MOVEMENT FOR GROWTH:
The West Midlands Strategic Transport Plan

WEST MIDLANDS
COMBINED AUTHORITY

Contents

Foreword

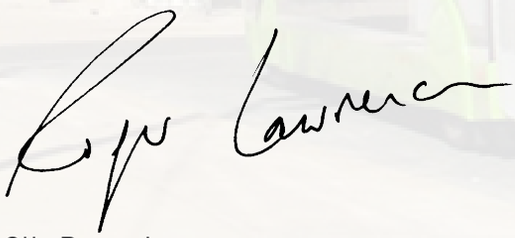
Positive, enduring change is happening in the West Midlands. A new Combined Authority, and recently announced devolution deal, will see an unprecedented step change in delivery to support our collective ambitions for economic growth. Transport is firmly at the heart of those plans.

We recognise both the challenges we face, and the opportunities that exist, in the West Midlands. We see the importance of an effective transport system for the creation of new jobs, economic growth which benefits all, new housing, clean air and improved health in our conurbation. As a fundamental element of our plans for devolution, we will invest in our infrastructure, ready for the arrival of High Speed Two, and in order to ensure that goods and people are able to move seamlessly throughout the West Midlands.

The plan is based on making better use of our existing capacity, through measures such as junction improvements, alongside large-scale investment in sustainable transport capacity and supporting operational and smaller scale measures.

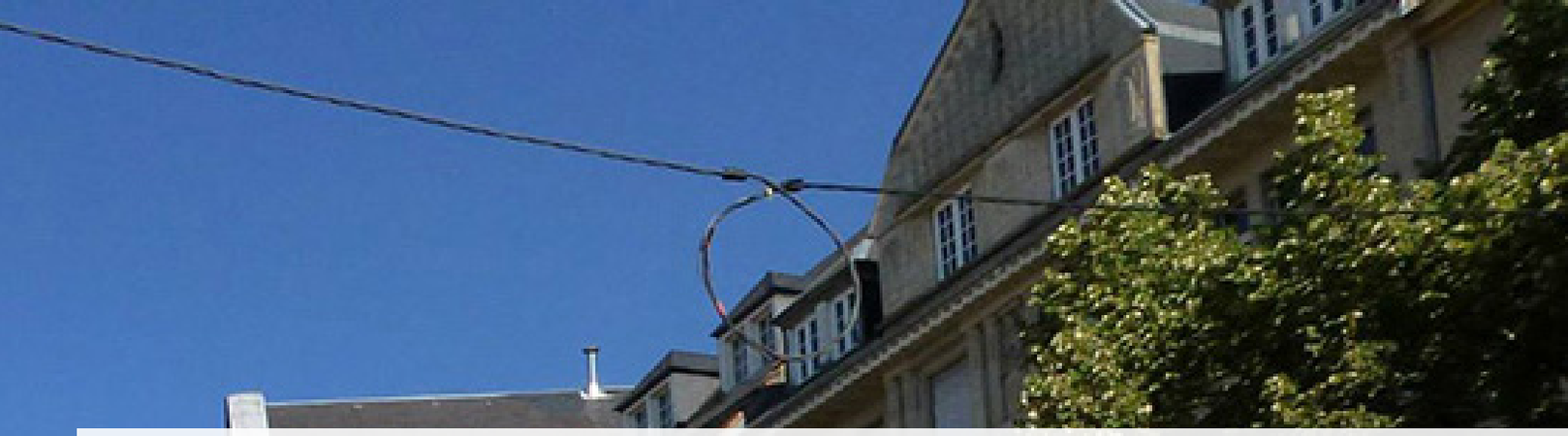
This approach is set out in a four tier integrated transport network made up of national/regional, metropolitan and local tiers, all joined up by the role of ever-improving technology through "smart mobility".

The Strategic Transport Plan sets out our vision, our priorities, our approach and our commitment to building a world class, sustainable, infrastructure system: one which is proudly comparable to our European counterparts. It is the transport plan for our emerging Combined Authority, one which we will vociferously support, lobby for, and deliver in line with. It is a plan which befits the people who live and work here and our world class businesses. It is now time for its delivery.



Cllr Roger Lawrence

Cabinet Member for Transport, West Midlands Combined Authority



Introduction

1.1 Since 2014 the leaders of the West Midlands have provided strong, clear leadership to strategic transport planning for the West Midlands Metropolitan Area. Leadership which will ensure that profound and enduring improvements are made to the West Midlands' transport system, matching the scale of the challenges faced over the next twenty years.

1.2 Ongoing changes to governance mean that the Leaders of the West Midlands will own this plan and oversee it's delivery as the new "West Midlands Combined Authority" (WMCA). This evolution will strengthen the resolve and leadership of the West Midlands further.

1.3 This strategic transport plan sets out the long term approach to guide many improvements, to be made year in, year out, over a twenty year period. These improvements will be delivered by a number of organisations, through a range of programmes and packages. The Combined Authority's role will be to ensure that this delivery is joined-up and in accord with this over-arching long term plan for transport.

1.4 A glossary of this document is contained in Appendix 4

Our Challenges

2.1 London aside, the West Midlands is the largest urban area in the world's sixth largest economy. It is the manufacturing centre of the UK and its central location means that any north west-south-east or north east-south west national movement travels through, or around our conurbation.

2.2 The history of the West Midlands is a proud one, "the workshop of the world", based on industrial growth of distinct communities in the multi-centred Black Country, Birmingham, Solihull and the historic city of Coventry. Regeneration and reinvention are apace, as the West Midlands transforms itself into an advanced manufacturing and high-end services economy in a place where people want to live and work.

2.3 Consideration of travel flows show that there is a complex mix of national, conurbation-wide and local journeys, covering a multitude of origins and destinations. An improved transport system will serve these existing flows better, but must also serve the West Midlands for its future challenges.

2.4 There are five challenges for which an excellent transport system is an essential part of the solution::

A. Economic Growth and Economic Inclusion

B. Population Growth and Housing Development

C. Environment

D. Public Health

E. Social Well-Being

A. Economic Growth and Economic Inclusion

2.5 The economy of the West Midlands, as part of the "Midlands Engine for Growth", is currently on the rise:
–export growth faster than Germany's: 70% growth between 2008 and 2014
–motor manufacturing undergoing a renaissance
–significant numbers of young professionals moving to the conurbation to make a decent living and enjoy a good quality of life.

2.6 The Midlands accounts for almost a quarter of England's manufacturing and is calculated to be equivalent to 38% of its GDP. 8 out of 16 top performing Local Enterprise Partnerships (LEPs) in England over the last 3 years are in the Midlands showing the potential for further economic output. The interaction between different services and manufacturing is particularly important in this respect.

2.7 Much needs to be done to foster and encourage this growth over the long term and to ensure the whole labour market enjoys the benefits of a stronger local economy, a high quality of life and enhanced liveability.

2.8 This is demonstrated by considering the West Midlands Metropolitan Area's current GDP per person and unemployment rate in the context of figures for comparable European cities: our skills, productivity and employment levels all need to continue to rise. High productivity levels and advanced manufacturing in Dusseldorf and Stuttgart, for example, give GDP per person figures which are greater by between two-thirds and double those for the West Midlands, with lower unemployment levels. Many Dutch, Belgian, French, Danish and Swedish city regions also have significantly higher GDP per capita.

2.9 Better transport will serve economic growth in the West Midlands by widening labour markets, unlocking sites for development, providing attractive centres for business location, giving people access to skills, education and training, encouraging high value growth clusters and agglomeration, and reducing business costs for links from suppliers to producers to markets: an important aspect of the West Midlands economy with its prized manufacturing assets. The West Midlands will maximise the great opportunities for growth presented to it by the arrival of High Speed Two in 2026 and support the enhanced role of Birmingham Airport as an international gateway.

2.10 Key growth locations for economic development are shown in figure 2.1 below. These will be well-connected by new transport schemes.

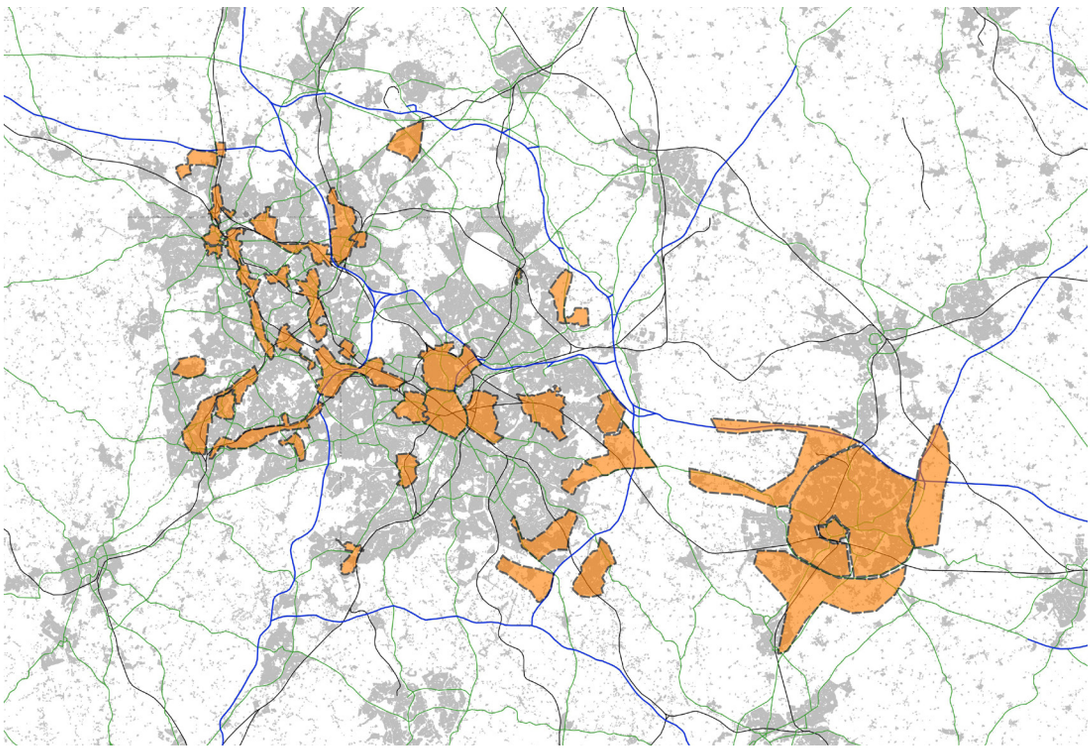


Figure 2.1: Key Growth Locations

B. Population Growth and Housing Development

2.11 The Metropolitan Area's population is forecast to grow by 444,000 people by 2035 (ONS). This is the size of a Bristol, or a Liverpool, or a Nottingham. The number of new homes which will need to be built to help accommodate this growth over twenty years is in the order of 165, 000. The scale of new housing development increases when the wider journey to work area is considered, therefore requiring a joined-up, cross-boundary approach to housing development.

2.12 The location of new housing development should seek to make best use of existing transport assets and then consider the need for additional capacity, over and beyond this. New housing development must be well designed to accommodate the needs of all transport modes and must be fully integrated with existing transport networks.

2.13 Transport improvements will allow suitable sites to be developed for new homes and enable new travel demand to be met by sustainable forms of travel, alongside supporting a shift for more established travel patterns.

2.14 Significant development should be focused on locations where there is easy access to high quality public transport, or the opportunity to provide it, and residential development should be in neighbourhoods where people can access local services on foot.

2.15 Transport improvements will also need to consider the requirements of an increased elderly population as part of population changes and the significant growth in the number of young people in the West Midlands.

C. Environment and Public Health

2.16 Building on existing work , such as the West Midlands Low Emissions Towns and Cities Programme (LETCP), local air quality needs to be improved, with the West Midlands becoming compliant with all relevant European Union emission limits for air pollutants, including limits for nitrogen dioxide. Transport related ambient noise also needs to be reduced.

2.17 The West Midlands will play its full part in reducing carbon emissions in line with the national target of an 80 % reduction from 1990 levels by 2050. Currently 25% of controllable CO2 emissions are from transport, so there is much scope for this role.

D. Public Health

2.18 Public health impacts of poor air quality centre on respiratory problems alongside cardio-vascular problems, although evidence from other systemic impacts is growing, such as neurological impacts. Road transport emissions from exposure to fine particles account for around 1,460 premature deaths in the West Midlands ("Estimating Local Mortality Burdens Associated with Particulate Air Pollution", Public Health England, 2014). Deaths attributable to nitrogen dioxide may be in the region of around half that figure, when calculated based on the approach used in health risks of air pollution in Europe – HRAPIE Project (World Health Organisation 2013). The need to reduce emissions from the transport sector in the West Midlands is therefore highly important, particularly related to emissions from the motorway network and main arterial roads.

2.19 Other public health issues which transport strategy can positively influence are the need to help tackle the West Midlands' high obesity levels and diabetes through more active travel (walking and cycling), and to radically reduce the number and severity of road traffic casualties. Furthermore, transport related ambient noise also needs to be reduced.

2.20 Transport investment, such as new and improved public transport routes serving deprived communities and travel training, also help reduce health inequalities, allow greater access to fresh food retail outlets and can encourage positive mental health and reduced social isolation.

2.21 Improving people's quality of life through health improvements also brings positive economic impacts to the West Midlands. Use of the HEAT (Health Economic Assessment Tool) can quantify the potential cost savings of transport improvements such as reduced sickness levels of the labour force and reduced costs to the NHS.

2.22 Noise reduction techniques akin to those used for Dutch motorways can reduce health related impacts of continuous exposure to traffic related noise.

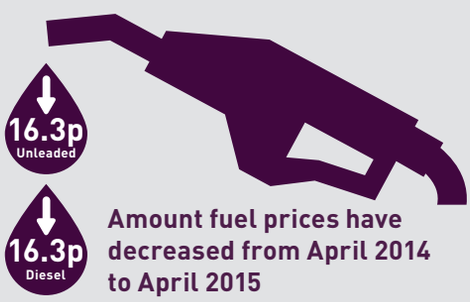
E. Social Well-Being

2.23 Aside from greater participation in the economy of the labour market, the West Midlands needs to improve the quality of life for people not involved in the world of work. Better access to shops, services, healthcare, education, family and friends, entertainment and other life-enhancing opportunities is needed for all, particularly for socially excluded groups.

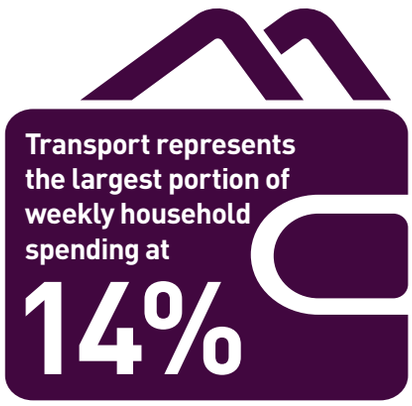
The Figures

36% of all morning peak trips to main centres are by public transport. In Birmingham city centre alone 58% of morning peak trips are made by public transport

National tourism entering the West Midlands Region increased by 29% & expenditure by 45%



Amount fuel prices have decreased from April 2014 to April 2015



Transport represents the largest portion of weekly household spending at

14%

Population is set to grow by as many as

444,000

people by 2035

CO_2 emissions per passenger km

Car	CO_2 205 grams	
Bus	CO_2 110 grams	
Metro	CO_2 73 grams	
Train	CO_2 56 grams	

Transport accounts for around 25% of all man made CO2 emissions.

Patronage per head of population: West Midlands

Bus 9.9 million

Rail 1.8 million

Metro 0.2 million

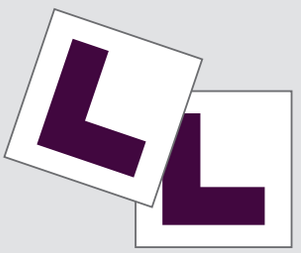
82% of surveyed buses being punctual- an increase from 77% in 2013/14.

10% of buses are subsidised in the West Midlands

International trips to the West Midlands Region shows an increase of 6% with 2 million trips made in 2014

The West Midlands Metropolitan Area has seen a 3.2% annual growth in GVA output, at **£53.2bn**

This equates to **£19,244** per head of the population in West Midlands (compared to UK £23,168 per head)



Percentage of 17 - 20 year olds holding a driving licence:
48% in 1994
29% in 2014

Percentage of 21 - 29 year olds holding a driving licence:
75% in 1994
63% in 2014

Currently 77% of households in the region own cars. This is projected to rise to 81% by 2035

The West Midlands Area uses approximately **0.95 MILLION TONS** million tons of fuel a year.

Percentage representation:

63% 31% 6%

Our Vision

3.1 The Leaders of the West Midlands Metropolitan Area have set a new vision for transport:

> "We will make great progress for a Midlands economic 'Engine for Growth', clean air, improved heath and quality of life for the people of the West Midlands. We will do this by creating a transport system befitting a sustainable, attractive and economically vibrant conurbation in the world's sixth largest economy:"

3.2 In support of this vision we will:

- Introduce a fully integrated rail and rapid transit network that connects our main centres with quick, frequent services, and which is connected into wider local bus networks through high-quality multi-modal interchanges.
- Increase the number of people that are within 45 minutes travel time by public transport to a minimum of three main centres and the two HS2 stations in central Birmingham and the UK Central Hub.
- Reduce transport's impact on our environment – improving air quality, reducing carbon emissions and improving road safety.
- Use transport improvements to enhance the public realm and attractiveness of our centres
- Ensure that walking and cycling are a safe and attractive option for many journeys especially short journeys, by delivering a strategic cycle network and enhancing local conditions for active travel.
- Facilitate the efficient movement of people on our transport networks to enable access to education and employment opportunities and health and leisure services.
- Enable businesses to connect to supply chains, key markets and strategic gateways, including Birmingham Airport, through improved strategic connections by road and rail.
- Maintain and develop our transport infrastructure and services to ensure they are efficient, resilient, safe and easily accessible for all.

3.3 This Strategic Transport Plan sets out the overall approach to deliver this vision, guiding improvements to be made year in, year out, over the long term. These improvements will match the scale of the challenges faced to support growth, and regeneration, and to foster environmental and social improvements.

Objectives

3.4 In light of the five core challenges above, nine objectives have been set for the Strategic Transport Plan. Transport policies flesh out the improvements to the transport system which help meet these high level objectives which are shown below:

Economic Growth and Economic Inclusion

ECON1 To support growth in wealth creation (GVA) and employment (jobs) in the West Midlands Metropolitan Area, as a prized national economic asset.

ECON2 To support improved levels of economic well-being for people with low incomes in the West Midlands Metropolitan Area to help make it a successful, inclusive, European city region economy.

Population Growth and Housing Development

POP1 To help meet future housing needs, by supporting new housing development in locations deemed appropriate by local planning authorities, following their consideration of sustainable development criteria.

Environment

ENV1 To significantly improve the quality of the local environment in the West Midlands Metropolitan Area.

ENV2 To help tackle climate change by ensuring large decreases in greenhouse gas emissions from the West Midlands Metropolitan Area.

Public Health

PUBH1 To significantly increase the amount of active travel in the West Midlands Metropolitan Area

PUBH2 To significantly reduce the number and severity of road traffic casualties in the West Midlands Metropolitan Area

PUBH3 To assist with the reduction of health inequalities in the West Midlands Metropolitan Area

Social Well-Being

SOC1 To improve the well-being of socially excluded people.

Our Approach

Policies

4.1 Achieving the objectives requires much progress to be made in line with a coherent set of transport policies.

4.2 Fifteen transport policies, supporting the nine objectives are set out in Appendix 1.

Long Term Approach to Implement the Policies

4.3 In order to attract new development to the West Midlands, the transport strategy must be able to sustain the resulting travel demand. This is alongside the need to open up more possibilities for the existing population to access desired destinations, particularly to promote greater economic growth and inclusion. There is also a need to recognise the role of journeys not related to work and it is also important to ensure that changing mobility needs arising from changes to our population, such as more elderly people, are met in our transport strategy.

4.4 Research, by Age UK, identifies a number of transport barriers that older people face when undertaking journeys, both on foot and by public transport. These include physically inaccessible transport vehicles, the pedestrian environment, safety concerns, and attitudes of transport staff.

4.5 The strategy considers all these issues whilst also helping to improve air quality in the West Midlands and reduce carbon emissions

4.6 The strategy has considered three broad options for implementation, after making better use of existing transport capacity:

A. Meeting increased demand by providing new road capacity for private car and road freight vehicles.

B. Meeting increased demand by providing higher quality public transport, better conditions for walking and cycling and new public transport capacity, rail freight capacity, and cycling and walking capacity.

C.Considering different blends of the two above.

4.7 Our preferred approach is the third, with a strong emphasis on making better use of existing transport capacity by using smart technology and better integration of transport to serve and manage demand better. This is supported by deeply promoting use of public transport, cycling and walking, alongside limited new highway links to unlock growth sites, improving junction pinchpoints and improvements to the environmental and safety performance of private cars and road freight vehicles within a smarter, more integrated urban transport system.

4.8 Our approach entails large scale infrastructure improvements alongside a host of smaller scale schemes and constant attention to detail of delivery, operation and supporting promotion and awareness.

4.9 The need for accessible provision is integral to our future transport system. Research indicates that accessibility of transport provision is a major barrier to participation and maintaining a sense of connectedness for people with disabilities. The ability to get out and about was consistently reported as being essential to mental health and independence as well as the ability to get and retain employment. The need for accessible provision is integral to our future transport system through such measures as accessible information provision, infrastructure design, comprehensive local network coverage, disability awareness and supporting services such as Ring and Ride and Community Transport

4.10 Travel demand is forecast to increase by 22% over the next twenty years, due to increased population and higher employment levels. This combined with a long term trend for longer journeys , particularly for work, gives a 34 % forecast increase in the number of car kilometres travelled. This is an extra 1.2 million extra car journeys per weekday which is equivalent to the amount of traffic carried by ten 3 lane motorways, a huge increase in urban highway capacity.

4.11 Evidence of adding significant new highway capacity in congested urban areas is that induced traffic leads to problems of poor connectivity for people and goods persisting – congestion just involves a higher magnitude of traffic. This is alongside increased requirements for large scale parking where land is scarce and at a premium, and impact on air quality, road safety and severance of communities by busier roads.

4.12 The preferred approach supports the HS2 Growth Strategy, Midlands Connect, Birmingham Connected and the transport elements of the metropolitan area's three Strategic Economic Plans. It also integrates well with the existing and draft Core Strategies of the Metropolitan Area:

- More effective use of existing capacity with smarter choice initiatives supporting capital improvements
- New transport capacity to meet new travel demand – very much based on additional public transport capacity (rail and rapid transit, integrated with bus), cycling infrastructure and key walking routes
- Better integration of transport through a smart mobility approach with public transport, car clubs, park and ride, cycle hire and use of powered two wheelers (motorbikes and mopeds)
- Transport improvements to unlock development and help businesses grow, including limited new highway capacity and more attractive centre environments
- Better walking conditions
- Better cycling, including a high quality metropolitan cycle network
- Smart motorways/ improved junctions
- Asset management
- Smart technology (for example, better Urban Traffic Control, cashless payments for public transport use and better travel information)
- Acceleration of the uptake of ultra-low emissions vehicles through the co-ordinated planning an delivery of ULEV (Ultra Low Emission Vehicle) infrastructure
- A metropolitan area parking policy co-ordinated with improvements to sustainable modes of walking, cycling and public transport

4.13 Our long term strategy will see a shift in emphasis of travel in line with thriving, prosperous, attractive, large European city regions such as Munich, Stuttgart and Dusseldorf, where car use accounts for typically 35 - 45% of all journeys, compared to 63% in the West Midlands Metropolitan Area.

Twenty Year Vision for the Four Tiers of the Transport System

4.14 In line with the overall approach set out above, our strategy is based on developing three tiers of an integrated transport system, all underpinned by a fourth tier of smart mobility initiatives – the "glue" which binds the strategy together. This transport strategy helps to provide the basis for a wider, overall development strategy which is part of the emerging Combined Authority agenda.

National and Regional Tier

4.15 The West Midlands Metropolitan Area requires excellent national and regional connectivity for the movement of people and freight. This is to get businesses connected, supplies to industry and the high value goods the West Midlands increasingly makes, to markets. It is also essential to allow national through movements crossing the West Midlands to be provided for without adversely affecting the West Midlands.

4.16 A nationally well-connected metropolitan area is also an attractive one for people to choose to locate to.

International Gateways

4.17 Efficient links to the UK's ports and Birmingham Airport are vital for the future development of the West Midlands economy. Birmingham Airport is a key international gateway within a national network of airports, and allows direct international connections which help exports, inward investment , tourism and leisure. The Leaders of the West Midlands Metropolitan Area fully support an enhanced national role for Birmingham Airport, building on the opportunities presented to it by the local public sector work to divert the A45 and hence allow Birmingham Airport to extend its runway.

4.18 Critical to the future success of Birmingham Airport for the West Midlands economy will be improved surface access to the airport within the wider UK Central Hub with the NEC and HS2 interchange.

High Speed Two

4.19 High Speed Rail Two is the biggest national transport scheme in decades, and the West Midlands will ensure that the opportunities for growth this presents will be maximised. This will be by effectively "plugging-in" Birmingham Curzon Street and Interchange High Speed Rail Stations in the Metropolitan Area to local transport networks through the HS2 Connectivity Programme.

Midlands Connect

4.20 The "Midlands Connect" initiative has identified six "intensive growth corridors" and four major hubs of economic activity across the wider Midlands (figure 4.1) in an area with a population of 11 million. Evidence from "Midlands Connect" shows that improved highway reliability and regular average speeds, and higher line speeds on inter-regional rail and highway links across the Midlands provide an economic benefit to the wider Midlands of upto £800m per annum by 2036 with 143,000 additional jobs when a ten per cent reduction in general travel costs are achieved. The schemes and measures arising from Midlands Connect technical evidence being produced for eight workstreams in 2016 will form the basis of development of this national/regional tier of the West Midlands Metropolitan Area's transport system.

4.21 This will be important to realise improvements between the East and West Midlands in corridors such as the A46/M69 Corridor and the A5 Corridor.

4.22 Midlands Connect highlights the importance of freight movements serving the West Midlands and crossing central England. It will also be invaluable in helping identify schemes to assist freight movements and to assist advanced manufacturing and other growth sectors of the West Midlands economy.

4.23 The growth of rail freight is encouraged by the ITA, recognising the need to protect existing capacity for rail freight, create additional capacity for rail freight and support land use development plans which facilitate the growth of existing freight interchanges, and the development of new strategic and other freight interchanges which are market-led and support the needs of the West Midlands.

4.24 The refresh in 2016 of the West Midlands Metropolitan Freight Strategy, initially published in 2013, will complement the Midlands Connect initiative to identify and progress schemes and measures, including those that support suitable lorry parking and driver rest areas and ways to improve communication with road hauliers over planned road works.

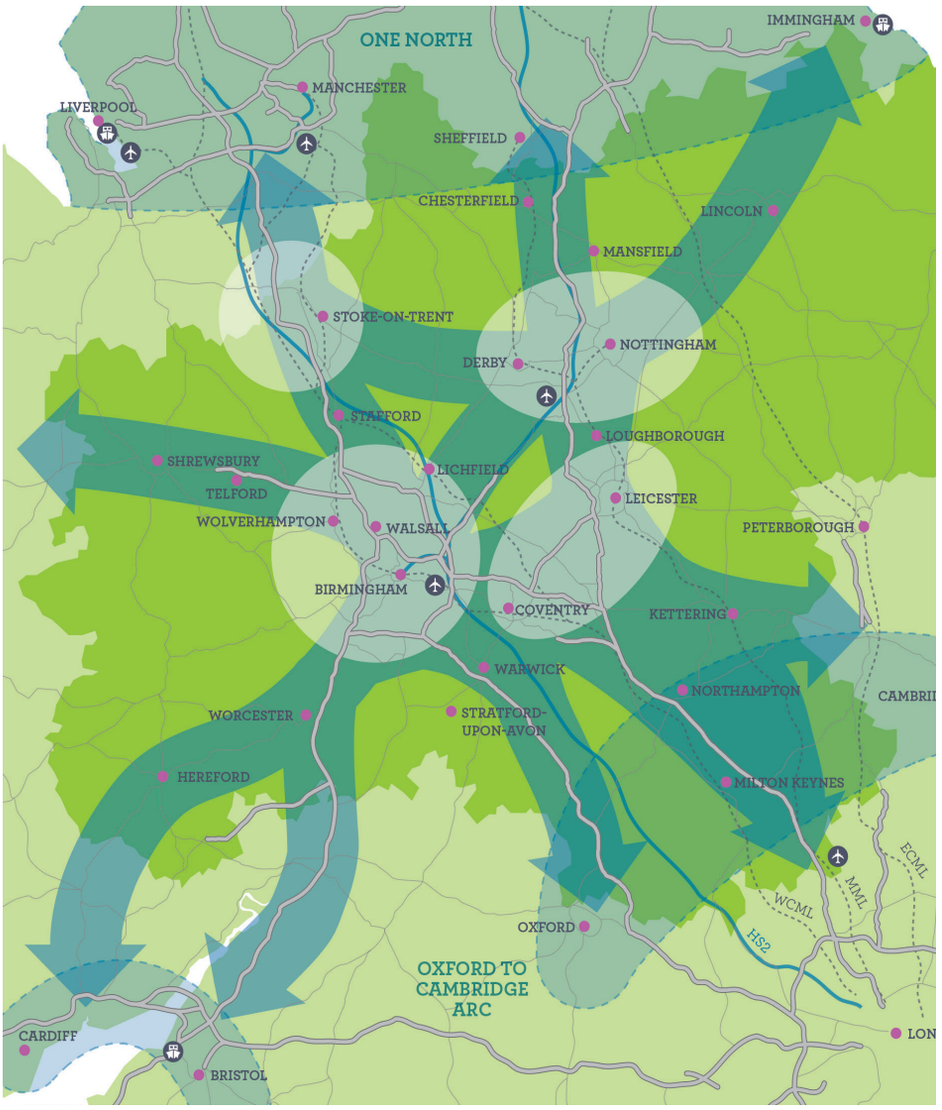


Figure 4.1: Midlands Connect Intensive Growth Corridors and Major Hubs

4.25 The niche, specialised role for freight of the West Midlands waterways will be explored further; for example where waste materials need to be transported from a site adjacent to a suitable waterway.

4.26 Midlands Connect is aligned to Network Rail's Long Term Planning Process and the West Midlands and Chilterns Route Study. Outputs from this Network Rail strategic planning will inform future rail schemes serving the West Midlands and wider regional rail connectivity, and so form highly important documents, particularly for the need to ensure increased central Birmingham rail capacity .

4.27 Also highly relevant to Midlands Connect is the Government's Road Investment Strategy (RIS) which contains 13 schemes in the West Midlands Region for Highways England to commence in the period 2015/16 to 2020/21. These include smart motorway sections and junction improvements on the M5, M6 and M42.

4.28 Highways England's strategic road network serving the West Midlands needs to possess appropriate motorway service area provision , in accord with the National Planning Policy Framework and the land use plans of relevant local planning authorities.

4.29 Wider use of the M6Toll is very important for the West Midlands and possible means to deliver this need exploring, to ensure better use and integration with the wider highway network.

4.30 Types of schemes in accord with the overall Midlands Connect approach are improved motorway junctions, new smart motorway sections, trunk road expressway upgrades, smart technology innovations for information and traffic management, limited new national strategic highway network links such as the M54 – M6/ M6Toll link, rail freight bottleneck improvements, such as the Water Orton rail junction, and line speed and capacity improvements for passenger and freight rail, including rail electrification schemes. Improved rail connections are vital between the West Midlands and the East and South Midlands. New rail freight interchanges are also required.

4.31 The long term strategic highway needs of the western side of the Metropolitan Area will need to be considered with Highways England and the Department for Transport in a new study related to this national/regional tier. This will need to consider the case for any new capacity in the context of the potential for modal transfer of local "junction-hopping" traffic using the motorway box, smart motorways, improved junctions and wider use of the M6 Toll.

4.32 At the regional level there is a need to join up land use development plans with transport plans. This recognises the issue of new housing development location to meet the needs of the region. The strategic transport plan facilitates this integration by setting out the overall approach to metropolitan transport strategy and the high level nature of the transport system serving the West Midlands Metropolitan Area. Local development plans across the West Midlands will need to be informed by this plan.

Coaches

4.33 Coaches have an important role in national and regional travel and a key role in supporting the growth of the West Midlands visitor economy. Interventions which improve the reliability of coaches' journey times and reliability, as part of wider transport schemes will be supported. Coach services will be taken into account in development of interchanges to support multi-modal journeys and new and innovative schemes to support coach services will be considered for national/regional tier improvements.

Key Transport Priorities for the National and Regional Tier include:

- New Smart Motorway Sections
- Wider Use of M6 Toll
- M54-M6 / M6 Toll Link Road
- Improved Motorway Junctions on the Motorway Box M6,M5, M42, M40 including major improvements at M42 Junction 6
- Making better use of the A46, enabling wider Midlands movements and providing resilience to the Motorway Box
- Camp Hill Rail Chords to increase Central Birmingham rail capacity
- Water Orton corridor rail freight capacity enhancements
- Further electrification of key national and regional rail links
- Improved connections to, and within, the UK Central Hub area

Metropolitan Tier

4.34 The Metropolitan Tier is the main element of this new strategy, addressing strategic movements across the conurbation, crossing arbitrary administrative boundaries. This is by the creation of three new networks for this tier: a metropolitan rail and rapid transit network, a metropolitan main road network and a metropolitan cycle network.

Metropolitan Rail and Rapid Transit Network

4.35 The vision for the metropolitan rail and rapid transit network is based on suburban rail, metro (light rail) and tram-train, very light rail and SPRINT Bus Rapid Transit lines on suitable links of one single network. This is effectively integrated with local bus networks at main centre interchanges and local interfaces, underpinned by park and ride and whole system information, promotion and ticketing. This system will be easy to understand and use and be supported by with high standards of customer care: all people involved in its development and operation should be able to be proud of their contribution to such an asset for the West Midlands. Existing passenger rail lines and rapid transit in the West Midlands are shown in figure 4.2

4.36 The creation of this one, single high quality network will be a major transformation of public transport in the West Midlands. The long term network is shown in Figure 4.3 and is heavily influenced by the West Midlands HS2 Connectivity Programme and has been informed by the findings of the Black Country Rapid Transit Review. Indicative phasing of delivery of this network is shown in Figure 4.4, based on schemes already committed/provisionally committed, and phasing of the HS2 Connectivity Programme. Rail schemes in the HS2 Connectivity programme improve rail capacity and line speeds and include new stations and services.

4.37 A critical element of the successful delivery of the Metropolitan Rail and Rapid Transit Network is to increase central Birmingham rail capacity. Early schemes to help achieve this are Snow Hill line capacity enhancements associated with Snow Hill platform 4 reinstatement, the Camp Hill Chords and track and signalling improvements.

4.38 SPRINT Bus Rapid Transit lines form an important part of the Metropolitan Rail and Rapid Transit Network. Bus Rapid Transit (BRT) lines are in operation in 198 cities across the world, carrying 34 million passengers daily. As a form of public transport it has a proven track record of attracting increased public transport use when implemented. SPRINT is the West Midlands Bus Rapid Transit service and will display the main characteristics of Bus Rapid Transit which are found in all successful schemes across the world:

- Higher speed than conventional bus services – a minimum of 20 km per hour average, end to end (commercial) speed, based on experience of well-used BRT systems across Europe
- High specification, distinctive vehicles and system branding
- High levels of priority
- Accessible stops and services
- Limited stopping pattern compared to conventional bus services
- High frequency
- Pre-paid ticketing before you board (Off-board ticketing)

4.39 The SPRINT lines set out in figure 4.3 illustrate an aspirational network. When scheme development commences for each route the practicalities of design will be considered carefully to see if the SPRINT specification can be achieved for the individual route, or whether a high specification core bus route upgrade will be a better solution for that corridor.

4.40 The role of innovative technologies such as Monorail and Very Light rail will be explored for appropriate corridors. Very light rail could be a valuable interim solution for elements of longer term rail corridors. The Dudley Very Light Rail innovation centre and test track will be delivered so that it does not conflict with development of metro, tram-train and potential longer term rail in the Walsall – Stourbridge corridor.

4.41 Organisational changes around rail and bus will help delivery and operation of this affordable to use, integrated public transport system.

4.42 For rail, this is through 14 authorities working together in West Midlands Rail (WMR), to influence local rail franchising. The formation of West Midlands Rail will add weight to initiatives to increase rail service frequencies for early, evening and Sunday services and will support efforts to increase rail service frequencies across the 24 hour day to serve Birmingham International station for Birmingham Airport.

4.43 For bus, this is through; an effective delivery agent in the Combined Authority working closely with highway authorities; and by the Combined Authority seeking to ensure the best of the private and public sectors working together to deliver world class bus services. The new strategic bus alliance in the West Midlands provides a sound basis to make this aim a reality.

Park and Ride

4.44 Expansion of existing park and ride sites and opening of new sites will be supported where there is a proven demand and business case integrated with the existing urban area parking supply. This will help increase access to the metropolitan rail and rapid transit network. Additional park and ride capacity will be in accord with more detailed delivery plans and will be mindful of planning and environmental criteria to ensure new capacity is located in appropriate locations. Additional park and ride capacity will be in the form of strategic, local and micro sites.

Figure 4.2: Existing Rail Lines with Passenger Services & Rapid Transit

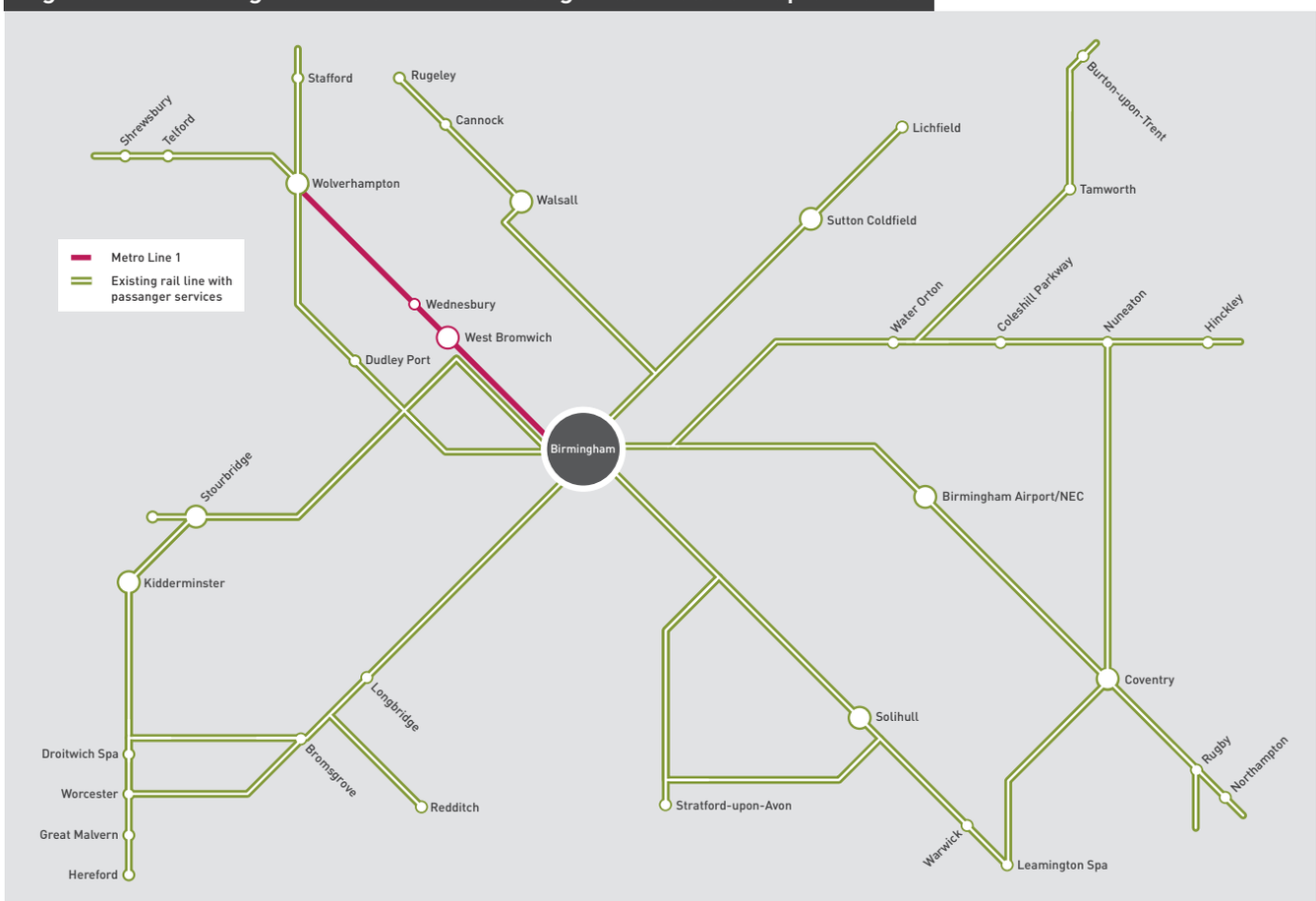


Figure 4.3: Metropolitan Rail and Rapid Transit Network Map

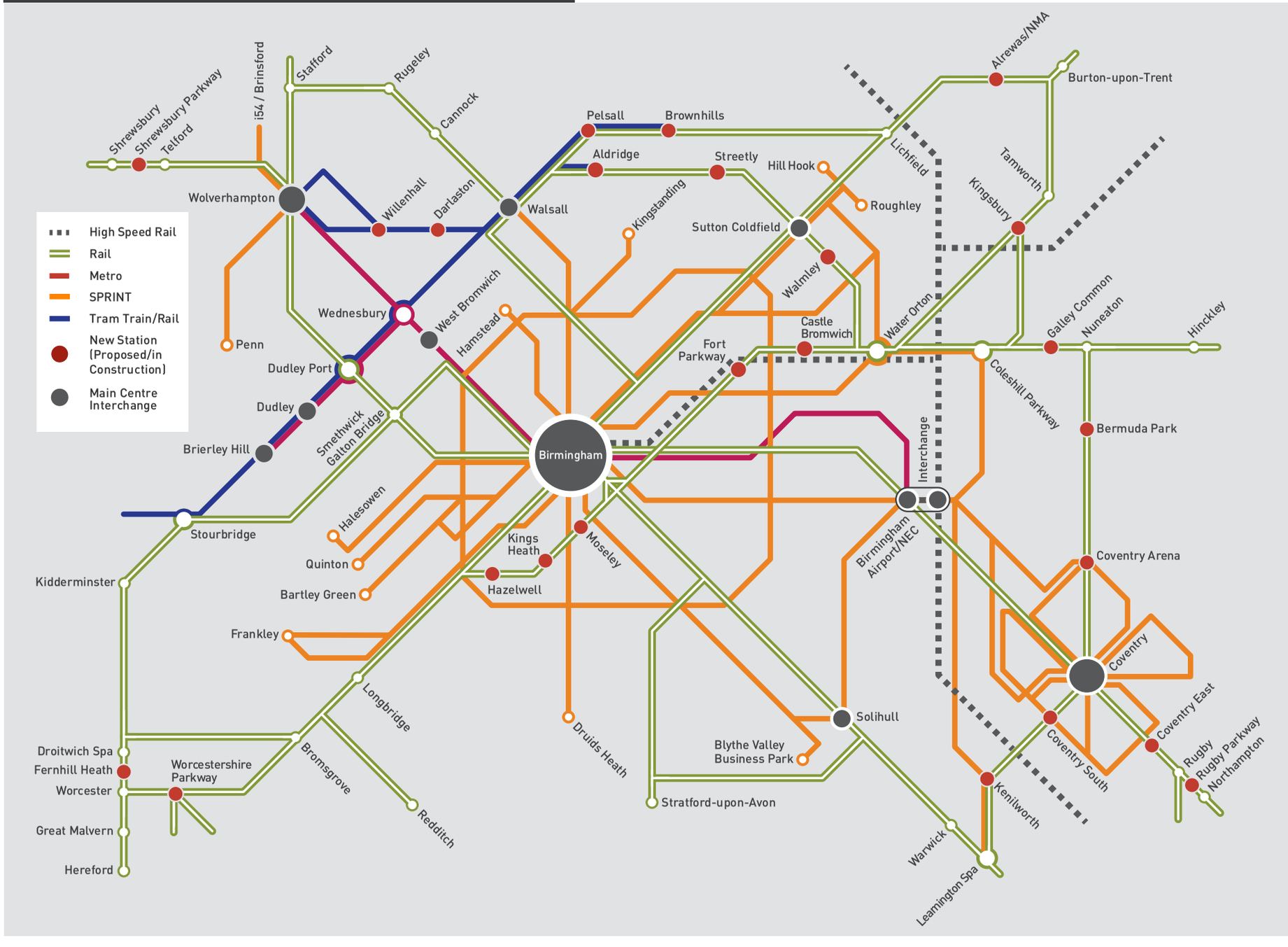
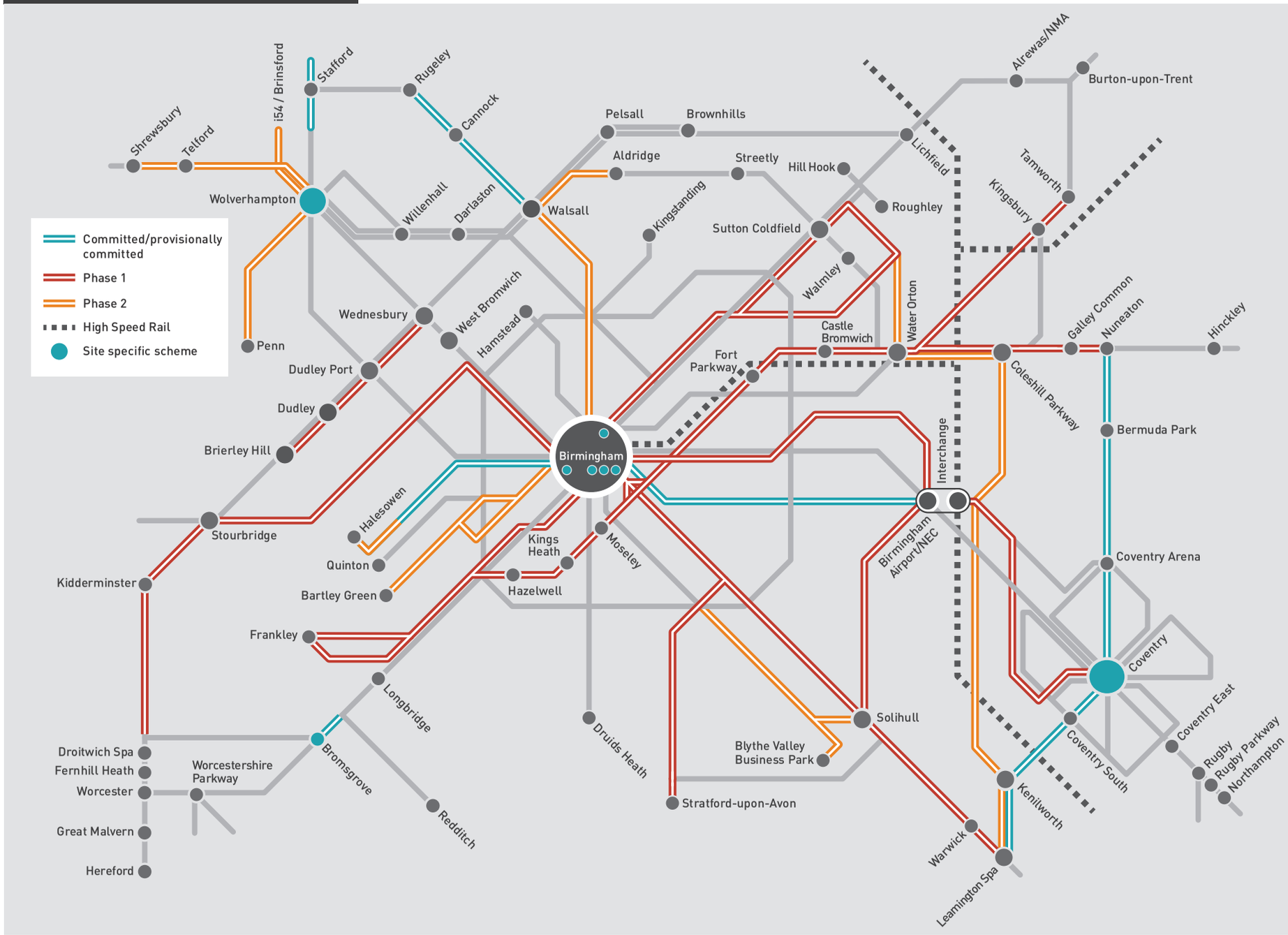


Figure 4.4: HS2 Connectivity Package



4.45 The guiding philosophy for this network is to transform the ability of residents to get to a wide range of jobs and activities across the conurbation. This is expressed as every resident of the metropolitan area should be able to travel from their home and be able to get to a range of at least three main strategic centres, including the regional centre Birmingham, within 45 minutes in the AM peak. 45 minutes is an acceptable journey time to work in the West Midlands , based on evidence from the HS2 Growth Strategy.

4.46 Residents will be able to do this by using high quality, reliable local bus services, largely based on a core turn up and go bus network, integrated with turn up and go frequency rail and rapid transit lines with hassle-free interchange and ticketing. This will transform the ability of people to access a wide range of job opportunities. Currently, 49% of the West Midlands population is able to reach at least three main centres within 45 minutes AM peak. Investment in rail, light rail, tram-train and SPRINT lines, alongside bus journey speed improvements, will greatly improve this. This will transform the accessibility of areas such as Dudley borough and Brierley Hill, north Wolverhampton, north Walsall, south-west Birmingham, north Solihull and east Coventry. This concept is shown in figure 4.5 below:

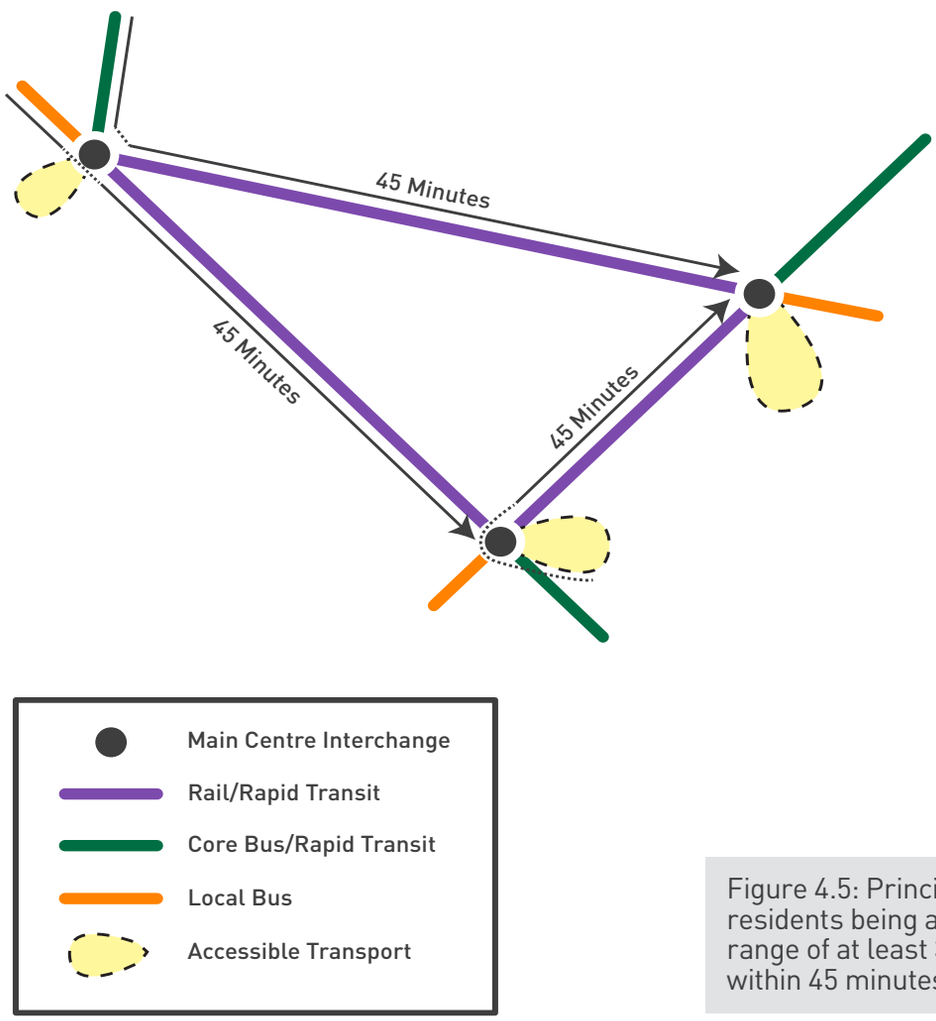


Figure 4.5: Principle of residents being able to get to a range of at least 3 main centres within 45 minutes AM peak

4.47 Complimenting this vision for improved metropolitan connectivity is an aspiration for centres in the wider journey to work area to be within 45 minutes travel time to the regional centre Birmingham, by rail. Coventry also requires attractive rail travel times to centres in Warwickshire and the East Midlands.

4.48 Alongside the critical role of this network to local people, the integrated public transport system has an important role to play in the visitor economy, helping move tourists and visitors around the West Midlands in sustainable ways.

Metropolitan Main Road Network

4.49 In conjunction with the Metropolitan Rail and Rapid Transit Network, the Metropolitan Main Road Network ("Key Route Network") will serve the main strategic demand flows of people and freight across the metropolitan area, and provide connections to the national strategic road network. It will also serve large local flows which use main roads and will need to provide good access for businesses reliant on road based transport .Work on this network is progressing in the West Midlands Metropolitan Area as a "Key Route Network". This network will use highway capacity effectively to cater for movement by rapid transit and core bus routes, the Metropolitan Cycle Network, lorries, vans and private cars. This will involve the reallocation of roadspace where appropriate to provide reliable, fast high volume public transport and an enhanced role for UTMC, building on joint work in the West Midlands. In 2011 57 % of journeys to work by residents of the metropolitan area involved crossing a district boundary, giving weight to the need for a commonly agreed main road network to handle this movement more effectively.

4.50 The Key Route Network will be defined on the basis of a Combined Authority definition agreed with the seven highway authorities , in consultation with neighbouring highway authorities, and will have agreed performance specifications drawn up for different types of link in the network in accord with their role for movement ("link"), and their role as a destination in its own right eg a suburban/town centre high street ("place"). A careful balance between demands will be sought, based on the work done by Birmingham City Council as part of its Birmingham Connected transport strategy. Appropriate cycle provision is integral to this network, including effective junctions where cycle routes cross a main road. Close cooperation with Highways England and neighbouring Shire highway authorities will ensure that roads on the network which cross administrative boundaries will have "joined-up" planning.

4.51 Improvements by highway authorities to the network will be performed to meet the agreed performance specification for the links and junctions involved. These will take into account emerging thinking for delivery of enhanced public transport priority on key corridors to support road based rapid transit proposals for SPRINT and Metro.

4.52 An indicative map of the draft network is shown below in figure 4.6. Figure 4.7 shows committed/ provisionally LGF committed schemes upto 2020/21. Most committed schemes focus on junction improvements to unlock economic development and tackle important pinchpoints.

4.53 As well as capital scheme improvements, it is vital that this network is managed efficiently through the collaborative operations of all highway authorities responsible for its provision. This will need to ensure that the highway authorities statutory duty is met of ensuring the safe, efficient and resilient operation of the overall highway network for all users.

Figure 4.6: Draft Metropolitan Main Road Network ("Key Route Network") Map

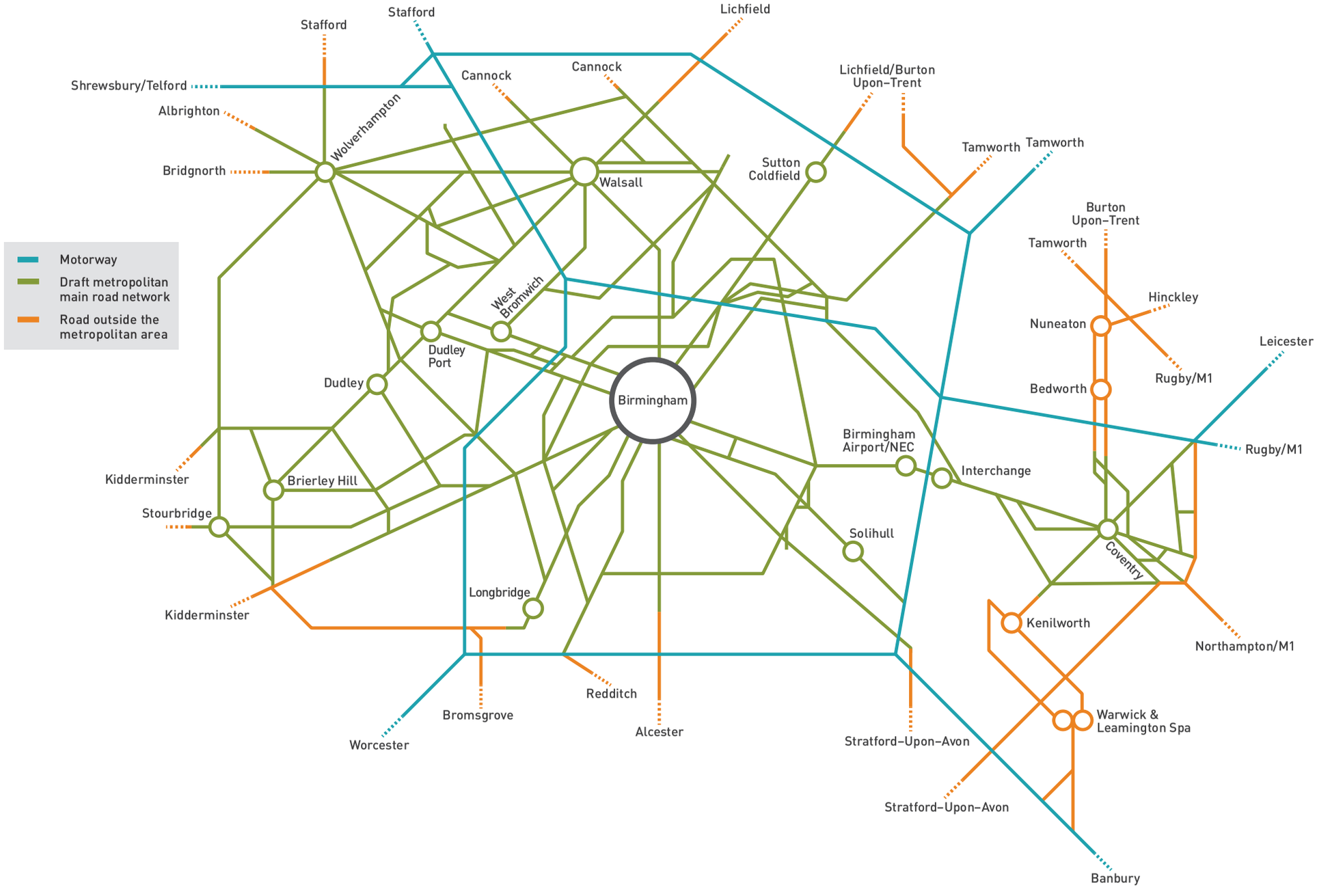
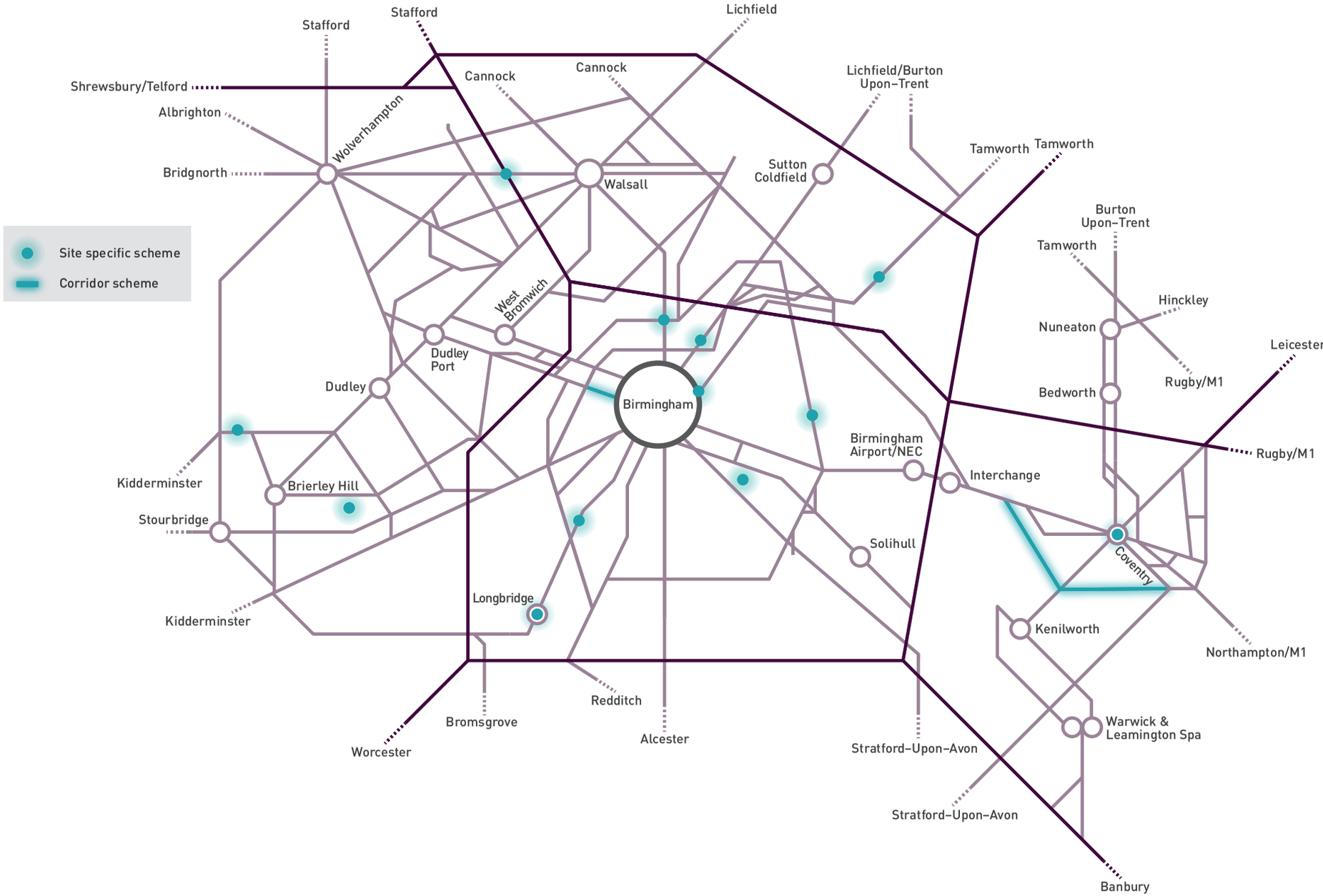


Figure 4.7: Committed/Provisionally Committed Local Growth Fund Schemes upto 2021



Metropolitan Cycle Network

4.54 A new Metropolitan Cycle Network will be developed to serve main flow corridors and to raise the profile of cycling in the West Midlands. This network will be comprised of high quality core cycle routes supplemented by quietways using a combination of green corridors, well maintained canal towpaths and low traffic flow and speed streets. The Metropolitan Cycle Network will be integrated with local cycle networks across the West Midlands.

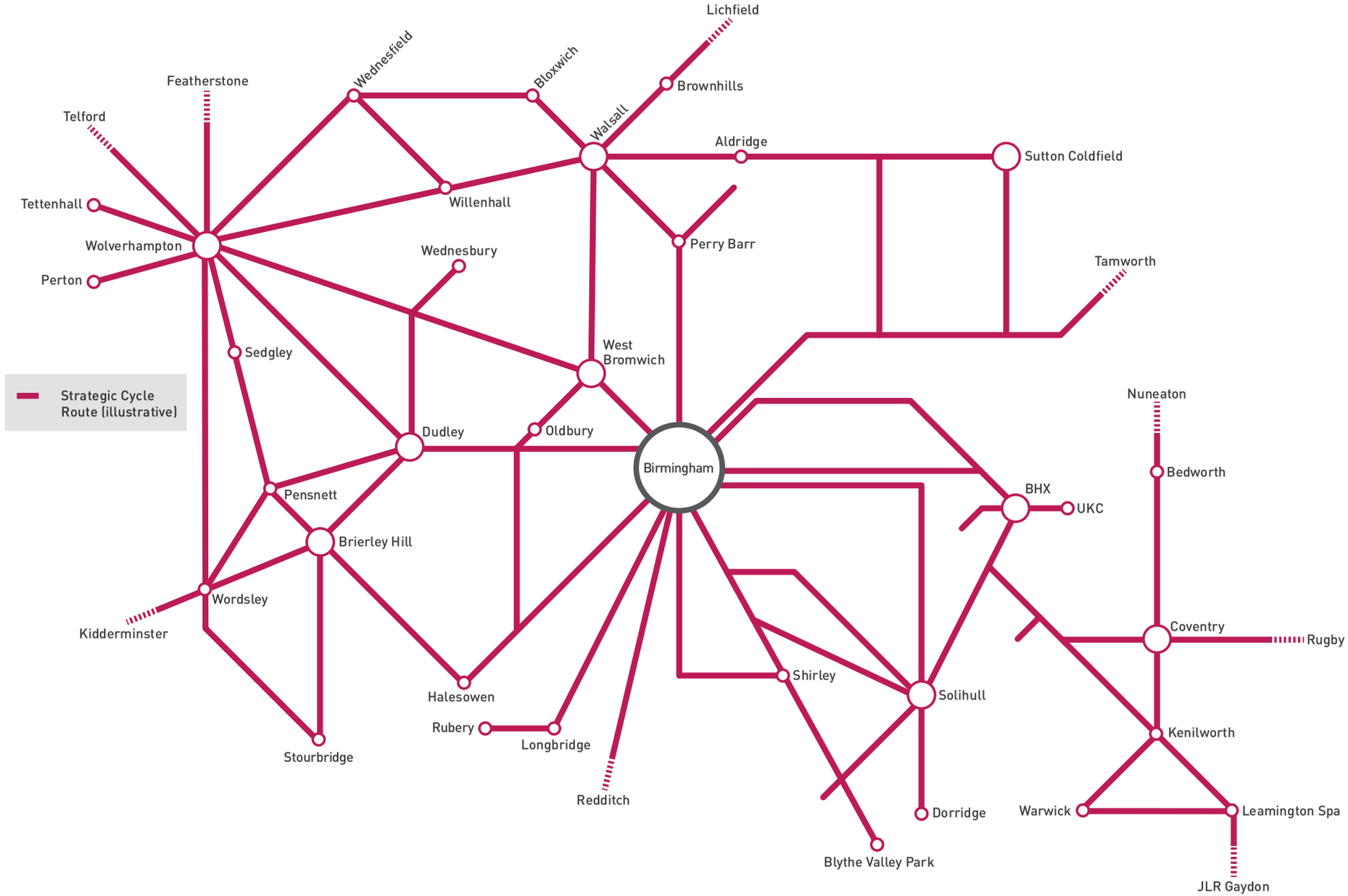
4.55 The strategic routes in this network will be designed in accordance with well- respected design guidelines such as the Welsh Government's Active Travel Design Guidance and will include a cycle route audit tool. The strategic routes will be designed to ensure cycle journey times on the routes are competitive to those on main roads and we will seek a peer review of our initial routes by internationally acclaimed Dutch or Danish colleagues. Implementation will be through work delivering the West Midlands Cycle Charter. An illustration of how the Metropolitan Cycle Network could look is shown in figure 4.8. As part of the agreed West Midlands Cycle Charter, the WMCA and local authorities will make the economic case for investment in cycling in both local prioritisation of investment and delivery, and in securing funding from national and local partners.

4.56 A prioritisation process for the metropolitan area's infrastructure needs is currently being developed as part of work for a Combined Authority. This will lead to a definitive set of priorities for these metropolitan networks in line with an agreed prioritisation process. Pending this process, provisional key main transport priorities are shown in the box below:

Key Transport Priorities for the Metropolitan Tier include:

- HS2 Connectivity Programme
- Metropolitan Main Road Network ("Key Route Network") Pinchpoint Junction Improvements
- Priority Links in the Metropolitan Cycle Network

Figure 4.8: Draft Metropolitan Cycle Network



Local Tier

4.57 38% of all journeys in the UK are under 2 miles. 41% of journeys under 2 miles in the West Midlands are by car. 67% of UK journeys are under 5 miles, of which 55% are by car. There is therefore great scope for a substantially increased role for walking, cycling and public transport to provide the West Midlands with sustainable, effective local accessibility.

4.58 The West Midlands will ensure that local journeys are targeted for transfer from car use to sustainable travel, particularly in congested conditions. This does, however recognise the vital role that car use has for people with disabilities where other modes are not a feasible alternative for travel. Smarter choice initiatives have an important role to play in the approach. Walking has a key role for journeys up to 1 mile whilst cycling is a viable choice for many people for journeys up to 5 miles. Improvements to cycle –public transport integration support longer journeys. These improvements include increased secure cycle parking at interchanges and park and ride sites, high quality local feeder cycle routes to rail stations, cycle-hubs, cycle hire schemes and the carriage of bikes on rail service. The experience of cities such as Dresden, which allows carriage of bikes without restriction on trams, will be considered further for Metro services.

4.59 The local tier is made up of all local highways, local cycle routes, footways/paths and local bus provision. Taxis and private hire vehicles also provide local accessibility for interchange and for direct local trips.

4.60 Canals play a significant role in the environment of the West Midlands; contributing to attractive suburban, district and main centres and have a role for local trips by providing a focus for regeneration and providing attractive walk and cycle routes on well maintained towpaths.

4.61 There is a need for this tier to bring the asset condition across the West Midlands to a decent modern standard for all highway and footway infrastructure, improve road safety and encourage walking and safer cycling in attractive local street environments and on comprehensive local cycle networks.

4.62 Area wide residential road 20 mph limits will be promoted to support these aims, building on the experience of implementation in the city of Birmingham and use of 20 mph zones in other Districts. International research on the reduced amount of changing gear and less fuel use will be considered fully for air quality and carbon emission impacts

4.63 Suburban and District Centres will be subject to environmental improvements to help create attractive and viable local centres with a high quality public realm and good community safety. The role of Green Travel Districts will be supported to realise these aims.

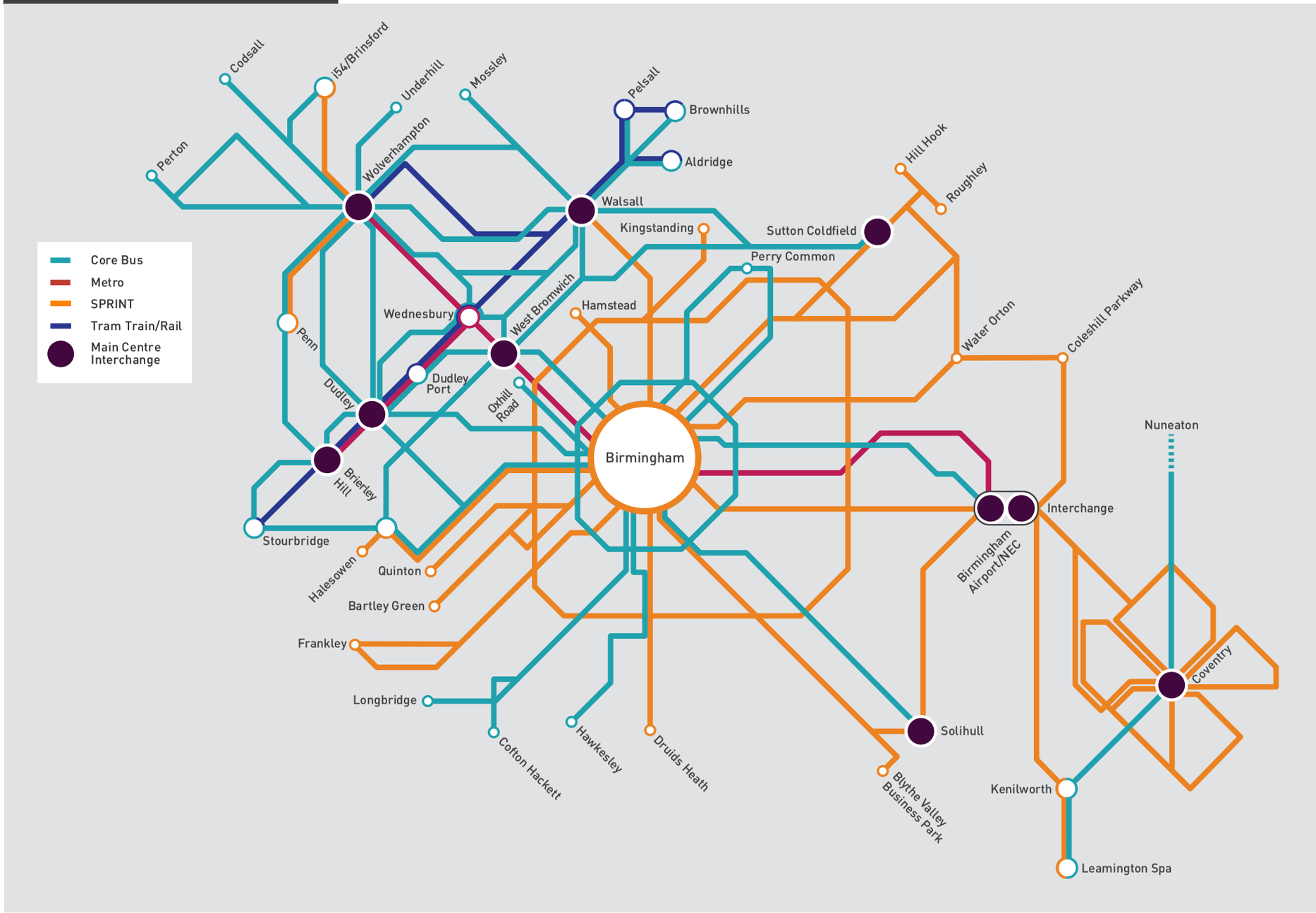
4.64 An important element of this will be a programme of Key Walking Routes in each District based on best practice.

4.65 The main features of Key Walking Routes are:

- Widened and repaved footways
- New and improved pedestrian crossings
- Improved accessibility through step-free access
- Removal of obsolete signs, poles, columns and railings
- Trees and planting to green streets
- Seating
- Removal of hiding spaces and blind corners
- Signing
- Street lighting for pedestrians
- Shared space

4.66 Rights of Way Improvement Plans need to be updated every ten years and form an important element of promoting the role of walking in the West Midlands.

Figure 4.9: Core Bus Network Map



Local Bus

4.67 Buses play a vital role in comprehensive public transport provision in the West Midlands. Local bus networks, and supporting accessible transport services, provide access to local suburban and district centres and to main centres, where superb interchanges will be provided for onward connections across the metropolitan area. They also ensure that doctor's surgeries, hospitals and other local amenities have decent public transport accessibility for sites not served by rail and rapid transit.

4.68 Accessible transport services include Ring and Ride and community transport services. Accessible transport will continue to perform an essential service for people who find it difficult to use conventional public transport due to ill health and/or a disability. It also has a role for serving demand from low demand areas and for specialised travel demand patterns from socially excluded groups.

4.69 Customer-focused improvements will be made to ensure local bus networks serve evolving travel demands and patterns with accessible, affordable, comfortable, safe and reliable services. High levels of customer care are essential for a decent bus service for the West Midlands.

4.70 The majority of bus journeys are made on a core, high frequency network which is shown in figure 4.9. Traffic management measures on the metropolitan main road network ("Key Route Network") and local roads will support the delivery of reliable bus services, with end to end average speeds of at least 16 km per hour in peak hours.

4.71 Whilst the metropolitan area is predominantly urban, there are rural areas with particular needs, such as the Rural East area of Solihull Borough. Here the local tier must improve cycle connectivity between villages, provide adequate public transport to meet lower population density demands, reduce the impact of traffic and speeds in villages and ensure there is sufficient capacity at rail station park and ride facilities.

Powered Two Wheelers (PTWers)

4.72 The benefits that use of motorcycles and mopeds have for our nine objectives are recognised. This is particularly related to where low emission PTWers can be used as a low cost means of travel for journeys to services, employment and education where other alternatives to the car aren't practical options. In efforts to ensure this contribution of powered two-wheelers, the West Midlands will work towards improving the safety of PTWers with activity to reduce speed related collisions, reduce right turning vehicle collisions, increase compliance with the rules of the road, increase the use of personal protective equipment by motorcyclists and improve motorcyclist skill and riding behaviour.

4.73 These safety initiatives will supplement initiatives to facilitate motorcycling as a choice of travel within a safe and sustainable transport framework. These include provision of more, secure parking for PTWers, allowing PTWers in bus lanes, as is the case in Birmingham and London, and ensuring traffic management scheme design takes into account the requirements of PTWers. Measures to improve conditions for cycling need to be mindful of any potential adverse impacts on PTWers

Key Transport Priorities for the Local Tier Include:

- Improved asset management of minor roads
- Local Cycle Network Development
- Key Walking Routes
- Area wide residential road 20 mph speed limits
- Smarter Choice Initiatives
- Local Bus Network Improvements

Smart Mobility Tier

Smart Mobility is all about using technology effectively to provide better traffic management and related information on travel choices using an integrated range of options for travel using different types of transport. It is also about making vehicles safer and greener by working towards zero emissions from all vehicles. Smart mobility is characterised by:

- Understanding the needs, and ever changing demands and expectations of people and businesses over how they wish to get to what they want to get to;
- The exploitation of data;
- Making the most of advances in technology in areas such as the Internet of Things, sensors and autonomous systems;
- Transport networks operating freely and reliably at optimal capacity with seamless interchange;
- A vibrant commercial market that encourages business innovation and can learn from experience beyond the transport world; and
- Providing information which allows people to make informed decisions about their travel choices.

4.75 Smart mobility is integral to making the most of the other three tiers of the transport system set out in this strategy. The West Midlands is well placed to be a world leader in innovation and research in this field, with its rich network of vehicle manufacturing and engineering with companies such as JLR, BMW and Horbia-MIRA and its internationally reknowned universities. We will seek to maximise this role for the West Midlands and ensure that implementation of measures here closely follows this research, development and innovation. This is line with the following vision for smart mobility:

> “The West Midlands will have an effective and well used intelligent mobility solution which supports integrated travel across all means of transport. People and businesses will be enabled and incentivised to make cost effective, informed and sustainable travel choices using ‘live’ travel information and seamless payment systems which span multiple modes.
>
> We will work with others to ensure that developments in technology and innovation are encouraged and harnessed effectively to ensure the best practicable level of service can be provided.
>
> We will have a coordinated approach to responding to the challenges of air quality targets through effective management of road traffic, innovation in vehicle and road infrastructure technology that supports efficient mobility”

4.76 The following objectives are expected to be achieved in line with this vision:

- Increased availability and knowledge of viable travel choices with reduced dependency on car ownership;
- Sub 2 mile journeys by car should no longer feel necessary for many;
- Active lifestyles will be made more accessible;
- The network will operate more efficiently and effectively to optimise capacity with lower environmental impacts;
- Significantly reduced air quality impacts from transport, including reduced direct emissions from vehicles.
- Reducing the cost of travel
- In delivering these objectives the following principles will be fundamental;
    - Intelligent systems will be applied to provide relevant, personalised and incentivised information on available travel choices and
    - Open Data principles will be universally adopted to ensure the market can react, adapt and develop those tools through new business models.
    - Solutions we will offer will be accessible and meet key accessibility standards

4.77 Smart payment systems, will build on the recent advances made with the West Midlands’ Pay as You Go Swiftcard for easy, hassle-free payment for travel and work towards creation of a personal mobility platform. This is part of wider detailed work being undertaken in the West Midlands to develop intelligent mobility and explore the concept of “Mobility as a Service”.

4.78 The role of smart technology will be invaluable in reducing emissions from vehicles, particularly related to any introduction of Clean Air Zones in the West Midlands.:

4.79 The ongoing importance of effective Urban Traffic Control linked traffic signals is an important element of the West Midlands smart mobility approach, ensuring traffic light signalling is responsive and coordinated to make best use of highway capacity.

4.80 The potential of smart mobility for "the last mile" logistics delivery will also be fully explored so that cost effective delivery is in harmony with making best use of existing transport capacity and reducing transport emissions. This is line with Birmingham City Council's strategy for servicing and logistics of "the 4 R's": re-timing, remoding, re-routing and reducing deliveries, related to Green Travel District development.

Road Safety

4.81 The future of road safety is also critical. The prospect of driverless vehicles brings great opportunities for new ways of mobility in the West Midlands, alongside issues to be addressed as part of a wider new road safety strategy. A fresh look at road safety will be performed in the West Midlands, on the basis of seeking a reduction of at least 40% in the number of killed and seriously injured road traffic accidents within ten years from a 2015 base, whilst increasing the amount of cycling and walking in the metropolitan area. This is in line with European Union targets for reducing road safety fatalities by half over a ten year period. This new road safety strategy will also consider ways to improve the safety of powered two-wheelers, child pedestrians, young drivers and communities most affected by road safety.

4.82 The new road safety strategy will be mindful of current West Midlands forecasts of a 40% reduction in Killed and Serious Injury casualties by 2020 from a 2005-2009 average.

Key Transport Priorities for the Smart Mobility Tier Include:

- Measures to improve traffic management
- Development of a Personal Mobility Platform that supports an integrated journey planning, navigation, and payment system across all modes
- A new road safety strategy.

Supporting operational, revenue and policy measures

Asset Management

4.83 Effective asset management is essential to ensure all existing assets, and new assets being brought on-stream, remain fit for purpose, and resilient to the potential impacts of climate change.

4.84 Properly funded, effective maintenance of highways, footways and structures underpins the whole transport system.

4.85 A successful economy creates economic activity which will have impacts on our highway network which unless proactively managed will create delays as road works occur. The West Midlands have historically worked together successfully on highway maintenance, sharing best practice, deploying joint procurement and crucially working together to develop asset management plans.

4.86 The strategic approach for asset management in the West Midlands is to ensure robust monitoring and assessment of our transport assets to allow effective and proactive asset management. This allows programme asset management to occur at the correct point to maximise the life of our assets in a cost effective way. Recognising wider policy issues, we will continually explore opportunities for lower carbon intensive materials, efficient procurement opportunities through joint frameworks and more effective ways of delivering schemes, minimising closures and diversions. All of these help increase efficiency and reduce costs and economic impacts of asset management.

4.87 In 2015, the West Midlands was awarded £39.9m from the Government as a major contribution towards our Highway Network Renewal Programme which will mean by the end of the programme in 2021 we will have restored the majority of our main highways to a steady state of condition. This will allow the West Midlands to continue towards delivering effective and proactive asset management plans.

Revenue based operations, supporting policies and parking policy

4.88 To make best use of existing and new transport capacity requires effective enforcement of traffic regulations, including parking restrictions, bus lane enforcement and use of powers to enforce other moving traffic offences.

4.89 There will need to be a more coordinated metropolitan parking strategy, led by the new Combined Authority. This will consider how parking pricing and provision can support the objectives of this transport strategy, mindful of the relationship with delivery of improvements to public transport, cycling and walking. It will also need to consider parking standards in new development in relation to levels of public transport accessibility and walking and cycling provision.

4.90 The metropolitan parking strategy will need to balance the role of car access to centres to support economic vitality, whilst promoting the use of public transport cycling and walking. This is to ensure that private car volumes are not at such levels where the dominance of the car detracts from the quality of the environment of our centres.

Smarter Choices

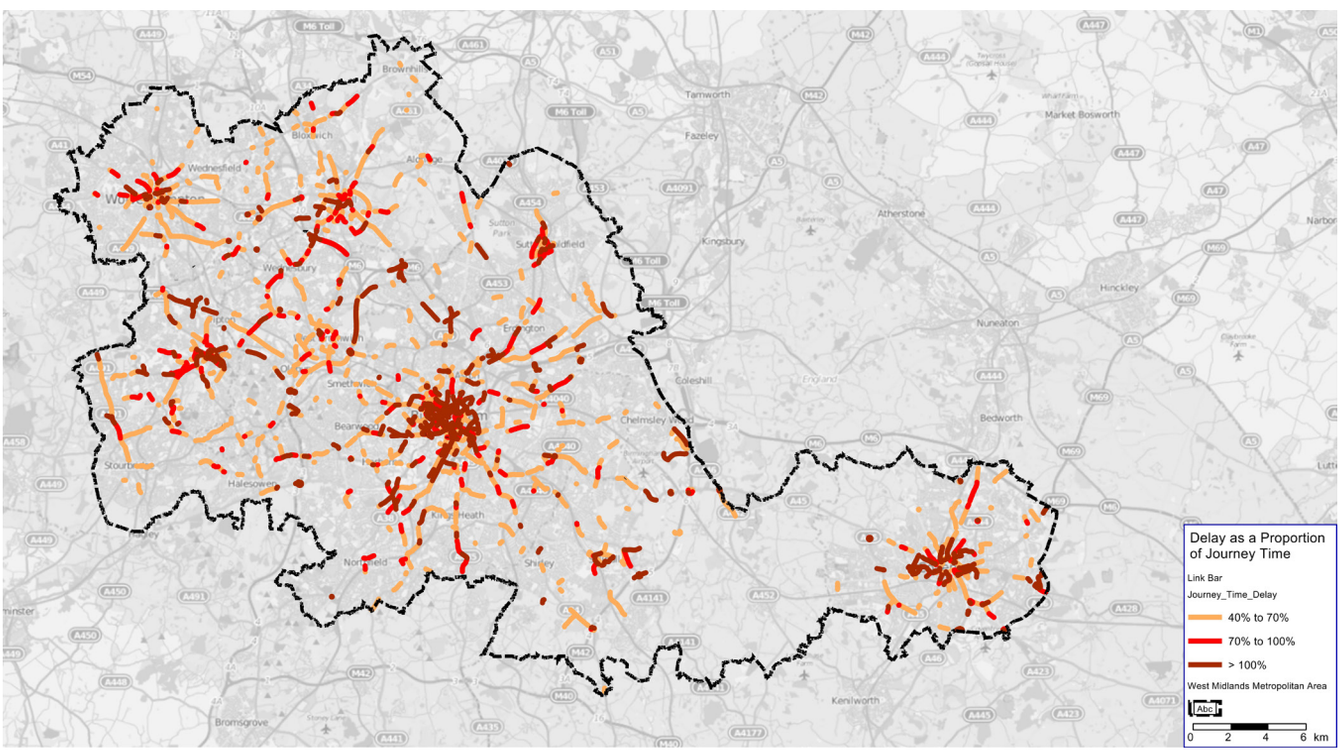
4.91 Making best use of transport capacity also requires a supporting comprehensive set of smarter choice measures. Extensive workplace travel plan coverage in the metropolitan area is a cornerstone if this approach, based on the evidence of modal shift from car to public transport, cycling and walking, as part of the successful "Smart Network, Smarter Choices" programme.

4.92 Other smarter choice measures we will deploy include school travel plans, engagement with other educational establishments and healthcare sites, personalised travel planning, travel awareness campaigns, public transport marketing, a coordinated West Midlands approach to car clubs and car sharing schemes.

Benefits Of Our Approach

5.1 1 Our approach is supported by evidence which shows that a "Business as Usual" strategy would lead to economic development being severely hindered with significantly worse congestion across the West Midlands. In addition, there would be serious air quality issues persisting from transport –derived nitrogen oxide pollutants, and continued carbon emissions at a rate exceeding that required for national obligations.

5.2 Congestion forecast for 2031 with a "business as usual approach" is shown below in figure 4.10:



5.3 A long term programme of schemes and measures in line with our strategy counters these trends and provides a positive future with an effective transport system. Using the conservative WebTAG approach to estimate wider economic benefits, the £1.6 bn HS2 Connectivity Programme alone gives an estimated annual GVA uplift of £240m. This approach does not factor in all economic benefits so the total scale of the benefits of this programme is much higher. The wider overall urban transport programme of the strategy will increase this figure significantly further.

Delivery Of Our Approach – a ten year delivery plan

6.1 This Strategic Transport Plan sets out the long term approach to guide a comprehensive set of transport improvements over a 20 year period. These transport improvements will be delivered by a number of organisations, through a number of programmes and packages.

Developing a 10 Year Delivery Plan

6.2 Transport investment will be need to be planned, developed and delivered across the West Midlands as part of an integrated package to address the economic, social and environmental challenges faced. Delivery of schemes will need to be co-ordinated with investment programme of Highways England

and Network Rail in order to ensure a co-ordinated approach which maximises outcomes and minimises disruption during construction. Building a robust evidence base is the first step in addressing these challenges. Significant work has been undertaken on developing this evidence base by the Strategic Transport Plan and has been supported through the use of the Policy Responsive Integrated Strategy Model (PRISM). This has been used to determine where transport interventions are now and where they will need to be in the future as a consequence of growth and changing travel patterns. Using this evidence base, high level priorities across the four tiers of the transport system have been identified.

6.3 The 10 Year Delivery Plan (10YDP) will take the high level priorities and provide detail on the key transport interventions required across the Metropolitan Area. The plan will build on the initial strategy-led work from the Strategic Transport Plan and set out the transport schemes and programmes required for the four tiers up to 2026. There is already a foundation for developing the 10YDP through existing work on the HS2 Connectivity Package, LEP pipeline schemes, the Combined Authority infrastructure workstream and the emerging technical workstreams for Midlands Connect. The development of the 10YDP will draw on the following information and processes to ensure the provision of a robust and realistic delivery plan:

Development

- Scheme details
- Transport planning analysis
- Schedule development
- Prioritisation framework
- Economic impact analysis

Implementation

- Statutory processes and permissions
- Construction timescales
- Delivery mechanism
- Risk analysis

Resources

- Funding analysis
- Resource availability

6.4 Using the information above, the 10YDP will show the phasing and scheduling of transport schemes commencing from 2016. The 10YDP will take a balanced view recognising that although there is a need to deliver transport schemes that respond to economic priorities in the short term, there is also a need to consider the future transport needs and the economic performance of the Metropolitan Area in the future.

6.5 A key driver to the 10YDP will be the availability of funding. The proposed West Midlands Combined Authority Devolution Agreement sets out a transformational level of investment over the next ten years and is considered in Section 7.

Next Steps

6.6 Work is progressing on developing the 10YDP in conjunction with West Midlands Local Authorities, WMCA and the Local Enterprise Partnerships and will continue to evolve alongside the formation of the West Midlands Combined Authority. The 10YDP will be finalised in 2016 and will form a key part of the West Midlands Combined Authority's transport workplan.

How We Will Fund Our Approach

7.1 Achieving the economic, environmental and social benefits of our approach requires a long term local transport infrastructure programme with supporting revenue based packages. An indicative, twenty year capital programme assembled with Districts and WMCA will cost in the order of £5bn. When this is combined with ongoing minor works and maintenance/asset management programmes, including those for structures, the total capital sum required to achieve our vision is in the order of £6.5 bn. This broadly equates to an average of £330m per annum for twenty years.

7.2 Major local transport schemes are largely currently funded from Local Growth Deals for Local Enterprise Partnerships (LEPs). The 3 LEPs covering the metropolitan area were successful in their following local growth deal settlements in 2014 for funding to boost economic development, including transport projects. This funding is upto 2020/21:

- Greater Birmingham & Solihull LEP - £357million
- Black Country LEP - £138million
- Coventry & Warwickshire LEP - £74million

7.3 A further sum of £61m of Local Growth Fund was added to these awards to the 3 LEPs in 2015.

7.4 The proposed West Midlands Combined Authority Devolution Agreement sets out £5bn of transport investment over ten years as part of an overall £8bn ten year Combined Authority Investment Plan. This proposed agreement covers a new £36.5m per year revenue stream for 30 years from the Government, which the West Midlands can borrow against for up-front investment. This is part of a new overall investment plan for the Combined Authority which will also include existing commited capital investment, devolved funding streams, including those for local transport , private sector investment, and locally generated funds. These locally generated funds will include, for example, business rate retention, expanded and new enterprise zones and prudential borrowing. It also includes £97m of Government funding of the metro extension in central Birmingham to Adderley Street.

7.5 Other sources of funding will need to include Network Rail, in line with the West Midlands and Chilterns Route Study and Midlands Connect initiatives. This will be critical in developing suburban rail elements of our long term rail and rapid transit network. Highways England Strategic Highway Network programmes will also need national investment.

7.6 Recognising the benefits of the long term programme for European Union policy, funding will be sought from European Union funding streams related to sustainable urban mobility.

7.7 The step change in investment, as set out in the proposed Devolution Agreement, will see increases in year on year expenditure as momentum gathers; committed schemes are delivered to time and budget; and incremental delivery provides tangible evidence of real progress on the ground.

How We'll Know We've Succeeded

8.1 Progress will be measured to gauge how well we are doing against the vision of an effective, sustainable transport system supporting economic development and a decent quality of life for all.

8.2 A monitoring framework will be devised with established baseline figures to measure:

- Scheme delivery, to time and to budget
- Changes of the performance of the transport system arising from these schemes, eg reliability of freight vehicles on key links, bus route reliability, bus and rapid transit average AM peak speeds, asset condition and public transport accessibility to destinations within 45 minutes.
- Changes to perceptions and usage arising from these changes – mode share by mode for all journeys and for journeys to main centres, volumes of journeys by mode and customer satisfaction by mode.
- Changes to outcomes related to transport improvements – general GVA and jobs monitoring, transport emissions of oxides of nitrogen, carbon emissions from transport, number and severity of road traffic accidents, and reductions in transport poverty and exclusion.

8.3 The full list of proposed indicators is contained in appendix 2. Our long term strategy will see a shift in emphasis of travel in line with prosperous large European city regions where car use accounts for typically 35 to 45% of all journeys, compared to 63% in the West Midlands Metropolitan Area. Our Cycle Charter sets a specific target of 10% of all journeys to be made by bike in the West Midlands Metropolitan Area by 2033, from a baseline of 1%.

8.4 Monitoring will be used to influence future strategy and plans and benchmark the West Midlands Metropolitan Area against its global competitors.

Concluding Remarks

9.1 The West Midlands has set out a new vision and coherent long term approach to fund and deliver a transport system to achieve this vision. Large schemes and attention to detail of smaller scale aspects are both vital in delivering this vision.

9.2 This transport system is a means to the noble end of helping create a wealthier, happier, cleaner and safer West Midlands Metropolitan Area: it is now time for its delivery.

Appendix One: Policies to Meet the Objectives

Economic Growth and Economic Inclusion

Policy 1 To accommodate increased travel demand by existing transport capacity and new sustainable transport capacity;

Policy 2 To use existing transport capacity more effectively to provide greater reliability and average speed for the movement of people and goods;

Policy 3 To maintain existing transport capacity more effectively to provide greater resilience and greater reliability for the movement of people and goods.

Policy 4 To improve connections to new economic development locations to help them flourish, primarily through sustainable transport connections

Policy 5 To help make economic centres attractive places where people wish to be;

Policy 6 To improve connections to areas of deprivation; and

Policy 7 To ensure the affordability of public transport for people accessing skills and entering employment.

Population Growth and Housing Development

Policy 8 To improve connections to new housing development locations to help them flourish, primarily through sustainable transport connections.

Environment

Policy 9 To significantly improve the quality of the natural and historic environment and create attractive local environments ; and

Policy10 To help tackle climate change by ensuring a large decrease in greenhouse gases from the West Midlands Metropolitan Area's transport system

Public Health

Policy 11 To significantly increase the amount of active travel in the West Midlands Metropolitan Area;

Policy 12 To significantly reduce road traffic casualty numbers and severity; and.

Policy 13 To assist with the reduction of health inequalities in the West Midlands Metropolitan Area.

Social Well-Being

Policy 14 To increase the accessibility of shops, services and other desired destinations for socially excluded people; and

Policy 15 TTo ensure the affordability of public transport for socially excluded people through concessionary travel schemes for groups such as elderly people and disabled people.

Appendix Two: Proposed Monitoring Indicators

A performance monitoring process with annual progress reports will be established, based on the following monitoring indicators and a baseline data set

Performance of the Transport System

P1 Journey time reliability for goods vehicles on the metropolitan main road ("Key Route") network;

P2 Reliability of bus services operating between 1 minute early and 5 minutes late on the metropolitan main road ("Key Route") network;

P4 Average commercial speed of key bus services AM Peak on the metropolitan main road ("Key Route") network;

P5 Percentage of residents of the Metropolitan Area with 3 or more strategic centres in the Metropolitan Area, including Birmingham city centre, accessible by public transport within 45 minutes travel time in the am peak;

P6 AM peak journey speeds on the metropolitan main road ("Key Route") network;

P7 AM peak total delay time (AM Peak journey time compared to free flow journey time) on the metropolitan main road ("Key Route") network; and

P8 Condition of metropolitan main road ("Key Route") network roads

Customer Satisfaction, Travel Demand and Modal Share

C1 Overall Customer Satisfaction with Bus Services;

C2 Overall Customer Satisfaction with SPRINT services;

C3 Overall Customer Satisfaction with Metro services;

C4 Overall Customer Satisfaction with Rail services;

C5 Overall Customer Satisfaction with travel by bike;

C6 Overall Customer Satisfaction with travel by foot;

C7 Overall Customer Satisfaction with travel by car;

C8 Overall Customer Satisfaction with travel by powered two wheelers;

C9 Car ownership per 1000 population;

C10 Number of journeys by public transport per person per annum;

C11Modal share of all journeys : public transport , cycling ,walking, car, other. Cycle Charter Target of an increase in cycle mode share to 5% all trips by 2023 and 10% of all trips by 2033;

C12 Mode share of am peak journeys to the strategic centres; and

C13 Mode share of journeys to work, including home working.

Economic, Housing, Environmental , Public Health and Social Outcomes/General Monitoring

E1 GVA per person , metropolitan area;

E2 Unemployment rate, metropolitan area;

E3 Number of new dwellings built per annum, metropolitan area;

E4 Nitrogen dioxide levels in Air Quality Management Areas;

E5 CO2 emissions per person from transport per annum;

E6 Number of Killed and Seriously Injured Casualties;

E7 Killed and Seriously Injured Casualty Rate by mode per 100,000 km travelled;

E8 Number of recorded crime incidents on public transport; and

E9Life Expectancy Inequality between the most and least deprived areas of the West Midlands Metropolitan Area.

In addition to these, a number of further performance indicators to be reported every three years are proposed , in light of the Strategic Environmental Assessment:

1. Amount of new habitat creation/enhanced as part of transport schemes;

2.Amount of high value ecological or geological land lost as a result of transport infrastructure;

3.Number of green infrastructure developments approved/created as part of transport schemes;

4. Quantity of priority habitat receiving further fragmentation or isolation from new transport schemes;

5. Soils Area of ALC BMV land lost as a direct and indirect result of new transportation schemes;

6. Number of designated and non-designated heritage assets harmed by transport schemes/policies , including their impacts on settings;

7. Area of historic landscape characterization type which have changed as a result of the strategic transport plan;

8. Number of SuDS schemes delivered in transport schemes; and

9. Number of major water quality incidents from transport reported to the Environment Agency (annual monitoring).

Appendix 3: Transport Development Principles

In light of the Strategic Environmental Assessment of the draft strategic transport plan, a set of transport development principles has been devised, to guide future transport planning and development to help provide environmental protection and enhancement through transport delivery. These transport development principles are shown below and will need to be considered as transport schemes are progressed:

Transport strategies and schemes should seek to:

- reduce noise nuisance from the transport network;
- incorporate SuDS into transport schemes;
- use high quality, durable materials such as permeable paving, materials with recycled content;
- maximise opportunities for green infrastructure and habitat creation/enhancement including creation of urban gardens, tree planting, use of bat and bird nest boxes, and links to other green networks;
- reduce run-off rates back to greenfield rates;
- schedule maintenance activities during off-peak periods;
- protect the natural and historic environment including heritage, designated and local wildlife sites, protected species, landscape, water quality, soil quality, and air quality;
- provide opportunities for increased access to heritage assets and the natural environment;
- record and preserve archaeological finds;
- "future proof" infrastructure in response to the unavoidable effects of climate change;
- use low carbon infrastructure and technologies;
- reduce transport emissions through utilising capacity of existing assets and improving public transport;
- maximise use of sustainable transport modes rather than private car;
- re-use or recycle excavated and waste materials;
- maximise use of brownfield land and bioremediation;
- avoid increasing flood risk and contribute to flood defences as appropriate;
- maximise opportunities to provide an attractive and safe environment through measures such as routing cycle and footpaths through attractive green areas or by watercourses; and
- respect and seek to enhance the character,and local distinctiveness of urban and rural areas.

Appendix 4: Glossary

The following pages contain definitions and explanations of various words, phrases and acronyms used in the Strategic Transport Plan

Air Quality Action Plan

An Action Plan drawn up by the relevant local authority to deal with poor air quality in an AQMA.

Air Quality Management Area (AQMA)

An area, designated by the relevant local authority, within which national standards for at least one of a number of pollutants, including NO2 gaseous and PM10 particulate emissions, are currently exceeded or are forecast to be exceeded in the foreseeable future. Declaration leads to the development and adoption of an Air Quality Action Plan.

Benefit Cost Ratio (BCR)

An indicator used as part of the business case for transport schemes. The benefits are derived using monetarised values from the Department for Transport's WEB tag transport appraisal guidance.

Benchmarking

The use of performance indicators and other metrics to compare one authority's performance to another, especially in groups of authorities with similar characteristics (profiles).

Bus Rapid Transit (BRT)

Bus Rapid Transit is an approach to bus provision based on emulating the characteristics of successful urban rail services: higher service speeds, extensive priority measures, high frequency, less frequent stopping, stops more like tram stops, off-board ticketing and new-look vehicles. The West Midlands BRT network is known as SPRINT.

Capital Expenditure (Cap Ex)

In the context of this plan, Cap Ex covers expenditure on new roads, railways, Midland Metro, SPRINT as well as asset management expenditure.

Cabinet

A way of running local authorities based on the Westminster model of cabinet government. Specific councillors take responsibility for a portfolio of local authority services and/or duties, for example - environment and/or transport. The portfolio holders make up the authority's cabinet.

Carbon Footprint

A carbon footprint is a measure of the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product. It takes into account the six „Kyoto Protocol greenhouse gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. A carbon footprint is measured in tonnes of carbon dioxide (CO2) equivalent. The transport sector accounts for around a quarter of all CO2 emissions, not including emissions from international aviation and shipping.

Chord

A term used by the railway industry to describe a section of railway line that makes a junction with two other lines, often grade separated.

Civil Parking Enforcement

A statutory arrangement that transfers the enforcement of parking offences, including waiting on 'yellow lines' and in contravention of loading restrictions, from the police to the local highway authority.

CO2

Carbon dioxide. A product of burning fossil fuels and, thus, a motorised transport-related pollutant that is important with regard to climate change. Also see: Carbon Footprint (above).

Combined Authority

A combined authority is a type of local government institution introduced in England outside Greater London by the Local Democracy, Economic Development and Construction Act 2009.

Control Period

This is a term, used by Network Rail, to put a timescale to their investment plans. Control Period 5 covers 2014/15 until 2018/19. Further Control Periods are planned for five year periods thereafter.

Demand Responsive Transport (DRT)

This is a bus or, more often, a minibus service that varies its route in response to pre-arranged customer demands. WMSNT's Ring and Ride service is an example.

Department for Communities & Local Government (DCLG)

DCLG is the Government department responsible for building regulations, community cohesion, decentralisation, fire services and community resilience, housing, local government, planning, and urban regeneration

Department for Transport (DfT)

The Government department responsible for national transport issues and managing most finance for local transport expenditure.

Equality Act

The Equality Act 2010 brought together and replaced previous equality legislation such as the Disability Discrimination Act 1995 (DDA). The Act protects people from discrimination on the grounds covered by previous equality laws. The Act requires public bodies to promote equality of opportunity for the nine different protected characteristics and make reasonable adjustments for disabled people to ensure they can access services and facilities. It also allows the Government to set minimum standards so that disabled people can use public transport easily.

EU

The European Union

FQP

Freight Quality Partnership. A partnership between the Metropolitan Authorities, commercial freight operators and other interested organisations, to promote efficient and effective distribution of freight movement in the Metropolitan Area.

FTA

The Freight Transport Association is a trade association representing the transport interests of companies moving goods by road, rail, sea and air.

Gross Value Added (GVA)

GVA is an economic measure of the value of goods and services produced in an area, industry or sector. It is an important measure in the estimation of the national Gross Domestic Product (GDP) which is a key indicator of the state of the whole economy. Briefly, the relationship between GVA and GP can be expressed thus: GVA + taxes on products - subsidies on products = GDP

Heavy Goods Vehicle (HGV)

A vehicle constructed or adapted to haul or carry goods that result in a gross total weight exceeding 7.5 tonnes.

Heavy Rail

A term used for the conventional railway system to distinguish it from light rail or tram systems. The heavy rail system is operated by Network Rail and serves inter-urban and local passenger needs and carries freight traffic.

High Level Output Specification (HLOS)

This sets out what level of railway services the Government wished the rail industry to deliver over a defined period.

Highways England (HE)

The organisation responsible for operating a safe, reliable and efficient motorway and trunk road network across England. The HE network in or around the West Midlands Metropolitan Area comprises the M54, M5, M6, M40, M69 and M42 motorways as well as the A5, A46 and A38 trunk roads.

HS2

High Speed Two (HS2) is the name of the high-speed railway line between London and the West Midlands, as a first phase, with subsequent extensions to Manchester and the Northwest and to Leeds via the East Midlands. The West Midlands will have Curzon Street station in Birmingham city centre and Birmingham Interchange Station adjacent to Birmingham Airport/ NEC. Full construction will commence from 2017.

ITA's Transport Delivery Committee (TDC)

Comprises 19 local authority members who oversee the delivery and operation on transport services and infrastructure on behalf of the WMCA.

Integrated Transport Block

This is the funding allocated by Government for minor capital transport schemes costing less than £5 million (each).

Intelligent Mobility

The use of technology, data and innovative applications to support people moving around our area in an efficient, smart and safe manner in order to maximise our transport networks. This covers all modes and trip types.

Local Highway Authority

The county, unitary or metropolitan borough council responsible for all highway operation and assets in their area that are not the responsibility of Highways England.

Local Enterprise Partnerships (LEPs)

The West Midlands metropolitan area has three LEPs: Black Country, Greater Birmingham & Solihull and; Coventry & Warwickshire. Their focus is on driving economic growth and strengthening local economies. They are responsible for Growth Strategies and Strategic Economic Plans.

Local Planning Authority

The district or unitary council that receives applications for planning permission for development and grants or refuses them. They also produce development plans that are designed to guide the development process. In the Metropolitan Area, planning is a function of the Metropolitan Borough Councils.

Local Sustainable Transport Fund (LSTF)

The West Midlands has a £50M LSTF programme known as Smart Network, Smarter Choices. The programme focuses on transport interventions that support economic growth and reduce carbon across the West Midlands as well as delivering cleaner environments and improved air quality, enhanced safety and reduced congestion.

M6 Toll

The M6 Toll is a 27-mile motorway and is owned by Midland Expressway Ltd

Major Schemes

Capital projects that cost in excess of £5 million. Since 2014 they are funded through the Local Growth Fund and programme managed by the relevant LEP who also monitor the schemes and delivery.

Metropolitan Area

This phrase is used throughout the LTP to describe the combined area of the seven Metropolitan Authorities of Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton.

MSBC

Major Scheme Business Case. This sets out the costs and benefits of the proposal and is required, by the DfT, to justify the need for Major Scheme funding.

NEC

The National Exhibition Centre, which is located adjacent to Birmingham Airport and the M42 motorway.

Network Management Duty

This is a duty, arising from the Traffic Management Act, 2004, requiring local highway authorities to designate a Traffic Manager whose task it is to manage the authority's road network with a view to achieving, so far as may be reasonably practicable, having regard to their other obligations, policies and objectives, the following objectives:

a. Securing the expeditious movement of traffic on the authority's road network; and

b. Facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority.

Actions to fulfil this duty include, in particular, actions to secure:

i. The more efficient use of their road network; or

ii. The avoidance, elimination or reduction of road congestion or other disruption to the movement of traffic on their road network or a road network for which another authority is the traffic authority;

In this context, 'traffic' includes pedestrians.

Network Rail

This not-for-profit making company who own the UKs track and railway infrastructure and are responsible for the operation and maintenance of track, signalling and a limited number of major stations including Birmingham New Street Station.

Network West Midlands

Network West Midlands is the single brand name for all local public transport services in the Metropolitan Area, providing a single identity for the complete network of bus, rail and Metro services. The branding is used at some railway stations in the Metropolitan Areas Travel-to-Work Area.

NO2

Nitrogen Dioxide, a gaseous pollutant caused by motor vehicles.

ORRR

The Office of Rail and Road Regulation: the independent safety and economic regulator for Britain's railways and strategic highways.

P&R

Park & Ride. A facility providing parking for cars, powered two-wheelers and cycles that provides easy interchange on to a public transport service.

Personal Mobility Platform

This covers functions such as digital information and integrated ticketless travel across all types of public transport, car sharing, cycling, powered two-wheelers, electric cars and private hire vehicles. Through a comprehensive range of hardware and software measures a mobility platform will integrate all travel products, services and data across the internet, mobile and television to enable people to make informed travel choices.

PM10 and PM2.5

Particulates less than ten or 2.5 microns in size respectively, being different measures of gaseous-borne pollutants caused by motor vehicles, most often associated with diesel-engine vehicles.

Powered Two-Wheeler (P2W)

Includes motorised cycles, scooters, mopeds and motorcycles.

Principal Roads

A network of all-purpose roads, which complement the trunk road network. They are the 'A' class

roads for which the local highway authority is responsible.

PRISM

The Policy Responsive Integrated Strategy Model is the strategic transport model that helps inform transport policy and related decisions in the Metropolitan Area.

Private Hire Vehicle (PHV)

A PHV is a vehicle with less than eight seats licensed by the Metropolitan Borough Council for the area within which it operates. It is not a taxi (hackney carriage). PHVs are only allowed to carry passengers with pre-arranged bookings; they are not allowed to ply for hire (i.e. be hailed on-street), nor to wait on designated taxi ranks.

Rapid Transit

A general term for a high capacity, fast type of public transport. Types of rapid transit are suburban rail, underground/subway metro, light rail, tram-train, Bus Rapid Transit and Very Light Rail.

Ring and Ride

This is a dial-a-ride, door-to-door transport service for residents of the Metropolitan Area who have a mobility problem that makes it difficult or impossible to use conventional public transport. The service covers the whole the Metropolitan Area, divided into three operating areas, with ordinary journeys possible up to half-a-mile into an adjoining area. A limited service for longer 'cross-boundary' journeys is available by special arrangement.

Roads Investment Strategy

The Governments long term strategy for the motorway and trunk road network across England which outlines objectives, targets and network investment.

Roads Period

The spending programme period in which schemes are developed and delivered by Highways England on behalf of the Government. Each Roads Period will last 5 years and will look to meet the targets and objectives of the Roads Investment Strategy.

Safer Travel Team

A team of Police and Community Support Officers set up to tackle anti-social behaviour on buses in the Metropolitan Area. They work in partnership with the bus operators and also help tackle fare evasion.

SCOOT

Split Cycle Offset Optimisation Technique is a tool for managing and controlling traffic signals in urban areas. It is an adaptive system that responds automatically to fluctuations in traffic flow through the use of vehicle detectors embedded in the road.

Smart Card

An electronic form of pre-payment ticket for use on buses and other forms of public transport, with the possibility of it also being useable for paying for other transport services, such as parking charges, or non-transport services. Sometimes referred to as an "electronic purse".

Smart Mobility

See "Intelligent Mobility".

Smarter Choices

A range of initiatives designed to encourage people to make informed decisions about their choice of how or whether or not to travel, including consideration of sustainable travel alternatives to single-person use of the private car.

Social Exclusion

Social exclusion is defined as a 'short-hand term for what can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime, bad health and family breakdown'. These problems tend to have a cumulative and reinforcing effect on each other, preventing people from fully participating in society.

SPRINT

The brand name for bus-based rapid transit in the Metropolitan Area.

Supplementary Business Rates

A way of raising locally determined finance through a supplement to the national Business Rates that would remain to be spent in the local area.

Sustrans

Sustrans is the sustainable transport charity that has a vision of people choosing to travel in ways that benefit their health and the environment. It was the force behind the creation of the UK's National Cycle Network made up of more than 12,000 miles of traffic-free walking and cycling paths, quiet lanes and on-road cycling routes for people to use to get to work, school, the shops or just for exercise and fun.

Traffic Manager

This is an official position that all local highway authorities are required to have under the provisions of the Traffic Management Act, 2004. The Traffic Manager's role is to carry out the authority's Network Management Duties.

Train Operating Companies (TOCs)

London Midland is the principal operator of local and regional train services in the Metropolitan Area. Other TOCs in the Metropolitan Area are Arriva Trains Wales, Chiltern Railways, Cross-Country Trains, Virgin Trains and Wrexham & Shropshire. Their services provide direct links with London and many other parts of the country, extending from Aberdeen to Penzance and from Aberystwyth to Stansted.

Tram-Train

Tram-train is a light-rail public transport system where trams also run on main-line train tracks for greater flexibility and convenience. The first UK trial of tram-train is currently underway in South Yorkshire. The trial of these innovative lightweight vehicles is looking at the environmental benefits, operating costs and technical suitability of the tram-trains as well as testing how popular the vehicles are with passengers on the route

Transport Asset Management Plan

An asset management plan adopted by each transport authority to help manage maintenance and renewal

programmes. Highway Asset Management Plans include roads, footways and associated land as well as structures that are part of or associated with a highway and signs and other street furniture. Transport Asset Management Plans include all the above and assets not on the public highway such as bus stations.

Travel Plan

A plan to encourage more sustainable travel, including car sharing, use of public transport, cycling or walking. Travel Plans can relate to schools, colleges, workplaces or railway stations.

Travel-to-Work Area

A network of motorways and all-purpose strategic routes of national importance for the movement of long distance traffic for which Highways England is the highway authority.

Trunk Roads

A network of all-purpose strategic routes of national importance for the movement of long distance traffic. They are 'A' class roads for which the Secretary of State for Transport is the highway authority. The Highways Agency is responsible for them (and motorways) on behalf of the Secretary of State.

UTMC

Urban Traffic Management & Control or Universal Traffic Management and Control; systems for linking CCTV, traffic signals, variable message signs, etc., to improve traffic flows along a road or corridor or across an area.

VFM

Value for Money

VMS

Variable Message Signs. Electronic displays giving traffic information, often associated in town and city centres with advance warning of car park capacity.

West Midlands Freight Quality Partnership

One of a number of Freight Quality Partnerships across the West Midlands region; it is a partnership between local and transport authorities and agencies, commercial freight operators and other interested organisations with the aim of promoting efficient and effective distribution of freight movement in the Metropolitan Area.

West Midlands Special Needs Transport (WMSNT)

WMSNT is the registered charity that operates "Ring and Ride" services throughout the Metropolitan Area

West Midlands Combined Authority (WMCA)

Is made up of twelve local authorities and three Local Enterprise Partnerships working together to move powers from Whitehall to the West Midlands and our locally elected politicians, who know this region best. The WMCA is also the Local Transport Authority for the Metropolitan Area.

www.westmidlandscombinedauthority.org.uk

strategictransportplan@wmita.org.uk

0121 214 7251