

# **West of England**

## **Full Business Case**

### **Cribbs Patchway metrobus extension**

**June 2019**

#### **Executive Summary**



## Executive Summary

The Cribbs Patchway metrobus extension (CPME) is an extension to the West of England's metrobus network. The CPME links Bristol Parkway Station and The Mall Bus Station via the Cribbs Patchway New Neighbourhood (CPNN) re-development site at the former Filton Airfield, the Horizon 38 development site, Gipsy Patch Lane and Hatchet Road.

The scheme includes the replacement of the existing railway bridge on Gipsy Patch Lane with a new wider bridge to relieve the existing pinchpoint, the extension and signalisation of the San Andreas roundabout to allow the construction of a new bus only arm to link to the CPNN, and bus lanes on Gipsy Patch Lane. Metrobus stops and walking/cycling infrastructure are also included.

The CPME scheme is estimated to cost £56.85m (2018 prices). This includes preparation, land acquisition, project management, construction costs, and risk allowance. Construction is programmed to commence from summer 2019 and to be completed, with metrobuses then operating along the route, in spring 2022.

Funding for the scheme is being sought from the Economic Development Fund (EDF) and WECA Key Strategic Projects Funding.

The Business Case does not seek funding for scheme elements, including sections of the route through CPNN, the Horizon 38 site, and works at Bristol Parkway station, that will be funded and delivered by developers and other projects.

The CPME objectives are:

- Support housing and employment development within the Cribbs Patchway New Neighbourhood and Filton Enterprise Area.
- Increase the use of public transport;
- Enhance the resilience of the road network along the CPME route
- Improve the quality and availability of facilities for non-motorised users;
- Promote social inclusion

The benefits of CPME will be:

- Improved access to existing and future employment sites including Rolls Royce, Horizon 38, Filton Enterprise Area and Cribbs Causeway.
- Offering alternatives to the private car by providing new public transport, cycling and walking links.
- Relieving congestion by improving the existing crossing of the main rail lines and pinch point on the local highway network.
- Improved access for existing and planned residential developments in Stoke Gifford, Little Stoke and the Cribbs Patchway New Neighbourhood.

- Enhanced public transport interchange opportunities at Cribbs Causeway and Bristol Parkway rail station, and new interchange opportunity at the proposed North Filton rail station.

These benefits are anticipated to lead to increases in public transport patronage, reductions in congestion and improved journey times along the CPME corridor. The scheme is a core part of a package of measures designed to support the Cribbs Patchway New Neighbourhood development (CPNN) / Filton Enterprise Area (FEA) identified in the adopted South Gloucestershire Core Strategy. This will help facilitate significant employment and housing growth not only in South Gloucestershire but also the wider West of England region and enterprise zones, and has the potential to generate new jobs, both during construction and operational stages.

An economic assessment has been undertaken on the scheme. This has found the benefit to cost ratio to be 2.53, providing high value for money.

It is envisaged that the CPME service will be operated on a fully commercial basis by one of the region's already existing bus service operators, or even a new entrant. As a consequence the precise service route and frequency will be determined later, through the Quality Partnership Scheme (QPS) process.

The project will be delivered by two main parties. Network Rail, for the Gipsy Patch Lane Railway Bridge and SGC Streetcare (using direct labour force) for the other highway works along the route. Network Rail have used their procurement processes to shortlist and appoint a contractor.

The CPME Project Board will maintain governance through implementation of the appropriate management systems. The CPME Project Board is the group which guides and steers the direction of the CPME scheme.

Approval for funding is required by June 2019 in order to meet the Easter 2020 railway possession for the Gipsy Patch Lane bridge replacement. Should Easter 2020 be missed then a later possession would need to be booked by Network Rail with resultant increases in scheme cost. The next likely available possession would be Easter 2022.

Community and stakeholder involvement has been a central theme throughout the development of the CPME scheme. The engagement and consultation undertaken to date, and that planned during construction, is summarised below:

- November 2014 to February 2015: Soft launch to inform local communities and stakeholders about the emerging CPME proposals
- November 2015 to January 2016: Public consultation on preliminary designs
- March 2018 to July 2018: Statutory consultation on CPME planning applications
- 2018-Present: Engagement in preparation for construction
- 2019-Present: Planned engagement during construction

A monitoring and evaluation plan is contained in the management case Appendix 5.9 and will help communicate the out-turn benefits of the scheme to a range of stakeholders.

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Strategic Case



## 1 Strategic Case

This Strategic Case sets out the rationale for the Cribbs Patchway metrobus extension scheme. It builds upon the information presented in the Cribbs Patchway metrobus extension Outline Business Case which was submitted to the West of England Local Enterprise Partnership in 2014. Appendix 1.1 lists the documents and decision reports that are referenced in the Strategic Case and provides hyperlinks to those documents.

### 1.1 State Aid Considerations

South Gloucestershire Council is the promoter of the Cribbs Patchway metrobus extension scheme. The table below demonstrates that the CPME scheme does not constitute State Aid.

<p>1. Is the assistance granted by the state or through state resources?</p> <p><b>Yes</b></p>	<ul style="list-style-type: none"> <li>• “Granted by the State” means by any public or private body controlled by the state (which, in the UK, means national or local Government).</li> <li>• “State resources” is broad: any measure with an impact on the state budget or where the state has significant control are included, for example, tax exemptions, Lottery funding and the EU structural Funds.</li> </ul>
<p>2. Does the assistance give an advantage to one or more undertakings over others?</p> <p><b>No</b></p>	<ul style="list-style-type: none"> <li>• An “undertaking” is any organisation engaged in economic activity.</li> <li>- This is about activity rather than legal form, so non-profit organisations, charities and public bodies can all be undertakings, depending on the activities they are involved in.</li> <li>- An undertaking can also include operators and ‘middlemen’ if they benefit from the funding.</li> <li>• “Economic activity” means putting goods or services on a market. It is not necessary to make a profit to be engaged in economic activity: if others in the market offer the same good or service, it is an economic activity.</li> <li>Support to an organisation engaged in a non-economic activity isn’t State aid, e.g. support to individuals through the social security system is not state aid.</li> <li>• An “advantage” can take many forms: not just a grant, loan or tax break, but also use of a state asset for free or at less than market price. Essentially, it is something an undertaking could not get in the normal course of business.</li> </ul>

<p>3. Does the assistance distort or have the potential to distort competition?</p> <p><b>No</b></p>	<ul style="list-style-type: none"> <li>• If the assistance strengthens the recipient relative to its competitors then the answer is likely to be “yes”.</li> <li>• The “potential to distort competition” does not have to be substantial or significant: may include relatively small amounts of financial support to firms with modest market share.</li> </ul>
<p>4. Does the assistance affect trade between Member States</p> <p><b>No</b></p>	<p>The interpretation of this is broad: it is enough that a product or service is tradable between Member States, even if the recipient does not itself export to other EU Markets.</p>

All procurement has been and will be undertaken on a non-discriminatory basis in accordance with relevant UK/EU legislation. The scheme does not provide any commercial or financial advantage to private developers.

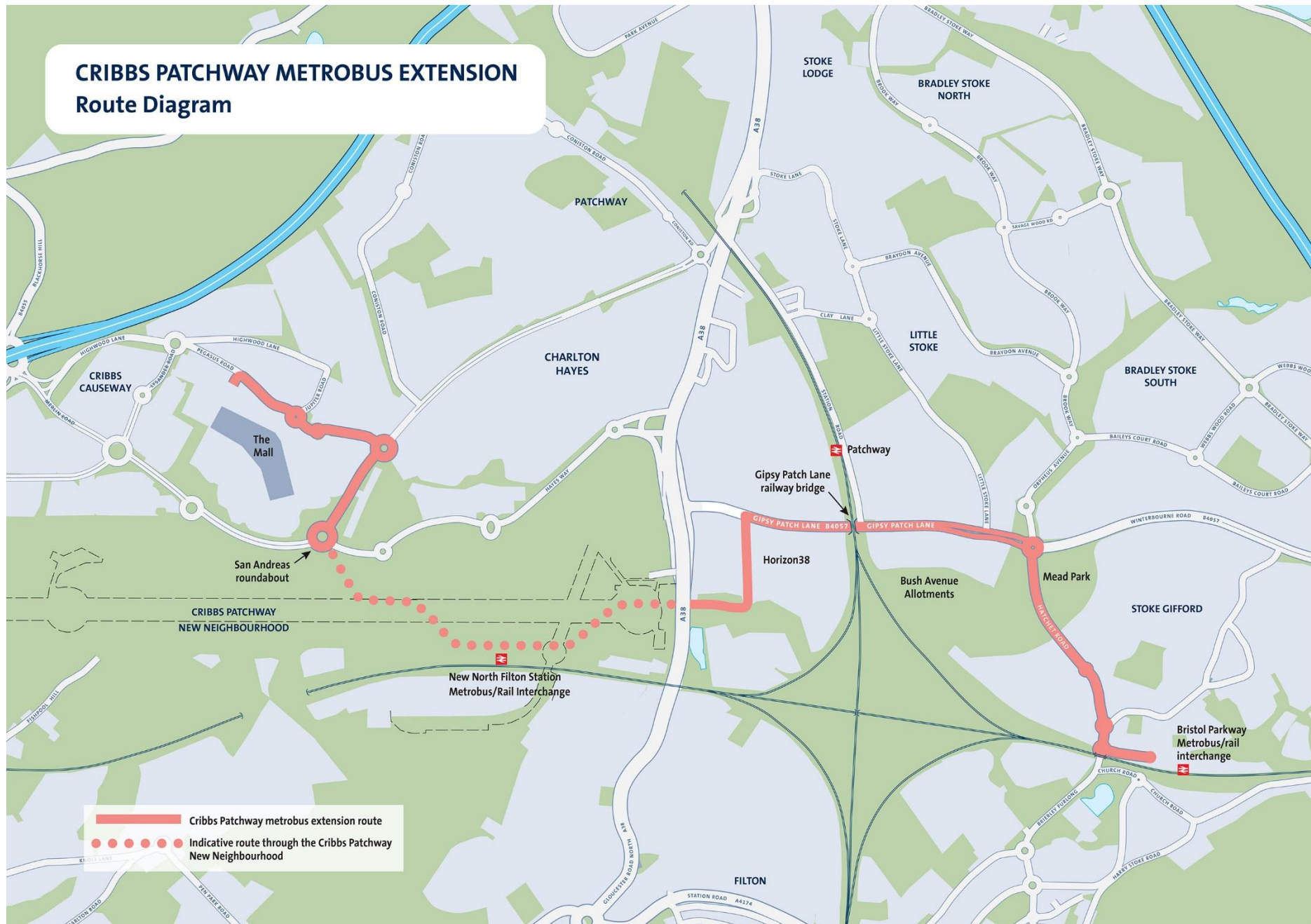
No selective advantage will be given to any one operator in accessing the proposed metrobus infrastructure. This will be ensured by the use of a Quality Partnership Scheme, as for the existing metrobus network, which allows access to the infrastructure provided certain quality standards are met.

## 1.2 Project Description

The Cribbs Patchway metrobus extension (“CPME” or “the Scheme”) is part of the West of England’s rapid transit network, known as metrobus. It links Bristol Parkway Station and The Mall Bus Station, via the Cribbs Patchway New Neighbourhood (CPNN) re-development site at Filton Airfield, Horizon 38 development site, Gipsy Patch Lane and Hatchet Road.

The diagram on the following page shows the route.

## CRIBBS PATCHWAY METROBUS EXTENSION Route Diagram





Scheme elements included in the Full Business Case.

The CPME scheme for which funding is sought comprises the following three elements:

- **San Andreas roundabout** - The scheme involves the reconfiguration of the San Andreas roundabout into a five arm roundabout, with the construction of a new spur road in the south between the existing Hayes Way connection to Brabazon Roundabout and Merlin Road. The spur will connect to the road network to be constructed in the Cribbs Patchway New Neighbourhood developer and will be for buses/ metrobus, pedestrians, cyclists, taxis and emergency vehicles only, subject to future consultation (Traffic Regulation Order). The scheme also involves the addition of signal controlled crossings on the four existing arms, and an uncontrolled crossing point provided on the new spur arm. A shared use cycle/footway will be sited on all arms of the roundabout, to accommodate the safe movement of pedestrians and cyclists.
- **Hatchet Road and Gipsy Patch Lane** - the scheme involves widening of the carriageway along Gipsy Patch Lane by between 7m and 9m for the addition of bus lanes on both sides of the road west of the railway bridge, an eastbound bus lane east of the bridge, and a combined cycle/footway along the southern side of the road to the east of the bridge. This element also includes the upgrading of four existing bus stops on Gipsy Patch Lane to metrobus standard, and extension to the Little Stoke toucan crossing necessitated by the widened highway. On Hatchet Road the scheme consists of the upgrading of two existing Hatchet Road bus stops (Ratcliffe Drive northbound and Hatchet Lane southbound) to metrobus standard.
- **Gipsy Patch Lane railway bridge** - the scheme involves the demolition of the existing Gipsy Patch Lane Bridge which currently has only a single carriageway width and a substandard, narrow footway and no cycling provision directly under the bridge. A replacement bridge with a longer span of approximately 24m will be constructed. The new bridge is designed to accommodate two bus lanes, two lanes for general traffic, and shared use cycle/footways on both sides of the road beneath the railway line. The highway beneath the bridge is proposed to be approximately 14m wider than it is currently, and the carriageway will be lowered as it passes under Gipsy Patch Lane Bridge to remove the existing height restriction and enable double decker buses to pass underneath.

Planning permission was granted for these three elements of the scheme in July 2018. The works that have planning permission are shown in the general arrangement plans contained in Appendix 1.2.

This Business Case is seeking funding for the above three elements. The sections of the CPME route within the development sites of CPNN and Horizon 38 are not in scope of this Full Business Case as that infrastructure is being delivered by the developers of those sites.



### Scheme elements delivered by other projects

The CPME scheme comprises a number of elements that will be delivered by developers and other projects, and as such this Business Case does not seek funding for the following scheme elements:

- **CPME route within the Cribbs Patchway New Neighbourhood** - the developer of the site is providing a segregated bus route with metrobus stops through the site from the A38 and joining with the new arm of the San Andreas roundabout.

Outline planning permission which includes the principles of providing the segregated bus route and metrobus stops was granted on 1 March 2018 (application ref PT14/3867/O). Conditions attached to the planning permission stipulate that the development shall conform in all aspects to the plans and details included within the application.

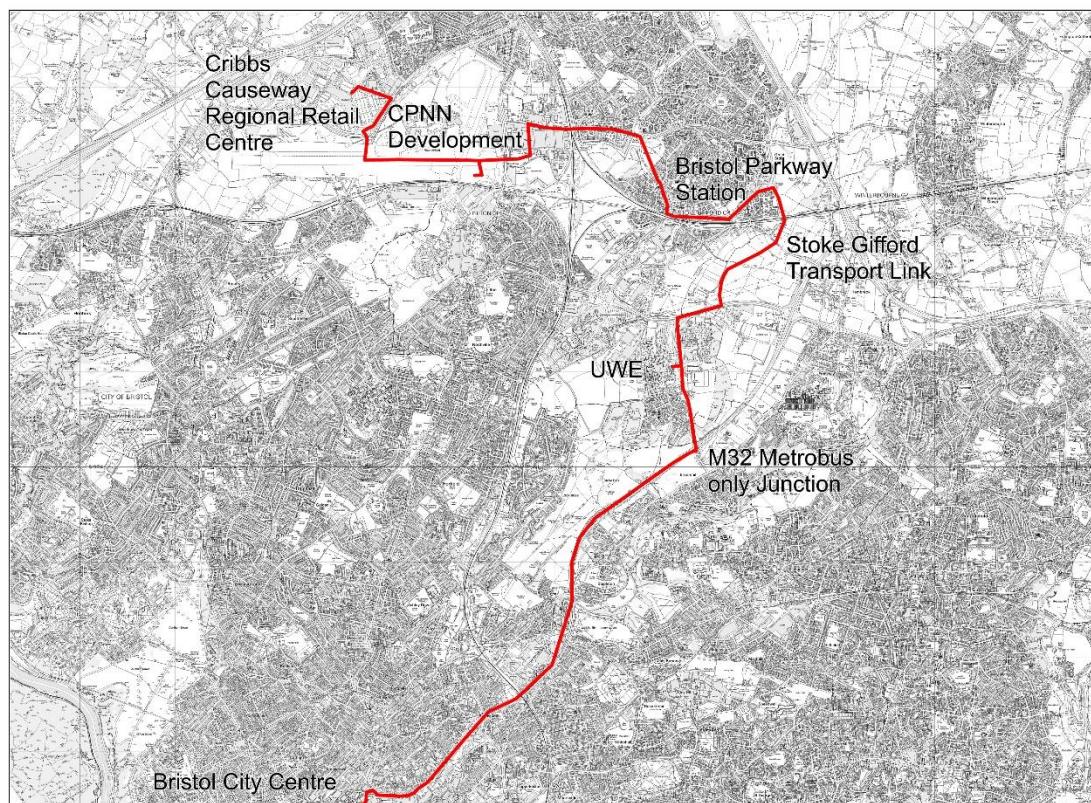
The developer of the CPNN airfield site will complete a temporary metrobus route between the A38 and the Blenheim roundabout during 2021, in time for CPME services commencing. This will then be followed by the completion of the permanent route to the San Andreas roundabout by the 400th dwelling which is required by the site's S106 agreement. SGC's 2018 Annual Monitoring Report (AMR) contains housing trajectories for sites in the authority's area; for the airfield site (PT14/3876/O) the 2018 AMR shows that the 400th dwelling is anticipated to be completed in the 2022/23 financial year (but could be earlier), shortly after metrobuses commence operation.

- **CPME route within the Horizon 38 site adjacent to Gipsy Patch Lane and the A38** - metrobuses will run on part of the internal highway layout, construction of which is well advanced. The Horizon 38 site is under construction which is progressing rapidly.
- **Bristol Parkway Station** - South Gloucestershire Council is working closely with Great Western Railway to deliver the necessary metrobus infrastructure within the station. Preparatory work has reached an advanced stage and construction is programmed to be completed by March 2020.

Should the infrastructure required for the CPME within these sites be delayed then temporary alternative routes, for example utilising the A38 and Hayes Way, will be utilised by metrobuses in the interim.

### CPME services

The CPME scheme will integrate with existing metrobus services and will interchange with the new North Filton Station within the CPNN site. The Business Case assumes a direct service linking CPNN, Bristol Parkway, UWE and the City Centre, with a service frequency of 6 buses per hour and a journey time of 57 minutes. However, the final choice of service patterns will be determined through the Quality Partnership Scheme (QPS) process.



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*Modelled CPME route from Cribbs Causeway to Bristol City Centre via Bristol Parkway and UWE*

### 1.3 Project Objectives and Case for Change

South Gloucestershire's strategic position, well-located on the national and regional highway and rail network, has encouraged high levels of growth in housing and employment in recent decades. The rapid provision of new housing and employment growth has given rise to increasingly unsustainable travel patterns in the district, including high levels of commuting by car, increased congestion, lengthening journey times and worsening journey time reliability.

In turn, pressure on the road network has restricted the availability and reliability of public transport options, which is seen by the Council and the West of England Combined Authority as a crucial factor in establishing sustainable commuting patterns within key employment areas in the greater Bristol region, including the North Fringe of Bristol where the CPME scheme is located. Within this context lies the need for continued economic growth and provision of new development, such as the Cribbs Patchway New Neighbourhood.

The objectives of the Scheme set out in the table below have been formulated with this context as a basis.

Objective	Achieved by	Key Performance Indicators
Support housing and employment development within the Cribbs Patchway New Neighbourhood and Filton Enterprise Area	Providing the required infrastructure to support the extension of the metrobus network to serve the CPNN and FEA	Housing starts & completions and jobs created
Increase the use of public transport	Providing high quality infrastructure to support new public transport links to key destinations and interchanges with rail services.  Delivering bus lanes and other priority measures for metrobus and other local bus services. Provision of high quality infrastructure	Increasing public transport use of majors employers in the area
Enhance the resilience of the road network along the CPME route	Removing a bottleneck from the network by providing a wider span bridge, enhancing the San Andreas roundabout, and providing new bus lanes	Improving Journey times along Gypsy Patch Lane
Improve the quality and availability of facilities for non-motorised users	Linking to the cycle trunk route by providing shared use paths; signal controlled crossings on San Andreas roundabout; and bus lanes wide enough for cyclists, and cycle stands at stops	Increasing use of non-motorised modes of transport to/from major employers in the area
Promote social inclusion	Providing an alternative mode of travel, serving a wide range of employment, retail, community, leisure and educational facilities	Housing starts & completions and jobs created. Provision of frequent bus services linking existing residential areas and employment opportunities at Cribbs Causeway and the wider area by linking Parkway station

The benefits of the scheme are:

- Improved access to existing and future employment sites including Rolls Royce, Horizon 38, Filton Enterprise Area and Cribbs Causeway.
- Offering alternatives to the private car by providing new public transport, cycling and walking links.

- Relieving of congestion by improving the existing crossing of a main rail line and pinch point on the local highway network.
- Improving access for existing and planned residential and commercial developments in Stoke Gifford, Little Stoke and CPNN.
- Enhancing public transport interchange opportunities at Cribbs Causeway and Bristol Parkway rail station.

Policy CS26 of the South Gloucestershire Core Strategy (adopted December 2013) requires the CPME scheme to be delivered as part of the transport mitigation package for the Cribbs Patchway New Neighbourhood (CPNN) identified in Policy CS7. The Scheme is needed in order to provide a fast and direct public transport route between Cribbs Causeway and Bristol Parkway Railway Station, via the CPNN where 5700 dwellings, 50ha of new employment, and a range of other land uses are allocated in the Core Strategy. There is also now the possibility of further intensification of the development and of a new 10,000 plus capacity Arena being included on the site. The transport package is required in order to mitigate the effects of this development.

The scheme will provide sustainable access to new homes, businesses, schools and community facilities, in addition to improving access to existing land uses. This will support the functioning of the local and regional economies by providing greater accessibility between businesses and their consumer and labour markets, reducing journey times, operating costs and distribution costs in the process.

The scheme will remove an existing bottleneck for all road users by replacing the Gipsy Patch Lane railway bridge. This will increase the resilience of the local network, and improve the reliability of journey times especially along this strategic east-west link between major employment sites and new and existing housing in Bradley Stoke and Yate. The scheme would also encourage the use of rail services in line with aims to improve journey times between CPNN, Filton Enterprise Area and Bristol Parkway train station, and complement the existing metrobus network's vision of a;

*"higher quality experience; reliable, easy to use and understand, with modern vehicles and its own right of way. The Bus Rapid Transit will have clear information, fast boarding and 'smartcard' ticketing linking with wider bus and rail services, creating a new way of travelling and be a catalyst for transforming public transport travel across the West of England area".*

It will also provide new interchange opportunity with the proposed North Filton Station as part of MetroWest phase 2, and enhanced interchange opportunity at Bristol Parkway.

### **The Logic model**

A logic model is shown below. Further information in support of the logic model is provided in the Monitoring and Evaluation Plan, appended to the Management Case.

Objectives	Resources/ Input	Activities	Outputs	Direct & Indirect Outcomes	Impact
<p><i>The aims/ objectives of the scheme are:</i></p> <p><i>(Ensure that <u>all aims/objectives are SMART</u>)</i></p>	<p><i>In order to achieve the set of activities to fulfil these aims/ objectives we need the following:</i></p> <p><i>(Resources should not be limited to money e.g. grant, match funding, in-kind, project team, specialist support, etc. The inputs define the scope of the project being considered in the logic model)</i></p>	<p><i>In order to address the aims and objectives we will accomplish the following activities:</i></p> <p><i>(What will the money be used for? e.g. construction, project management, equipment/fit out, etc):</i></p>	<p><i>We expect that, once accomplished these activities will produce the following deliverables:</i></p> <p><i>(Provide measurable outputs e.g. length of new road/cycle path, m<sup>2</sup> of space constructed/refurbished, number of businesses supported, learners engaged, etc)</i></p>	<p><i>We expect that if accomplished these outputs will lead to the following <u>change</u> e.g. new products or services, skills, behaviour, new business/contracts, etc:</i></p> <p><i>(Ensure that <u>all outcomes are SMART and relevant</u> to the aims/objectives to allow for <u>attribution</u>; distinguish between direct and indirect outcomes)</i></p>	<p><i>We expect that if accomplished these activities will lead to the following changes in service, organisation or community:</i></p> <p><i>(quantitative economic impacts e.g. indirect jobs and/or GVA to be <u>cross-referenced</u> with FBC as appropriate)</i></p>
Support housing and employment development within the CPNN and FEA	<ul style="list-style-type: none"> <li>• Scheme funding</li> <li>• Project team (e.g. design, engineering and project management)</li> <li>• Stakeholder and public support</li> <li>• Network Rail and their contractor engagement</li> <li>• Delivery of CPME related infrastructure within the CPNN and Horizon 38 sites by the</li> </ul>	<ul style="list-style-type: none"> <li>• Design</li> <li>• Project Management</li> <li>• Land procurement</li> <li>• Construction</li> <li>• Environmental Mitigation</li> <li>• Site supervision</li> <li>• Stakeholders and service providers engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Reconfiguration of San Andreas Roundabout to include an extension / elongation of the existing roundabout, signalisation of the roundabout, and construction of a new bus only spur road (7 m single carriageway, and 4 m wide shared use cycle and footways either side) in the south east between the existing connections to Brabazon Roundabout and Merlin Road</li> <li>• Minor reconfiguration to the proposed new CPNN/A38 junction to allow CPME to cross the A38</li> </ul>	<ul style="list-style-type: none"> <li>• Enable the housing and employment development at CPNN / FEA, which are forecast to deliver 5,790 homes and 6,499 jobs by 2036</li> <li>• Provide the required infrastructure to support the extension of the metrobus network to serve the CPNN and FEA</li> <li>• Improved Access to existing and future</li> </ul>	<ul style="list-style-type: none"> <li>• Housing delivered in the area as per section 2 of the FBC</li> <li>• Jobs delivered in the area as per section 2 of the FBC</li> <li>• GVA enabled for the local and regional economy as per section 2 of the FBC</li> </ul>

	<p>developers of those sites.</p> <ul style="list-style-type: none"> <li>• A section of the CPME route is located within the CPNN. The developer of the site is providing a segregated bus route with metrobus stops through the site from the A38 and joining with the new arm of the San Andreas roundabout. Outline planning permission which includes the principles of providing the segregated bus route and metrobus stops was granted on 1 March 2018 (application ref PT14/3867/O).</li> </ul>	<ul style="list-style-type: none"> <li>• Privately delivered service without any public subsidy</li> </ul>		employment sites and residential developments	
Increase the use of Public Transport			<ul style="list-style-type: none"> <li>• Provide high quality infrastructure to support new public transport links to key destinations, and interchanges with rail services at Parkway Station and the new proposed North Filton Station</li> <li>• Provision of high quality infrastructure (stops, lanes, priority measures) consistent with wider metrobus standards</li> <li>• Upgrade of two bus stops to metrobus specification stops on Hatchet Road and the construction of new ones along the CPME route</li> </ul>	<ul style="list-style-type: none"> <li>• Improved priority for metrobus and other local bus services.</li> <li>• Enhanced public transport interchange opportunities at Cribbs Causeway and Bristol Parkway Railway Station.</li> <li>• Integration with the wider metrobus network</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in public transport patronage along the Cribbs Causeway – Bristol Parkway corridor</li> </ul>
Enhance the resilience of the road network along the CPME route	<ul style="list-style-type: none"> <li>• Another section of the CPME route is located within the Horizon 38 site adjacent to Gipsy Patch Lane and the A38. Metrobuses will run on part of the internal highway</li> </ul>		<ul style="list-style-type: none"> <li>• Demolition of existing and construction of replacement railway bridge (span app. 24m) to provide widened carriageway at Gipsy Patch Lane which provides one bus lane and one general traffic lane in each direction and shared use cycle/footways on both sides of the road.</li> <li>• Enhancing the performance of San Andreas roundabout</li> </ul>	<ul style="list-style-type: none"> <li>• Gipsy Patch Lane bottleneck removed; enhancement of corridor for all transport users including NMUs.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction in queuing and improvement of traffic flow along Gipsy Patch Lane</li> <li>• Improvement of journey times</li> </ul>
Improve the quality and availability of facilities for non-motorised users			<ul style="list-style-type: none"> <li>• Widening of Gipsy Patch Lane between the junction with Titan Road and the junction with Bush Avenue by between 7 m and 9 m, with shared use cycle/footway improved, and Little Stoke signalised crossing to be upgraded</li> <li>• Providing shared use paths as part of the construction of new widened railway bridge at Gipsy Patch Lane</li> </ul>	<ul style="list-style-type: none"> <li>• Alternative mode of travel serving a wide range of employment, retail, community, leisure and educational facilities provided</li> </ul>	<ul style="list-style-type: none"> <li>• Increase of sustainable mode share for journeys to/from businesses or dwellings within new/improved metrobus stop catchment areas</li> </ul>



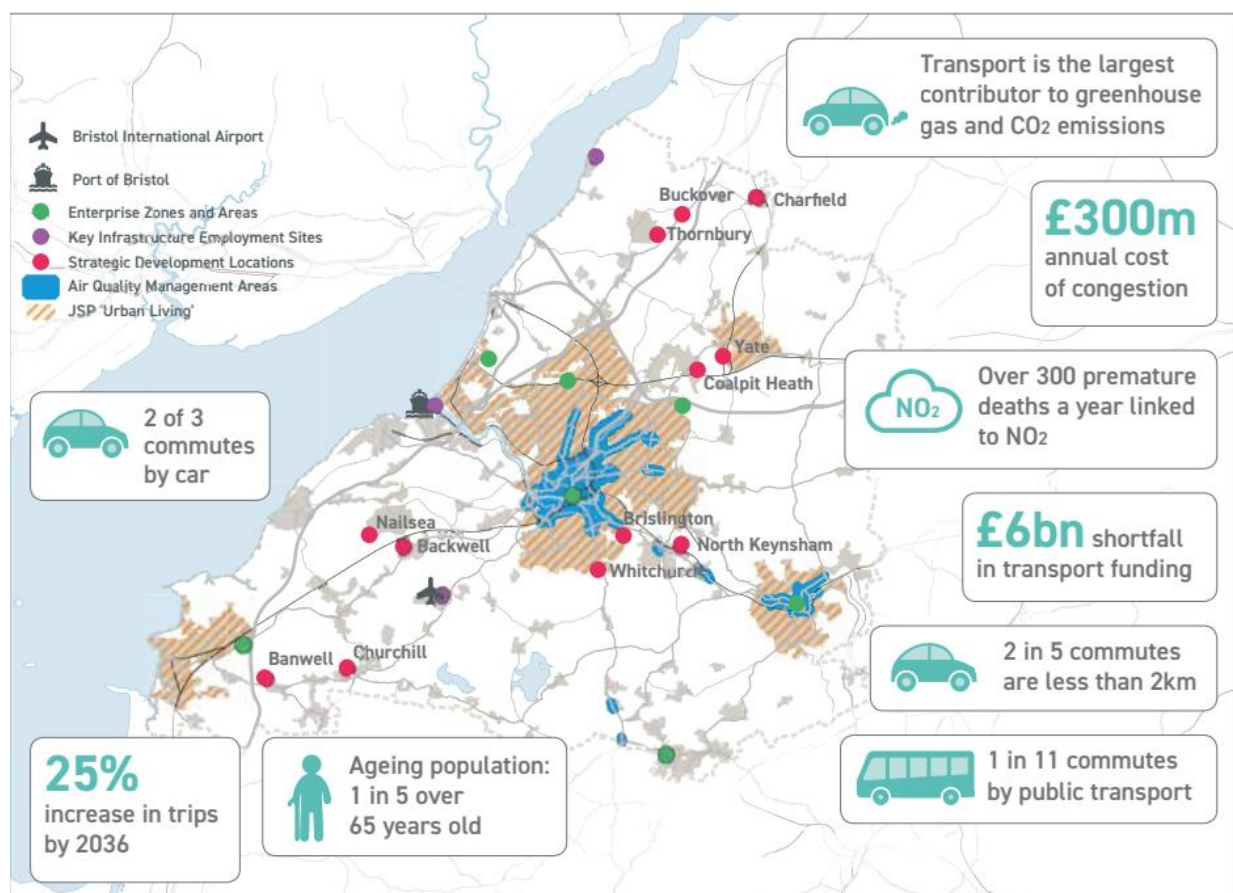
	<p>layout, construction of which is well advanced.</p> <ul style="list-style-type: none"> <li>• Transferring any additional cost burden related to CPME or other infrastructure works to the developers would negatively impact on the viability of CPNN / FEA development; ultimately restricting the employment and housing growth planned for South Gloucestershire.</li> </ul>		<ul style="list-style-type: none"> <li>• Enhance the connectivity of NMU facilities through the provision of signal-controlled crossings on San Andreas roundabout</li> <li>• Bus lanes wide enough for use by cyclists</li> <li>• Cycle stands at metrobus stops</li> </ul>		
Promote Social Inclusion			<ul style="list-style-type: none"> <li>• Provision of frequent bus services linking existing and future residential areas and employment opportunities at Cribbs Causeway and the wider area by linking Parkway and the new proposed North Filton stations</li> <li>• Serving a wide range of employment, retail, community, leisure and educational facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Providing an alternative mode of travel</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in metrobus and local bus patronage</li> </ul>



## 1.4 Rationale for Public Intervention

The West of England faces serious transport challenges and these will become more acute with the anticipated scale of growth coming forward in the area. The forecast numbers of people living and working in the area will increase demands on the transport system, which will have significant economic, social and environmental impacts. Whilst the West of England has benefited from a strong economy over the last decade, the sub-region's economic prosperity is beginning to be constrained by its transport network. As demand on the transport network increases as a result of economic and population growth, further investment is needed to ensure the transport network is sufficiently accessible and has sufficient capacity and resilience to continue to meet the sub region's needs. Longer-term problems of sustained traffic growth and car dependency also need to be tackled, in addition to wider long-term issues of carbon emissions and social wellbeing. The CPME scheme will address these problems and play an important role in achieving the West of England's strategic aims.

The diagram below is taken from the Draft Joint Local Transport Plan 4, which has been published for consultation at the time of writing this Full Business Case. It summarises the transport challenges faced in the West of England.



The CPME scheme will provide transport infrastructure with the capacity to contribute to addressing a number of the challenges set out in the above diagram, including reducing carbon, providing an attractive, sustainable transport alternative to the car and improving access to key growth hubs such

as Filton Enterprise Area. The scheme is part of a Transport Package, which is designed to address accessibility challenges that cause major concerns for the business community and impact on the competitiveness of the area and which, if not addressed, would constrain future growth.

The private sector alone cannot fund the mitigation measures to address the problems associated with traffic congestion and so public sector investment is required. Early investment by WECA in the CPME scheme will allow it to progress to programme, including the construction of the Gipsy Patch Lane railway bridge during Easter 2020. Without this investment the scheme could not be delivered within the necessary timescales to help alleviate existing congestion in the north fringe or to mitigate the traffic impacts of the Cribbs Patchway New Neighbourhood.

## 1.5 Strategic Fit

### Strategic Economic Plan 2015-30

The West of England Local Enterprise Partnership's Strategic Economic Plan (SEP) sets out how the region will develop its £25bn billion economy over the next six years, stimulating sustainable economic growth and creating 25,500 jobs. The SEP contains four strategic objectives. These are set out in the table below with commentary on how the CPME scheme contributes to each.

<b>SEP Strategic objective</b>	<b>Strategic fit with the CPME scheme</b>
<b>1</b> Create the right conditions for business to thrive. Give confidence and certainty to our investors to attract and retain investment to stimulate and incentivise.	The scheme will provide the infrastructure to enable the operation of efficient and reliable public transport that gives excellent accessibility to businesses for customers and workers. This will give investors confidence in the reliability of local infrastructure.
<b>2</b> Ensure a resilient economy, which operates within environmental limits. That is a low carbon and resource efficient economy, increases natural capital, and is proofed against future environmental, economic and social shocks.	The scheme will encourage transport mode shift away from the private car and onto public transport, contributing to the low carbon and resource efficiency agenda.
<b>3</b> Create places where people want to live and work, through delivery of cultural infrastructure and essential infrastructure, including broadband, transport and housing to unlock suitable locations for economic growth.	CPME will deliver essential transport infrastructure required for the delivery of the Cribbs Patchway New Neighbourhood which falls partly within the Filton Enterprise Area.
<b>4</b> Shape the local workforce to provide people with the skills that businesses need to succeed and that will provide them with job opportunities.	The extension of the metrobus network will provide better accessibility to educational establishments, such as UWE, for residents living on or new near the CPME route. This will give greater educational and vocational opportunity to the local workforce.

SEP Strategic objective	Strategic fit with the CPME scheme
5 Ensure all our communities share in the prosperity, health and well-being and reduce the inequality gap.	The improvement of public transport infrastructure benefits everyone, including protected characteristic groups, by improving accessibility to key destinations.

The clear consistency between the SEP objectives and the CPME scheme demonstrates that the CPME will play an important role in delivering the SEP's vision.

### Joint Local Transport Plan

The 2011 West of England third Joint Local Transport Plan seeks to deliver an affordable, low carbon, accessible and reliable transport network to achieve a more competitive economy and better connected, active communities. The JLTP3 states a vision for the development and expansion of the Rapid Transit Network;

*“Rapid Transit Network is essential for sustainable economic growth, by providing a deliverable, cost effective, reliable and attractive alternative to the car. Without it, congestion will increase and investment could go elsewhere”.*

The CPME scheme is an extension of the North Fringe to Hengrove Package metrobus scheme which is referenced in Chapter 11 of the JLTP3.

The draft fourth Local Transport Plan (JLTP4) is subject to consultation from February to March 2019. The CPME scheme is identified in table 11.4 and Appendix 4 of the draft which lists early investment schemes under development. The JLTP4's vision is 'connecting people and places for a vibrant and inclusive West of England.' The CPME scheme supports this vision by connecting a variety of key destinations to the benefit of all groups in society living or working near the metrobus network.

### Development Plans

The CPME project will serve the Cribbs Patchway New Neighbourhood (CPNN) development. The CPNN Site is allocated in the South Gloucestershire Core Strategy (adopted 2013) under Policy CS26 for approximately 5,700 dwellings, around 50 hectares of employment land, open spaces, schools and community facilities.

Policy CS7 of the South Gloucestershire Core Strategy identifies the strategic transport infrastructure projects that priority will be given to in order to reduce congestion and improve accessibility. One of the projects identified is the Cribbs Patchway New Neighbourhood Package, which includes the CPME scheme. Policy CS26 requires the implementation of Policy CS7, which includes the CPME scheme.

The scheme is also identified in the South Gloucestershire Policies, Sites and Places Development Plan Document (Policy PSP13 Safeguarding Strategic Transport Schemes and Infrastructure) (adopted November 2017).

The scheme is identified in the Cribbs Patchway New Neighbourhood Supplementary Planning Document (adopted 2014).

There is a consistency between the objectives of CPME and the policies, goals and objectives for the district in JLTP3, JLTP4, the South Gloucestershire Core Strategy, and the South Gloucestershire Policies, Sites and Places Development Plan.

#### Planning permission

On 12 July 2018 the council's Development Control West Committee resolved to grant planning permission for three element of the CPME scheme within the scope of this Full Business Case. The scheme has therefore been found to be consistent with adopted local planning policies, as well as the National Planning Policy Framework. In addition, the scheme is consistent with the draft Joint Spatial Plan which will be subject to Examination in 2019. This states that metrobus will be central to delivering the shift from car to public transport, particularly at strategic development locations.

#### Consultation

As part of the consultation processes on the CPME scheme, including for the planning applications, principal stakeholders, including statutory stakeholders and land owners, raised no objections or issues that would create barriers to the successful delivery of the Scheme.

#### Fit with funding streams

The Economic Development Fund (EDF), is an investment programme designed to maximise economic returns in all the Enterprise Areas. The priorities of the Fund are to promote economic development and job creation opportunities. It is envisaged that a significant proportion of the funding required to deliver the CPME scheme will come from the EDF, as £35m was allocated following the submission of the Outline Business Case in 2014.

The CPME scheme will play a vital role in ensuring the sustainable development of the Cribbs Patchway New Neighbourhood, as well as other developments coming forward in the Filton Enterprise Areas. There is clearly therefore a clear parallel between the delivery of the scheme and the promotion of economic growth.

## 1.6 Options Appraisal

Appendix 1.3 to this strategic case is the Option Assessment Report (OAR) that presents options considered during the development of the CPME scheme. The section below outlines the options assessed and the reasons for their dismissal. Appendix 1.1 contains hyperlinks to decision reports which contain further technical information.

The OAR details the optioneering process undertaken as part of the scheme development, including a summary of the wider CPNN transport mitigation options considered that confirmed the need for the Cribbs Patchway Metrobus Extension scheme.

An important distinction is made between:

- Route and supporting infrastructure options, that consider various route options and core additional bus infrastructure required to enable the route. These are the key elements that will be delivered by the scheme.
- Service options, that consider various bus services that could use the route and supporting options. A single service option was chosen for appraisal purposes, however, the final choice of service patterns will be determined solely by the service operator.

The report then describes the consultation and decision making process undertaken and subsequent changes to the preferred route and supporting infrastructure option, resulting in the final scheme assessed as part of the FBC submission.

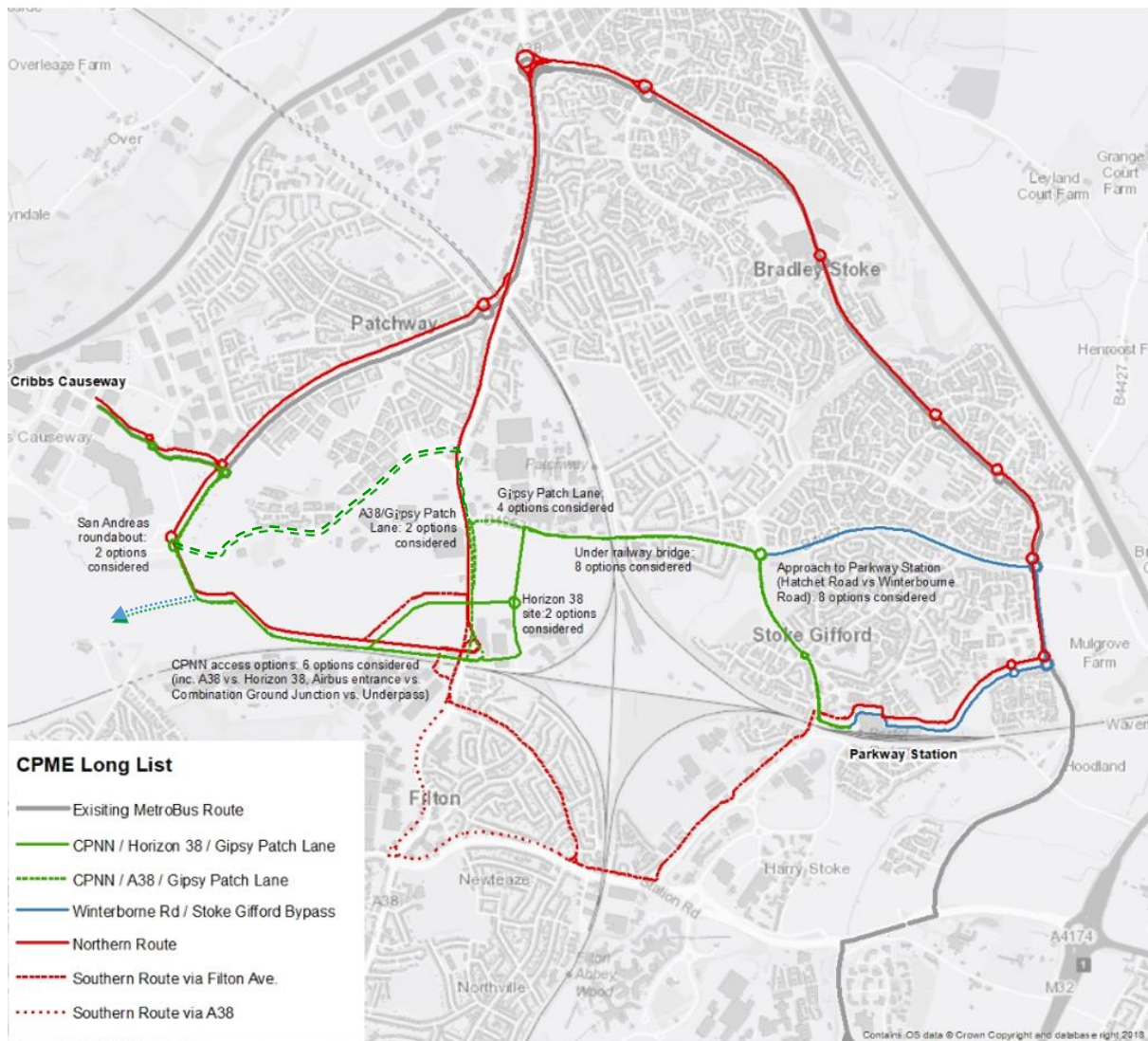
The overall approach to option development taken is shown below.



*Option development process*

### **Route and supporting infrastructure options**

The figure below summarises the main CPME route and supporting infrastructure options considered throughout the scheme development process, and the results of the initial options sift is shown in the table overleaf.



Main CPME route and supporting infrastructure options



Route and supporting infrastructure options sifting table

Route option	Scheme objectives					Transport Business Case					Reason for decision
	Support housing and employment within CPNN and FEA	Increase the use of public transport	Enhance the resilience of the road network along the CPME route	Improve the quality and availability of facilities for non-motorised users	Promote social inclusion	Strategic	Economic	Commercial	Financial	Management	
R1. Do Nothing	x	x	x	x	x	x	0	0	0	0	Does not meet scheme objectives.
R2. Main CPME route option (Partial segregation)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Option taken forward. Meets scheme objectives and key viability and acceptability criteria.
R3. Main CPME route option (Full segregation)	✓	✓	✓	✓	✓	✓	x	✓	x	x	Public acceptability, cost, economic case.
R4. Main CPME route options via Hayes Way	x	✓	✓	✓	✓	x	✓	✓	✓	✓	Route does not serve CPNN development
R5. Options to serve CPNN West	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	Timescales. Will be delivered separately by developers.
R6. Hunts Ground Road, Great Stoke Way and Winterbourne Road route	✓	✓	✓	✓	✓	✓	x	x	x	✓	Significantly longer journeys and higher costs would lead to poor economic and commercial case, and would therefore be unlikely to attract funding.
R7. Northern Route Options	x	✓	0	0	✓	x	x	x	x	✓	Doesn't serve key employment sites. Significantly longer journeys would lead to poor economic and commercial case, and would therefore be unlikely to attract funding.
R8. Southern Route Options via Filton Avenue	x	✓	x	0	✓	x	x	x	x	✓	Doesn't serve key employment sites. Significantly longer journeys and traffic impacts on the A4714 would lead to poor economic and commercial case, and would therefore be unlikely to attract funding.
R9. Southern Route Options via A4174/A38 Filton Roundabout	x	✓	x	0	✓	x	x	x	x	✓	

Key: ✓ = Pass, x = Fail, 0 = Uncertain/neutral



## **Service Options**

The CPME service will be provided on a fully commercial basis by one of the regions already existing bus service operators. At present there are no plans for bus network franchising or provision of service subsidy by the Local Authority, although this is subject to the future West of England Bus Strategy development. The new route using the new infrastructure and service frequencies will be confirmed within a revision to the existing metrobus Quality Partnership Scheme.

A number service routing options and sub-options were considered throughout the scheme development process as described in the OAR. The route used for the FBC submission is the standalone service between Cribbs – Parkway and Bristol City Centre. This was considered as providing direct, quick connectivity between the new housing and employment at CPNN, with the established employment and education opportunities at UWE, and the leisure/employment and employment opportunities located in Bristol city centre/CBD. However, it should be stressed that the precise service route will only be confirmed when the service operator has been identified.

## **Option development**

### Option testing for main CPME route

In 2014 a number of sub-options were considered including two broad route options:

1. Through the Horizon 38 site
2. Avoiding the Horizon 38 site, via Gipsy Patch Lane west of Horizon 38 and the A38

The modelling suggested that:

- routes through the Horizon 38 site are preferable in terms of the journey time protection they provide to metrobus services. This is unsurprising in that it essentially keeps buses from interacting directly with traffic on the A38
- routes through Horizon 38 would lead to less overall delay for general traffic
- replacement of the Gipsy Patch Lane railway underbridge contributes to significant journey time savings for metrobus services and general traffic

Outline economic assessments were produced, drawing on the traffic modelling results. The results showed that options through the Horizon 38 site would have significantly higher overall benefits and Benefit to Cost Ratio (BCR) than options via the A38. The report concluded that while the final layout of the CPNN access junctions would be determined by negotiation between SGC and the developers concerned, key elements of the route should include widening of the Gipsy Patch Lane bridge and a route via the Horizon 38 site.

### Gipsy Patch Lane Bridge Options

An Option Selection process has been undertaken for the replacement bridge by Network Rail, as part of the Cribbs Patchway Metrobus Extension Scheme development. This process evaluated and compared options to determine the most cost effective solution for the replacement bridge structure. Network Rail's chosen option was a concrete portal frame structure with a smooth concrete finish which is precast and manoeuvred into position. This arrangement was further

developed into six main options which incorporate different carriageway arrangements and different alignments of the structure relative to the track:

- Option 1 - No bus lane (skewed to track)
- Option 2 - Single bus lane (skewed to track)
- Option 3 - No bus lane (square to the track)
- Option 4 - Single bus lane (square to the track)
- Option 5 - Dual bus lane (skewed to the track)
- Option 6 - Dual bus lane (square to track)

The Network Rail Option Selection Report recommended that the bridge alignment be skewed to the track in order to reduce costs. Options 3, 4 and 6 are square to the track and require a longer structure to provide sufficient carriageway width beneath it to accommodate the carriageway layouts. This results in triangles of unused space at the back of the footways, making these options more expensive.

With the skewed alignment, the report considered three carriageway width options:

- Option 1: Single carriageway in each direction, with 3.5m shared use paths on both sides
- Option 2: Single carriageway in each direction, 3.5m shared use paths on both sides, plus bus lane in one direction
- Option 5: Single carriageway in each direction, 3.5m shared use path on north side, 5m shared use path on south side, plus bus lane in both directions

The Option Selection Report recommended Option 2 as providing the best combination of affordability and deliverability. However, Option 5 provides a greater level of future proofing by offering a wider structure, as the wider the structure the greater the flexibility to potentially amend or alter the highway layout in the future. Option 5 allows for two general traffic lanes, two bus lanes and two pedestrian/cycle paths which is the same as Option 2, save for the southern pedestrian/cycle path of Option 5 having a width of 5 metres instead of 3.5 metres.

Option 5 therefore provides further enhanced pedestrian and cycling infrastructure. The wider width also increases highway network resilience, for example when highway or bridge maintenance is undertaken the greater width increases the potential for disruption to be minimised.

All of these factors are particularly important given the structure's 120 year design life and its delivery clearly therefore being at minimum a once in a lifetime opportunity. The Council considers that due to the nature of the scheme and its long design life, that the largest structure is the most appropriate in order to ensure transport needs are met as far as possible into the future. On 7 October 2015 the Planning, Transportation and Strategic Environment, Major Schemes Sub-Committee therefore selected Option 5. Option 5 was then taken forward and planning permission granted in July 2018.

Network Rail's subsequent tender process for GRIP 4-8 sought to reduce costs of the bridge by inviting tenderers to put forward proposals for variant options of the design. Several variant design

options and construction methodologies were submitted, alongside compliant designs based on the planning permission. The compliant planning permission design was selected to be the best option by SGC in December 2018 and Network Rail have awarded the design and build contract on that basis

#### Hatchet Road options

The CPME scheme originally included a southbound bus lane on Hatchet Road between the Winterbourne Road roundabout and Sandringham Road roundabout, with works to Hatchet Road/Winterbourne Road roundabout. An alternative suggestion to run the CPME via Hunts Ground Road, Great Stoke Way and Winterbourne Road instead of Hatchet Road was put forward in responses to the winter 2015/16 CPME public consultation.

Technical analysis suggested this alternative option would add almost ten minutes to metrobus journey times and could cost an additional £5 million to £11 million, depending on the extent of the required road widening for bus priority. The outcomes of the public consultation, including the alternative route option and the technical analysis, was considered by the council's Environment & Community Services Committee on 6 July 2016 and discounted on this basis.

Following objections and petitions submitted by members of the public against the Hatchet Road bus lane proposal, a debate was held at a meeting of the Council's Cabinet on 4 December 2017 which resulted in the bus lane and roundabout works being removed from the CPME project. It is important to note that Hatchet Road remains part of the CPME route as it is the most direct and offers accessibility to the metrobus network for people living nearby.

#### North Way options

The original CPME Scheme included a bus link connecting the existing North Way at North Bristol Park with the development road in Horizon 38 and crossing the A38 via the existing underpass at combination ground. However, following submission of the planning application for the North Way bus link, an objection was received from the Environment Agency on flooding grounds, necessitating further technical work to determine the extent of any necessary further flood mitigation.

This work found that it would not be possible to fully mitigate the risk of flooding without a significant increase in cost, an increase in the amount of land required, and a resultant delay to the programme, thus significantly impacting on the scheme programme.

#### Crossing the A38

Alternative routes and methods for crossing the A38 were assessed as part of considering alternatives to the North Way bus link. Journey time assessments for the alternative options showed that the optimal solution was for the CPME route to utilise a new crossroads junction on the A38 being provided by developers as part of the planning permission for Horizon 38 and CPNN. An Executive Member decision was taken on 28 November 2018 to progress this alternative route.

#### San Andreas roundabout non-signalisation

Initial designs of the San Andreas Roundabout tested a number of arrangements for the roundabout and different alignments to the spur arm into CPNN site, without signalisation. Testing showed that metrobus vehicles could not safely operate on the roundabout and new arm without signalisation.

#### San Andreas bus link alignment

The original alignment of the bus link arm curved to the east. The Filton Airfield landowner amended the CPNN masterplan which required the alignment of the bus only arm to curve to the west in order to tie in with the development.

### 1.7 Environmental Sustainability Considerations

Ensuring sustainability during construction and operation of the CPME has been central to the development of the scheme from the outset.

The CPME Scheme would provide a considerable improvement for pedestrians and cyclists at a number of locations along the route, for example through the provision of new and improved shared use paths provided under the railway at Gipsy Patch Lane. The Scheme will encourage greater use of sustainable modes of transport and reduce car dependency. This will help to reduce carbon emissions, tackle congestion, improve air quality and meet national and local goals and objectives for climate change, economic development, health, accessibility and quality of life further contributing to the delivery of the South Gloucestershire Climate Change Strategy (2018-2023).

All South Gloucestershire Council member decisions have taken sustainability considerations into account and a full Environmental Impact Assessment was undertaken on the scheme planning applications. Links to key decision reports are provided in Appendix 1.1.

The existing m1, m2, m3 metrobus services are operated using a combination of low emission, biogas powered buses that are carbon neutral and run on gas generated from food waste. The vehicles operating along the CPME route will follow this suit and will also be environmentally friendly.

#### **Environmental Impact Assessment**

An Environmental Impact Assessment (EIA) of the CPME project as a whole was undertaken in accordance with the Town & Country Planning EIA (Amendment) Regulations 2015. The scope of this environmental assessment was approved by the South Gloucestershire Council Local Planning Authority through its issue of a formal Scoping Opinion in May 2017. The information set out below outlines the main conclusions of the Environmental Statement (the main output of the EIA process).

#### Ecology

The environmental strategy for CPME is to retain and enhance vegetation where possible. The provision of new trees and grass habitats within each of the application sites will provide benefits for all biodiversity including birds, bats, invertebrates and reptiles.

The Scheme would not have any impact on any Natura 2000 sites either during construction or operation.

Assessments identified the presence or potential presence of protected species (reptiles, slowworms, bats and birds) within the vicinity of the sites and the potential for the Scheme to impact on these. Adequate and appropriate mitigation has been identified to ensure that the Scheme would not be detrimental to the maintenance of the species at a favourable status in their natural range and therefore the Scheme is compliant with the Habitats Regulations 2010, which implements European Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

Necessary mitigation has been secured by way of condition attached to the planning permissions and would not prejudice other development within the area, and is consistent with the advice received from Natural England and is in accordance with local policies.

Measures to avoid degradation of habitats during construction will be detailed within the Construction and Environmental Management Plans for each scheme element, including guidance notes on good practice for prevention of pollution. Where necessary, construction works will be supervised by a qualified ecologist, who will provide specialist advice on ecological issues if they arise (e.g. if new protected species or valued habitats are discovered). Temporary fencing to demarcate works boundaries and sensitive areas will be erected where necessary during construction.

Subject to the implementation of mitigation measures, no significant permanent effects on ecological receptors are predicted to arise during construction or operation of the CPME.

#### Drainage and Water Quality

The Flood Risk Assessment (FRA) and Drainage Strategy that accompanied the planning applications identified the necessary mitigation required to ensure that the Scheme minimises impacts relating to surface water quality, groundwater quality, attenuation, abstractions and discharges.

The FRA for the CPME scheme demonstrates that the proposed Scheme would be at little or no risk from flooding from adjacent watercourses, and that it would not result in increased flood risk in other areas. In this respect the Scheme meets the requirements of Section 10 of the National Planning Policy Framework (NPPF), Policy CS5 (Location of Development) of the South Gloucestershire Core Strategy (SGCS), and Policy PSP20 (Flood Risk, Surface Water and Watercourse Management) of the Policies, Sites & Places Plan (SGPSP).

#### Heritage

The Scheme would not affect any designated heritage assets; including World Heritage Sites, Listed Buildings, Registered Parks and Gardens and Conservation areas and no objection to the scheme has been raised by Historic England.

Works to be undertaken as part of the Scheme are in areas of previous development and therefore the potential for archaeology is considered to be low. The Scheme will meet the requirements of Section 12 of the NPPF, SGCS Policy CS9 (Managing the Environment and Heritage), and SGPSP Plan Policy PSP17 (Heritage Assets and the Historic Environment).

#### Other environmental considerations

The EIA Regulations require that a cumulative assessment is undertaken to consider the impact on any sensitive receptors from more than one in-scheme impact. The cumulative effects assessment found that with mitigation the CPME Scheme will not result in any significant adverse cumulative effects during construction or operation.

A visual impact assessment of the CPME Scheme was completed as part of preparing the planning applications and where adverse effects were identified, mitigation measures were incorporated in the scheme with the aim of avoiding, reducing or compensating for such effects.

Measures have been identified in planning conditions attached to each planning permission which will minimise effects on the environment during construction. Standard good construction practice will be used and Construction Environmental Management Plans will be prepared by contractors which will identify methods of construction and parameters that form the basis of the environmental mitigation identified as being required by the Environmental Statement.

## 1.8 Equality and Diversity Impact Assessment

Full and comprehensive SGC Equality Impact Assessment & Analysis (EqIAAs) have been undertaken in respect of the CPME scheme at key stages throughout its development, the most recent being in November 2018. The EqIAA process has ensured that the scheme design, as well as public consultation, has complied with all equality requirements including the Equality Act 2010. This shows that it is expected that the Scheme would benefit all groups in society by providing a significant improvement in public transport in the areas served, which would provide residents with improved access to job opportunities in the North Fringe.

The Scheme would also improve access to a wider range of services along its route; for example, retail, leisure and healthcare. The metrobus and associated infrastructure would be fully compliant with disability access requirements with fully accessible vehicles and passenger information systems that cater for disabled users.

It is expected that metrobus extension would benefit all groups in society by providing a significant improvement in public transport in the areas served, which would provide residents with improved access to job opportunities in the North Fringe. The scheme would also improve access to a wider range of services along metrobus routes; for example, retail, leisure and healthcare. The metrobus and associated infrastructure would be fully compliant with disability access requirements with fully accessible vehicles and passenger information systems that cater for disabled users.

Public consultation was undertaken from Nov 2015 to Jan 2016, the results of which did not indicate that the CPME proposals will negatively impact on any protected characteristics group.

When metrobus is operational, data will be collected in respect of metrobus patronage and customer satisfaction. This data will include the ability to disaggregate information according to protected characteristic groups. These groups will be defined using the council's Customer Insight guide and will encompass Age, Disability, Race and Gender groupings. Once this action has been implemented, another EqIAA will assess further actions implemented.

The EqIAAs undertaken on the CPME scheme have been used to inform the production of the CPME Equality & Diversity Plan which can be found at Appendix 1.4.

## Strategic Case Appendices

Appendix 1.1: Document reference list

Appendix 1.2: CPME scheme general arrangement drawings

Appendix 1.3: CPME Options Assessment Report

Appendix 1.4: CPME Equality & Diversity Plan



**West of England**  
**Full Business Case**  
**Cribbs Patchway Metrobus Extension**  
**June 2019**

**Economic Case**



## 1 Economic Case

This section presents an overview of the economic impacts appraised for the Cribbs Patchway metrobus extension (CPME). The CPME scheme is designed to facilitate a step change in the quality of public transport offered between Cribbs Causeway and Bristol Parkway and significantly enhance the coverage of the region's flagship metrobus network. The main impacts can be summarised as:

- The planned improvements along Gipsy Patch Lane will improve conditions for all road users, including those using active modes. The removal of the bridge bottleneck will improve the resilience of journey times for both motorists and public transport users, removing a potential constraint on the full potential of the CPNN/FEA sites;
- The changes at San Andreas roundabout will enhance the safety conditions for pedestrian movements between CPNN and Cribbs Causeway, whilst also providing a dedicated public transport linkage to/from the site; and
- The provision of a high frequency service between Cribbs Causeway and Bristol Parkway Station will provide the CPNN with a quick and reliable linkage to a major national rail network hub with onward connections to London, South Wales and Midlands / North England.

The CPME scheme is considered a pre-requisite for enabling a significant proportion of CPNN / FEA development, which will facilitate significant growth in employment and housing opportunities in South Gloucestershire.

The scheme has been developed by South Gloucestershire Council along with the other project partners. Scheme costs have been based on the experience of delivering other similar project in the region, and as a result of the tendering process for Gipsy Patch Lane railway bridge replacement. The scheme cost is estimated to be £56.9m in 2018 prices (or £49.76m in 2010 prices). Optimism bias of 15% has been applied to the scheme costs. The discounted scheme cost has been estimated to be:

- Total PVC = £42.07m (discounted 2010 values and prices).

### 1.1 Economic Appraisal

Strategic transport modelling of the CPME scheme in the regional multi-modal model, GBATS4M, suggests that it will bring about a small decrease in overall highway network demand, cause a marginal improvement in the level of total network delay, and result in an increase in public transport boardings across the network. When the scheme is considered in more detail, the widening of the Gipsy Patch Rail bridge removes one source of localised highway network delay whilst the signalisation of the San Andreas roundabout introduces some additional delay to general traffic. Public transport modelling results show that a CPME service operating onward to Bristol City Centre via UWE enhances patronage on the metrobus network, and competes with conventional bus services operating to/from Cribbs along the A38 / A4018.

The economic assessment carried out to assess the CPME scheme has identified and quantified various potential scheme benefits. Broadly speaking the benefits fall into 5 categories:

- *Transport User benefits* – i.e. benefits to users of motorised vehicles and public transport services through changes in journey time and vehicle operating costs. Benefits have been estimated using outputs from the GBATS4M model and the latest version of TUBA software;
- *Accident Benefits* – i.e. benefits to motorised road users through reduction in number of expected accidents. Benefits have been estimated using outputs from GBATS4M model and COBA-LT software;

- *Facility Benefits* – i.e. benefits to CPME users through the provision of modern service facilities (information systems, modern shelters, off-bus ticketing). Benefits have been based on changes in patronage along the CPME route between Cribbs Causeway and Bristol Parkway and monetised using WebTAG “soft-bus” intervention values;
- *Active Modes benefits* – i.e. health benefits to local population through increased walking to/from CPME bus stops; Benefits have been based on changes in patronage along the CPME route between Cribbs Causeway and Bristol Parkway and monetised using DfT Active Mode spreadsheet. Only health and reduced absenteeism are included; and
- *Greenhouse Gas Benefits* – benefits from changes in level of private vehicle usage. Benefits have been estimated using outputs from the GBATS4M model and TUBA software.

The CPME infrastructure will provide bus operators with new, improved route choice opportunities to provide bus services & routes in the North Fringe. It is anticipated that any CPME service will be provided on a fully commercial basis. It is expected that any new route(s) are likely to lead to a degree of service rationalisation elsewhere in the public transport network. Detailed discussions with potential service operators have not yet taken place so their precise reaction is unknown. As a result, and to adopt a conservative approach “private sector” operating costs (those incurred by the service operator) and farebox revenues (collected by the service operator) have not been included in the FBC economic analysis.

Full details of the modelling approach and benefits calculations can be found in the Appendix 2.1 attached to this Economic Case.

## 1.2 Value for Money Statement

The economic impacts estimated for the CPME scheme are detailed in Table 2.1. The Level 1 PVB which is based on user benefits only is estimated to be £105.8m.

Table 2.1: Estimated Benefits (Discounted 60 years PVB, 2010 prices and 2010 values)

<b>Benefit Stream</b>	<b>60 Years PVB (£'000)s</b>
Transport User benefits	74,800
Accident Benefits	0.193
Facility Benefits	24,900
Active Mode Benefits	13,257
Wider Public Finance	-8,381
Greenhouse Gases	1,105
<b>Total</b>	<b>105,882</b>

BCR Category

Based on the Level 1 benefits only a BCR of 2.5 is estimated for the CPME Scheme. This represents “high” Value for Money.

GVA / Jobs

The CPME scheme will play a pivotal role in the development of the CPNN / FEA developments areas. Economic modelling has been carried out to estimate the impact of the scheme on GVA and job creation. These are summarised in Table 2.2.

Table 2.2: Gross GVA and Gross Jobs enabled attributable to CPME

	No of Homes Attributable to CPME	No of jobs Attributable to CPME	GVA attributable to scheme (2010 values. 2010 prices)
CPME Scheme	1,473	1,601	<b>£491,000,944</b>

The scheme cost in 2018 prices is estimated at £56.85 million. This relates to a gross cost per gross attributable home enabled of approximately £38,597. Likewise, this relates to a gross cost per gross attributable job enabled at £35,511. Considering that the CPME is a public transport schemes, these cost per job and home indicators represent good value for money proposition (see Table 2.3).

Table 2.3: CPME Summary and Value for Money Statement

<i>Total project cost</i>	<i>£56.85 (2018 prices)</i>
<i>Grant sought (EDF/LGF/RIF)</i>	<i>£56.85 (2018 prices)</i>
<i>Scheme PVC</i>	<i>£42.07m (2010 values and prices) Optimism Bias of 15% included in the scheme assessment<sup>1</sup></i>
<i>Scheme Opening Year</i>	<i>2022 60 Year benefit assessment from 2022 - 2081</i>
<i>Net Quantified Benefits</i>	<b><u>60 year transport benefits (2010 prices and values)</u></b> <i>Transport User Benefits: £74.8m Facility Benefits: £24.9m Active Mode Benefits: £13.3m Greenhouse Gas benefits: £1.1m</i>
<i>VfM indicator*</i>	<b><u>Conventional Economics</u></b> <i>BCR of 2.5 based on Level 1 benefits</i>  <b><u>GVA / Jobs</u></b> <i>Gross Cost per gross FTE job enabled: £35,511 Gross Cost per gross home enabled: £38,597</i>

<sup>1</sup> This Optimism Bias value reflects the tender process which lead to choosing contractors for Gipsy Patch Lane Railway bridge replacement and the remaining elements of the scheme, and the level of information available for different aspects of the scheme.

Sensitivity Analysis	<p>Sensitivity test indicates that scheme cost could rise by 26% before VfM category of core scheme drops to “medium” – less than 2.0 BCR</p> <p>Sensitivity test indicates that schemes benefits would need to drop by 20% for VfM category of core scheme drops to “medium”</p> <p>High growth scenario is discussed in the Value for Money Statement.</p>
Non-monetised impacts	<p>Noise – Considered during the scheme transport appraisal</p> <p>Farebox revenue and service operating cost: Farebox revenue could exceed service operating cost. As detailed discussions with potential operators has not been completed yet, and to adopt a conservative approach these potential scheme benefits have not been included in the analysis.</p>
Key risks, sensitivities and uncertainties underlying the appraisal	<p>Delivery profile of the CPNN development</p> <p>Provision of CPME service by public transport operator, response of competing services to the new service</p> <p>Strategic modelling has been undertaken using the GBATS4M multi-modal model. The model has a calibrated base year of 2013, and two forecast years (2021 and 2036). The underlying data used to build the highway and public transport matrices are now nearly 6 years old. The model has been used extensively in the region to support a wide range of major scheme assessments (Metro West Phase 1 &amp; 2, M4 Junction 18a, WECA Park and Ride modelling).</p>

*\* Benefit compared to total cost*

Full details of the modelling approach and benefits calculations can be found in the Appendix 2.1 attached to this Economic Case.

## Economic Case Appendices

Appendix 2.1: CPME Value for Money Statement – redacted due to commercial confidentiality

**West of England**  
**Full Business Case**  
**Cribbs Patchway metrobus extension**  
**June 2019**

Financial Case



## 1 Financial Case

### 1.1 Chief Financial Officer sign off

The Chief Financial Officer for South Gloucestershire has signed-off this Full Business Case. A letter from the Chief Financial Officer is appended.

### 1.2 Scheme Cost

The total scheme cost is **£56.851m**. The breakdown of this scheme cost is shown in the capital elements table later in this chapter. There are no revenue elements.

The capital cost headings are explained below.

#### **Capital Elements**

<b>Cost Heading</b>	<b>Total projected eligible expenditure (£000)</b>	<b>Amount to be claimed (£000)</b>
<i>Internal Project Management</i>	REDACTED	REDACTED
<i>External consultants</i>	REDACTED	REDACTED
<i>Land</i>	REDACTED	REDACTED
<i>Gipsy Patch Lane bridge and associated road works</i>	REDACTED	REDACTED
<i>Highway Construction, Design &amp; Supervision</i>	REDACTED	REDACTED
<i>Stats</i>	REDACTED	REDACTED
<i>Part 1 Claims</i>	REDACTED	REDACTED
<i>Monitoring &amp; Evaluation</i>	REDACTED	REDACTED
<i>Inflation</i>	REDACTED	REDACTED
<i>Risk (QRA P80)</i>	REDACTED	REDACTED
<b>Total</b>	<b>56,851</b>	<b>56,851</b>



### Internal Project Management Costs

Internal Project Management Costs include staff costs covering a wide range of expertise including:

- Project Management
- Property Services
- Legal
- Project support
- Communications

### External Consultants Costs

External Consultants Costs include budget for specialist consultant support across a number of areas including:

- Property Services (for third party land acquisition)
- QC & additional legal advice
- Business Case development
- Planning applications and discharging of conditions

### Land

Land includes the estimated cost of the permanent and temporary third party land required, rights and easements, for:

- San Andreas roundabout works
- Gipsy Patch Lane bridge and associated road works
- Gipsy Patch Lane and Hatchet Road works

### Gipsy Patch Lane Bridge replacement and associated road works

These costs include the tendered prices for GRIP 4-8. This includes:

- Sunk costs – GRIP stages 1-3.
- Staff costs for Network Rail Design Team and Project Team
- Rail possessions costs
- Direct and Indirect Construction Works costs
- Risk – determined through Network Rail's QCRA process.

### Highway Construction, Design & Supervision

This includes:

- Internal design team costs
- External consultants / agency design costs

- Preliminaries
- Site Clearance
- Drainage
- Fencing
- Earthworks
- Pavements (includes road construction and surfacing)
- Kerbs, footways and paved areas
- Traffic signs and road markings
- Street lighting
- Landscaping
- Temporary Traffic Management
- Traffic signals infrastructure
- Infrastructure for utilities
- Metrobus stop street furniture
- Site Supervision

### Stats

Estimated cost of all necessary statutory diversions for:

- San Andreas roundabout works
- Gipsy Patch Lane bridge and associated road works
- Gipsy Patch Lane and Hatchet Road works

### Part 1 Claims

A budget allowance for any successful Part 1 Claims for the scheme and an allowance for loss of business claims. Part 1 claims are claims of depreciation to the value of property as a direct result of the environmental impact of the scheme.

### Monitoring and Evaluation

A budget allowance to assess the effectiveness of the project against Key Performance Indicators and delivery of the project objectives.

### Operational costs

The scheme cost does not include any budget for the operation of the metrobus services because the intention is that it will be run as commercial service. This is consistent with the approach taken on the existing metrobus services.

### Inflation

The inflation figure is based on anticipated increases in the BCIS index (Building Cost Information Service) and is administered through the RICS.

Inflation is not included in Network Rail's costs as tender prices have been provided and are being held based on the contract award which occurred in February 2019. Control Period 6 (CP6) adjustments have been factored in for Project Management Services and Possessions.

#### QRA (P80)

A quantified risk assessment has been undertaken using risk workshops followed by analysis and calculation using the industry standard Monte Carlo methodology. A risk layer calculation at the P80 level has been used.

In relation to the Gipsy Patch Lane bridge Network Rail have undertaken a QCRA relating to specific risks for this element of the project and in relation to their contract. This risk figure is included within the cost heading 'Gipsy Patch Lane Bridge and associated road works'.

#### **Revenue Elements**

There are no revenue elements for this Scheme

### **1.3 Spend Profile and Funding Sources**

#### ***Capital Spend (£000s)***

	<b><i>Pre 2018/19</i></b>	<b><i>2018/19</i></b>	<b><i>2019/20</i></b>	<b><i>2020/21</i></b>	<b><i>2021/22</i></b>	<b><i>2022/23</i></b>	<b>Total</b>
<b><i>WECA Investment Fund</i></b>	2,600	4,290	13,230	14,881			<b>21,851</b>
<b><i>EDF</i></b>				4,220	15,430	2,200	<b>35,000</b>
<b><i>Total</i></b>	<b>2,600</b>	<b>4,290</b>	<b>13,230</b>	<b>19,101</b>	<b>15,430</b>	<b>2,200</b>	<b>56,851</b>

#### ***Revenue Spend (£000s)***

Not applicable

**Total Spend (£000s)**

	<i>Pre 2018/19</i>	<i>2018/19</i>	<i>2019/20</i>	<i>2020/21</i>	<i>2021/22</i>	<i>2022/23</i>	<b>Total</b>
<b>WECA Investment Fund</b>	2,600	4,290	13,230	14,881			<b>21,851</b>
<b>EDF</b>				4,220	15,430	2,200	<b>35,000</b>
<b>Total</b>	<b>2,600</b>	<b>4,290</b>	<b>13,230</b>	<b>19,101</b>	<b>15,430</b>	<b>2,200</b>	<b>56,851</b>

**Sources of Funding**

The sources of funding are shown in the table above.

The £35m from the Economic Development Fund (EDF) is allocated for the Cribbs Patchway metrobus extension scheme, subject to Full Approval.

**Financial Case Appendices**

Appendix 3.1 – Letter from Chief Financial Officer

**West of England**  
**Full Business Case**  
**Cribbs Patchway metrobus extension**  
**June 2019**

Commercial Case



## 1 Commercial Case

### 1.1 Procurement

South Gloucestershire Council (SGC) are the promoter of this scheme. The project will be delivered by two main parties. Network Rail, for the Gipsy Patch Lane Railway Bridge and SGC Streetcare (using direct labour force) for the other highway works along the route. Streetcare is a division within SGC responsible for a wide range of highway and public space matters, including maintenance and construction.

Network Rail have used their procurement processes to shortlist and appoint a contractor. A design & build procurement route was selected by Network Rail. The tender process was a negotiated procedure with prior call for competition.

Network Rail had previously developed an outline design to meet the performance specification and this was the basis of the tender exercise. However, in order to pursue the best possible value for money, it was decided to run a tender exercise in parallel based on a performance specification. The performance specification sought to fully exploit contractors' experience to develop the most efficient bridge design. The most economically advantageous offer from each tender exercise was the basis for the final selection of the awarded contract.

The form of contract is Network Rail's NR9 which is an ICC (Infrastructure Conditions of Contract) Design & Construct version June 2018 with Network Rail amendments. These were selected from amongst the Network Rail's approved contract terms as the best aligned to the procurement strategy. A summary of Network Rail's supply contracts is available at <https://www.networkrail.co.uk/industry-commercial-partners/supplying-us/supply-works-services-products/standard-suite-contracts/>

As railway works, the Utilities Contracts Regulations 2016 apply. Network Rail's procurement procedures are in accordance with a negotiated procedure with prior call for competition. An OJEU QSN 2017/S 054-100702 covers the works, Network Rail's QSN is operated by RISQS <https://www.risqs.org/> and CAN (Contract Award Notice) 2019/S 042-096420 <https://ted.europa.eu/TED/notice/udl?uri=TED:NOTICE:096420-2019:TEXT:EN:HTML> was published at the conclusion of the tender exercise.

The programme for Network Rail's procurement process is shown in table 4.1 below.

Table 4.1

TIMELINE- Actual dates			
Issue / return of PQQ	Issue 17 Jul 18 return 07 Aug 18	PQQ review	Review 08 Aug 18 Authority 10 Aug 18
Invitation to Tender	Issue 14 Aug 18 Return 05 Nov 18	Tender evaluation period	Start 06 Nov 18 Complete 24 Jan 19
Standstill period	Start 24 Jan 19 Complete 04 Feb 19	Contract document execution	Issued 19 Feb 19 Return 21 Feb 19
Contract award / complete	Award 22 Feb 19 Complete 31 Oct 20		

The other highway works at San Andreas Roundabout, Gipsy Patch Lane and Hatchet Road, are being delivered by SGC Streetcare using their direct labour force and established supply chain.

The West of England Smartcard Programme Board has delivered the ticketing strategy for metrobus, including additional sourcing as required and through close liaison with operators on all aspects of on-street and on-vehicle ITS.

For the bus stop infrastructure, including shelters, I-Points and ITS systems, there are contracts in place with suppliers to the existing metrobus projects. The current intention is to use or extend these existing contracts subject to compliance with the local authority's Standing Orders and Financial Regulations.

The infrastructure within the CPNN and Horizon 38 developments is being provided by the developer under their planning agreement.

## 1.2 Operation and Financial Viability

The approach to procurement of metrobus services is to be similar to that of the existing metrobus network. This is based on placing a degree of control with the local authorities in line with opportunities provided by recent legislation, whilst making sure the bus operators, who are best placed to deliver bus services, provide suitable levels of quality. This to be achieved through a statutory Quality Partnership Scheme (QPS) made under current legislation.

The approach being considered is to amend the existing QPS to include the metrobus extension infrastructure and proposed services.

The model, as for the existing metrobus network is for the services to be operated on a commercial basis, using the same fare structure that will be in place for the rest of the West of England bus network at the time operation starts. The modelling has been undertaken on this basis.

Initial discussions have been held with the operators of the existing metrobus routes and they have also been consulted as part of the consultation process by the CPME Project Team and the Local Planning Authority (as part of the planning application process).

Should the business case be approved, the next step will be to amend the current QPS and formally consult operators on the amendments.

As with the current metrobus routes, the bus lanes and some of the stops will be available to be used by non-metrobus services, providing benefit for a range of bus services and the travelling public.

The new infrastructure, excluding the Gipsy Patch Lane railway bridge, will be maintained from future revenue budgets.

### 1.3 Social Value Act

The Social Value Act does not apply to this scheme because there is no formal procurement activity as Streetcare and Network Rail will be constructing the scheme. However the authority wishes to demonstrate its commitment to the principles of the Act and to achieving their top 10 priorities which are listed in full on the Council's website. The priorities of relevance to this project are:

1. Promote the local economy through optimising the use of local suppliers and the voluntary and community sector, and creating and sustaining new local jobs and apprenticeships.
2. Contribute to carbon reduction targets to become carbon neutral and to help mitigate climate change, taking account of resilience to climate change and using resources wisely, including energy, land, water and materials.
3. Conserve and enhance the environment, supporting biodiversity, minimising pollution and waste and making best use of the environmental opportunities of work undertaken by our suppliers.
5. Support schools and colleges, e.g. through new work placement schemes, providing mentors or assisting in mock interviews.

During the construction of the scheme, it has been agreed that Streetcare will:

- Continue to achieve priority 1 through its procurement framework - any commissions or purchases for this project will make a contribution to priority 1, however these could not be easily quantified.
- Continue to achieve priority 2 through its day to day operations – meaning that activities under this project will make a contribution to this priority, however these could not be easily quantified.
- Continue to achieve priority 3 through its day to day operations - so activities under this project will make a contribution to priority 3, however these could not be easily quantified.
- Achieve a specific contribution to priority 5 by offering
  - 2 one-week work experience placements to an identified school in the locality of the scheme, (if travel is a barrier the offer will be made to schools closer to the Broad Lane depot in order to meet the commitment), and
  - mock interviews to leavers



Furthermore, as part of the procurement for the GRIP 4-8 contractor for the Gipsy Patch Lane Bridge element of the scheme, the winning contractor included a number of items that support economic, social and environmental wellbeing:

- The provision of funding for community projects and to visit 3 local schools to improve pupil rail safety awareness. It is also intended that Network Rail project members support the initiative using “volunteer days”.
- The Contractor will aim to recruit five local full-time employees.
- The Contractor will organise a ‘Meet the Buyer’ event and aim to register five new local suppliers.

### Commercial Case Appendices

None.

**West of England**  
**Full Business Case**  
**Cribbs Patchway metrobus extension**  
**June 2019**

Management Case

## 1 Management Case

### 1.1 Promoter and Delivery Arrangements

The Promoter of the Cribbs Patchway metrobus extension is South Gloucestershire Council. This is not a joint venture arrangement.

In terms of delivery arrangements Network Rail will be responsible for the delivery and implementation of the renewal of Gipsy Patch Lane bridge and associated road works which includes the lowering of the highway underneath the bridge.

South Gloucestershire Council and Network Rail have entered into an Implementation Agreement for the detailed design and construction of the Gipsy Patch Lane bridge replacement and associated works. GRIP 3 has been completed and an Implementation Agreement between Network Rail and South Gloucestershire Council for the design and construction of the bridge (GRIP stages 4-8) has been signed. Following a competitive tender process, Network Rail have appointed a contractor to carry out the detailed design and build phases of the project.

GRIP 4 and 5 (detailed design) is programmed to be completed by summer 2019. GRIP 6 (construction phase), including the pre-casting of the replacement bridge within an adjacent compound / pre-casting yard, is scheduled to commence in September 2019. The demolition of the existing bridge and moving of the new pre-cast bridge is scheduled to take place during a railway possession over Easter 2020.

The Gipsy Patch Lane Bridge structure will be maintained and owned by Network Rail.

South Gloucestershire Council's Streetcare division are undertaking the design and build of all other elements of the Scheme, specifically the works at San Andreas, Gipsy Patch Lane west and east of the bridge works and Hatchet Road. Designs for construction/detailed designs for San Andreas, Gipsy Patch Lane widening and Hatchet Road works are being progressed. The highway constructed as part of the scheme will be adopted and maintained by South Gloucestershire Council as the Local Highway Authority.

Metrobus services along the CPME route are expected to commence in early 2022. In the event that the route through the CPNN is not completed by this time then temporary alternative routes have been identified.

The section of the CPME route through the Cribbs Patchway New Neighbourhood is to be delivered by the developer (YTL) of that site.

The CPME route utilises new sections of highway within the Horizon38 development delivered by the developer of that site.

The CPME crosses the A38 at a new cross roads junction on the A38 between the Horizon38 and CPNN developments which is to be delivered by the developers of both sites. South Gloucestershire Council and the CPME Project Team are liaising closely with both developers with regards to the

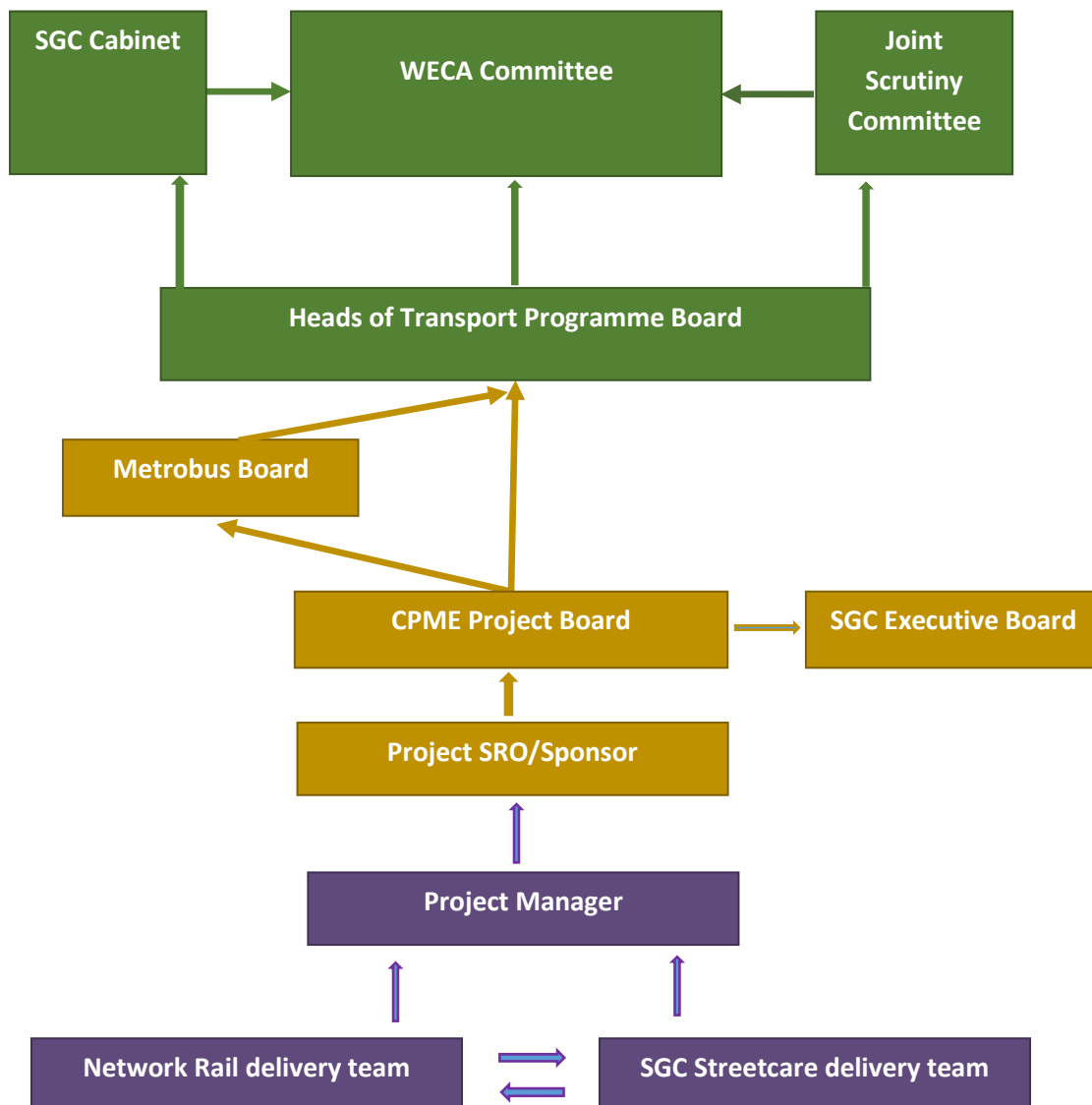
sections of the route being delivered by those developers, both developers are actively engaging in those discussions.

The new replacement Gipsy Patch Lane railway bridge will be owned and maintained by Network Rail. All other parts of the infrastructure that will be delivered by Streetcare is, or will become adopted highway.

## 1.2 Project Governance and Delivery

The CPME Project Board will maintain governance through implementation of the appropriate managements systems. The CPME Project Board is the group which guides and steers the direction of the CPME scheme. The Project Board meets at least bi-monthly.

Figure 5.1: Governance Structure



The CPME Senior Responsible Owner (SRO) is responsible for providing guidance and direction to the Project Manager, and in turn ensures the project progresses in line with the Project Plan and that outputs and milestones agreed by the Project Board are achieved.

The Project Manager (PM) is responsible for delivering the project in line with agreed controls and procedures. The PM reports and is accountable to the SRO and Project Board. The primary focus of the PM will be to define the Project Plan and to ensure that the project is delivered on time and within specification and budget, seeking additional financial authorities as necessary.

The CPME Project Board will also provide reports to South Gloucestershire Council's Environment and Community Services (ECS) Executive Board that oversees all projects within ECS.

Highlight Reports and change requests will be submitted by the Project Manager (on behalf of the CPME Project Board) to WECA, for consideration and decision by WECA Committee in accordance with change control processes and tolerances.

Any decisions that require approval by South Gloucestershire Council's Cabinet, under Standing Orders, will be referred to SGC's Cabinet and reported to WECA through the Highlight Report process.

The metrobus Board (that meets once every two months) will receive update reports from the CPME Board on the progress of the project and will have a role in decision making on issues that may affect the standard of operations/services to ensure consistency with the existing metrobus network.

The Heads of Transport Programme Board (that meets once every two weeks) will provide project assurance.

- Project Sponsor - Richard Gillingham, South Gloucestershire Council
- Project Manager - Bethan Colman, South Gloucestershire Council.
- Senior Design Engineer - Richard Lewis, South Gloucestershire Council

### 1.3 Programme Plan

Table 5.1: Key scheme milestones.

<b>MILESTONE DESCRIPTION</b>	<b>DATE</b>
Network Rail GRIP 4-8 award contract	Feb 2019
Full Business Case submission	Mar 2019
Revised Full Business Case submission	June 2019
Full Approval	June 2019
Start construction	July 2019
Main rail possession for bridge replacement	Apr 2020
Completion of construction / Services operating	Apr 2022

A more detailed scheme programme is contained in Appendix 5.1.

## 1.4 Risks, Constraints and Dependencies

The full risk register is contained in Appendix 5.2.

The key risks as identified by the QRA process are shown in the table below.

	<b>Risk Description</b>
Gipsy Patch Lane bridge	Cancelled Possession or Blockade
Gipsy Patch Lane bridge	Schedule 4 possession costs uplift
Gipsy Patch Lane bridge	Inability of Principal Contractor to secure critical resources in time
Whole Scheme	Delays during construction caused by direct action protestors despite security measures
Whole Scheme	Risk of Public Inquiry (in relation to the CPO) taking place

Risk review workshops and Quantitative Risk Assessment (QRA) evaluations have been completed and used to influence the approach to Scheme delivery and delivery team composition and size. The QRA for the Gipsy Patch Lane bridge works (led by Network Rail) and the overall Scheme QRA are appended.

The project risk register has identified the main risks, mitigation measures and owners. The project risk register will continue to be reviewed and updated at regular intervals during the delivery phase to ensure the register accurately reflects changing circumstances. The high risks identified are formally reported to the CPME Project Board.

Approval for funding is required by June 2019 in order to meet the Easter 2020 railway possession for the Gipsy Patch Lane bridge replacement. Should the Easter 2020 be missed then a later possession would need to be booked by Network Rail with resultant increases in scheme cost. The next likely available possession would be Easter 2022.

Another dependency is to secure all required land for the railway bridge by summer 2019.

Should works in Bristol Parkway be delayed then metrobus routes utilising the CPME route would use existing interchange infrastructure within the station. However, we expect GWR to complete these works during this financial year.

Should works in CPNN or Horizon 38 be delayed then temporary alternative routes utilising the A38 and Hayes Way will be utilised by metrobus routes in the interim.

## 1.5 Land Acquisition, Planning and Other Consents

The CPME scheme comprises three separate planning applications:

- San Andreas roundabout and bus link

- Gipsy Patch Lane Bridge and associated works
- Gipsy Patch Lane and Hatchet Road works

Planning consents with conditions were granted in July 2018 for all three applications.

Permission notices including conditions are in Appendices 5.3 - 5.5.

### **Land requirements**

A plot of land adjacent to the Gipsy Patch Lane railway bridge has been secured for use as a compound to enable the construction of this element of the scheme.

A small plot of land required for the westbound stop on Gipsy Patch Lane, west of the bridge has also been secured.

Negotiations to secure the other third party land required for the scheme are progressing well and are at an advanced stage. As of 30 May 2019, the acquisition of all required land and temporary rights has been agreed in principle without the need for compulsory purchase and legal representatives have been appointed to complete the necessary documentation.

The Compulsory Purchase Order and Side Road Order in order to support the negotiation process, for the land required for the railway bridge replacement was made in February 2019 and advertised on 7<sup>th</sup> March 2019.

Links to member reports containing land requirement plans are contained in Appendix 1.1. For the most recent relevant report see:

<https://council.southglos.gov.uk/mgIssueHistoryHome.aspx?Id=66290&Opt=0>

### **Other consents**

Other consents include discharge of planning conditions, waiting restriction amendments and bus lane / gate Traffic Regulation Orders, stopping up and diversions of Public Rights of Way and temporary Traffic Regulation Orders during construction and appropriate drainage consents.

## **1.6 Service Diversions**

A Utilities Statement was submitted as part of the planning applications which sets out in some detail information about the existing apparatus in the scheme area, obtained from C3 enquiries, possible accommodation works, as well as new utilities required for the area including connections for electrical supply and telecommunications to bus stops.

The latest costs supplied by the utilities companies are included within the scheme cost estimate.

The Utilities Statement is in Appendix 5.6.

## 1.7 Engagement and Consultation

Community and stakeholder involvement has been a central theme throughout the development of the CPME scheme. The engagement and consultation undertaken to date, and that planned during construction, is summarised below.

### Soft launch

From November 2014 to February 2015 a 'soft launch' was undertaken to inform local communities and stakeholders about the emerging CPME proposals. This included the publication of a scheme webpage, a letter drop to addresses along the route, and presentations to community groups.

### Public consultation

Full public consultation on preliminary designs was undertaken for seven weeks from 27 November 2015 until 15 January 2016.

A consultation homepage was made available at [www.southglos.gov.uk/CPMEconsult](http://www.southglos.gov.uk/CPMEconsult) which contained the consultation material. The material was also available to view in hard copy at local libraries and the nearest SGC One-Stop Shop.

The consultation was publicised in the following ways:

- Relevant Town/Parish Councils and interested stakeholders were emailed/written to.
- Residential and business addresses fronting/backing onto the proposed CPME route were written to.
- A press release was issued.
- Advertisement on social media (Facebook and Twitter).
- Yellow traffic signs placed along the proposed CPME route.

Following consultation, correspondence continued to be received on a number of issues, including the originally proposed Hatchet Road bus lane, including petitions, and in December 2017 Councillors made the decision to remove the bus lane from the scheme as a result.

### Planning applications

Planning applications for the scheme were submitted in February 2018. A period of statutory consultation was undertaken on them by the Local Planning Authority from March to July 2018. The comments received were taken into account in the determination of the applications. The Environment Agency's objection to the North Way bus link planning application led to that element of the scheme being removed in December 2018 and the planning application for it subsequently being withdrawn.

A CPME Communication Framework document (available in Appendix 5.7) was submitted to the Local Planning Authority during their determination of the planning applications

### Engagement in preparation for construction

Ongoing engagement was undertaken during 2018 with the affected developers and land owners across the CPME scheme route following the receipt of planning permission. Engagement was also undertaken at this time with local residents and businesses.



At the time of writing this engagement is ongoing.

### **Planned engagement during construction**

Good communications will form a vital part of the implementation of the CPME scheme.

A stakeholder liaison group has been established. This has representation from local Town and Parish Councils, nearby residents and businesses, as well as the developers of the scheme (South Gloucestershire Council and Network Rail). The main purpose of the group will be to share information in relation to the necessary traffic management on Gipsy Patch Lane during construction.

A range of channels and opportunities will be utilised to ensure information is distributed as widely as possible amongst all relevant stakeholders.

A comprehensive stakeholder list is being established. Key stakeholders that will be engaged by the methods listed above will include:

- Department for Transport
- Members of SGC
- West of England Combined Authority
- Local MPs
- Business West
- Nearby Parish and Town Councils
- Area Forums
- Cycle Forum
- Neighbourhood Partnerships
- Neighbouring authorities
- Local rail and transport groups
- Train and bus operators
- Local businesses on and near the CPME route
- Emergency services
- Local residents
- Local interest groups; and
- Statutory Authorities
- North Bristol SusCom

The Consultation Issues Report is in Appendix 5.8.

### **1.8 Project Assurance**

The Gipsy Patch Lane bridge replacement element of the scheme is being undertaken in accordance with Network Rail's Governance for Rail Investment Projects (GRIP) process with its built-in process of checking and assurance, including sign-offs and gateway reviews. The GRIP process is based on best practice within industries that undertake major infrastructure projects and practice recommended by the major professional bodies.

These include the office of Government Commerce (OGC), the Association of Project Management (APM) and the Chartered Institute of Building (CIOB). GRIP divides a project into eight distinct stages.

Formal stage gate reviews are held at varying points within the GRIP lifecycle. The stage gate review process examines a project at critical stages in its lifecycle to provide assurance that it can successfully progress to the next stage.

The Heads of Transport Programme Board will provide project assurance for the whole project.

The project will be subject to SGC's own internal audit processes and WECA's audit processes in accordance with the requirements of the funding stream.

Regular reviews of the risk register are undertaken and lessons learnt sessions are held from other similar projects and the information from these is disseminated to the project team.

## 1.9 Monitoring and Evaluation

The monitoring and evaluation plan is contained in Appendix 5.9.

### Management Case Appendices

Appendix 5.1 – Scheme Programme

Appendix 5.2 – Risk Register

Appendix 5.3 – San Andreas planning decision notice

Appendix 5.4 – Gipsy Patch Lane bridge planning decision notice

Appendix 5.5 – Gipsy Patch Lane and Hatchet road planning decision notice

Appendix 5.6 – Utilities Statement

Appendix 5.7 – Communications Framework

Appendix 5.8 – Consultation Report

Appendix 5.9 – Monitoring and Evaluation Plan