

## Non-Technical Summary of Rougier Route Modelling Assessment

### 1 Introduction

This summary of the Rougier Route Transport Modelling Assessment provides:

- Information about how bus journeys are regulated.
- Information about traffic flows and journey times on Rougier Route.
- The context of the modelling assessment.
- The modelling assessments conclusions.

#### 1.1 Bus Operation

By law, bus operators must deliver their services on time. There is a small amount of flexibility in the timetables, known as a 'window of tolerance' which is set by the Office of the Traffic Commissioner. Bus services should depart from timing points up to 1 minute early, and no more than 5 minutes late. 95% of registered services need to operate within this window.

The Office of the Traffic Commissioner has legal powers under the Transport Act 2000 to fine or otherwise penalise operators who fail to meet expected standards. Any fine is subject to a public inquiry, at which the operators may provide mitigating evidence in their defence.

To meet their timetable obligations, bus operators must account for the probable worst case travel time.

We analysed TomTom journey time data on the Rougier Route corridor (Rougier Street, George Hudson Street, Micklegate, Ouse Bridge Clifford Street and Tower Street) It is clear on average, Friday journey times are significantly slower than the journey times from Monday to Thursday. If the journey time on Rougier Route could be kept close to free flow periods, when there is little traffic on the route, bus services would benefit from quicker and reliable journey times each day of the week, allowing bus operators to remove some slack from the timetable and run more reliable, attractive services. There is still significant variation in Monday – Thursday journey times across the day so a Friday only bus

timetable would not resolve the problem. All a Friday only timetable would achieve is slower journeys on a Friday, but with greater reliability.

Our analysis of Analyse Open Bus Data between the timing points from Clifford Street to the Rail Station suggests, on Monday to Thursday between 1500-1800, the saving could be nearly 6 minutes (05:53minutes) and on Friday nearly 11 minutes (10:52minutes).

**Section 0** explores Rougier Route journey times in more detail.

## 1.2 Pedestrians

There are 2.3 times more pedestrians using Ouse Bridge than there are vehicles. In 2025, 16,305 pedestrians crossed Ouse Bridge over 12 hours compared to 7,040 vehicles. 28 of the 52 casualties on the Rougier Route corridor between 2020 and 2024 inclusive were pedestrians.

Our traffic modelling assessment and traffic survey analysis data suggests vehicular traffic flows over Ouse Bridge could decline by 80-90% with Rougier Route Trial Scheme. This would dramatically improve the pedestrian experience across Ouse Bridge and significantly reduce the risk of vehicle-pedestrian collisions, aligning with our commitment to reach Vision Zero by 2040.

## 1.3 Impact on Vehicles

We forecast the probable impact on vehicle drivers and passengers using our transport model of York's Highway Network. The methodology is detailed in **Section 4** and key findings in **Section 5**.

Our transport model includes all of York's Highway Network, we can see how a scheme could impact different parts of the city. Our model includes cars, light goods vehicles and heavy goods vehicles. We used our morning peak hour and afternoon peak hour models in this analysis.

Most vehicle trips in York will be unaffected by the Rougier Route trial. In the morning peak hour, only 3% of vehicle trips increased by more than 1 minute, in the afternoon peak 9% trips increased by more than 1 minute.

In the morning peak 92% trips, and in the afternoon peak 71% trips, changed by up to plus or minus 30 seconds. In practical terms these trips are experiencing an insignificant change journey time with or without Rougier Route Trial that is in line with day to variability.

The model does forecast increased travel times on the Inner Ring Road.

Table 4 shows modelled journey time changes in our City Centre. Journeys that use one of or travel near to Museum Street, Queen Street, Nunnery Lane, Skeldergate Bridge will likely be affected.

The largest increase in private car journey times occur on the inner ring road between Museum Street > Station Road > Nunnery Lane > Skeldergate Bridge. This is the main diversion route from the Rougier Route.

**Table 1 Inner Ring Road Journey Time Changes with the Highest Increase (minutes : seconds)**

Inner Ring Road Section	Morning		Afternoon	
	Journey time Change (mm:ss)	% Change	Journey time Change (mm:ss)	% Change
Blossom Street Station Road to Museum Street	00:50	8%	01:20	14%
Museum Street Station Road to Blossom Street	01:10	17%	02:10	31%
Blossom Street Skeldergate Bridge Tower Street	1:50	23%	01:50	25%
Tower Street Skeldergate Bridge to Blossom Street	01:30	28%	01:10	19%

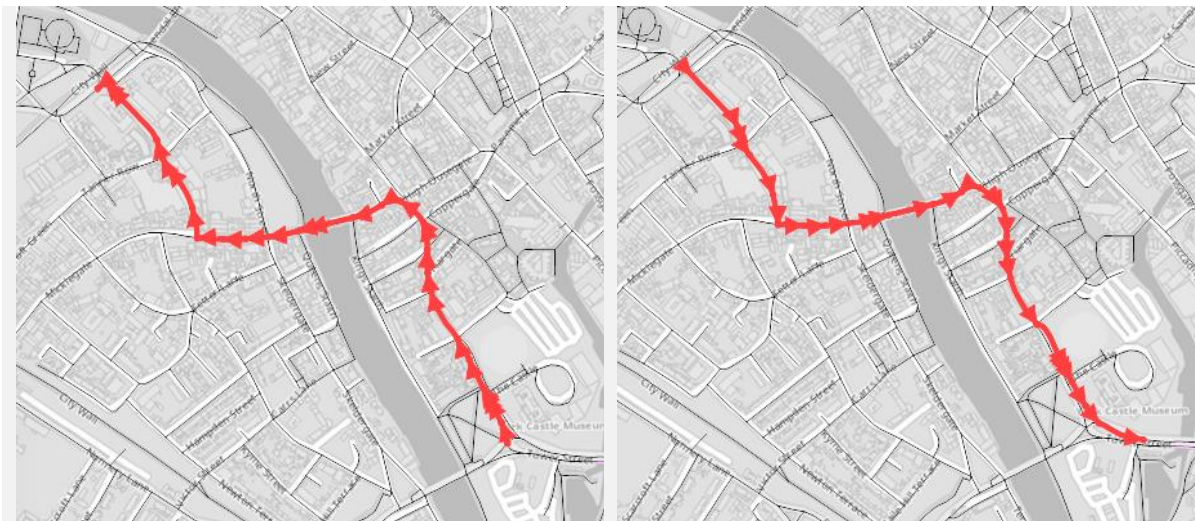
## 2 Rougier Route Journey Times

We used TomTom journey time data from the entirety of 2025, to assess the journey time, between Rougier Street and Tower Street, and Tower Street and Rougier Street. TomTom journey time data does not include bus journey times. There is no bus priority on the Rougier Route corridor at present. So general traffic journey times act as a good proxy for the actual journey times that bus passengers experience (excluding times spent at bus stops).

The journey time routes are shown below.

### Tower Street to Rougier Street

### Rougier Street to Tower Street



We cross checked TomTom data with publicly available bus journey time information from Analyse Bus Open Data.

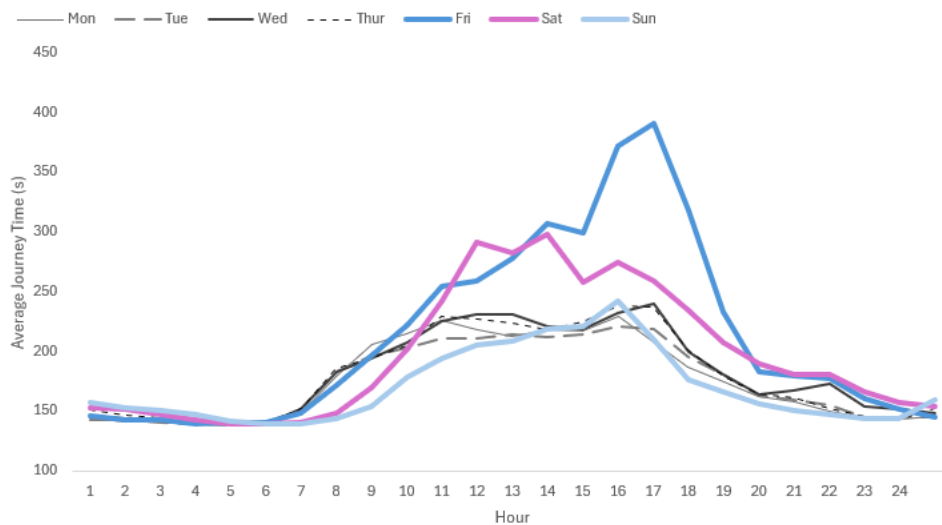
## 2.1 Tower Street to Rougier Street

The chart below shows average journey time (seconds) from Tower Street to Rougier Street, by hour, by day of week for 2025. The following is clear:

- **Friday** average journey times are slower and less predictable than other weekdays between 10:00 and 20:00.
- **Saturdays** have the next slowest journey times. **Sundays** have the quickest journey times.
- Journey times from Monday to Thursday are broadly comparable.
- If we could maintain free flow journey times there is a potential 4 minute average journey time saving for buses over this roughly half mile route. This is based on the difference between the Friday afternoon peak and free flow journey time. This excludes variable travel times and does not account for slower than average journey times which are significant.

## 2.1.1 Average Journey Times

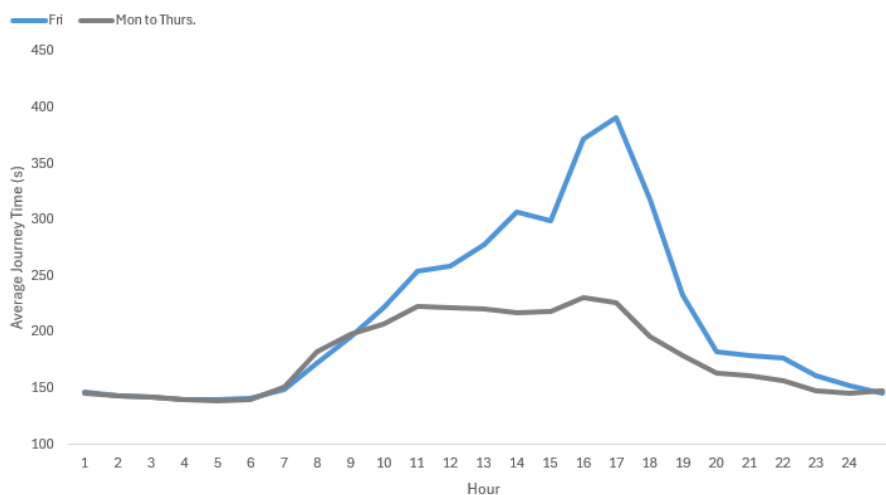
### Chart 1 – Average 2025 Journey Time by Hour (24-hour clock) by day Tower Street to Rougier Street



The average free flow journey time when traffic flows are low from 20:00 to 07:00 is 150 seconds. The average Friday journey time between 1700-1800 is 390 seconds. If the Rougier Route journey time could be kept close to the free flow journey times, there are significant time savings (4 minutes) available for buses.

The difference in average journey times between Monday to Thursday compared to Friday can be seen more clearly in Chart 2. This shows Friday and Monday to Thursday average journey times.

### Chart 2 – Average Mon to Thurs and Friday 2025 Journey Time by Hour by Day Tower Street to Rougier Street

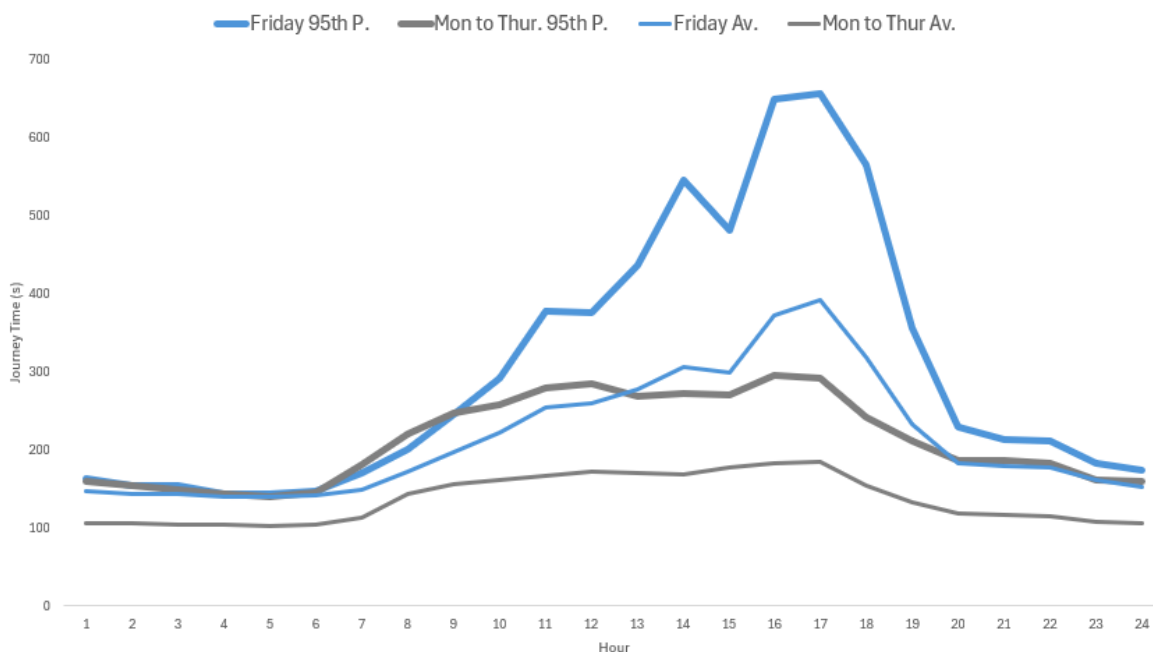


## 2.1.2 Journey time Variation

Friday journey times are the slowest. They also experience the greatest variation. Meaning journeys are less reliable and predictable.

The chart below shows the average Friday journey time by hour, the 25<sup>th</sup>, 75<sup>th</sup> and 95<sup>th</sup> percentile times. The thick dark blue line is the Friday 95<sup>th</sup> percentile and the thin blue line is the Friday average. The thick grey line is the 95<sup>th</sup> percentile time for Monday to Thursday and the thin grey line is the average journey time.

**Chart 3 – Average, and 95<sup>th</sup> Percentile Friday and Monday to Thursday journey times Tower Street to Rougier Street**



The 95<sup>th</sup> percentile means that:

- 5% of journeys took longer than the 95<sup>th</sup> percentile journey time; and
- 95% of trips were equal to or less than the 95<sup>th</sup> percentile time.

95% of bus trips should be no later than 5 minutes late or 1 minute early between timing points.

We can see the following about Friday journey time between 1700-1800:

- The 95<sup>th</sup> percentile time is 11 minutes; and
- the average time is 6 and a half minutes.

- 'free flow bus time' is 2 and a half minutes (early mornings and evenings)

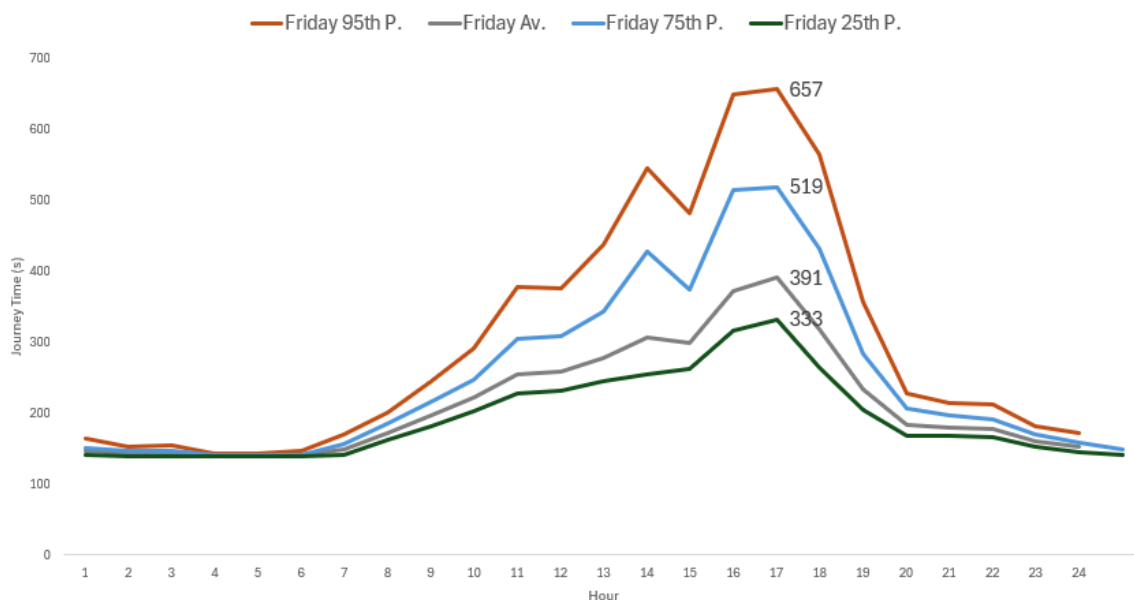
On Monday to Thursday between 1700-1800 we can see that:

- the 95<sup>th</sup> percentile time is 5 minutes: and
- the average is 3 minutes.
- 'free flow bus time' is less than 2 minutes (early mornings and evenings)

If a bus operator wishes to have a Monday to Friday timetable and meet the reliability criteria, they would need to account the for Friday 95<sup>th</sup> percentile time. Friday's services account for 20% of the timetable. So, 80% of trips would need to run artificially slow to meet the reliability target.

Arguably a bus operator could run a Friday only timetable. Even that is not simple. The chart below shows Friday Average, 25<sup>th</sup>, 75<sup>th</sup> and 95<sup>th</sup> percentile travel times.

**Chart 4 – Average, 25<sup>th</sup>, 75<sup>th</sup> and 95<sup>th</sup> Percentile Friday journey times Tower Street to Rougier Street**



If we consider the 1700-1800 journey time:

- The 95<sup>th</sup> percentile journey time is 11 minutes (675s)
- The 75<sup>th</sup> percentile is 8 minutes and 40 seconds (519s)

- The average is 6 minutes 30 seconds (391s)
- The 25<sup>th</sup> percentile is 5 minutes 30 seconds (333s)

There is a 5-minute difference, between the Friday 95<sup>th</sup> percentile journey time, and the average Friday journey time. Buses on an average day would need to go as slow as on a bad day for the service to meet reliability standards.

### 2.1.3 Analyse Bus Open Data

Slower Friday journey times are clear from Analyse Bus Open Data. Fortunately, there is a timing point from Clifford Street to Tower Street that aligns reasonably closely to Rougier Route. Analyse Bus Open Data only provides journey time data between timing points.

We compared Service 4's journey time from Tower Street to the Train Station for all of 2025 between 1500 and 1800.

The difference in average journey times is stark, from Monday to Thursday compared to Friday. On Friday only 23.8% services were on time between Clifford Street to Tower Street with average delay of 15 minutes and 12 seconds.

**Table 2 – Service 4 Average 2025 travel time between 1500-1800 from Clifford Street to Tower Street**

	<b>% On Time</b>	<b>% Late</b>	<b>Average Travel Time (mm:ss)</b>	<b>Average Delay (mm:ss)</b>
Monday to Thursday	60.2%	39.7%	10:28	06:10
Friday	23.8%	75.6%	15:27	15:12

The data for Monday to Thursday between 06:00 and 08:00, shows the average travel time is four and a half minutes. 95.6% services are on time.

**Table 3 – Service 4 Average 2025 travel time between 0600-0800 from Clifford Street to Tower Street**

	<b>% On Time</b>	<b>% Late</b>	<b>Average Travel Time (mm:ss)</b>	<b>Average Delay (mm:ss)</b>
Monday to Thursday	95.6%	4.4%	04:35	02:41

If travel time between Clifford Street and Rougier Street could be consistently close to travel times that occur between 0600-0800 Monday to Friday, then substantial journey time savings could be made. For Monday to Thursday between 1500-1800, the saving could be nearly 6 minutes (05:53) and on Friday nearly 11 minutes (10:52).

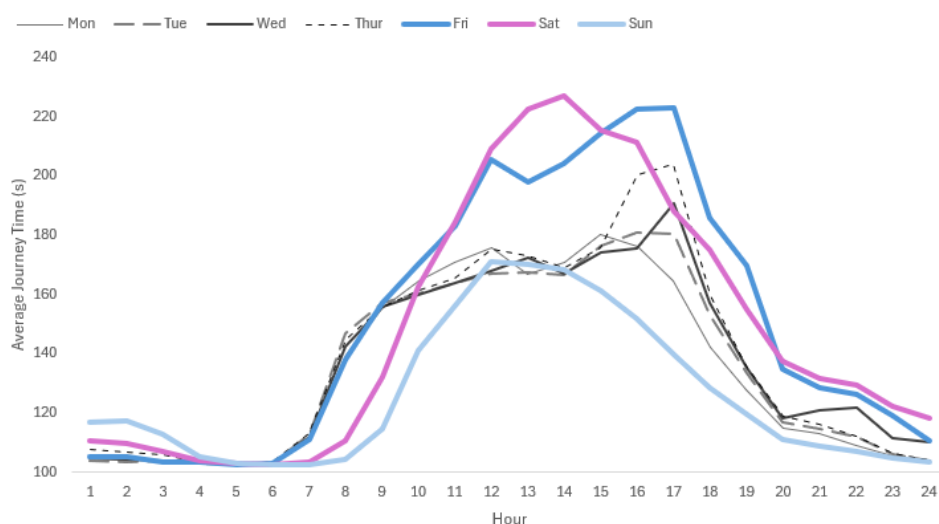
## 2.2 Rougier Street to Tower Street

The chart below shows average journey time (in seconds) from Tower Street to Rougier Street, by hour, by day of week for 2025. The following is clear:

- The journey time between Rougier Street to Tower Street is less volatile than from Tower Street to Rougier Street.
- The journey times are slowest on **Friday** and **Saturday**, and quickest on **Sunday**.
- Journey times from Monday to Thursday are broadly comparable.
- If the journey time from Rougier Street to Tower Street could be kept close to the free flow journey times, there are significant time savings (nearly 2 minutes) available for buses.

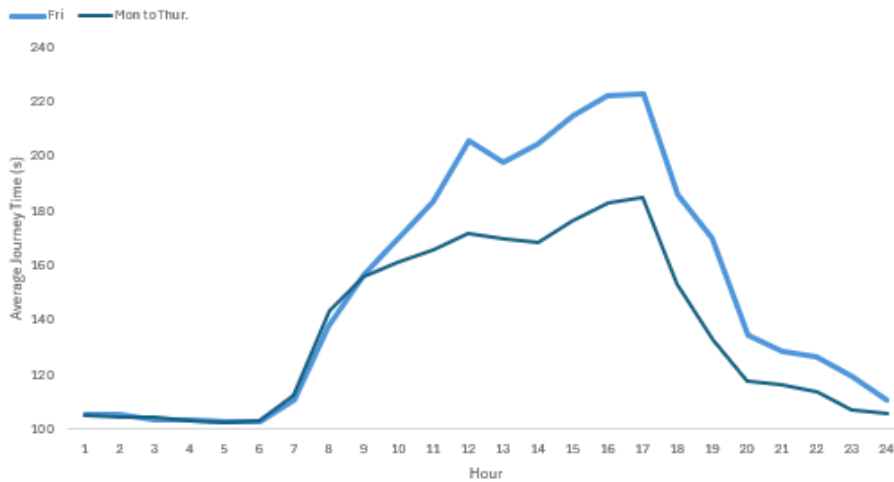
### 2.2.1 Average Travel Times

**Chart 5 – Average 2025 Journey Time by Hour by Day Rougier Street to Tower Street**



The difference between the average journey times between Monday to Thursday compared to Friday can be seen in Chart 6.

**Chart 6 – Average Mon to Thurs and Friday 2025 Journey Time by Hour by Day Rougier Street to Tower Street**

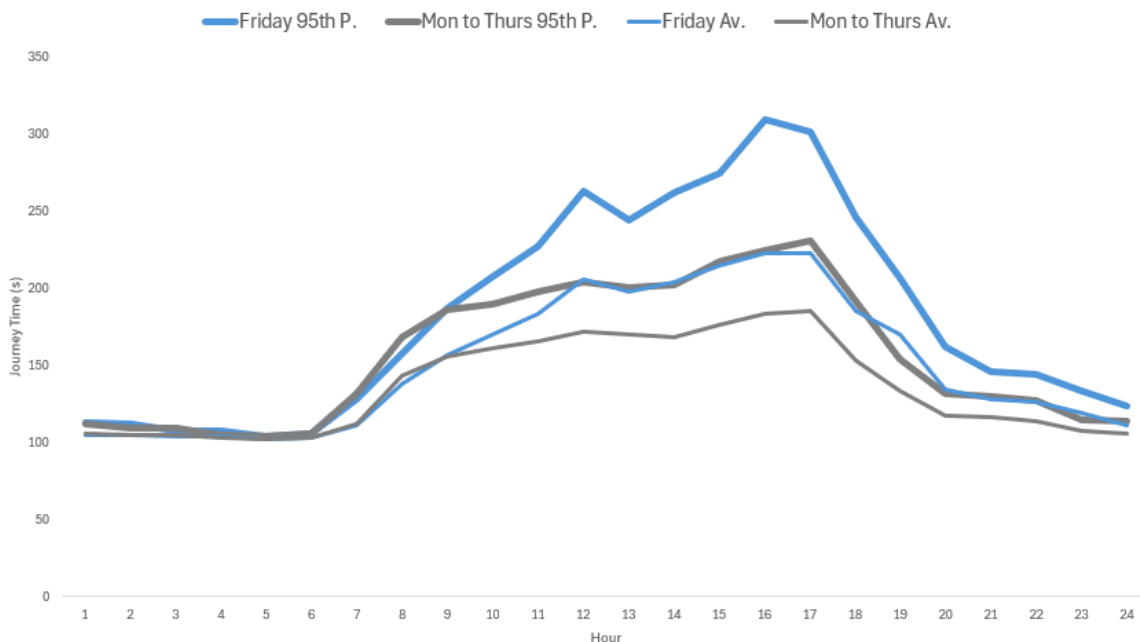


The average free flow journey time when traffic flows are low from 20:00 to 07:00 is 110 seconds. The average Friday journey time between 1700-1800 is 225 seconds (three and a quarter minutes). If the Rougier Route journey time could be kept close to the free flow journey times, there are significant time savings (nearly 2 minutes) available for buses.

### 2.2.2 Journey Time Reliability

Journey time reliability or predictability is not as significant from Tower Street to Rougier Street.

**Chart 7 – Average and 95<sup>th</sup> Percentile Friday, and Monday to Thursday Journey Time**



Between 1700-1800 on Friday the:

- 95<sup>th</sup> Percentile journey time is 5 minutes; and
- The average journey time is 3 minutes 40 seconds.

On Monday to Thursday:

- The 95<sup>th</sup> percentile journey time is 3 minutes 50 seconds; and
- The average time is three minutes.

## **Cross City Centre**

We have taken Fulford Road to Salisbury Terrace to reflect the most affected section of a cross-City Centre journey from two parts of York. In the morning the journey time is expected to increase from 13 minutes 50 seconds to 15 minutes 10 seconds – an increase of 1 minute 20. In the evening the reverse route has an increase of one minute 50 seconds. These journeys and the impact of the project on them will be monitored as part of the trial.

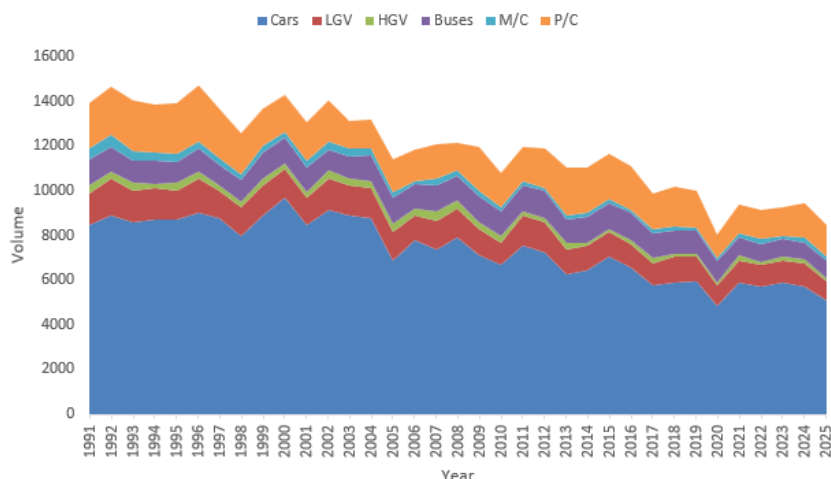
### 3 Rougier Route Traffic Information

This section summarises our traffic data on Rougier Route. We analysed our annual 12 hour bridge counts on Ouse Bridge for which we have data from 1991, and our October 2024 city centre traffic survey.

#### 3.1 Ouse Bridge Annual Survey

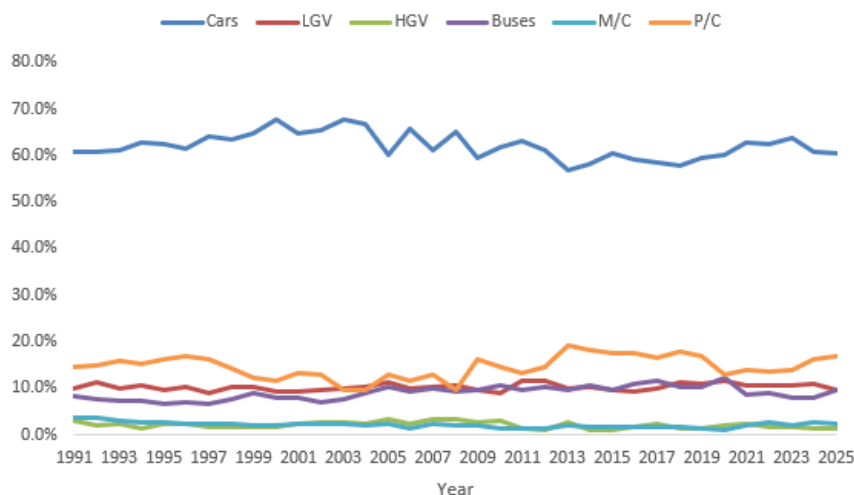
Ouse Bridge two-way 12-hour traffic volume has declined 40% from 1991 to 2025. In 1991 there were 14000 vehicles, this declined to 8500 in 2025.

**Chart 8 - Ouse Bridge Traffic Volume 1991 to 2025**



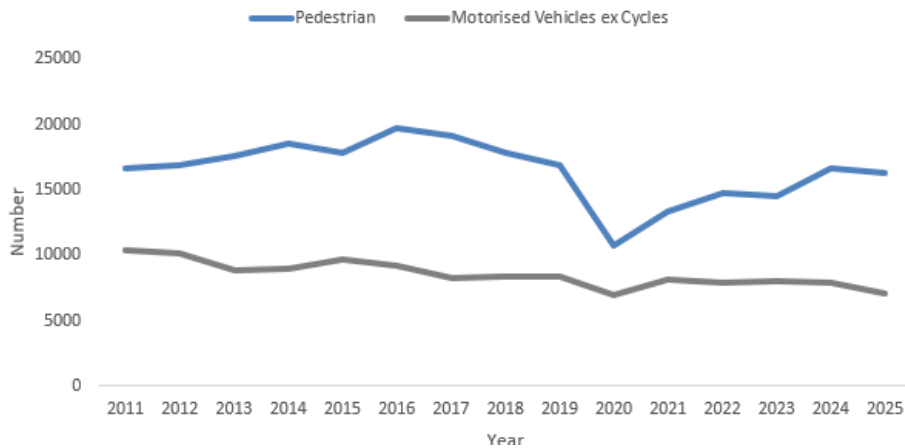
Mode share has been consistent. Car mode share including taxis has fluctuated around 60%, with buses around 9%. M/C is motorcycles and P/C is pedal cycles.

**Chart 9 - Ouse Bridge Mode Share 1991 to 2025**



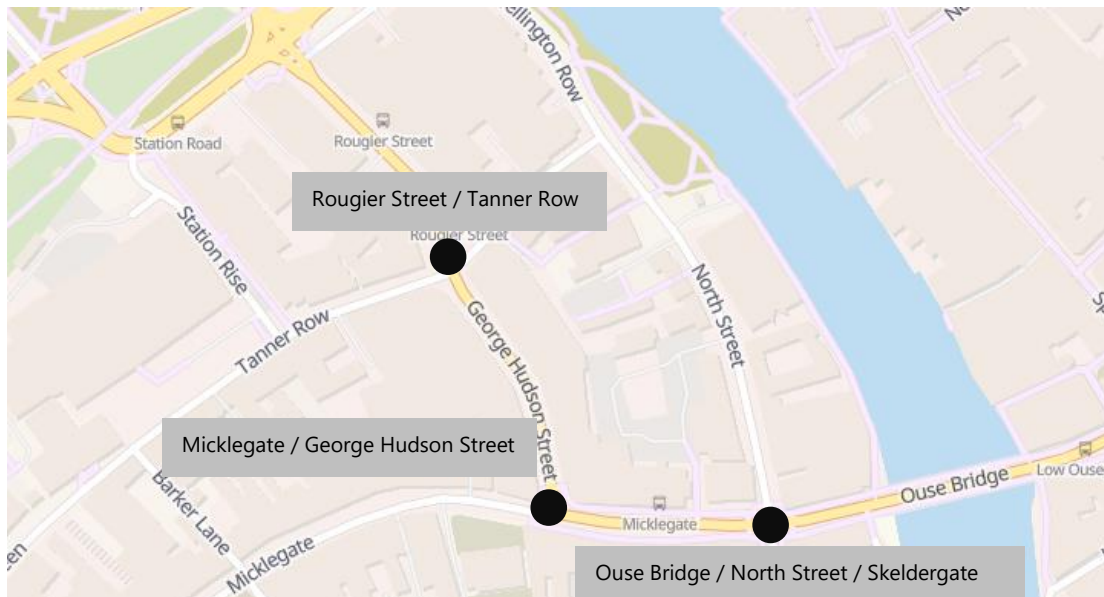
Pedestrians far outnumber motorised vehicles across Ouse Bridge. In 2025 there were 16,305 pedestrians compared to 7,040 vehicles. Pedestrian volume (shown in blue on Chart 10) has fluctuated between 2011 and 2025. Pedestrian flows in 2025 are 3% lower than in 2011, essentially unchanged. During this time vehicle flows declined by 54%.

**Chart 10 - Ouse Bridge Pedestrian and Vehicle Flows 2011 to 2025**



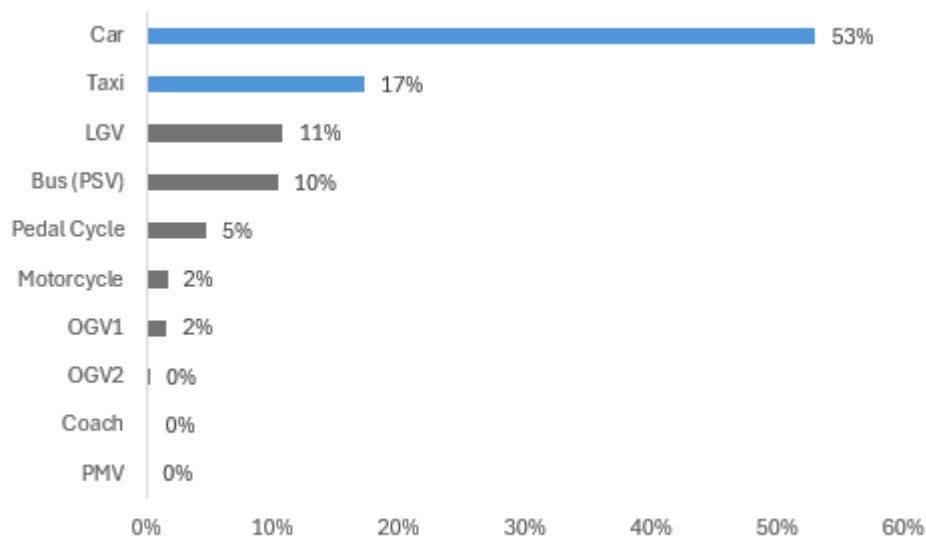
### 3.2 2024 Mode Share Survey Results

We commissioned a manual classified survey data in the City Centre in October 2024. We have interrogated this data over 12 hours 0700-1900 to determine mode share on Rougier Route at three locations.



### 3.3 Rougier Street Tanner Row

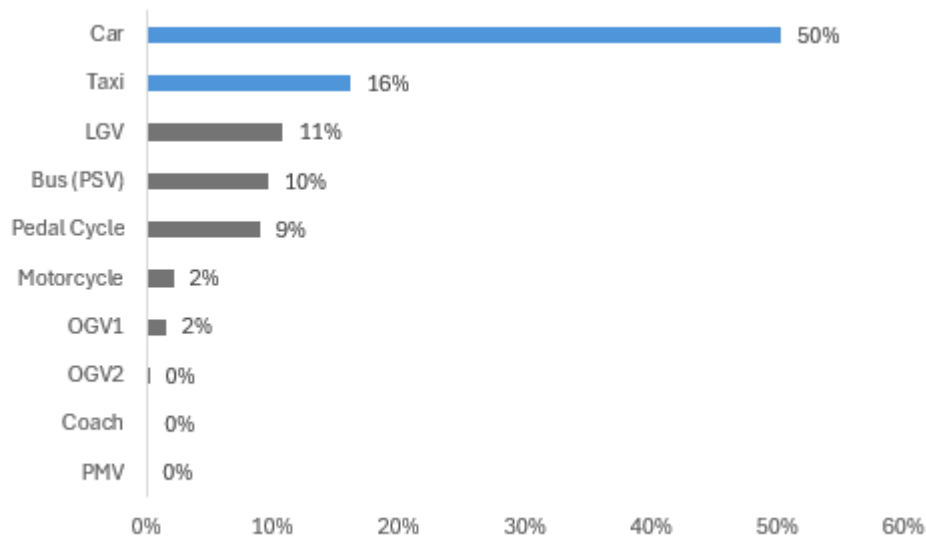
Chart 11 – Rougier Street Tanner Row Mode Split



Cars (53%) and Taxi (17%) account for 70% of vehicles through the junction with buses accounting for 10%.

### 3.4 Micklegate George Hudson Street

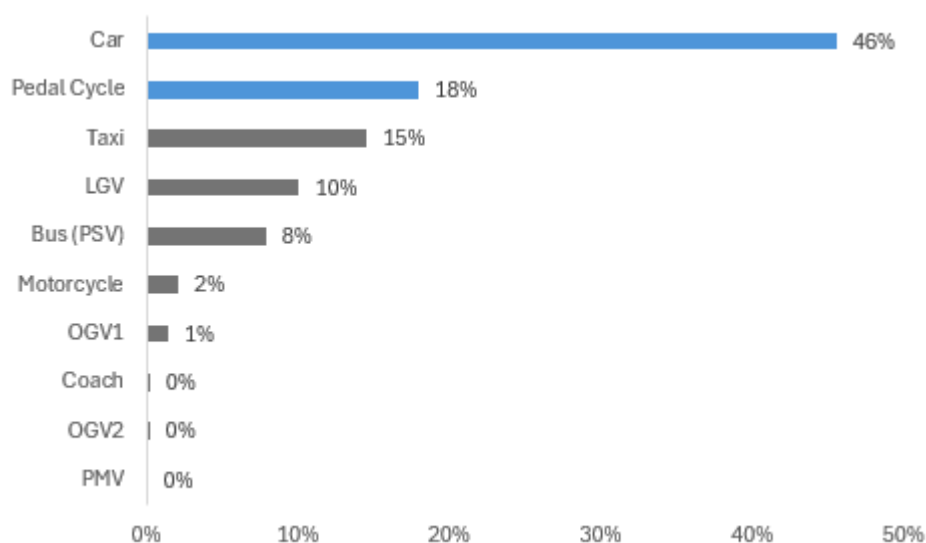
Chart 12 – Micklegate George Hudson Street Mode Split



Cars (50%) and Taxi (16%) account for 66% of vehicles through the junction with buses accounting for 10%.

### 3.5 Ouse Bridge / North Street / Micklegate / Skeldergate

**Chart 13 – Ouse Bridge / North Street / Micklegate / Skeldergate Mode Split**



Cars (46%) and Taxi (15%) account for 61% of vehicles through the junction with buses accounting for 8%. Cycle use is 18% at this junction as cyclists travel north and south between Skeldergate and North Street. Taxi percentages rise on a Saturday to 21% eastbound and 29% westbound passing through this junction.

#### 4 Model Context

Our transport model has been developed in accordance with Department for Transport Guidance. Our model, like all models, is a simplification of the real world.

The model includes public transport demand (the trips people make) and the public transport supply (bus and rail services).

The model includes private vehicle demand cars, light good vehicles and heavy good vehicles and the highway network.

Our “base” model represents a typical day in 2024 from a traffic neutral month. Traffic conditions of course vary by time of year, for example during Christmas Markets, school holidays, race days or when roadworks are active.

##### 4.1.1 What we cannot model

We modelled a scenario of the Rougier Route trial in the near future and compared it to a scenario without the Rougier Route trial. See section 4.2.1.1 for more details.

We accounted for known changes in the transport network. We cannot account for unexpected events. These include utility works which we see

frequently in York, can have significant impacts on short term travel behaviour. Other impacts include the changes the economy or events that change either the cost of travel such as increases or decreases in fuel price; added to this, Government bus travel subsidies could increase or decrease.

We have not accounted for how bus operators may respond to the Rougier Route. Should the project be approved, once journey times have been monitored and have settled, we expect that bus operators will run quicker timetabled services to take advantage of consistent travel times on Rougier Route.

## 4.2 Methodology

### 4.2.1 Base Year and Revalidation

Our Strategic Model was built with a 2019 base year according to guidance set out in Department for Transport (DfT) Transport Assessment Guidance (TAG).

We decided to revalidate the model with a focus on Yorks City Centre where the Rougier Route scheme will be.

We commissioned manual classified counts in Yorks City Centre in October 2024 we used those counts to revalidate the model in the morning and afternoon peak.

We recorded data from three mid-weekdays in October. We monitored journey times across our network over the survey period. We compared the survey days journey times against typical neutral month journey times. We used the count data from the day that was closest to a typical journey time.

#### 4.2.1.1 Model Scenarios

We use model scenarios to assess the impact of a scheme. In this instance by comparing a scenario without Rougier Route and with Rougier Route.

We modelled the scheme using our morning peak 0800-0900 and afternoon peak 1700-1800 models.

For this assessment the following scenarios were created.

2024 Base Year Models (morning and afternoon)	This was developed to reflect the highway network in October 2024. This scenario is the basis for additional scenarios. The model includes changes to the highway network since 2019 for example:
---	---

	<ul style="list-style-type: none"> <li>• Groves Low Traffic Neighbourhood;</li> <li>• Blossom Street / Queen Street / Nunnery Lane new signal times;</li> <li>• The temporary traffic signals on Leeman Road.</li> </ul>
<p>Do Minimum Scenario (DM) (morning and afternoon)</p>	<p>This scenario accounts for committed projects or changes to the transport network.</p> <p>The Do Minimum (Do Min) scenario includes:</p> <ul style="list-style-type: none"> <li>• York Central Spine Road</li> <li>• Government Hub at York Central with car demand as set out in the planning application</li> <li>• York Station turn-around loop for buses and adjustment to bus routes, York Station Car Park</li> <li>• Closure of Castle Car Park, with car trips redistributed to other city centre car parks</li> </ul>
<p>Rougier Route Trial Scenario (morning and afternoon)</p>	<p>This scenario is the DM scenario plus the Trial Rougier Route scheme.</p>

#### 4.2.2 Demand Response

It is difficult to accurately forecast how the numbers of people travelling by each mode of transport could change in response to Rougier Route. We did implement a process, to model, how car trips could change in response to the Rougier Route Scheme. This is called variable demand modelling.

People may respond in several ways, some may not change their travel behaviour at all, some may travel by a different mode of transport for example bus or walk, travel to a different location, change the time they travel, travel less or more frequently. It is possible to model this behaviour in an aggregate way, but the circumstances of each individual, cannot be modelled.

We created an own cost elasticity model following Department for Transport Guidance. This is the simplest functional form of an elasticity model. It assumes that changes in the demand for travel between two

points, can be estimated, by a function of the change in travel costs between two locations.

The elasticity model was applied to car user classes only. LGV and HGV trips were not affected as set out in Transport Analysis Guidance Unit M2.1 Appendix A.

We did not develop a cross-elasticity model, where travel demand can change in response to changes in car and bus travel time, we opted to have an own cost elasticity model instead.

We expect a greater demand response than we have modelled.

## 5 Key Findings

To understand the potential impact of the Rougier Route Scheme on our highway network we undertook a transport modelling assessment. We assessed the scheme in our “strategic” transport model of York, in the morning peak between 0800-0900 and the afternoon peak between 1700-1800.

We wanted to understand:

- Where could private vehicles re-distribute to?
- What impact may Rougier Route have on private vehicle times?
- What is the likely impact on bus journey times?
- How could private vehicle demand change in response to the scheme?
- How many vehicle trips will remain on Rougier Street and Ouse Bridge?

### 5.1.1 Where could private vehicles re-distribute to?

The primary diversion route for drivers is on the Inner Ring Road in both directions between Queen Street, Nunnery Lane and Skeldergate Bridge.

Modelled vehicle flows increase on Skeldergate Bridge Eastbound in the morning by 22% (170 vehicles in one hour), in the afternoon by 23% (165 vehicles in one hour). In the Westbound direction, flows increase by 18% (125 vehicles in one hour) in the morning and 14% (165 vehicles in one hour) in the afternoon.

A smaller number of drivers use Bishopthorpe Road southbound and Scarcroft Road westbound to avoid Nunnery lane. Modelled vehicle flows on Bishopthorpe Road southbound increase by 10% (50 vehicles) in the morning and 13% (95 vehicles) in the afternoon.

Some vehicles divert to Gillygate, Lord Mayors Walk and Foss Islands Road in the morning peak. On Gillygate in the morning, northbound modelled flows increase by 10% (40 vehicles), and southbound by 7% (30 vehicles). In the afternoon the change is not significant; flows change by 2% northbound and 1% southbound.

Not all vehicles that currently use Rougier Route would divert from its entire length. Drivers can still use Rougier Street to access Tanner Row west and Toft Green. From our 2024 survey over 12-hours 11% of traffic travelling south on Rougier Street turn right into Tanner west. 20% of westbound traffic on Ouse Bridge turns either to North Street or onto Skeldergate, which will still be possible with the scheme in place.

## 5.1.2 What is the likely impact of Rougier Route on private vehicle journey times?

Most private vehicle trips in York will be unaffected by the Rougier Route trial.

We compared journey times for each trip that took place within Yorks Highway Boundary. For each trip we calculated the journey time difference between the Rougier Route Scenario and the Do-Minimum Scenario.

In the morning peak 92% journeys changed were in practical terms unchanged, being between 30 seconds quicker or 30 seconds slower. In the afternoon this is true for 71% of trips.

In the morning only 3% of trips increased by more than 1 minute and in the afternoon 9%.

**Chart 14 - % Trips by change in travel time with Rougier Route in place**

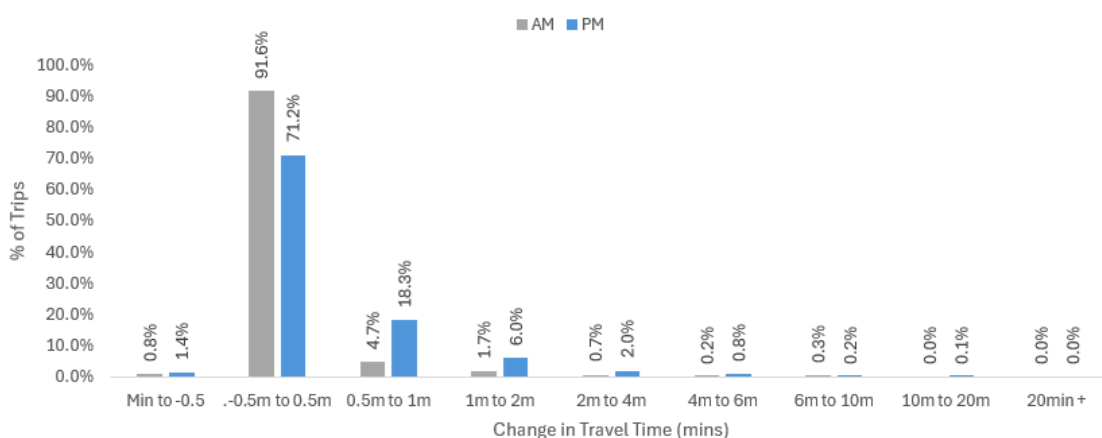


Table 4 shows modelled journey time changes in our City Centre. Journeys that use one of or travel near to Queen Street, Nunnery Lane, Skeldergate Bridge will likely be affected.

The largest increase in private car journey times occur on the inner ring road between Museum Street > Station Road > Nunnery Lane > Skeldergate Bridge because this is the main diversion route from Rougier Route.

**Table 4 Inner Ring Road Journey Time Changes (minutes : seconds)**

Inner Ring Road Section	Morning		Afternoon	
	Journey time Change (mm:ss)	% Change	Journey time Change (mm:ss)	% Change
Blossom Street Station Road to Museum Street	00:50	8%	01:20	14%
Museum Street Station Road to Blossom Street	01:10	17%	02:10	31%
Blossom Street Skeldergate Bridge Tower Street	1:50	23%	01:50	25%
Tower Street Skeldergate Bridge to Blossom Street	01:30	28%	01:10	19%

### 5.1.3 What is the likely impact of Rougier Route on Bus journey times?

The modelled journey time for bus passengers on the Rougier Route to Tower Bridge improves by 30% in the morning and afternoon, and 15% in the opposite direction. The modelled journey time is sensitive to signal times at:

- Skeldergate / North Street / Micklegate,
- Micklegate / George Hudson Street,
- George Hudson Street / Tanner Row and
- Lendal Gytratory signal time.

Different signal times will result in different journey times along Rougier Route.

**Table 5 Rougier Route Modelled Journey Time Changes (minutes : seconds)**

Inner Ring Road Section	Morning		Afternoon	
	Journey time	% Change	Journey time Change (mm:ss)	% Change

	Change (mm:ss)			
Rougier Ouse Bridge to Tower Street	-01:20	-32%	-01:00	-26%
Tower Street Ouse Bridge to Rougier Street	-00:30	-15%	-00:30	-15%

The Rougier Route journey time will be close to free flow journey times throughout the day, rather than being unpredictable, as it is currently.

We looked at free flow journey times between 20:00 and 07:00 when traffic flows are low. Free flow conditions are a proxy for the journey times we believe will occur with Rougier Route trial in place. We compared those times to the most congested journey times. We found there could be up to a 4 minute journey time saving between Tower Street at Rougier Street and close to 2 minute journey time saving between Rougier Route and Tower Street.

We found Friday journey times were particularly volatile. The average Friday 0700-1800 journey time from Tower Street to Rougier Street was 390 seconds. The 75<sup>th</sup> percentile journey time was 520 seconds. The average journey time Monday to Thursday was 225 seconds.

This would be a significant benefit to bus passengers. Bus operators have a window of tolerance set by the Office of the Traffic Commissioner. Bus services should depart from timing points up to 1 minute early and 5 minutes late, and 95% of registered services need to operate within this window.

The Office of the Traffic Commissioner has legal powers under the Transport Act 2000 to fine or otherwise penalise operators who fail to meet expected standards. Any fine is subject to a public enquiry at which the operators may provide mitigating evidence in their defence.

To meet this obligation bus operators must account for likely worst case travel time.

If the journey time is consistent, bus operators can reduce the slack in the timetable and run quicker, more reliable services which we know is one of the major barriers to people deciding to take the bus.

#### **5.1.4 How could private vehicle demand change in response to the scheme?**

We created a variable demand model based on Department for Transport guidance. This is an “own cost” elasticity model. Whereby the number of car trips increases or decreases in response to change in

travel time. If travel time increases car trips reduce and if travel time decreases car trips increase.

Given that in the city centre car journey times increase and bus journey times decrease we expect a greater demand response than we have modelled; we expect that as we make buses more reliable, more people will take one, and with one double decker bus able to take around 75 passengers, the potential to reduce private cars is significant, especially bearing in mind York's short, narrow streets which fill quickly and easily.

Our demand model concluded that in the morning peak car demand would fall by 95 trips (-0.46% of all trips within York), and by 135 (-0.57%) in the afternoon peak.

We made an adjustment to the variable demand calculation to account for increased parking changes in York and improved park and ride services. These changes cannot be directly accounted for in our transport model. We applied a 30% uplift to the demand response. This reduced morning demand by 28 vehicles and afternoon demand by 40 vehicles. The morning car trips have reduced by 122 and in the afternoon by 175.

Though this is a relatively small percentage change in total car trips in York this is a reduction in every morning and afternoon peak period. Over a week there could be 610 fewer trips in the morning peaks and 875 fewer trips in the afternoon peaks. There would also be a reduction in the inter-peak period from 0900-1700, and during the weekends.

## **5.2 How many vehicle trips will remain on Rougier Street and Ouse Bridge?**

Through trips from Rougier Street to George Hudson Street to Micklegate Lower will not be possible for general vehicle traffic. However, drivers can still use Rougier Street and Ouse Bridge.

### **5.2.1 Rougier Street Southbound**

From our 2024 survey over 12 hours 3120 vehicles (excluding bus, motorcycles & cycles) travelled south on Rougier Street of which 11% (355) turned right into Tanner Row west. These drivers would still be able to turn right into Tanner Row with the scheme in place.

### **5.2.2 Rougier Route Northbound**

3230 vehicles travelled north on Rougier Street. 20% of these vehicles reached Rougier Street from Tanner Row or Micklegate. 420 turned left from Tanner Row and 245 turned left from Micklegate onto George Hudson Street. These drivers could still turn left onto George Hudson Street from Micklegate and would be joined by the drivers who entered Tanner Row west from Rougier Street.

### **5.2.3 Ouse Bridge Eastbound**

3520 vehicles crossed Ouse Bridge westbound on the day of our survey, of which 7% came from North Street or Skeldergate. We would expect that these drivers could make these journeys in the future as they do now.

### **5.2.4 Ouse Bridge Westbound**

3300 vehicles travelled west over Ouse Bridge, 20% of these vehicles turned into North Street or Skeldergate. These drivers could make these turns with the scheme in place.

We cannot model qualitative impacts on other modes of travel for example the positive impact on cyclists or pedestrians from less traffic on Rougier Route, or improved air quality.

The transport model like all transport models in the UK is based on Zones which represent Origins and Destinations. The zones use census zones in our case Lower Super Output Areas. This is an unavoidable simplification of how people travel to and from an origin.