

West Midlands Key Route Network

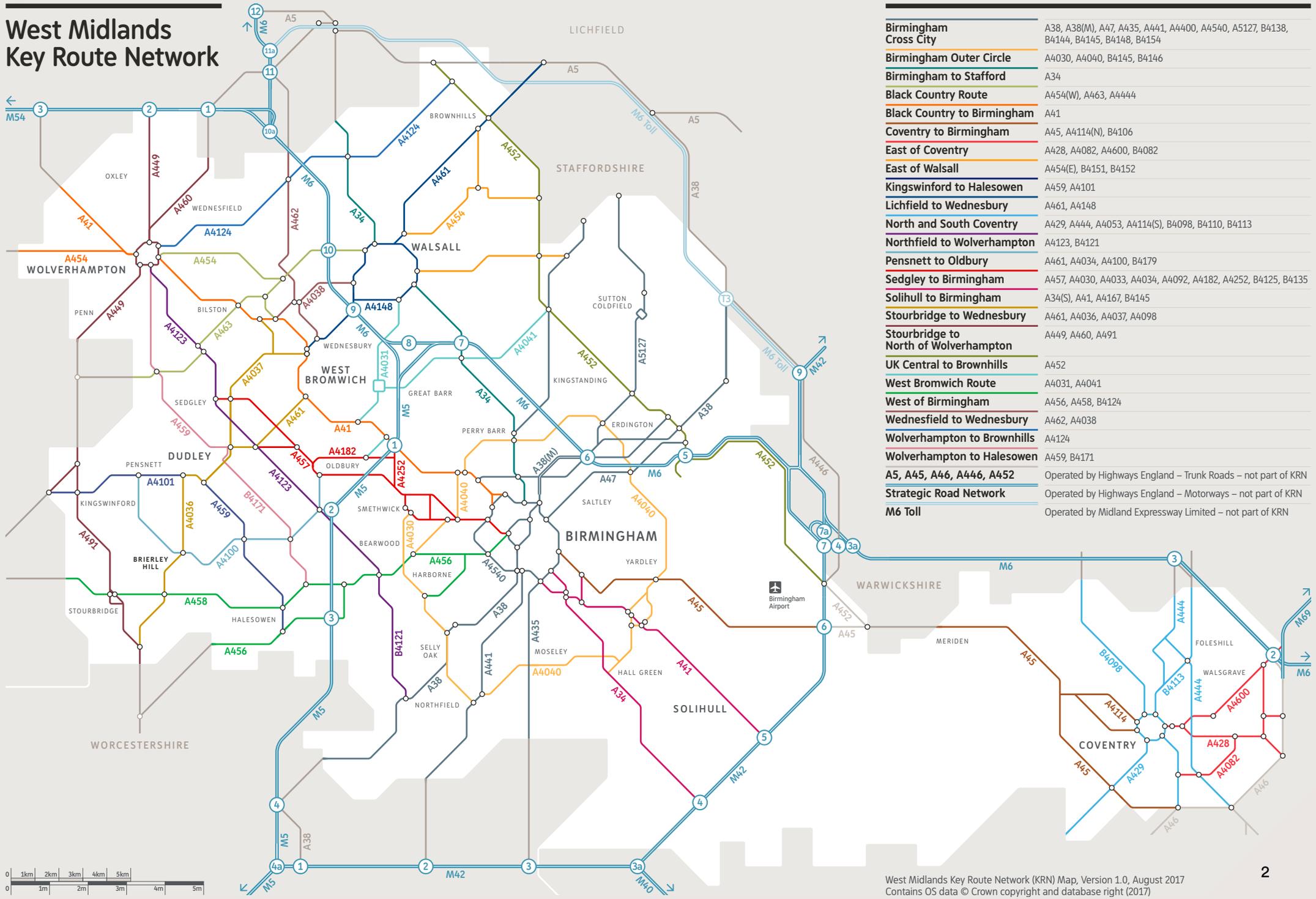
East of Walsall



Transport for
West Midlands

Figure 1

West Midlands Key Route Network



Birmingham Cross City	A38, A38(M), A47, A435, A441, A4400, A4540, A5127, B4138, B4144, B4145, B4148, B4154
Birmingham Outer Circle	A4030, A4040, B4145, B4146
Birmingham to Stafford	A34
Black Country Route	A454(W), A463, A4444
Black Country to Birmingham	A41
Coventry to Birmingham	A45, A4114(N), B4106
East of Coventry	A428, A4082, A4600, B4082
East of Walsall	A454(E), B4151, B4152
Kingswinford to Halesowen	A459, A4101
Lichfield to Wednesbury	A461, A4148
North and South Coventry	A429, A444, A4053, A4114(S), B4098, B4110, B4113
Northfield to Wolverhampton	A4123, B4121
Pensnett to Oldbury	A461, A4034, A4100, B4179
Sedgley to Birmingham	A457, A4030, A4033, A4034, A4092, A4182, A4252, B4125, B4135
Solihull to Birmingham	A34(S), A41, A4167, B4145
Stourbridge to Wednesbury	A461, A4036, A4037, A4098
Stourbridge to North of Wolverhampton	A449, A460, A491
UK Central to Brownhills	A452
West Bromwich Route	A4031, A4041
West of Birmingham	A456, A458, B4124
Wednesfield to Wednesbury	A462, A4038
Wolverhampton to Brownhills	A4124
Wolverhampton to Halesowen	A459, B4171
A5, A45, A46, A446, A452	Operated by Highways England – Trunk Roads – not part of KRN
Strategic Road Network	Operated by Highways England – Motorways – not part of KRN
M6 Toll	Operated by Midland Expressway Limited – not part of KRN



The East of Walsall route is a 10 mile/16km section of the West Midlands Key Route Network (KRN) that provides local access to the district of Aldridge and regional commuter access into the strategic centre of Walsall. This route is important for access to employment, education, leisure and for enabling growth at the employment sites in the Eastern Opportunity Area of Walsall and the district centre at Aldridge.

The East of Walsall route is formed of the A454, B4151 and B4152.

Across the region, this route provides a strategic link to Sutton Coldfield, Birmingham City Centre, Lichfield and Tamworth.

Within Walsall, the route enables access to opportunities for employment, education and the movement of goods and services to and from Aldridge, Brownhills and the centre of Walsall. The route is predominately single carriageway throughout most of its length. There are however, some sections of dual carriageway on Aldridge Road (A454) and the bypass section around the district of Aldridge.

The A454 section of the route from its junction with the A461 (Lichfield to Wednesbury route) serves a predominantly residential area, with properties well setback from the carriageway, with off road parking and it is street lit throughout its length. The dual carriageway section is bordered by farmers' fields and is tree lined. Both the B4151 and B4152 serve residential communities and provide links to the wider region.

The route has no direct connections to the Strategic Road Network (SRN) operated by Highways England. Both the A454 and the B4151, connects to the A452 (UK Central to Brownhills route) which links this route indirectly to the A5, M6 and M6 Toll.

However, the route does form a number of connections to other routes on the Key Route Network. These are:

UK Central to Brownhills at two locations:

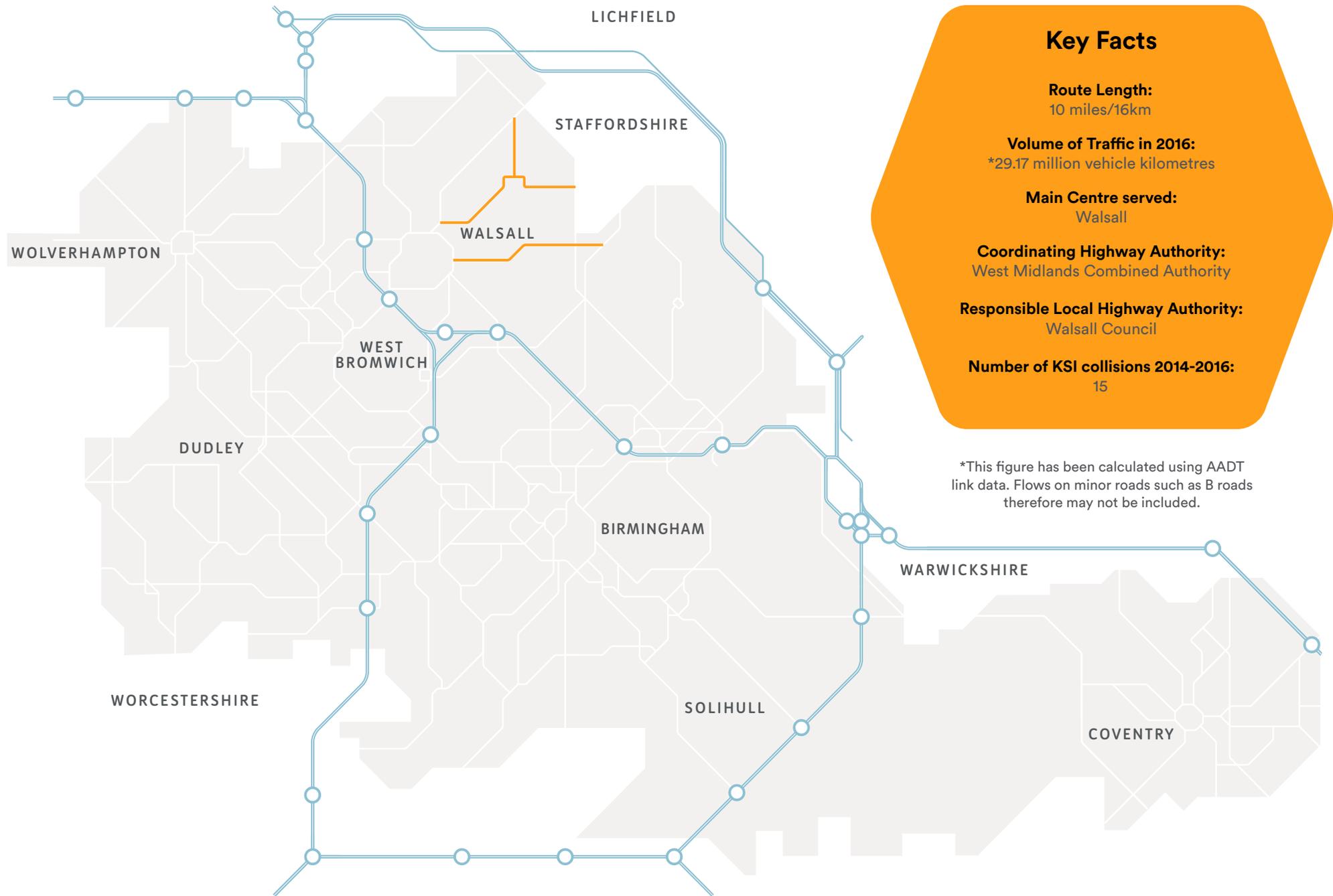
- A454 Little Aston Road / A452 Chester Road
- B4151 Foley Road West / A452 Chester Road

Birmingham Cross City

- B4151 Foley Road West / B4138

Lichfield to Wednesbury

- B4152 Brownhills Road / A461 Lichfield Road



Key Facts

- Route Length:**
10 miles/16km
- Volume of Traffic in 2016:**
*29.17 million vehicle kilometres
- Main Centre served:**
Walsall
- Coordinating Highway Authority:**
West Midlands Combined Authority
- Responsible Local Highway Authority:**
Walsall Council
- Number of KSI collisions 2014-2016:**
15

*This figure has been calculated using AADT link data. Flows on minor roads such as B roads therefore may not be included.

Figure 2

Congestion, Delay, Reliability

This route represents 3% of the total length of the West Midlands Key Route Network. According to the latest data available from 2016, this route had a minimum annual average daily flow (AADF) of 10,400 vehicles, a maximum of 12,800 with an average of 11,500 AADF.

The locations of the most significant congestion-related delays (>60 sec/km) are set out in Tables 1 and 2.

Peak hour journey time on the sections of the route experiencing the highest delays has been found to be 150% higher than (i.e. 2½ times) the equivalent free flow time, which is based on the average journey time between 22:00 – 06:00.

A particular impact of congestion on this route is to create problems with access to Walsall Manor Hospital, Spire Little Aston Hospital and Aldridge industrial estates which may supply or rely on just-in-time deliveries.

Table 1: AM Peak Congestion Related Delays

Road	Location	Direction
A454	Mellish Road, Fernleigh Road to A461 Lichfield Road, Walsall	Westbound
A454	Little Aston Road, Erdington Lane to High Street, Aldridge	Westbound
B4151	Sutton Road, Longwood Lane to The Crescent, Daisy Bank	Westbound

Table 2: PM Peak Congestion-Related Delays

Road	Location	Direction
A454	Aldridge Bypass, Westfield Drive to Station Road	Westbound

Average Speeds

The average speed for this route in the AM Peak varies considerably across its length. The average speed along congested parts of route can fall to 10-20 mph. The worst performing sections where average speeds are below 10 mph are as follows:

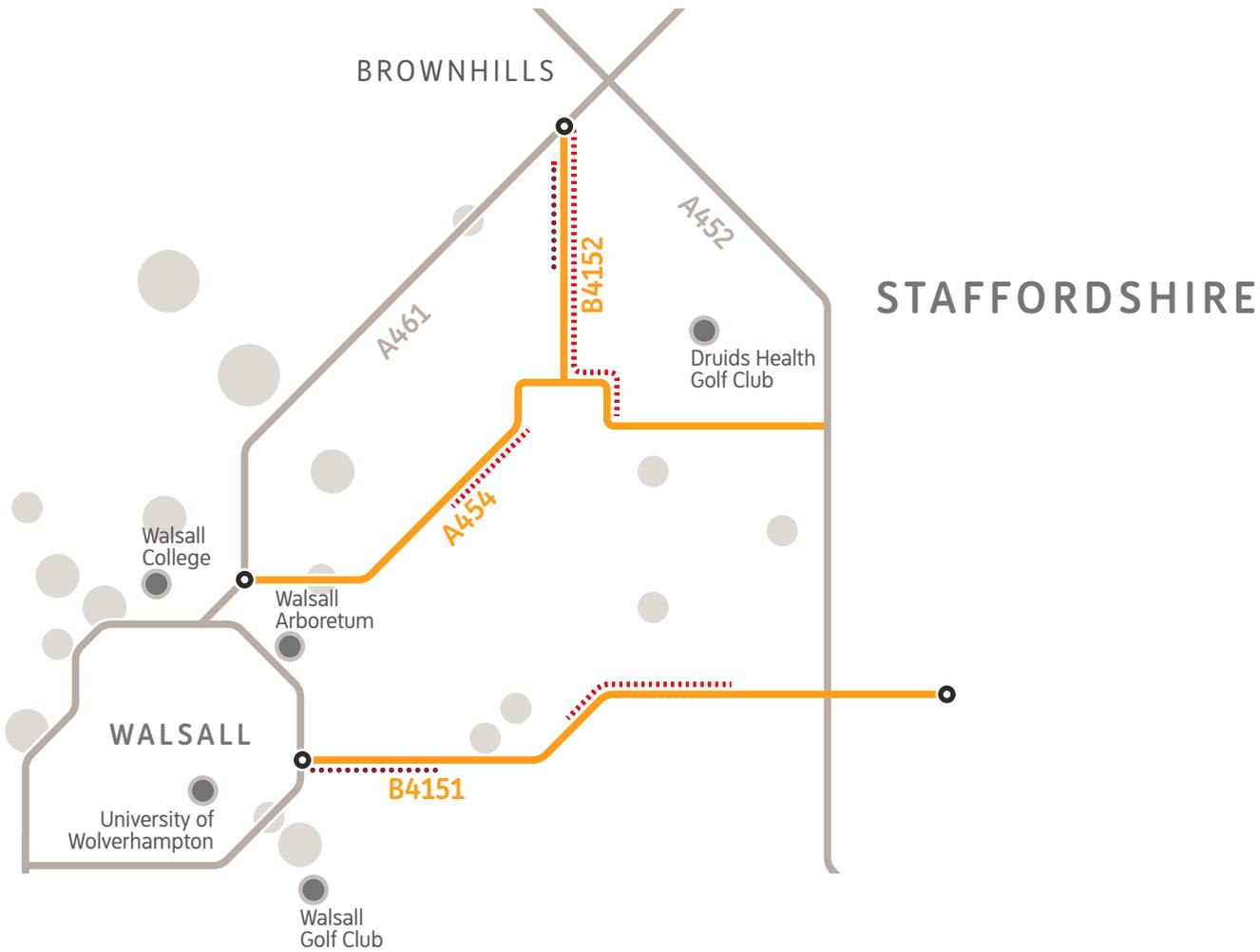
- B4151 Sutton Road from Fallowfield Rd to A4148 Broadway North
- A454 Mellish Rd from Mellish Drive to A461 Lichfield Street
- A454 Little Aston Rd between its junctions with High Street, Aldridge.

Junction Capacity Issues

There are currently four junctions along the route where the evidence suggests there are capacity issues restricting the free flow of traffic; these are:-

- B4152/A461 Lichfield Road junction
- A461/A454 Mellish Road/Lichfield Road junction
- A4148/B4151 Sutton Road/Broadway North/Gillity Avenue junction
- B4151 Foley Road West/A452 Chester Road junction

West Midlands Key Route Network East of Walsall



Key

Roads	The Route
Environment, Flows and Junction Capacity	Flooding area
	Congestion area
	Junction capacity issue
Route Safety	KSI hotspot zone – high number of serious or fatal incidents
Key Considerations	Housing development area
	Named site of strategic importance
	District and local centres

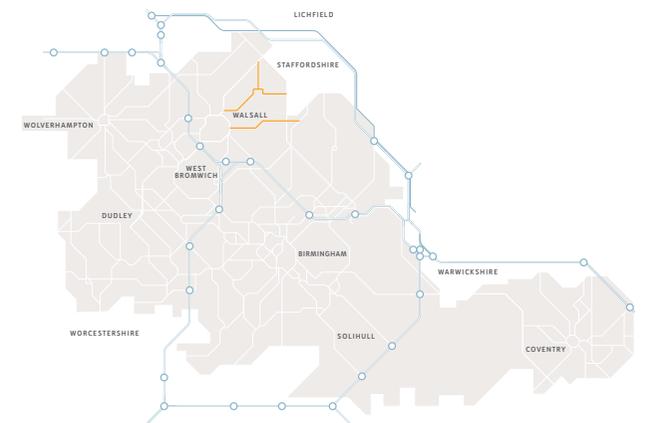


Figure 3

Improving Road Safety is critical to the overall vision of the West Midlands Strategic Transport Plan – Movement for Growth. The development of a new West Midlands Road Safety Strategy and Action Plan will have regard to the current West Midlands forecasts to achieve a 40% reduction in Fatalities and Serious Injury casualties by 2020, from the 2015 baseline.

During the 2016 calendar year, we noted the following key statistics:

Collisions

- 19 collisions, involving 33 vehicles
- Main contributory factor: Failed to look properly (pedestrian) (21% of all collisions)
 - Although as the main contributory factor contributing to 6 slight collisions, dangerous action in carriageway were attributable for 50% of serious collisions
- Main contributory factors
 - Poor turn or manoeuvre (11% of all collisions and 50% of serious collisions)
 - Careless or reckless or In a hurry (Driver) (11% of all collisions)

Casualties

- Total casualties: 30
- Killed and Seriously Injured: 2
(7% of all casualties, down 4% when compared to 2015 figure of 4 of 36)
 - Killed: 0 (0% of all casualties, no variation when compared to 2015)
 - Seriously injured: 2 (7% of all casualties, down by 4%)
- Slight: 28 (93% of all casualties)

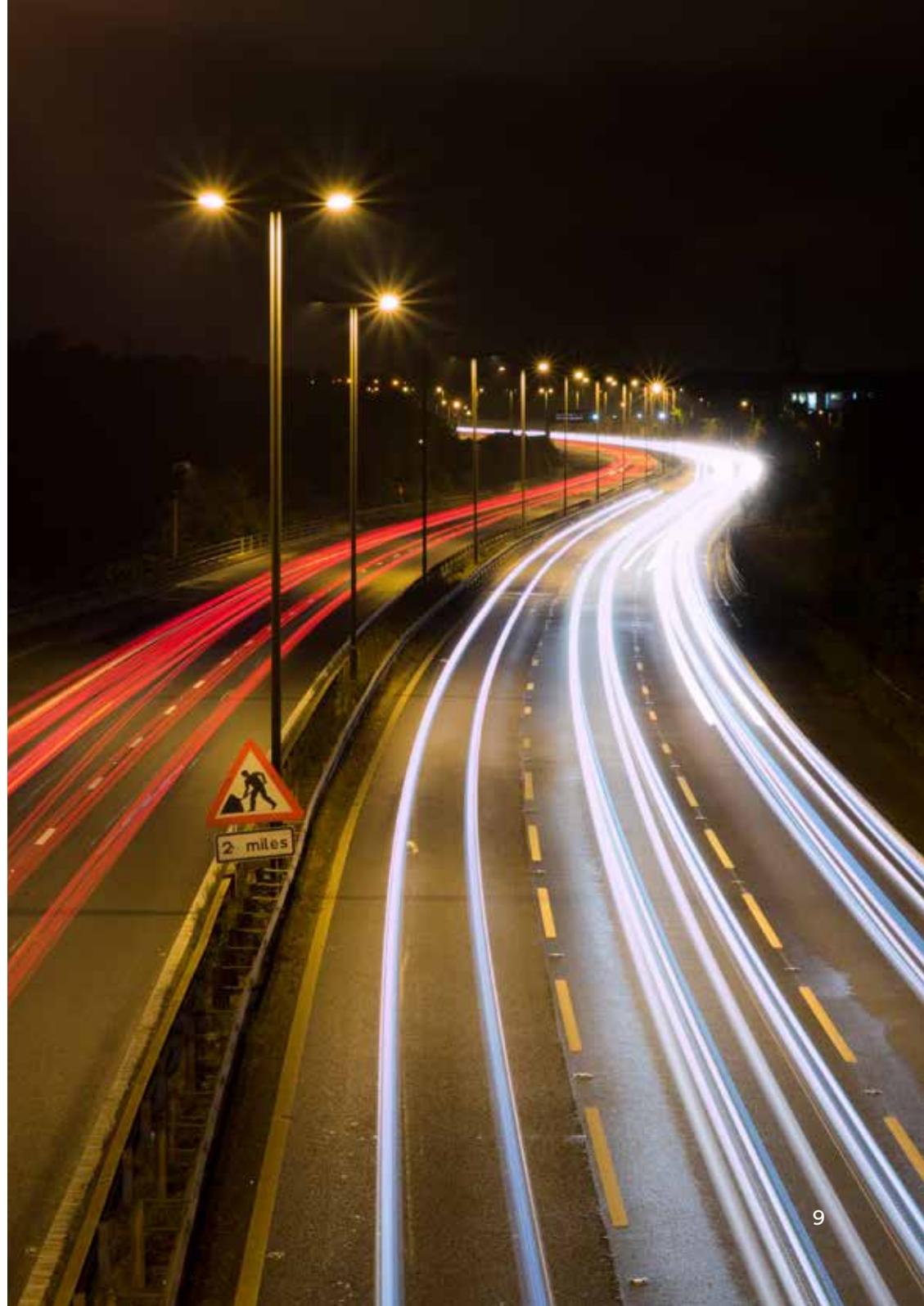
Casualty Types

We noted the following key statistics in relation to casualties falling into specific groups:

- Pedestrians: 4 (a reduction of 1% compared to 2015)
- Powered Two wheel vehicles: 5 (no variation when compared to 2015)
- Pedal cyclists: 3 (a reduction of 1% compared to 2015)
- Car occupants: 18 (an increase of 2% compared to 2015)

KSI Clusters

The section with the highest number of KSI collisions is approximately 1.4km of the B4151 on its approach to the A4148 (Lichfield to Wednesbury route), where there has been a cluster of serious collisions within the past three years.



CYCLING

Along the A454 section from Walsall to Aldridge there is a shared use pathway. The Mellish Road Junction poses challenges for active travel. There is limited provision on the B4151 or B4152 sections of this route.

The Sustainable Transport Delivery Excellence Programme (STDEP) West Midlands Strategic Cycle Network identifies 'Priority Corridors' for cycling in the region. The A454 section of this route between Aldridge and Walsall Ring Road is one of these priority corridors.



The route is served by a number of high frequency bus services mostly operating every 20-30 minutes. These services provide access to Walsall town centre, Birmingham and Sutton Coldfield for retail, leisure and employment.

The average bus speed along this route is 14.4mph (data taken from the 935 bus route).

The average total number of daily bus trips is 19,434 (excluding route 936).

This corridor is identified as part of the Core Bus Network in the West Midlands Strategic Transport Plan - Movement for Growth. None of the routes are identified for Sprint investment.

There are no mainline railway stations located along the route. However, Midlands Connect has proposed that the current freight only (Sutton Park) line between Walsall and Sutton Coldfield should be re-opened to passengers with an intermediate station at Aldridge. The Strategic Transport Plan identifies reopening that line with further stations at Streetly, Sutton Coldfield and Walmley. The Plan also proposes developing tram-train/rail services on the Walsall – Brownhills - Lichfield line.

At present there are no plans to extend the Midland Metro to serve this route.

Table 3: Main Bus Routes

Road(s) Served	Frequency	Route No.
A454 Walsall – Aldridge – Little Aston	Every 30 mins	6
A454 Walsall - Aldridge	Every 30 mins	7/7A
B4152 Aldridge – Walsall Wood	Every 20-30 mins	937/937A
B4151 Walsall - Streetly	Every 15-30 mins	935
B4151 Walsall – Barr Beacon	Every 30 mins	934
B4151 Walsall - Streetly	Every 20 mins	77
A454/B4152 Walsall- Aldridge – Walsall Wood	Every 60 mins	35
A454/B4152 Walsall - Aldridge	Every 60 mins	35
B4152 Aldridge – Walsall Wood	Every 30 mins	936

*Note- All daily averages have been obtained by analysing 15 days data (Mon-Fri) during the month of March 2017.

FREIGHT AND LOGISTICS

The route predominantly serves as a local route, and is of little significance to freight. The average number of Heavy Goods Vehicles using the route on a daily basis was 391, which represents 3% of all vehicular traffic.



Resilience

There are a number of parallel roads and there is a considerable degree of resilience contained within the highway network.

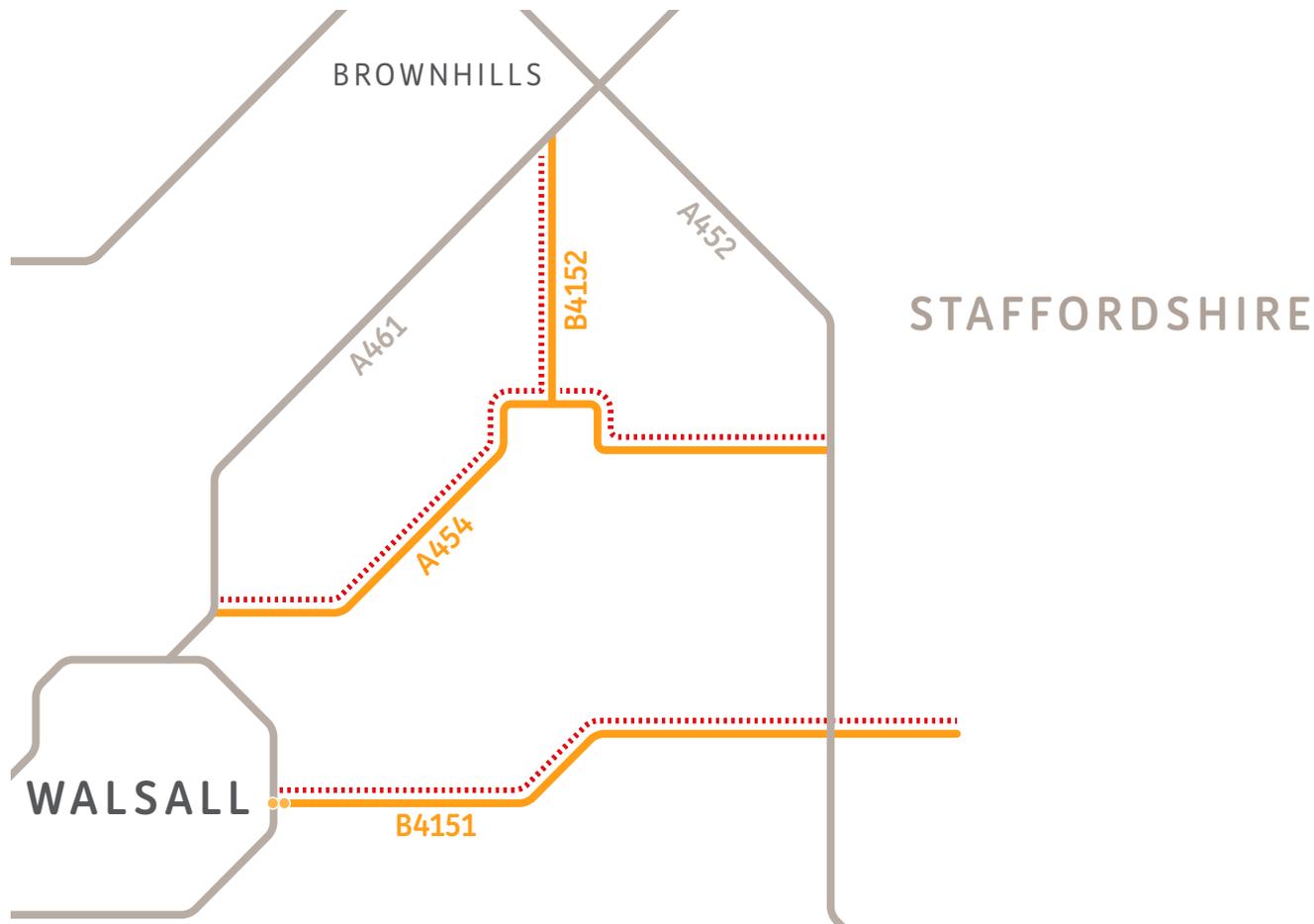
There is a lack of intermodal network resilience as a result of a lack of rail services and stations but two new/re-opened lines are proposed in the West Midlands Strategic Transport Plan - Movement for Growth. The stations will need to be provided with parking capacity to improve network resilience.

Given the existing capacity constraints in the peaks in the Walsall network, a restriction on any of the roads may have adverse implications for journey times on this route.

Diversion Route

This route does not form part of the Emergency Diversion Routes used by Highways England.

West Midlands Key Route Network East of Walsall



Key

Roads

— The Route

Asset Location & Conditions
(where known & information
available)

● Automatic Number Plate
Recognition (ANPR) /
Journey Time Monitoring
System (JTMS) locations

--- No CCTV

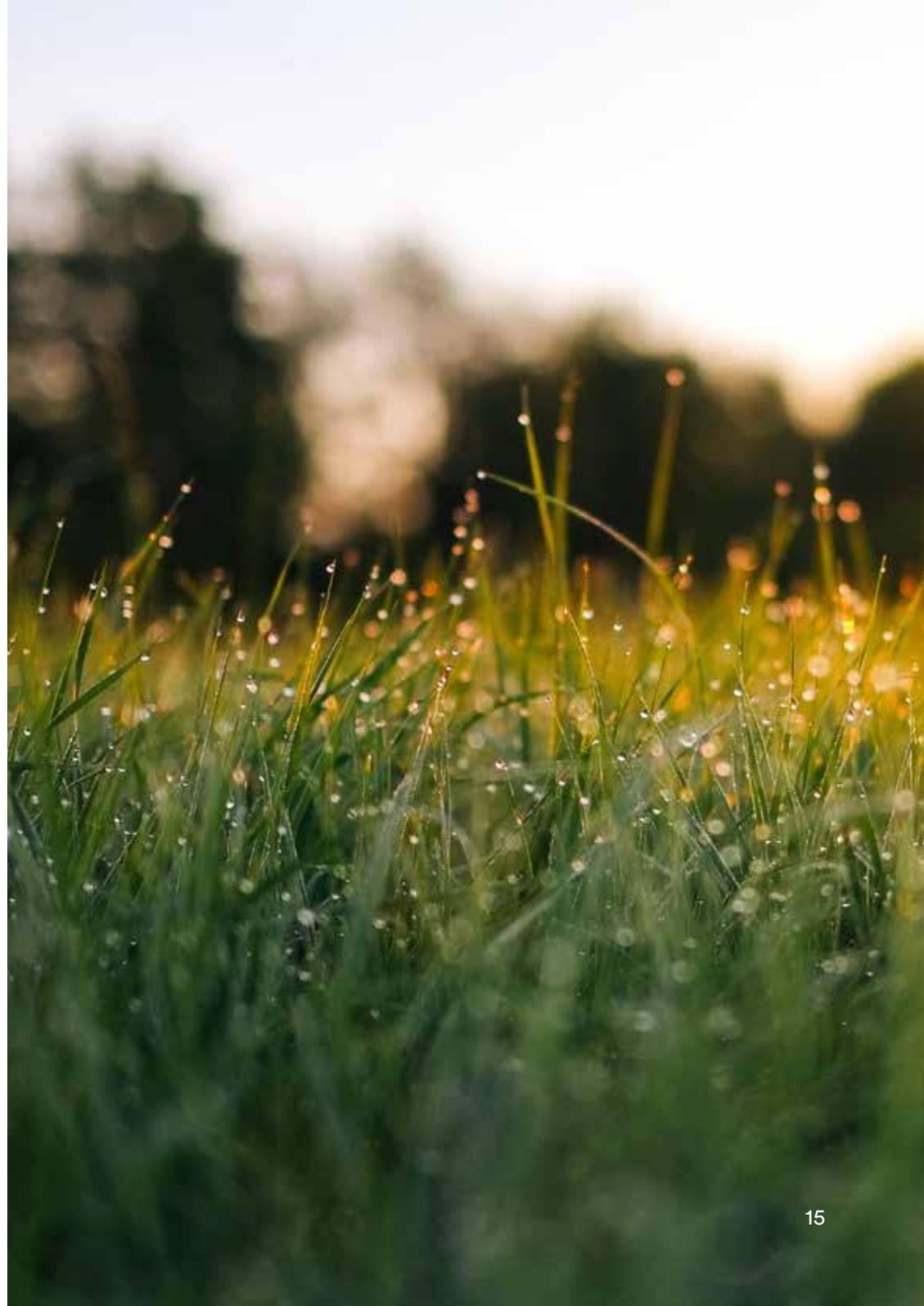


Figure 4

There are inequalities in health between the local authorities within the West Midlands – at local authority level the lowest healthy life expectancy at birth for men is 56.4 years, and the highest is 63.8 years. Amongst women the lowest is 59 years and highest 67.9 years. Similarly there are inequalities in healthy life expectancies within each local authority. Closing this gap in health inequalities and increasing the healthy life expectancy by 2030 is an objective of the WMCA's Strategic Economic Plan.

The East of Walsall route runs through communities with a greater proportion of residents over the age of 65. This is particularly true of the area around Aldridge and along the B4152. On the east side of the B4152, there is a higher than average proportion of residents whose day-to-day activities are limited to some degree. The route also falls within the Walsall Air Quality Management Area (AQMA) declared for Nitrogen Oxide (NO₂). A small part of the route falls within the Birmingham AQMA, declared for both NO₂ and Particulate Matter (PM₁₀).

The West Midlands has significant air quality problems. Every year there are between 2,000 and 2,400 deaths caused by air pollution. This is a huge health issue for people in the region, increasing the risk of lung disease and heart disease. There are parts of our region where considerable action such as the introduction of Clean Air Zones (CAZs) is required by Government to improve air quality.



Across the West Midlands the local authorities have a statutory duty to maintain its highway network in a safe condition. This also includes carrying out routine maintenance of highway assets which could include up to 12 specific groups. An Asset Management Plan is produced which aims to ensure that any future issues with the assets could be address in a proactive way.

Carriageway Condition

The carriageway condition across the East of Walsall route is in a fair and safe condition. Over the past six years there has been a systematic planned programme of capital maintenance carried out on the A454(E), B4151, and B4152.

Footway Condition

The footway condition across the East of Walsall route is in a generally fair and safe condition. Over the past six years no systematic planned and programmed capital maintenance has been required on the A424, B4151, and B4152.

Refer to the Technical Annex for further details on asset condition.



Development proposals directly affecting this route

Housing

- No significant proposals

Employment

- No significant proposals

Development proposals indirectly affecting this route

Housing

- No significant proposals

Employment

- Various Sites in Aldridge 1000 jobs (2017-20)

**Committed Transport Improvements
(as outlined in Movement for Growth - 2026 Delivery Plan for Transport)**

- No significant proposals.

AADF – Annual average daily flow
AQMA – Air Quality Management Areas
DfT – Department for Transport
EDR – Emergency Diversion Route
HGV – Heavy Goods Vehicles
HLE – Healthy life expectancy
HS2 – High Speed Rail Two
JTMS – Journey Time Measurement Systems
KRN – Key Route Network
KSI – Killed or seriously injured
LE – Life expectancy
LEP – Local Enterprise Partnership
LSOA – Lower Layer Super Output Areas
MDST – MDS Transmodal
MSOA – Middle Layer Super Output Areas
PIA – Personal injury accidents
SRN – Strategic Road Network
STDEP – Sustainable Transport Delivery Excellence Programme
TfWM – Transport for the West Midlands
TCG – Tactical Co-ordination Group
UKTI – UK Trade and Investment
UTMC – Urban Traffic Management Control
VMS – Variable Message Sign
WM – West Midlands
WMCA – West Midlands Combined Authority

AADF Data:

AADF counts for A roads on each route:
<https://bit.ly/2fbapuc>

Route Safety:

Reported casualty and accident rates by urban and rural roads, road class, road user type, severity and pedestrian involvement, Great Britain, 2015.

Committed Schemes:

West Midlands Combined Authority. Movement for Growth: The West Midlands Strategic Transport plan.

West Midlands Strategic Cycle

Network:

West Midlands Combined Authority Board Report, 20 January 2017, item 4.3 - Strategic Cycle Network
<https://bit.ly/2hrrCAi>

Freight Information:

MDS Transmodal Data. Provided in Confidence for Midlands Connect Freight Study.

Enterprise Zones:

<https://bit.ly/2uZLDTe>
<https://bit.ly/2u7DCN1>

Road Haulage Companies:

UK Trade & Investment Road Haulage Industry, Midlands Hauliers. Provided in Confidence for Midlands Connect Freight Study.

National Cycle Routes, Sustrans:

<https://bit.ly/18FFBsT>

HS2 Connectivity Package:

HS2 Growth Strategy, Connectivity Programme. GBSLEP. <https://bit.ly/2woBqxp>

Average Speeds and Congestion Data:

West Midlands Strategic Highways Phase 2: Key Route Network Definition and Outline Performance. Produced by Mott Macdonald for West Midlands Integrated Transport Authority. March 2016.

Route Safety:

Department for Transport. Reported Road Casualties Great Britain, annual report: 2015.
<https://bit.ly/2hrcldb>

Air Quality Management Areas:

Department for Environment, Food and Rural Affairs, March 2017 AQMA Dataset.
<https://bit.ly/2fEduLf>

Male and Female Healthy Life

Expectancy:

Office for National Statistics. Life Expectancy (LE) and Healthy Life Expectancy (HLE) at birth for males by Middle Layer Super Output Areas (MSOAs) in England, 2009 to 2013. Published 2015. <https://bit.ly/2vwtxd1>

Childhood Obesity:

Public Health England. National Child Measurement Programme data from 2012/13 to 2014/15, aggregated by MSOA. Published 2016
<https://bit.ly/2p3ocVV>

Younger Population:

ONS: 2011 Census aggregate data. Population aged 0-17, as a percentage of total population by LSOA.

Older Population:

ONS: 2011 Census aggregate data. Population aged 65+, as a percentage of total population by LSOA.

Living with a Disability:

ONS: 2011 Census aggregate data. Households with at least one person living with a disability, as a percentage of all households by LSOA.

Unemployment:

ONS: 2011 Census aggregate data. No adults in employment in household, as a percentage of all households by LSOA.

West Midlands Cycling Charter:

<https://bit.ly/2xbg4oK>