

Shrewsbury Moves

In January 2024, Shrewsbury Big Town Plan Partnership released the “Shrewsbury Moves” strategy. This document sets out proposals to reduce through traffic, boost public transport use and improve the experience for pedestrians and cyclists to promote more sustainable travel. We have used TRACC to analyse the proposals and investigate their impact on journeys within Shrewsbury.

The proposals are split into four key themes:

- 1) Traffic Management & active travel inside the river loop
- 2) Traffic Management & active travel outside the river loop
- 3) Public Transport and Micromobility
- 4) Parking plus

1) Traffic Management & active travel inside the river loop

The first set of proposals relate to changes to the area inside the river loop, where the main town centre of Shrewsbury is located. Currently this inner loop experiences congestion, caused largely by vehicles passing through the town centre without benefiting the area. In order to rectify this, three “loops” are proposed, allowing private vehicle journeys into the centre but not through. This is hoped to reduce congestion within the centre, improving journey times for buses and making walking and cycling more attractive.

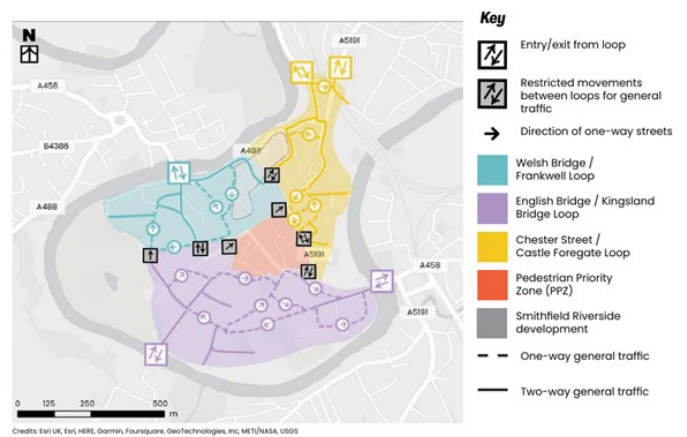


Figure from Shrewsbury Moves, pg11 (Shrewsbury Big Town Plan Partnership, 2024)

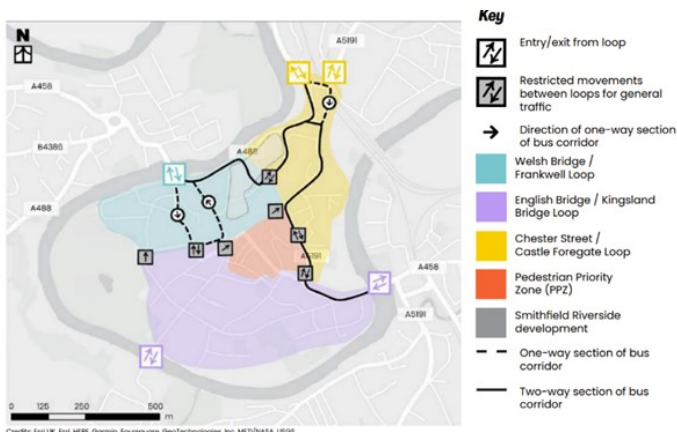
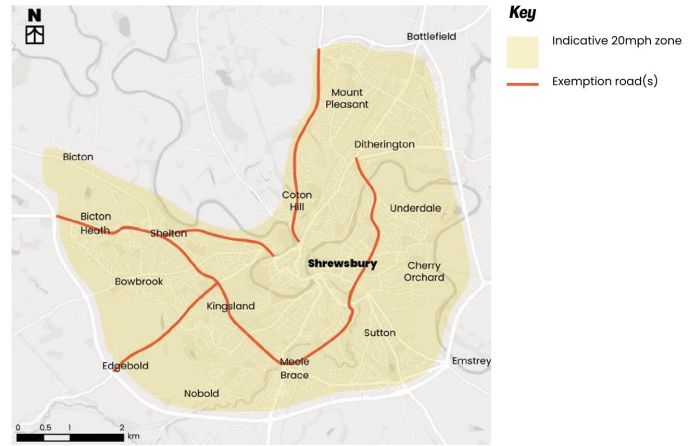


Figure from Shrewsbury Moves, pg13 (Shrewsbury Big Town Plan Partnership, 2024)

The introduction of the loops within the centre is hoped to reduce traffic making a two-way bus service feasible between Welsh Bridge and English Bridge. Currently there are not any bus services which go through the centre, meaning that bus users must change buses in order to go from one side of town to the next. A two-way service will help to facilitate these journeys and will benefit from reduced congestion and the introduction of bus priority.

2) Traffic Management & active travel outside the river loop

The second set of proposals focuses on journeys outside of the river loop. These include a reduction in road speed from 30mph to 20mph, to create a safer environment for active travel, and Local Access Priority Areas in residential areas, to reduce through traffic. There are also proposals to improve active travel infrastructure as well as providing new links, such as across the railway and across the river.



Credits: Esri UK, Esri, HERE, Garmin, FourSquare, GeoTechnologies, Inc, METI/NASA, USGS
Figure from Shrewsbury Moves, pg21 (Shrewsbury Big Town Plan Partnership, 2024)

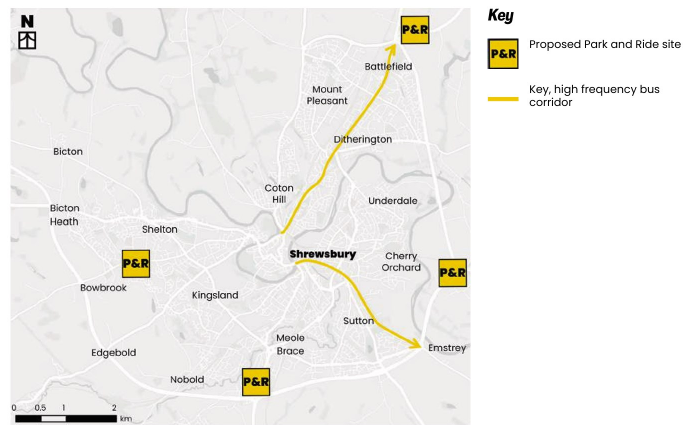
3) Public Transport and Micromobility



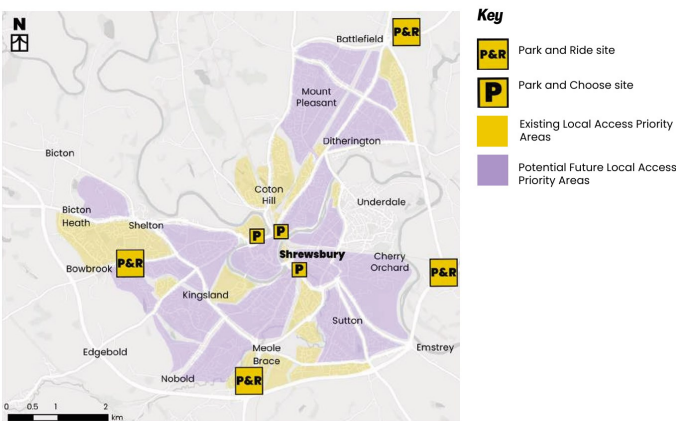
Credits: Esri UK, Esri, HERE, Garmin, FourSquare, GeoTechnologies, Inc, METI/NASA, USGS
Figure from Shrewsbury Moves, pg47 (Shrewsbury Big Town Plan Partnership, 2024)

The third section of the proposals focuses on public transport with both changes to existing services and new services. For example, the introduction of a water taxi, making use of the river around the town centre to transport people from locations such as Shrewsbury Castle to West Midlands Showground. Currently, despite being geographically close to both the town centre and Frankwell, journeys to West Midlands Showground are not well served by public transport. It is hoped that a water taxi will help to facilitate these journeys.

There are multiple Park & Ride sites around Shrewsbury, however the related services do not run after 6:30pm or on weekends, reducing their effectiveness. These services also regularly experience delays and have one stop within the city centre, further reducing their attractiveness. To improve this, it is proposed that general services serve the Park & Ride, improving the levels of service and the choice at each location. Park & Ride locations will also be reviewed with new and relocated facilities.



Credits: Esri UK, Esri, HERE, Garmin, FourSquare, GeoTechnologies, Inc, METI/NASA, USGS
Figure from Shrewsbury Moves, pg33 (Shrewsbury Big Town Plan Partnership, 2024)

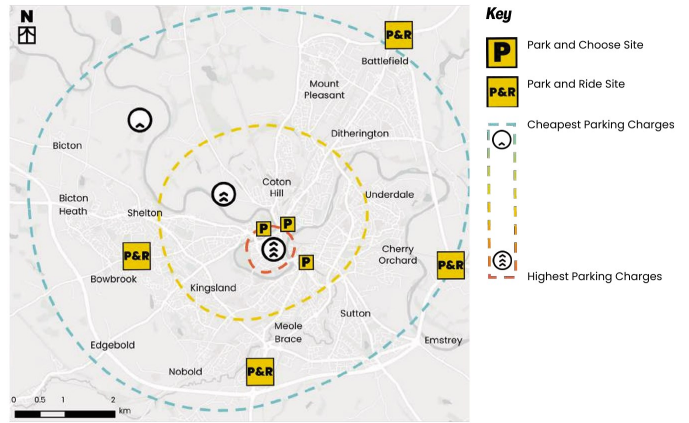


Credits: Esri UK, Esri, HERE, Garmin, FourSquare, GeoTechnologies, Inc, METI/NASA, USGS
Figure from Shrewsbury Moves, pg49 (Shrewsbury Big Town Plan Partnership, 2024)

Existing bus routes are proposed to benefit from new bus priority, improvements in frequency and route, and the introduction of Mobility hubs. These mobility hubs are intended to bring together bus, rail, coach and micromobility, facilitating multi-modal journeys as well as making improvements to the railway station. As well as the railway station, other mobility hubs may include the Park & Ride sites, Park & Choose sites or the proposed new railway station to the east of the town centre.

4) Parking plus

The final set of proposals relate to parking charges within Shrewsbury. These charges would increase the closer to the centre you park, with the lowest prices at Park and Ride sites away from the centre and the highest prices within the river loop.



Cred: Esri UK, Esri, HERE, Garmin, FourSquare, GeoTechnologies, Inc, METI/NASA, USGS
Figure from Shrewsbury Moves, pg53 (Shrewsbury Big Town Plan Partnership, 2024)

If you would like to learn more about the proposals, please visit <https://www.shrewsburymoves.com/>

The proposed changes are part of a growing movement by councils to reduce car usage within towns and city centres and promote more sustainable methods of travel. Similarly, traffic filters are being introduced in Oxford to reduce congestion within the city centre caused by through traffic as well as active travel improvements throughout Oxford.

TRACC Analysis

For this analysis we decided to focus on a few of the key changes to the transport network:

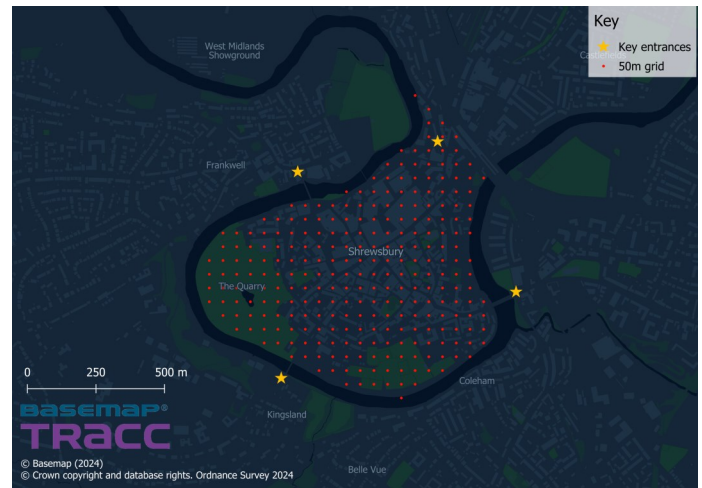
- Introduction of traffic loops within the river loop
- New active travel links across the river and railway line
- Addition of a two-way bus route
- Introduction of the river taxi
- Consolidation of bus station and railway station into a mobility hub

This analysis was carried out in TRACC with data collected from Datacutter such as the existing public transport network for Q4 2024, the highway network and traffic speeds (available to local authorities through the Public Sector Geospatial Agreement (PSGA)). Once imported into TRACC we were able to amend the street network to remove access for private motor vehicles along certain links and to add in new active travel links. We were also able to move existing bus stops as well as add new stops for a two-way bus route and water taxi.



Impact of traffic loops

The first change that we modelled was the introduction of a loop system within the town centre. By removing car access at the proposed locations within TRACC, we were able to investigate the impact of these changes on car journey time and the routes taken. Four origins were considered, Welsh Bridge, Kingsland Bridge, English Bridge and Chester Street Gyratory. We then analysed the journey time from these origins to a 50m grid of points covering the town centre.



The journey's within each origin's corresponding loop showed little to no change in travel time. Comparatively, journeys to other loops could take considerably longer. In particular, journeys from Chester Street Gyratory to other loops were increased by between 9 and 24 minutes due to the detour required.

It is worth noting that the analysed journeys show the worst case scenario as the majority of journeys will start from outside of the river loop and therefore the required detour is unlikely to be as long. This increased travel time by car is hoped to encourage other modes to be used for journeys within the town centre. For example, whilst the shown car journey would take 27 minutes after the proposed changes, walking between the two locations would take only 7 minutes. The shown driving time also do not include travel to and from the car and time spent parking.



Outside of the plans in Shrewsbury Moves, Shropshire Council are also looking at the addition of a relief road to link the northern and western parts of Shrewsbury, this would shorten the car travel time between different parts of Shrewsbury and reduce the impact of the traffic loops on journey time.

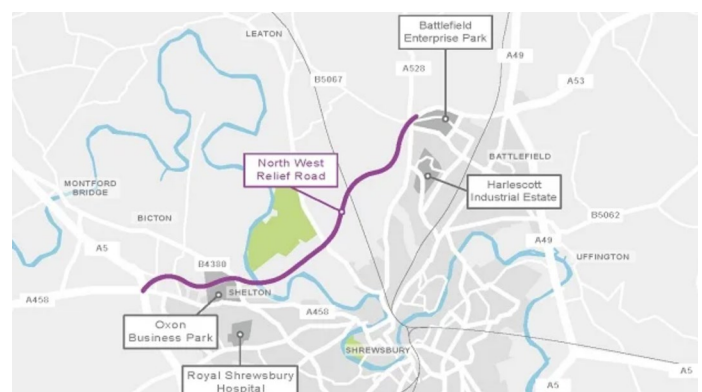


Figure from <https://next.shropshire.gov.uk/roads-and-highways/shrewsbury-north-west-relief-road/the-route/> Accessed 23/10/2024

Impact of new active travel links

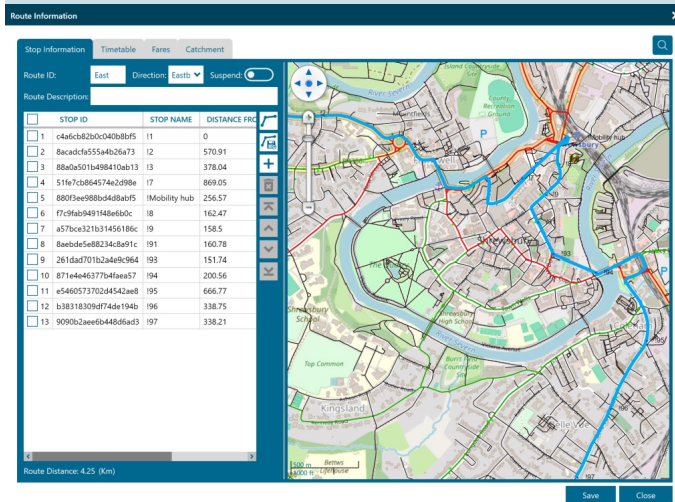
The next change modelled was the introduction of new active travel links between Water Lane and Quarry Place, and across the railway.

The proposed railway link would give those to the east of the river loop a new route to access the station, cutting journey times by up to 30% for residents of the Old Meadow located to the south of the railway bridge. The proposed footbridge connecting Water Lane and Quarry Place could similarly cut journey times by up to 70% for those living closest to the bridge.

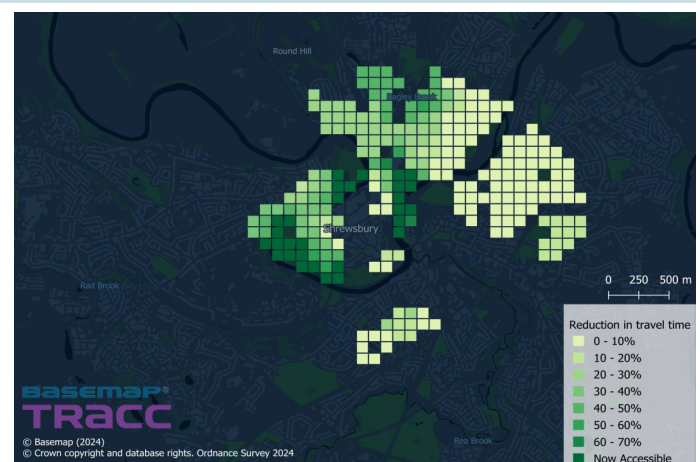
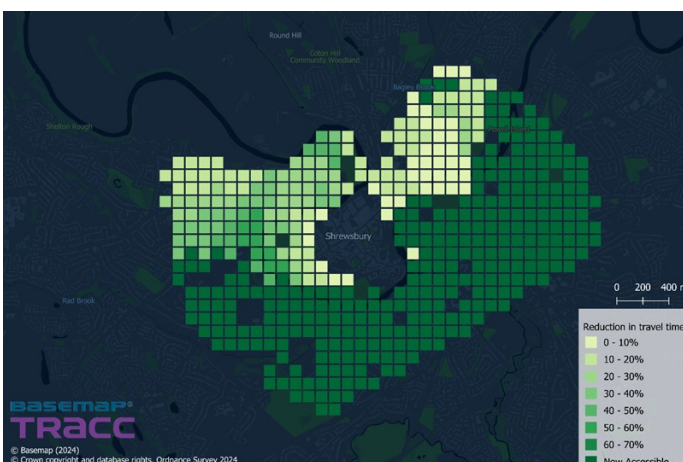


Impact of new public transport routes

A two way bus route was added to connect Frankwell to Belle Vue, as well as stopping at the railway station mobility hub. Also a water-taxi was added to increase access around town and to the West Midlands Showground.



These changes had a large impact on journey times by public transport. For example, journeys from the Quarry to West Midlands Showground were reduced by up to 63% due to the two water-taxi stops within the park connecting directly to the showground. Areas south of the town were also now able to access the showground through direct journeys, as shown in the image to the left. As well as allowing for direct public transport journeys to be made from Frankwell to Belle Vue, there was also a 70% reduction in travel time to Belle Vue from near the train station due to the creation of a mobility hub and the addition of a water taxi stop.



The analysis carried out in TRACC suggests that the proposed changes will make sustainable transport modes much more attractive within Shrewsbury, as well as discouraging private vehicle use. With faster journey times by walking, cycling and public transport, it is hoped that Shrewsbury will become a healthier and safer place to travel and live.

Shrewsbury Moves is a ten-year plan and we can't wait to see how it progresses!