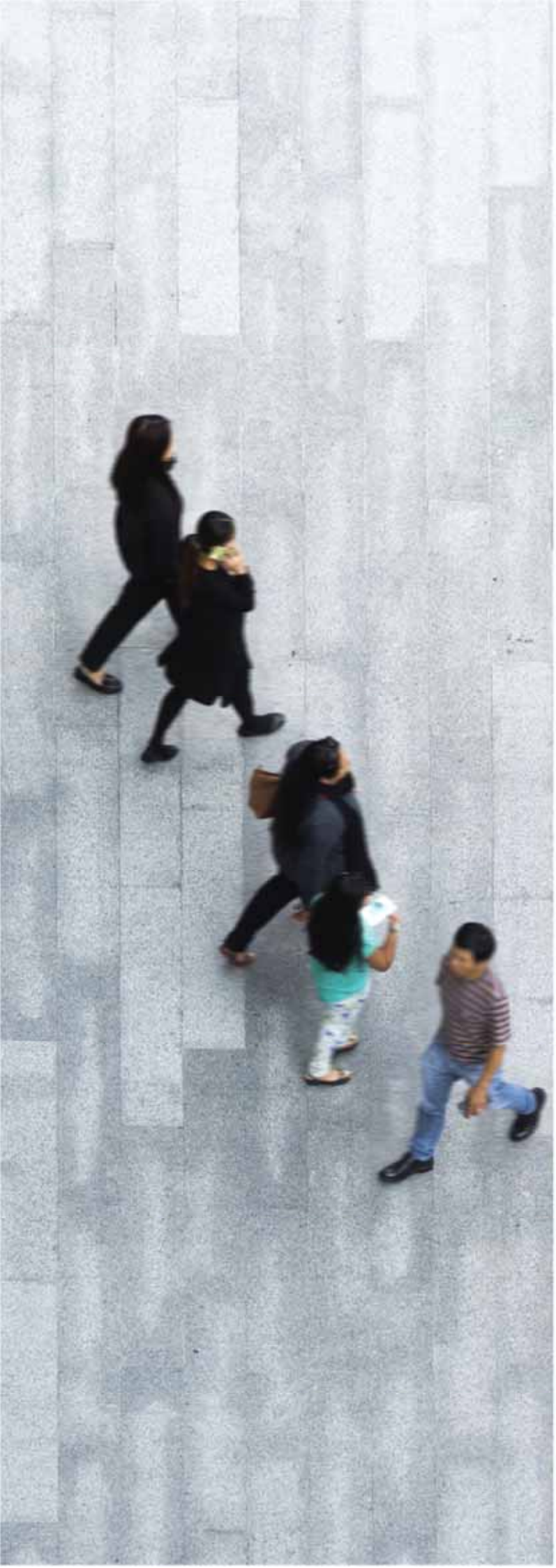

Bromsgrove District Council

District Plan Review

Strategic Transport Assessment

Transport Evidence Base

September 2021

a company of Royal HaskoningDHV

Transport Evidence Base

Version 2-0

September 2021

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Project Information Sheet

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1. Introduction

Purpose of the report

1.1 Bromsgrove District Council (BDC) and Worcestershire County Council (WCC) jointly commissioned ITP in May 2021, to carry out a Strategic Transport Assessment (STA) to help inform the Bromsgrove District Plan Review. A review is required to:

- Ensure remaining allocations from the Bromsgrove District Plan are delivered and provide land for new identified development needs up to 2040.
- Explore options to assist the Greater Birmingham and Black Country Housing Market Area to meet any identified housing shortfall.
- Extend the Plan period to 2040, whilst considering longer term growth post 2040.

1.2 The first stage of the STA is the development of a Transport Evidence Base (TEB) which brings together all available evidence on existing transport provision and movements within the District, the transport issues, and the infrastructure measures to mitigate the impact. The TEB draws on data from Worcestershire County Council's Strategic Transport Evidence Baseline (STEB) report which provides a countywide assessment on transport provision, the TEB will have a more focused spatial remit, looking at transport connections within the District and to neighbouring settlements to provide a deeper analysis and understanding of the mobility trends, opportunities, and network constraints within the District.

1.3 This document will also be used to seek the views from the public to help reinforce the understanding of the transport constraints the District currently faces.

Structure of the report

1.4 The remainder of this report is structured as follows:

- Section 2 refers to documents reviewed as part of this evidence base and the policies and strategies that influence development and growth within the District.
- Section 3 sets out the baseline transport conditions within the local area.
- Section 4 provides detail of proposed infrastructure improvements and the opportunities these bring to the District.
- Section 5 concludes by drawing together key findings from across this report.

2. Policy Context

2.1 This section sets out the influential policy documents shaping the future growth and development of Bromsgrove District.

Bromsgrove District Council's District Plan (2011 – 2030)

2.2 The District Plan was adopted in July 2017 and sets out the long-term vision for how Bromsgrove town, the villages and countryside will develop in the period up to 2030. A Plan Review is currently underway to ensure remaining allocations from the Bromsgrove District Plan are delivered and provide land for new identified development needs up to 2040.

Worcestershire County Council's Local Transport Plan 4 (2018 – 2030)

2.3 The Local Transport Plan 4 (LTP4) covers the period from 2018 – 2030 and sets out the priorities for investments in transport infrastructure, technology and services to support planned growth. The LTP4 is underpinned by a series of objectives aligning with the key themes of WCC's Corporate Plan '*Shaping Worcestershire's Future 2017-2022'*. These objectives encourage economic competitiveness and growth, minimise the impacts transport has on the environment, and improve the health and well-being of communities within the County. Travel choice is an area prioritised for future investment, making sustainable transport more accessible and a realistic alternative travel choice. WCC's Passenger Transport Strategy (2019) sits alongside the Corporate Plan and the LTP4, with the aim of developing and delivering an integrated passenger network for the County. Other key policies that make up the LTP4 compendium are:

- Transport and Air Quality
- Transport and Climate Change
- Transport Engagement
- Public Realm
- Walking and Cycling and Motorcycling

2.4 The strategic transport delivery programme for North East Worcestershire includes Bromsgrove District and Redditch Borough, with schemes detailed in the LTP4 summarised in Appendix A.

Worcestershire LEP's Strategic Economic Plan (2014 - 2025)

2.5 The Worcestershire Local Enterprise Partnership's (WLEP)'s Strategic Economic Plan (SEP) sets out ambitious targets for growth in employment, housing and economic output. The WLEP is working towards (by 2025) the creation of over 25,000 jobs, an increase in Gross Value Added (GVA) by £2.9 billion and the delivery of an additional 21,500 new homes. A review by Amion Consulting (2017) summarised that between 2013 and 2015, 7,667 jobs had been created within the LEP area (31% of target) and GVA had increased by £874 million (30% of target). 5,900 residential dwellings were completed over the 2014-15 to 2016-17 period. It is noted that whilst the targets were some way off being achieved, there is significant opportunity for longer term growth projects within the County and BDC to support the achievement of these SEP objectives.

Worcestershire County Council's Rail Investment Strategy

2.6 WCC adopted its' Rail Investment Strategy in 2017, to support the County's LTP4. This strategy details WCC's aspirations for train service enhancements and supporting rail infrastructure to significantly enhance the County's level of rail accessibility to key regional and national economic centres and encourage a sustained modal shift from road to rail.

2.7 This TEB seeks to identify the opportunities and constraints regarding sustainable travel within Bromsgrove District, assisting BDC in preparing a District plan that is tailored to support the achievement of targets and objectives set out in the aforementioned policies and strategies within the wider region.

3. Existing Situation

3.1 This section sets out the current situation within Bromsgrove District in respect to highway capacity, public transport services and active travel infrastructure.

Transport and movement

3.2 Bromsgrove is situated in north Worcestershire, directly south of the West Midlands Conurbation and to the west of Warwickshire. 74.4% of the District is rural[1] and 89% is designated green belt. Bromsgrove is the largest urban centre within the District, with a range of smaller settlements including Alvechurch, Barnt Green, Catshill, Hagley, Rubery, Stoke Prior and Wythall.

Active Travel

Infrastructure

3.3 National Cycle Network (NCN) Route 5 connects Bromsgrove to Redditch and Birmingham with links to the District's local cycle network from the town centre. The route typically provides an on-road cycle route mixed with traffic along both urban and more rural roads. More segregated provision along the route exists between Perryfields and Catshill. The route provides cyclists with good access to Bromsgrove Railway Station as well as long-distance links to destinations such as Stratford-upon-Avon, Oxford and Reading. Route 46 converges with Route 5 in Bromsgrove, connecting the town centre to southern towns and cities within Worcestershire, including Worcester and Droitwich Spa. Regional Cycle Route 55 also serves the District, providing a more direct on-road route between Redditch and Birmingham through to the east of the conurbation. These routes are shown in Figure 3-1, whilst the Public Rights of Way (PROW) within the District can be referred to in Appendix B.

3.4 WCC received funding from the National Productivity Investment Fund (NPIF) to provide residents and visitors of Bromsgrove with attractive alternatives to car use for shorter distance trips. Through this funding, improvements to active travel routes within Bromsgrove's town centre were delivered in 2020. This includes improvements to sections of NCN Route 5 and routes towards Bromsgrove Railway

[1] Office for National Statistics Rural-Urban Classification, 2011

Station, Lowes Hill, Aston Fields, Charford, Oakhalls and Finstall. The NPIF town centre walking and cycling network is shown in Appendix C.

3.5 The Redditch to Bromsgrove Active Travel Corridor, via Brockhill Lane and Tutnall Lane has become increasingly popular with cyclists, as it offers an attractive, direct and low-traffic route between the two towns. This route was recently upgraded with new waymarking and lining to provide a safer environment for all users following funding from the Emergency Active Travel Fund (EATF). This fund, announced by the Government in 2020, was made available to local authorities to help deliver measures during the COVID-19 pandemic.

3.6 Bromsgrove's current District Plan places emphasis on encouraging more sustainable modes of travel to facilitate a mode shift in transport and increase current cycling mode share through its' sixth strategic objective. This is supported by WCC's LTP4 emphasis on travel choice, and investing in high quality, continuous corridors for active travel modes.

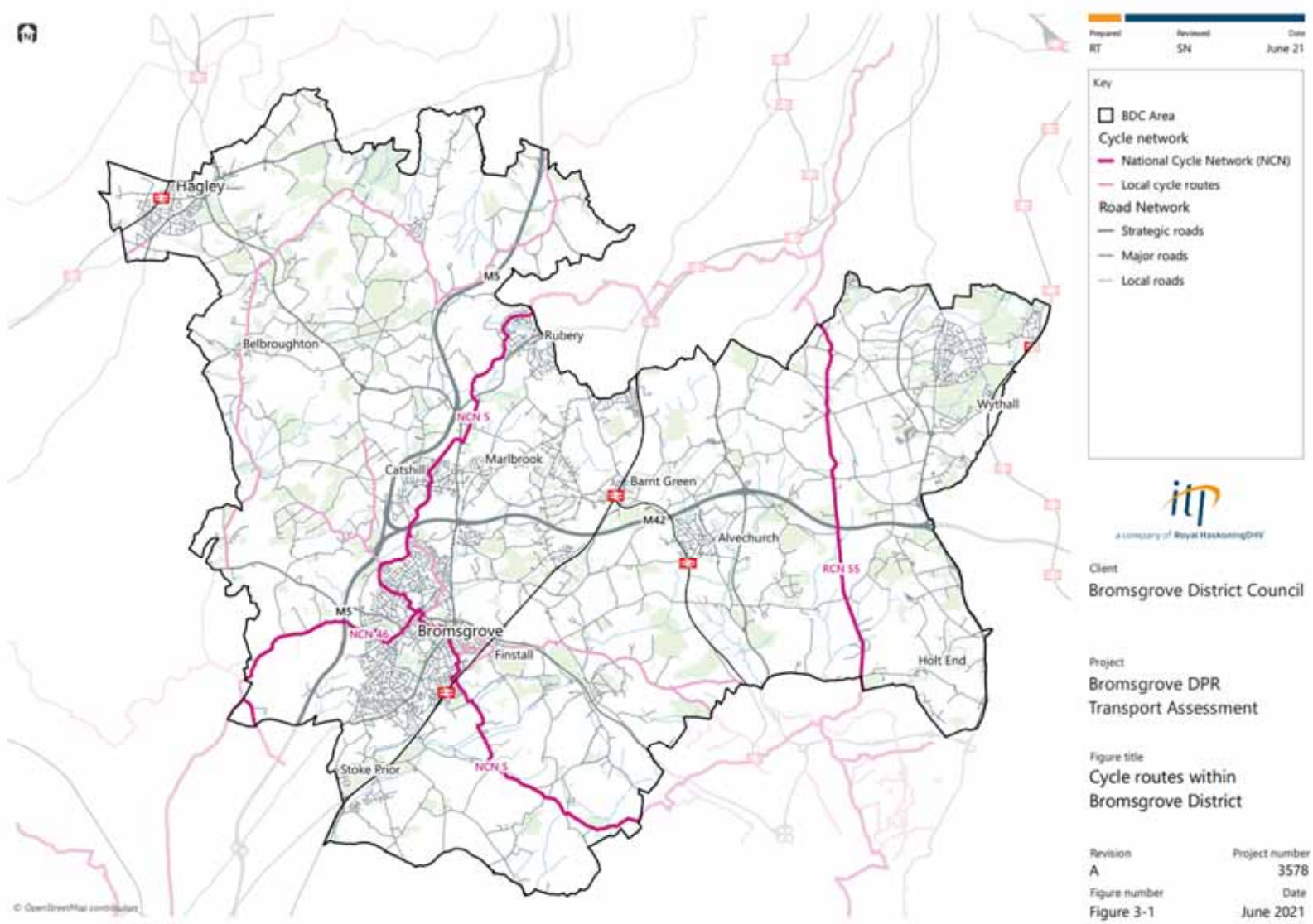
Demand

3.7 There has been no significant change in the percentage of adults that cycle at least once a week for any purpose within Worcestershire – only slightly rising from 9.4% in 2015/16 to 10.2% in 2018/19. Cycling within Bromsgrove District has also remained stable at 7.5% to 7.9% within the same time period.

3.8 The District also sees lowest proportions of those who cycle at least once a month within the County, with only 11.2% of adults doing so in 2018/19. This figure is higher in the more urban setting of Worcester where the percentage is 16.9%, and lower than the County average (14.8%)[2].

[2] Department for Transport – Walking and Cycling Statistics – CW0302: Proportion of adults that cycle, by frequency, purpose, and local authority: England

Figure 3-1: Cycle routes within Bromsgrove District



Bus

Infrastructure and services

3.9 Bromsgrove District is served by a bus network of prime, core and tributary routes, supported by community transport. The predominant operators are Diamond and First Bus Worcestershire. Their routes, as well as those of other operators in the District, are shown in Figure 3-2.

3.10 Bus service frequency data has been taken across the District for an average weekday AM peak period (0700 to 0900) prior to March 2020 and shown in Figure 3-3. The most frequently served routes, where three or more buses per hour operate, are those in and around the more urban settlements of the District: such as Hagley, Rubery, Catshill and Bromsgrove town centre where a more comprehensive network is found. Bus service frequency is limited along routes to the north of the District, between Catshill and Hagley, with intermittent frequencies also found along the A441 and A435 within the eastern extents of the District.

3.11 The main bus interchange is in the centre of Bromsgrove and from here passengers can catch services to Birmingham, Worcester, and Redditch. Bromsgrove Railway Station is another interchange point and is served by five bus services providing connections to the urban centres of Kidderminster, Worcester, Bromsgrove town centre and the smaller settlements within the District.

3.12 Diamond Buses have recently introduced a new 'Bromsgrove on-demand' bus service, a first for Worcestershire, where residents can book a bus service via an app (Worcestershire On Demand) for journeys anywhere within the service area, including to and from the town centre, Bromsgrove Railway Station, or nearby villages. Once booked, the service will then collect booked passengers from where they want to be picked up and drop off at a location they choose. Use of the service costs a flat rate of £2.50, payable via the App and initially operates 7am to 7pm. Should the pilot be a success, it is hoped it will be implemented across a wider area within Worcestershire

3.13 An integrated bus ticketing system called Connecta is in place across Worcestershire which offers one price for unlimited travel on any bus service throughout the county and PlusBus tickets for integrated rail-bus journeys are valid for First Worcestershire buses and Diamond buses.

3.14 Based upon the mileage of the subsidised bus network, subsidised bus services in Worcestershire equated to approximately 20% of the total network in 2019, whilst services in Redditch and Worcester are largely commercial.

3.15 All areas within the District are covered by at least one Community Transport scheme to offer a multi-purpose trip service - Bromsgrove Rural Rides, Community Transport Wyre Forest, Bluwave community transport and Wythall Dial-a-Ride. There are also several schemes focused on providing access for medical appointments only, such as Bromsgrove Urban and Rural Transport (BURT).

3.16 WCC has been allocated funding from the DfT for the 2020-21 financial year to help support bus services with a variety of measures, including retaining or restoring bus services affected by COVID-19. This has enabled WCC to help maintain service provision by supporting loss of income of those operating contracts where they take fare risks. Commercial bus operators are also receiving direct support from the DfT.

Figure 3-2: Local bus network (Oct-Dec 2020)

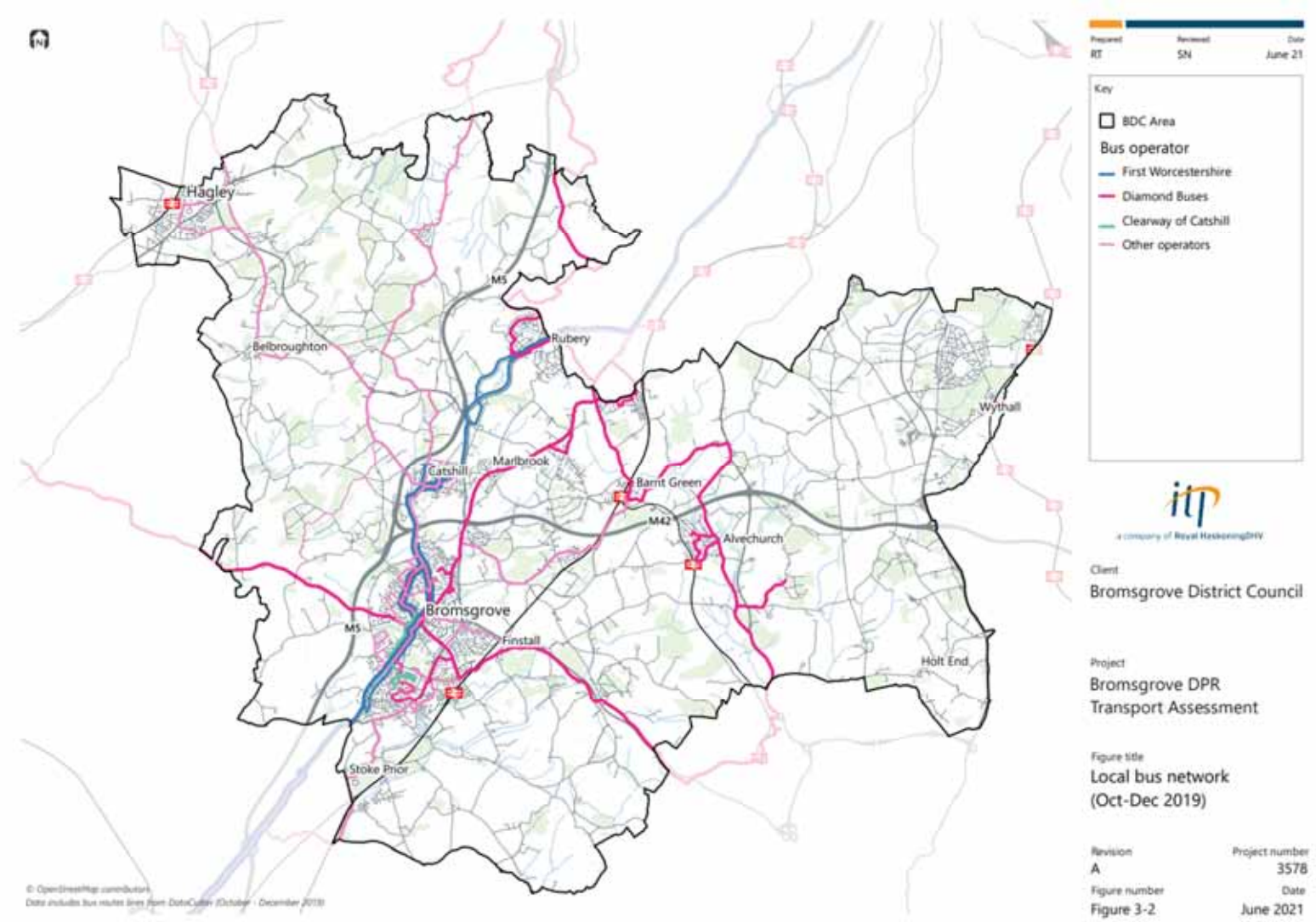
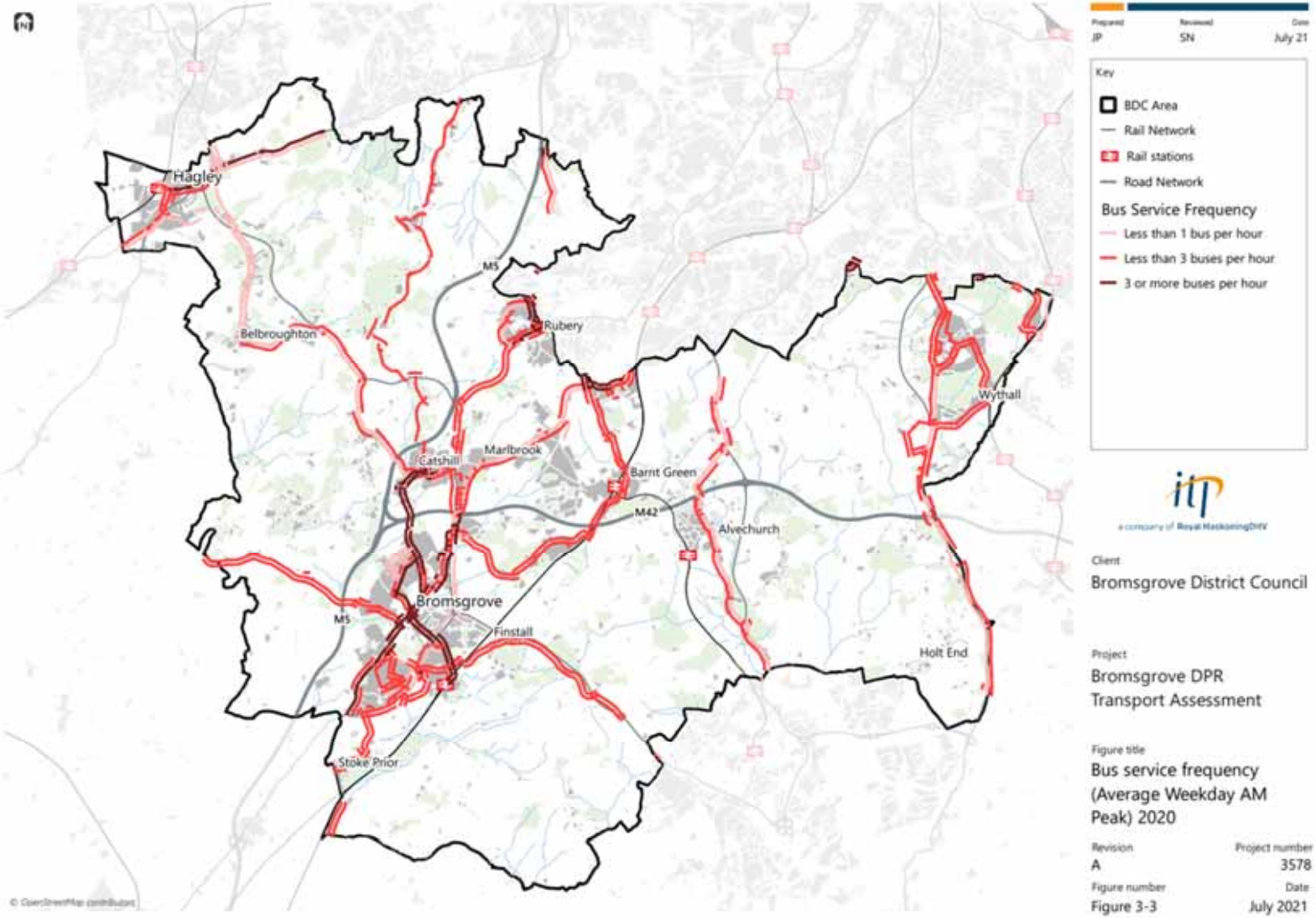


Figure 3-3: Bus service frequency



Rail

Infrastructure and services

3.17 The District is connected by rail with its five railway stations; Hagley (on the Kidderminster Line); Alvechurch and Barnt Green (on the Cross-City Line); Wythall (on the Stratford-upon-Avon to Birmingham Snow Hill Line); and Bromsgrove (on the Birmingham-Bristol Line). The predominant train operator within the District is West Midlands Railway, with occasional Chiltern Railways services stopping at Hagley. The typical Monday to Saturday frequency and service lines for each station in May 2021 is summarised in **Error! Reference source not found.**. It is noted that due to the COVID-19 pandemic, rail operators have adjusted their timetables.

3.18 There are also non-stopping rail services that route via Bromsgrove operated by CrossCountry Trains, connecting Nottingham and Derby to Gloucester, Bristol and Cardiff.

Table 3-1: Rail service lines and frequency (May 2021)

Station	Line	Terminus Stations	Trains per/hr	Total services
Hagley	Dorridge to Worcester Foregate Street	Dorridge	1	6 trains per hour
		Worcester Foregate Street	1	
	Stratford-upon-Avon to Kidderminster	Stratford-upon-Avon (via Birmingham Snow Hill)	1	
		Kidderminster	1	
	Whitlocks End to Worcester Foregate Street	Whitlocks End (via Birmingham Snow Hill)	1	
		Worcester Foregate Street	1	
Alvechurch	Redditch to Four Oaks (Cross-City line)	Four Oaks (via Birmingham New Street)	2	4 trains per hour
		Redditch	2	
Barnt Green	Bromsgrove to Lichfield (Cross-City line)	Lichfield Trent Valley (via Birmingham New Street)	1	6 trains per hour
		Bromsgrove	1	
	Redditch to Four Oaks (Cross-City line)	Four Oaks (via Birmingham New Street)	2	

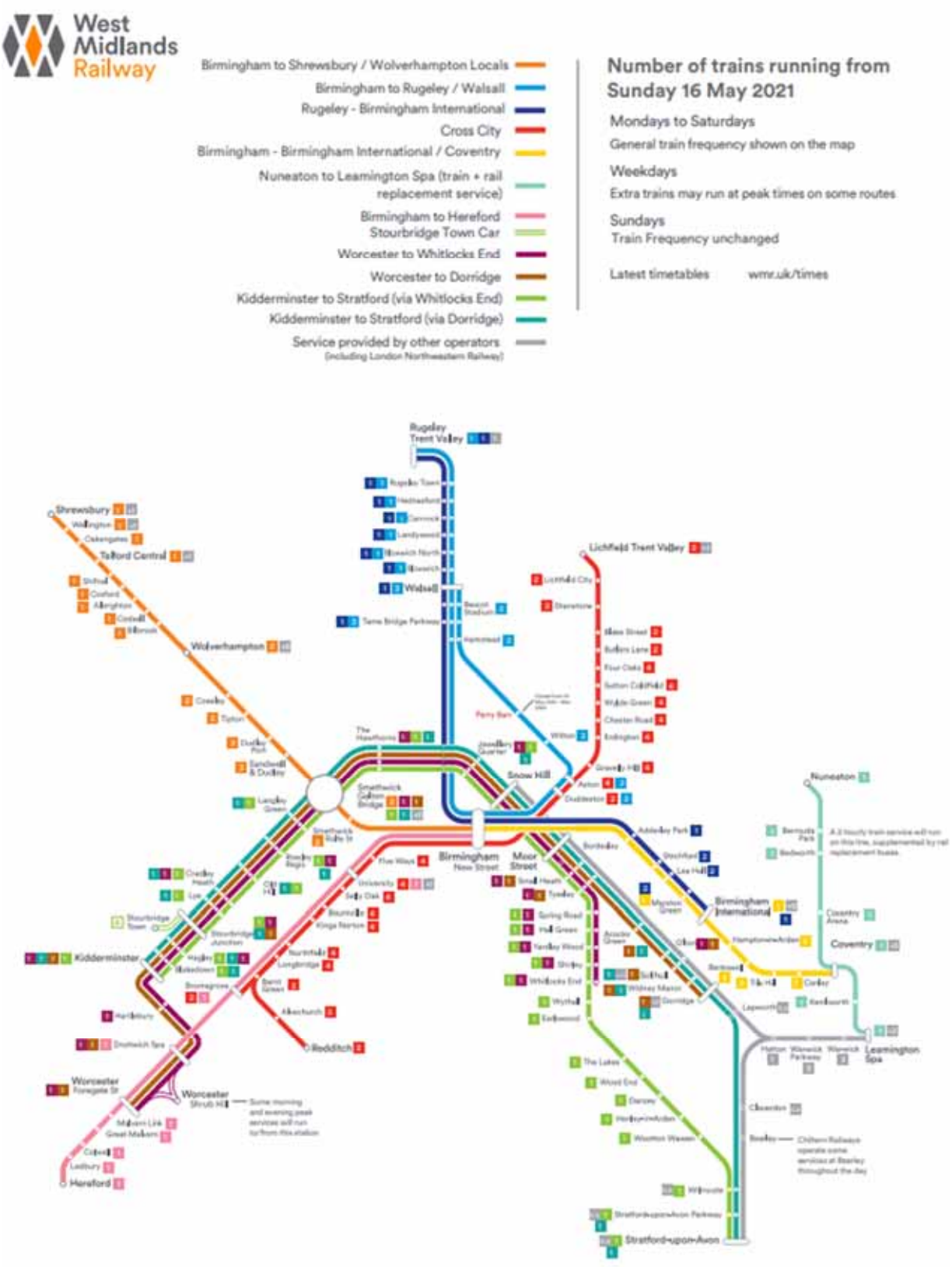
Station	Line	Terminus Stations	Trains per/hr	Total services
		Redditch	2	
Wythall	Stratford-upon-Avon to Kidderminster	Stratford-upon-Avon	1	2 train per hour
		Kidderminster (via Birmingham Snow Hill)	1	
Bromsgrove	Hereford to Birmingham	Birmingham New Street	1	4 trains per hour
		Hereford	1	
	Bromsgrove to Lichfield (Cross-City line)	Lichfield Trent Valley (via Birmingham New Street)	2	

3.19 **Error! Reference source not found.** shows there are frequent services to regional centres but limited direct connectivity to London or southwards. Consequently, many rail passengers use the strategic road network (M5 and M42) to access rail services from Birmingham International and Warwick Parkway, where rail services are better into London[3].

3.20 Figure 3-4 shows the route network and service calling points operated by West Midlands Railway.

[3] The challenge noted within WCC's Rail Investment Strategy

Figure 3-4: West Midlands Railway route map, May 2021



3.21 Travel time by rail to surrounding railway stations from Bromsgrove is shown in Figure 3-5 highlighting a greater concentration of stations to the north of Bromsgrove within a 60-minute journey time by train. Key rail stations at Birmingham and Worcester are within a 40-minute rail journey.

3.22 Three weekday services per hour operate between Bromsgrove and Birmingham New Street[4] following the re-location of the station in 2016, allowing for the electrification of the line in 2018. Following this electrification, service levels have increased to four weekday services per hour.

3.23 Bromsgrove Railway Station has the most car parking spaces of all stations within the District (376, including 17 accessible spaces), and had the largest station car park in Worcestershire, prior to the opening of Worcestershire Parkway in 2019 (500, including 26 accessible spaces).

Demand

3.24 Bromsgrove Railway Station provides services to Birmingham, Lichfield, Hereford, and Worcester, and attracts the greatest number of passengers of all rail stations within the District (See Figure 3-6). The station saw a 21% increase in usage from 2015/16 to 2018/19[5].

Hagley Railway Station, the second largest in terms of passenger numbers is served by three trains per hour to Birmingham Snow Hill, with two services an hour to Worcester and one service to Kidderminster. The train service at Wythall is limited with one service per hour into Birmingham, contributing to it being the least-used station within the District. Alvechurch also sees limited passenger numbers, and whilst timetable capacity serving the station had been increased after a passing loop was constructed at the station, a single line section still exists between Barnt Green and Redditch.

[4] Rail Network and Service Frequency, West Midlands Railway

[5] Office of Rail and Road's (ORR) Estimates of Station Usage: Table 1415 – Time series of passenger entries and exits and interchanges by station

Figure 3-5: Travel time by rail from Bromsgrove

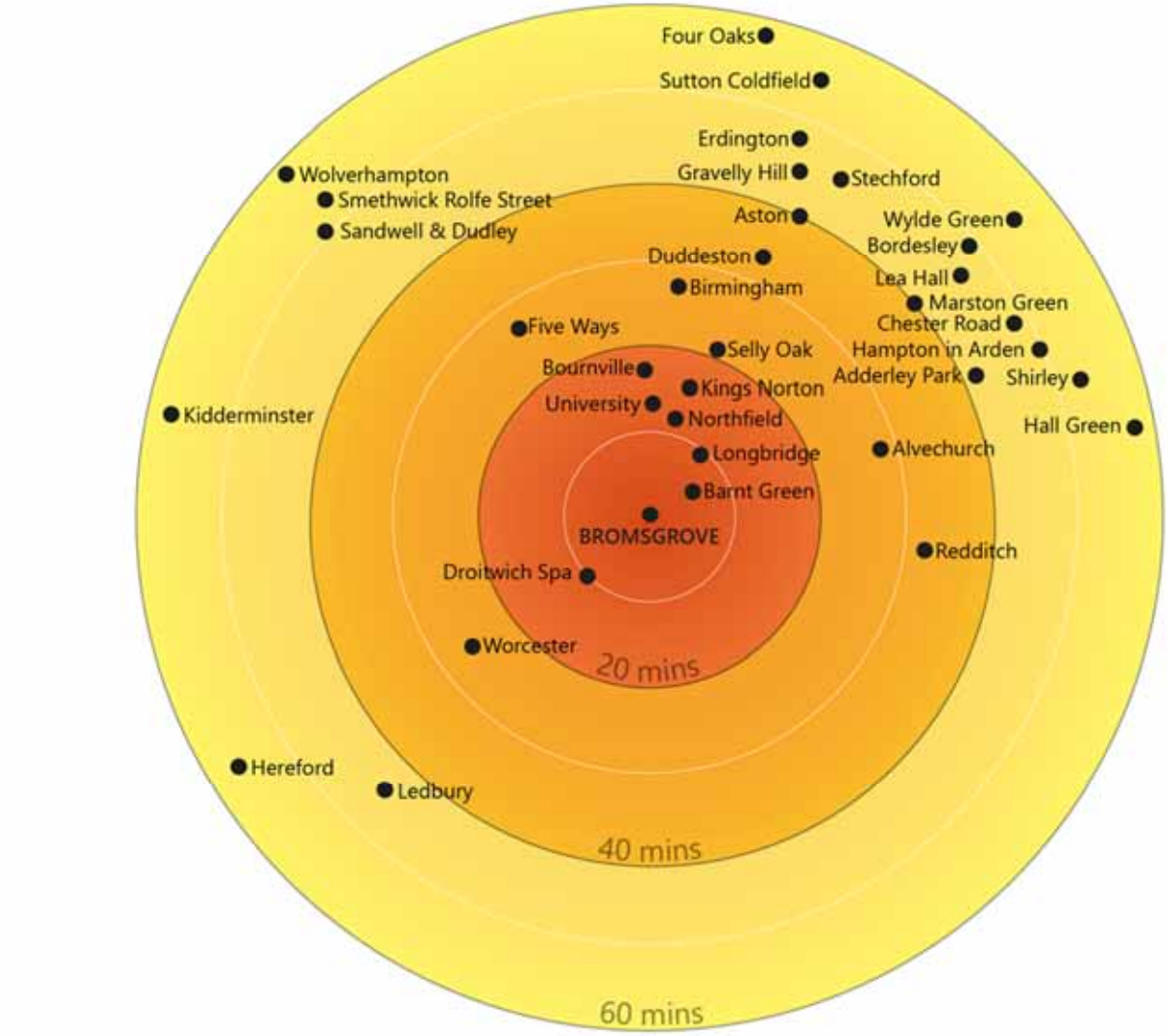
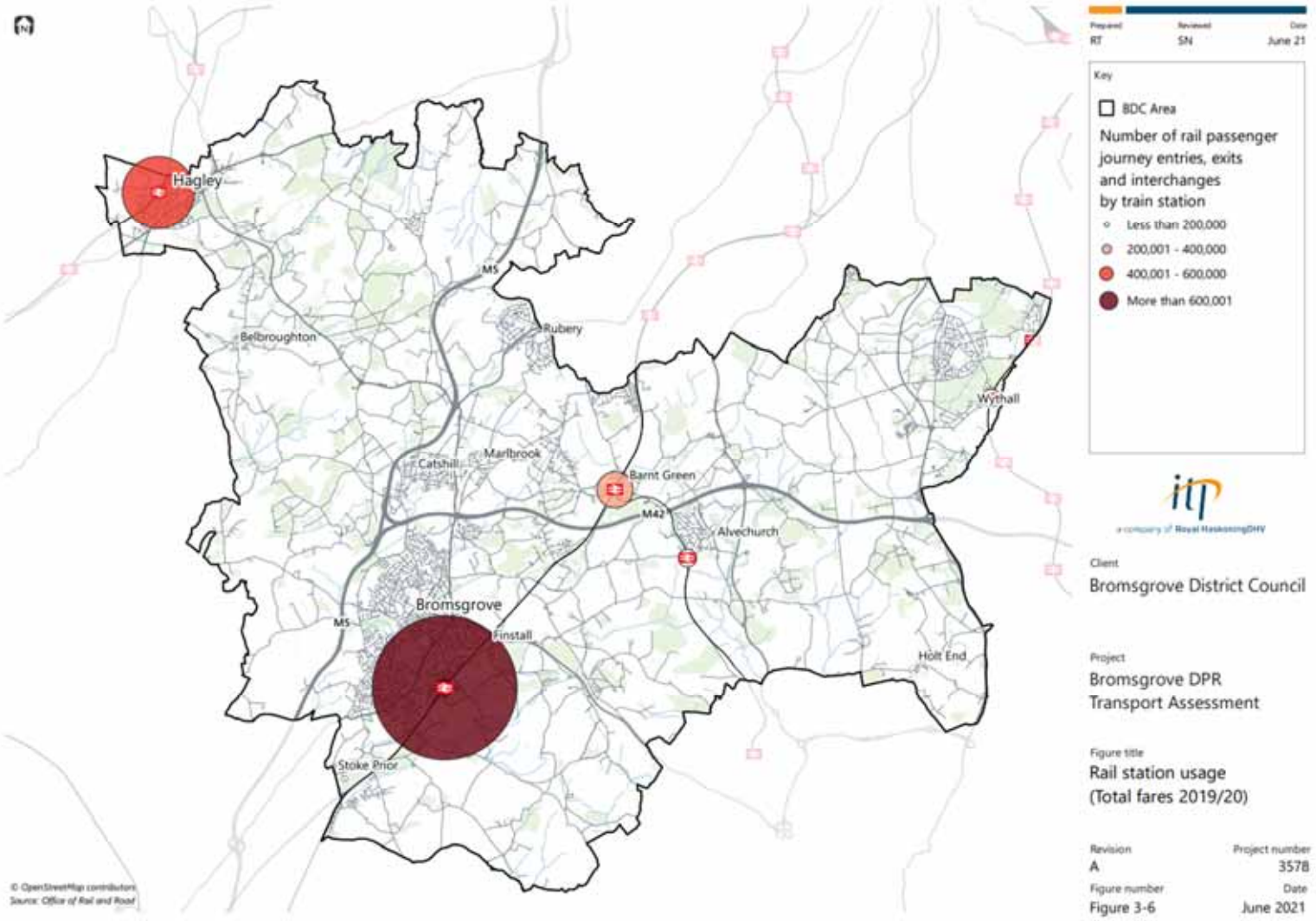


Figure 3-6: Rail station usage



Highway

Infrastructure

3.25 The strategic network includes:

- M5 providing a strategic north-south connection through Worcestershire, linking the Midlands and the South West. Junction 4 provides access to Bromsgrove District, via the A491 and the A38. Junction 4a of the M5 connects to the M42.
- M42 providing a strategic link between Worcestershire and Leicestershire and east towards Solihull, Birmingham Airport and the M40.

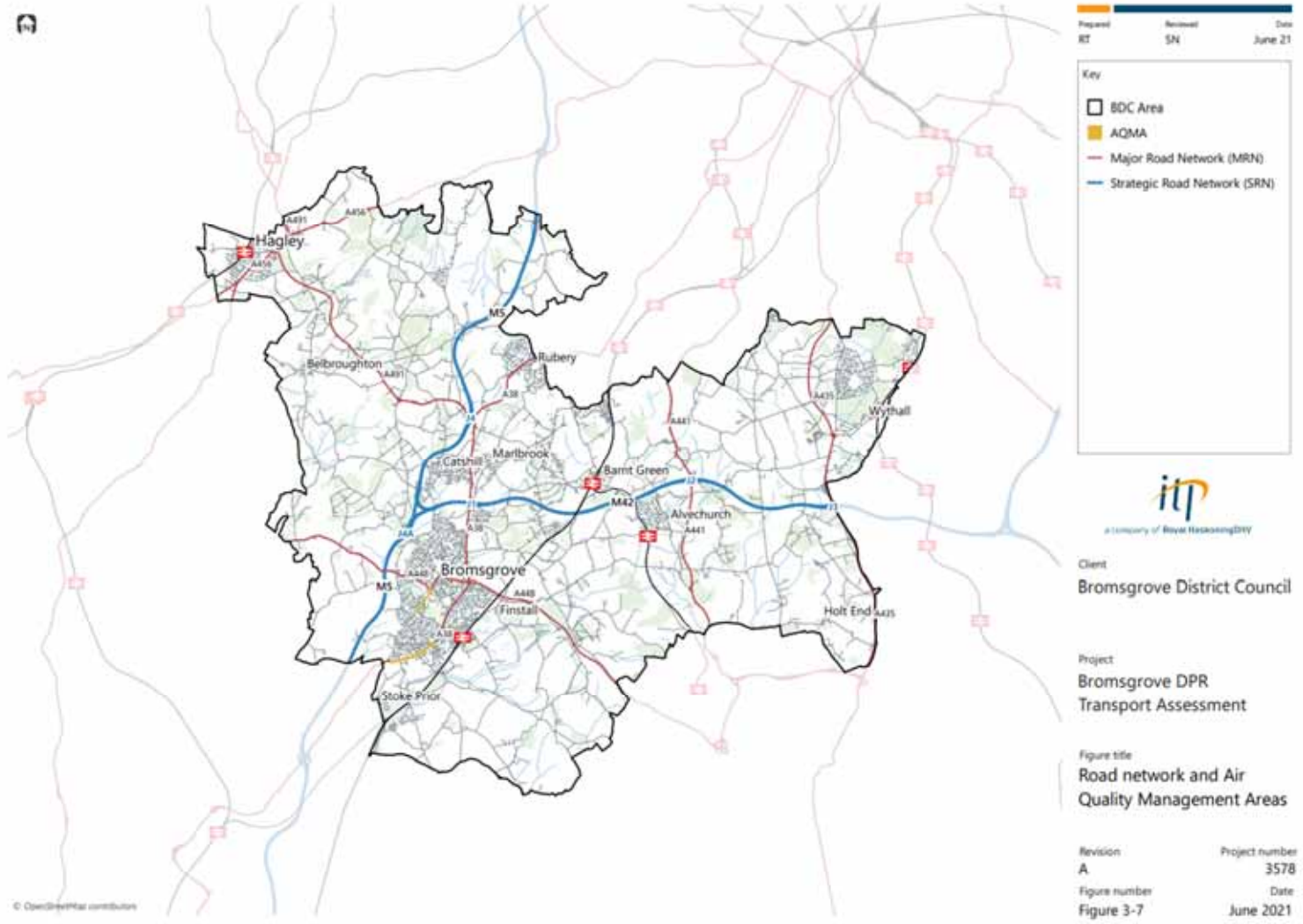
3.26 The major road network includes:

- A38,connecting the M5 to Worcester and Droitwich Spa to the south and Birmingham and the wider West Midlands region in the North. This route provides local road connectivity, connecting Bromsgrove Town to the smaller settlements of Lickey End, Marlbrook and Rubery as well as the newly re-located Bromsgrove train station. The A38 is also a key diversion route should the M5 be closed, or an incident occurs, which exacerbates existing congestion within the town centre at peak times.
- A448 connecting to Bromsgrove to Redditch in the east and Kidderminster in the west.
- A441 connecting Redditch to the West Midlands region and providing a connection to the town of Alvechurch and Junction 2 of the M42.
- A435, at the eastern edge of Bromsgove District, providing access from Wythall to the West Midlands and Junction 3 of the M42.

3.27 The M5 Junction 4A (Bromsgrove) to Junction 6 (Worcester) is subject to variable mandatory speed limits under the Smart Motorway All Lane Running Scheme, where speed limits are set in response to prevailing traffic conditions, with the hard shoulder also permanently converted to a controlled running lane. Smart Motorway improvements aim to increase motorway capacity, smooth traffic flows, and reduce congestion.

3.28 The strategic and major road network and Air Quality Management Areas within the District are shown in **Error! Reference source not found.**.

Figure 3-7: Road network and Air Quality Management Areas



Demand

3.29 A key source of traffic speed data is Traffic Master, which is provided to local authorities through the DfT. The primary use of this data is to identify where and when delays and congestion occur on the highway network, indicating areas of greater demand,

3.30 AM peak period (0700 – 0900) data obtained from Traffic Master for 2018 is shown on Figure 3-8 with significant congestion (where speed conditions are slower than free flow speed) along various routes across the District. A high concentration of the key routes towards, and throughout, Bromsgrove town experience congestion with vehicle speeds more than 50% slower than free flow traffic conditions. This includes sections of the B4091 (Worcester Road to the south and Stourbridge Road to the north of the town centre) and the A448, east to west, bisecting the town centre centrally. Hagley also sees a similar level of congestion in the AM peak, primarily on the A456/A491 Kidderminster Road, and the A450 Worcester Road.

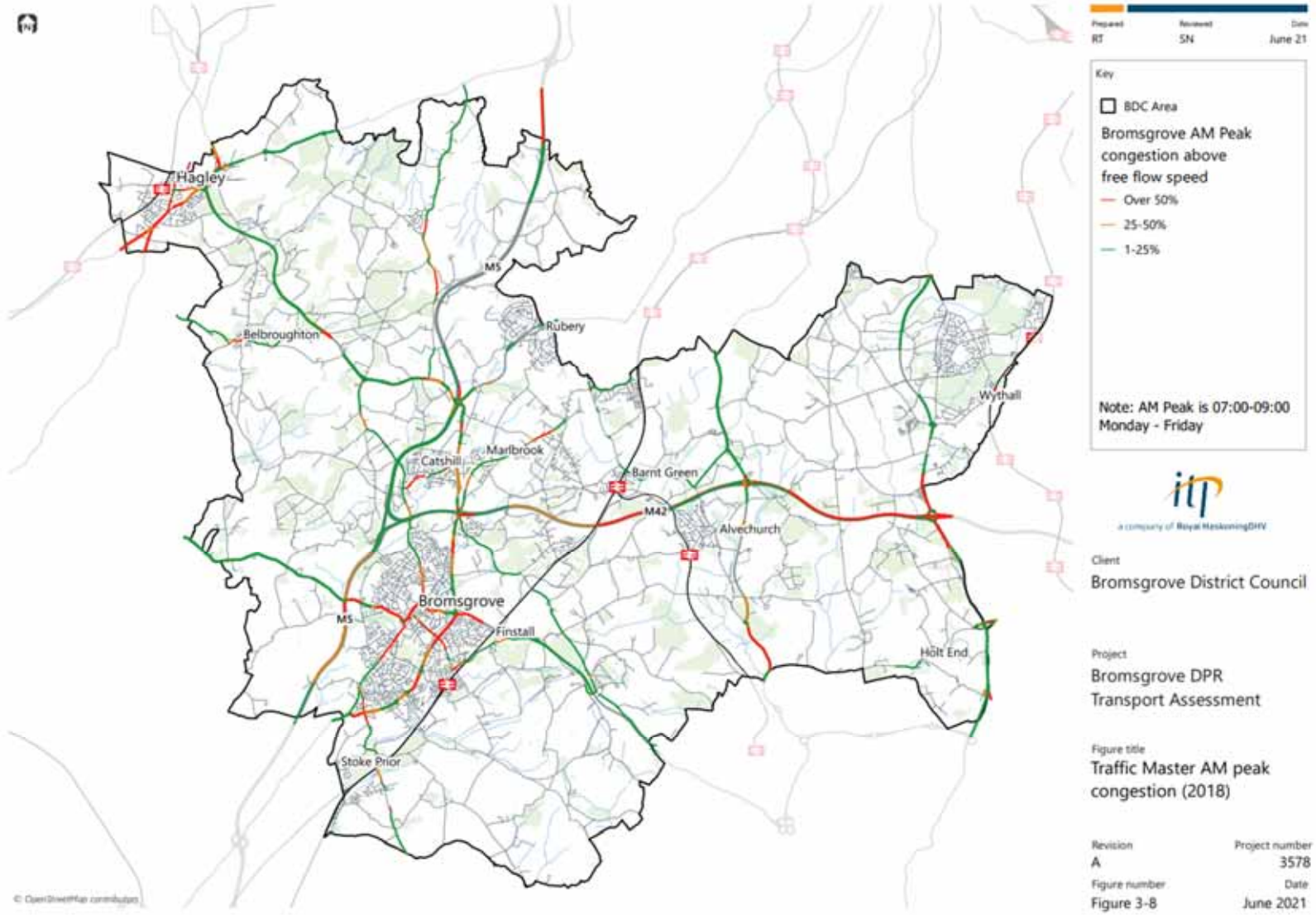
3.31 Access to and from the strategic road network is hindered by several congested links at Junction 4 of the M5 and M42 Junctions 1 and 2, where the local road network intersects with arterial routes. Junction 3 of the M42 towards the very eastern extents of the District is the most heavily congested of the motorway junctions within the District and accounts for the levels of congestion on the A435. Elsewhere along the A435, the route is less congested with vehicle speeds less than 25% slower than free flow speed in the AM peak.

3.32 The A38 eastern bypass experiences varying levels of congestion during the AM peak period, with sections experiencing vehicle speeds more than 50% slower than free flow conditions. South-eastern sections of the route, where the A38 connects with more local routes, experience greater levels of congestion typically.

3.33 The A441 link between Bromsgrove and Redditch performs relatively well in relation to the rest of the network in the District, despite providing key connectivity between two main centres of employment.

3.34 WCC's LTP4 emphasises the need for change to prevent main urban and interurban arterial routes becoming increasingly congested beyond traditional peak times should vehicular traffic and population growth trends continue and acknowledges this can't be tackled by building new roads alone. Here it is noted that key opportunities lie in encouraging other modes of transport along with enhancing digital connectivity.

Figure 3-8: Traffic Master AM peak congestion (2018)



Air Quality and Air Quality Management Areas

3.35 Road vehicle emissions are a key contributor to poor air quality, and there are three Air Quality Management Areas (AQMAs) where the national air quality thresholds are regularly being breached. The location of these are plotted on Figure 3-7**Error! Reference source not found.** and align with points on the strategic road network along the A38 and within Bromsgrove town centre.

Electric Vehicle Charging Provision

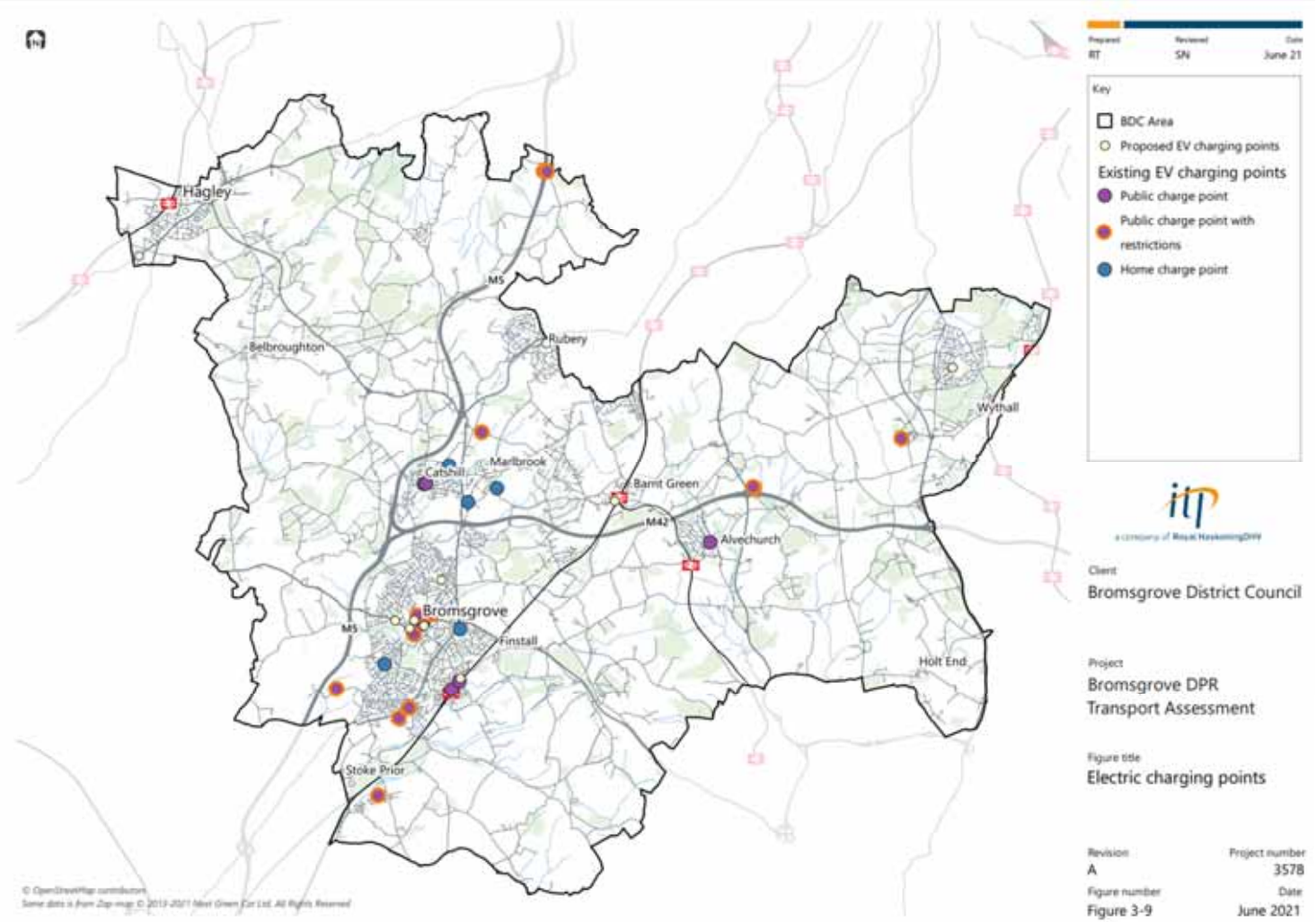
3.36 Existing charge points within BDC have been identified and plotted in Figure 3-9. Charge points located at Frankley Services on the M5, and Hopwood Park Services at Junction 2 of the M42, provide charging opportunities for users of electric vehicles making longer journeys through the District. EV charge points within Bromsgrove town centre provide users with access to key facilities. Vehicle charging facilities at railway stations within the District are currently limited, with only Bromsgrove Railway Station having an EV charge point.

3.37 Proposed charging sites include The Princess of Wales Community Hospital, a significant trip generator within the District, as well as at smaller settlements including Hagley, Alvechurch, Catshill and Wythall.

3.38 The future charging network will need to cater for different types of EV journeys, including those made by local residents within the District and by those passing through (off street charging facilities required in residential areas for overnight charging, destination chargers at trip attractors and rapid chargers for those requiring a quick charging turnaround).

3.39 The DfT's Transport Decarbonisation Plan, Decarbonising Transport: A Better, Greener Britain, 2021 sets out the requirement for UK emissions to be net-zero by 2050, with new diesel and petrol cars and vans to be no longer sold from 2030. Therefore, there is strategic importance in increasing the coverage and availability of Electric Vehicle (EV) charge points, as EV ownership and use is incentivised through the decarbonisation plan and will increase in line with DfT's expectations. A more comprehensive electric vehicle charging point network will assist in improved public perception and driver confidence in the uptake of EV's and will help facilitate the shift towards electric vehicles.

Figure 3-9: Electric charging points

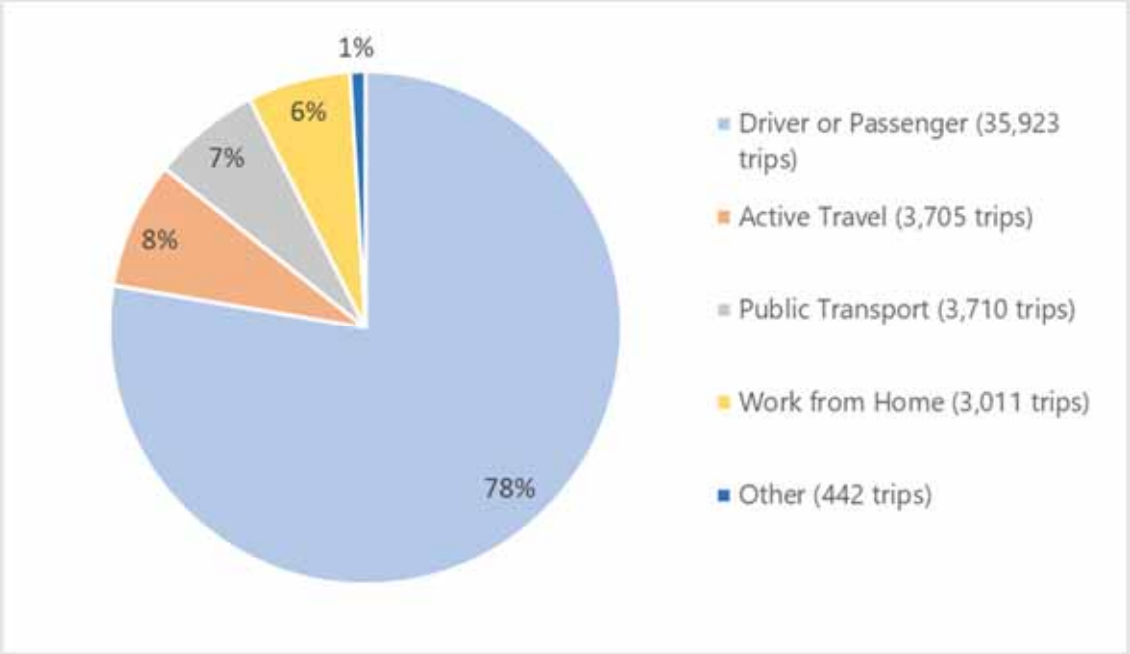


Mode Share and travel to work patterns (Census, 2011)

3.40 The typical mode share of journeys to work within Bromsgrove District is shown in Figure 3-10 (Census, 2011). Although now quite old, this data remains one of the largest samples of travel behaviour across the District and is a key data source amongst others. More than two thirds of commuter trips are made by car (78%), which was 18% points more (+30% higher) than the national average at the time of the Census (60%).

3.41 Active travel (7% walking, 1% cycling) and public transport (7%) both accounted for similar proportions of commuter trips in 2011, compared with the national average which in 2011 was 14% for active travel and 17% for public transport[6].

Figure 3-10: Bromsgrove District mode split for journeys to work (Census, 2011)



3.42 The largest percentage of those that travel to work by car (driving) across all Worcestershire Districts is in Bromsgrove, where 73% commute to work as a driver by car. This is 4% points higher than Worcestershire's average of 69%. Train use is also high in Bromsgrove relative to the rest of the county at 4%, but slightly lower than the national average of 5%.

3.43 The 2011 Census reveals that 37% of Bromsgrove households have access to two or more cars, which is 12 percentage points higher than the national average (25%).

[6] Table QS701EW – Method of Travel to Work, Census 2011

Conversely, 12% of residents reported having no cars or vans in their household – significantly lower than the national average of 26% and Worcestershire's average of 17%. Car ownership in the District is likely to be both a contributing factor to higher levels of car usage, and a response to the wider range of destinations that can be accessed by car (by virtue of the Districts' position close to the strategic road network) relative to those within reach via dedicated active travel routes and high-frequency public transport options.

3.44 Of the people who travel to work *from* Bromsgrove District, 50% travel outside of the County (highest across all Worcestershire Districts, and likely reflective of the District's position on the northern edge of the County) and 31% work within the District. 8% work in Redditch, and 3% work in Worcester. Bromsgrove also attracts the greatest proportion of all inbound commuters from outside the County of all Worcestershire Districts, attracting 37% of the total in 2011. Further analysis of origin-destination movements is provided in the following section.

Origin and Destination Movements

3.45 To fully understand the key movements within the District, a layered origin and destination analysis has been undertaken based on data from a range of sources, including:

- TomTom telematics data (2019 and 2020).
- A38 Bromsgrove Route Enhancement Programme (BREP) origin and destination analysis (2018).
- Travel to work data from the Census (2011).

3.46 Each of these data sources has different spatial zones within Bromsgrove District, therefore direct comparisons are not possible, however it does provide useful insights for understanding the key movements.

TomTom Data

3.47 The TomTom data provides detailed information about trip dynamics and drivers' preferred routes based on data collected through navigation and connected devices. It is the latest available data on movements where either the trip origin and/or destination is within the District. The data excludes any 'through-trips', where neither the origin or destination is within Bromsgrove, and is limited to those drivers using a connected device whilst driving. It should also be noted that trips heading beyond the boundary are 'cut' at the edge of the District. Whilst there appears to be a large number of trips to/from J3 of the M42 and at the northern

and southern extents of the M5 (as it passes through Bromsgrove), in practice, this is just the point at which the trips cross the boundary.

3.48 Figure 3-11 show the number of trips that either originated or ended within Bromsgrove during the AM peak in October 2019. The highest volume movements are through the centre of the district and towards the eastern edge, with fewer trips made to / from the more rural western areas. Figure 3-12 explores this data in more detail to show the 'top 10' highest volume movements in relation to the strategic road network. There is a clear correlation, reflecting that many of these trips involve interaction with the local junctions of the M42 and M5.

3.49 Further detailed analysis of the data indicates that around 64% (71,408) of all trips in October 2019 originated *within* the district boundary and are likely to have been made by those living / working / learning in Bromsgrove District. The remaining 36% of trips originated from outside of the district. Looking at trip destinations, 54% (60,416) of all trips were being made to locations *outside* of the district boundary and 46% were to locations within Bromsgrove District.

3.50 To understand the impact of the Covid-19 pandemic on travel patterns, TomTom origin and destination data from October 2020 has been compared to the data from 2019. It showed a general reduction in the total volume of trips, but those trips that were made followed similar patterns to 2019. Slightly fewer trips were made to / from the more rural areas in the west of the District.

Census 2011

3.51 Figure 3-13 to Figure 3-15 shows the Census 2011 origin-destination travel to work data for commutes that originated or ended within Bromsgrove District. Whilst it is acknowledged that this is an ageing dataset and offers a 'single snapshot' of travel patterns, it provides more detail on movements by a specific trip purpose (commute) and greater detail on the specific locations travelled to / from outside of the District.

3.52 Figure 3-13 shows the number of flow of trips being made *from* Bromsgrove District. The highest volume commuter movements are towards Birmingham, Redditch, Stourbridge and Kidderminster with notable movements also apparent towards Solihull and Birmingham Airport.

3.53 Figure 3-14 shows commuter movements *into* Bromsgrove District. This map shows that Bromsgrove town centre and the periphery of the town are the District's key trip attractors, with journeys to work being made from Birmingham, Redditch and

Solihull. It is also apparent that there are stronger flows from Birmingham *into* Bromsgrove District than vice versa for employment purposes.

3.54 The volume of trips generated between Bromsgrove and Wellesbourne could be attributed to the location of a significant industrial estate with major occupiers including Aston Martin, Ceva Logistics and NFU Mutual.

3.55 Finally, Figure 3-15 shows the movements for internal trips both starting and ending *within* Bromsgrove. The highest flows centre in and around the town centre. Generally fewer commuting trips are made between the smaller and more rural settlements but there are increases where trips originate around the rural areas of Wythall to the more urban area in the north-eastern extents of the District. Due to the positioning of the Middle Layer Super Output Area (MSOA) centroids within the District, trips starting and ending within Stoke Prior to elsewhere in the District are not visualised within this data set.

Figure 3-11: Frequency of origin-destination movements based on Tomtom telematics data, October 2019

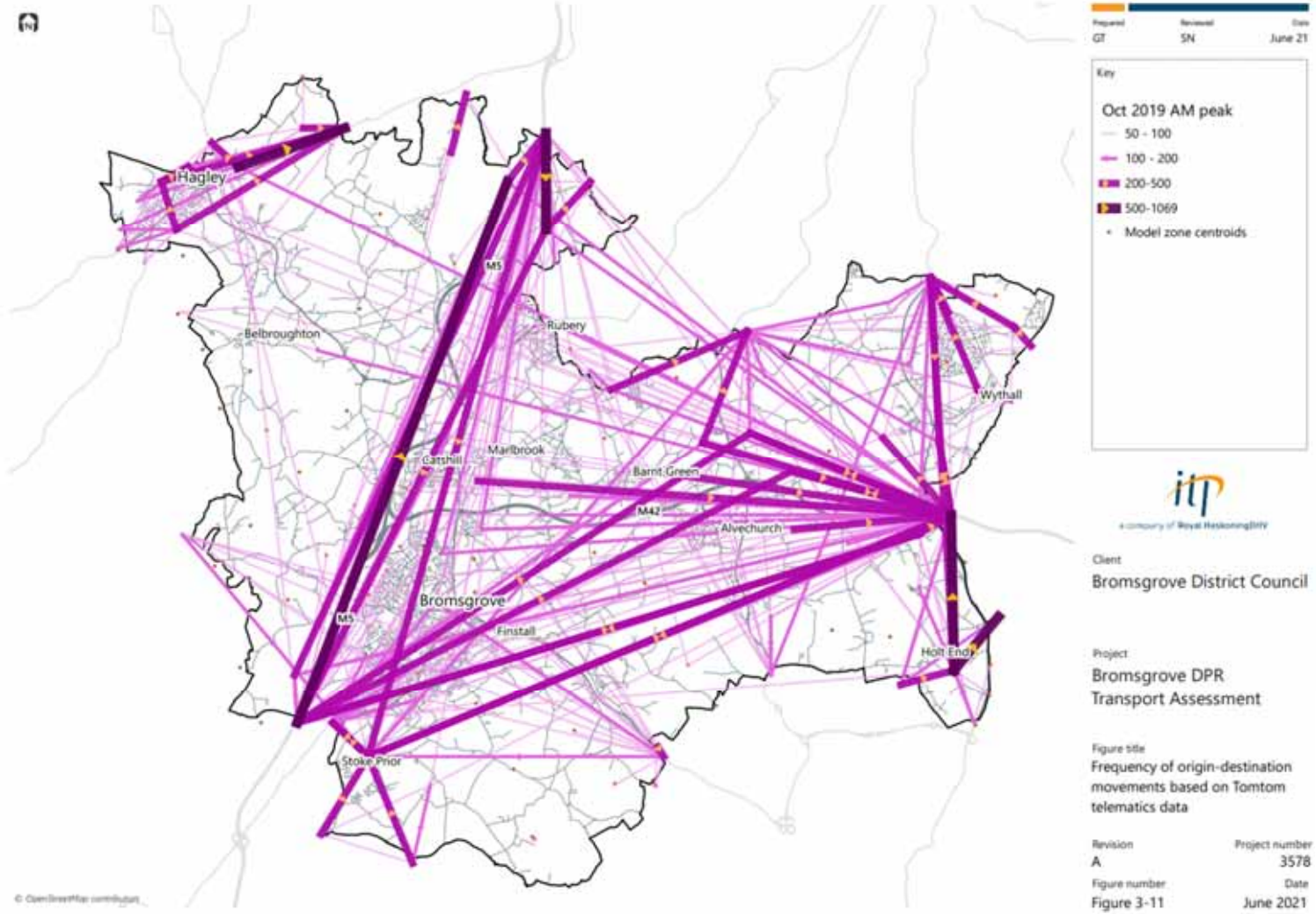


Figure 3-12: High frequency origin-destination movements based on Tomtom telematics data October 2019, aligned with the District's strategic road network.

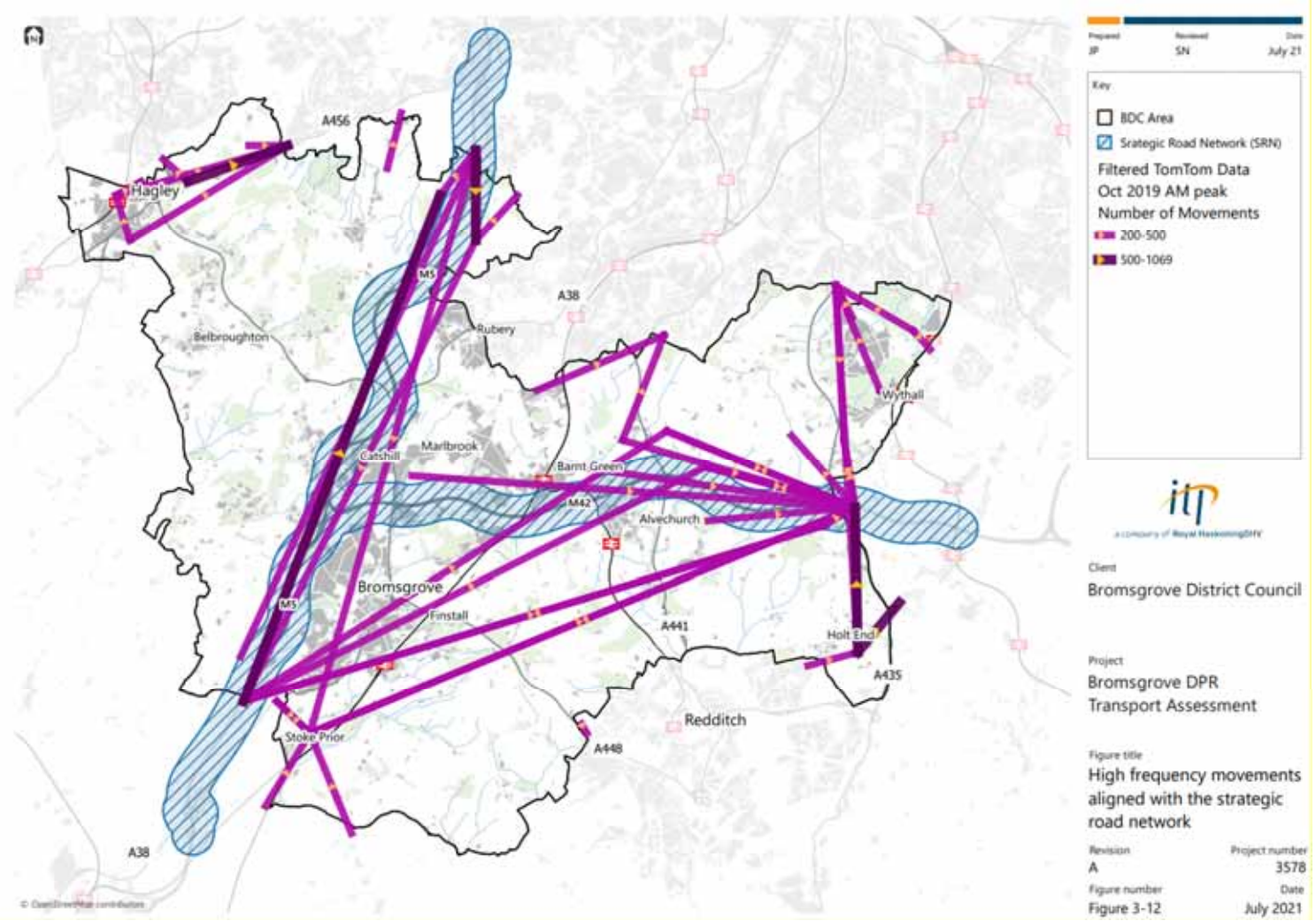


Figure 3-13: Travel to work trips from Bromsgrove to UK Districts (Cenus 2011)

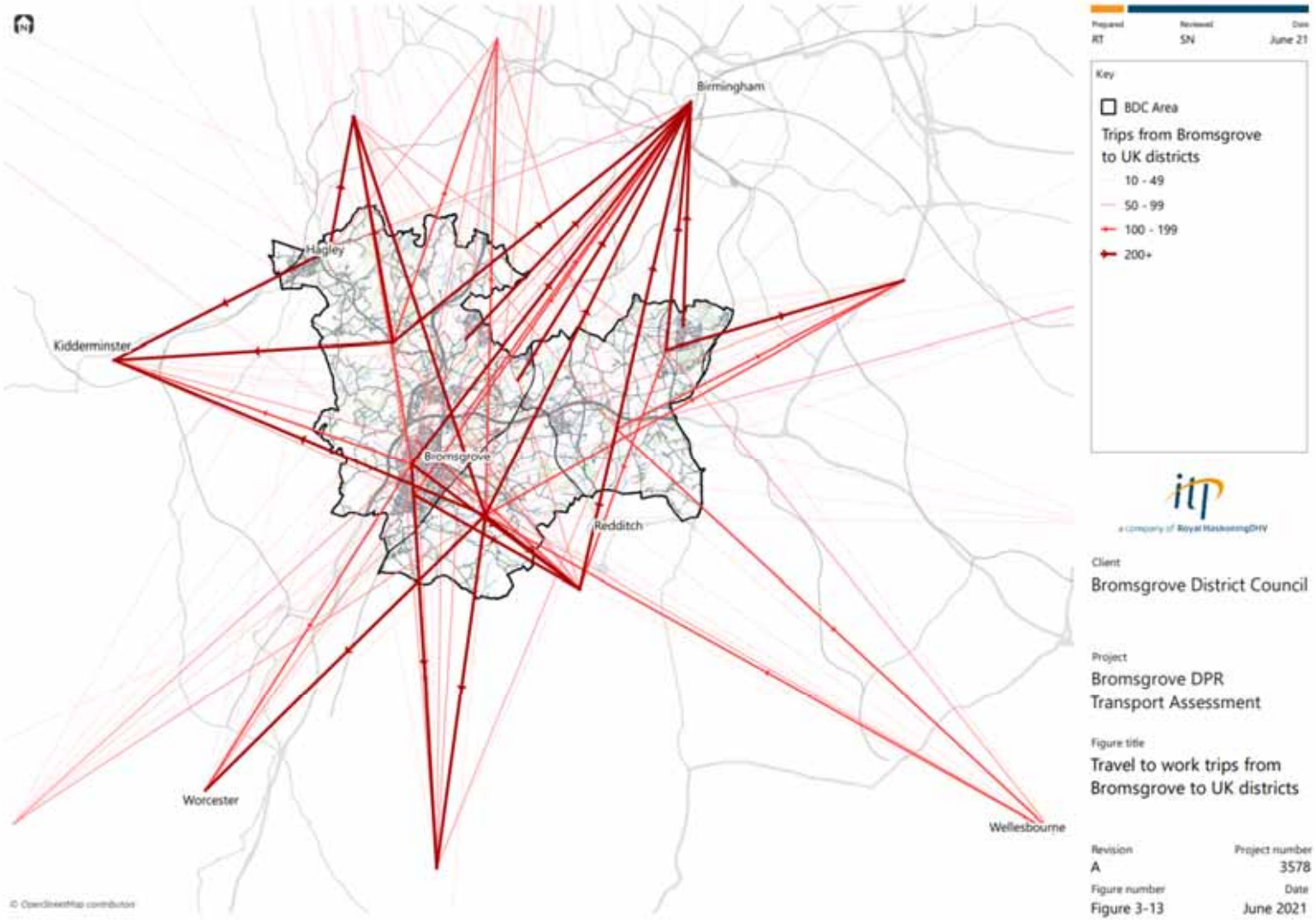


Figure 3-14: Travel to work trips to Bromsgrove from UK Districts (Cenus 2011)

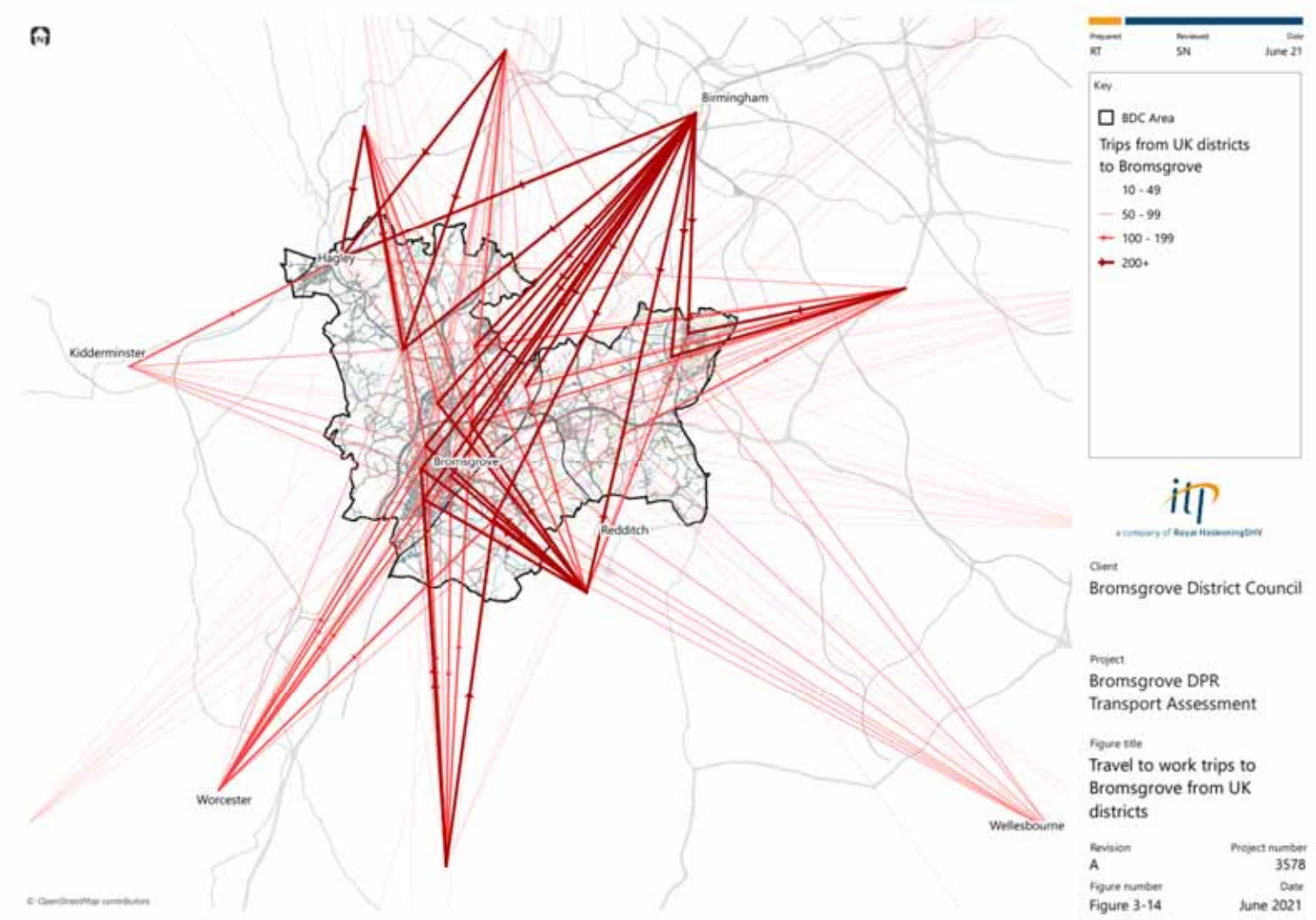
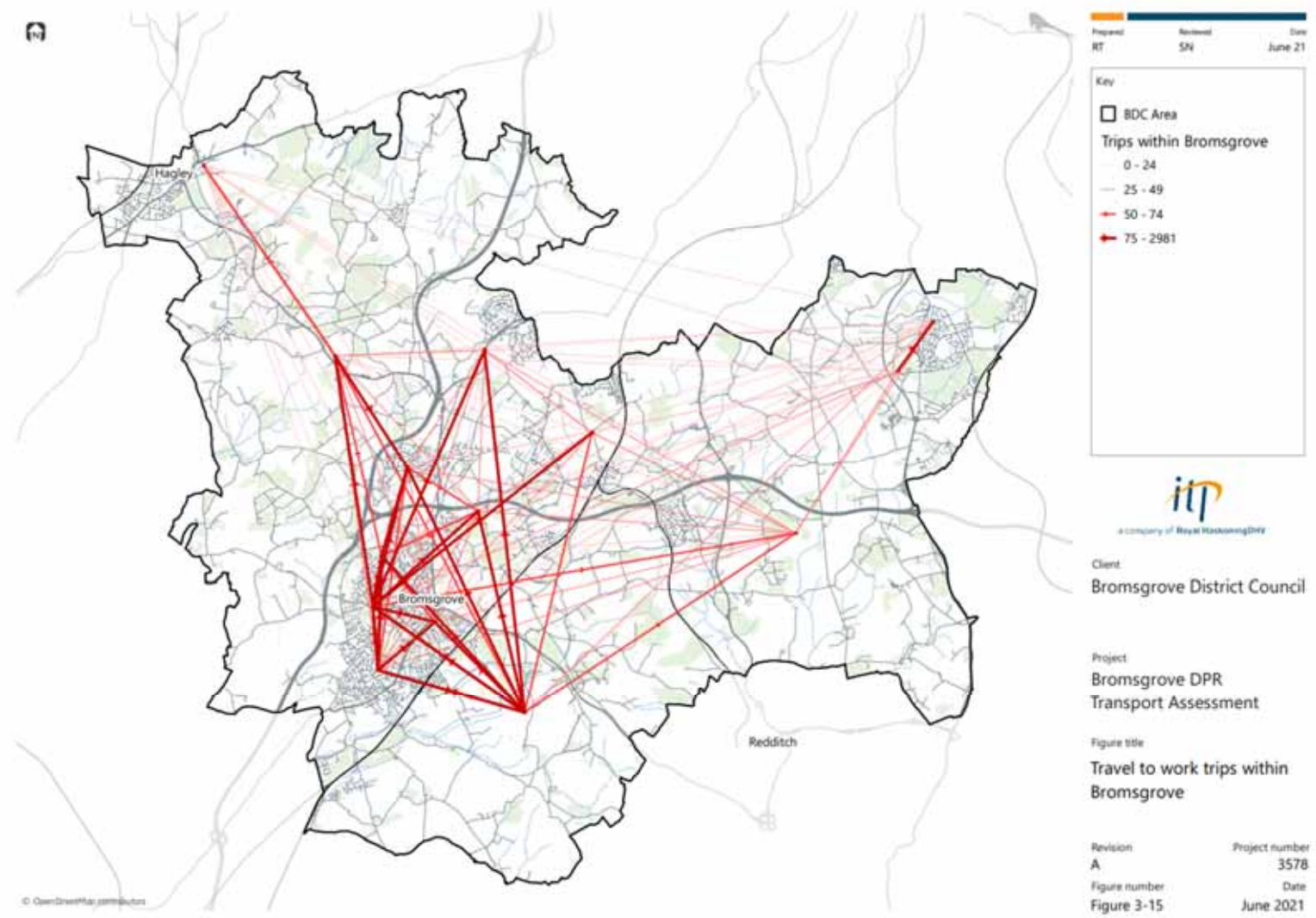


Figure 3-15: Travel to work trips within Bromsgrove (Cenus 2011)

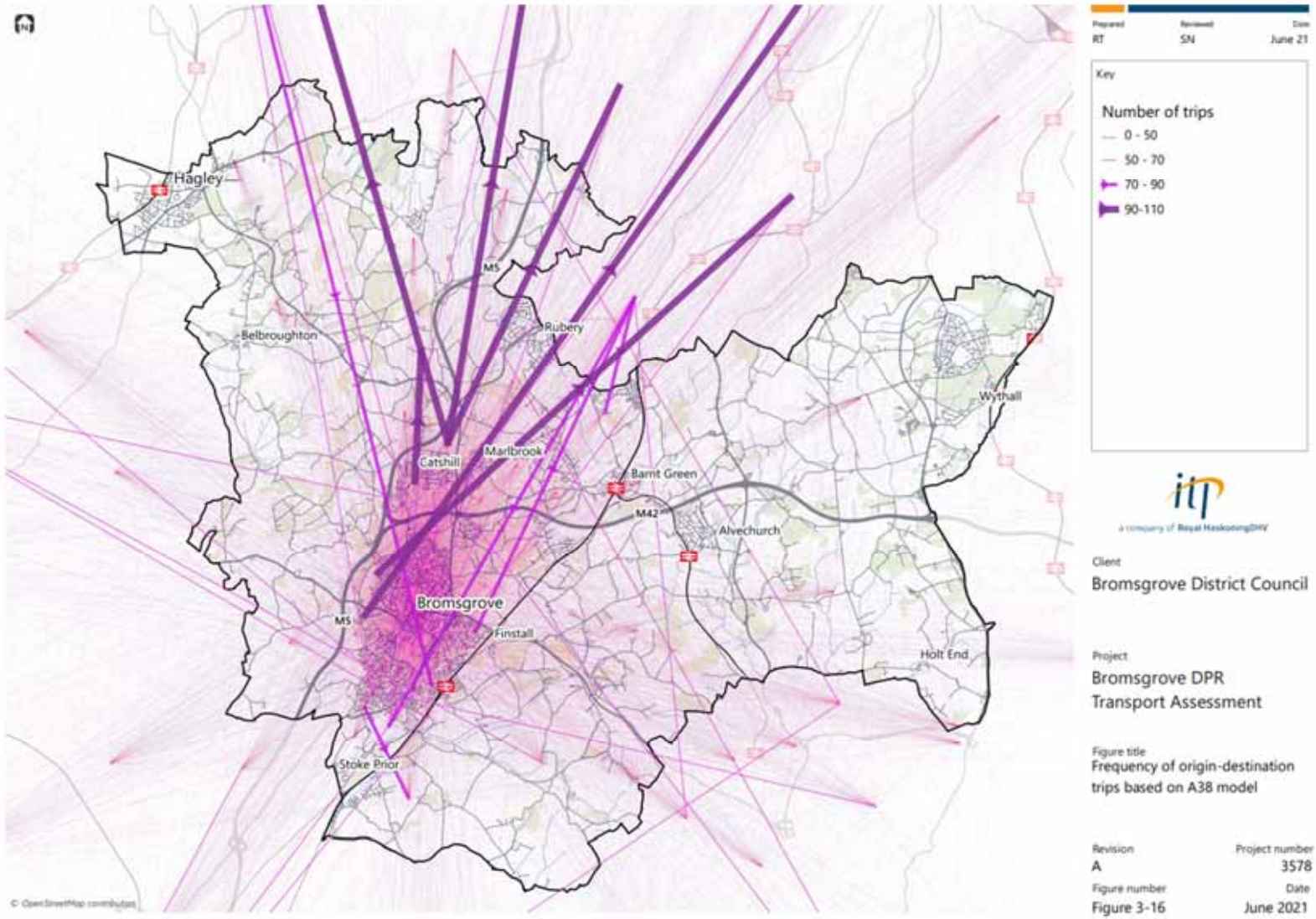


A38 Bromsgrove Route Enhancement Programme

3.56 Figure 3-16 reflects origin-destination modelling data prepared as part of the BREP study. This dataset only considers origin and destination trips from the improvement area around the A38. The highest concentration of flow within the District is centred around the town centre, where many trips either originate or end within this area. Of these flows, a significant number of trips are made from the town centre towards the larger conurbations to the north of Bromsgrove within the West Midlands. Generally, trips pass through the District within this dataset whist flows originating and terminating in the neighbouring borough of Redditch account for the largest proportion of high frequency flows (where 100 – 200 trips are made) through the District.

3.57 Whilst similarities are found across all datasets, of particular significance are the movements between Bromsgrove and Birmingham and those between Redditch and Bromsgrove. As previously stated, direct comparison of the data sources is not possible due to the differing spatial zones used and the limitations of each source.

Figure 3-16: Frequency of origin-destination movements based on A38 model



Demographics and socio-economic trends

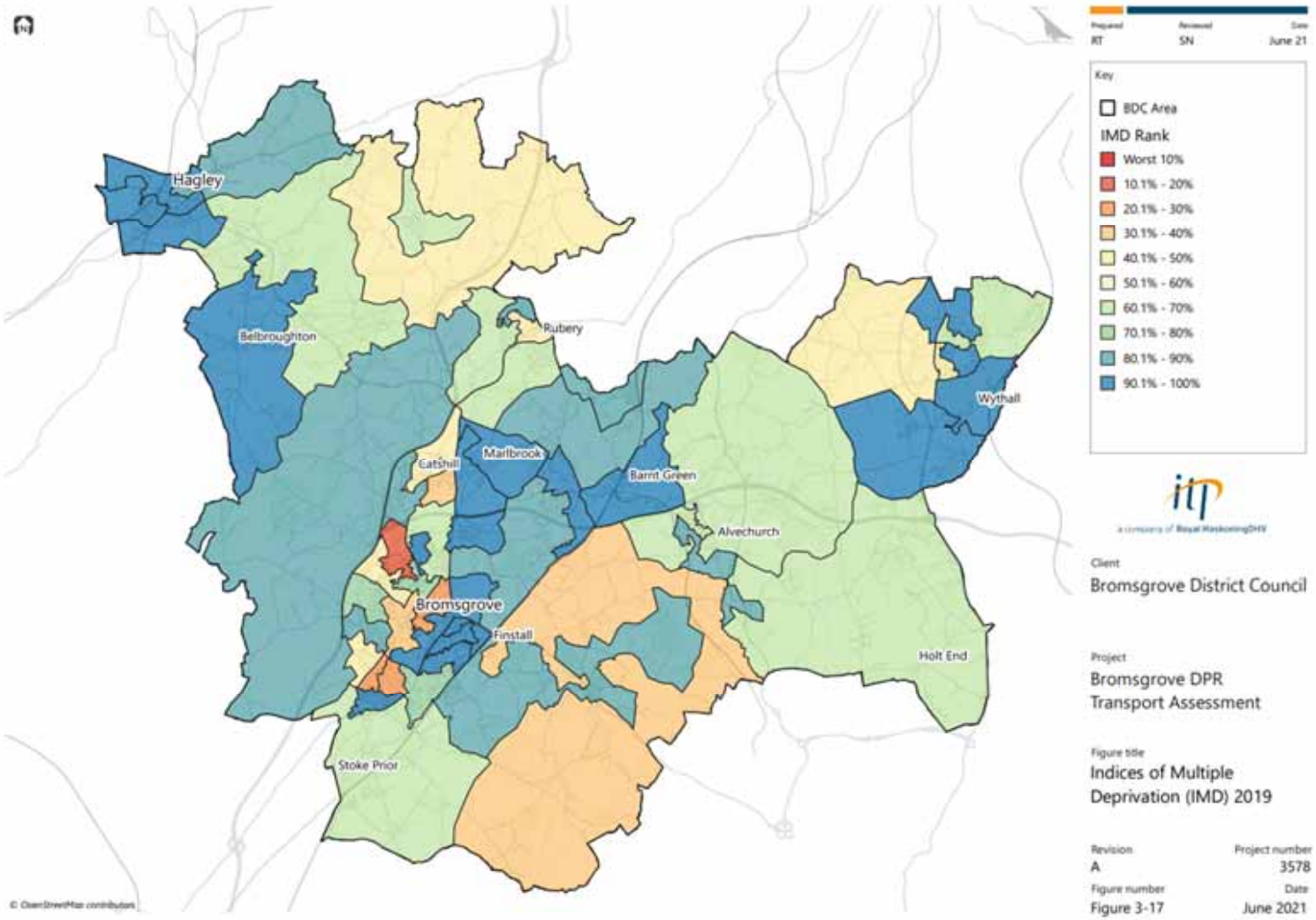
3.58 Worcestershire has a population of around 595,000 people (mid-2019 estimate), with just over 99,500 of those in Bromsgrove District (17%). The current age profile of residents shows there are around 59,000 (59%) working age people (16-64 years) living within the District and 22,500 (23%) that are over the age of 65. The County and District profiles reflect similar age profiles with lower proportions of young children (0-4) and young adults (18-34) and a higher proportion of people aged 45-plus than are seen regionally and nationally.

3.59 The population of the District grew by 6.6% from 2001 to 2011, only second to that of Redditch (6.8%) within the County[7]. The population of the District is forecast to grow by a further 11.4% to 2030, above than the County's forecast of 7.7%[8] citing the requirement for additional housing and associated transport infrastructure to support these predictions.

3.60 In terms of the economic profile, residents within Bromsgrove District have some of the highest annual incomes across the County with 27% of households earning over £60,000. The indices of multiple deprivation presented in Figure 3-17 show the District is one of the least deprived areas within Worcestershire, with none of the population residing within Decile 1 (representing the most deprived cohort). Greater concentrations of the District are attributed within Deciles 8 to 10, dispersed throughout to include the settlements of Hagley, Wythall, Barnt Green and Marlbrook. An area northwest of the town centre (adjacent to where the M42 and M5 converge) lies within Decile 2 and is the area of the District with the highest levels of deprivation. Charford and Bromsgrove Central lie within Decile 3 but are relatively small areas in comparison to the District as a whole. This data is taken from 2019, so pre-date the COVID-19 pandemic, which may have reshaped the extent of deprivation within the district but is considered most likely to have amplified the differences identified in 2019. An Economic Needs Assessment has recently been commissioned by BDC, which will provide an up-to-date assessment on the levels of deprivation across the District following the COVID-19 pandemic.

[7] Worcestershire Demographic Report – Census 2011
[8] Population Statistics and Projections | Population Statistics and Projections | Worcestershire County Council

Figure 3-17: Indices of multiple deprivation



Major trip generators

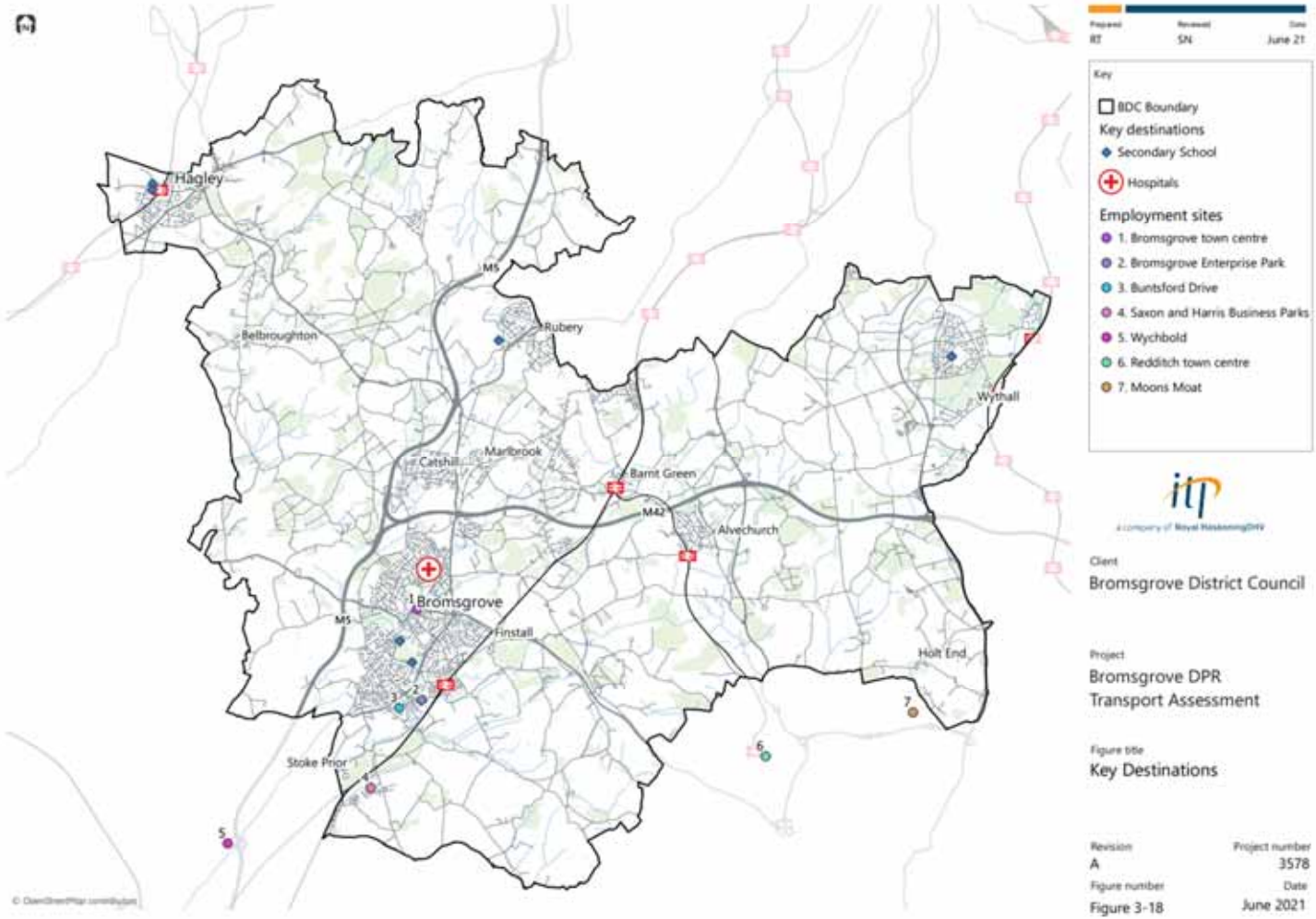
3.61 Hospitals, employment and retail sites and secondary schools all have the potential to generate significant trips across a district such as Bromsgrove. Figure 3-18 shows that these sites are predominantly located in the more urban areas of the District: Bromsgrove, Hagley, Rubery and Wythall, with key employment locations predominantly to the south of the District and into the neighbouring Boroughs of Redditch and Wychavon.

3.62 The Princess of Wales Community Hospital, north of the town centre, is accessed via the B4091 and Birmingham Road (from the A38) by road. It is also connected by cycle through Route 1 of Bromsgrove's local cycle network and by bus route, 144. The hospital provides a limited service for all District residents however, the larger hospitals with A&E departments are in Redditch and Birmingham.

3.63 Within the District, larger employment destinations include Bromsgrove Enterprise Park (on the outskirts of the town centre), along with Saxon and Harris business parks (Stoke Prior) and Bromsgrove town centre. Bromsgrove town centre is well connected to both public transport and active travel routes, as previously detailed and whilst Saxon and Harris Business parks are well supported by the road network, there is limited dedicated cycling access. Bromsgrove Enterprise Park is well-located for access to Bromsgrove railway station and 'Bromsgrove Railway Station' Active Travel Corridor. Smaller settlements of Hagley, Rubery and Wythall are served with secondary schools, supporting the rural population.

3.64 Employment and retail sites (out-of- town and within city and town centres) in Redditch and Birmingham also have the potential to generate significant trips to and from the District.

Figure 3-18: Key destinations



Environment

Flooding

3.66 In total 2% of Bromsgrove District is currently categorised as Flood Zone 2[9], with just 1% being within Flood Zone 3[10]. The District is less likely to suffer from flooding events than in other areas of Worcestershire, where 15% of Worcester is categorised within Flood Zone 2, and over 10% of the Malvern Hills, Wychavon and Worcester are within Flood Zone 3. The flood zone plan for Bromsgrove is shown in Figure 3-19.

Figure 3-19: Flood Zone plan - Bromsgrove District[11]

[9] Flood zone 2 – Between a 0.1% – 1% chance of flooding from rivers in any year (between 1:1000 and 1:100 chance) or between 0.1% – 0.5% chance of flooding from the sea in any year (between 1:1000 and 1:200 chance).
[10] Flood Zone 3 – A 1% or greater probability of flooding from rivers or 0.5% or greater probability of flooding from the sea
[11] Flood Map for Planning Service – gov.co.uk

4. Transport and movement issues

4.1 Transport is vital to supporting the delivery of local housing and employment growth however, it is also recognised that the District's existing road and rail infrastructure has a finite capacity, and that planned development could exacerbate existing congestion and related issues such poor air quality, limit access to employment opportunities and inclusivity.

Capacity of the road network

4.2 Planned housing and employment growth within the District, and the need to support unmet housing need from neighbouring local authorities, is likely to exacerbate the current congestion seen along the strategic and local road network to some extent notwithstanding the mitigation measures put in place.

4.3 The A38 is already near capacity with road users of this key corridor currently experiencing congestion and delay at key junctions, resulting in irregular journey times. Being a route used by bus operators and local residents to access the town centre, with additional demand from strategic traffic avoiding delay on the M5, makes the A38 a pivotal corridor within the District with the very little available capacity becoming increasingly constrained by further demand from planned growth. It is noted the A38 BREP is aimed to alleviate current issues along the route, with details of this package of improvements detailed in Section 5.6.

Road-related Air Quality Management Areas (AQMAs)

4.4 Increased pressure on the road network is likely, in the near-term, to detrimentally affect the air quality in AQMAs across the District, by increase the NO_2 and NO_x levels along routes that are already in breach of national levels. Sustainable delivery of identified growth sites should aim to incorporate investments in public transport and active travel infrastructure to off-set the increased travel demand whilst also improving alternatives to car use for existing residents, workers and visitors to the area.

4.5 Whilst an increase in electric vehicles will not contribute to a reduction in traffic volumes, a shift towards ultra-low emission vehicles could help address some of the air quality impacts associated with conventional vehicles. The viability and attractiveness of electric vehicle use is often influenced by the availability of public charging points relative to the strategic and local road network. Planned investments of this nature will need to be accompanied by suitable at-home and at-

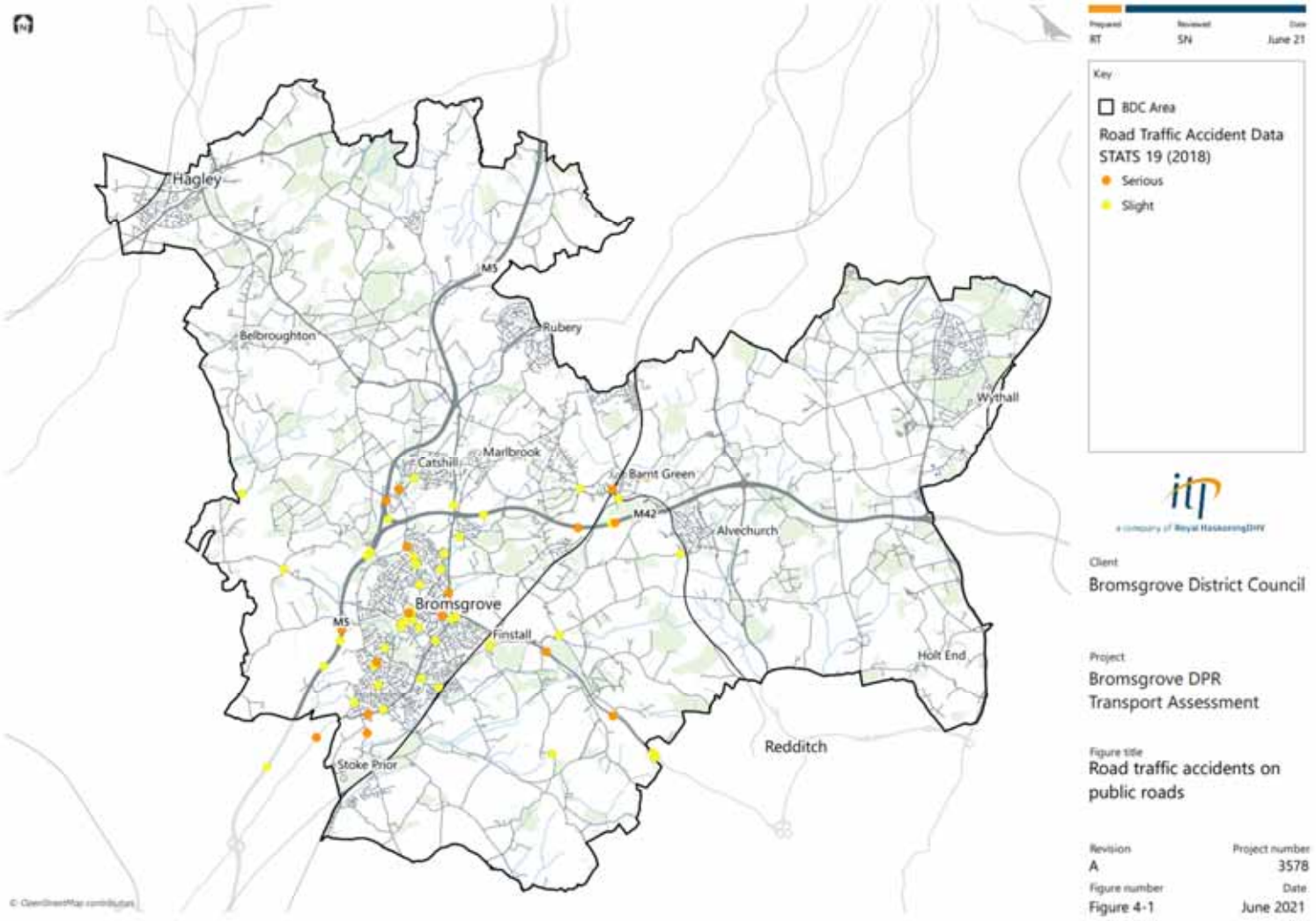
work EV charging provision in new developments if increases in car use are to be accommodated without worsening local air quality. From a decarbonisation perspective, the source of energy that needs to be generated to power electric vehicles will need to be renewable if growth in car use is to be in any way considered acceptable and unharmful to climate change.

Collisions

4.6 Road Traffic Accident Data Stats 19 (Figure 4-1) show that the majority incidents within the District in 2018 occurred within Bromsgrove and on strategic roads connecting to the town centre including the M5, M42, A38 and A448. These are also the most congested routes in the District.

4.7 There were no fatalities recorded in 2018, with an even split of serious and slight incidents. It is anticipated that as the number of vehicles increase on the road network, this could increase the potential for incidences occurring, especially on those routes that are already congested.

Figure 4-1: Road traffic accidents on public roads



Rail capacity and connectivity

4.8 The WRIS (2017) establishes that the County's rail services would not match the ambitions of the SEP without significant development and investment beyond that committed by the rail industry due to the current outdated infrastructure and single-line sections of the network. Services from Bromsgrove have previously suffered from overcrowding for most parts of the day, particularly on the Worcester – Bromsgrove – Birmingham route due to infrequent services, constrained by rail infrastructure. Whilst this has been alleviated following electrification of the line, which allowed for a more frequent service, capacity is still constrained by timetable pathing[12].

4.9 There was a 21% increase in passenger footfall at Bromsgrove railway station between 2015/16 and 2018/19. Similar future increases in demand for rail services would be likely to exacerbate overcrowding to levels seen prior to the electrification of the line. It remains to be seen what impact changes in working practices, accelerated in some industries by the COVID-19 pandemic, will have upon demand for peak hour rail services, but in 2020/21 the GB rail network carried just 22.3% of the volume of passengers that it had in 2019/20[13]. While significant recovery in rail passenger numbers is expected in late 2021 and into 2022, it is not unreasonable to suggest that the longer-term effects of the pandemic could temper peak hour rail service over-crowding and capacity limitations in the medium to long-term.

4.10 Irrespective of this possible trend, the lack of direct connectivity from Bromsgrove to the south via rail places additional pressure on the existing road network. It results in people making these trips either accessing services to the south from rail stations outside of the District or completing the whole journey by car. The level of rail service from the Districts' stations could be further improved and establish an opportunity for mode shift from motorised vehicles for some longer-distance trips. Consequent improvements in local traffic congestion, particularly at M5 and M42 motorway junctions, may also be realised as a result – freeing up capacity for growth.

Limited high frequency bus services

4.11 Bus services operating within District are faced with punctuality and reliability issues, predominantly caused by the highway constraints and competed demand for

[12] West Midlands Station Alliance – Stations as Places
[13] ORR Passenger Rail Usage 2020-21 Quarter 4

existing road space. Limited hours of operation result in poorer public transport accessibility for most journeys relative to private car use, but such services provide essential access for residents to key services and facilities, including rail stations. Unreliable journey times and infrequent services negatively impact passenger confidence and bus usage which leads to increasing operating and passenger costs – a negative cycle that ultimately erodes the commercial viability of services. Research commissioned by WCC in June 2018 exploring the factors influencing residents' satisfaction of public transport through a series of focus groups confirms that residents perceived a substantial reduction in bus services in recent years, associated with them becoming less frequent and less reliable (STEB, 2019).

4.12 As noted previously, in relation to rail services, consumer and commuter travel patterns have changed significantly since Spring 2020, due to the COVID-19 outbreak. Whilst the District's bus operators have been supported by Government funding, and therefore able to continue operating during this period of significant reduced demand, capacity of the network and service frequency have been impacted due to COVID-19 legislation and driver availability (due to illness and the need for self-isolation). Current social attitudes towards bus transport, its safety to public health (in a COVID-19 context), and the pace and nature of economic recovery are unknown at this time and limits our understanding of the potential long-term impacts (if any) of public transport and bus services within the UK.

4.13 With Worcestershire's population transitioning towards an older demographic, the transport network must cater for the specific needs of older people and those who experience diverse needs as a consequence of ageing and impairment. This is central to helping an increasingly older population to remain independent and overcome social isolation. An enhanced sustainable transport network could be complemented by an expanded network of Community Transport services to cater for the needs of older and less-able residents for whom continued access to services, local shops and other community facilities is key to remaining active and involved in society. Alongside the types of homes and mix of tenures the District Plan delivers, services of this nature are expected to be key to ensuring Bromsgrove remains a fulfilling place to live for people in later life stages who have grown-up and raised families in the area.

Limited active travel network

4.14 The existing active travel network affords a solid foundation on which to build, with the NCN routes and Public Rights of Way providing less direct routes to

destinations through the District to towns and cities further afield. NCN 5 is also well placed to provide a commuter link between the town centre and Bromsgrove Railway Station. However, this does not support cycle journeys between the more rural settlements in the District except that of Catshill and Rubery. The National Cycle Routes have limited connections to Bromsgrove's local cycle network, creating a network of disconnected infrastructure where cyclists have limited, direct access to cycle infrastructure to complete their journeys.

4.15 A lack of dedicated cycle infrastructure introduces interaction between cyclists and motorised vehicles. On-road routes are seen as a less attractive alternative to dedicated facilities due to the perception that roads are too dangerous with high volumes of motor traffic and the resulting collision risk that may occur.

4.16 The DfT's Local Transport Note (LTN) 1/20 (2020) provides design guidance for cycle and pedestrian friendly streets and is critically important in delivering streets that contain walking and cycling routes that meet the quality standards set out within it. LTN1/20 is heavily influencing the forthcoming Manual for Streets refresh and should form a key part of both the Supplementary Planning Guidance/placemaking Policies in the District Plan for strategic growth allocations, as well as the Infrastructure Delivery Plan – with a focus on improving urban and residential streets in Bromsgrove.

4.17 Development in the District has the potential to encourage a mode shift towards active travel due to the location of proposed housing sites, whilst presenting the opportunity to generate improved accessibility from these new origin / destination sites, providing good links to the existing local network. However, without improvements to the existing network guided by LTN 1/20 it is unlikely there will much change in active travel mode share. Immediate improvements to the active travel network within the District have been addressed within the LTP4 and detailed in Section 5.

Changing behaviour

4.18 Whilst 85% of the population in Worcestershire live in urban areas and on interurban corridors, car usage is at the highest it has ever been in the county's history (Census 2011). Bromsgrove's high level of car ownership along with a significant level of dependency on the car for commuter travel to and from work has contributed to this increase. This has only been exacerbated by the poor access to public transport in the rural parts of the District and the good strategic road network that it is connected to.

4.19 Development and growth in the District provide the opportunity for resident behaviours to alter, encouraging the use of alternative modes of travel and reversing the decline seen in cycling levels, and the increase seen in car usage.

4.20 However, changing these current travel behaviours needs to follow prior infrastructure investment on alternative travel modes in order to truly be effective. Previous programmes such as the "Cycle City Ambition" and "Cycling Demonstration Towns" have previously focussed on investment towards cycling. The Cycling Demonstration Town programme led by Cycling England and DfT between 2005 and 2011 gave focus to encourage an uptake in cycling for short 'everyday' urban trips in six medium-sized towns. The programme involved the implementation of a comprehensive mixture of improvements including in cycle infrastructure; development of town-wide signed networks of cycle routes and branding and marketing of those routes which have delivered an increase in cycling uptake. Taken overall, the annual expenditure per head of population was £17, which in turn increased cycling trips across the six demonstration towns by an average of 29 percentage points in 2011 (relative to a 2005 baseline). It is noted within programme evaluation reports that with collaborative and consistent effort, it is possible to achieve significantly higher levels of cycling in the UK[14].

[14] Summary of Outcomes report detailing findings of the Cycling Demonstration Towns programmes, Sustrans, 2018

5. Planned infrastructure improvements

5.1 A safe, resilient, reliable, and functional transport network is vital to support the planned growth detailed in this report. Planned investments to the transport network have been identified within this section and how such improvements will address the issues outlined in the preceding section.

Funding

5.2 WCC acknowledges within the LTP4 that public funding is expected to be limited during the implementation period of their local plan. This means infrastructure funding needs to be prioritised to maximise the potential impact of investment and may need to be drawn from local sources other than development – such as public parking charges.

5.3 Transport improvements solely targeted at increasing capacity for motorised vehicle movements via new/expanded highways infrastructure are typically extremely expensive, and the Worcestershire LTP4 notes that investments should be aimed at making the best use of the existing infrastructure network. In practice this is likely to mean optimising existing road space so that the maximum numbers of people, rather than just private vehicles, can safely and comfortably make local trips – including on foot, by bike and using local public transport services.

5.4 Bromsgrove District also has the potential for further infrastructure improvement, through WCC's longer-term transport strategy, as noted in the LTP4. Potential identified schemes include Highways England's future Road Investment Strategies, the case for a potential Western Bypass for Bromsgrove, passenger transport improvements and a comprehensive active travel (walking and cycling) network to support development growth. The options for any future scheme are to be comprehensively assessed to determine viability and suitability for inclusion in any future plans.

Highway network investment

5.5 Figure 5-1 sets out where key transport investment is currently being delivered, proposed or under consideration in Bromsgrove District. These schemes involve both strategic routes and local junctions within the District and seek to address existing capacity and congestion issues, with secondary benefits to both air quality and safety for all road users.

5.6 As previously stated, the A38 is used by drivers to link the M5 and the M42, whilst also providing local access to the town centre. The A38 Bromsgrove Route Enhancement Programme (BREP) is a comprehensive improvement programme which includes a series of junction enhancement schemes, alongside active travel improvements to deliver additional highway capacity and promote walking and cycling as an alternative to the car along the whole corridor. The improvements included within this programme support new developments in the area and improve links to and from Bromsgrove town centre and its newly re-located railway station. This package of works is critical in supporting the objectives of Worcestershire's LTP4 as well as the WLEP and GBSLEP Strategic Economic Plans.

5.7 North East Strategic Transport (NEST) Schemes with committed funding include NEST1 and NEST2, providing improvements along the A38, whilst NEST5 is proposed to deliver improvements for motorised users within Marlbrook, with funding still to be secured.

Public transport improvement

5.8 Planned employment and housing growth along existing and future transport corridors could unlock greater investment in public transport and create favourable conditions for widespread use of alternatives to the private car for a greater proportion of trips.

Bus

5.9 WCC's LTP4 and Passenger Transport Strategy both place emphasis on improving public transport services and capacity in the local area to provide an integrated passenger transport network. The Department for Transport's National Bus Strategy, Bus Back Better (2021) sets out the vision to make buses a practical and attractive alternative to the car for more people, increasing patronage and raising mode share. As part of this strategy Bus Service Improvement Plans (BSIP's) have been introduced, to be developed by local transport authorities in collaboration with local bus operators and their communities. The aims and policies set out in WCC's existing strategies should support any BSIP produced, identifying key local areas where improvements are required to the bus network and its services.

5.10 The recent introduction of the pilot scheme, "Bromsgrove on Demand" helps to provide improved public transport options for local residents and whilst no further improvement has been identified to enhance the level of service of the bus network

within the District, any such schemes should support the transport policies set out alongside the Local Transport Plan and the objectives of the National Bus Strategy.

Rail

5.11 The Rail Investment Strategy sets out both viable and aspirational improvements to the rail network within Worcestershire, identifying network improvements and the economic benefits such schemes can generate. The strategy provides support for those schemes identified with prioritised investments to take place up to 2043. The WRIS includes a focus on a new regional rail service connecting Kidderminster / Bromsgrove, Worcester, Cheltenham Spa, Gloucester, and Bristol and identified in the strategy as one of the conditional outputs delivering the greatest uplift in GVA and improving Bromsgrove's connectivity to the south.

5.12 In addition to this, central government have recently established a new public body to oversee UK's rail industry, Great British Railways. This public body will have an influence on infrastructure improvements and fare and timetable setting, underpinning the recently published The Williams-Shapps Plan for Rail (2021). Investment in infrastructure should align with both Worcestershire's strategy and this Plan for Rail.

5.13 Aspirational station enhancement schemes at Alvechurch, Hagley and Wythall Railway Stations have been detailed within the LTP4 to improve facilities for passengers, with improvements to access via sustainable modes of transport. These schemes are emerging concepts and are yet to secure funding.

Active travel investment

5.14 WCC's LTP4 Transport Policy WC1 specifically notes the vital role that cycling, and walking can play in both transport provision and health and environmental improvements within communities. A Strategic Active Travel Network Investment Programme, identified in WCC's LTP4, aims to provide a systematic investment in walking and cycling links along transport corridors to create a comprehensive, integrated network linking key trip attractors, and providing an attractive and coherent network. These links are visualised in Figure 5-1 and have secured funding for delivery.

5.15 The A38 BREP includes six sites where cycle and walk infrastructure is proposed to be improved. Whilst the improvements packaged under NEAT4 include a proportion

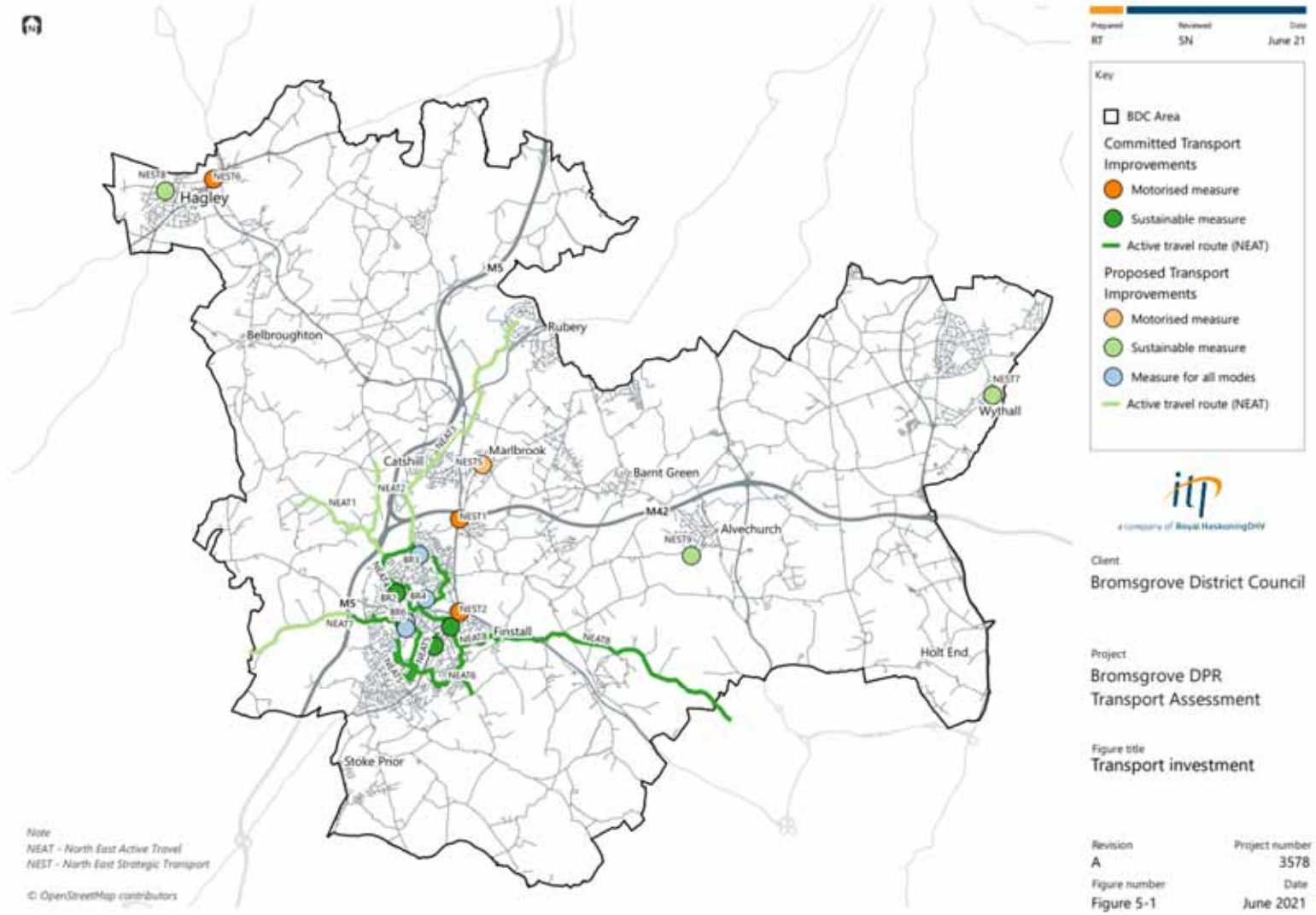
of the A38 schemes to be delivered, Phase 3 delivery of the BREP is yet to be funded and includes the following schemes:

- A38 Birmingham Road junction and roundabout with A448
- Harvington Road to Old Station Road
- Fordhouse Road to Carnforth Road
- A38 and A448 roundabout to Regents Park Road

These schemes should provide a well-connected cycle network along the corridor and provide the investment required to encourage an increase in the level of cycling in the District, by both reducing levels of congestion and improving active travel infrastructure to increase attractiveness.

5.16 Bromsgrove has previously benefitted from governmental funding through DfT's Emergency Active Travel Fund with allocations put towards improving the Redditch to Bromsgrove Active Travel Corridor. Future governmental funding for cycling and walking beyond 2021 to 2022 is due to be set out later in the year within the Governments Cycling and Walking Investment Strategy 2 in order to spark an active travel revolution. Further national funding could, and should, trickle down to places like Bromsgrove to support growth and improve existing walking and cycling networks in key towns.

Figure 5-1: Transport Investment



6. Conclusions

6.1 This evidence base has drawn upon existing evidence related to Bromsgrove District from a transport perspective and determined the existing transport provision and movements, current issues, and the infrastructure measures to mitigate impacts.

6.2 Bromsgrove residents are heavily reliant on the car for commuter trips, contributing to the current congestion seen within the district, particular along the A38 and through Bromsgrove's town centre. Whilst improvements are targeted along the A38 through the A38 BREP to relieve congestion seen on this route, improving conditions for both motorised and non-motorised users, there is limited funding available during the LTP4 implementation period for other improvements. More also needs to be done to support improvements to Bromsgrove's public transport network.

6.3 Whilst the provision of a good sustainable transport network can encourage modal shift away from the car, it should also be inclusive for all to support communities and wider societies. Residents that are that either too young, no longer able to drive, or who don't own a car, rely on public transport and active travel networks to access services and facilities. As such sustainable transport networks should help unlock opportunities for all in society. Future population growth is expected to be significant within the District, with the population structure also set to see a reduction in working-age population and an increase in the 65-plus demographic.

6.4 In order to meet the expectations of the DfT and the targets set out in their Decarbonisation Plan, future investment should focus on more sustainable measures and infrastructure, including electric vehicle charge point to facilitate an uptake in EV's.

6.5 Proposed housing sites located in close proximity to the town centre have the potential to add demand (to varying extents dependent on the effectiveness of mitigation measures in place) to an already congested highway network and have potential to negatively impact on air quality (close proximity to AQMA's). However, such positioning provides opportunity for a mode shift towards active travel and local public transport services.

6.6 Employment targets set out in Bromsgrove's Local Plan should be aligned with housing growth in order to prevent outward migration. Analysis of existing origin-destination movements indicate significant movements originating from outside of the District, highlighting the need for additional housing in Bromsgrove.

Appendix A

LTP4 Strategic Delivery Programme

District Plan Review Strategic Transport Assessment: Transport Evidence Base

Appendix B

Cycle routes and public rights of way

District Plan Review Strategic Transport Assessment: Transport Evidence Base

Appendix C

Bromsgrove Town Centre walking and cycling routes (National Productivity Investment Fund)

District Plan Review Strategic Transport Assessment: Transport Evidence Base

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