



West Midlands City Region Sustainable Transport Settlement

Draft of CRSTS prospectus v10 | 20 September 2021

Document Status:

This is a draft document pending final feedback and comments before being finalised for submission, including completion of a Foreword by the Mayor and WMCA Portfolio Lead for transport.



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1 Foreword from Mayor and Transport Portfolio Lead

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Andy Street, Mayor of the West Midlands

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Councillor Ian Ward
Portfolio Lead for Transport
Leader of Birmingham City Council

2 Introduction

The City Region Sustainable Transport Settlement (CRSTS) is a new, consolidated fund for local transport investment in England's eight large metropolitan areas. The UK Government has committed at least £4.2bn of new money over the next five years, from financial year 2022/23 to financial year 2026/27. Existing funding for small scale transport capital improvement schemes and highways maintenance will also be rolled into CRSTS as a move towards greater consolidation of transport capital funding streams.

This prospectus sets out the West Midlands Combined Authority's proposed CRSTS programme of transport investment – to be delivered through Transport for West Midlands (TfWM) and our constituent Local Authorities. This programme is designed to meet the ambitious vision set out in our recently refreshed Local Transport Plan Green Paper¹ for a greener, more active, fairer and economically successful West Midlands, whilst taking strides towards our 2041 carbon neutral target as part of the #WM2041 initiative.

Our sincere hope is that CRSTS will enable an ambitious rolling, multi-decade strategic investment programme – prioritised and delivered locally. This must move the dial in addressing local and national objectives, in particular the levelling up agenda which is so critical to one of the regions hardest hit by COVID. Anything less risks us treading water and missing the opportunity to invest in programmes complementary to key national initiatives such as HS2.

As we prepare for negotiations with Government, our £1.7bn ask from CRSTS would leverage a further £554m of local contributions, evidence of the priority we place on transport in the West Midlands. This will deliver a £2.3bn programme of transport investment over five years. The investments range from essential maintenance and renewals to keep our transport network moving, through extensive active travel and community-focussed improvements, to innovative and transformational projects such as Coventry Very Light Rail, Metro extensions, rail and Bus Rapid Transit improvements.

Picture 1: Prime Ministerial visit to Midlands Metro depot



The interventions have been carefully selected to maximise growth outcomes, enable modal shift, and improve accessibility – especially in traditionally under-served and deprived areas of the region. We are acutely aware that the pandemic has exacerbated some of our longstanding economic challenges around inequality, poverty, and poor health. Transport investment through CRSTS will play a critical role in opening up opportunities for communities across the region, to allow us to quickly regain growth momentum and avoid long-term economic scarring.

Investment in the West Midlands is also good for the country. Our central location at the heart of the UK's transport networks – 90% of the UK population is within a 4-hour train or car journey – means that transport improvements in the region translate into widespread benefits for the country and the union at large.

The delivery of the CRSTS programme will build on WMCA's long track record of partnership working, successful delivery, innovative solutions and our robust and well-established governance and decision-making process for transport investments. These have been developed and strengthened following the agreement of our two devolution deals in 2015 and 2017, and during delivery of our £8 billion 30-year Investment Programme and Transforming Cities Fund –

including expansion of the Midland Metro extensions, our first Sprint Bus Rapid Transit route, and new rail stations at Perry Barr and University. Investments under the CRSTS programme will also align with previously identified growth opportunities for our economy to help deliver jobs and productivity growth for our region, including in our emerging 'Future of Mobility' cluster.

CRSTS is not the only funding route available for delivering West Midlands' transport priorities. Our CRSTS programme has been developed to avoid any double counting of funding asks. The schemes described in this prospectus will be delivered as part of a single integrated transport programme alongside other funds – the Levelling Up Fund, Bus Service Improvement Plan, Active Travel, Major Road Network and Large Local Majors, local EV charging infrastructure funds.

The remainder of this prospectus is structured as follows:

- [Section 3](#) sets out the strategic case for new investment in the West Midlands, and how the programme is aligned to local and national policies and objectives.
- [Section 4](#) describes how we have prioritised the investments within our CRSTS programme
- [Section 5](#) explains the proposed investments under our six programme themes: Connecting our Places, Supporting Inclusive Growth, Healthy Streets and Spaces, Creating Resilient Networks and Communities, Delivering a Green Revolution, and Making Behaviour Change Easy.
- [Section 6](#) illustrates the benefits that the transport programmes will bring to address the shared objectives of driving growth and productivity, contributing towards levelling up and decarbonisation, and delivering value for money.
- [Section 7](#) describes the funding ask through CRSTS and our substantial local contribution.
- [Section 8](#) sets out how we will deliver.

¹ Local Transport Plan Green Paper – [link](#).

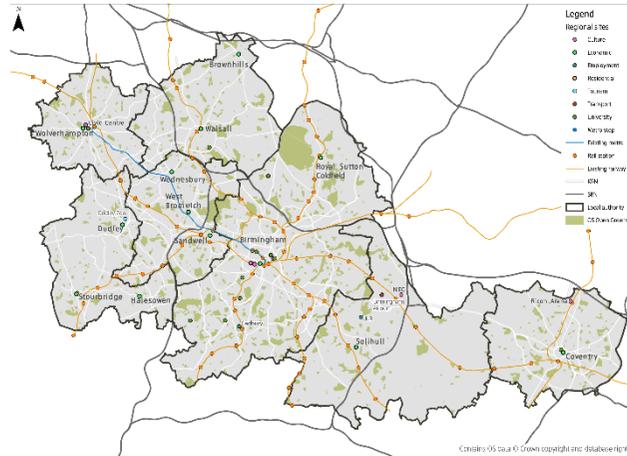
3 Strategic case for a new investment approach via CRSTS

3.1 The West Midlands economic context

The West Midlands (WM) city region is the largest MCA area in the country; home to 3.0 million residents and 91,150 businesses which employ 1.3 million people and generate £70.3bn per annum in GVA. Between 2010 and 2018, output in the WMCA grew by 2.5% on average YoY (compared to the national average of 2.4%) and the age profile of the area is young, with a quarter of residents aged under 19, the highest share of young people of all UK metropolitan areas. The West Midlands is one of the fastest growing regions in the UK, with our population set to increase by 440,000 people by 2035, requiring 165,000 new homes and a step-change in our transport network's capacity and connectivity.

Our region competes on a global stage; with our economy characterised by high exports (particularly in machinery and transport goods, which represent 71% of all goods exports compared to 41% nationally) and significant Foreign Direct Investment (between 2015/16 and 2019/20 the WM region ranked 3rd behind London and the South East as a location for FDI), both are underpinned by the strength of our existing strategic domestic and international connections. Indeed, the economic geography of our city region is a significant asset, with Birmingham city centre at its heart and the two fast growing cities of Coventry and Wolverhampton. These have significant economic potential that could be unlocked through investment in better connectivity (see Figure 1). The surrounding areas of southern Staffordshire, Warwickshire and north Worcestershire bring complementary strengths in terms of business, housing and leisure offers. The region's central location at the heart of the road and rail network, together with Birmingham Airport, means that it is well connected to the rest of the UK and international markets.

Figure 1: Map of City Region



Our distinctive sectoral strengths, from world-leading automotive and aerospace innovation, green technology to health and life sciences, are globally competitive and set us apart from other regions.

Figure 2: WM Sectoral Strengths

Current Regional Strengths include:



West Midlands' key sectors punch above their weight across many performance metrics, including their productivity and employment contribution. For example, 25% of the UK aerospace sector is based in the Midlands and 10% of all UK aerospace jobs. The region is also at the forefront of shaping the future of mobility in the UK, employing 180,000 people in the transport technology sector (2.5x more than any other region).

Emerging Regional Strengths include:



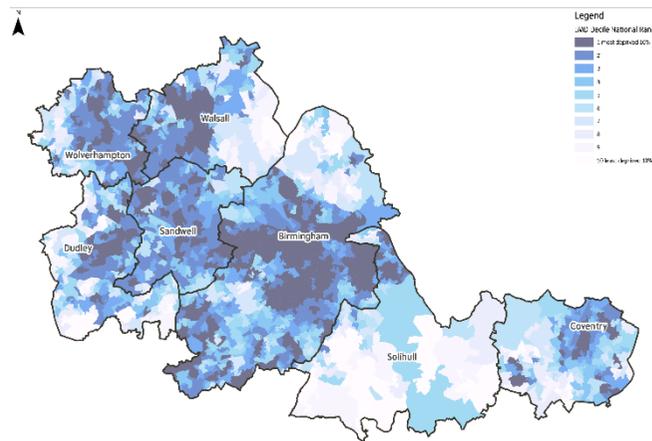
The West Midlands is home to some of the most innovative businesses in the UK, owing to the strength and resources of our universities, science parks and research institutes (the region educates 160,000 students each year with c50% studying STEM related subjects), together with the skills of our workforce and transport connections, which together promote a rich environment for innovation and R&D. We attract £398 per head of private sector R&D investment (ranking 3rd amongst regions in the UK) whilst receiving less than £83 per head of public sector investment (ranking last amongst regions in the UK). The West Midlands has also consistently been a hot bed for innovation and entrepreneurship, with strong one-year enterprise births growth to 2019 (+16.4% versus 5.4% at the UK level) and higher overall number of enterprise births than the UK average (the WM has 67 enterprise births per 10,000 population compared to 58 at the UK level).

Prior to the COVID-19 pandemic, the West Midlands experienced 9 years of steady growth with a boom in the

business and professional services sector; technology-driven manufacturing and city centre construction growth. Our manufacturing base was becoming more productive and the automotive sector was responding to the challenge of a carbon neutral future.

However, whilst we are in a strong position to leverage our economic strengths, we must also address the emerging effects of the pandemic and tackle some of our longstanding economic challenges to level up all areas of the West Midlands. These challenges include pockets of inequality, entrenched poverty, youth unemployment, lower skills and poor health outcomes. As we invest in the future, we must ensure that all communities across the region can access economic opportunity and play their full part in maximising the growth potential of our region, with transport investment under our CRSTS playing a critical role in opening up those opportunities.

Figure 3: Map of Deprivation in the region



Across the West Midlands, we have several pockets of significant deprivation (see Figure 3 above). Overall, 19.2% of WM LSOA's sit in the 10% most deprived areas in the UK, however, this figure rises to 41% in Birmingham neighbourhoods, followed by Walsall at 26% and Wolverhampton at 21%. The distribution of gross income in the West Midlands is also unequal – 72% of people have a

total income below the regional average of £23,200 (the national average is £24,400). TfWM is striving to address these issues, and recently invested significantly in affordable and high-quality transport connections across the region. As outlined in [Section 6](#), the investment associated with the CRSTS programme will enable us to continue to reduce the cost of living and barriers to employment for some of our most deprived communities.

Whilst COVID-19 has exacerbated many of these challenges and has impacted the region's service and export based sectors the most, there remains a unique opportunity to build back better from the pandemic, and ensure we carry forward the reputation for economic success the region has built in the new millennium. It is critical that we quickly regain this growth momentum, to avoid a steep rise in unemployment and long-term economic scarring. Moreover, the region is home to sectors of national importance such as advanced manufacturing, automotive and the business and professional services sector – ensuring a strong recovery in the West Midlands will support the wider growth of the nation.

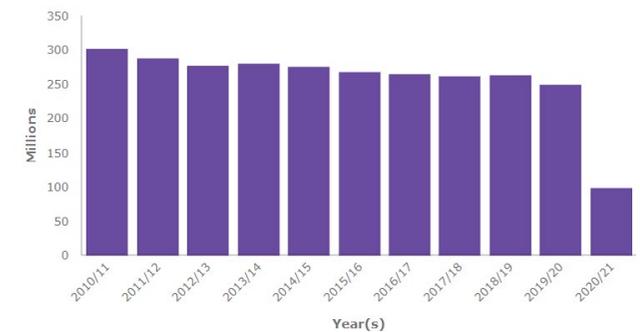
3.2 The West Midlands transport context

The West Midlands' central location positions our region at the heart of the UK's transport networks and international connections. Strong transport connectivity is vital to the economic prosperity of our region, supporting the productivity and growth of our key strategic sectors (including aerospace, professional services and transport), as well as providing our most deprived communities with improved access to economic opportunities.

Between 2016 and 2018 there were 2.3 billion trips made in the West Midlands, 70% of which were made by car, 10% via public transport, comprising bus (8%), rail including West Midlands Metro (2%) and 20% via active travel. This compares to 61% of trips being made by car nationally, alongside 7% via public transport, 29% via active travel and 3% via other modes in 2018 (based on National Travel Survey data).

Recent investments in the West Midlands Metro will triple the networks size, linking Wolverhampton and Dudley with the heart of Birmingham City Centre and carrying 30 million passengers per annum. Nevertheless, bus remains the prime mode of public transport for our residents, and particularly for those without access to car, making up around 259 million journeys in the West Midlands in 2017/18. Unlike other city regions outside London, the West Midlands benefits from limited fragmentation of bus services, with 94% of bus journeys provided by a single operator; National Express. National Express works closely with TfWM, alongside local councils and other bus operators as part of the West Midlands Bus Alliance to ensure services are integrated across the region. We also benefit from one of the safest public transport networks in the UK, with crime rates on our bus network reducing by 60% over the last decade. However, much like the rest of the country, we have faced a long-term decline in bus patronage. Notwithstanding recent positive changes, we have seen changing behaviour patterns (preferences to travel by car), increasing cost of bus fares relative to motoring costs, and declining service coverage (in part because of declining bus speeds), with bus boarding's falling by 2% year-on-year in the 10 years preceding 2020. These trends risk being exacerbated by the pandemic, with a 61% fall in bus patronage in 2020/21 as a result of the pandemic (See Figure 4 below).

Figure 4: Bus Passenger Journeys 2010/11 to 2020/21



The investment underway in the first corridors of our Sprint network, linking Walsall, Solihull, Birmingham city centre and Birmingham Airport, is an important step in reducing journey times for passengers and stimulating bus use. Further investments in our Sprint network proposed under both the CRSTS programme and with additional bus priority proposals in our parallel Bus Service Improvement Plan are critical to building on this momentum and sustaining and promoting bus travel in our region over the medium term.

Meanwhile uptake of active travel in the city region remains limited. Recent investments such as the Starley Cycle Network have helped to expand active travel options in the region. However, the WM is currently the combined authority with the lowest share of cyclists – with only 9.6% of adults cycling at least once per month, against 16.1% nationally. Moreover, only 63.2% of adults walk at least once per week, below the national average of 63.8%. Much of this is a function of long standing under investment in critical infrastructure, and further investment in new cycleways and active travel corridors are a critical step in promoting the usage of active travel modes in the region.

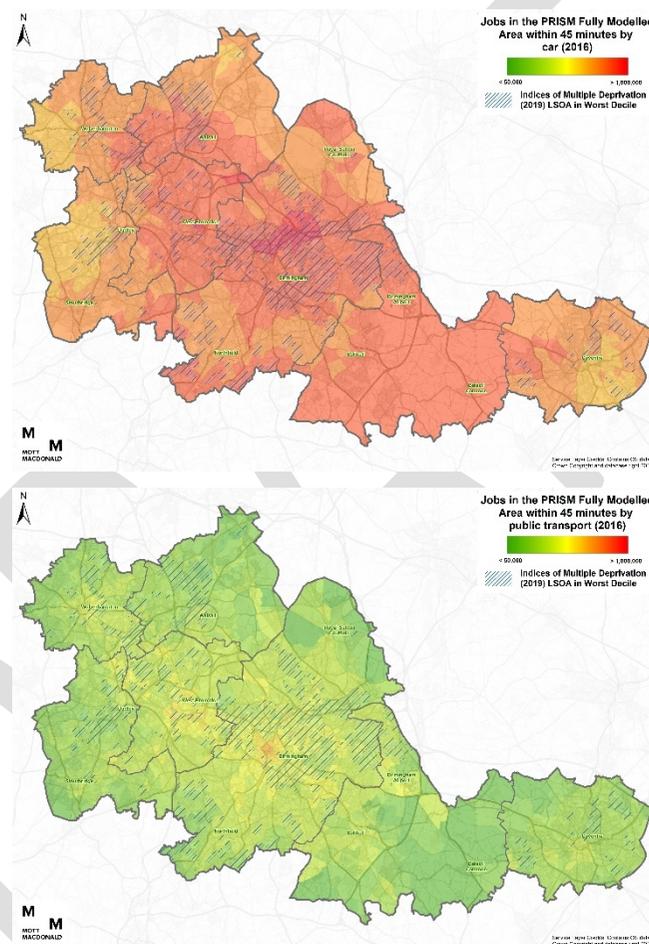
The ongoing development of our refreshed Local Transport Plan has highlighted a number of key challenges as set out in our Motives for Change (see [Section 3.4](#)) for our transport network which our proposed investment under the CRSTS programme, as part of a long-term and integrated approach to transport investment in the West Midlands, is critical in helping to address. These issues are summarised below:

Accessibility and affordability of public transport

Historically, investments in transport have supported local economic growth in our region, subsidising services for the benefit of those less mobile and supporting innovation in mobility products and services. However, the quality of access to public transport still varies considerably across our region and this variation can act as a significant barrier for lower income households and more vulnerable groups accessing economic opportunities and realising their full potential. Job accessibility declines significantly for residents who are reliant on public transport, and this tends to be most pronounced in deprived areas of the region where car ownership is less common. Indeed, most West Midlands residents could access more than double the job

opportunities within 45 minutes of where they live with a car than without a car (see Figure 5).

Figure 5: Job accessibility in WM region with a car vs with public transport (2016)



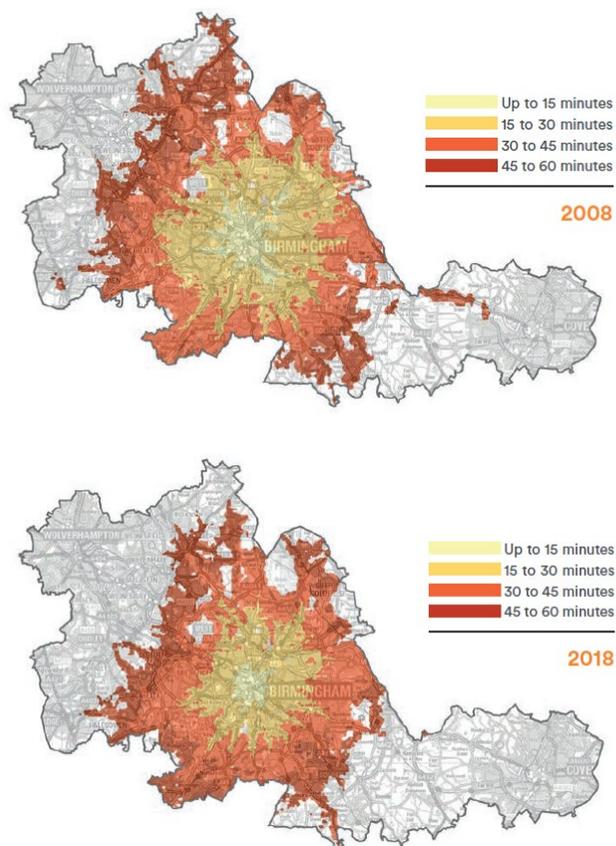
Despite its important role, bus within the West Midlands has experienced a long-term decline in passenger numbers, under both absolute and 'per head' measures, in common with other UK metropolitan areas outside London. The fall in

services, alongside increased congestion, has resulted in reduced accessibility to key urban centres for those that are reliant on public transport. For example, Figure 6 shows how access to Birmingham city centre within 45-60mins via buses has sharply declined over the past decade. However, targeted investments have had success reversing trends around the speed and frequency of services. For example, a £9.2m investment along Services X51, 934, 997 in Birmingham and Black Country has led to a 14% patronage increase. The CRSTS programme will be vital in helping us to capitalise on this momentum and spread it across the region (see [Section 6](#) for more detail on this).

The impact of transport externalities (e.g. pollution, noise, poor road safety and severance) are also often felt most by those in our most deprived areas. For example, the rise in killed or seriously injured casualties in the region since 2013 have been predictably clustered around high-density urban areas with high levels of traffic flow and deprivation.

The complexity of ticketing and affordability of public transport is also deemed a barrier to all types of customers of the network, particularly for journeys involving multi-leg trips by bus across the region's network and between bus, Metro and rail. Single fares are still significantly higher in the West Midlands than they are in London (for example, the daily cap on TfL bus and tram services is £4.65 whereas in West Midlands it is £6.80), which has been a contributing factor to declining demand. The issue is even more stark by international standards, wherein our region ranks in the bottom quartile for public transport affordability of 66 major global cities, with 5.36% of our region's residents' monthly income spent on public transport. Simplification of ticketing, through Smart Ticketing, multi modal fare capping and travel planning tools which provide simplified, trustworthy, and affordable public transport options is key to addressing these challenges and reducing car reliance.

Figure 6: Access to Birmingham city centre within 45-60mins via bus (2008-2018)



Growing reliance on road travel

Despite our region's efforts to invest in sustainable transport alternatives, car mileage has significantly increased (+6 billion miles) across the West Midlands over the last 25 years. Although the current share of public transport commuting in Birmingham city centre is relatively high, across the wider area (including our two other major city centres in Coventry and Wolverhampton), cars, vans and light vehicles dominate modal share (see Figure [2] in the Appendix). Across the area, two in five journeys under two miles are currently being made by car. The reliance on road travel not only results in congestion, poor air quality and negative consequences for our environment, but contributes to declining health outcomes more broadly in the region by reducing the share of walking and cycling and active travel associated with public transport.

Without the significant investment proposed in our public transport network, alongside ambitious measures to promote behavioural change and targeted measures aimed at demand management, these historic trends are set to increase over the next 20 years, with the share of households not owning a car expected to fall to 18% in 2040 (down from c22% today). The reliance on road travel has also been exacerbated by the COVID-19 pandemic, which has resulted in significant changes to how, when and why we travel. Data collected in support of our recent BSIP evidence paper highlighted that 94% of car owning residents enjoy the independence car ownership gives to them. Without significant investment to stimulate and accelerate the recovery of public transport demand, we risk seeing a permanent shift in behaviour which undermines our economic growth, levelling up and net zero ambitions.

Congestion, air quality and the environment

The reliance on private road transport has led to a built environment which prioritises car-based travel and has resulted in a legacy of a hazardous, unattractive environment for pedestrians and cyclists, including poor air quality that we are now addressing through investments like those in the CRSTS. Air pollution in the West Midlands affects some 2.8 million people, reducing life expectancy by up to 6 months, while the carbon saving potential from installing 2,000 EV charge-points, as proposed within the

scope of West Midlands' CRSTS programme, is estimated to be capable of saving £16.9m million per year in direct and indirect economic costs.

The reliance on private road transport also generates congestion in city centres and key transport corridors across the region, which in turn contains the economic growth potential of our region. The average Birmingham driver lost 134 hours in congestion in 2018, with congestion costing £2.3bn per annum across the West Midlands metropolitan area.

The West Midlands has an ambitious target to be net zero as a region by 2041. To deliver this will require significant modal shift as well as a substantial increase in the number of zero emission vehicles on the road. However, under a business-as-usual scenario, current carbon emissions from road travel (car, LGV, HGV, and bus), rail and Metro will only fall to 3.183 MtCO_{2e} by 2027 (the end of the CRSTS funding period) and 2.490 MtCO_{2e} by 2027, which will fall significantly short of our net zero ambitions. Nearly all the business as usual carbon emissions from transport are attributable to cars, LGVs, and HGVs (buses and rail accounted for approximately 1% of emissions respectively), while the uptake of EVs remains lower in the West Midlands at 0.35% relative to the UK average of 0.47%.

CRSTS is a significant step in the right direction, with 2000 proposed EV charge points and ambitious PT and active travel investments. The West Midlands will continue to pursue other decarbonisation opportunities outside the scope of CRSTS to meet its net zero ambitions.

Summary

Our programme of investment in transport has a critical role to play as the region looks forward and plans for COVID-19 recovery. By connecting our residents to new jobs and educational/training opportunities, coupled with the delivery of skills plans and unlocking and delivering much needed housing across the region; we can support the regeneration of our local centres and neighbourhoods and drive productivity and level up our most underserved communities. This will further improve our health and well-being, and last but by no means least; help us address the urgent challenge of climate change.

3.3 Our investment themes

Our emerging Local Transport Plan (LTP) strategy is underpinned by the 'Avoid-Shift-Improve' Framework which provides a set of principles from which strategic and local measures can be shaped and established:

- 'Avoid' travel in the first place where possible, e.g. through homeworking.
- 'Shift' to shorter journeys and lower-carbon modes
- 'Improve' measures to decarbonise the vehicle fleet.

Alongside these strategic priorities for transport, our investment themes under the CRSTS programme have been shaped to support our wider ambitions around delivering jobs and growth, levelling-up deprived communities and meeting our decarbonisation targets. We have identified six themes to guide investment which are the building blocks for ensuring transport investment delivers for our region (see Table 1 in [Section 3.6](#) which outlines how each of the six CRSTS investment delivers on key national priorities for the CRSTS programme: Economic growth and productivity, levelling-up and decarbonisation):

Connecting our Places – This programme will build on existing programmes to continue investment in public transport connectivity by boosting connections across our key centres and corridors. As we move closer to the arrival of HS2 a targeted public transport investment programme of rail, rapid transit and bus; underpinned by enhanced interchange facilities will enable the West Midlands to build back better.

Supporting Inclusive Growth – This programme is focused on driving inclusive growth, levelling-up and housing delivery in six high priority corridors. The programme takes a place-based approach to delivering targeted packages of work to complement and maximise the existing investment, unlock housing and employment opportunities and offer new and existing residents safe and sustainable transport choices to deprived areas of the region. Key schemes will include £100m in transport upgrades along the Walsall to Wolverhampton corridor, including beginning development on the Metro extension to New Cross Hospital, to unlock

4,500 new homes and regenerate local urban centres and programmes to support Smethwick and Icknield, Sandwell to Dudley, Walsall to Birmingham, Coventry to Solihull and East Birmingham/North Solihull including kickstarting the development of the Metro route in this key corridor.

Healthy Streets and Spaces – This package contains measures aimed at encouraging more active travel and reducing the volume of trips made by car to improve health and reduce environmental impacts. The programme will also target improving air quality for residents and visitors to WM, as well as providing a wider range of affordable travel options which will be crucial in meeting our ambition to be net zero by 2041.

Creating Resilient Networks and Communities – This theme delivers junction and corridor route improvements to highways and the Key Route Network across the WM, whilst also investing in road safety and innovative technological infrastructure. These schemes will improve multi-modal connections, reduce barriers to active travel by making our roads safer to use, and address congestion and capacity constraints.

Delivering a Green Revolution – This programme aims at decarbonising the largest sources of carbon emissions on the road, focusing on research and development, building a robust supply chain for zero emission technologies, and delivering supporting infrastructure to build consumers' confidence in zero-emission vehicles. Major schemes include the £10m WM EV Public Chargepoint Fund and the £7m WM ULEV Scheme.

Making Behaviour Change Easy – The programme of investment within this theme will provide a step-change in both the attitude and behaviour of individuals by providing frictionless access to sustainable transport across the region. The initiatives put forward are based on in-depth analysis of the travel needs, preferences and choices of residents in the WMCA region. Significant initiatives that fall under this theme include £27m for Very Light Rail R&D, a Regulatory Sandbox for agile development of regulatory reform in partnership with industry, a Local Network Improvement Plan to better facilitate multi-modal travel, smart ticketing (e.g. Swift payments scheme), and micromobility schemes including eBikes and eCargo Bikes.

3.4 Our objectives for the CRSTS investment programme

Our Local Transport Plan Green Paper sets out five 'Motives for Change' – the reasons why we should consider changing the way we travel. These are focussed on creating a fairer, greener, healthier, happier and more prosperous West Midlands, and delivering on our #WM2041 carbon reduction pledges. As outlined in [Section 3.3](#), alongside the Motives for Change are a series of related objectives that govern our proposed CRSTS programme and link directly to our six investment themes (see Table [2] in the Appendix).

Figure 7: Why change?



However, these are not just objectives for the next five years – they will support our long-term ambition to build back better and level up our region for inclusive growth. They are as applicable to CRSTS as they are to investment delivered through other routes (e.g. Bus Service Improvement Plans, WM Investment Programme, Active Travel Fund) as we aim to deliver a single integrated transport programme over a series of five-year transport settlements.

Work is underway to develop a set of specific targets and metrics for the new Local Transport Plan. We will identify key measures across a range of policy outcomes including decarbonisation, accessibility, health and wellbeing, safety and security and economic impact. These will be developed during the autumn in parallel to the ongoing development of the CRSTS programme.

3.5 Alignment with local policies and strategies

West Midlands is well-placed to capitalise on the economic opportunity presented by the 5-year CRSTS investment programme, as we have been developing a series of long-term strategic plans setting out our ambitions for sustainable and inclusive growth. These include:

- **Local Transport Plan Green Paper²** – This sets out the key challenges and opportunities facing our transport system since the first Local Transport Plan was adopted in 2011. This is currently acting as the key consultation document with the public to help inform our new LTP which is due to be published later in the year. This will set out our policies to promote safe, integrated, efficient and economic transport to, from and within the area as well as plans to implement those policies.
- **WM2041³⁴** – Our framework for developing a series of 5-year plans to decarbonise the WM in response to the pressing climate emergency and the ambition for the region to be carbon neutral by 2041. It calls for a substantial investment programme in the order of £40bn over 21 years (2020-2041) and a 10-point strategy for decarbonising the region. The CRSTS programme will support several key pillars of this strategy, including active travel and cleaner transport, electric vehicle charging infrastructure, and behaviour change around travel patterns.
- **West Midlands Local Industrial Strategy** – Our integrated plan to drive long-term sustainable economic growth across the whole of the West Midlands. Developed locally and agreed with government, this Local Industrial Strategy (LIS) sets out the priorities to increase the productivity of the West Midlands and the national economy. It places the 'Future of Mobility' at its the heart and is a key strategic enabler of Inclusive Growth.
- **Inclusive Growth Framework** – Our framework to help ensure socially equitable and environmentally sustainable growth secures long term benefits for everyone in our region. The concept of 'Inclusive Growth Corridors' are reflecting the approach of the Inclusive Growth Framework by creating more holistic vehicle for investment – which goes beyond 'site-by-site' development, embedding whole-system thinking and offering the possibility of a different order of change for communities and places.
- **Local Plans** – Our local authorities have developed a series of local plans (covering Birmingham, Solihull, Coventry and the Black Country) which detail where and how much housing and employment space is needed in the region. The CRSTS investment programme has been developed with an eye to helping to unlock housing and connecting up future employment centres across the West Midlands.

² Local Transport Plan Green Paper – [link](#).

³ #WM2041 - [link](#)

3.6 Alignment with national policies and strategies

West Midlands is well positioned to deliver on the key national priorities of the CRSTS programme (including economic growth and productivity, levelling up and decarbonisation – see Table 1 below) and wider transport policy agenda of Government (including the National Bus strategy and Cycling and Walking investment strategies) having placed these at the heart of the WM CRSTS investment themes. These are set out further in [Section 6](#) as to how the programme delivers benefits in these areas.

- **Economic Growth and Productivity** – Given the challenges with accessibility and connectivity in our region, our CRSTS transport programme has been designed to improve access and connections between workers and business, driving productivity both locally and nationally by enhancing business competition, allowing businesses to better match with the right suppliers, customers and employees, and increasing the likelihood that ideas, knowledge and innovations are diffused across the WMCA economy. Our themes **Connecting our Places**, **Creating Resilient Networks and Communities** and **Supporting Inclusive Growth**, along with the projects that sit beneath them, all centre on driving productivity and net additional economic growth both locally and nationally.
- **Levelling Up** – Taking into account the economic geography of our region, with strong urban centres surrounded by pockets of acute deprivation and poorly connected rural communities, we have put forward a transport programme with inclusive growth and accessibility at its heart. The transport projects under **Supporting Inclusive Growth** and **Connecting our Places** are focussed on levelling up the lives and connectivity of the most deprived in our region. These interventions will play an important role in regenerating city and town centres, unlocking new affordable housing and development, improving health and amenity through active travel, and importantly providing access to work, leisure and educational opportunities to deprived communities.
- **Decarbonisation** – This is a key priority of the CRSTS programme and for our region, with three investment themes directly focused on addressing the pressing climate emergency: **Healthy Streets and Spaces**, **Making Behaviour Change Easy** and **Delivering a Green Revolution**. The transport initiatives investment themes mirror the recommendations outlined in DfT's Transport Decarbonisation Plan published in 2021 and prioritise modal shift and the rollout of electric vehicles to the road. The schemes will also help ensure developments can come forward in more sustainable locations across the region.

⁴ WM2041 Fiver Year Plan 2021-26 – [link](#)

- The **National Bus Strategy (NBS)** – Announced in 2021, the NBS proposes ambitious and far-reaching reforms to how services are planned and delivered in order to reverse declining bus patronage rates. Investment in the WM bus network is a key pillar of our CRSTS transport programme, helping to bring forward corridor improvements and station upgrades that will ease congestion and improve services along key routes.
- **Active Travel Investment** – Government has earmarked £2bn for Cycling and Walking investment strategies to deliver a step-change in active travel in UK. Our CRSTS transport programme shares the same ambition for the WM, with projects under Healthy Streets and Spaces and Making Behaviour Change Easy encouraging a shift to active travel patterns in order to improve air quality, combat climate change, improve health and wellbeing, address inequalities and tackle congestion on our roads.

Table 1: Alignment of CRSTS Programme Investment Themes with key national priorities

Alignment with Key National Priorities	CRSTS Programme Investment Themes						Alignment Summary
	Healthy Streets and Spaces	Making Behaviour Change Easy	Connecting our Places	Delivering a Green Revolution	Creating Resilient Networks and Communities	Supporting Inclusive Growth	
Economic Growth and Productivity							The CRSTS transport programme has been designed to improve access and connections between workers and business, driving productivity both locally and nationally.
Levelling Up							Investment under the breadth of CRSTS themes target a range of measures of levelling up the lives and connectivity of the most deprived pockets in our region (see Figure 12).
Decarbonisation							All our CRSTS themes contribute to differing degrees to addressing the pressing climate emergency in our region, including through modal shift and the rollout of EVs.

4 How we have identified and prioritised schemes for CRSTS

Introduction

Since formation of the West Midlands Combined Authority (WMCA) in 2016, we have worked with our members to prioritise how and where we invest with the finite resources available to the CA. This has meant we have invested time in identifying a pipeline of investment projects that are needed to support the region's need, alongside developing an evidence-based and balanced approach to prioritising between investments. We have built upon this experience in identifying and prioritising schemes over the five-year CRSTS programme that are aimed at delivering real benefits to the West Midlands right from the outset.

Our process commenced in 2020 in anticipation of CRSTS. We have taken a structured, iterative and collaborative approach based on a clear prioritisation framework, with criteria linked to local and national objectives, with buy-in from Local Authority partners and the Mayor.

Our programme development process

Given the needs of the West Midlands discussed in [section 3](#), inevitably even at the upper range of funding available through CRSTS there is insufficient money to develop or deliver all of the projects we would want to across the West Midlands. There are currently a significant number of projects in the pipeline, all at different stages of development. It was essential that the process to develop our programme allowed all projects to be assessed on a fair and objective basis regardless of the stage of maturity of individual schemes.

With this in mind, we have followed a three-stage process when developing our programme.

Stage 1 – Call for projects and programme gap analysis

We undertook an exercise to refresh and review the current position of the capital pipeline across the West Midlands based on existing or desired transport scheme proposals over the next 15 years. This early stage call for projects from Local Authorities and within TfWM allowed scope for new proposals to be developed to address current challenges and support the delivery of local and national objectives.

This resulted in a refreshed pipeline of over 200 individual transport schemes, which were identified during this process, conducted once in 2020 and again in spring this year.

We then carried out a programme-level gap analysis to identify the extent to which the desired outcomes were not being fully met, using an evidence base of technical work undertaken when drawing up our Local Transport Plan and the linked themes and objectives for the CRSTS programme. Where gaps were identified, we developed new proposals to be included within the project pipeline and also refined existing schemes to better align to the overall outcomes sought.

Stage 2 – Sifting against programme criteria

The next stage was to sift the 'long list' pipeline of schemes based on strategic fit, affordability and deliverability to generate a first cut of proposals for the CRSTS programme.

To facilitate this process we collated a consistent level of key information for each scheme including: a problem statement, anticipated outcomes and benefits, the thematic driver for the intervention, timescales for development and delivery, barriers to delivery, an indicative cost range and, where appropriate, complimentary and/or alternative funding routes. Our prioritisation framework was then applied using assessment of the following criteria:

- **Strategic fit:** schemes were assessed against national priorities, the emerging LTP objectives and the CRSTS delivery programme themes. As part of this we considered whether a proportionate amount of work had been undertaken at the different stages of development to articulate the benefits of individual schemes, and sought further details where necessary. We then used logic maps to visualise how schemes contribute towards objectives. We also considered the fit with our emerging Inclusive Growth Corridors (cross boundary corridor packages which support inclusive, zero carbon growth) and Local Delivery Plans (area-based strategies which support LTP outcomes - see [section 3.3](#)).



- **Affordability:** we assessed whether the level of investment required justified the rationale and benefits of each scheme, and whether the programme as a whole fell within a reasonable funding envelope. As part of this, we considered links with other funding programmes to ensure CRSTS was the most appropriate route, as well as the extent to which any investment could level local funding.
- **Deliverability and risks:** we looked at whether the programme and funding commitments could be met, within the timescale necessary, what level of local and political support they had, and how sensitive scheme costs and benefits were to uncertainty stemming from COVID.

Stage 3 – Building consensus around the optimum package of interventions

Fine-tuning the programme was an iterative process. There were extensive discussions with constituent Local Authorities, scheme promoters and senior leaders to review, clarify and challenge the programme. This included:

- Review and challenge from our Strategic Transport Officers Group (STOG) culminating in a specially convened STAR Chamber session.
- Engagement with our Strategic Transport Board, Met Leaders and the Mayor to agree the shape of the programme.
- Final approval by the West Midlands Combined Authority board on 17 September 2021.

As a result of this process we have developed a robust, prioritised programme of transport investments that maximises the positive contributions towards economic growth, carbon reduction, levelling-up transport and economic inequalities, health and supporting communities across the West Midlands. This includes a mix of delivery over the next five years, and development where schemes have a strong case for development funding via CRSTS for delivery beyond this window.

Work now continues to further develop business cases for schemes at the front end of the delivery timeframe.

5 Our proposed investment programme 2022-27

Introduction to the West Midlands CRSTS programme

Our proposed programme of transport investment is designed to meet the ambitious vision set out in our Local Transport Plan for a greener, more active, fairer and economically successful West Midlands. The interventions have been carefully selected to maximise growth outcomes, enable modal shift and improve accessibility – especially in traditionally under-served and deprived areas of the region.

Our proposed programme is intentionally ambitious. Anything less risks us simply treading water for the next five years – covering essential maintenance and renewals and already committed projects but missing the opportunity to move the dial on transport investment. It is essential that HMG’s national objectives for improved transport outcomes are reflected in our own regional ambitions for change. We want to deliver innovative, high quality projects that provide genuine improvements to people’s lives in the West Midlands, attract people to new active forms of transport, and make strides towards our 2041 carbon neutral target as part of the #WM2041 initiative.

The scope and scale of our proposed programme

As we prepare to enter into negotiations with the department, our £1.7bn ask from CRSTS would leverage a further £554m of local contributions, to deliver a £2.3bn programme of transport investment over five years. This would range from essential renewals and maintenance, through extensive smaller scale active travel and community focused improvements (which are relatively quick and low risk to deliver), to some larger targeted transformational projects such as Metro extensions, heavy rail enhancements, new very light rail routes and Bus Rapid Transit schemes. We have worked hard with our local partners to maximise the level of our local contribution – ours

is high and that reflects the relative criticality for the West Midlands of transport investment. Our ambition and needs are high, and we are taking climate change and economic recovery very seriously. Given the inclusion of previous funding commitments by HMG (such as TCF) we are seeking incremental investment to allow us to deliver meaningful change.

We have packaged our CRSTS programme into six themes, aligned to the Motives for Change described in our Local Transport Plan (see [section 3.3](#)). Each theme delivers benefits that cross-cut national objectives to improve growth and productivity, contribute towards levelling up and decarbonisation, and deliver value for money.

Our themes are inter-linked and complementary. The investment made through our *Connecting our Places* theme provides the region-wide public transport network at the heart of TfWM’s CRSTS programme. It enables much of the complementary investment in other programme themes to thrive. A well-connected and accessible public transport network will help *support inclusive growth* corridors and *make behaviour change easier* by providing fast and efficient connections between key centres and corridors. Investment will support *resilient networks* by helping to provide a viable public transport alternative for residents and releasing capacity on our highway network. This will lead to reduced car usage and associated carbon and particulate emissions to help us *deliver a green revolution*. Provision of attractive urban realm in our centres and facilitating effective interchange between active and public transport modes will complement our *healthy streets and spaces* initiatives.

Finally, better intra-regional connectivity for the West Midlands will generate national benefits, improving travel times for those passing through or visiting the region, as well as indirect spillover of economic activity to neighbouring regions.

Theme 1: Connecting our Places - £615m funding required from CRSTS

Overview: This theme comprises a targeted programme of public transport investment across rapid transit and rail (see Figure [6] in the Appendix) and bus, complemented by enhanced interchange facilities.

We will blend both delivery and development to ensure we have the solutions fit for the short and medium term to enable the West Midlands to build back better.

Strategic rationale: this investment builds on the momentum gained through current public transport improvements including Metro expansion, new rail stations and the first Sprint Bus Rapid Transit route. As we move closer to the arrival of HS2, boosting public transport connections across our key centres and corridors will be all the more important.

This investment will unlock development around public transport hubs, catalyse economic activity in our centres, and provide residents with the same levels of opportunity to access employment, health, education and leisure opportunities. A better public transport network for the West Midlands that offers a viable alternative to car travel will reduce carbon emissions, directly addressing our climate emergency.

Picture 2: Solihull Station Redevelopment



Table 2: Key Schemes – Connecting Our Places

Scheme	Description
Metro £286m	A package of investment comprising essential renewals to sustain operations on the original Line 1 between Wolverhampton and Birmingham, which is now over 20 years old; the completion of the 11 km Wednesbury to Brierley Hill metro extension to better connect this underserved and deprived corridor; and the development of further route options from Wednesbury to Walsall and the Hagley Road route to the west of Birmingham linking into the Black Country.
Coventry Very Light Rail £63m	Currently at a higher technology readiness research and development stage, this exciting project employs our regional automotive expertise (and thereby directly supporting our Local Industrial Strategy) to deliver an innovative and affordable light rail system. This project aims to deliver all the benefits of trams – low floors, comfort, efficiency, reliability – but at a fraction of the cost of traditional light rail schemes. CVLR will be lightweight and use 100% renewable energy, providing a real alternative to the car and thereby helping to improve air quality and reduce congestion. The first route will connect major employment, commercial, education and healthcare sites between the newly improved railway station (opening late 2021), Coventry city centre, and University Hospital Coventry and Warwickshire, supporting city centre regeneration at Friargate with commercial mass transit services that will complement existing bus and rail services within the city.
Future Bus £30m	We will complement BSIP investment by developing measures to improve bus connectivity between HS2, Birmingham Airport and Solihull. We will also bring forward our region-wide Demand Responsive Transport offer by investing in a fleet of zero-emission vehicles and depot facilities, building upon the already committed All Electric Bus City programme in Coventry which will see all buses in the city be electric by the end of 2025, and developing the back office systems necessary to allow customers to book journeys on demand using a single integrated platform.
Rail £55m	We will introduce a new station at Aldridge and continue to make the case for reintroducing passenger services on the remainder of the Sutton Park Line to provide enhanced orbital rail connectivity. We will support the delivery of essential components of the Midlands Rail Hub – including Snow Hill Platform 4 and Kings Norton remodelling – to improve rail connectivity to the south and west of Birmingham. As delivery of HS2 gathers pace we will also support the development of master planning activity between Curzon Street and Moor Street station to secure a world class gateway and interchange. We will begin the development work needed to progress new stations in high priority locations such as Tettenhall in Wolverhampton, Coventry and East Birmingham.
Interchange £109m	Underpinning all of this activity will be a significant programme of interchange improvements. Major new gateways at Sutton Coldfield and Solihull (see call-out box) will provide iconic access points to these regional centres and catalyse further investment and regeneration. Four future park and ride sites at rail/Sprint stations will support interchange between transport modes and further improve connectivity.

Scheme	Description
Snow Hill Growth Strategy £50m	Snow Hill is one of Birmingham City Centre's three main rail stations providing local and regional services, and direct connections to London. The scheme involves the major redevelopment and transformation of Snow Hill rail station and its immediate environs, and improved transport connectivity within the Snow Hill area. This is predicted to support 112,000sqm of new office-led development accommodating over 7,700 jobs and 200 homes.

Interactions with other programmes: This investment will support and build upon a number of other programmes linked to the arrival of HS2 and the WM Investment Programme including University Station, Metro Birmingham City Centre to HS2, Dudley Interchange, Sprint and Perry Barr station. Investment in bus priority measures as part of our Bus Service Improvement Plan (BSIP) will be complemented by the expansion of the rapid transit network alongside a refresh of the DRT offer in the West Midlands. This programme will maintain the momentum generated from previous investment and act as a springboard for further investment towards even greater connectivity across the West Midlands.

The **wholesale redevelopment of Solihull train station** is required to ensure it is fit for purpose to deal with significant forecast growth in passenger numbers. The redesigned station will include an enlarged new internal public concourse, upgraded facilities and enhanced public realm at the station entrance. Sustainability has been at the heart of the design from an early stage, with numerous features such as onsite energy generation, electric vehicle charging, biodiverse planting and energy efficient systems.

A brand-new station at Sutton Gateway will provide access to Sutton Coldfield town centre and Sutton Park, enabling residents and businesses [direct] access to the future HS2 link. The rail station will be integrated with a new bus interchange serving Sutton. The project will provide a much-improved arrival experience for visitors into Sutton Coldfield and enhanced pedestrian and commuter access to the town centre. Sutton Gateway will complement other developments in the town and support growth proposed in the Birmingham Development Plan.

Theme 2 Supporting Inclusive Growth - £311m funding required from CRSTS

Overview: This programme is focused on driving inclusive growth, levelling up and housing delivery in six high priority corridors across the West Midlands (see [section 3.4](#)). The programme takes a place-based approach to delivering targeted packages of work to complement existing investment, unlock housing and employment opportunities and offer residents safe and sustainable transport choices. The interventions – ranging from new walking and cycling routes, game changing rapid transit links, and further phases of the SPRINT Bus Rapid Transit network – have been carefully chosen to enhance the environment, increase wellbeing and maximise the potential and success of our diverse population.

Strategic rationale: Our Local Industrial Strategy sets out the region’s commitment to driving a more inclusive economy. Addressing transport inequality is also a key part of our Local Transport Plan. Our six Inclusive Growth Corridors align with areas of high deprivation, with housing supply shortfalls. Transport investment will be a key catalyst for growth and regeneration. We will use the investment through CRSTS as leverage to improve the outcomes for local residents around housing, skills and employment. Targeted new transport links will unlock housing development on brownfield sites. A focus on active, low carbon and sustainable travel will improve safety and air quality. Better public transport will provide access to jobs and services for people living in the most deprived areas of the West Midlands.

Schemes within this theme, including funding required from CRSTS

Table 3: Key Schemes – Supporting Inclusive Growth

Corridor	Catalyst	Selected schemes
Walsall to Wolverhampton £39m	Major regeneration and development opportunity, with c.£100m transport upgrades planned to support the construction of over 4,500 new homes, as well as major redevelopment in Walsall and Wolverhampton urban centres.	<ul style="list-style-type: none"> A454 multi-modal corridor to relieve congestion, improve air quality and install active travel infrastructure Metro development – City Centre to New Cross Hospital Sustainable access to new stations Walking and cycling improvements
Sandwell to Dudley £31m	Builds on significant investment in 11km Metro extension between Wednesbury and Brierley Hill. This links the Black Country with HS2 and supports the regeneration of Brierley Hill and Dudley town centres. 17 new Metro stations will support investment and regeneration opportunities throughout the corridor.	<ul style="list-style-type: none"> Interchange improvements between bus, heavy rail and the new Metro at Dudley Port Feasibility studies on further rapid transit routes to Stourbridge and Walsall Improvements to walking and cycling access to new Metro stops
Birmingham to Walsall £66m	The 2022 Commonwealth Games provides the catalyst for regeneration of the wider area with an improved new rail station, major public transport investment, and delivering new homes and jobs post-Games.	<ul style="list-style-type: none"> Completion of Sprint Phase 2 route including priority measures in the Black Country. Completion of Perry Barr rail station
Smethwick & Icknield £51m	Major investment in land remediation and transportation are enabling a new mixed-use urban quarter just 10 minutes from Birmingham city centre. The project covers a development area of 137	<ul style="list-style-type: none"> Multimodal corridor covering bus, walking and cycling improvements on the Dudley Rd in Birmingham

Corridor	Catalyst	Selected schemes
	hectares, able to accommodate approximately 5,000 new homes and 10,000 square metres of commercial floorspace – one of the largest opportunities for brownfield regeneration in the UK.	<ul style="list-style-type: none"> Enhancements to a key pinch point in Sandwell adjacent to housing development sites Segregated cycle lanes and mobility hubs
East Birmingham / North Solihull £87m	Much of East Birmingham falls within the top 20% most deprived areas in England. The arrival of HS2 and the proposed Metro extension from East Birmingham to Solihull represents a once in a generation opportunity for positive change.	<ul style="list-style-type: none"> Development work to progress the Metro corridor Package of sustainable transport improvements Cross-city bus priority routes Segregated cycle schemes
Coventry to Solihull £16m	This corridor links UK Central – including the new HS2 Interchange station, Arden Cross development, Birmingham Airport, NEC and JLR sites – to the thriving University of Warwick, Eastern Green and Keresley developments (6,000 new homes), and Coventry city centre with investment in improved park and ride facilities at Tile Hill and strategic cycle routes.	<ul style="list-style-type: none"> Multi modal transport interchange at Tile Hill station Cycling improvements to enable sustainable access to Warwick University and science park

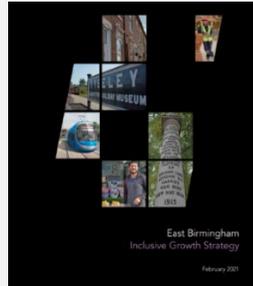
Interactions with other programmes: our proposed investment in inclusive growth corridors is targeted at maximising the impact of the significant levels of infrastructure already committed and in delivery across transport, housing and regeneration. These include the transformational 11km Metro extension to Dudley; SPRINT Bus Rapid Transit Routes across Birmingham, Solihull and the Black Country; new or improved rail stations between Walsall and Wolverhampton and across Birmingham; new housing and regeneration in Smethwick and Icknield; and the Commonwealth Games and housing growth adjacent to Perry Barr station.

East Birmingham is home to more than 230,000 people and forms a crucial part of the city and region’s economy. Major growth is coming which will deliver more than 60,000 new jobs and 10,000 homes within and near to East Birmingham over the next ten years.

The **East Birmingham Inclusive Growth Strategy**⁵ sets out a clear vision for the future of East Birmingham as an excellent place of strong communities in which to live and work. It will guide the delivery of inclusive growth in East Birmingham over the next 20 years.

⁵ East Birmingham Inclusive Growth Strategy, [link](#)

The arrival of HS2 is a huge opportunity for East Birmingham. Transport investment delivered through CRSTS will maximise these benefits through a proposed East Birmingham to Solihull Metro extension and a new Sprint rapid transit route along the A45 Coventry Road corridor. Wide ranging cycle, walking, bus and rail improvements will change the way people move around, reduce congestion, improve air quality and encourage people into healthier travel habits.



Theme 3: Healthy Streets and Spaces - £234m funding required from CRSTS

Overview: This theme delivers measures aimed at encouraging more active travel, reducing the volume of trips made by cars, improving health and well-being, and reducing the environmental impacts of transport. The package of measures comprises a high quality network of new walking and cycling corridors and public realm improvements in strategic centres, designed to DfT LTN 1/20 standards.

Strategic rationale: This theme has very strong alignment to both local and national policies around promoting physically active, community-focused, sustainable and decarbonised forms of transport. For example, our Local Transport Plan set out the urgent need to shift from short-distance car journeys to active travel modes.

This theme builds on West Midlands' recent success in delivering active travel projects, including walking and cycling infrastructure as part of the Active Travel Fund. These schemes, and those delivered through CRSTS, will reduce the carbon footprint of the West Midlands, improve air quality, and provide a wider range of affordable travel options to resident and visitors alike.

Table 4: Key Schemes – Healthy Streets and Spaces

Scheme	Description
Cycleways £137m	16 new routes linking key centres, distributed across the whole of the West Midlands. Many are up to 10km in length, with all new infrastructure meeting LTN 1/20 standards for high quality cycling infrastructure.
Public Realm improvements £73m	Improved surfacing, wayfinding and place making in the local and strategic centres of Wolverhampton, Dudley and Birmingham.
Active travel corridors £27m	New or improved combined walking and cycling routes across the West Midlands, including improvements to the popular canal towpath network.

Interactions with other programmes: The spatial spread of the proposed active travel projects means there are a number of interactions with other programmes. For example:

1. The **One Station** package of improved pedestrian connections will link the new HS2 Curzon Street station with the three other city centre railway stations – New Street, Moor Street and Snow Hill. The project will deliver wayfinding and a much-improved public realm along key walking routes to enhance sustainable connectivity to and from Curzon Street.

The **Dudley Town Centre Interchange Public Realm** will deliver high quality public realm in and around the Dudley Interchange project. The existing Dudley Town Centre bus station will be replaced with a new state of the art facility which will provide direct connectivity to the Wednesbury to Brierley Hill Metro extension. Dudley Interchange and the Metro extension are both funded, in part, through the Transforming Cities Fund.

Keresley Connects: a 7km segregated cycleway linking the new Keresley residential development, and major employment area at Lyons Park, with Coventry city centre. The residential development is being designed as a Sustainable Urban Extension and the supporting cycle infrastructure will be imperative to encourage new residents to travel more healthily and sustainably.

Birmingham District / Town Centres: a package of improved signage, cycle parking, the widening of footpaths and the removal of parking bays at district and town centres across Birmingham. Investment through CRSTS will build on similar measures implemented as part of the Active Travel Fund which saw increases in footfall to local centres and strong support from local retailers.

Selly Oak to Longbridge Cycleway: extending the popular segregated cycleway between Birmingham city centre and the University of Birmingham by 8km to reach Longbridge. This would link a number of local centres along the A38 corridor to major employment centres at the University of Birmingham, Queen Elizabeth Hospital and the city centre. The extended cycleway will provide an attractive, safe means for people to travel along this busy corridor, reducing reliance on the car.

Theme 4: Creating Resilient Networks and Communities - £407m funding from CRSTS

Overview: This theme delivers multi-modal junction and corridor route improvements to highways and the Key Route Network across the West Midlands, whilst also investing in road safety and innovative technological infrastructure. These schemes will improve multi-modal connections, reduce barriers to active travel by making our roads safer to use, and address congestion and capacity constraints.

Strategic rationale: Resilient networks are key to addressing the transport and economic challenges faced in the West Midlands. This region-wide programme will help our road network to be a better neighbour to our communities through the renewal of aging assets and improved accessibility. Creating new and improved connections will maximise the benefits of nationally significant infrastructure such as HS2. Delivering new multimodal connections and improvements to public transport mean communities will have a viable alternative to private

car use and ensure that our residents can access more employment opportunities. Addressing capacity constraints and congestion – particularly for public transport – will support the Government’s ambition for Gear Change, the National Bus Strategy and decarbonisation objectives. Meanwhile, improving road safety will remove barriers to active travel. Investment in the network will keep ahead of a number of high capacity residential and employment sites proposed across the region.

Significant schemes within this theme, including funding required from CRSTS

Table 5: Key Schemes – Creating Resilient Networks and Communities

Scheme	Description
Highways maintenance and structures £120m	The region's highways maintenance programme focuses on reducing the deterioration of main carriageways, structures and the unclassified network, which is essential for improving accessibility to local services, public transport and encourages local trips by walking, cycling and other emerging mobility solutions. Overall the programme seeks to renew, repair and extend the life of highway assets across the West Midlands. This programme is aimed at improving conditions across all classes of roads to support our thriving communities and businesses.
A461 Tipton Multi-Modal Corridor – Sandwell £40m	Capacity enhancements, installation of active travel infrastructure and air quality improvement measures. The scheme will also include bus priority measures to address Key Route Network action plan priorities.
West Midlands Regional Road Safety Programme £8m	Evidence shows an increase in deaths for vulnerable road users (particularly pedestrians) over the past three years. In order to meet our target of reducing road traffic accidents by 40% up to 2028 we will invest in road safety measures to deliver an accessible, efficient, and safe transport system.
RTCC/UTC Highways Investment Package Phase 2 £17m	Traffic signals and roadside technologies across the region have experienced a legacy of under investment. We will deliver critical roadside infrastructure that keeps traffic moving and supports a cleaner greener transport system. This will make for a more efficient network, and one that can adapt to our dynamic urban environment
West Midlands Key Route Network Enhancement Package £16m	A set of route specific multi-modal solutions to address challenges in areas of persistent inequality, poor public transport accessibility, lacking cycling and active travel facilities and poor road safety. This will support the health and wellbeing of local people, housing and employment growth, as well as the decarbonisation of transport.
West Coast Mainline and M42 Bridge link to HS2 Hub £15m	Creation of a public transport corridor between Birmingham International station and HS2, including a direct link for cycling and walking. Provision of reliable

Scheme	Description
	public transport to the Arden Cross and NEC developments including the Health and Innovation Campus.

Interactions with other programmes: there are a number of complex interactions with HS2 and related investment, access routes to UK Central, planned capacity improvements to motorways being delivered by National Highways, Sprint bus priority routes, on-street running of the Metro, and local cycle and walking investment programmes.

Theme 5: Delivering a Green Revolution - £58m funding required from CRSTS

Overview: This programme aims at decarbonising the largest sources of carbon emissions on the road, including cars, LGVs and HGVs. The schemes within this programme focus on research and development, building a robust supply chain for zero emission technologies, and delivering supporting infrastructure to build consumers’ confidence in zero-emission vehicles.

Strategic Rationale: The schemes within this theme are part of a number of essential steps towards our carbon neutrality target contained in our regional #WM2041 commitment, supporting DfT’s Transport Decarbonisation Plan and national carbon zero targets.

The interventions are carefully targeted on the parts of the West Midlands with the most challenging air quality issues (e.g. Key Route Network and major A roads) and where the bulk sources of carbon emissions from cars, LGVs and HGVs occur. Furthermore, the locations of charging stations will be strategically selected such that they provide easy access to other greener modes of transport so as to maximise the decarbonisation potential of all the programmes within this proposal.

These interventions are complemented by schemes that promote modal shift and active travel in other themes, such as the £137m active travel corridors and £27m cycleways scheme under Healthy Streets and Spaces.

Table 6: Key Schemes – Delivering a Green Revolution

Scheme	Description
WM EV Public Chargepoint Fund £10m	A centrally managed fund to support installation of public EV chargepoints in destinations and town centres across West Midlands, alleviating ‘range anxiety’ for residents and supporting local business and taxi/private hire operators/car clubs. The contribution from CRSTS will allow the region to maximise the decarbonisation opportunities from EVs.
WM ULEV Scheme £7m	Delivery of approximately 1,000 chargepoints over five years at origins particularly in the Black Country where EV take up is low due to only on-street parking being available to most residents.
Through the above two schemes, TfWM aims to deliver 2,000 7-22/50 kW chargepoints by 2025.	

Scheme	Description
Ultra-Rapid Charging Transit Stations £14m	The development of 10 Transit Stations aimed at regional transport, located in close proximity to the Key Route Network for the West Midlands. These facilities will provide Ultra Rapid charging targeted at fleets without access to depot charging and own use charging for shared mobility services such as car clubs.
Alternative fuels for freight £10m	Development funding to explore alternative fuels and the infrastructure necessary to decarbonise freight. Through our work with expert academic establishments such as the University of Birmingham and partners such as Midland Connect and National Highways, we will explore the case for increased use of hydrogen and biomethane in the freight transport sector. This work will serve as a pathway towards our longer-term transition to low carbon fuels. In order to support this ambition, we will deliver hydrogen and CNG/LNG refuelling stations.
Gigafactory Links £17m	Essential improvements to London Road, a key corridor to the Coventry Airport site where the Battery Innovation Centre (BIC) and proposed Gigafactory will be located, including a segregated cycle link.

Interactions with other programmes

The programme described above will derive most of its benefits from the uptake of zero emission vehicles which is driven by growing road users' confidence in the technology and availability of supporting infrastructure.

However, making strides towards a green revolution in the West Midlands permeates through our entire CRSTS programme across multiple themes. Modal shift from private vehicles to other greener forms of travel modes such as public transport, cycling and walking are key objectives discussed in earlier themes. The locations of charging stations and their accessibility to other greener modes of transport (e.g. Park and Ride site) are also linked. Across our entire programme we will ensure that we maximise the decarbonisation opportunities from the transition to zero emission vehicles and modal shift.

Theme 6: Making Behaviour Change Easy - £102m funding required from CRSTS

Overview: The programme of investment within this theme will provide a step-change in both the attitude and behaviour of individuals by providing frictionless access to sustainable transport across the region, and innovative new ways of travelling that build on the success of our Future Transport Zone programme.

Strategic rationale: The interventions have been carefully selected to encourage more use of public transport, active travel and new forms of mobility, thereby ensuring a viable transport network and supporting our net zero aspirations. This theme builds on West Midlands' recent success in delivering bike hire schemes and e-scooter hire services. In shaping the programme we have used recent work⁶ that segmented the WMCA population according to

spatial, economic, residential, demographic and transport-related factors. These segments condense the range of needs, preferences, and choices made by residents of the WMCA region, and have supported us to make user-centred decisions to allow us to better map interventions to behaviour, and then to track that behaviour change.

Table 7: Key Schemes – Making Behaviour Change Easy

Scheme	Description
Contactless payment broker £20m	TfWM in partnership with Midlands Connect have designed a back-office payment system that aggregates contactless payments across all operators and modes of transport. This 'broker' will enable an integrated best value cap to be applied the end of the day. In doing so, we will capture and utilise greater intelligence and insights about the way that people travel in the region.
Coventry Very Light Rail (VLR) research and development £27m	Funding to progress the research and development to be ready for final deployment, followed by planning and consenting phases, for the first route of this innovative, affordable urban VLR system. This will provide a real alternative to car use and drive modal shift to cleaner and more sustainable forms of transport (see 'Connecting our Places' theme for further details).
Regulatory Sandbox £2m	Creation of a regulatory 'safe space', where new transport technologies and business models can be trialled in real-world conditions to inform policy and regulatory formulation. TfWM will provide guidance, foster collaboration and facilitate certain exemptions. The sandbox will allow agile development of regulatory reform in partnership with industry, and support HMG's Future of Transport Regulatory Review.
Mobility Hubs £22m	A network of highly recognisable physical interchanges that offer a range of connectivity including public, shared active and decarbonised mobility options, together with enhanced facilities and information. Mobility hubs are far more than just transport exchanges – they will provide an opportunity for access to a much wider range of mobility options to support sustainable travel and address air quality issues. They have the potential to revitalise neighbourhoods and town centres, facilitating more social interactions and support stronger local communities and economies. We will consult locally on the design of each hub, so the offering is tailored to the needs of the local community.
Local Network Improvement Plan £22m	A multi-modal West Midlands-wide Network Improvement programme of minor schemes and behaviour change programmes to support Making Behaviour Change Easy. This will be delivered across the seven local authorities and TfWM. Initiatives could include travel demand management support.

⁶ TfWM All Traveller Segmentation Summary Report

Scheme	Description
Micromobility £5m	Further expansion of micromobility solutions including expansion of the cycle hire scheme, an increase in e-bikes and e-cargo solutions and exploring other new forms of micromobility. We will roll these offers out across the entire West Midlands region.
Rules of the Road - Fully Digitised Network £4m	Building a fully digitised (and live) view of the network, opening up new opportunities for a wide range of transport from flexible logistics delivery to dynamically managed kerbside use. This is an essential enabler for the widespread use of connected and automated vehicles, and efficient freight and delivery services.

Interactions with other programmes: The schemes set out above are part of TfWM's broader portfolio of transport innovation programmes (see Figure 8 below). They will enhance and complement other future transport initiatives within the portfolio that are funded through other routes.

The schemes are intrinsically linked – for example, the Midlands Future Mobility connected and automated mobility testbed is co-located with the 5G testbed for transport trials. Equally, the Regulatory Sandbox will assist with the quick and efficient move from development to delivery of VLR and be supported by a digitised road network.

Layering these initiatives creates a synergy that not only benefits individual initiatives but also sets the West Midlands apart as a region uniquely attractive to investment in transport innovation.

The schemes within this theme will be complemented by TfWM's commitment to spend 1% of each capital scheme budget across our entire portfolio on travel demand management measures to prompt behaviour change, minimise construction disruption and enhance outcomes.

Figure 8: Programme Interactions



6 The benefits of our programme

The programme we have developed has been tailored to help deliver against the key outcomes of value for money, growth and productivity, levelling up and decarbonation. We set out below a summary of how we expect the WM CRSTS programme to support each of these objectives.

Driving growth and productivity at the local and national level

As addressed in [Section 3](#), the strengths of our economy lie in our world-leading automotive and aerospace innovation, green technology, health and life sciences industries and research institutions. However, our economy also faces some challenges – such as increasing inequality, entrenched poverty, youth unemployment, lower skills, poor health outcomes and low educational performance.

It is well established that while a lack of accessibility can constrain and exacerbate these socio-economic challenges, investing in city region transport infrastructure can be a catalyst for growth; driving up the productivity of existing businesses, attracting new and high value economic activity to the region and creating new and better-paid employment opportunities for local residents. Indeed, recent investments in the West Midlands Metro will triple the networks size, linking Wolverhampton and Dudley with the heart of Birmingham City Centre and carrying 30 million passengers per annum, and this unlocking growth and prosperity within the corridor.

Within our proposed CRSTS investment programme, our themes of Connecting our Places, and Supporting Inclusive Growth both focus on driving productivity and net additional growth locally and nationally, as do many projects across the remainder of our investment themes. These two themes represent a minimum circa £869m of growth-focused transport investment over the next 5 years (some 50% of our total CRSTS programme).

Together, this step-change in investment will improve access and connections between workers and businesses across our region; driving productivity both locally and nationally by enhancing business competition, allowing businesses to better match with the right suppliers, customers and employees, and increasing the likelihood that ideas, knowledge and innovations are shared and exchanged throughout the West Midlands economy. Our investment programme will provide some of our major employment locations with access to a deeper and wider pool of skilled labour, and at the same time help to make places and housing more economically viable in key areas; providing people with more freedom to decide where they live and work. This will not only help to attract high value and globally-mobile investment and jobs to the West Midlands, but support existing and new residents to seek out more productive, higher paid employment.

Based on early analysis in the development of our proposed programme, we expect the investment of the type and ambition proposed under our CRSTS programme could **potentially deliver an 11-25% improvement in residents' access to employment by public transport over the next 15 years**. As shown in Figure 9, this is expected to deliver widespread accessibility benefits across the region, and with the greatest improvements within the Birmingham ring road and areas served by new Metro schemes and Birmingham Business Park.

Figure 9: Change in the PT accessibility to jobs relative to the a Do Minimum scenario

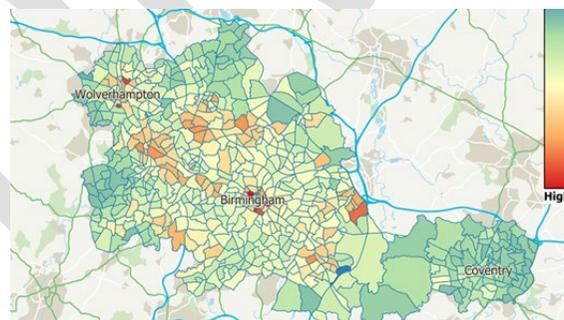
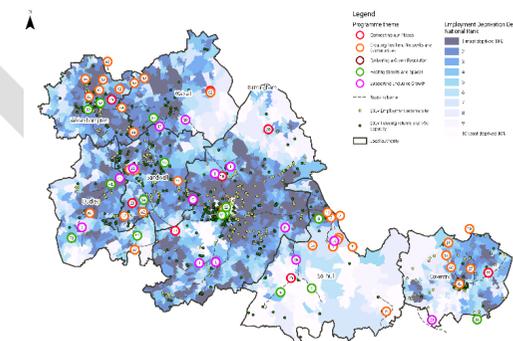


Figure 10 demonstrates how our programmes has the potential to drive growth and productivity by targeting investment which improves access to current and new employment opportunity areas, encourages productivity by improving connectivity with educational institutions, and unlocks innovation and growth in areas with key value and export led sectors.

Figure 10: Programme interventions by theme, mapped to areas of employment deprivation, employment returns and residential return sites



Our proposed programme includes **investments in rapid transit**, which will see the sustained operation of the original Line 1 between Wolverhampton and Birmingham and the completion of the Wednesbury to Brierley Hill metro extension, combined with the development of route options from Wednesbury to Walsall and the Hagley Road route to key employment growth areas in the west of Birmingham and the Black Country.

It also includes **critical rail investments** at Sutton Park railway line and delivery of Aldridge station, the essential components of the Midlands Rail hub, including the Snow Hill Platform 4 and Kings Norton remodelling which will improve the rail connectivity between key employment locations and underserved residents of the south and west of Birmingham. We will also leverage the arrival of HS2, delivering on the master planning activity between Curzon Street and Moor Street station to unlock business investment and drive up productivity in these prime city centre locations,

and in turn create high value employment opportunities which support growth both locally and nationally.

Underpinning all of this activity will be a programme of interchange improvements including rail park and ride to support the transition between transport modes and the connectivity this brings. Our key centres of Sutton Coldfield and Solihull will also see the delivery of new gateways, which will provide an attractive and welcoming access point whilst also catalysing further investment and regeneration in the area.

Case studies: Both the Coventry Very Light Rail and the A45 Birmingham to Airport SPRINT are key examples of how connecting our places across the West Midlands will unlock growth and productivity locally and at the UK level.

Coventry Very Light Rail is a research and development project, using the latest automotive expertise developed in the region to deliver an innovative and affordable light rail system, directly supporting the West Midlands Local Industrial Strategy. This project aims to deliver all of the economic benefits of light rail, but at a fraction of the cost, providing a real alternative to the car, and boosting key connections between residents and employment/educational opportunities. The first route is being developed in Coventry to provide a mass transport system for the city and prove the concept of VLR in a city centre environment. This will connect major employment, commercial, education and healthcare sites between the city centre and the newly-improved HS2 connected railway station, supporting economic activity and productivity growth within the WCMA and across the UK.

A45 Birmingham to Airport SPRINT is a bus-based rapid transit (BRT) proposal linking Birmingham city centre with Birmingham International Airport, the National Exhibition Centre and Solihull town centre along the A45 Coventry Road. It also links to an area of significant growth at the HS2 Interchange station site – 'UK Central' (UKC Hub). It will provide a high reliable and high frequency (targeting 95% on time, at 10 min between services at the least in the peak), alleviating congestion and connecting workers with new employment opportunities, homes, facilities, and onward domestic and international connections via the rail and air. It will also support growth and regeneration, supporting developments in the Birmingham City Centre Enterprise Zone, around the new HS2 Curzon Street Station and surrounding Masterplan area, development at UK Central, and in Solihull Town Centre, significant expected expansion at the JLR Lode Lane

plant, with a new logistics hub, and new the 'Environmental Enterprise District' site identified in Birmingham's 'Big City Plan'. Finally, it is expected to drive productivity through agglomeration economies, with a level 1 BCR of 2.9 and a level 2 BCR of 3.6.

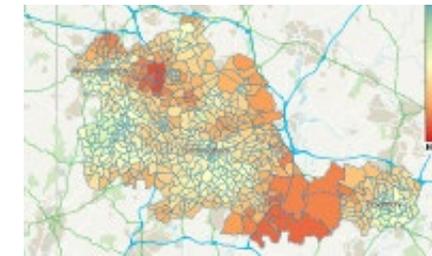
Levelling up connectivity and economic prosperity across the West Midlands

Improving the wellbeing and prosperity of our most deprived and vulnerable communities is a key part of levelling up the region, such that all West Midlands residents have access to the same life chances. Improving transport connectivity – particularly via public transport and active travel – plays a critical role in opening up those opportunities by reducing living costs, improving health and amenity, and importantly providing affordable access to work, leisure and educational opportunities. In supporting our most disadvantaged communities, we can also support significant regeneration of our towns and cities by unlocking new affordable housing and employment development in the areas that need it most.

As already set out in [Section 3](#), whilst public transport and active travel provides an important means of accessibility for those that cannot afford to travel by car, current service levels do not meet the needs of certain deprived areas, and risks entrenching deprivation by constraining access to employment and investment opportunities in these areas.

Transport inequality between car and public transport can be measured by using the gap between the number of jobs accessible by those who commute by car and those who must rely on active and public transport modes. Figure 11 below shows that these disadvantages arise in semi-rural areas such as Knowle and the Meriden Gap. In these locations there is easy access to the motorway network extending the range that car commuters can travel. However, there is limited public transport service provision, which reduces travel horizons for public transport users. Areas west of Walsall, which do not have local rail or metro connections and must rely on bus as a means of public transport, also show high levels of inequality. The lowest areas of inequality are found within the centre of Birmingham where a high-quality public transport system competes against congested roads.

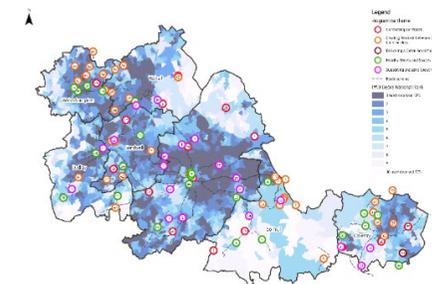
Figure 11: Level of transport inequality



Based on early analysis in the development of our proposed programme, we expect the investment of the type and ambition proposed under our CRSTS programme **could potentially deliver a 2-5% improvement in overall transport equality toward public transport and active travel over the next 15 years.**

Figure 12 demonstrates how our programme has the potential to address the key challenge of levelling up, targeting those underserved and deprived regions such as inner-city communities in Birmingham, Wolverhampton and Walsall, as well as more rural areas of the WMCA. Within these Local Authority areas, the majority of our programme interventions are also concentrated in the LSOAs that that have higher levels of deprivation and poor accessibility/employment opportunities. This underscores the fact that not only is the programme itself targeting areas in need of levelling up within the West Midlands, but that significant investment in the region will materially contribute to levelling up the UK economy overall.

Figure 12: Programme interventions by theme, mapped to areas of index of multiple deprivation



Both the Smethwick – Birmingham Inclusive Growth Corridor and Walsall to Wolverhampton Inclusive Growth corridor are key examples of how we will Level Up connectivity and economic prosperity for the areas of our region which are most in need.

The **Smethwick – Birmingham Inclusive Growth Corridor** is home to some of the most deprived and vulnerable communities in the West Midlands. The transport investment package combines a range of sustainable transport measures to increase travel horizons to employment and education opportunities. The additional capacity provided in the corridor will also help to accommodate new housing development and support the economic transformation of the corridor.

The **Walsall to Wolverhampton Inclusive Growth corridor** proposals combine multi-modal transport investment to improve journey time reliability, increase physical activity and boost connectivity for residents in the corridor. The package of measures will unlock housing and enable improved access to employment and education in Wolverhampton and Walsall as well as providing onward connections to improve travel horizons.

Decarbonising the West Midlands transport network to achieve our Net Zero ambitions

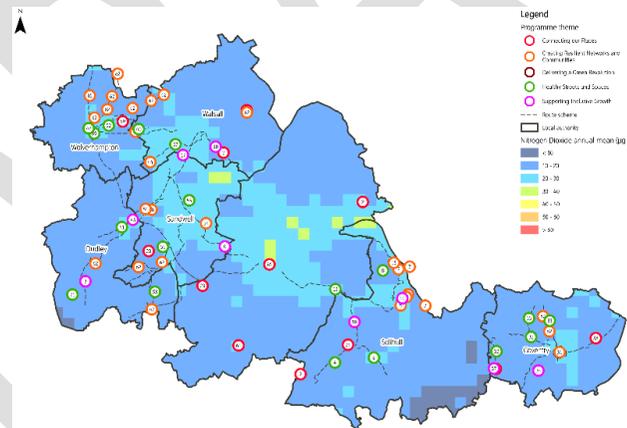
As of 2021, the carbon emissions from cars, LGVs and HGVs across the West Midlands amount to 3.443 MtCO_{2e}. Under a business-as-usual scenario, this is predicted to fall to 3.183 MtCO_{2e} by 2027 (the end of the funding period). However, this decarbonisation pathway is not sufficient to bring the West Midlands' transport emissions to net zero by 2050, with a significant gap of 2.490 MtCO_{2e} at this stage. On top of carbon emissions, road transport is also the main contributor to NO_x and PM 2.5 emissions which deteriorate air quality and are detrimental to public health. Hence, there is an urgent need for additional transformative interventions which accelerate decarbonisation via modal shift and switch to zero emission engine sources in vehicles. The CRSTS timeframe is the earliest opportunity to make these interventions and meet our net zero carbon target by 2041.

Our proposed programme reduces carbon emissions and air pollutants (NO_x and PM 2.5) by targeting cars, LGVs and HGVs which are the largest contributors by mode and the

locations which suffer most from air quality issues in West Midlands as shown on the map in Figure 13. The programmes aim to reduce carbon emissions and air pollutants through the following means:

- Improvement of public transport link and capacity to encourage modal shift from private vehicles to public transport
- Strengthening the links of cycling and walking paths to public transport and other transport hubs to encourage modal shift from private vehicles to active modes of travel
- Improvement of West Midland's Key Route Network to reduce congestion and therefore emissions from idling vehicles on roads
- Encouraging innovation to enable transition to zero emission powertrains for freight lorries
- Provision of EV charging points to build consumers' confidence in adopting EVs.

Figure 13: Programme interventions by theme, mapped to areas levels of Nitrogen Dioxide



Quantifiable element example: By 2027, which is the end of funding period, we have estimated that the EV chargers proposed within the programme are able to help drive down emissions to 3.140 MtCO_{2e} as opposed to the 3.183 MtCO_{2e} baseline. By 2050, we expect that our programme will help drive carbon emissions down to 1.056 MtCO_{2e} compared to the baseline which currently stands at 2.490 MtCO_{2e}.

Specifically related to the EV infrastructure element of the programme, the social cost of carbon, this will allow us to realise c.£423m (c.£16.9m per year from 2022) in carbon saving benefits by 2050.

Non-quantifiable (to be quantified as scoping matures): We expect more carbon-saving benefits can be reaped from the modal-shift-oriented interventions, the impact of which will be modelled in the near future. Furthermore, with the shift from ICE to zero emission vehicles, we also expect a proportionate reduction in NO_x and PM 2.5 emissions to the reduction in carbon emissions.

Delivering Value for Money

As presented in [section 4](#) and [5](#), our CRSTS programme has been designed to align with key local and national SMART objectives and has gone through a robust sifting process to ensure that we deliver on the key objectives of the programme. This includes ensuring that Value for Money (VfM) is delivered by optimising economic (e.g. travel time, vehicle costs), environmental (e.g. noise, air quality and greenhouse emissions, landscape) and social (e.g. health, safety, accessibility) benefits and costs both locally and nationally, as well as targeting projects that can unlock growth and productivity, contribute to levelling up our economy and society, and decarbonise our transport network.

At this stage, not all projects are designed to a level of maturity where a detailed Business Case and Green Book economic appraisal has been completed. There are, however, a number of key schemes in the programme that are at or are progressing towards this stage.

Table 8 provides a summary of a mix of key schemes, representative across the six themes of our programme. It demonstrates our commitment to both developing and delivering schemes and to optimising our overall programme so that we maximise public value both locally and nationally, and our commitment to testing these outcomes through a robust Green Book compliant business case process.

Table 8: VfM summary of key illustrative schemes across the six CRSTS programme themes

Name	Description	Key benefits	BCR (exl WEBS)
Connecting our Places			
The Solihull Station Hub	Major station redevelopment and regeneration scheme, creating a multimodal transport hub.	Journey time and reliability savings, improved journey experience, health and security through active travel and urban real enhancements, regeneration	2.2
Aldridge station	Train station development improving connectivity and integrating Aldridge with regional economic and housing growth prospects.	Access to high value employment, journey time and reliability savings, modal substitution, enhanced active travel opportunities, reduced greenhouse gas emissions	2.2
Supporting inclusive growth			
Midland Metro East Birmingham to Solihull Extension	Tramway development providing a high-quality public transport connection between deprived areas and major commercial, employment and entertainment precincts.	Journey time and reliability savings, improved journey quality, regeneration, agglomeration economies, physical activity opportunities.	1.6
Smethwick-Birmingham Inclusive Growth Corridor Transport Package	Multiple enhancements of a key arterial route between the Black Country and Birmingham, addressing carriageway bottlenecks, public transport operation and active mobility.	Journey time savings, reduced greenhouse gas emissions, reduced cost of accidents and increased safety, active mobility opportunities, regeneration.	2.3
Health Streets and Spaces			
A45 Coventry Road Cycle Scheme	Improvement of the cycling infrastructure with the creation of segregated tracks, priority crossing	Journey time and reliability savings, improvements in air quality, improved journey quality and safety, active	3.3

Name	Description	Key benefits	BCR (exl WEBS)
	points and connections to existing cycling routes including the Cole Valley and Grand Union Canal.	travel, urban realm enhancements, employment opportunities.	
Creating Resilient Networks and Communities			
A45 Coventry Road / Damson Parkway / Terminal Road Junction Improvement	Improvement of a strategic road junction with increases in private and public transport capacities, and the development of active mode infrastructures.	Journey time savings, journey experience and security benefitting active travel development, economic opportunities by improving accessibility to major employers.	3.9
The Coventry North Transport Package	Series of transport interventions that create a new route, displacing orbital journeys from unsuitable residential areas, facilitating planned developments and enabling growth	Journey time and reliability savings, improved journey experience and improvements to urban realm, regeneration, employment opportunities, productivity gains.	3.6
Delivering a Green Revolution			
Black Country Ultra Low Vehicle Emissions Strategy (ULEV)	Strategy leveraging electric and low emissions vehicle usage, supporting public/private vehicle transition, the installation of charge points and improvements in energy infrastructure.	Reduced greenhouse gas emissions, business sector benefits through reduced operational cost, improved skilled employment opportunities, and a catalyst for new investment in the local area.	3.6- 33.6
Making Behaviour Change Easy			
Smart ticketing scheme (cEMV contactless payment broker)	Integrated contactless ticketing across the transport network with the introduction of an advance fare system directed at supporting behavioural change towards West Midlands objectives.	Time and reliability savings, reduced greenhouse gas emissions from mode shift, journey quality improvements through real time passenger information, agglomeration economies, and better customer experiences from greater operator competition.	3.3

7 How the programme will be funded

7.1 Programme Funding

The total funding requirement

Our £1.7bn ask from CRSTS would, if fully provided, leverage a further £554m of local contributions, which we could raise on the back of this level of investment. This would deliver a £2.3bn programme of transport investment over five years from 2022/23 to 2026/27. The vast majority of the capital costs of the programme are contained and delivered within the 5-year CRSTS period and anything that spans past 2027 is limited. We have included where appropriate development funding costs within strategic schemes. The annual breakdown of the programme by theme is shown in Table 9 below.

Table 9: Per annum total funding requirement for WM CRSTS Programme by theme

Theme	2022/23	2023/24	2024/25	2025/26	2026/27	Total
Supporting Inclusive Growth	£83m	£90m	£99m	£69m	£31m	£372m
Connecting our Places	£43m	£334m	£146m	£191m	£176m	£889m
Healthy Streets and Spaces	£88m	£106m	£67m	£51m	£15m	£327m
Creating Resilient Networks and Communities	£62m	£72m	£91m	£102m	£114m	£440m
Delivering a Green Revolution	£21m	£26m	£43m	£27m	£8m	£124m
Making Behaviour Change Easy	£38m	£45m	£26m	£12m	£12m	£132m
Data & Programmes	£3m	£3m	£3m	£3m	£3m	£13m
Total	£337m	£675m	£473m	£453m	£360m	£2,297m

Proposed scale of Government's funding contribution

Table 10 summarises the proposed phasing of funding and split between central government CRSTS contributions and those raised locally.

Table 10: Proposed split of local and central government funding for WM CRSTS

Total Funding Requirement	2022/23	2023/24	2024/25	2025/26	2026/27	Total
Central Government Funding	£289m	£446m	£337m	£355m	£316m	£1,743m
Local Government Funding contribution	£48m	£229m	£136m	£98m	£43m	£554m
Total	£337m	£675m	£473m	£453m	£360m	£2,297m

Proposed local funding contribution

In recent years the West Midlands Combined Authority and constituent local authorities have put in place a series of positive progressive measures to generate local revenues for transport – for example Birmingham's Clean Air Zone and bus lane enforcement. These have involved us making some difficult decisions to balance the needs of road users with negative externalities associated with traffic and congestion.

Against this background the WMCA and Local Authorities have together assembled a significant package of funding that commits up to £554m of local contribution towards the CRSTS programme, alongside our £1,743m funding ask of Government net of existing highways maintenance funding of £120m, this amounts to a 34% local contribution comprising locally generated revenue streams, CA borrowing against future farebox revenues, and private sector contributions – wholly additional to Government's contribution.

This is an ambitious package of measures – and materially exceeds even HMG's higher bound range of targeted local contribution for CRSTS. This demonstrates the level of commitment we in the West Midlands have to transport, the endeavour we have made to source local contributions, and the consensus across the CA, local authorities and private enterprise around the essential need for a step change in investment in the West Midlands.

The key components of our local funding contribution over the next five years are:

Local Authority contributions: around £210m committed from discretionary local authority revenue streams including:

- £70m earned from the growth in business rates generated within Birmingham City Centre Enterprise Zone, reinvested in a package of initiatives to improve multi-modal access to the zone, cycleways and pedestrian routes
- £15m from Birmingham's new Clean Air Zone and bus lane enforcement to fund the Selly Oak to Longbridge segregated cycle route, and a package of improved signage, cycle parking, the widening of footpaths at district and town centres across Birmingham
- almost £125m match funding against the local network improvement plans funded out of general council budgets.

West Midlands Combined Authority contributions: almost £246m of WMCA borrowing, supported by future net operating surpluses from Metro Line 1 and incremental revenues generated from the Birmingham Eastside, Edgbaston, Centenary Square and Wednesbury to Brierley Hill Metro Extensions. This borrowing will be reinvested in the Metro system to fund:

- essential renewals to sustain operations on the (now 20-year old) Line 1 between Wolverhampton and Birmingham
- the completion of the 11km Wednesbury to Brierley Hill metro extension
- the Birmingham Eastside Extension connecting the network to the new HS2 station at Curzon Street.

Private sector contributions: almost £98m of contributions from the private sector including:

- section 106 contributions towards vital cycleway and road improvements linking key commercial and residential sites such as the Keresley Sustainable Urban Extension and the Gigafactory development near Coventry
- private operators covering the cost of new vehicles for the next phase of our SPRINT Bus Rapid Transit network
- match funding for 10 new Ultra Rapid Charging Transit Stations, and payments in lieu of the commercial revenues earned through charging.

This package of local measures amounts to a very significant contribution to the overall CRSTS programme. It is contingent on the commitment from Government matching the scale of our ambition for transport investment over the next five years. Together we believe we can deliver almost £2.3bn of new transport investment.

7.2 Our fiscal sustainability plan

The Combined Authority's current exposure to revenue and operating risk is limited to its wholly owned subsidiary **Midland Metro Limited** (MML), the operating arm of the Metro system.

Predictably, COVID-19 has had a detrimental impact on passenger numbers – during the most severe periods of the pandemic, passenger numbers decreased to 8% of normal operating levels. However, in recent months, passenger numbers on the Metro have recovered to 70% of pre-pandemic levels largely due to MML's customers typically being in 'blue collar' and 'key worker' industries.

All surpluses generated by MML are re-invested into the network. Indeed, further planned extensions to Edgbaston, the HS2 site and the Black Country will in part be supported by borrowing WMCA plans to undertake secured against farebox takings from the significantly expanded route.

The borrowing projections are underpinned by a detailed financial model which extrapolates out the MML business plan costs and revenues to determine an affordable level of borrowing. This financial model is continually refined and reviewed to reflect the latest forward forecasts for interest rates, inflation, passenger numbers and variances in the capital costs of the investment. The match funding referenced in the previous section refers to borrowing which WMCA has agreed to undertake – the actual value of match funding will be subject to the latest outputs of the financial model at the point the investment decision needs to be made but the principle that all operating surpluses are invested into the network holds true.

The only other significant scheme involving revenue and operating risk is the **Coventry Very Light Rail Route One**. Demand modelling estimates strong ridership on the proposed route through the City centre – on this basis we expect the scheme to be financially sustainable, operating on a commercial basis without the need for financial subsidy. Potential commercial partnerships are being explored as the R&D phase of the project progresses and the project partners look to move into the operational phase, with continued strong interest in the project from both public and private sectors in the UK and beyond.

Ongoing revenue costs for the remaining projects are expected to be met through local resources and that will be properly assessed and established as the schemes progress through the assurance stages.

7.3 Alignment with other funding programmes

The CRSTS programme is central to a wider and more complex overall Transport Investment Programme for the West Midlands. The programme themes within it have been co-developed with the overarching delivery themes for our refreshed Local Transport Plan and are one and the same approach. Our recently submitted Active Travel bids, Levelling Up Fund submissions and developing Bus Service Improvement Plan sit seamlessly within these themes. There is no duplication of asks between them.

All of the **active travel schemes** are incremental to each other – focusing on delivering whole corridor benefits and are physically mapped and designed alongside all other interventions (committed and planned) in that corridor. This is a typical example of our programme design philosophy, which will be fully codified and adopted as part of our refreshed Local Transport Plan. This will be explicitly set out in the series of four Area Based Delivery and Implementation Strategies which will focus on the interpretation of the overarching LTP policies and strategies into a 10-year detailed and prioritised area-based delivery plan. They will set out the order and phasing of schemes over this period, relative priorities for road space allocation and detailed interaction of schemes with housing, land and wider regeneration policies. TfWM will draw these up under a common framework, but working hand and glove with each relevant Local Authority who will lead the development of the content.

Our **BSIP proposals** also twin with the CRSTS and active travel proposals – with the same approach to integrated planning. Within CRSTS we are bringing forward a series of multi-modal corridors that will deliver targeted road space re-allocation to support bus and active travel, as well as addressing key pinch points which compromise overall public transport reliability. We will enhance our bus-based park and ride offer, strengthen the key bus based rapid transit corridors that are at the heart of our overarching network strategy and focus on key multi-mode interchange points. In addition to the over £700m of bus related schemes within CRSTS, it will deliver a step change in the first-last

mile solutions needed to support a viable bus network as well as enhance the rail based mass transit solutions which can take pressure off our most congested bus corridors.

In tandem to CRSTS, our BSIP submission will focus on improving the quality of the vehicles, further targeted road space reallocation for buses, service reform and moving us more fully towards a sustainable financial footing for bus services in the West Midlands. Together both BSIP and CRSTS will enable us to recover fare box revenues and patronage and move beyond pre-COVID design concept for the public transport system towards a new integrated approach which blends demand responsive, micromobility, mass transit and conventional bus planning in order to achieve a truly compelling alternative to private single occupancy car use. This will include greater integration of existing public transport modes as well as the development of new ones, including physical integration as well as ticketing and timetabling.

There is limited transport content in the region's **Levelling Up Fund** submissions, with the notable exception of the WMCA's own submission for the Metro Depot (£50m). This is not replicated in the CRSTS and is absolutely required as set out in that submission and business case. If not funded it would become a further pressure on the CRSTS programme, with consequent impacts on ambition and outcomes set out in this submission.

We recognise that CRSTS is a positive step towards a truly integrated single multi-year consolidated funding approach. With this in mind we have been careful to include some contribution towards critical activities which we anticipate will be mostly funded from **other national funding pots**, including Local Large Majors, Major Road Network funding and Midlands Rail Hub. If HMG is to require local contributions to these schemes and funding sources it is important to appreciate that given the consolidated nature of the current CRSTS programme scope it will be the main source for any such local contribution to these pots. Whilst we have been able to assemble a very strong local contribution element against the CRSTS scheme, this is drawn from schemes which have very direct and immediate physical relationships to development sites and regeneration schemes. In contrast, whilst utterly essential, the broader

strategic nature of these other funds means a different approach is required – hence inclusion of this in the proposed CRSTS programme.

Looking more widely than transport, the CRSTS programme has direct synergies with investment in the wider WMCA Investment programme and across HMG priorities, including:

- **HS2:** improving connectivity to both HS2 stations through new Sprint and Metro routes, and improved access for walking, cycling and public transport.
- **Commonwealth Games:** building on committed investment by DCMS in and around Perry Barr, including £165m for housing development.
- **West Midlands 5G:** technology and learning from the c.£18m pathfinder programme for 5G applications will be directly exploited e.g. the Regional Transport Coordination centre.
- **Priority Sites Land Fund / Brownfield Fund:** direct alignment of CRSTS schemes with key growth corridors will complement £100m of MHCLG funding to unlock site specific regeneration, and £84m of MHCLG/HMT funding for stalled brownfield housing sites.
- **Adult Education & Digital Skills:** A total existing budget of £132m in 2021/22 and going forward will be aligned wherever possible to support CRSTS and transport objectives.
- **Town Centres Fund:** Our £138m programme will deliver benefits into Wolverhampton, West Bromwich, Smethwick and Rowley centres and will be directly supported by the accessibility enhancements bought forward under the CRSTS programme.
- **Coventry Electric Bus:** Investment via CRSTS and BSIP will reinforce £128m to transform the carbon footprint of public transport across Coventry and Solihull.

There are many more examples of how we have carefully chosen the schemes within our CRSTS programme to align with wider funding programmes, regional and national objectives for carbon reduction, and to support growth and enterprise. These are set out in more detail in the Appendix.

8 How we will deliver at pace and scale

Introduction

The delivery of the CRSTS programme will build on the WMCA's robust and well-established governance and decision-making process for transport investments. This has been developed and strengthened following the agreement of our two devolution deals in 2015 and 2017, and during delivery of our £8 billion 30-year Investment Programme.

We have been working hard since last year to refresh and enhance our processes in anticipation of CRSTS, with wholly new Assurance, Risk Management and Monitoring & Evaluation frameworks and capabilities now in place that are fit for purpose given the scale of investment over the next five years (see the Appendix). Indeed, the independent review of our capability and capacity conducted earlier this year for HM Treasury pointed to strong alignment between investments and regional strategies, consistent delivery and programme management, and strong governance and assurance processes.

At the heart of our process to allocate public funding is the West Midlands **Single Assurance Framework** (SAF). This applies to all capital proposals and ensures consistency of approach, standards, appraisal, assurance and decision-making across all funding pots. Our internal framework will be supplemented with any CRSTS-specific HMG conditions or oversight processes.

The WMCA's newly developed **Strategic Risk Management Framework** will apply to CRSTS at a programme level. For individual schemes, all approvals via SAF above £1 million are subjected to our well-established **Risk & Investment Appraisal**.

We have a well-developed **Monitoring & Evaluation** (M&E) capability that builds on requirements from the 2017 Devolution Deal – indeed, a recent independent review for HM Treasury commended the WMCA on having strengthened our processes over time through a culture of

learning from previous projects. TfWM has developed a single overarching **M&E Framework** for transport. We have set aside 0.5% of total CRSTS funding for M&E activities relating to the programme, amounting to £6m over five years.

Local delivery capacity

The WMCA, TfWM and their pre-cursors (the West Midlands Public Transport Authority and Passenger Transport Executive) have a delivery track record spanning several decades. The skills, processes and mechanisms we now have in place have been refined and strengthened over many successfully delivered small and large-scale capital projects. Our current and recent project experience include:

- **West Side Extension (£150m) to Centenary Square (opened in 2019) and on to Edgbaston (opening in 2021)**: The Midland Metro Alliance (WMCA, a consortium of engineering design teams and a contractor) have delivered the first extension to Centenary Square ahead of schedule and are currently delivering two more extensions. This rolling programme has reduced our procurement risk and allowed us to embed deep expertise. As a result, the Line 1 renewals will be ready to progress as soon as further funding is secured.
- **Sprint Phase 1**: Due to complete in spring 2022, ahead of the Commonwealth Games. It is critical that the small but highly skilled (and sought-after) Phase 1 delivery team are transitioned smoothly and efficiently to Phase 2 of the Sprint programme. Securing funding and retaining key members of the team will save significant time and cost.
- **West Midlands Rail Programme**: Two stations at University and Perry Barr are in delivery and due to open in advance of the Commonwealth Games. Both these projects have been externally audited and received positive assessments. We are applying the lessons learned to our other projects in the programme – for example through the implementation of progressive assurance on the University project, which has substantially improved the schedule without compromising quality. Maintaining a strong pipeline of

work will be vital in ensuring that the West Midlands builds on this existing experience and capability.

We also commit to spending 1% of each capital scheme on capitalisable Travel Demand Management measures drive desirable behavioural change and maximise scheme benefits.

Individual Local Authorities in the West Midlands also have extensive experience of delivering local road, bus, interchange and active travel schemes. Examples include:

- **Lode Lane Route Enhancement** (£4.7m, SMBC): a package of route improvements including bus and cycle lanes, bus priority signals, cycle crossing facilities and bus stop improvements. The project was completed in Autumn 2016 on time and on budget.
- **A45 Coventry Road South Bridge** (£10m, SMBC): a replacement three-lane road-over-rail bridge used by around 30,000 vehicles a day. To minimise disruption to road users, part of the new bridge was built next to the old bridge to carry traffic while the old bridge was demolished. SMBC worked in partnership with a range of stakeholders to minimise disruption. The project won the 'Outstanding Project' category in the UK Rail Industry Awards 2016 and the Celebrating Construction 2017 West Midlands Project of the Year for Civil Engineering.
- **Ashted Circus** (£8.1m, BCC): new traffic signal-controlled junctions on the Ring Road in Birmingham as well as enhanced facilities for pedestrians and cyclists and improved access to the Enterprise Zone in Birmingham. The scheme has improved connectivity and reduced congestion levels – and was delivered below its allocated budget.
- **Selly Oak New Road** (£62m, BCC): the construction of a new road through existing railway and canal embankments to the south of University Station, Selly Oak. A 'two-bridge' option was selected based on risk, whole life cost and design aesthetics. Public and stakeholder feedback has been very complimentary and the scheme has won numerous industry awards.

Given the breadth and scale of projects completed and currently being delivered by the WMCA, TfWM and

constituent Local Authorities, we are confident that we have the capacity and capability in place to meet the challenge of delivering a programme of investment on the scale of CRSTS.

Our approach to consultation and local engagement to support delivery

Engagement with the public is an essential part of the design and delivery of TfWM's services. Activities cover everything from surveys tracking the performance of the transport system, to gathering feedback on new transport policy and strategy or commenting on major infrastructure proposals such as Sprint. We have used this information to shape the CRSTS transport programme.

We have surveyed over 12,000 residents over five phases of engagement relating to travel behaviours during and after the pandemic. Separately, our quarterly *Travel Trends and Behaviours Tracking Survey* (TTABS) monitors travel

patterns amongst local residents and their opinions on different modes of travel.

The pandemic has accelerated the use of digital platforms to engage with the public. Our *Keeping the West Midlands Moving* initiative is a thriving online community of over 1,000 residents who share their views on key transport issues. *Commonplace*, an independent online engagement platform, allows residents to give their views Active Travel Fund proposals.

For individual schemes, detailed and comprehensive stakeholder engagement processes will be (or have already been) followed for development and approval – including extensive consultation with political and civic leaders, alongside statutory consultees, contractors and delivery partners. For example, as part of designing, refining and obtaining planning permission for the Metro expansions, a number of consultation exercises were undertaken which met and exceeded statutory requirements for obtaining all necessary planning consents.

Engagement with constituent local authorities on oversight of highways is via our well-established Highways Infrastructure Managers Group. This forum allows sharing of data, asset management and renewal plans and winter service plans in an open environment. This collaborative effort supports our ambition for a well-managed, well-maintained and fit for the future highways network.

We have also significant levels of engagement with local constituents through our work on the Key Route Network. The local authorities have been at the forefront of supporting the development of regional action plans through regular and sustained dialogue. The development and opening of the regional transport coordination centre has attracted significant support from local authorities. Further, the inclusion of regional delivery packages in CRSTS has been supported through our regional road safety partnership and our strategic transport leads from across all local authorities.

