

West Midlands Key Route Network

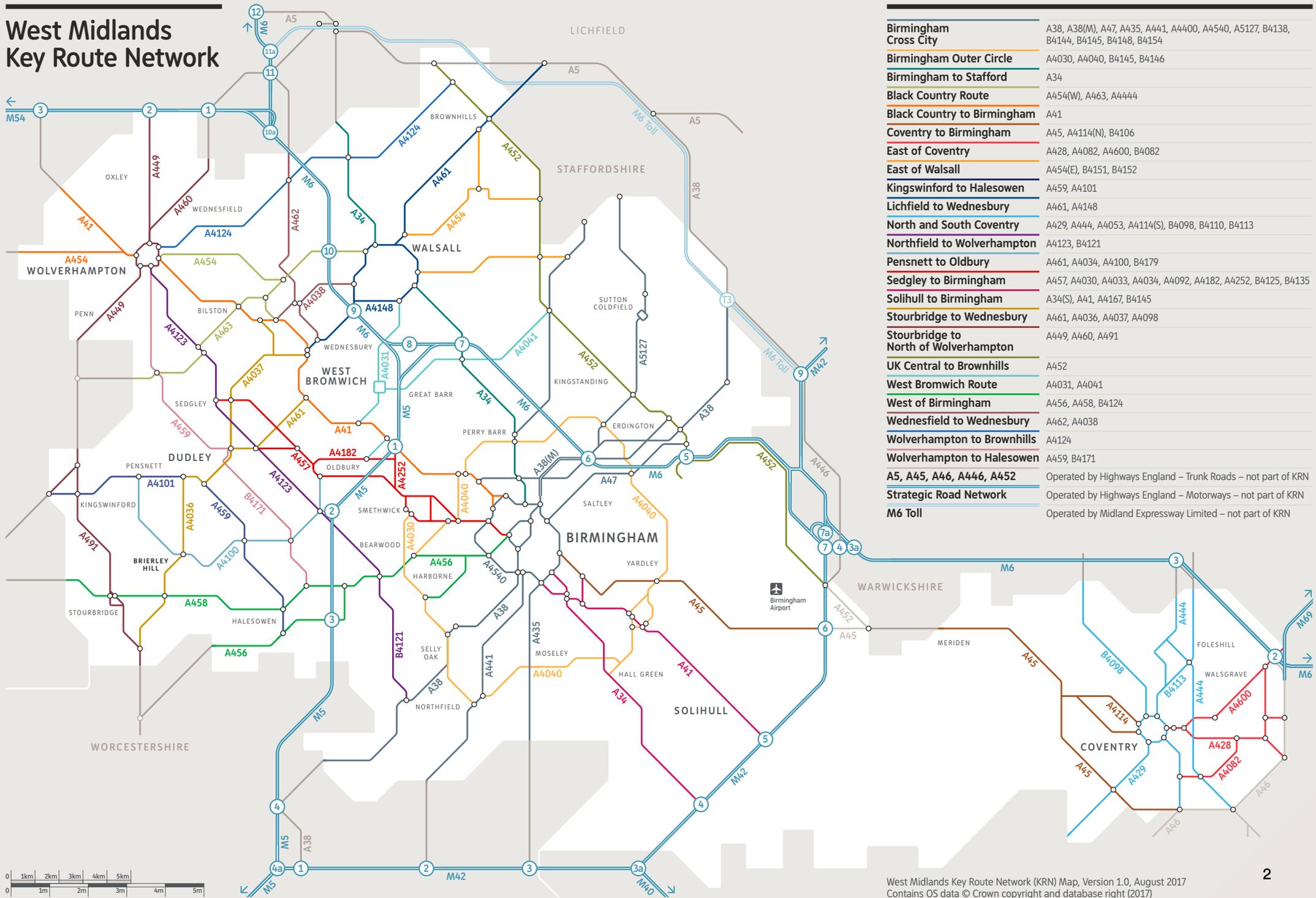
Kingswinford to Halesowen



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 Kingswinford to Halesowen route is a 8 mile/14km section of the West Midlands Key Route Network (KRN), providing strategic regional connectivity across the West Midlands. The route provides strategic links access to Dudley Town Centre, between Halesowen on the A459 and Kingswinford on the A4101, which is an essential route for freight movements, commuters and for accessing employment opportunities across the Black Country and the wider West Midlands. The route also enables direct access to Russells Hall Hospital.

Across the region the route also provides an important strategic link, particularly for suburban areas where it allows surrounding communities access to retail, leisure and employment opportunities.

Within the Black Country, this route supports economic growth and is essential for attracting new business opportunities to the area. It also enables the movement of goods and services from employment sites, requiring access to the M6 and M5 motorways.

The Kingswinford to Halesowen Route is formed of the A4101 and A459 connected by a short length of the A461 Duncan Edwards Way in Dudley.

This is a vital connection within the Dudley area and is crucial for freight movements to the M6, M42 and M5 motorways. This link further enables connectivity to the north, south and southwest of England.

The route is connected indirectly to the Strategic Road Network (SRN) at M5 Junction 3 via A456 Manor Way at Halesowen.

In addition, the route also forms a number of connections to other routes on the KRN. These are:

West of Birmingham

- A459 Grange Road/A456 Manor Way
- A459 Dudley Road/A458 Mucklow Hill

Pensnett to Oldbury

- A459 Heathfield Way/A4100 Highgate Street
- A459 Halesowen Road/A4100 Highgate Street

Stourbridge to Wednesbury

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

The route is mainly comprised of single carriageway except sections along A4101 Kingswinford Road and A461 Duncan Edwards Way in Dudley and within Halesowen between the A458 Mucklow Hill and the A456 Manor Way junctions.

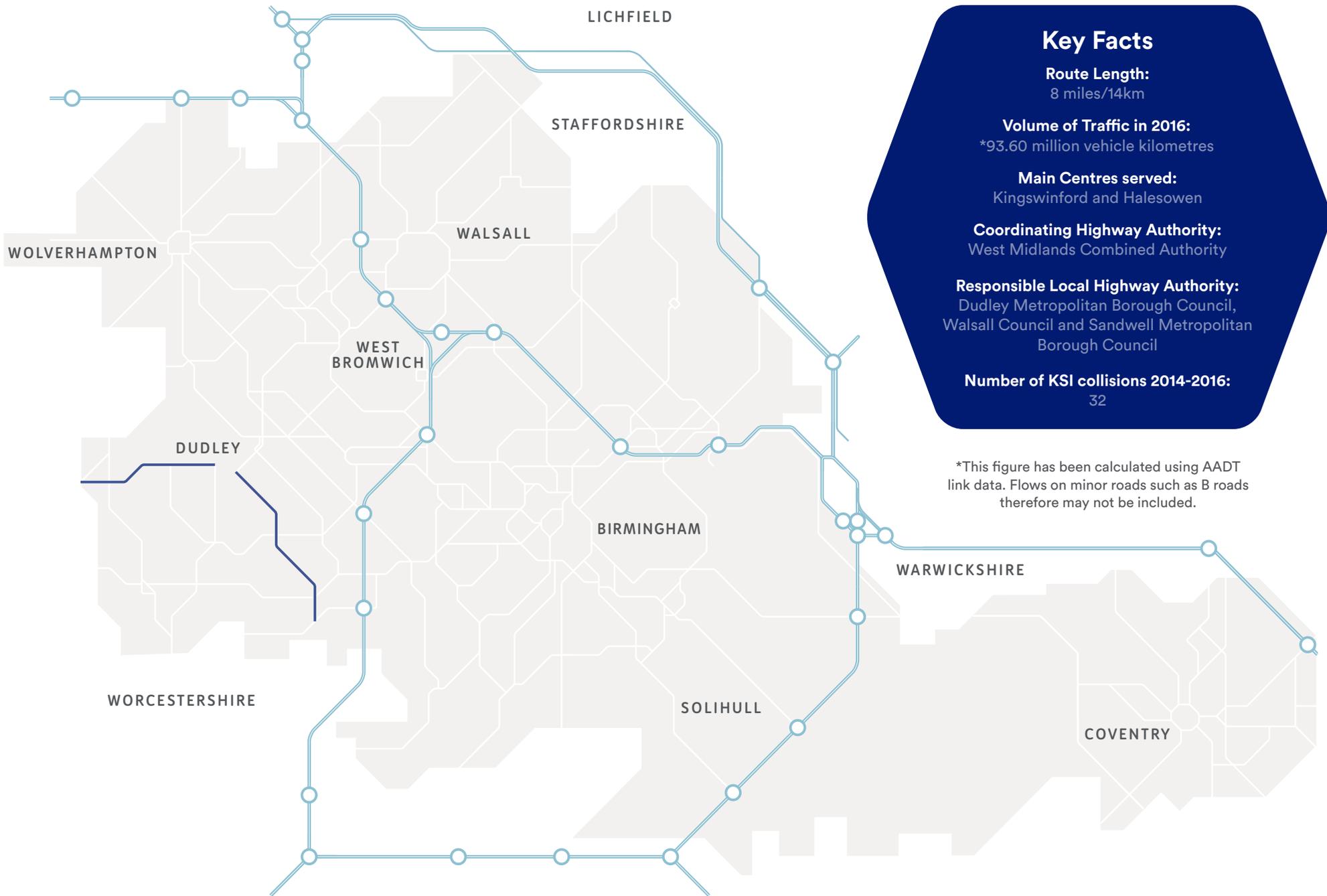


Figure 2

Congestion, Delay, Reliability

This route represents 2% 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 4,700 vehicles, a maximum of 28,600 with an average of 17,200 AADF.

The route experiences large volumes of traffic, particularly on the:

- A4101 between its junctions with First Avenue and the A461 Stourbridge Road; and
- A459 between its junctions with the A461 Duncan Edwards Way and the A4099 Coombs 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
A4101	Dudley Road/High Street, Pensnett, First Avenue to Russells Hall Hospital access	Eastbound
A4101	Kingswinford Road, Pensnett Road to A461 Duncan Edwards Way, Dudley	Eastbound
A459	Cinder Bank, New Road to A461 Duncan Edwards Way, Dudley	Northbound
A459	Halesowen Road, Baptist End Road to B4173 Cradley Road, Netherton	Both
A459	Halesowen Road, Chapel Street to Cole Street	Southbound
A459	Halesowen Road, Molyneux Road to Cole Street	Northbound
A459	Haden Hill Road, The Crescent to A4099 Coombes Road, Halesowen	Southbound
A459	Dudley Road, Hereward Rise to A4099 Coombes Road, Halesowen	Northbound
A459	Grange Road, A458 Queensway to A456 Manor Way, Halesowen	Both

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 average journey time between 22:00 – 06:00.

A particular impact of congestion on this route is to create problems for access to the Russells Hall Hospital and to the Pensnett Trading Estate, Gazebrook Industrial Park, Anchor Business Park, Dudley Central Trading Estate, Primrose Trading Estate and Forge Trading Estate, where businesses may supply or rely on just-in-time deliveries.

Average Speeds

The average speed for this route in the AM peak is between 10-20 mph throughout its busiest sections. The areas approaching Russells Hall Hospital and Old Hill are particularly slow during the morning and evening peaks and speed can be as low as less than 10 mph. The sections with average peak speeds of less than 10 mph are as follows:

- A4101 High St, Gibbons Lane to B4179 Commonside, Pensnett
- A459 Cinder Bank, Simms Lane to A461 Duncan Edwards Way, Dudley
- A459 Halesowen Road, B4173 Cradley Road, Netherton, to A4100 Highgate Street, Old Hill
- A459 Dudley Road, Station Rd, Haden Cross, to A458 Mucklow Hill, Halesowen

Table 2: PM Peak Congestion-Related Delays

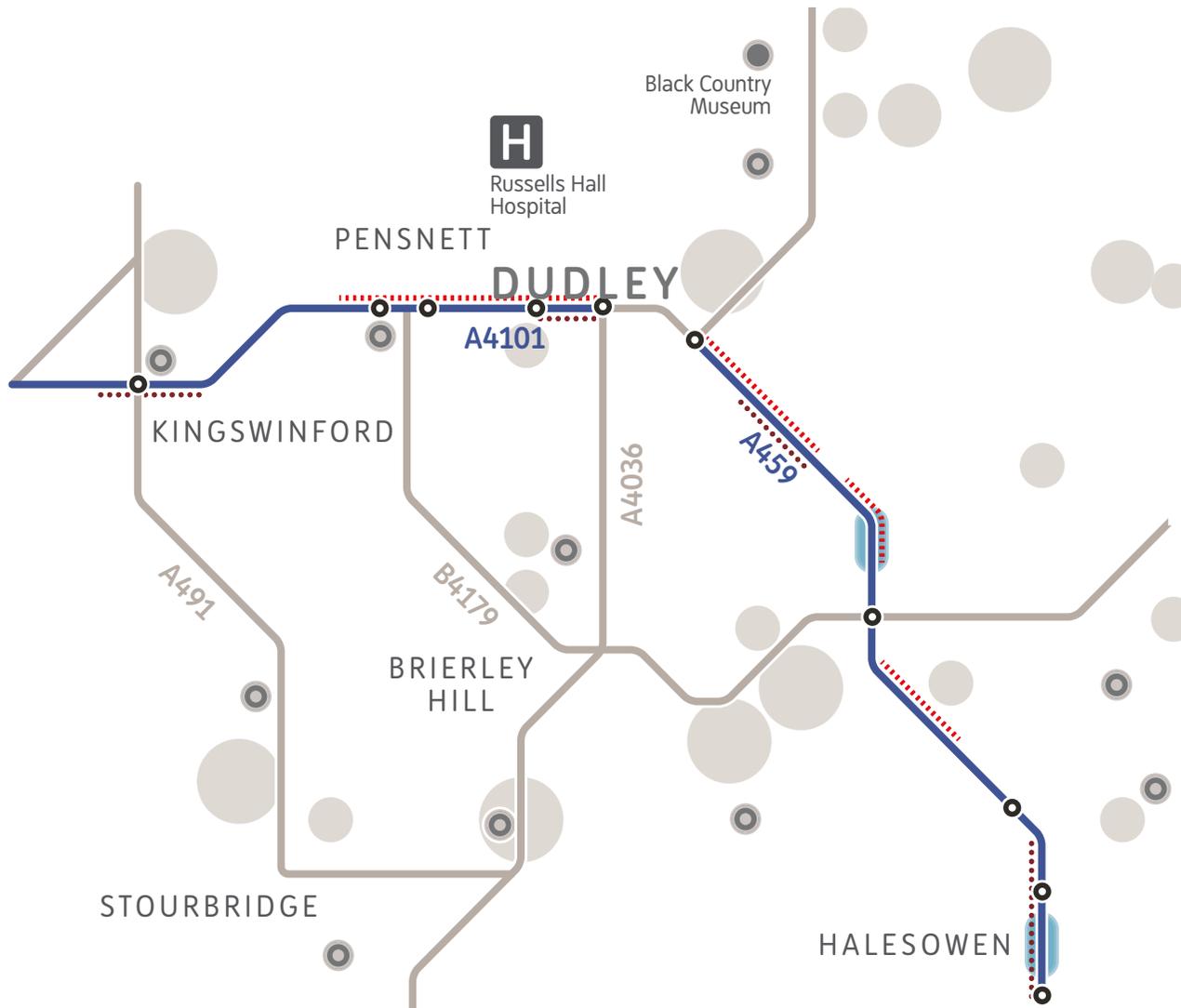
Road	Location	Direction
A4101	High Street, Pensnett Road to B4179 Commonside, Pensnett	Westbound
A4101	Kingswinford Road, Pensnett Road to A461 Duncan Edwards Way, Dudley	Eastbound
A459	Cinder Bank, New Road to A461 Duncan Edwards Way, Dudley	Northbound
A459	Cinder Bank, A461 Duncan Edwards Way, Dudley B4173 Cradley Road, Netherton	Southbound
A459	Halesowen Road, B4173 Cradley Road to Baptist End Road, Netherton	Northbound
A459	Halesowen Road, Chapel Street to Cole Street	Southbound
A459	Halesowen Road, Molyneux Road to Cole Street	Northbound
A459	Halesowen Road, Church View Drive to Station Road, Old Hill	Southbound
A459	Halesowen Road, Barrs Road to Station Road, Old Hill	Northbound
A459	Grange Road, A458 Queensway to A456 Manor Way, Halesowen	Both

Junction Capacity Issues

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

- A459 Grange Road and its junction with A456 Manor Way
- A459 Bromsgrove Street and its junction with A458 Mucklow Hill
- A4100 Highgate Street and its junction with A459 Halesowen Road
- A459 Cinder Bank and its junction with A461 Duncan Edwards Way
- A461 Duncan Edwards Way and its junction with A4101 Stourbridge Road
- A4101 High Street and its junction with B4179 High Oak
- A4101 High Street and its junction with A491 Market Street

West Midlands Key Route Network Kingswinford 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 baseline.

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

Collisions

- 50 collisions, involving 94 vehicles
- Main contributory factor: Failed to look properly (pedestrian) (18% of all collisions)
 - The Killed and Seriously Injured (KSI) ratio for this group is one of the highest for this route at 33% with 21% of all serious collisions being attributed to this group.
- Main contributory factors
 - Failed to look properly (driver) (10% of all collisions)
 - Poor turn or manoeuvre (6% of all collisions)

Casualties

- Total casualties: 63
- Killed and Seriously Injured: 11 (17% of all casualties, up 3% when compared to 2015 figure of 10 of 69)
 - Killed: 0 (0% of all casualties, no variation when compared to 2015)
 - Seriously injured: 11 (18% of all casualties, up by 3%)
- Slight: 52 (83% of all casualties)

Casualty Types

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

- Pedestrians: 14 (a reduction of 14% compared to 2015)
- Powered Two wheel vehicles: 8 (an increase of 7% compared to 2015)
- Pedal cyclists: 4 (an increase of 5% compared to 2015)
- Car occupants: 37 (an increase of 2% compared to 2015)

KSI Clusters

The largest KSI cluster is on the A459 in the vicinity of Baptist End between Baptist End Road and Church Road, this section generally passes through a built up area.

CYCLING

There is limited provision for cycling along the route. The Grange Road Island is a major challenge for active travel, and is part of a feasibility study to determine the type of improvements needed.

The Sustainable Transport Delivery Excellence Programme (STDEP) Strategic Cycle Network has identified 'Priority Corridors' for cycling in the West Midlands. The A4101 section of this route is one of these priorities.



The route is served by a number of moderate frequency bus services operating every 20 - 30 minutes. These services provide access to Pensnett Trading Estate and Russells Hall Hospital, leisure destinations, employment sites and the surrounding communities.

The average bus speed along this route is 12.3mph (data taken from the X10 bus route). The average total number of daily bus trips is 12,574.

The routes are not identified in the West Midlands Strategic Transport Plan - Movement for Growth Core Bus Network – which is focused on Brierley Hill to the south and Dudley to the north of the corridor. There is no planned investment in Sprint for this route.

The rail line between Stourbridge and Birmingham crosses the route at Old Hill. The West Midlands Strategic Transport Plan - Movement for Growth identifies improvements to the frequency of train services on this line and the corridor is included in the HS2 Connectivity Package.

Table 3: Main Bus Routes

Road(s) Served	Frequency	Route No.
A4101 Pensnett - Holly Hall and A454 Old Hill - Halesowen	Every 20 mins	X10
A461 Duncan Edwards Way	Every 20 mins	X96
A459 Baptist End - Halesowen	Every 30 mins	244
A459 Cinder bank - Old Hill	Every 30 mins	243
A4101 Pensnett - Holly Hall	Every 30 mins	226
A4101 Kingswinford - Holly Hall	Every 30 mins	205

*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:

- The Hawthorns
- Smethwick Galton Bridge
- Langley Green Rowley Regis
- Old Hill
- Cradley Heath
- Lye
- Stourbridge Junction
- Stourbridge Town

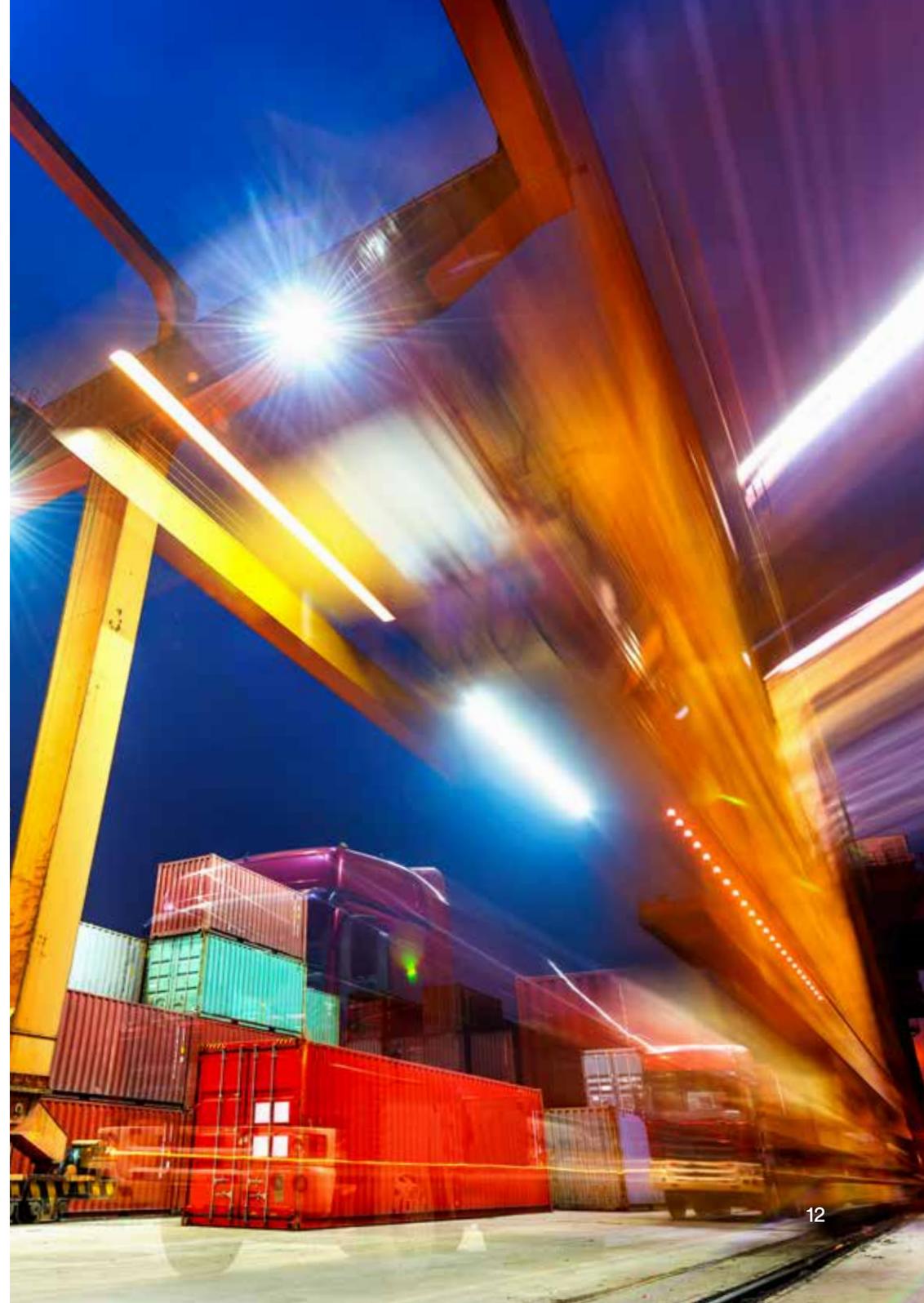
The West Midlands Strategic Transport Plan - Movement for Growth also identifies the extension of Midland Metro tram services from Wednesbury to Brierley Hill, crossing this route in the vicinity of Cinder Bank. This scheme also features in the HS2 Connectivity Package. The rail corridor is also identified for the development of tram-train/rail services between Stourbridge and Brownhills via Dudley Port and Wednesbury and Walsall.

FREIGHT AND LOGISTICS

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 637, which represents 4% of all vehicular traffic. Certain sections of this route experience high HGV flows, including:

- The southernmost part of the route (junction with A456- junction with A4099) and;
- The A461 from the A459 junction to the A4036 junction.

The route is predominantly a local route with low significance to freight, with the two exceptions above due to their links to Halesowen and Dudley centres.



Resilience

The route has parallel strategic roads which provide a level of resilience in the network. Parallel to the A459 are the A4100 and B4173, whilst parallel to the A4101 is the B4175/ B4176. The network converges on Pensnett High Street and Cinder Bank where there are fewer alternative routes. There is a lack of intermodal network resilience due to the lack of rail based transport in either the A459 or the A4101 corridors.

Given the existing capacity constraints in the peaks in the Dudley strategic highway 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.

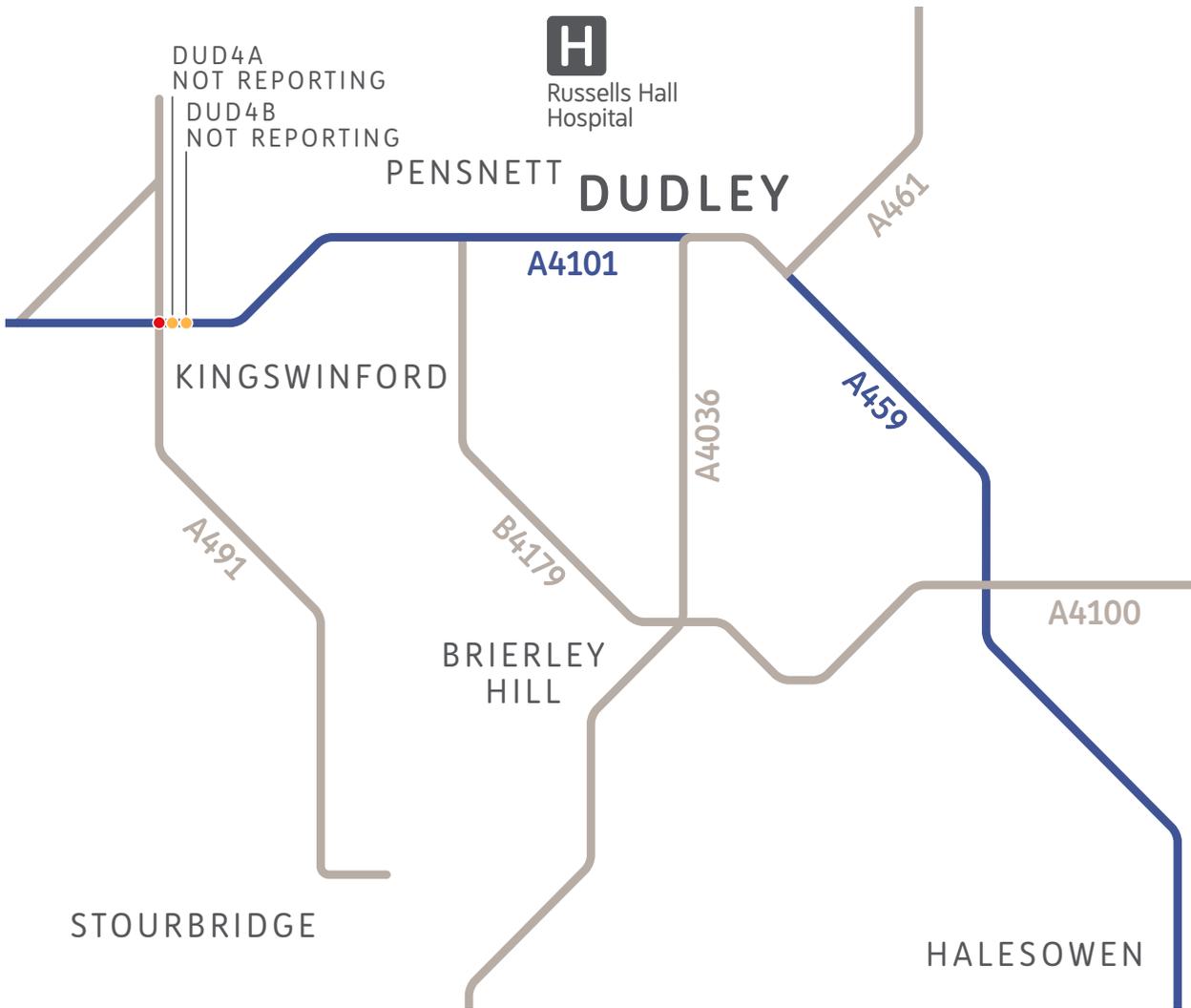
Diversion Route

The route does not form part of the Highways England network of Emergency Diversion Routes (EDR). However, in conjunction with the A4099 and A4034, the southern section of the A459 is utilised by drivers as an informal diversionary route for the M5 between junctions 2 and 3 when there are problems on the motorway.

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 two areas on this route that pose a flood risk both are located along the A459.

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Key

- Roads**
 - Asset Location & Conditions**
(where known & information available)
- The Route
 - CCTV
 - Automatic Number Plate Recognition (ANPR) / Journey Time Monitoring System (JTMS) locations



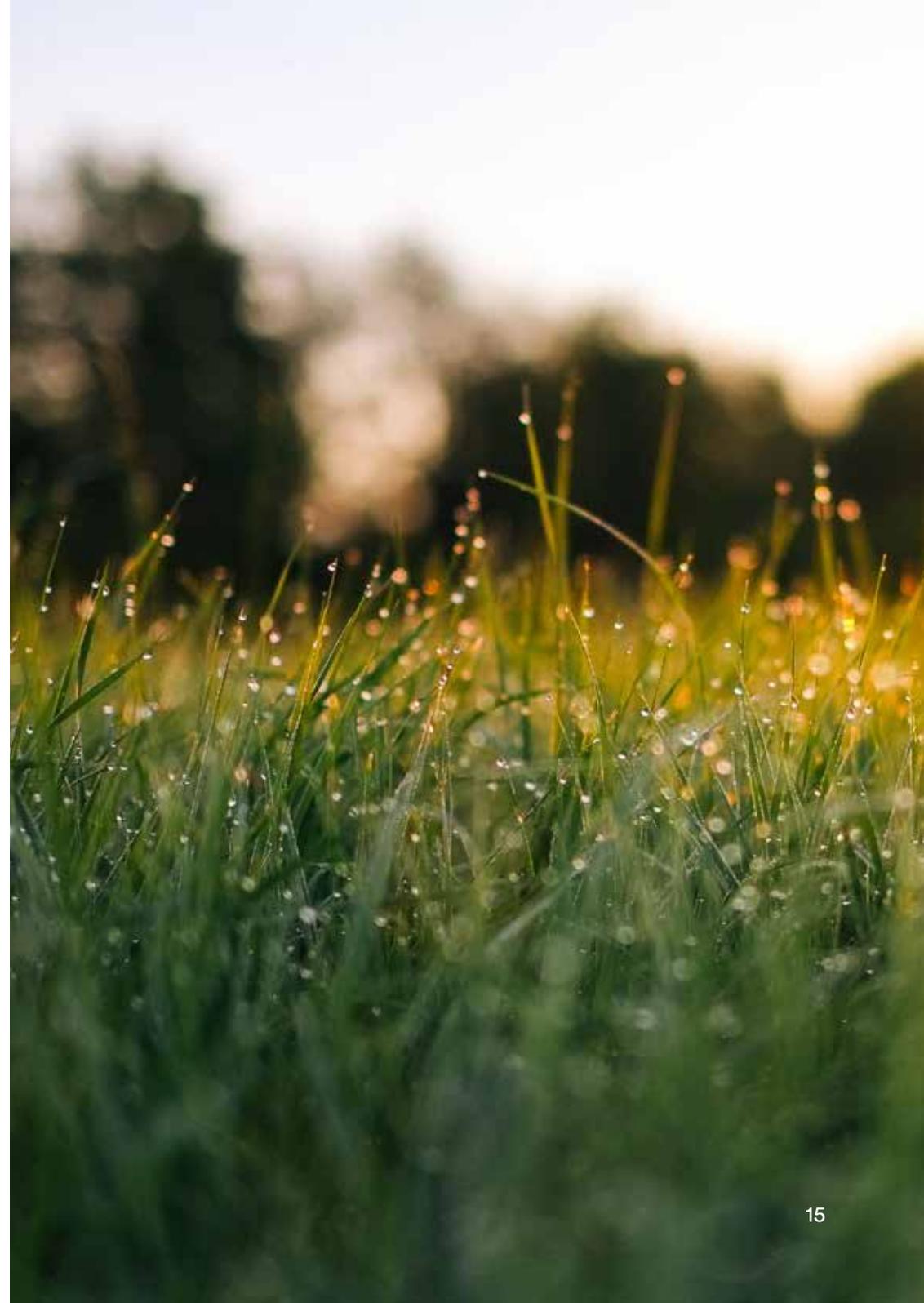
Figure 4

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.

Healthy life expectancy along this route is generally average or good compared to the West Midlands Combined Authority (WMCA). Around Pensnett there are high levels of childhood obesity in year 6. Although some areas close to Kingswinford and Halesowen have slightly higher proportions of elderly than the WMCA as a whole, these areas also have some of the highest proportions of residents providing unpaid care.

The route falls within two Air Quality Management Areas (AQMAs); Sandwell and Dudley, both of which have been declared for Nitrogen Oxide (NO₂).

The West Midlands has significant air quality problems. Every year there are 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 in a good and safe condition. The A4101 is in need of attention with some resurfacing planned as part of the life cycle plan for the classified network. The A459 has been subject to systematic planned programme of capital maintenance over the past 3 to 4 years again there is some further resurfacing planned.

Footway Condition

The footway condition across the Kingswinford to Halesowen route is in a generally good to fair and safe condition. There is no evidence of any significant investment in the footway network in this area in recent years.

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



Development proposals directly affecting this route

Housing

- No significant proposals

Employment

- Dreadnought Road 170 jobs (2017-20)

Development proposals indirectly affecting this route

Housing

- Stallings Lane 557 dwellings (2017-30)
- Brierley Hill Area Action Plan 925 dwellings (2020-25)

Employment

- Brierley Hill Enterprise Zone 7000 jobs (2017-20)
- Dudley Town Centre 10500 jobs (2017-30)

Committed Transport Improvements

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

- A459 Dudley Road/Coombs Road Halesowen
- B4176 Himley Road/Bull Street, Gornal Junction Improvement
- A4101 Pensnett Strategic Access Improvement Scheme

GLOSSARY

- 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>