

West Midlands Key Route Network

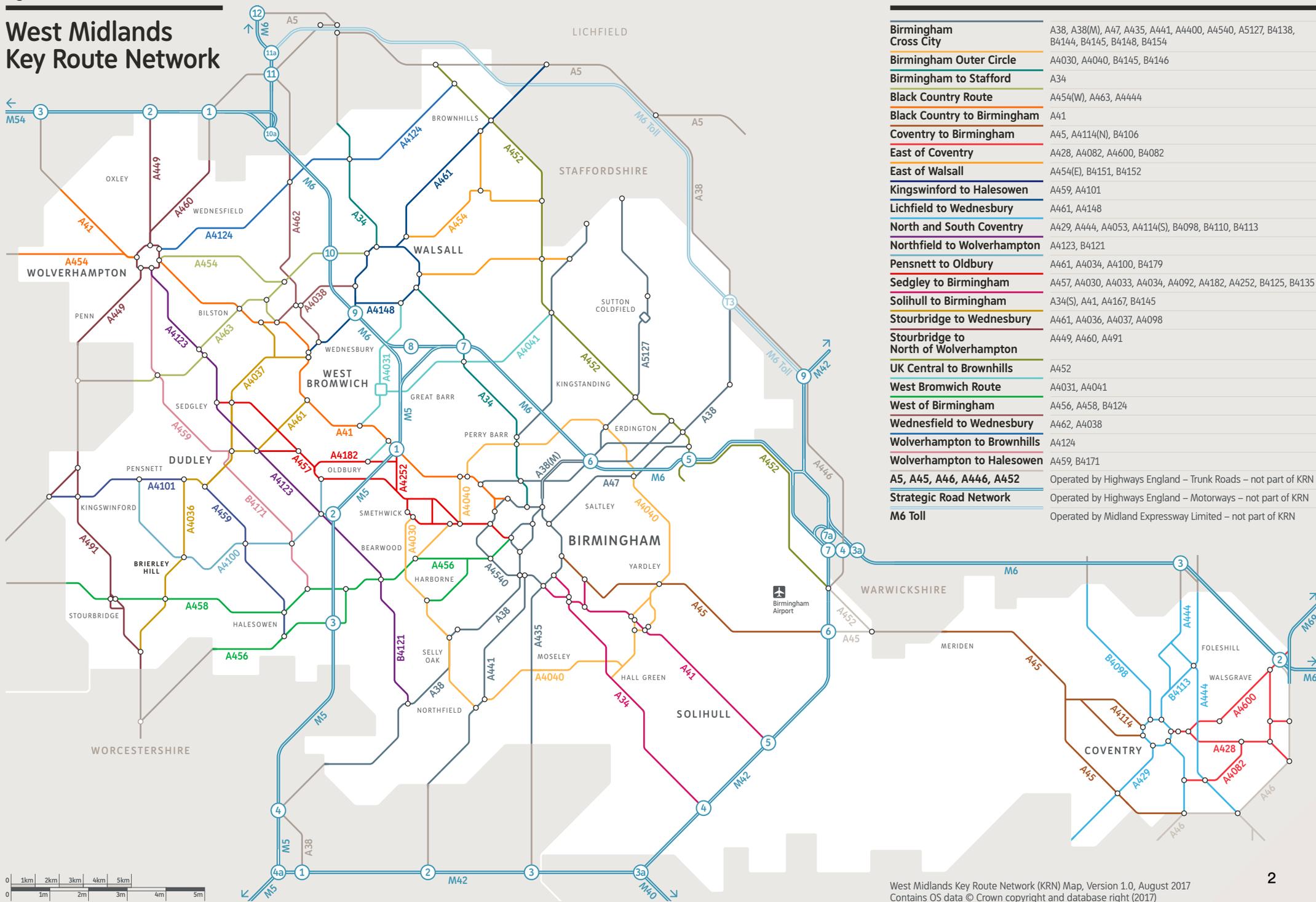
Stourbridge to Wednesbury



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 Stourbridge to Wednesbury route is a 14 mile/22km section of the West Midlands Key Route Network (KRN), providing strategic regional connectivity cross the West Midlands. The route provides strategic links to the following key suburban areas of Dudley and Sandwell which are essential for commuters, freight, regional tourist attractions and access to employment opportunities:-

- Stourbridge
- Brierley Hill
- Dudley Town Centre
- Tipton
- Wednesbury
- Wednesfield

The route provides access to the Merry Hill Shopping Centre and the Black Country Museum which are important leisure destinations for the Black Country and the wider region. It also enables direct access to Russells Hall Hospital in Dudley.

The route is formed of the A4036, A461, A4037, A4098 and B4171 that runs through communities within Brierley Hill, Dudley Town Centre, Tipton and Wednesbury which are essential for commuters, freight, and access to employment opportunities.

The route does not connect to the Strategic Road Network (SRN). However, it does form crucial connections with seven routes on the Key Route Network at the following locations:-

Stourbridge to North of Wolverhampton

- A4036 Ham Lane/A491 Hagley Road

West of Birmingham

- A4036 Pedmore Road/A458 Stourbridge Road

Pensnett to Oldbury

- A4036 Merry Hill/A4100 High Street

Kingswinford to Halesowen

- A461 Duncan Edwards Way/A459 Cinder Bank
- A461 Stourbridge Road A4101 Kingswinford Road

Wolverhampton to Halesowen

- B4171 Hall Street/B4171 Trindle Road
- A4037 Tipton Road/A461 Birmingham Road

Northfield to Wolverhampton

- A461 Birmingham Road/A4123 Birmingham New Road
- A4037 Tipton Road/A4123 Birmingham New Road

Sedgley to Birmingham

- A461 Dudley Port/A457 Sedgley Road East
- A4037 Dudley Road/A457 Sedgley Road West

Black Country to Birmingham

- A41 Bilston Road/A4150 Ring Road
- A41 Chapel Ash/A4150 Ring Road

With the exception of sections around Dudley Town Centre, the route largely comprises of single carriageway roads. In most cases properties are well set back from the carriageway with off-street parking.

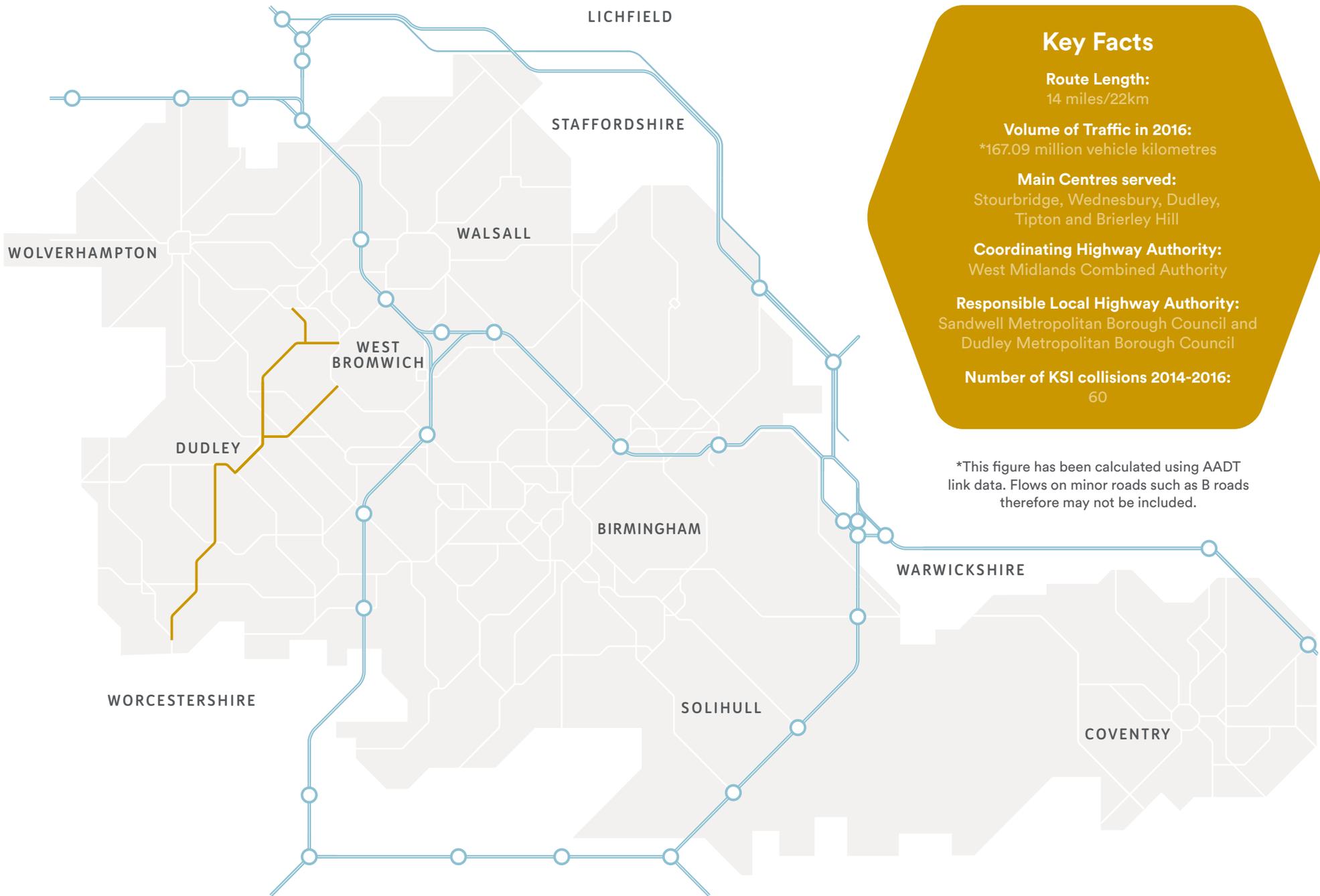


Figure 2

Congestion, Delay, Reliability

This route represents 4% 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 9,200 vehicles, a maximum of 39,200 with an average of 20,700 AADF.

The route experiences large volumes of traffic, particularly on:

- The A461 between Castle Gate Island the A41 Black Country New Road; and
- The A4037 between Castle Gate Island the A4037 Gospel Oak 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
A4036	Ham Lane, A491 Hagley Road Island to B4186 Grange Road, Stourbridge	Northbound
A4036	Pedmore Road/Dudley Road/Thorns Road, Caledonia to A4100 High Street, Quarry Bank	Northbound
A4036	Merry Hill, The Boulevard to A4100 High Street, Quarry Bank	Southbound
A461	Duncan Edwards Way, Flood Street Island to Cinder Bank Island, Dudley	Southbound
A461	Burnt Tree/Dudley Port, Birmingham Canal Bridge to A4123 Birmingham New Road, Dudley	Southbound
A461	Dudley Port/Horseley Heath, Fisher Lane, Dudley to Horseley Road, Tipton	Northbound
A461	Great Western Road/Horseley Heath/Dudley Port, A41 Black Country New Road to A457 Sedgley Road East, Tipton	Southbound
A4037	Tipton Road, Black Country Living Museum Access to A4123 Birmingham New Road, Dudley	Northbound
A4037	Dudley Road, B4517 High Street, Tipton, to A4123 Birmingham New Road, Dudley	Southbound
A4037	Bloomfield Road, William Barrows Way to B4163 Bradleys Lane, Bloomfield	Northbound
A4037	Wednesbury Oak Road, Wake Green Road to A4098 Bilston Road, Wednesbury	Northbound
A4037	Gospel Oak Road, Ocker Hill Road to Ocker Hill Roundabout	Northbound
A4037	Gospel Oak Road, Ocker Hill Roundabout to Ocker Hill Academy Access	Southbound
A4037	Gospel Oak Road approach to A4098 Bilston Road, Wednesbury	Southbound
A4098	Bilston Road, approach to A4037 Wednesbury Oak Road, Wednesbury	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 on this route is to create problems with access to Stourbridge Junction Station, Sandwell General Hospital, Russells Hall Hospital and Dudley Guest Hospital. Industrial areas such as Hurst Business Park, Grazebook Industrial Park, Anchor Business Park, Dudley industrial areas, Coneygre Industrial Estate, Vaughan Trading Estate, Great Bridge and Goldshill industrial areas, and the Tipton, Bilston and Wednesbury industrial areas where businesses may supply or rely on just-in-time deliveries are also affected.

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

Table 2: PM Peak Congestion-Related Delays

Road	Location	Direction
A4036	Merry Hill, Nottingham Way to A4100 High Street, Quarry Bank	Southbound
A4036	Stourbridge Road/Highgate Road/Pedmore Road, Oakleigh Lodge (Stourbridge Road), Dudley, to Hurst Lane, Merry Hill	Southbound
A4036	Highgate Road/Stourbridge Road, Woodside Community School to Scotts Green Island, Dudley	Northbound
A461	Duncan Edwards Way, approach to Scotts Green Island, Dudley	Southbound
A461	Burnt Tree/Dudley Port, Birmingham Canal Bridge to A4123 Birmingham New Road, Dudley	Southbound
A461	Dudley Port/Horseley Heath/Great Western Way, A457 Sedgley Road East, Tipton to A41 Black Country New Road, Toll End	Northbound
A461	Great Western Road/Horseley Heath, A41 Black Country New Road to Johns Lane, Tipton	Southbound
A4037	Tipton Road/Dudley Road, Black Country Living Museum Access to A457 Sedgley Road, Tipton	Northbound
A4037	Bloomfield Road/Hurst Lane, Barnfield Road to A4123 Birmingham New Road, Tipton	Southbound
A4037	Bloomfield Road, Factory Road to B4163 Bradleys Lane, Bloomfield	Northbound
A4037	Wednesbury Oak Road/High Street, Asda Tipton Access to Upper Church Lane, Princes End	Southbound
A4037	Leabrook Road, Parkway Roundabout to Lea Avenue, Leabrook	Northbound and 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 Tipton are particularly slow during the morning and evening peaks. The worst performing sections where average speeds are below 10 mph are as follows:

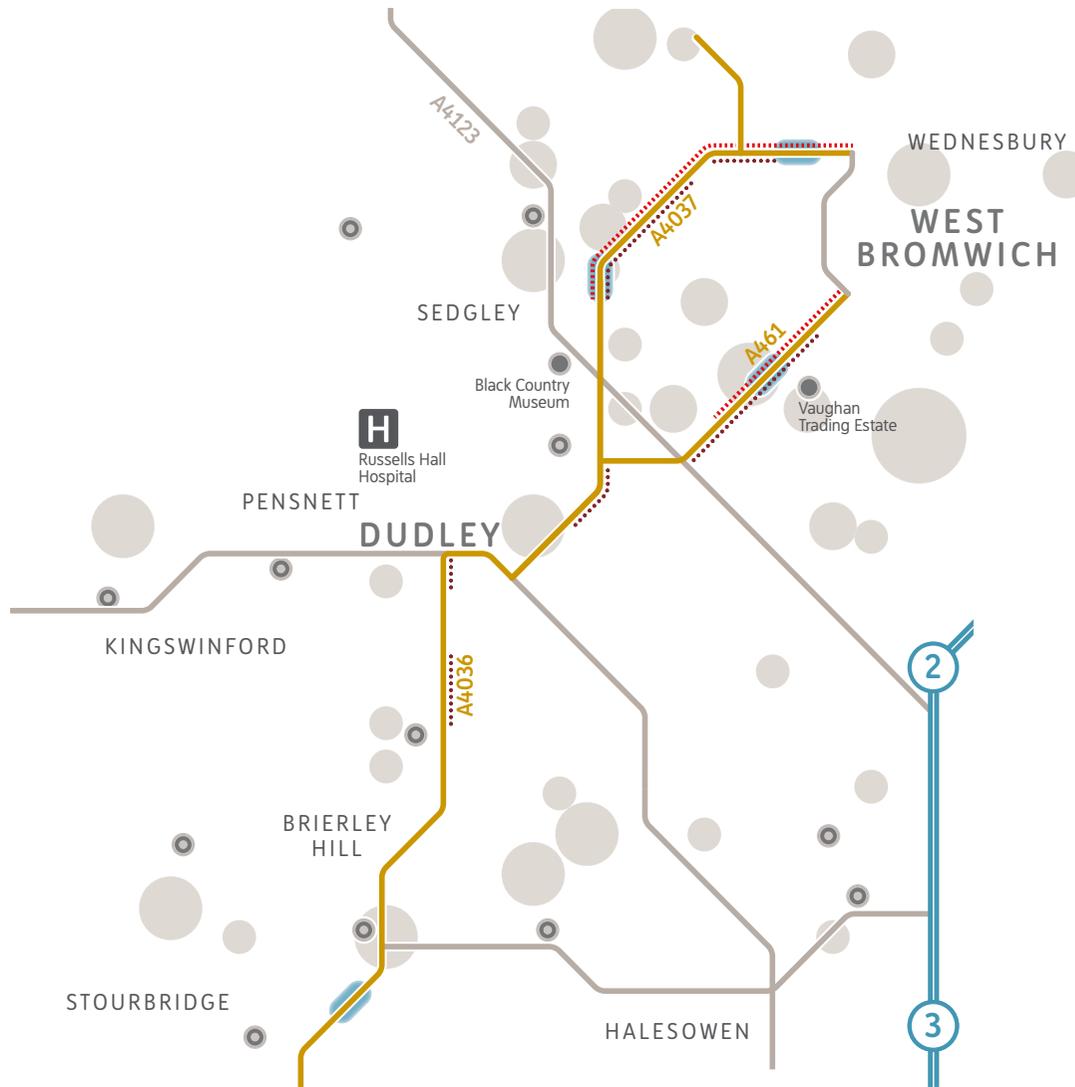
- A461 Duncan Edwards Way: B4177 Blower's Green Road to Flood Street
- A461: Castle Gate Island to New Birmingham Road
- A461: New Birmingham Road to Sedgley Road East
- A4037: Black Country Living Museum to A457

Junction Capacity Issues

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

- A4036 Merry Hill/A4100 High Street
- A461 Stourbridge Road/A4101 Kingswinford Road
- A461 Birmingham Road/A4123 Birmingham New Road
- A461 Dudley Port/A457 Sedgley Road East
- A461 Great Western Way/A41 Black Country New Road
- A41 Black Country New Road/A4037 Leabrook Road
- A4037 Tipton Road/A4123 Birmingham New Road
- A4037 Tipton Road/A457 Sedgley Road West
- A4098 Great Bridge Road/A41 High Street

West Midlands Key Route Network Stourbridge to Wednesbury



Key

Roads	<ul style="list-style-type: none"> — The Route — Strategic Road Network operated by Highways England
Environment, Flows and Junction Capacity	<ul style="list-style-type: none"> ○ Flooding area - - - - - Congestion area ● Junction capacity issue
Route Safety	<ul style="list-style-type: none"> ●●●●● KSI hotspot zone – high number of serious or fatal incidents
Key Considerations	<ul style="list-style-type: none"> ○ 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 baseline.

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

Collisions

- 121 collisions, involving 229 vehicles
- Main contributory factor: Failed to look properly (pedestrian) (16% of all collisions)
 - The Killed and Seriously Injured (KSI) ratio for this group is 21% being the biggest contributor to serious collisions at 20% being attributed to this group.
- Main contributory factors
 - Slippery road (due to weather) (7% of all collisions)
 - Careless or Reckless or In a hurry (Driver) (7% of all collisions)

Casualties

- Total casualties: 162
- Killed and Seriously Injured: 26 (16% of all casualties, up 2% when compared to 2015 figure of 20 of 126)
 - Killed: 1 (0.6% of all casualties, down by 2%)
 - Seriously injured: 25 (15% of all casualties, up by 4%)
- Slight: 136 (84% of all casualties)

Casualty Types

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

- Pedestrians: 20 (a reduction of 12% compared to 2015)
- Powered Two wheel vehicles: 16 (a reduction of 3% compared to 2015)
- Pedal cyclists: 12 (a reduction of 1% compared to 2015)
- Car occupants: 113 (an increase of 16% compared to 2015)

KSI Clusters

The main cluster of serious collisions is on the A461 between the A4123 and the A41.

There is another KSI cluster, which included a fatal collision, on the A4036 Pedmore Road near the canal bridge.

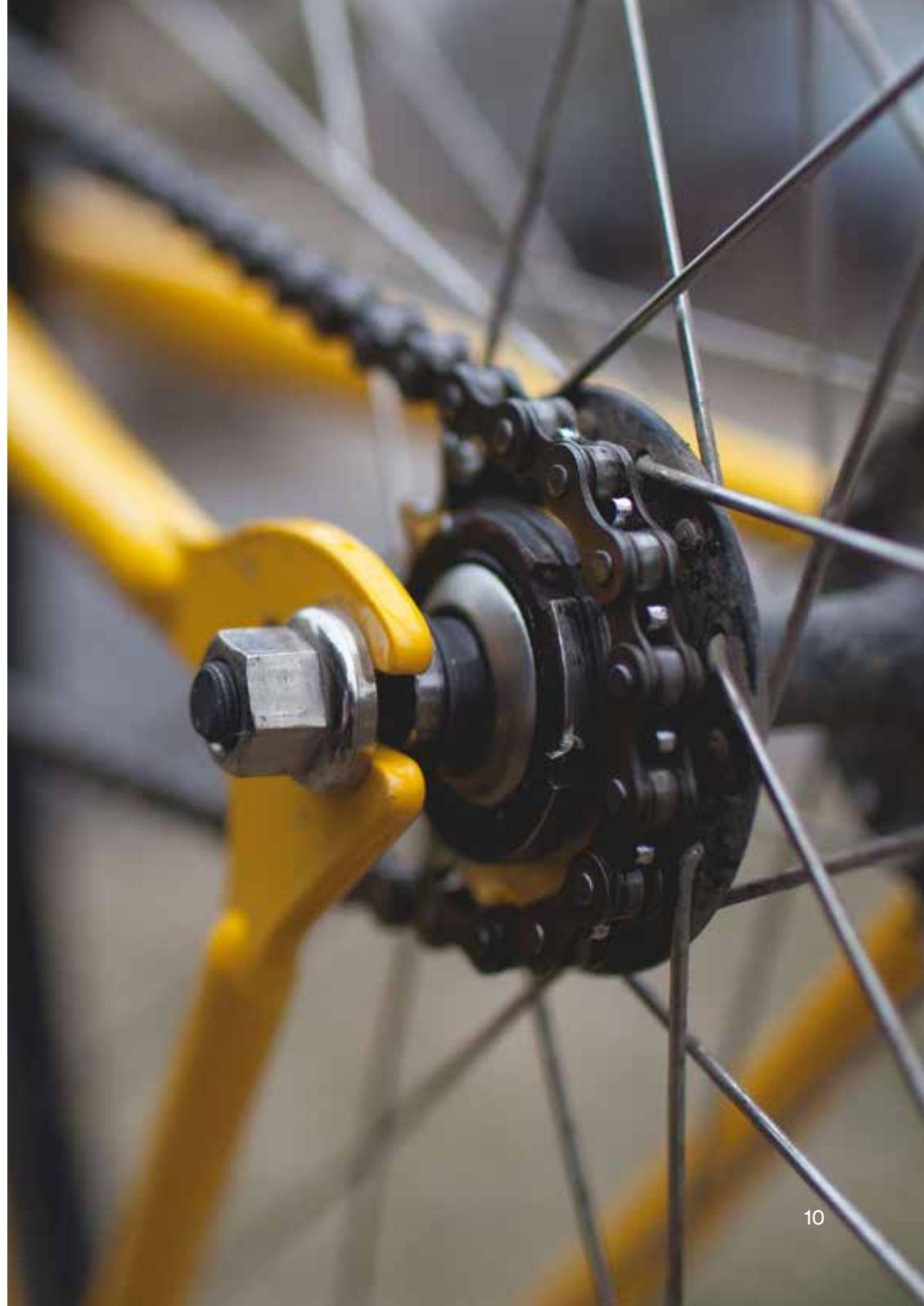
Also there are a series of KSI clusters along the A4037 from its intersection with the A457 to its junction with A4098. The environment for these locations is a mix of commercial and residential.

CYCLING

Within Dudley, there is a shared used path along the A4036. A particular issue in Lye is the presence of a poor crossing facility, within an area proposed for additional housing growth. The A461 has some on-road segregated lanes for cycling. In the vicinity of Clee Road road severance also poses issues for accessibility for vulnerable road users

The A4037/Tipton Road has advisory cycle lanes in both directions where the lanes are narrow with speed limits of 30mph.

There is limited provision for cycling in the Sandwell section of the A4037.



The various sections of the route are reasonably well served by a number of bus services operating generally at 10-20-30 minute intervals. These services provide access to the local centre at Dudley, Brierley Hill, Stourbridge and Wednesbury, leisure destinations including Black Country Living Museum and Dudley Castle and Zoo, retail facilities including the Merry Hill Shopping Centre, employment sites and the surrounding communities.

The average bus speed along this route is 10.9mph (data taken from the 11 bus route).

The average total number of daily bus trips is 43,121.

Various Bus links in this corridor are identified in the Core Bus Network in the West Midlands Strategic Transport Plan - Movement for Growth, but are not identified for Sprint investment.

In terms of rail there are stations on the crossing rail lines focused on Birmingham – Stourbridge Town, Stourbridge Junction and Lye on the route to Birmingham Snow Hill, Tipton and Dudley Port on the line between Wolverhampton and Birmingham New Street.

Table 3: Main Bus Routes

Road(s) Served	Frequency	Route No.
A461 Dudley - Great Bridge	Every 10 mins	74
A4036 Pedmore - Wollescote and Lye – Merry Hill	Every 20 mins	276
A4036 Merry Hill - Dudley	Every 20 mins	X96
A4037 Dudley - Princes End and Ocker Hill - Wednesbury	Every 20 mins	11
A4037 Dudley - Gospel Oak - Wednesbury	Every 20 mins	13
A461 Dudley - Dudley Port	Every 10-20 mins	42
A4037 Dudley - Tipton	Every 30 mins	229
A4098 Gospel Oak - Moxley	Every 30 mins	23
A461 Dudley - Great Bridge	Every 60 mins	74A
A4037 Dudley - Sedgley Road West	Every 60 mins	24
A4037 Dudley - Princes End and Ocker Hill - Wednesbury	Every 20-30 mins	311

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

The following stations on this line have park and ride facilities:

- Stourbridge Town
- Stourbridge Junction
- Lye
- Old Hill
- Rowley Regis
- Langley Green
- Smethwick Galton Bridge
- The Hawthorns
- Wolverhampton
- Coseley
- Tipton
- Dudley Port
- Sandwell & Dudley

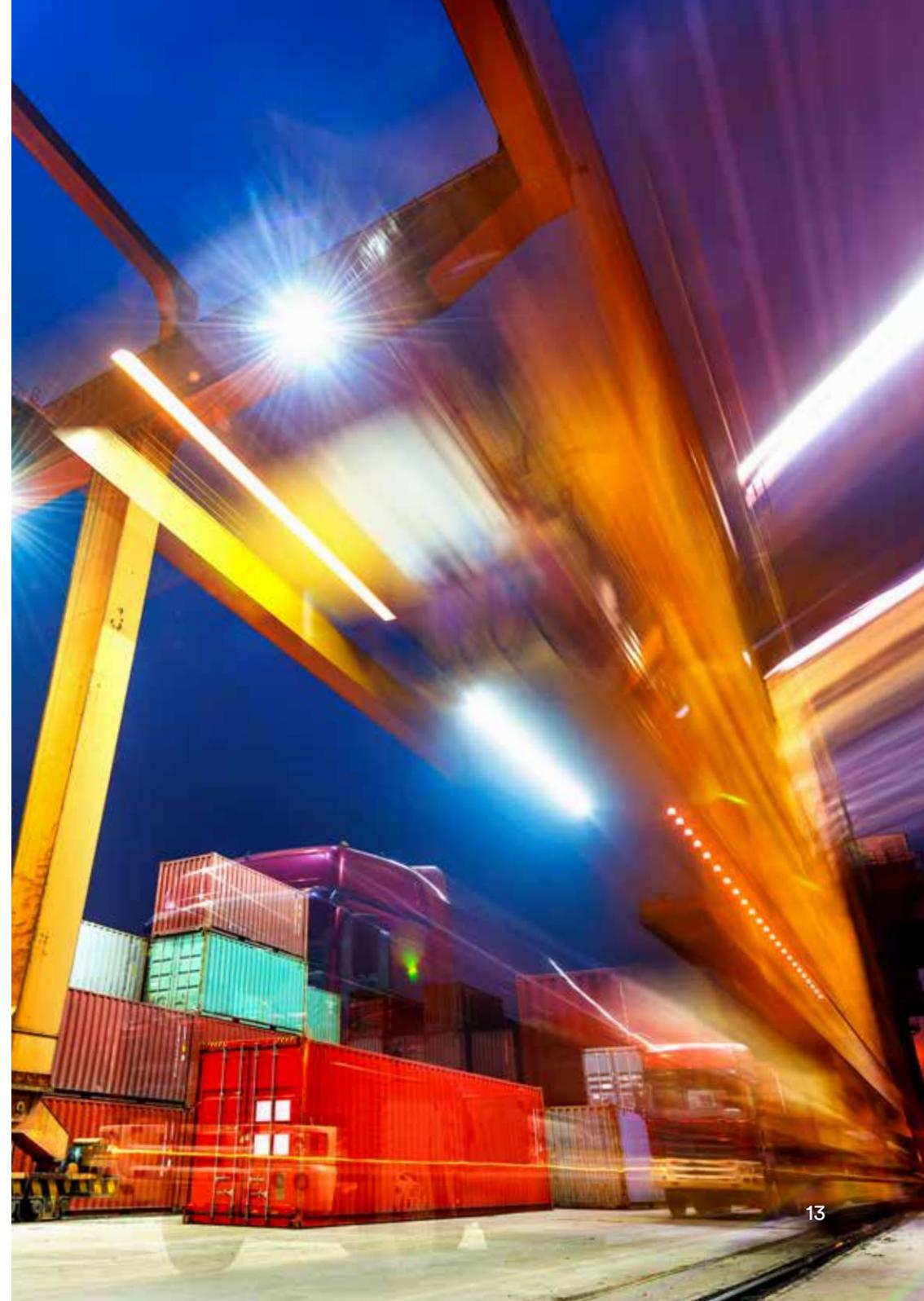
There are no current rail services in the direction of the route but the West Midlands Strategic Transport Plan – Movement for Growth identifies a combined tram-train/rail and Midland Metro route on the abandoned Stourbridge – Lichfield Line. The Midland Metro extension between Wednesbury and Brierley Hill via Dudley is identified in the HS2 Connectivity Package.



The AADF data for 2016 has been used to analyse HGV flows on each respective route. The average number of Heavy Goods Vehicles using the route on a daily basis was 990, which represents 5% of all vehicular traffic. It is evident that this route is important for freight, with freight flows exceeding 1,000 per day along the following sections:

- A4036 High Street to Dudley Road (section through Merry Hill is important for deliveries)
- A461 from its junction with B4177 to its junction with A4123
- A461 from its junction with A457 junction at Dudley Port to its junction with A41

The Black Country Enterprise Zone led by the Black Country Local Enterprise Partnership has identified 'DY5', Dudley's Business and Innovation Enterprise Zone, as a site for development. It is estimated that this site will connect advanced manufacturing to industrial sites, generating over 7,000 jobs over 25 years.



Resilience

There are parallel strategic roads within the route to the North and South of the route by means of the M5, A491/A461 and A459/B4173. There is a considerable degree of resilience contained within the Black Country highway network. However, certain critical sections can cause gridlock particularly where routes converge around Dudley and around the Merry Hill Shopping Centre.

There is a lack of intermodal network resilience through the lack of rail based transport along the route. However, the West Midlands Strategic Transport Plan – Movement for Growth proposes reintroducing rail or tram-train services on the Stourbridge – Wednesbury – Brownhills former freight line which (with sufficient station parking) will provide improved intermodal network resilience. The Plan also proposes extending Midland Metro from Wednesbury to Brierley Hill which will improve intermodal resilience in the north of the route. This is contained within the HS2 Connectivity Package so could be delivered around 2026.

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

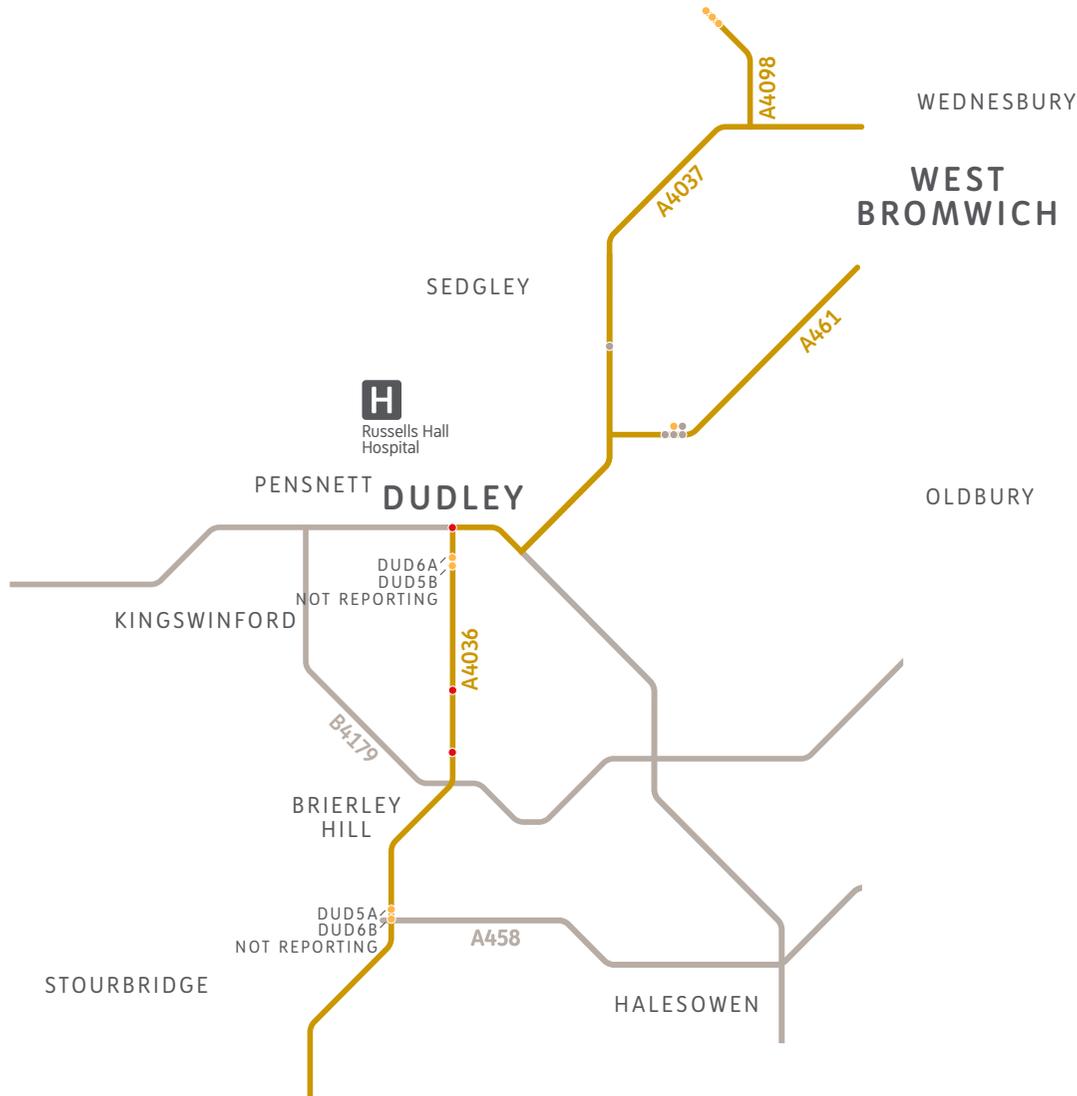
This route does not form part of the Emergency Diversion Routes used Highways England.

Flooding

Flooding on this route impacts on the overall performance, safety of road users and affects the lives of those living in the vicinity. The evidence gathered indicates that there are four areas on this route that pose flood risk. There are some flooding zones identified along this route:

- A458 - Quarry Bank
- A4037: A457 Sedgley Road West - Upper Church Lane
- A4037: Toll End Rd - A41 Black Country New Road
- A461 Dudley Port

West Midlands Key Route Network Stourbridge to Wednesbury



Key

Roads

- The Route

Asset Location & Conditions
(where known & information available)

- CCTV
- Automatic Number Plate Recognition (ANPR) / Journey Time Monitoring System (JTMS) locations
- Traffic Camera locations

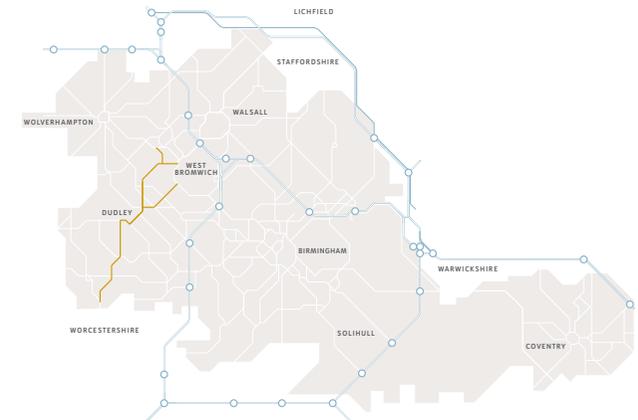


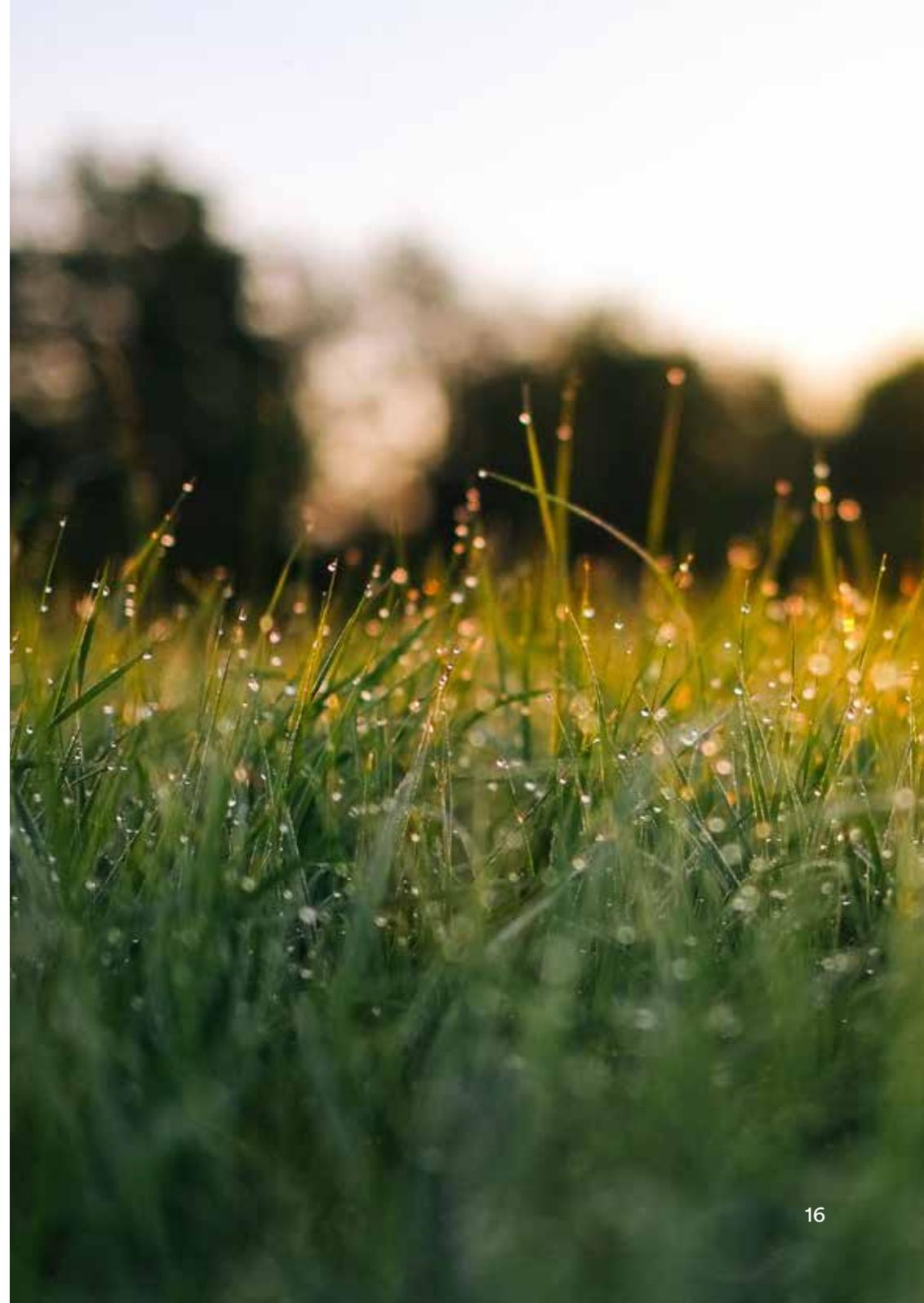
Figure 4

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 and in Tipton, south of the junctions between this route and the A4098 and A457. These areas where life expectancy falls below the national average of 83 coincide with some of the most deprived areas in the WMCA area. There are some areas of high childhood obesity at the north end of the route, particularly in Dudley and Sandwell between the A4037 and Wolverhampton boundary.

The route falls within Sandwell and Dudley Air Quality Management Zones (AQMAs), both of which are declared for Nitrogen Oxide (NO₂).

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 across this route is in a fair and safe condition. Over the past five years there has been a systematic planned programme of capital maintenance carried out on the A461 and A4037. Some sections along the route that are fair in condition are planned for remedial treatment over the next three years.

Footway Condition

The footways across the Stourbridge to Wednesbury route are in a generally fair to poor condition. There is no systematic planned programme of capital maintenance carried out on the A461 and A4037.

Structures

There are 5 highway structures consisting of 4 bridges and 1 aqueduct on the Stourbridge to Wednesbury route, which are systematically inspected and maintained. The overall condition of these structures is fair to good.

Further details on the above assets can be found in the technical annex.



Development proposals directly affecting this route

Housing

- Coseley Ecopark 925 dwellings (2017–20)
- Wider Lye Area 530 dwellings (2017–25)
- Wider Tipton Area 2000 dwellings (2020–25)
- Vaughan Trading Estate 350 dwellings (2025–30)
- Shaw Road 160 dwellings (2025–30)
- Budden Road 175 dwellings (2025–30)

Employment

- Brierley Hill Enterprise Zone 7000 jobs (2017–20)
- Dudley Town Centre 10500 Jobs (2017–30)
- Wider Wednesbury Area 4800 jobs (2017–30)

Development proposals indirectly affecting this route

Housing

- Stallings Lane 272 dwellings (2017–20)
- Woods Lane 210 dwellings (2017–20)
- Portway Road 375 dwellings (2020–25)

Employment

- Dreadnought Road 170 jobs (2017–20)

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

- New Station and improvements- Brierley Hill
- Snow Hill Lines (Platform 4 Reinstatement and Signalling Works & Rowley Regis Turn back local enhancement)
- SPRINT: Dudley to Birmingham (A461 Birmingham Road)

- AAFD** – 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>