

A426/A4071 Avon Mill and Hunters Lane Improvement Scheme, Rugby

This document summarises results and findings from recently completed traffic modelling undertaken to assess the impact of the A426 / A4071 Avon Mill and Hunters Lane Improvement Scheme on the highway network in Rugby. The summary conclusions are that:

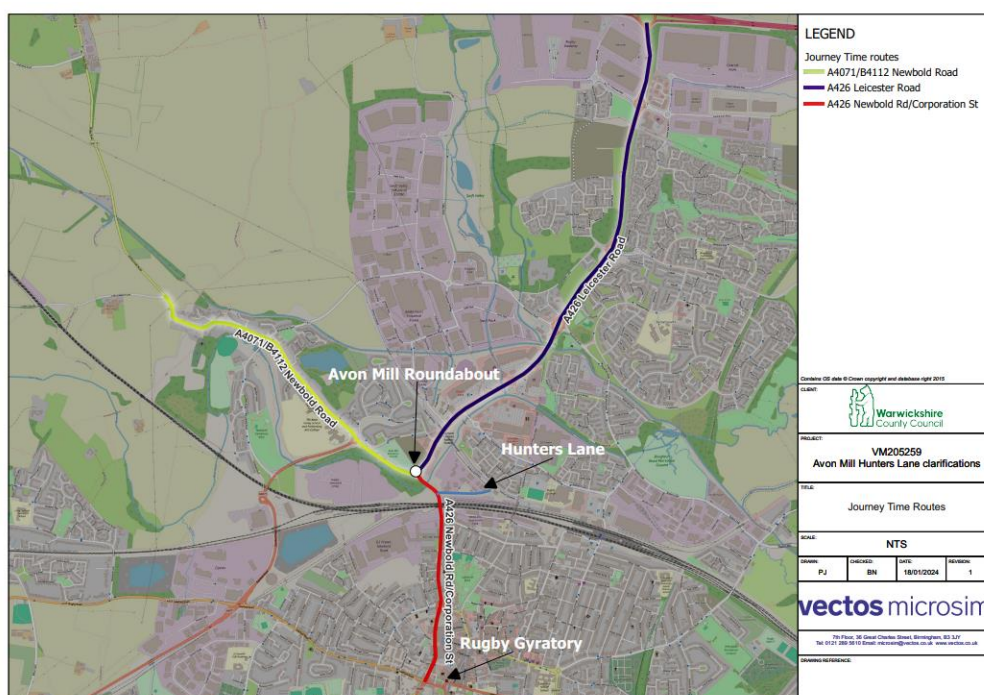
1. Congestion in the scheme area will increase significantly in the future without the scheme.
2. Average journey times and queue lengths will be significantly less in the future with the scheme compared to without the scheme.

The results are based on the predicted traffic volumes in 2026, 2031 and 2041 which take account of expected new developments and national traffic growth forecasts for the Rugby area. The traffic modelling has recently been updated to reflect changes in travel behaviour following the Covid-19 pandemic in line with Department for Transport guidance issued in November 2023.

This Avon Mill summary document outlines the key changes in predicted average journey times (delays) on the key approaches and exits at Avon Mill Roundabout with and without the scheme for the routes described below, and also compares average queue lengths.

- **A4071/B4112 Newbold Road approach and exit:** Between junction of B4112 Main Street / Little Lawford Lane (start of 30mph speed limit) and Avon Mill Roundabout. Shown in yellow in **Figure 1** below.
- **A426 Leicester Road approach and exit:** Between M6 Junction 1 and Avon Mill Roundabout. Shown in dark blue in **Figure 1** below.
- **A426 Newbold Road/Corporation Street approach and exit:** Between the junction of A426 Corporation Street / Lawford Road / Warwick Street and Avon Mill Roundabout. Shown in red in **Figure 1** below.

Figure 1 – Journey Time Routes



Average journey times (traffic travelling towards Avon Mill Roundabout)

Figures 2 to 7 below compares the predicted average journey times (delays) for traffic heading towards Avon Mill Roundabout with and without the scheme. The data presented in Figures 2 to 4 are presented in the bar charts in Figures 5 to 7.

The results show significant improvements in average journey times (reduced delays) on the A426 Leicester Road south-westbound and A426 Newbold Road/Corporation Street northbound approaches to Avon Mill Roundabout in the 'With Scheme' scenarios. These improvements are more noticeable in 2031 and 2041 as the scheme accommodates the effects of additional traffic generated by new homes and jobs expected to be built out in Rugby over the next 17 years.

There are relatively minor increases in average journey times predicted on the A4071/B4412 Newbold Road southbound approach to Avon Mill with the proposed scheme. These are likely to be due to the large increase in traffic predicted to use the roundabout as a result of the scheme. These are significantly outweighed by the major improvements in journey times on the other approaches.

Figure 2 Avon Mill - Average Journey Times in 2026 (minutes).

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm - 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road south-westbound approach.	5.5	4.4	5.0	4.3
A426 Newbold Road/Corporation Street northbound approach.	2.9	2.3	11.7	2.2
A4071 Newbold Road south-eastbound approach.	2.6	2.9	2.6	2.9

Figure 3 Avon Mill - Average Journey Times in 2031 (minutes)

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm - 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road south-westbound approach.	4.9	4.4	5.0	4.3
A426 Newbold Road/Corporation Street northbound approach.	3.5	2.4	13.7	2.4
A4071 Newbold Road south-eastbound approach.	2.6	2.7	2.6	2.7

Figure 4 Avon Mill - Average Journey Times in 2041 (minutes)

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm – 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road south-westbound approach.	8.3	5.2	8.2	4.7
A426 Newbold Road/Corporation Street northbound approach.	4.2	2.5	15.4	2.6
A4071 Newbold Road south-eastbound approach.	2.7	2.8	2.8	2.7

Figure 5 – A426 Leicester Road (south-westbound). Average Journey Times (minutes)

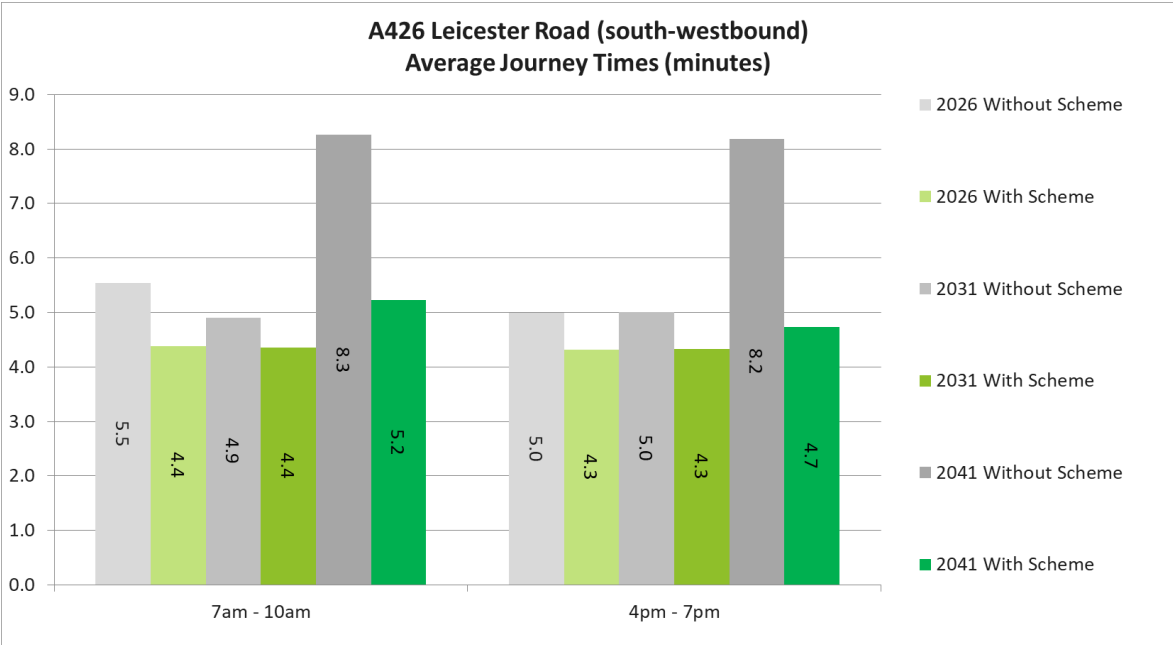


Figure 6 – A426 Newbold Road/Corporation Street (northbound). Average Journey Times (minutes)

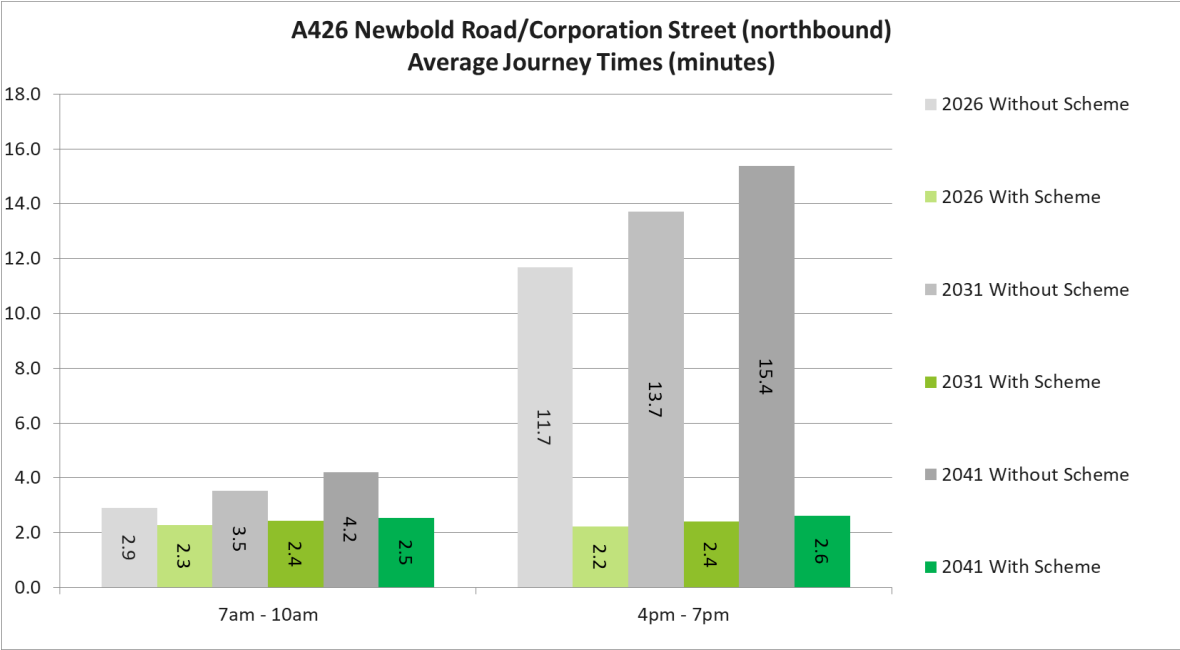
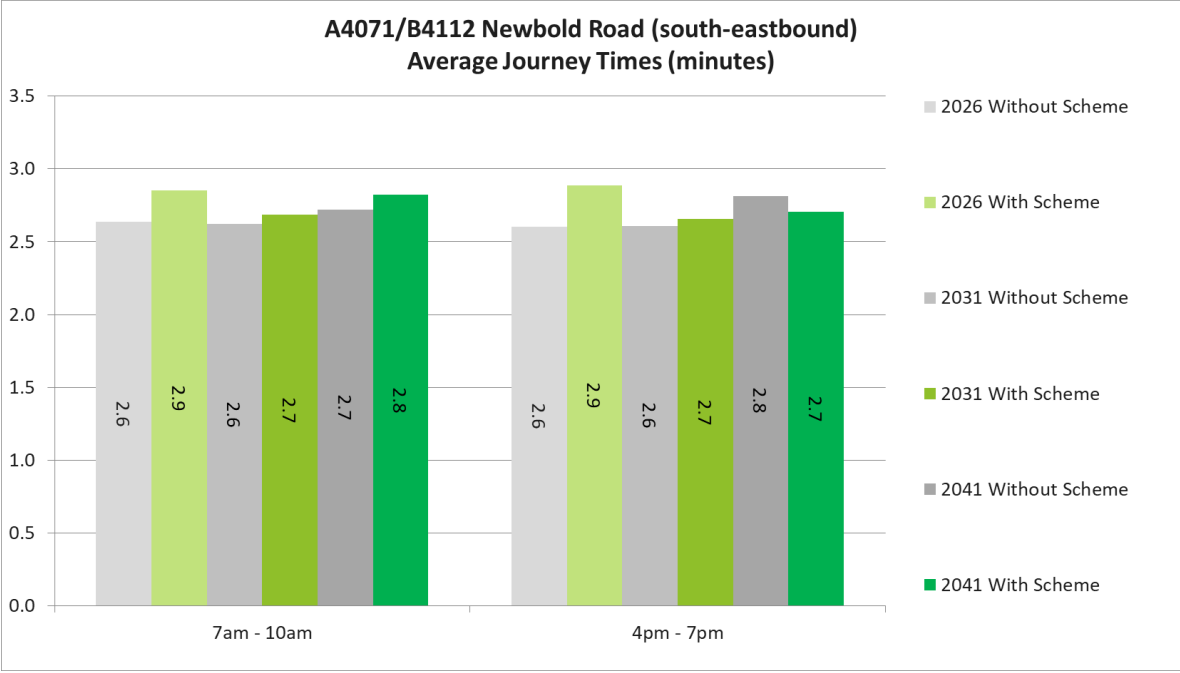


Figure 7 – A4071/B4112 Newbold Road (south-eastbound). Average Journey Times (minutes)



Average maximum queue lengths on the approaches to Avon Mill Roundabout

The queuing assessment results are presented below and these are consistent with the above journey time result, with the most significant reductions in queuing predicted on the A426 Leicester Road south-westbound and A426 Newbold Road northbound approaches to Avon Mill Roundabout.

There are relatively small increases in queuing predicted on the A4071 Newbold Road south-eastbound approach to Avon Mill. This is likely to be due to the large increase in traffic predicted to use the roundabout as a result of the scheme, but the increases are relatively small. They are also far outweighed by the more significant reductions in queuing predicted on the other roundabout approaches.

Figure 8 Avon Mill - Average Maximum Queue lengths in 2026 (vehicles)

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm – 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road south-westbound approach.	30	13	30	10
A426 Newbold Road northbound approach	25	1	35	0
A4071 Newbold Road south-eastbound approach.	6	11	5	9

Figure 9 Avon Mill - Average Maximum Queue lengths in 2031 (vehicles)

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm – 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road south-westbound approach.	29	13	33	9
A426 Newbold Road northbound approach	29	6	36	8
A4071 Newbold Road south-eastbound approach.	5	7	5	6

Figure 10 Avon Mill - Average Maximum Queue lengths in 2041 (vehicles)

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm – 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road south-westbound approach.	45	31	45	14
A426 Newbold Road northbound approach	31	8	36	9
A4071 Newbold Road south-eastbound approach.	8	14	7	7

Figure 11 – A426 Leicester Road (south-westbound). Average Maximum Queue Lengths (vehicles)

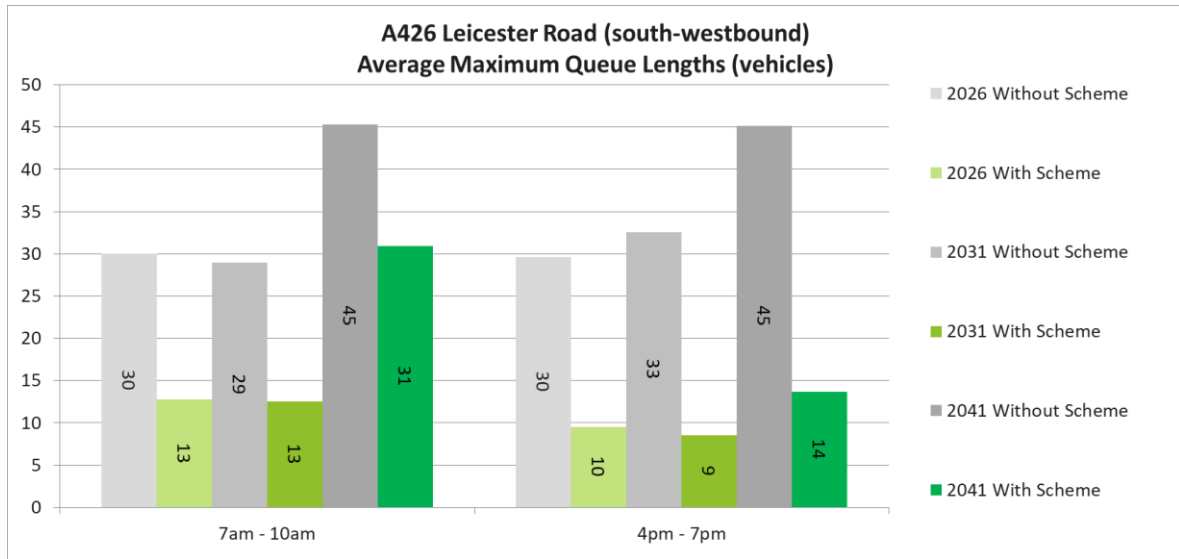


Figure 12 – A426 Newbold Road (northbound). Average Maximum Queue Lengths (vehicles)

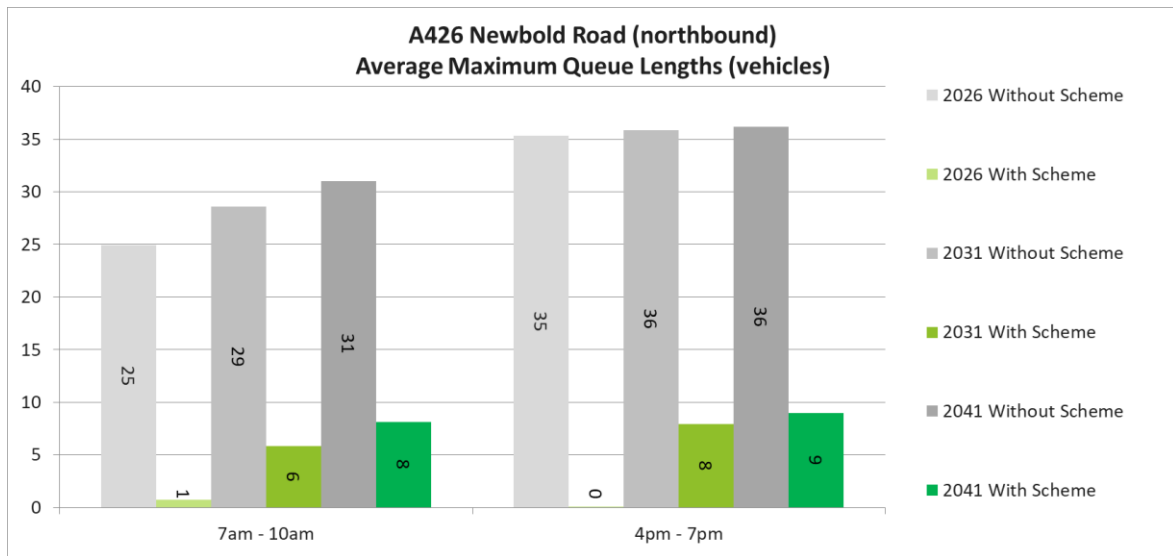
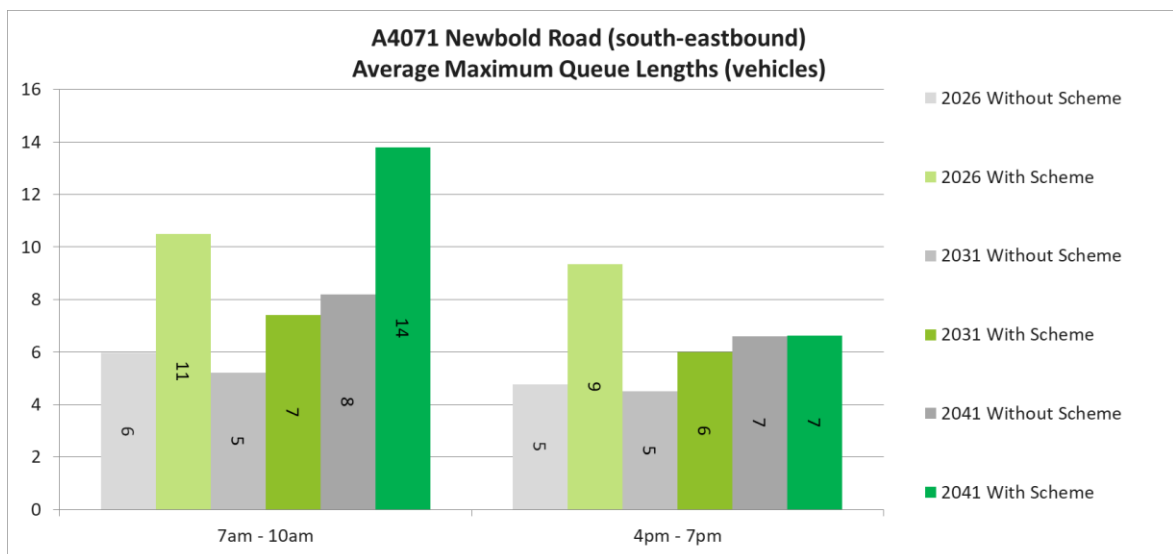


Figure 13 – A4071 Newbold Road (south-eastbound). Average Maximum Queue Lengths (vehicles)



Average journey times (traffic travelling away from Avon Mill Roundabout)

Figures 14 to 19 below summarise predicted average journey times (delays) for traffic travelling away from Avon Mill Roundabout with and without the scheme. The results show relatively little change in average delays despite the large increase in traffic predicted to use the roundabout as a result of the scheme.

Figure 14 Avon Mill - Average Journey Times in 2026 (minutes).

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm – 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road north-eastbound exit.	3.7	3.7	3.6	3.7
A426 Newbold Road/Corporation Street southbound exit.	2.4	2.6	3.2	3.1
A4071 Newbold Road north-westbound exit.	2.5	2.6	2.6	2.6

Figure 15 Avon Mill - Average Journey Times in 2031 (minutes)

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm - 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road north-eastbound exit.	3.9	3.9	3.7	3.8
A426 Newbold Road/Corporation Street southbound exit.	2.4	2.5	2.8	2.8
A4071 Newbold Road north-westbound exit.	2.5	2.5	2.6	2.6

Figure 16 Avon Mill - Average Journey Times in 2041 (minutes)

Route	Morning weekday peak travel period (7am - 10am)		Afternoon weekday peak travel period (4pm – 7pm)	
	Without Scheme	With Scheme	Without Scheme	With Scheme
A426 Leicester Road north-eastbound exit.	4.0	4.0	3.9	3.9
A426 Newbold Road/Corporation Street southbound exit.	2.6	2.9	3.4	3.4
A4071 Newbold Road north-westbound exit.	2.5	2.6	2.6	2.6

Figure 17 – A426 Leicester Road (north-eastbound). Average Journey Times (minutes)

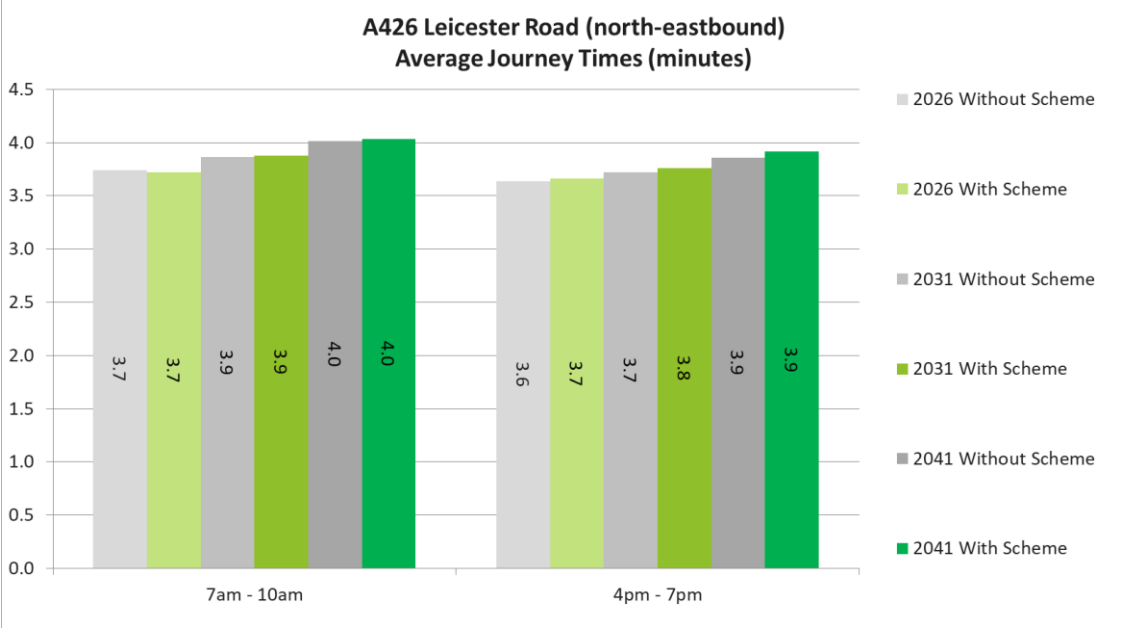


Figure 18 – A426 Newbold Road/Corporation Street (southbound). Average Journey Times (minutes)

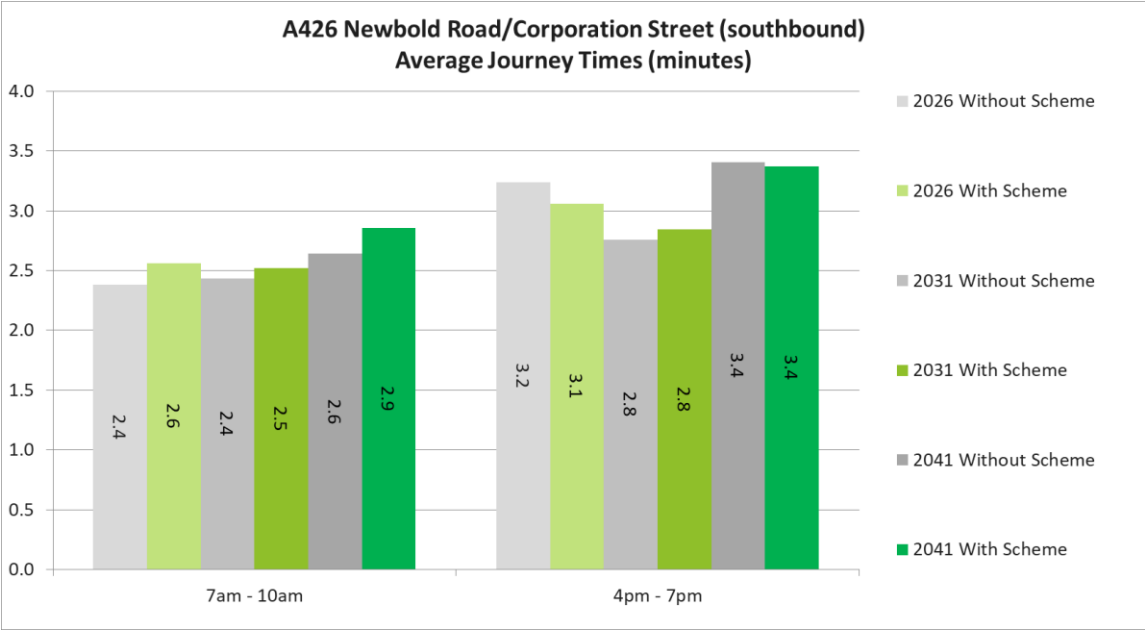
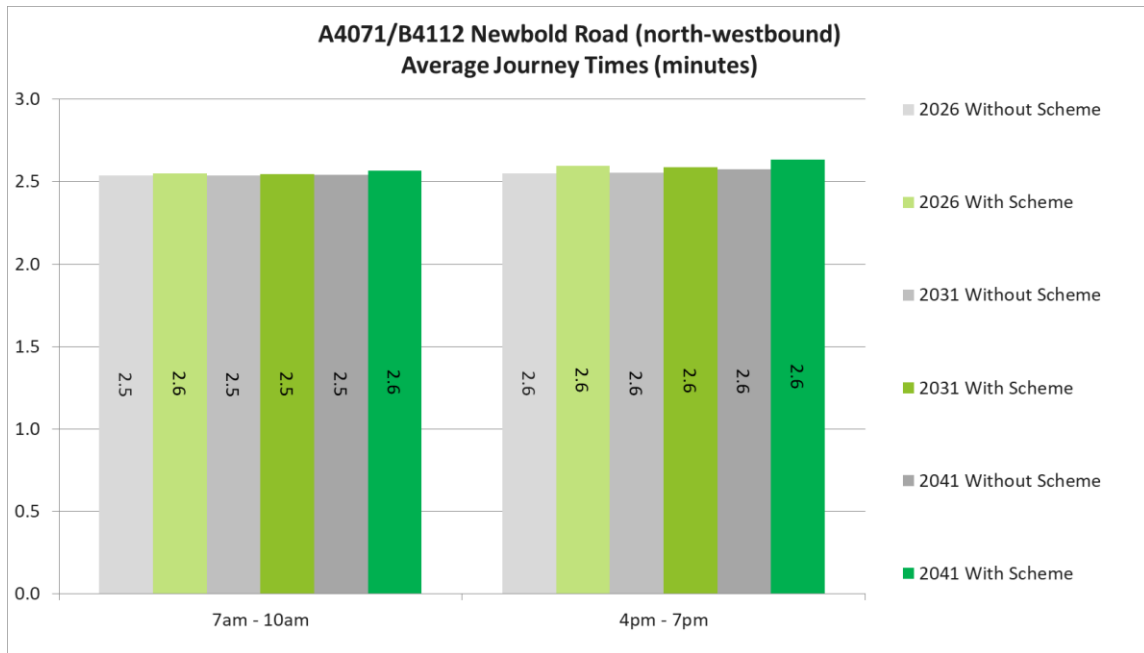


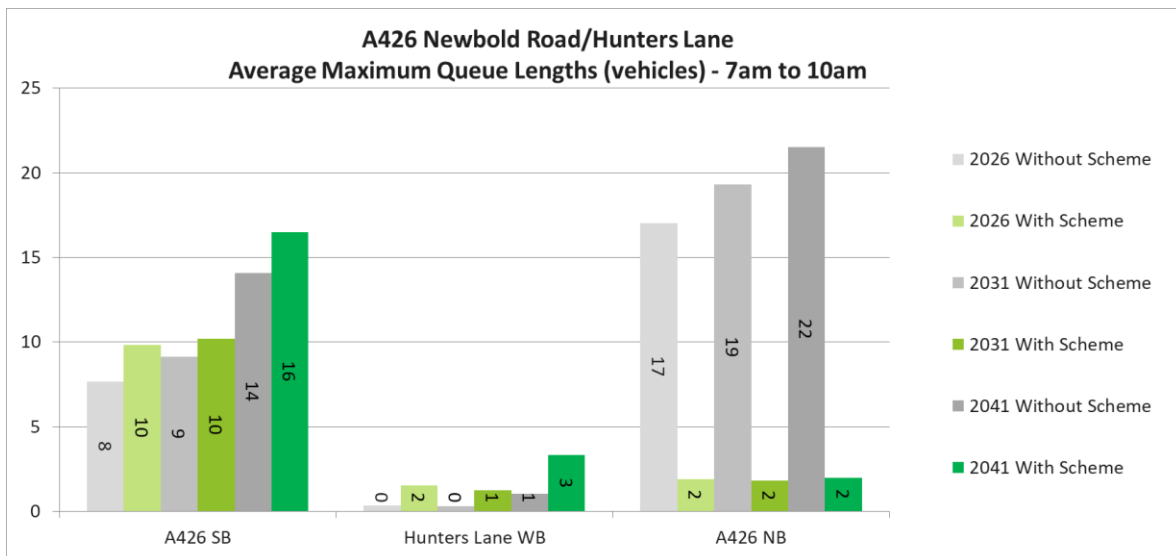
Figure 19 – A4071/B4112 Newbold Road (north-westbound). Average Journey Times (minutes)



There is a slight increase in southbound journey times predicted on A426 Newbold Road/Corporation Street southbound between Avon Mill and Rugby Gyratory during the 7am to 10am weekday morning peak travel period as shown in **Figures 16 and 18** above.

This is likely to be due to southbound traffic slowing down on the southbound approach to the new Hunters Lane Roundabout to give way to vehicles turning right into Hunters Lane. This effect is shown in **Figure 20** below where there is a slight increase in queuing on the A426 Newbold Road southbound approach to the new roundabout.

Figure 20 – A426 Newbold Road/Hunters Lane Average Maximum Queues (Vehicles)



To the south of the Hunters Lane junction, there are no increases in queuing predicted on the A426 Newbold Road southbound approach to Evreux Way Roundabout or on the A426 Corporation Street southbound approach to Rugby Gyratory as shown in **Figures 21 and 22**

below. This suggests that the slight increase in delay on The A426 corridor between Avon Mill and Rugby Gyratory is localised on the A426 Newbold Road southbound approach to Hunters Lane Roundabout.

Figure 21 – A426 Evreux Way Roundabout Average Maximum Queues (Vehicles) – 7am to 10am

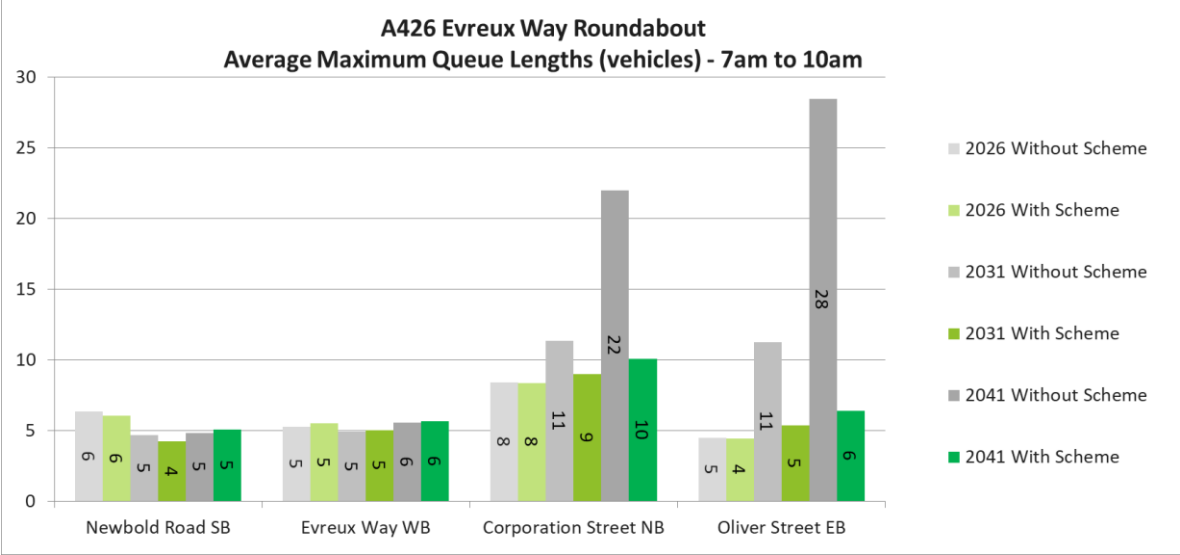
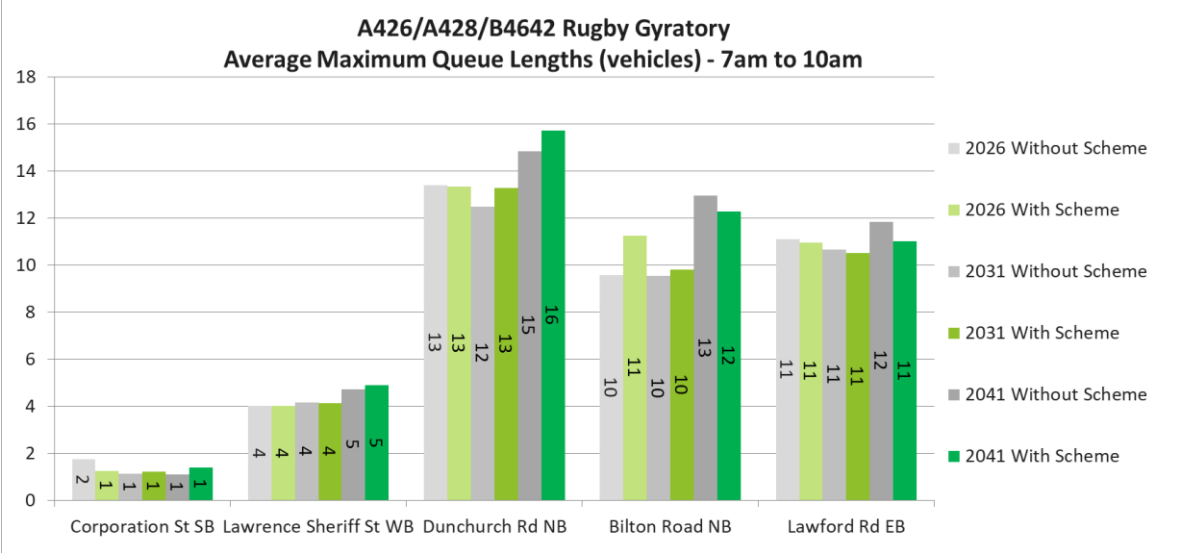


Figure 22 – A426/A428/B4642 Rugby Gyratory - Average Maximum Queues (Vehicles) – 7am to 10am



Average bus journey times (services operating via Avon Mill Roundabout)

The two main local bus services which currently operate via Avon Mill Roundabout are as follows:

- **Arriva Midlands X84 (Rugby-Lutterworth-Leicester) operates every hour Newbold Road-Avon Mill Roundabout-Leicester Road and vice versa (Mondays to Saturdays).**
- **National Express Coventry 85/85b/85S (Rugby-Newbold-Brinklow-UHCW-Coventry) operates every hour Newbold Road-Avon Mill Roundabout-Newbold Road and vice versa (Mondays to Saturdays).**

A comparison of average bus times with and without the scheme for these services during the weekday morning and evening peak travel periods in 2031 is shown in **Figures 23 and 24** below. These show a slight reduction in delays for Service X84 (Northbound and Southbound) and Service 85 (Northbound).

There is a very slight increase in average journey times for Service 85 (Southbound) which may be related in part to buses slowing down on A426 Newbold Road (southbound) and waiting to give way to opposing traffic turning right into Hunters Lane at the new roundabout.

Figure 23 – Avon Mill Roundabout – Average Bus Journey Times (minutes) – 7am to 10am

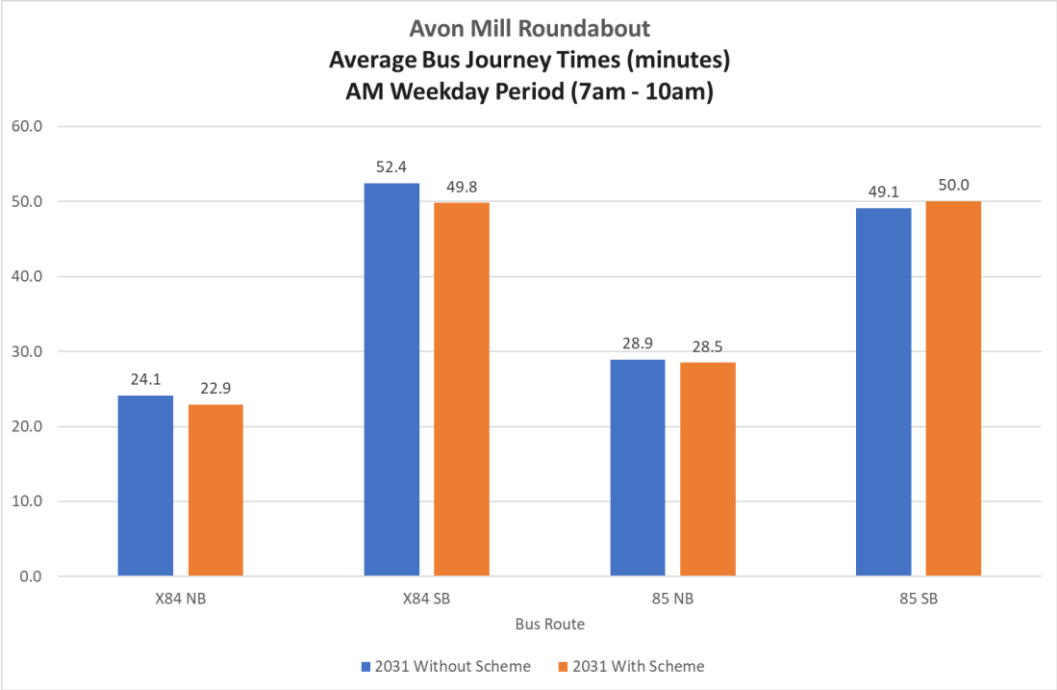


Figure 24 – Avon Mill Roundabout – Average Bus Journey Times (minutes) – 4pm to 7pm

