108	39	80	-62%	-49%	-58%	9.9	5.0	8.1	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Fail	Pass
MCC 11 Croston Road (N)	From	250	141	209	257	145	185	-7	-4	23	3%	3%	-11%	0.5	0.3	1.7	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 11 Croston Road (N)	To	346	170	346	213	160	306	133	10	39	-38%	-6%	-11%	7.9	0.8	2.2	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 11 Croston Road (S)	From	349	175	331	278	199	364	70	-24	-33	-20%	14%	10%	4.0	1.8	1.8	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 11 Croston Road (S)	To	244	144	213	288	181	215	-44	-37	-2	18%	25%	1%	2.7	2.9	0.1	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 12 Coote Lane	From	221	175	234	236	184	150	-16	-9	83	7%	5%	-36%	1.0	0.6	6.0	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Fail	Pass
MCC 12 Leyland Road (N)	From	528	496	609	531	505	476	-3	-8	133	1%	2%	-22%	0.1	0.4	5.7	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Fail			Fail	Fail	Fail
MCC 12 Leyland Road (N)	To	446	492	584	640	447	573	-194	44	11	44%	-9%	-2%	8.3	2.0	0.5	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 12 Leyland Road (S)	From	602	562	753	862	602	874	-260	-41	-121	43%	7%	16%	9.6	1.7	4.2	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 12 Leyland Road (S)	To	690	592	748	644	614	525	46	-22	223	-7%	4%	-30%	1.8	0.9	8.8	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 13 Brownedge Road	From	295	248	308	379	249	387	-85	-1	-79	29%	0%	26%	4.6	0.1	4.2	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 13 Brownedge Road	To	425	269	404	221	227	328	204	41	75	-48%	-15%	-19%	11.4	2.6	3.9	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass
MCC 13 Leyland Road	From	690	592	748	644	614	525	46	-22	223	-7%	4%	-30%	1.8	0.9	8.8	Pass			Pass	Pass	Pass	Pass			Pass	Pass	Pass		Pass		Pass	Fail	Pass
MCC 13 Leyland Road	To	602	562	753	862	602	874	-260	-41	-121	43%	7%	16%	9.6	1.7	4.2	Fail			Fail	Fail	Fail	Pass			Pass	Pass	Pass		Pass		Pass	Pass	Pass
MCC 13 Watkin Lane	From	642	547	757	582	423	561	60	125	196	-9%	-23%	-26%	2.4	5.7	7.6	Pass			Pass	Pass	Pass	Fail			Fail	Fail	Fail		Fail		Fail	Fail	Fail
MCC 13 Watkin Lane	To	599	557	656	522	456	270	77	101	386	-13%	-18%	-59%	3.2	4.5	17.9	Pass			Pass	Pass	Pass	Fail			Fail	Pass	Pass	Fail			Fail	Fail	Fail