

West Midlands Key Route Network

Wolverhampton to Halesowen



Transport for
West Midlands

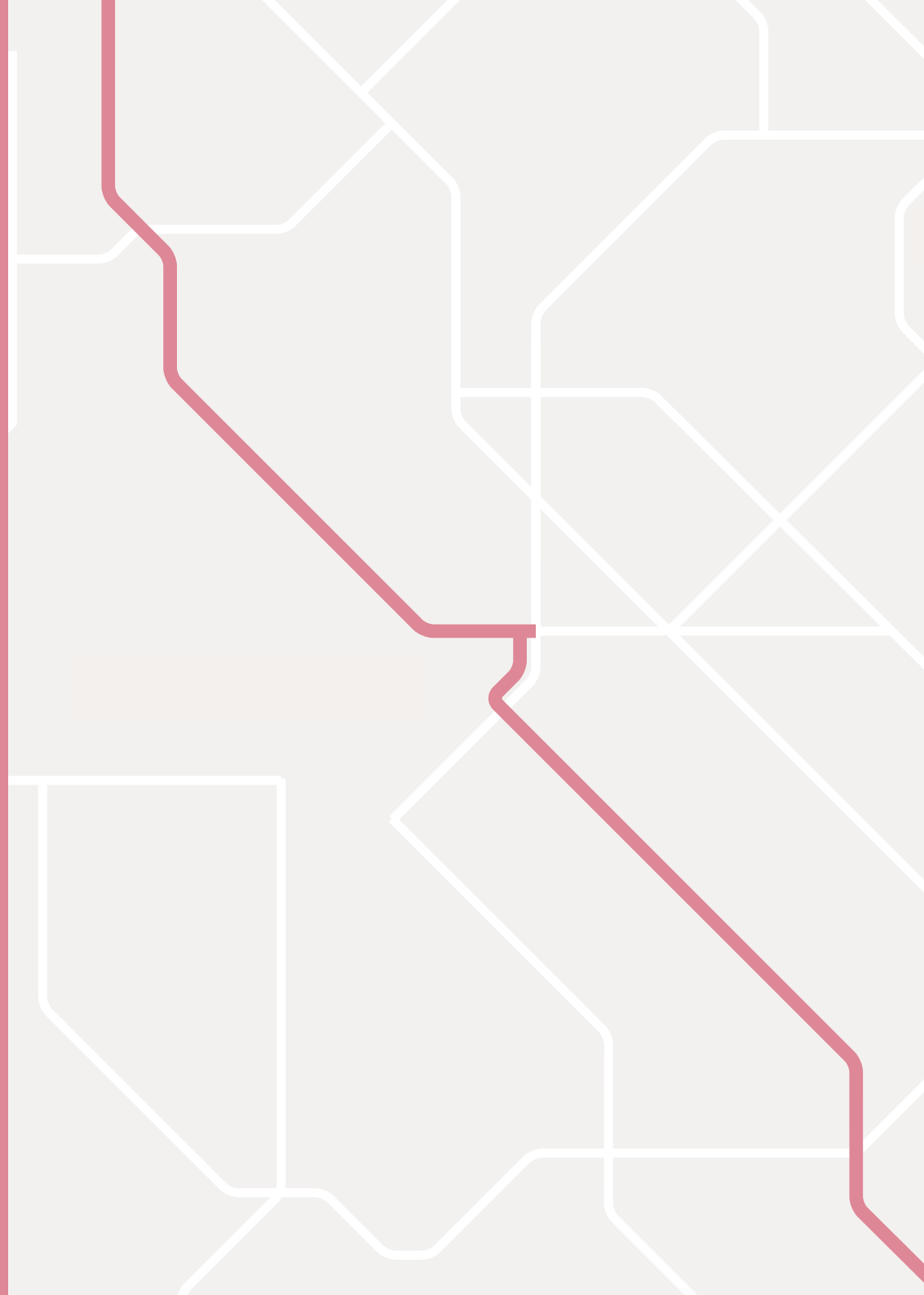
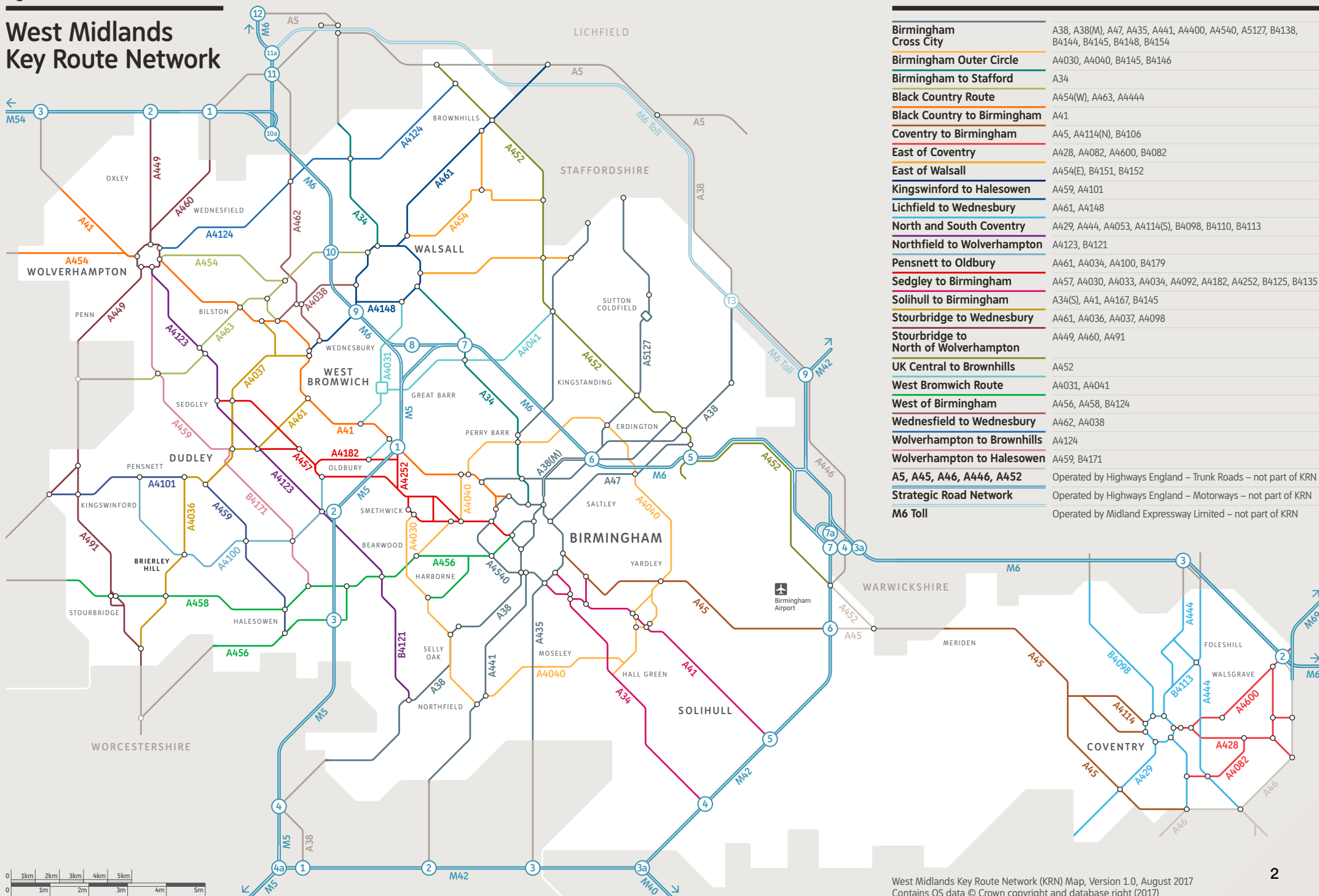


Figure 1

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

ROUTE DESCRIPTION

The Wolverhampton to Halesowen route is a 11 mile/17km section of the West Midlands Key Route Network (KRN) that serves the communities of:

- Wolverhampton;
- Dudley and;
- Halesowen.

This route is formed of the A459 (Wolverhampton to Dudley) the B4171 (Dudley to Blackheath) and A4034 (Blackheath to Halesowen).

The importance of the A459 has diminished with time as the A4123 provides a more direct connection between Wolverhampton and Birmingham. The A459 does, however, still provide a direct connection between Dudley and Wolverhampton, providing connections to public attractions such as Dudley Zoological Gardens and Dudley Castle and employment and retail sites such as St Johns Retail Park and the Mander and Wulfrun Shopping Centres. These shopping

centres, in Wolverhampton City Centre, attract over 26 million visitors each year. Future refurbishment and expansion of the Mander Centre is planned with the intention of enhancing Wolverhampton's role as a key regional shopping destination.

The B4171 and A4034 provide a direct connection from Dudley through to Halesowen. These roads facilitate Northbound traffic movement to Wolverhampton and Dudley but also inbound traffic to access the numerous large organisations in the town. Halesowen for example is the home of Sandvik's UK headquarters (a high-technology engineering group in tools and tooling systems) and Somers Forge (Manufacturing Facility that specialises in steel forging, manufacturing and stockholding).

Throughout its length it is formed of a single carriageway sections passing through suburban residential communities and local shopping centres south of Wolverhampton. In most cases

properties are well set back from the carriageway with off-street parking available.

The Wolverhampton to Halesowen Route has no direct connections to the Strategic Road Network (SRN). However it does have numerous connections with other KRN routes, including:

- Black Country Route (A454 [W], A463, A4444)
- Stourbridge to Wednesbury Route (A461, A4036, A4037, A4098)
- Pensnett to Oldbury Route (A4034, A4100, B4100, B4179)
- West of Birmingham Route (A456, A458, B4124)
- Stourbridge to North of Wolverhampton Route (A449, A460, A491)

These routes provide connectivity to Walsall, Stourbridge, Wednesbury, Pensnett, Oldbury and Birmingham.

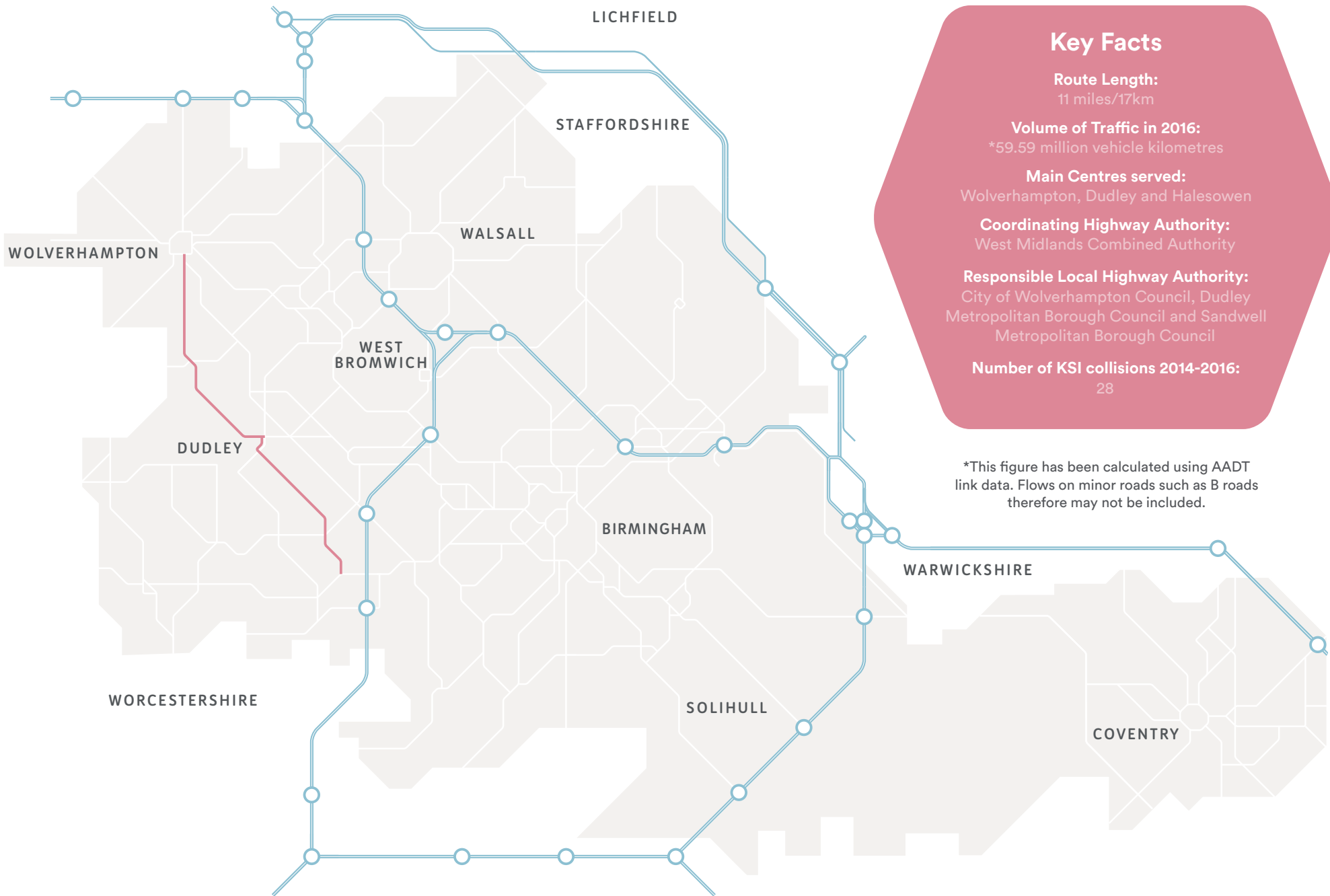


Figure 2

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 11,800 vehicles, a maximum of 18,500 with an average of 14,300 AADF. The average number of Heavy Goods Vehicles using the route on a daily basis was 234, which represents 2% of all vehicular traffic.

The route experiences large volumes of traffic, particularly on:

- the A459 between the A4150, Wolverhampton Ring Road, and Greenly Road/Dudding Road, Goldthorn Park;
- the A459 between A463 Bilston Street, Sedgley, and the B4558 Burton Road, Dudley;
- the A459 between Limes Road and the A461, Duncan Edwards Way, Dudley; and
- the A4034 Long Lane between Nimmings Road and the A458 Halesowen Road

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

Table 1: AM Peak Congestion Related Delays

Road	Location	Direction
A459	Wolverhampton Road/Wolverhampton Road East/Dudley Road, Northway, Sedgley, to A4150 Ring Road St Johns, Wolverhampton	Northbound
A459	High Street/Dudley Street/Dudley Road, Bilston Street to Moden Hill, Sedgley	Southbound and Northbound
A459	The Broadway/Birmingham Road, Limes Road to Castle Gate Island, Dudley	Southbound
A459	The Broadway, Castle Gate Island to Priory Road, Dudley	Northbound
B4171	Buffrey Road, Oakham Road to New Rowley Road, Dudley	Southbound
B4171	Dudley Road, St James Avenue to Portway Road, Rowley Regis	Southbound
A4034	Long Lane, Oak Barn Road to A458 Mucklow Hill, Halesowen	Southbound

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 the congestion is to create problems with access to Wolverhampton Station and industrial areas where businesses may supply or rely on just-in-time deliveries.

Congestion also has adverse impact on access to major visitor attractions such as the Dudley Zoo and Castle and the Black Country Living Museum.

Table 2: PM Peak Congestion-Related Delays

Road	Location	Direction
A459	Wolverhampton Road East/Dudley Road, Dudding Road, Goldthorn Park, to A4150 Ring Road St Johns, Wolverhampton	Northbound
A459	Dudley Road, Grove Street, Wolverhampton, to A4039 Parkfield Road, Goldthorn Park	Southbound
A459	High Street/Dudley Street, A463 Bilston Street to A457 Tipton Street, Sedgley	Southbound
A459	Dudley Street/Dudley Road, Moden Hill to Gospel End Street, Sedgley	Northbound
A459	Dudley Road, Highland Road to Jew’s Lane, Wren’s Nest	Northbound
A459	The Broadway, Castle Gate Island to Priory Road, Dudley	Northbound
B4171	Buffrey Road, Oakham Road to New Rowley Road, Dudley	Northbound
A4034	Long Lane, Oak Barn Road to A458 Mucklow Hill, Halesowen	Southbound

Average Speeds

The average speed for this route in the AM peak is between 10-20 mph throughout its busiest sections. The areas approaching Wolverhampton City Centre, Sedgley and Dudley Town Centre are particularly slow during the morning and evening peaks and speed can be as low as less than 10 mph. The sections along the route with average peak speeds of less than 10 mph are as follows:

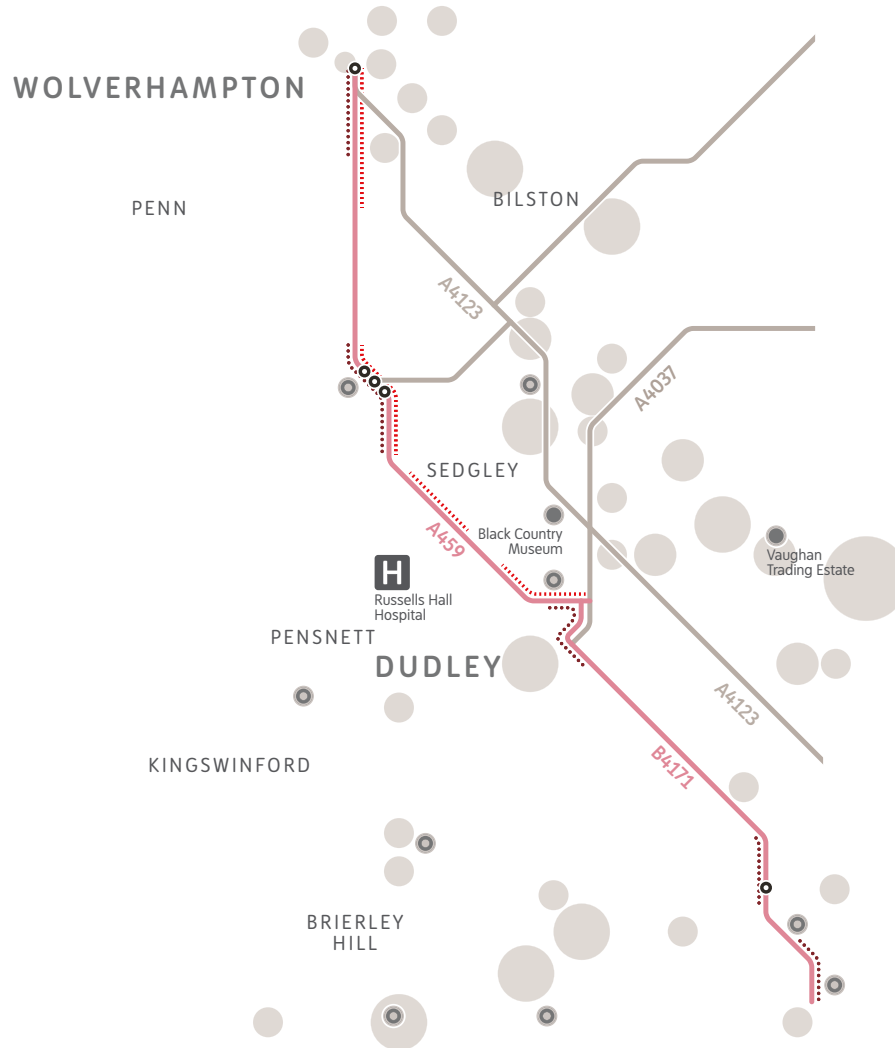
- A459: A4140 to Goldthorn Hill/Parkfield Road
- A459: Bilston Street to Dudley Street/Gospel End Street
- B4171: Church Road/Curral Road to Bell End

Junction Capacity Issues

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

- A459 Dudley Road/A4150 Rind Road St Johns
- A459 High Street/A463 Bilston Street
- A459 Dudley Street/Ettymore Road/Mill Bank
- A4100 Henderson Way/B4171 Birmingham Road

West Midlands Key Route Network Wolverhampton to Halesowen



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

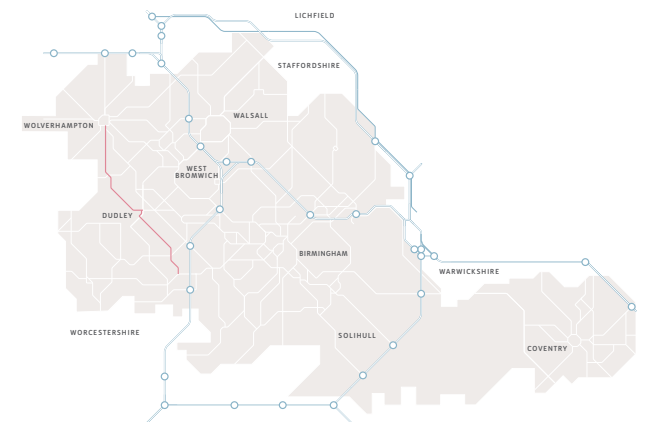


Figure 3

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 make reference to the current West Midlands forecasts to achieve a 40% reduction in fatalities and serious injury casualties by 2020, from the 2015 average.

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

Collisions

- 47 collisions, involving 91 vehicles
- Main contributory factor: Failed to look properly (pedestrian) (23% of all collisions)
 - The Killed and Seriously Injured (KSI) ratio for this group is 27% with 30% of all serious collisions being attributed to this group.
- Main contributory factors
 - Poor turn or manoeuvre (9% of all collisions)
 - Travelling too fast for conditions (9% of all collisions)

Casualties

- Total casualties: 64
- Killed and Seriously Injured: 11
(17% of all casualties, up 2% when compared to 2015 figure of 11 of 72)
 - Killed: 0 (0% of all casualties, no variation from 2015)
 - Seriously injured: 11 (17% of all casualties, up by 2%)
- Slight: 53 (83% of all casualties)

Casualty Types

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

- Pedestrians: 10 (a reduction of 15% compared to 2015)
- Powered Two wheel vehicles: 7 (an increase of 5% compared to 2015)
- Pedal cyclists: 4 (an increase of 6% compared to 2015)
- Car occupants: 43 (an increase of 3% compared to 2015)

KSI Clusters

There are a couple of large route KSI clusters. One is on the A459 near the intersection of the A457/A463, an area of urban single carriageway. The other, which has had a fatal collision, is on the B4171 between the intersection with the A459 and the bridge over the A461 Hall St. This section is an urban dual carriageway in a built-up residential area.

CYCLING

There is limited provision for cycling along the route in Wolverhampton, Dudley or Sandwell. There is a constricted junction at A459/A4039 which pose challenges to the safe movement of vulnerable road users.



Between Wolverhampton and Dudley the route is served by high frequency bus services operating every 7-8 minutes. Between Dudley and Halesowen there is no through connection but a number of services operate within the corridor at a frequency of 20-30 minutes. These services provide access to Wolverhampton City Centre, the town centres at Dudley and Halesowen, retail facilities, leisure destinations including Dudley Castle and Zoo, employment sites and the surrounding communities.

The average bus speed along this route is 10.2mph (data taken from the bus route No. 1).

The average total number of daily bus trips is 29,204.

There is a Northbound bus lane on the A459 Dudley Road approaching Wolverhampton Ring Road. There are bus lanes on both sides of A459 Castle Hill in Dudley and short sections of bus lane southbound on A459 Halesowen Road in Cradley Heath. The route is identified in the Core Bus Network in the West Midlands Strategic Transport Plan - Movement for Growth but not identified for Sprint investment. A Sprint Corridor is identified between Halesowen and Birmingham in the Movement for Growth Plan and also included in the HS2 Connectivity Package.

No mainline railway line operates within the route but access to the network can be made at Wolverhampton (West Coast Main Line) and Old Hill (Birmingham New Street to Kidderminster Line).

Table 3: Main Bus Routes

Road(s) Served	Frequency	Route No.
A459 Wolverhampton - Dudley	Every 7-8 mins	1
A459 Old Hill - Halesowen	Every 20 mins	X10
A459 Coombeswood - Halesowen	Every 30 min	4H
A459 Wrens Nest - Dudley - Blowers Green	Every 20 mins	X96
A459 Baptist End - Halesowen	Every 30 mins	244
A459 Wolverhampton - Sedgley and Upper Gornal - Dudley	Every 30 mins	27/27A
A459 Dudley - Old Hill	Every 30 mins	243

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

Of these stations the following have park and ride facilities:

- Wolverhampton
- Old Hill

The Movement for Growth plan proposes increasing the frequency of rail services which is included in the HS2 Connectivity Package.

The former Stourbridge – Lichfield rail line crosses the corridor in the vicinity of Dudley Town Centre. The Movement for Growth plan proposes reintroduction of tram-train or rail services between Stourbridge and Brownhills and extension of Midland Metro from Wednesbury to Brierley Hill via Dudley. The Metro extension is within the HS2 Connectivity Package.

FREIGHT AND LOGISTICS

The AADF data for 2016 has been used to analyse HGV flows on each respective route. This route is of little significance to freight, with data showing that on average 234 HGVs per day use the route, which constitutes 2% of all traffic. There are however a couple of companies of significance on this route including Sandvik and Somers Forge.



Resilience

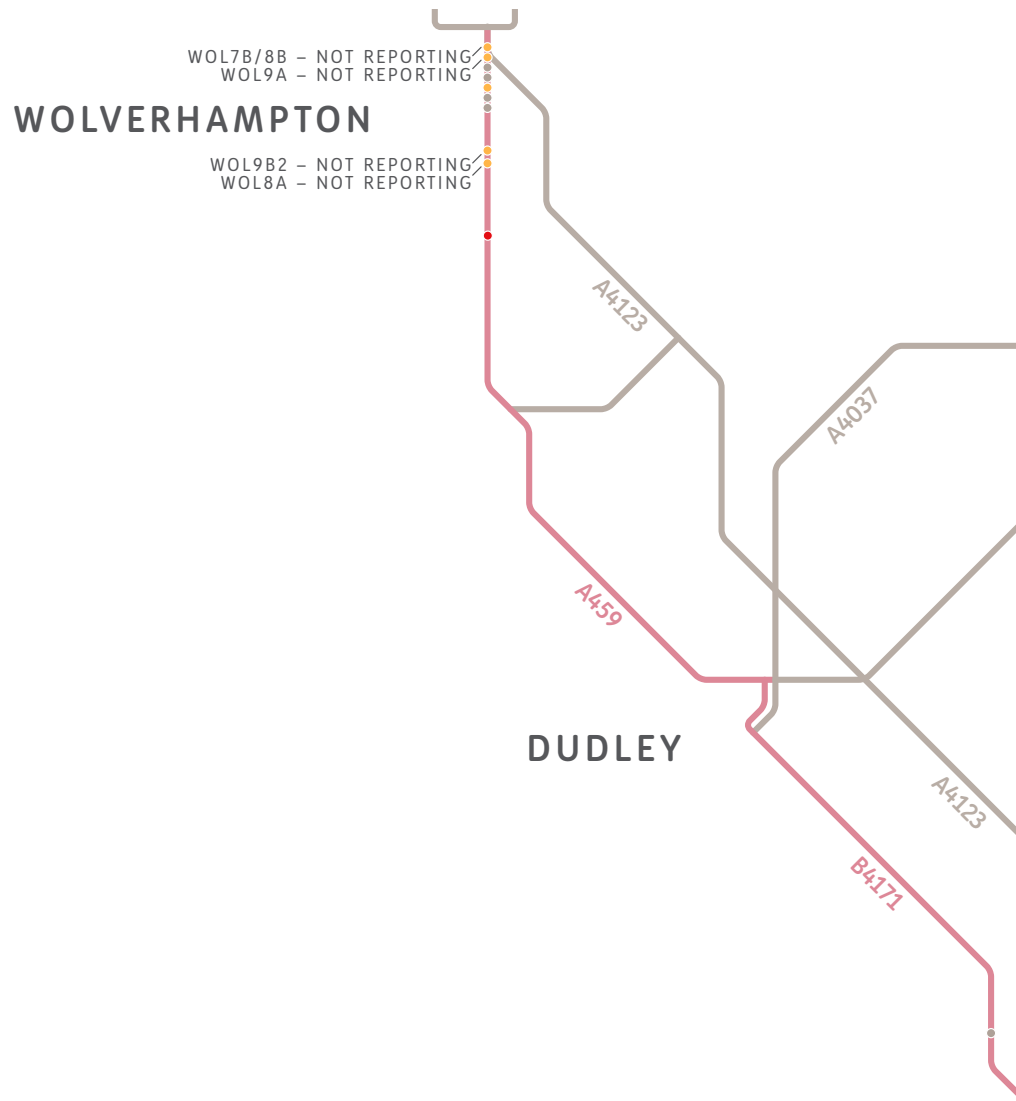
The route has parallel strategic roads – A4123 Birmingham New Road north of Dudley and A4036, B4173 and B4171 south of Dudley. There is a considerable degree of resilience contained within the Black Country highway network. However, there is a lack of intermodal network resilience due to the lack of rail based transport on the route.

Given the existing capacity constraints in the peaks in the Black Country network, a restriction on any of the roads will have considerable adverse implications for journey times on the remainder of this route and surrounding routes.

Diversion Route

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

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Key

Roads

— The Route

Asset Location & Conditions (where known & information available)

- CCTV
- Split Cycle Offset Optimisation Technique (SCOOT) locations
- Automatic Number Plate Recognition (ANPR) / Journey Time Monitoring System (JTMS) locations
- Traffic Camera locations



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.

This route runs through areas of low healthy life expectancy, particularly for men living around Dudley town centre which has some of the more deprived areas in the WMCA.

The route is also within an Air Quality Management Area (AQMA), and there are no flood zones identified.

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 this route is generally good; the condition of part of the route needs further investigation. Over the past six years no major planned maintenance works have been carried out, localised repairs have been carried out in response to defects identified as part of our on-going programme of highway safety inspections.

Footway Condition

The footway condition across the Wolverhampton to Halesowen route is generally good; the condition of part of the route needs further investigation. Over the past six years no major planned maintenance works have been carried out, localised repairs have been carried out in response to defects identified as part of our on-going programme of highway safety inspections.

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



Development proposals directly affecting this route

Housing

- Shaw Road 160 dwellings (2025-30)

Employment

- Dudley Town Centre 3,500 jobs (2017-20)
- Dudley Town Centre 3,500 jobs (2020-25)
- Dudley Town Centre 3,500 jobs (2025-30)

Development proposals indirectly affecting this route

Housing

- Wider Lye Area 230 dwellings (2017-20)
- Wider Lye Area 300 dwellings (2020-25)

Employment

- Brierley Hill Enterprise Zone 7,000 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>