

West of England Investment Board

Full Business Case

Sustainable Transport Package 17/18

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Executive Summary

Sustainable Transport Package 17/18 will deliver jobs and growth in the West of England region, building on the Travel West 15/16 and 16/17 programmes. It is a strong and deliverable proposal which aims to improve transport links to Enterprise and Growth Areas. The programme focusses on improving walking and cycling links, giving greater priority to public transport and creating high quality public spaces that will encourage retail and tourism activity. It also aims to alleviate local pinch points that exist on the transport network.

The total programme value is £3.8 million, of which £3.3 million capital grant is sought from the Local Growth Fund. The interventions are estimated to deliver **78 gross new jobs during the construction phase (42 direct, 36 indirect)** and **96 gross new jobs in the operational phase**. This scale of employment impact offers good value for money for LGF funding, demonstrated through **cost per gross new job of £21,732**. Furthermore, the package will result in **£2.8 million construction stage GVA uplift** (£1.5 million direct, £1.3 million indirect) and a **further £4.1 million operational stage GVA** (p.a.).

Consistent with the core aims of the Joint Local Transport Plan 2011-26, the Sustainable Transport Package 17/18 programme focuses on three key themes:

- Stimulating Growth in Enterprise Areas;
- Promoting Connected and Thriving Centres, and;
- Supporting Transitions to Low Carbon Lifestyles.

The programme will be enhanced by the forthcoming £6.9m of revenue funding secured through the Department for Transport's Access Fund competition and the major investment being made in local public transport infrastructure through the MetroWest and MetroBus schemes. Collectively, these schemes aim to offer sustainable travel alternatives that will keep our region moving and our economy growing.

Increasing the accessibility of the West of England's economic centres through sustainable travel will be critical to support growth in our Enterprise Zone and Areas, where we expect to see up to 82,500 new jobs created by 2036 through the Strategic Economic Plan and supporting measures. Equally vital in economic terms is the need for continued investment in our transport network to meet the demand for new housing. The emerging Joint Spatial Plan for the West of England identifies an estimated 105,000 new homes are required by 2036.

Raising the standard of walking and cycling infrastructure together with better quality public transport infrastructure and services will enhance the health of the local population by promoting active modes of travel and improving local air quality. The benefits will be realised by employers, who will have a healthier workforce with a commensurate reduction in absence through sickness, and by the Health Authorities through reduced demand on healthcare services.

The Sustainable Transport Package 17/18 programme will contribute to an affordable, low carbon, accessible, integrated, efficient and reliable transport network, working to achieve a more competitive economy and better connected, more active and healthy communities in the West of England.

The West of England authorities will use their extensive experience of delivering cross-boundary projects to ensure that the programme is completed on time and to budget, while offering excellent value for money.

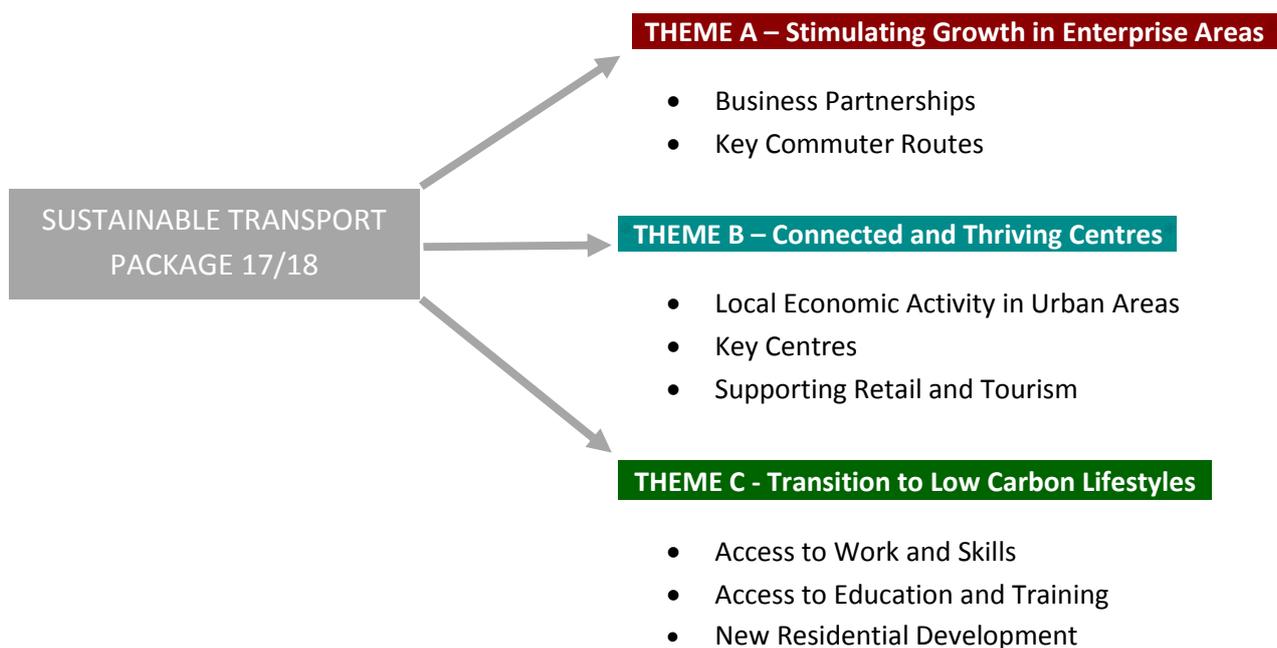
Strategic Case

1.0 Promoter and Delivery Arrangements

- 1.1 The Sustainable Transport Package 17/18 is promoted by the four West of England Local Authorities - Bath and North East Somerset (BaNES), Bristol (BCC), North Somerset (NSC) and South Gloucestershire (SGC) - who are the highway authorities for the area.
- 1.2 The Sustainable Transport Package 17/18 project will build upon existing joint working arrangements with partner organisations including businesses, transport providers, schools and community groups.
- 1.3 Procurement will be undertaken by the authority in whose area each individual scheme falls and the resulting infrastructure will become part of the highway asset register or other routes managed by that authority.

2.0 Project Description

- 2.1 The Sustainable Transport Package 17/18 proposal builds on the Sustainable Travel Transition Year funding and Travel West 16/17 programmes. It focuses on three key themes as shown in the figure below.



THEME A – Stimulating Growth in Enterprise Areas

- 2.2 Sustainable Transport Package 17/18 will continue to improve access to businesses, and education providers, widening the talent pool and overall accessibility of our Enterprise Zone and Areas. Over half of the West of England’s population lives on the key corridors linking with our Enterprise Areas and these routes carry one fifth of total traffic movements. Getting these corridors to function effectively is therefore vital.

THEME B – Connected and Thriving Centres

- 2.3 Sustainable Transport Package 17/18 will focus on completing the door to door journeys – the connections to, and accessibility of, our key commuter routes combined with works to get people to their end destinations. The project will continue to target communities in priority neighborhoods, improving walking and cycling networks and creating links with our Enterprise Areas to ensure better local access to employment.

THEME C – Transition to Low Carbon Lifestyles

- 2.4 The principles of the life-courses approach cuts across our sustainable travel strategy. Targeting people at life transition points (i.e. moving to a new school, moving home, starting a new job) is where you are most likely to affect long term travel habits. The project will create a safer and more attractive environment for walking, cycling and use of public transport from home to the workplace, education providers and key services and facilities - easing local congestion and encouraging a healthier working and studying population.
- 2.5 The Sustainable Transport Package 17/18 programme comprises 14 schemes which are described below. Maps showing the geographical locations of the projects can be found in Appendix 1 and a more detailed ‘transport case’ for each scheme is included in Appendix 4. Each scheme will be linked to at least one of the three key themes by use of the following indicators:

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Sustainable Transport Package 2017/18 – Scheme Summary

Rupert Street Bus Priority (BCC). Providing priority on a key part of the city’s road network serving significant employment, retail and commercial activity by reallocating road space to public transport. *Survey results indicate bus passengers outnumber persons in private vehicles by 3 to 1 on this corridor and reallocation of road space will ensure a smoother, more reliable and quicker journey for both bus and MetroBus passengers that will benefit the majority.*

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Access to the Arena site (BCC). Providing high quality sustainable travel and coach/taxi drop-off options for arena users. *The scheme focuses on the stretch of Albert Road from Feeder Rd to Victor Street – providing the necessary access facilities (footway widening, crossing facilities and lighting etc.) to access the arena site. The scheme also proposes improvements to Victor Street itself and Victoria Road as well as providing ‘lines and signs’ for taxi ranks on Avon Street and Feeder Road. The scheme complements the £0.3m funding for St Phillips footbridge.*

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Airport Road Cycle Path (BCC) – detailed design. *Improving the route on Airport Road to achieve a continuous high quality cycle route from Hengrove Way to the Whitchurch cycle path and into the city centre. This path will provide a sustainable transport link for the 1,200 planned houses at the Hengrove site as well as existing residential development along the length of the route. The facility will also improve connections with the South Bristol Skills Academy, the Community Hospital and Imperial Park among other destinations.*

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Weston Town Centre Regeneration (NSC) - Town Square/South Parade and Regents Street walking and cycling improvements. *This scheme will complement the ‘Town Square, Weston-super-Mare’ improvement scheme by improving the physical and visual connectivity of key areas of the town; notably the sea-front and the High Street areas. The South Parade element of the scheme proposes reallocation of road space to widen footways which will not only encourage active travel but also improve the sense of place and character and contribute towards increased dwell time and retail spend.*

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Coastal Towns Cycle Route (NSC) - preliminary works for the shared-use walking and cycling path in Weston-super-Mare. *Promoting active travel through the provision of high-quality walking and cycling routes on the Coastal Towns Cycle Route within North Somerset (Weston-Super-Mare, Clevedon and Portishead) and neighbouring authorities. Uphill Road North is the missing link from Weston-super-Mare’s busy Promenade to Uphill Village. This will be the last significant barrier of the Weston to Brean phase.*

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Two-headed man pinch-point scheme (BaNES) - South of Keynsham. *Scheme to alleviate local congestion for all vehicles (including public transport and HGVs) on this key route by adding capacity to the junction. Improvements will smooth traffic flow in this congested area and will help to facilitate future growth to Keynsham.*

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Bath and North East Somerset Cycle Investment Package (BaNES). A combination of 3 smaller schemes facilitating increased levels of cycling and walking to access work, training and education. The 3 schemes comprise a) infrastructure improvements in Midsomer Norton, b) Authority-wide employer grants, and c) Cycle Link mop-up – improving access to Bath City Riverside Enterprise Area.

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Safer Routes to School (BaNES). To progress design and implementation of the first phase of schemes across Bath and North East Somerset following a strategic review of missing sections of walking and cycling infrastructure on desire lines to schools sites.

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Access to Emerson's Green Enterprise Area (SGC). Further construction of sections of the Yate Spur cycle route (connecting Yate and the Eastern Fringe of the Bristol Urban Area) and design of the Pucklechurch Link (connecting Pucklechurch with the Eastern Fringe of the Bristol Urban Area). The routes are key as they also connect with existing medium/long distance cycle routes, notably the Bristol to Bath Railway Path (NCN4) and the Ring Road Path (NCN16).

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Access to Bristol North Fringe (including the Filton Enterprise Area) (SGC). Following on from the feasibility study undertaken as part of the Travel West 16/17 bid, funding will deliver the first section of cycle route upgrades in the Filton/Patchway area as part of a much larger package to improve cycling and walking facilities along the A38 corridor in future years.

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Access to Avonmouth/Sevenside Enterprise Area (SGC). The planned walking and cycling infrastructure improvements on the A403 will significantly improve the current 1.1km route from Ableton Lane to Central Avenue for commuters; improving road safety by segregating cyclists from HGV traffic and providing a safe, attractive option to encourage commuters to cycle. In addition to the commuter benefits, this section is also part of the National Cycle Network's Avon Cycleway (NCN41), so provision for leisure cyclists and tourists will also be improved.

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

Bus Network Enforcement (SGC). Provision of 8 camera poles and 5 moveable cameras to deter bus lane infringement. The public transport network in South Gloucestershire has seen significant investment over recent years including priority measures through the provision of bus lanes. The full benefit of the provision of a bus lane can be achieved by strong end effective

enforcement through the use of cameras as a deterrent to non-compliant vehicle drivers, thus improving both journey times and journey time reliability, and making bus services attractive to use.

THEME A - GROWTH

THEME B - CONNECTED

THEME C - LOW CARBON

3.0 Project Objectives and Case for Change

- 3.1 Building on the successes of the Travel WEST 16/17 programmes, the four authorities are looking to further invest in infrastructure improvements that will provide the base conditions for an enhanced sustainable transport network and services. Whilst funding has been secured for major public transport improvements, these need to be complemented by investment in the more local sustainable transport measures that will provide feeder routes and services and facilitate improved local accessibility to employment, education and other public services. Increasing the accessibility of the West of England's economic centres by sustainable travel will be critical to supporting growth in our Enterprise Areas where we expect to see up to 82,500 new jobs. Equally vital in economic terms is the need for continued investment in our transport network to meet the demand for an estimated 105,000 new homes by 2036.
- 3.2 Sustainable economic growth cannot be realised without tackling congestion on our roads. Congestion has a real impact on business operations and commuter journey times and is set to get worse if no action is taken. The four authorities are well placed to address this problem with a large proportion of the populations both living and working within the West of England. Presently, the harsh conditions for vulnerable road users living in congested areas deters greater take up of walking and cycling. It is critical that this trend is reversed and that people friendly places are created that support safe independent mobility for all and not just for those able to cope with high levels of traffic.
- 3.5 2017/18 is a critical period for transport in the region, with the opening of the MetroBus programme close on the horizon. During this period of change there is a huge opportunity to target those that could travel by alternative means to both reduce congestion during construction and, more critically, to use this period of uncertainty to lock them into new travel habits. Sustainable Transport Package 17/18 presents a real opportunity to build on the capital investment plans of the local authorities, the Homes and Communities Agency (HCA), Network Rail and other partners in transforming our Enterprise Zones and Areas from concept to reality.
- 3.6 The challenge and objective is to reduce the barriers, both actual and perceived, to increase the accessibility of the Enterprise Areas from our communities.

4.0 Strategic Fit

4.1 The Joint Local Transport Plan 2011-26 (JLTP3) provides the transport policy framework for the West of England. The Sustainable Transport Package 17/18 programme is built around the Plan's goals to:

- Support economic growth.
- Reduce carbon emissions;
- Promote accessibility;
- Contribute to better safety, security and health; and
- Improve quality of life and a healthy natural environment

4.2 The Strategic Economic Plan places sustainable travel at the heart of the growth strategy for the Enterprise Areas and has included £3m of capital funding for the Sustainable Transport Package in 2017/18 within a £20m allocation to 2020/21. The 4 authorities are seeking £3.3m funding in order to realise the maximum benefit as early as possible in the cycle to 20/21.

4.3 The Sustainable Transport Package 17/18 will support the business community by improving the sustainable travel offer for commuters, helping to ease congestion in key growth areas. The approach supports the West of England Authorities Core Strategies and the Strategic Economic Plan agenda by improving facilities to support business and enhancing links to the Enterprise Areas.

4.4 The Sustainable Transport Package 17/18 programme complements the improvements being through major transport projects such as MetroBus, Metro West and mainline rail electrification. It also considers emerging proposals through the Joint Spatial Plan and Joint Transport Study by including schemes that would benefit existing planned development and potential future development in locations such as Yate and Keynsham.

5.0 Rationale for Public Intervention

5.1 The transport improvements will provide open access infrastructure forming part of the local highway, public transport or cycling networks. The four local highways authorities are the only bodies able and willing to provide this infrastructure. Whilst some of the schemes will provide a lever for securing complementary developer contributions (identified in Appendix 2) they cannot be wholly funded through these means and intervention is required.

6.0 Options Appraisal

6.1 Schemes under the Sustainable Transport Package 17/18 programme focus on easing congestion and improving links between Enterprise and Growth Areas. They have also been selected on the basis that they complement existing and planned transport

projects; leverage additional sources of funding; are deliverable within the funding period and have been identified as the best value for money. This approach was deemed the best strategic fit for meeting our objectives as well as aligning with the aims of the Local Growth Fund. Alternative options were considered as follows.

6.2 Focus on schemes not directly linked to Enterprise and Growth Areas: this was rejected because it would spread limited resource too thinly, would not address the core objectives of the LGF and would not tackle the problem of congestion on the principal corridors. It was decided that greater value for money could be achieved by channelling resources to where the largest number of employees are located and where measures are likely to have the biggest impact.

6.3 For a number of schemes the 'do nothing'/'do minimum' option was considered an unfavourable approach. Without investment:

- **Rupert Street (BCC):** Do nothing: without investment into bus priority along this route, public transport journey times and reliability will remain inconsistent and unattractive to car drivers who may be contemplating shifting to more sustainable modes of transport. The majority of Bristol's bus services pass through Rupert Street (including planned MetroBus services) so no other alternatives with the same measurable benefits exist.
- **Access to Bristol Arena (BCC):** Do nothing: Without improvements to the pedestrian and cycling environment, access to the Arena Island site via the east of the city will remain an unattractive option. The impact would be a failure to fully realise the benefits of the investment in St Phillips footbridge and the Avon river path improvements to which it connects. Moreover, the lack of conveniently situated coach parking will damage the prospects of the Arena drawing in visitors from outside of Bristol.
- **Airport Road (BCC):** Do nothing: without detailed design work for the Airport Rd cycle path, the project is unlikely to go ahead. Ultimately this would limit the opportunity for journeys by foot and bike from existing development in the area (i.e. South Bristol Skills Academy and the South Bristol Hospital) as well as damaging the prospects of the Hengrove housing development in the sense that sustainable travel links with the city centre (and jobs) will remain poor. With this route being part of the strategic network no other options were considered appropriate.
- **Regent Street (NSC):** Do nothing: Without the proposed shared use improvements to Regent Street, North Somerset will not be able to provide walking and cycling increases of any real significance at this location. Cycling currently accounts for less than 2% of all active travel journeys on Regent Street. The existing Regent Street

layout means pedestrians are not well catered for on the narrow and often overcrowded footways. Existing public transport data for bus frequency has indicated the removal of disabled parking and planned loading restrictions will improve public transport journey time savings, increasing reliability and passenger increases. Regent Street was originally considered for public realm improvements, when Princess Victoria Square was undertaken, yet this has been the first opportunity to provide an improved link between the seafront and the High Street within Weston-super-Mare. Officers considered whether public transport could be diverted away from Regent Street, yet as bus frequency was every 3 minutes, this was not deemed necessary at this time. Other options considered instead of Regent Street included the continued improvements to the Coastal Towns Cycle Route. This was discounted due to the planning approvals, which the Uphill Road North phase required.

- **South Parade (NSC):** Do nothing: Without the South Parade improvements we will not be able realise improvements with any continuity at Towns Square, the Boulevard transport corridor or provide continued investment within the High Street area. The knock on effects to Weston-super-Mare town centre are continuing lower employment prospects, and a low baseline for active travel and public transport use. Weston town centre has imminent development proposals for expansion of both its higher education offer and town centre housing provision, this expansion will be detrimentally affected with the existing provision of low quality urban areas. South Parade is part of the improvements planned for ‘the Boulevard’ transport corridor and proposals will increase the area of public realm, offering an improved retail and office environment, increasing public spend, and continuing the pedestrianisation and shared space approach to Weston-super-Mare town centre. This has been a proven approach nationally to increase active travel through road reallocation, where active modes and public transport have priority. Station Boulevard was also considered for delivery in 2017/18, however land negotiations meant this scheme was delayed for future bids.
- **Coastal Towns Route (NSC):** Do nothing: Cyclists will be faced with two options, the busy A370 which has pedestrian and cycle collisions, or the beach to Uphill, which is exposed to the elements and tide dependent. Uphill Road North will provide the final link between Weston-super-Mare town centre, Uphill and Brean. This mainly off-road link is considered crucial to provide appropriate cycling infrastructure for all ages. It will be useful in a number of ways, from improving road safety, providing connectivity between the hospital, Weston College and the town centre. Likewise provide a safe leisure route to Brean Down.
- **2 Headed Man junction (BaNES):** The “do nothing” option of leaving the existing signal controlled junction has been considered, the impact would be an increase to

already heavily congested area during peak flows, impacting on the potential to realise economic growth in Keynsham, Bath and the Somer Valley by being unattractive to new development on this key transport link. Other engineering solutions, including a roundabout, have been considered, but rejected as unfeasible. The impact of do nothing will be felt most heavily in Keynsham where employment and residential developments currently coming on stream, with more planned, and the benefits realisation of these developments will not be fully realised without this scheme. There isn't budget available under the ITP to fully fund this scheme within this financial year, so the alternative would be to delay delivery of this scheme and risk under-realisation of the potential for economic growth in the area.

- **BaNES Cycle Investment Package (BaNES):** The “do nothing” option will leave gaps in the cycle network in Bath, fail to capitalise on the potential for increased cycling levels in Midsomer Norton as residential and employment developments come on stream. The delivery and design of schemes is part of an options appraisal funded by STTY and Access Fund, and will ensure that only the schemes with the greatest benefits to walking and cycling will progress through this and future LGF opportunities. The employer grants are considered on their individual merit, to ensure that the outcomes meet those of the LGF to increase walking, cycling and sustainable transport. There is no alternative budget to fund this work. This forms part of a wider programme, the prioritised scheme has been identified as Cross Town Link, and subject to feasibility studies funded out of Access Fund, will be the initial scheme to be delivered.
- **Strategic Review Safer Routes to School (BaNES):** The “do nothing” option will continue to see large numbers of children travelling to school via car or designated bus service due to a lack of safe alternative options for walking or cycling. As car levels on our roads continue to increase the impact would be an exacerbation of unattractive and potentially unsafe routes and associated increase in the numbers of pupils travelling by unsustainable modes. Other options such as alternative routes and different surfacing treatments have been considered, and the chosen options are the most sustainable for the Council and attractive, viable options for school children. ITP is already being utilised to match fund this project, and without the LGF the outcomes and benefits would therefore be greatly reduced. This forms part of a wider programme and prioritised schemes have been identified, parallel feasibility work will be funded from the ITP to confirm which schemes will be progressed under this project.
- **Access to Emersons Green Enterprise Area (SGC):** Without improvements there would not be a complete segregated route between Yate and the Emersons Green and cycling would remain an unattractive option for many. Alternative routes have been considered as part of the design process but they involved substandard path

widths or sections of on-carriageway route, which would not provide the high-quality segregated facility required to encourage modal shift to cycling.

- **Access to Bristol North Fringe (including the Filton Enterprise Area) (SGC):** The 16/17 LGF scheme to produce a cycle corridor feasibility study for the A38 has identified a number of improvements required to deliver a high quality off-carriageway corridor. Whilst the detail of the whole-route improvement through to Thornbury is linked to the emerging Joint Spatial Plan and Joint Transport Study, to delay implementation of the findings of the study in 2017/18 would postpone the provision of an attractive off-road route in Filton that would encourage cycle journeys and contribute to reduced congestion.
- **Access to Avonmouth/Sevenside Enterprise Area (SGC):** To not deliver this scheme would mean that the off-road cycle route along the A403 and the pedestrian route from Severn Beach Station to Western Approach would continue to be unattractive options for commuter journeys to the Enterprise Area, resulting in the continued prevalence of single occupancy car journeys, affecting the attractiveness of further development and growth in the area.
- **Bus Network Enforcement (SGC):** To not deliver this scheme would have a negative impact on public transport journey times and journey time reliability across key transport corridors both within South Gloucestershire and across the border into Bristol, reducing the attractiveness of bus travel and increasing congestion. This scheme is essential to fully realise the benefits of the public transport services operating on the network.

7.0 State Aid Considerations

- 7.1 The Sustainable Transport Package 17/18 programme involves a series of schemes that will enhance the existing transport network and provide equal benefits to all sectors of the community using the network. Procurement of individual schemes will be through the established procurement frameworks used by each of the four authorities in compliance with public sector procurement regulations. There are considered to be no State Aid issues in relation to this programme.

8.0 Equality and Diversity Impact Assessment

- 8.1 The Sustainable Transport Package 17/18 programme is intended to improve accessibility for all sectors of the population through a series of sustainable transport projects and initiatives. Each authority applies the preparation and implementation of an EqIA as part of the scheme design process, and the programme will be focussed upon improving access to jobs, education and services for all sectors of the population. Appendix 3 contains an Equality and Diversity Impact Assessment and Plan. This plan

was submitted for the previous LGF bid and after being reviewed has been deemed consistent with our approach to the current proposal.

9.0 Environmental Sustainability Considerations

9.1 The significant environmental impacts of the Sustainable Transport Package 17/18 programme are as follows:

- Long-term positive impacts: investment in, and promotion of sustainable transport resulting in a reduction in car journeys and associated emissions. This will be monitored using manual and automatic traffic/cycle counts, plus air quality monitoring data.
- Short-term negative impacts: the use of fuels and materials for construction and associated production of waste.

9.2 Individual engineering and construction projects will be subject to the appropriate controls, including Environmental Impact Assessments, procurement, planning and waste management. Wherever possible we aim to limit this impact by recycling materials for construction for infrastructure schemes, for example - the recycling of road aggregate.

9.3 It is noted that any new planning permissions will need to comply with the following policies from the Core Strategies:

- Climate change – mitigation and adaptation
- Sustainable energy
- Sustainable design and construction
- Flood risk and water management
- Quality urban design
- Waste Policies

Economic Case

10.0 Economic Appraisal

10.1 This section presents a brief description of the schemes which form part of the package of proposed improvements. The section also presents a brief summary of the economic impacts associated with the schemes. These impacts will be attributable to the LGF funding request of £3.3m, out of a total capital expenditure of £3.8m for 2017/18. It is worth noting that the £3.3m LGF funding request will attract approximately a total of £0.77m of match funding. Further details regarding match funding can be found in the Financial Case (section 12.1).

- 10.2 The schemes included in this LGF application will predominantly deliver sustainable transport effects. However, the focus of this economic impact assessment is to forecast two types of economic benefits:
- Conventional transport economic benefits relating to mode shift and growth in cycling and walking, using the DfT's Active Mode Appraisal Toolkit; and,
 - Wider economic benefits, namely employment created (unlocked or facilitated) and Gross Value Added (GVA) benefits for the local economies.
- 10.3 Please note that this high level scheme-specific assessment of impacts is based on observed benchmarks and other evidence sourced from the public domain and / or information provided by the project sponsors. Also note that the assessment forecasts gross impacts of the schemes, and does not give any consideration for additionality calculations (net effects). That said, there is some consideration of indirect impacts resulting from investment in the construction phase of the scheme, in line with recommendations set out in the West of England LEP's 'Impact Guidance Note: A guide to estimating economic impact for infrastructure projects in the West of England'.
- 10.4 Further details of the schemes, a qualitative statement regarding their transport case, and their wider economic benefit case are presented in the scheme pro-formas provided as Appendix 4 to this document. In addition, all scheme-specific input assumptions and calculations performed to forecast the wider economic impacts are provided Appendix 5 along with any associated mapping, together with the single page output of the DfT's Active Mode Appraisal Toolkit.

Overview of Projects

- 10.5 The package of investment includes fourteen schemes. The table below presents brief description of each scheme, and the amount of LGF funding requested. Alongside the LGF request is the total cost of the scheme, including match funding. Where the scheme forms parts of a wider programme of works, the total cost of the wider programme is also presented. This is relevant where Schemes included in the current package build on earlier schemes that were funded through previous rounds of the LGF, or where additional schemes may form part of a future LGF package. For these schemes, the current assessment only claims a proportion of total benefits in line with the proportional cost of the scheme compared to the wider programme costs.
- 10.6 The schemes are distributed across the four Local Authority areas, and focus on a range of sustainable transport initiatives, including cycling, walking, bus and highway infrastructure improvements. Such investments would deliver a range of benefits associated with healthier lifestyles and carbon emission savings. Through change in mode share, they can also reduce congestion within their respective catchment areas.

Furthermore, cycling schemes can lead to additional expenditure in the local economies, resulting in employment creation.

10.7 The package also includes targeted transport infrastructure schemes (including the above mentioned cycling schemes) to promote growth in the West of England LEP region. Such investments could unlock capacity and support growth at key employment destinations within the region, such as the Bristol Temple Quarter Enterprise Zone, Filton Enterprise Area, Bath Enterprise Area, Emerson's Green Enterprise Area and Keynsham. Similarly, the investments can support residential development across the West of England, including at key growth sites such as Cribbs Patchway New Neighbourhood (SGC) and Hengrove (BCC).

10.8 Lastly, the package includes some further targeted investments to reduce delay on the local highway network, which are impacting on productivity of businesses and employees in their context areas.

Scheme Reference	Scheme Description	LGF funding requested (in £000s)	Total Scheme Cost (in 000s)
BATH & NORTH EAST SOMERSET			
BA01	2 Headed Man Junction: Junction redesign, pinch point /congestion scheme, links to employment and residential development in Keynsham.	400	550
BA02	Midsomer Norton / Radstock Schemes: Detailed design and feasibility work for schemes in MSN/ Radstock following work under STTY, ahead of future delivery under LGF/TIP	20	30
BA03	Employer Grants: 50:50 match funded grants for sustainable transport improvements.	10	20
BA04	Cycle link mop up: A host of small schemes across the authority which have been identified as gaps in the cycling network. This includes design and delivery work.	10	10
BA05	Strategic Review Safer Routes to School Cycle and Pedestrian improvements to facilitate active school travel, includes design in the first year	75	125
Bath and North East Somerset total		515	735
BRISTOL CITY			
BS01	Rupert Street widening and bus priority: lane reallocation to provide enhanced bus provision in city centre	200	200
BS02	Access to Bristol Arena: Victor Street, Albert Road and surrounds improved pedestrian and cycle links and coach drop off point to benefit development on Diesel Depot	800	800

BS03	Airport Road Walking / Cycling Design Work: design and feasibility work for proposed extension of walking and cycling route along Airport Road	75	75
Bristol total		1,075	1,075
NORTH SOMERSET			
NSC01	Weston Town Centre Regeneration: public realm, walking and cycling improvements along Regent Street	500	700
NSC02	North Somerset Coastal Route: Uphill Rd North shared use path (preliminary works)	10	33
North Somerset total		510	733
SOUTH GLOUCESTERSHIRE			
SGC01	Access to Emersons Green Area: ongoing work for the Yate Spur and Pucklechurch Link cycle routes	430	460
SGC02	Access to Bristol North Fringe (Including Filton Enterprise Area): ongoing work for the A38 cycle routes	80	80
SGC03	Access to Avonmouth/Sevenside Enterprise Area: delivery of walking and cycling route along sections of the A403	450	450
SGC04	Bus Network Enforcement	240	240
South Gloucestershire total		1,200	1,230
West of England total		3,300	3,773

Conventional Transport Economic Case

10.9 The DfT's Active Mode Appraisal Toolkit was utilised to capture conventional transport economic benefits associated with the schemes. In particular, the Toolkit was used to monetise the impacts of increased walking and cycling, including the complementary mode shift an uplift in these modes would engender. Within this context, only walking and cycling schemes were incorporated into the Toolkit analysis and only commuter cyclists were considered. Further, the impact of schemes on walking and cycling activity was only captured for one year, to acknowledge ongoing and future capital and revenue investment in walking and cycling infrastructure as part of Access West and other funding programmes that would be required to deliver continued growth. As a result, the appraisal was consistent with the preceding Access West funding application. This approach to assessing impacts had two implications on the selection of relevant schemes:

- Only those walking and cycling schemes involving implementation of sections of route would deliver uplift in walking and cycling by 2017/18. Therefore schemes involving design/feasibility and their future impact beyond 2017/18 were ignored.

- The impact of walking and cycling schemes on future development areas was ignored, on the basis that future development areas would not be delivered in 2017/18.

10.10 In addition to the above assumptions, the following input assumptions underpinned the Toolkit:

- Appraisal Period – 13 years. In line with West of England LEP’s ‘Impact Guidance Note: A guide to estimating economic impact for infrastructure projects in the West of England’, which suggests three year build-up of benefits followed by a ten year benefit stream for infrastructure schemes. In effect, the uplift in walkers and cyclists reported as a result of the schemes in 2017/18 are expected to be sustained for 13 years (subject to a standard decay rate of 7.7% per annum).
- Baseline Cycling Journeys – 14,943. Based on 8,700 individual commuter cyclists in the identified catchment areas of each relevant scheme, with an 87% share of journeys that form part of a return trip (from GBATS4).
- Baseline Walking Journeys – 48,517. Based on 28,100 individual commuter pedestrians in the identified catchment areas of each relevant scheme, with an 87% share of journeys that form part of a return trip (from GBATS4).
- Both sets of journey numbers only consider commuter trips; school-based and other journey purposes were not included in the analysis.
- Average Trip Length and Speed (Cycling) – 7.6km and 17.5kph. Based on Travel to Work Survey data for Bristol and South Gloucestershire.
- Average Trip Length and Speed (Walking) – 1.75km and 5kph. Based on Travel to Work Survey data for Bristol and South Gloucestershire and academic literature relating to average walk speeds.
- Future Cycling Journeys – c. 15,992. Based on 6.55% growth in commuter cyclists, pivoting from the Access West bid which implied growth of 8.6% per annum (of which, 76% of growth was attributable to capital investment such as the schemes featuring in this LGF package).
- Future Walking Journeys – c. 49,208. Based on 1.42% growth in commuter pedestrians, pivoting from the Access West bid which implied growth of 8.6% per annum (of which, 76% of growth was attributable to capital investment such as the schemes featuring in this LGF package).
- Journey Quality Impacts – ignored. Although some schemes incorporate signage, off-road and other infrastructure elements, the potential for journey quality impacts was ignored. Therefore the appraisal represents a conservative analysis.
- Proportion of new users transferring from car – 67%. GBATS3 demonstrates that modal shift to cycling and walking comes from bus and train users as well as car drivers and passengers. In total, car drivers account for approximately 67% of the increase in cycling and walking users.

- Background Growth Rate – 0.83%. Weighted growth in walking and cycling associated with revenue funding in 2017/18, consistent with Access West bid.
- Annualisation Factor – 220 days per annum. Based on the number of working days in a year, as the analysis focusses on commuters only.

10.11 Based on the Toolkit’s specification and assumptions outlined above, the aggregate impact of the schemes included in the Active Mode Appraisal is £7.7m. The table below demonstrates that the majority of benefits are associated with health/physical activity impacts (£6.7m) and decongestion impacts (£1.1m).

Impact Category	Monetised Impact (£000s)
Noise	17.69
Local Air Quality	0.00
Greenhouse Gases	59.84
Journey Quality	0.00
Physical Activity (incl. Absenteeism)	6,657.25
Accidents	268.97
Decongestion	1,074.22
Indirect Taxation	340.09
Private Contribution	0.00
Present Value of Benefits	7,737.88

Wider Economic Case

10.12 In addition to the modal shift, reduced congestion, accident savings, carbon savings and associated health benefits described above, this package of investment is also focussed on estimating employment and GVA impacts.

10.13 The table below presents direct and indirect construction stage employment impacts as well as gross operational stage employment impacts, for all fourteen schemes. The table also presents GVA impacts associated with the construction and operational stage. The package of investment for sustainable transport schemes in the West of England LEP region, which seeks £3.3 million of LGF funding towards a total investment of £3.8m, will create approximately 78 gross jobs during the construction stage (42 direct, 36 indirect). The package will also support creation of approximately 96 gross jobs during the operational stage. The construction stage activities relate to £2.8m in GVA uplift

(£1.5m direct, £1.3m indirect) whilst the operational stage employment creation relates to £4.1 million of gross additional GVA for the region.

Scheme Reference	Scheme Title	Gross Job Creation		Gross GVA Uplift	
		Construction Stage (direct and indirect)	Operational Stage	Construction Stage (direct and indirect)	Operational Stage
BATH & NORTH EAST SOMERSET					
BA01	Pinch Point 2 Headed Man Junction	11.3	20.2	£407,000	£1,078,542
BA02	Midsomer Norton Cycle and Walking Schemes	0.6	0.4	£22,200	£11,664
BA03	Employer Grants	0.4	0.2	£14,800	£6,850
BA04	Cycle Link Mop up	0.2	6.6	£7,400	£188,470
BA05	Strategic Review Safer Routes to School	2.6	1.3	£92,500	£37,930
BRISTOL CITY					
BS01	Rupert Street Bus Priority	4.1	6.8	£148,000	£329,465
BS02	Access to Bristol Arena	16.4	29.5	£592,000	£1,423,180
BS03	Airport Rd Cycle Scheme	1.5	1.8	£55,500	£45,742
NORTH SOMERSET					
NSC01	Weston Town Centre Regeneration	14.4	20.8	£518,000	£589,690
NSC02	Coastal Towns Cycle Route	0.7	0.2	£24,050	£10,983
SOUTH GLOUCESTERSHIRE					
SGC01	Access to Emersons Green EA	9.5	2.4	£340,400	£67,186
SGC02	Access to North Fringe (including Filton EA)	1.6	0.4	£59,200	£10,722
SGC03	Access to Avonmouth/Sevenside EA	9.3	0.9	£333,000	£26,127
SGC04	Bus Network Enforcement	4.9	4.3	£177,600	£231,584
West of England total		77.5	96.0	£2,791,650	£4,058,134

Value for Money Statement

Total project cost	£3.8m
Grant sought (LGF)	£3.3m
Net Quantified Benefits	Permanent: 96 FTE and £4.06m GVA Temporary: 78 FTE and £2.78m GVA
VfM indicator*	Cost per gross jobs created: £21,732 (including direct and indirect operational and construction)

10.14 The £3.3 million LGF funding for the package will unlock £3.8m of total investment in 2017/18, leading to the delivery of 174 gross new construction and operational jobs. This scale of employment impact offers good value for money for LGF funding, demonstrated through a cost per gross new job benchmark of £21,732. Furthermore, the package will result in GVA uplift £6.8 million.

Economic Summary

10.15 The economic impacts associated with the package of sustainable transport initiatives can be summarised as follows:

- £7.7m of conventional transport economic benefits relating to an uplift in walking and cycling trips (and the associated impact of such trends on health, decongestion, accidents etc).
- £6.8m of wider economic benefits relating to construction activities and the creation of 174 gross new jobs across construction and operational phases.

10.16 Compared to an LGF funding request of £3.3m and a total package cost of £3.8m to deliver all schemes, the scale of conventional and wider economic benefits demonstrate a strong economic case for the project.

Financial Case

11.0 Scheme Cost

11.1 The costs for the schemes are included in Appendix 2. Each Unitary Authority will design and deliver their own projects through a mix of in-house delivery teams or procured through engineering consultants. All schemes will continue being worked up during 2016/17 in preparation for delivery in 2017/18 and the early months of 18/19.

11.2 Spend to date includes the cost of preparing this bid and economic appraisal of schemes. There are also costs associated with the preliminary design and estimates for schemes included in the bid. Cost estimates for schemes are the result of experienced engineers feasibility work or where equipment is concerned quotes from suppliers.

11.3 The four WoE authorities are VAT registered so no VAT is included in the scheme costs. Each project includes its own contingency, inflation over the period of the bid and construction is negligible.

11.4 Given the value and simplicity of each individual scheme, it has not been considered proportionate to provide a detailed cost breakdown at scheme level at this stage, but this would be made available on request.

12.0 Spend Profile and Funding Sources

12.1 £3.3m is sought from LGF for this package. There is an additional £0.77m confirmed as match funding as outlined in the table below:

Capital Spend (£000s)

	17/18	18/19 (to July 2018)
LGF	2,288	1,012
LTP	328	
DfT (Access Fund)	10	
RIF (St Phillips Footbridge)	300	
Private (Section 106)	125	
Private (Employers)	10	
Total	3,061	1,012

12.3 It is worth noting the £0.3m RIF funding for St Phillips Footbridge is included in the Financial Case as match-funding but is not included in the Economic Case, as the benefits of the footbridge scheme have already been attributed elsewhere.

Commercial Case

13.0 Procurement Strategy

13.1 The Sustainable Transport Package 17/18 will be delivered through a range of existing procurement arrangements established by the local authorities.

13.2 For these capital schemes the authorities already have existing fit for purpose arrangements as follows:

- Bath and North East Somerset Council has an existing arrangement in the form of an OJEU procured Supply Chain framework contractor to deliver these schemes;
- Bristol City Council has an OJEU framework contract in place to appoint contractors from an established list of providers;

- North Somerset Council uses an OJEU procured framework term contractor to deliver engineering schemes for the majority of its larger infrastructure projects; and
- South Gloucestershire Council plan to use the in-house workforce and OJEU procured Supply Chain framework contracts to deliver these schemes.

13.3 All procurement activities will follow authority procurement regulations and comply with State Aid rules.

14.0 Operation and Financial Viability

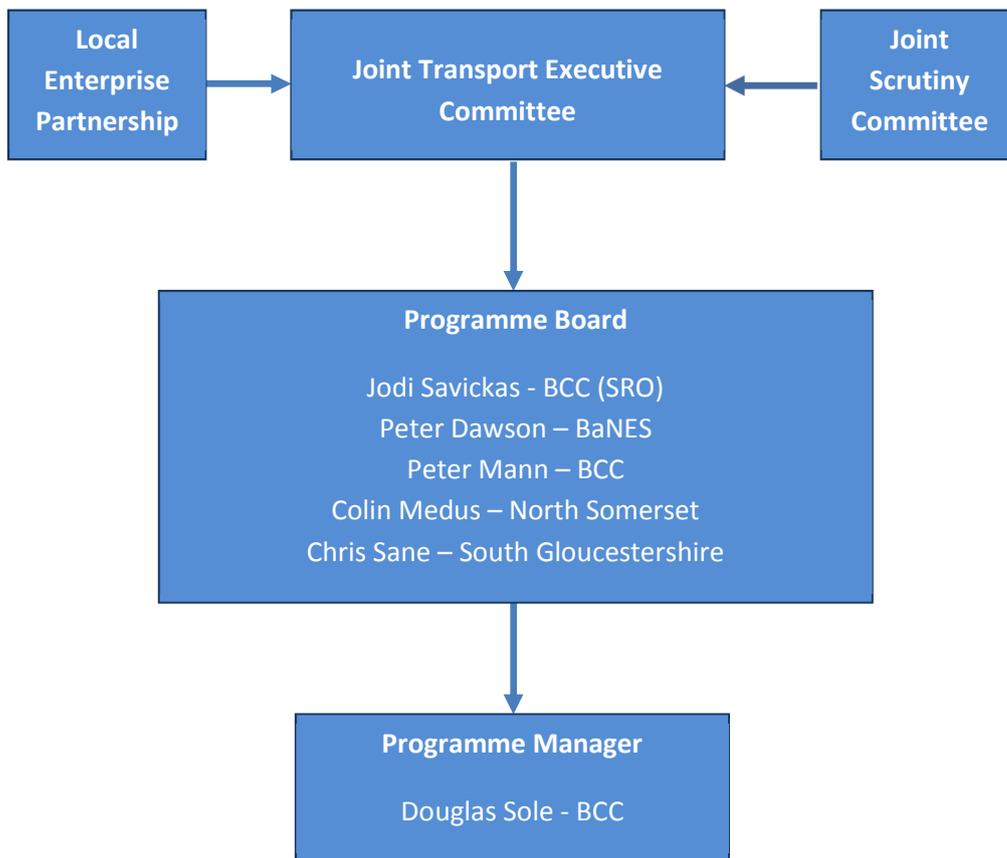
14.1 Sustainable Transport Package 17/18 is a capital funded programme of work that will see a series of infrastructure improvements implemented across the West of England area. The package of schemes will not create significant future revenue funding burdens upon the four local authorities, with each authority being able to incorporate the relatively minor additional revenue requirements within the constraints of their own budgets. The revenue burden associated with the Bus Lane Enforcement Camera scheme in South Gloucestershire is expected to be covered by income from infringements on the bus network.

Management Case

15.0 Project Governance and Delivery

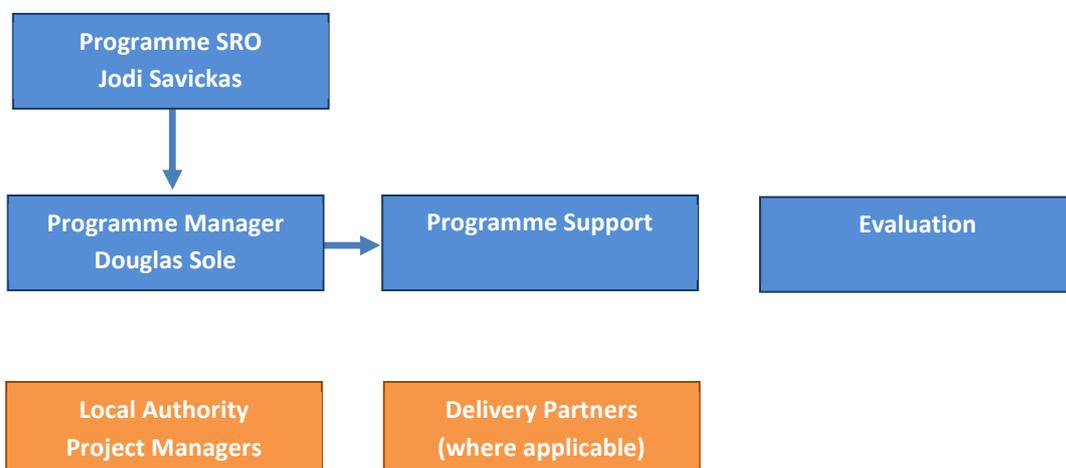
15.1 The governance arrangements are set out in the diagram below. The Programme Manager will be Douglas Sole (BCC) reporting to the Senior Responsible Owner (SRO) - Jodi Savickas (BCC). Both these staff have experience working in similar roles on cross-boundary projects.

15.2 Building on the successful TravelWest, LSTF and STTY arrangements, a Programme Board will oversee the delivery of STP 17/18 which will comprise representatives of the authorities and LEP as illustrated in the figure below. The Board will approve the programme plan and consider highlight and exception reports, changes to the risk log and other key deliverables. Tolerances in terms of time and budget will be explicitly defined in a Programme Manual which will be based on PRINCE 2 principles. Key changes to the project outside of the tolerances of the Programme Board will be escalated to the Joint Transport Executive Committee (JTEC). This Committee brings together the lead Elected Members for transport from the four authorities, who meet quarterly and receive a regular update on the major schemes programme which will include Travel WEST. High level reports are shared with the Joint Scrutiny Committee (cross party and authority meeting of Elected Members) and the LEP Board.



15.3 The authorities have jointly delivered a number of cross boundary projects, including the creation of shared delivery teams reporting to a Programme Manager and SRO. For STP 17/18 a small central team will be continued to coordinate (see below). Recognising the importance of a central team the costs of these posts have been ring-fenced, with individuals ready to deliver the programme.

15.4 Working to, and alongside, this team will be the authority delivery teams, with particular focus on delivery of the capital schemes, partner transport operators and other partner organisations (including businesses and schools).



15.5 The authorities have a proven track record of delivery for schemes of this type. The Cycling City Project (£20m+) was delivered on time and to budget with similar outcomes for the grant funded tasks within the GBBN major scheme (£70m+). The LSTF WEST programme saw delivery of Sustainable Transport capital schemes worth £9.6m between 2012 and 2015, and boosted the effectiveness of these works with £14m of revenue support. The West of England has continued to reinforce capital investment with revenue support with LSTF 15/16 (£4m) and the Sustainable Transport Transition Year (£2.2m) supporting the successful delivery of Local Growth Fund package for 15/16 (£3m).

16.0 Programme Plan

16.1 Preliminary design for some schemes has commenced. Preliminary design work will have started within one month of funding being secured.

16.2 Schemes have been selected for funding that are deliverable within the timescales of the package funding as outlined in the Indicative Programme Delivery Plan attached as Appendix 6. All schemes will be delivered by July 2018 with individual project plans (setting out key milestones) to be completed within one month of funding being secured. Some of the package schemes (such as Rupert Street Bus Priority scheme and Bus Network Enforcement Cameras) have relatively short implementation timescales.

17.0 Land Acquisition, Planning and Other Consents

17.1 The following schemes require land acquisition, planning or other consents:

South Parade (NSC): A pre-planned land swap between The Royal Hotel and North Somerset Council will secure the Spider Lane link for future widening.

Coastal Towns Route (NSC): The funding sought will cover feasibility and permissions only, with delivery to occur as part of a future LGF bid.

2-headed Man Junction (BaNES): Discussion with the land owner has commenced and acquisition is on track to be delivered within the timeframe of the STP 17/18 package.

BaNES Cycle Investment Package (BaNES): Potential for some small areas of land acquisition have been identified and will be progressed, but these will not be a defeating factor in progressing early phases of the scheme if not secured within the programme.

Safer Routes to School (BaNES): A number of schemes are being assessed in parallel and discussions have commenced with land owners where applicable. Land acquisition delays will not affect delivery of the programme.

Access to Emersons Green Enterprise Area (Pucklechurch Link element) (SGC): The match-funded element of this scheme will be used to progress land ownership discussions, with infrastructure delivery to occur as part of a future LGF bid.

18.0 Service Diversions

18.1 The Sustainable Transport Package 17/18 programme of measures will primarily be delivered within existing highway boundaries and any requirement for utility diversions, power supply, and other similar measures, will be relatively minor in nature and manageable within the overall context of the programme.

19.0 Engagement and Consultation

19.1 Through the wide-ranging Travel WEST and LSTF programmes, strong partnerships have been developed across the West of England with businesses, voluntary and public sectors and with transport operators and stakeholder groups. These have been effective in sharing the ownership and outcomes from our investment in improved transport infrastructure and services. The importance of continuing this cooperation into the implementation of the Sustainable Transport Package 17/18 project is clear to ensure that the outcome from the investment, in the form of increased sustainable travel, is realised.

19.3 In proportion to the more modest nature of the programme for 16/17, communications relating to Sustainable Transport Package 17/18 will still aim to ensure that all stakeholders:

- Know what the project will do for them and for sustainable transport in the West of England; and
- Feel positive about what the package will do for the West of England

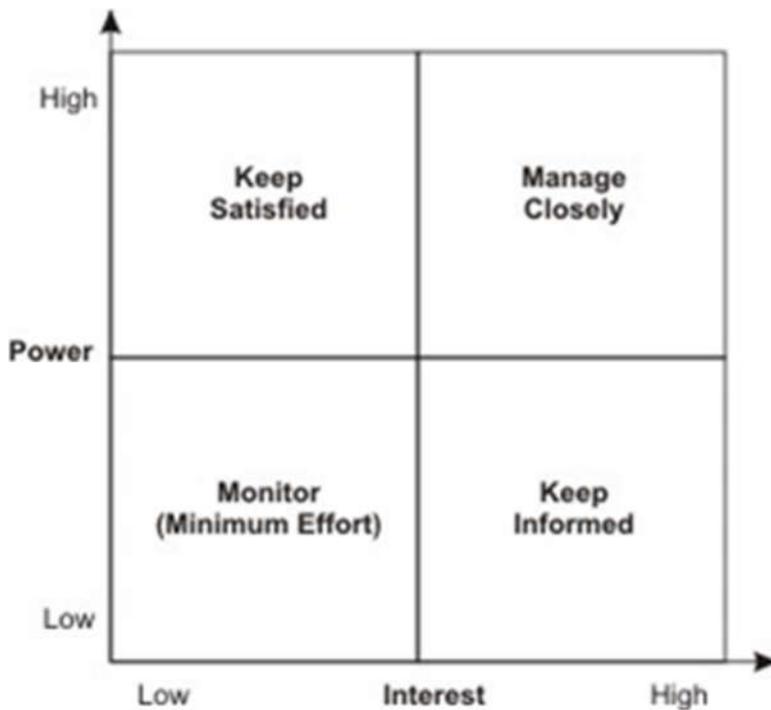
19.4 A stakeholder engagement plan will be drawn up for specific communication issues around individual projects. Communications and consultation will be carried out at project, rather than programme level.

19.5 Stakeholder management identifies stakeholders and various means of winning and gaining their support. This differentiates stakeholder engagement from general communications that seek to issue a message (inform) or influence groups to change habits around travel modes. For Sustainable Transport Package 17/18 the following broad categories of stakeholder have been identified:

- Decision Makers – elected Members, funders and officers who are all involved in decision making on the scheme or preparatory work for decision making.
- Local Enterprise Partnership – businesses are key beneficiaries of an improved transport system and can play a key role in forming opinions of other stakeholders.
- Statutory Bodies – organisations with whom the authorities have an obligation to consult, including utility companies, emergency services and environmental groups.

- Sub-regional stakeholders –organisations and groups which have an interest in the economic, social well-being and development of the sub-region and the impacts Sustainable Transport Package 17/18 may have.
- Special interest groups – identified groups who have particular interest related to the scheme such as transport or the environment and who are not statutory consultees.
- Industry groups – organisations which have an interest in transport in the area.
- Public and local residents – members of the public in general including residents within the catchment and employers, shops, health and leisure facilities etc.

19.5 Drawing upon our experience from other transport schemes, we will map (see Figure below) the power and interest of stakeholders including those described above in order to inform and tailor our stakeholder engagement approach. The Joint West of England website www.travelwest.info will be used to disseminate information and engage residents and businesses.



20.0 Risks, Constraints and Dependencies

20.1 A risk assessment has been undertaken at the programme level. All risks have been allocated an individual owner and these will be managed through a Programme Board comprising the four authority Heads of Transport and the LEP Office. More detailed risk

management processes at the individual promoting authority level are in place for each of the schemes within the programme.

20.2 A full risk register is attached as Appendix 7. As this has been informed by real and realised risks and mitigations from previous rounds of LGF funding, there is a high confidence rate with regards to its accuracy.

21.0 Project Assurance

21.1 Given the nature of these projects, the project assurance for the Sustainable Transport Package 17/18 programme will be undertaken by each individual authority, using their own internal project management processes, with overall scrutiny being undertaken by the LEP through standard programme reporting using highlight reports.

22.0 Monitoring and Evaluation

22.1 Monitoring of the schemes within the Sustainable Transport Package 17/18 programme will be undertaken by the promoting authorities as part of these already established monitoring and evaluation plans. A detailed Monitoring and Evaluation Plan is attached as Appendix 8.

Appendices

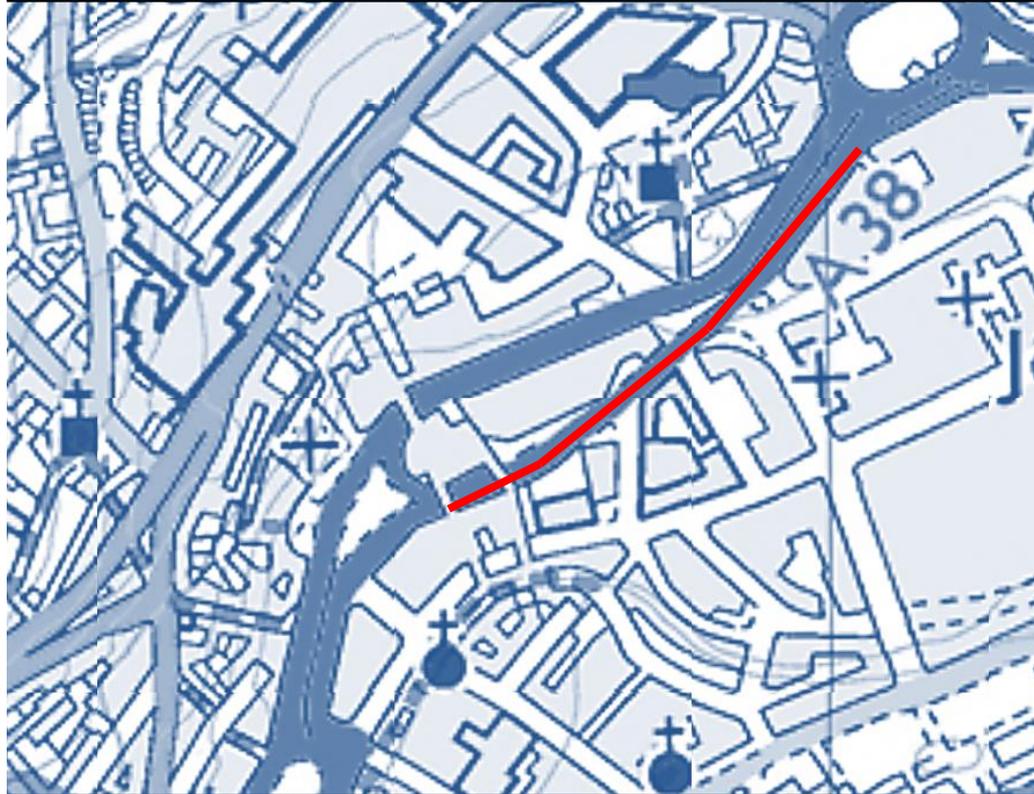
- Appendix 1 – Maps of Schemes
- Appendix 2 – Scheme Cost Breakdown
- Appendix 3 – Equality and Diversity
- Appendix 4 – Qualitative Assessment of Schemes
- Appendix 5 – GVA Assessment of Schemes
- Appendix 6 – Indicative Delivery Programme
- Appendix 7 – Risk Register
- Appendix 8 – Monitoring and Evaluation Plan

Appendix 1

West of England Sustainable Transport Package 17/18

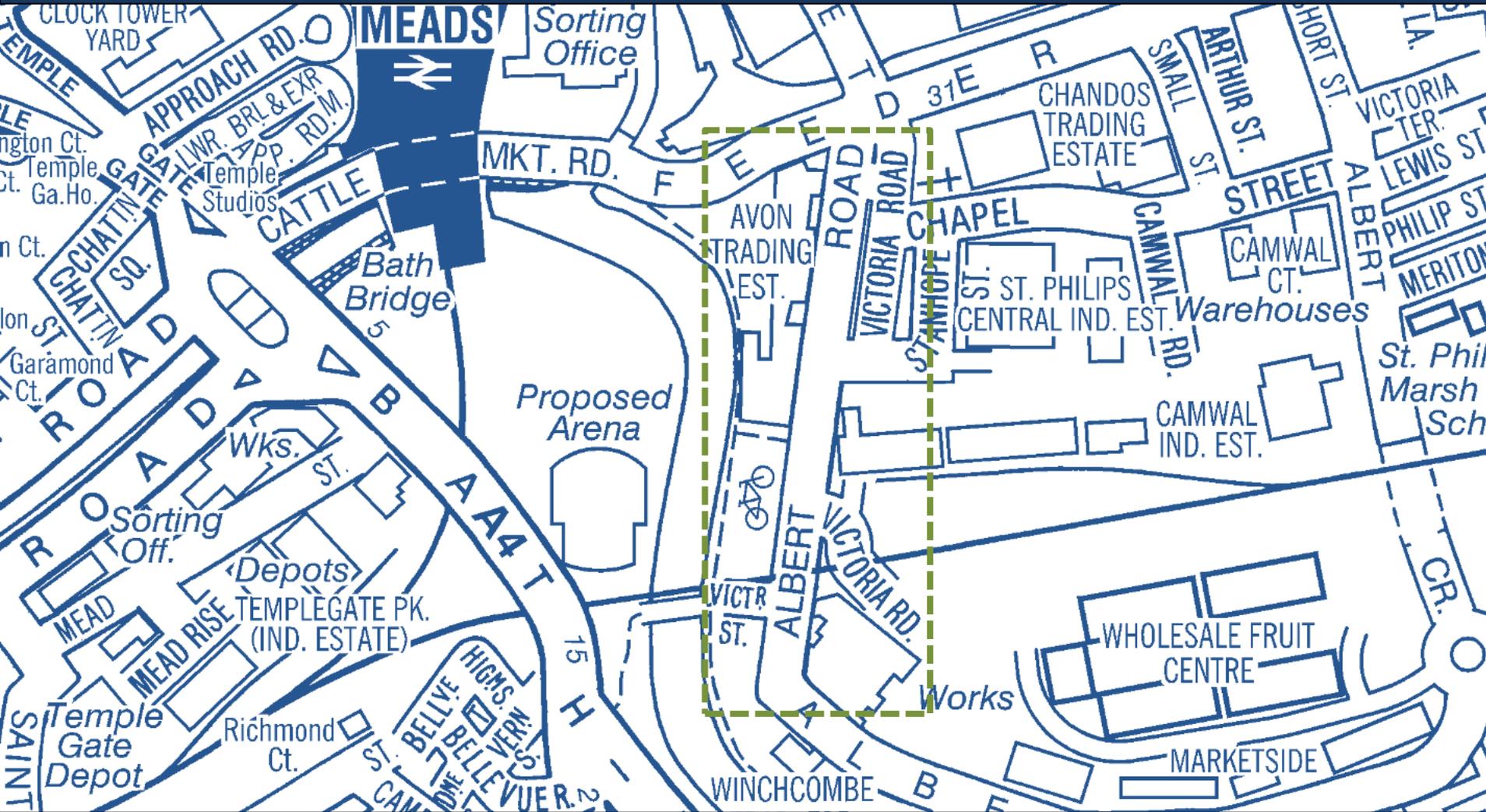


Rupert Street



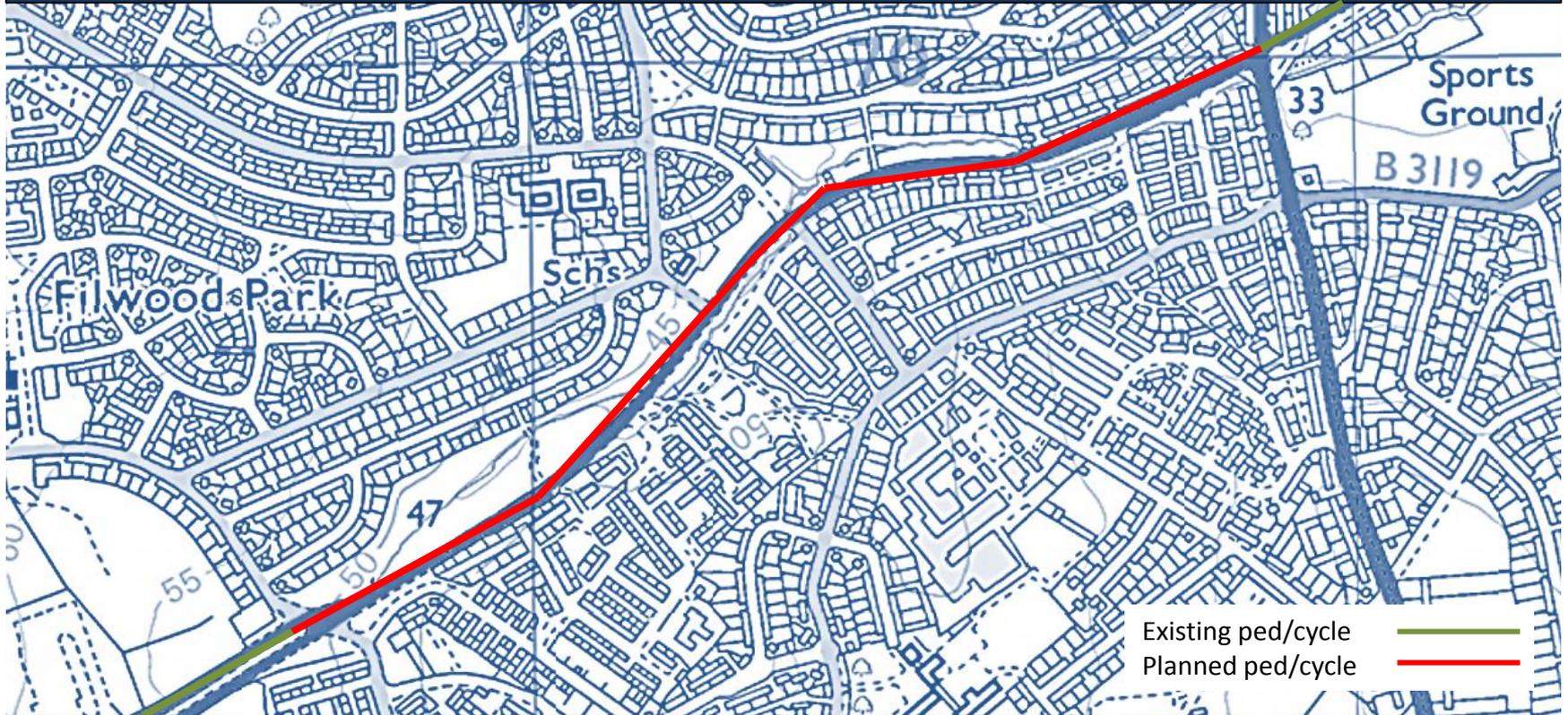
Improving bus priority

Access to Bristol Arena



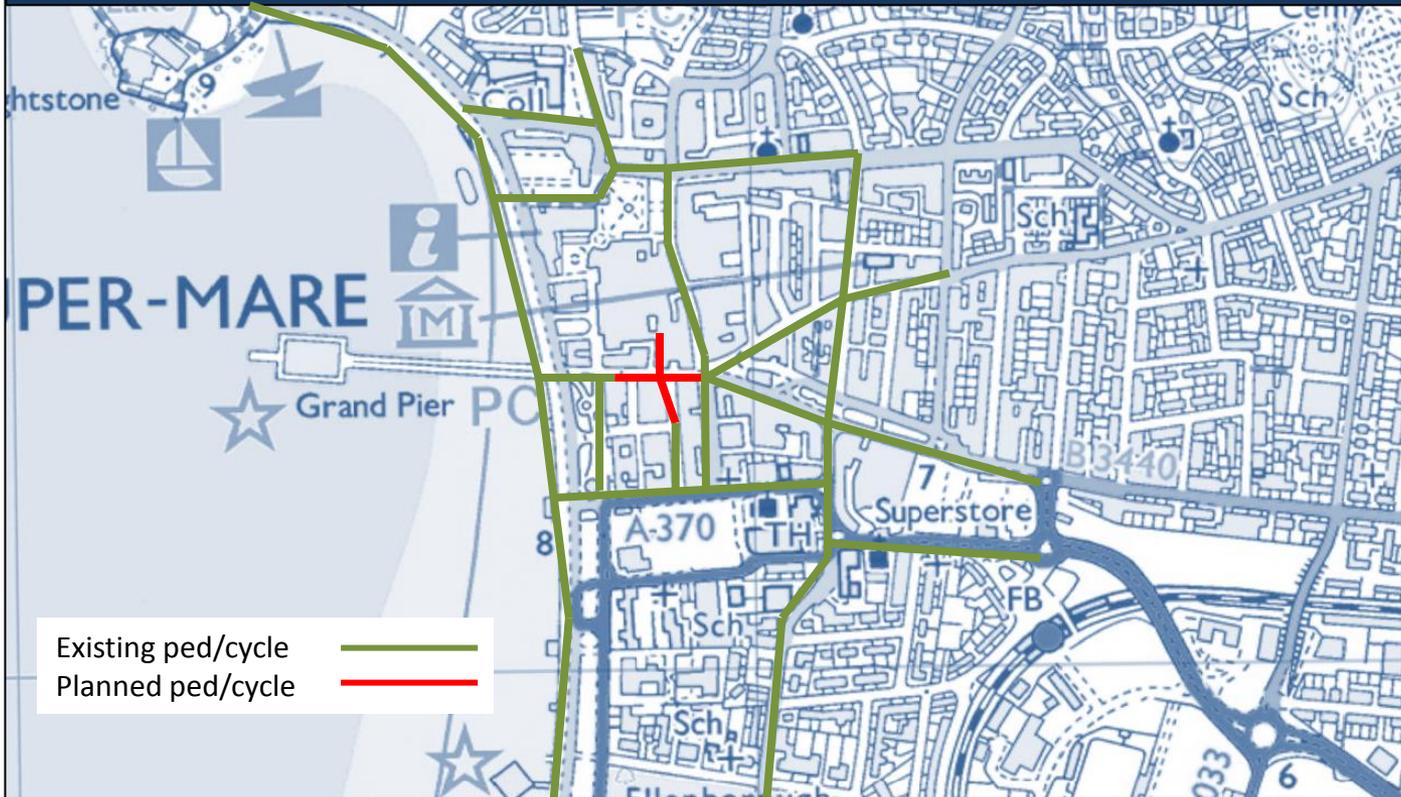
Improved pedestrian/cycling links and coach drop off

Airport Road



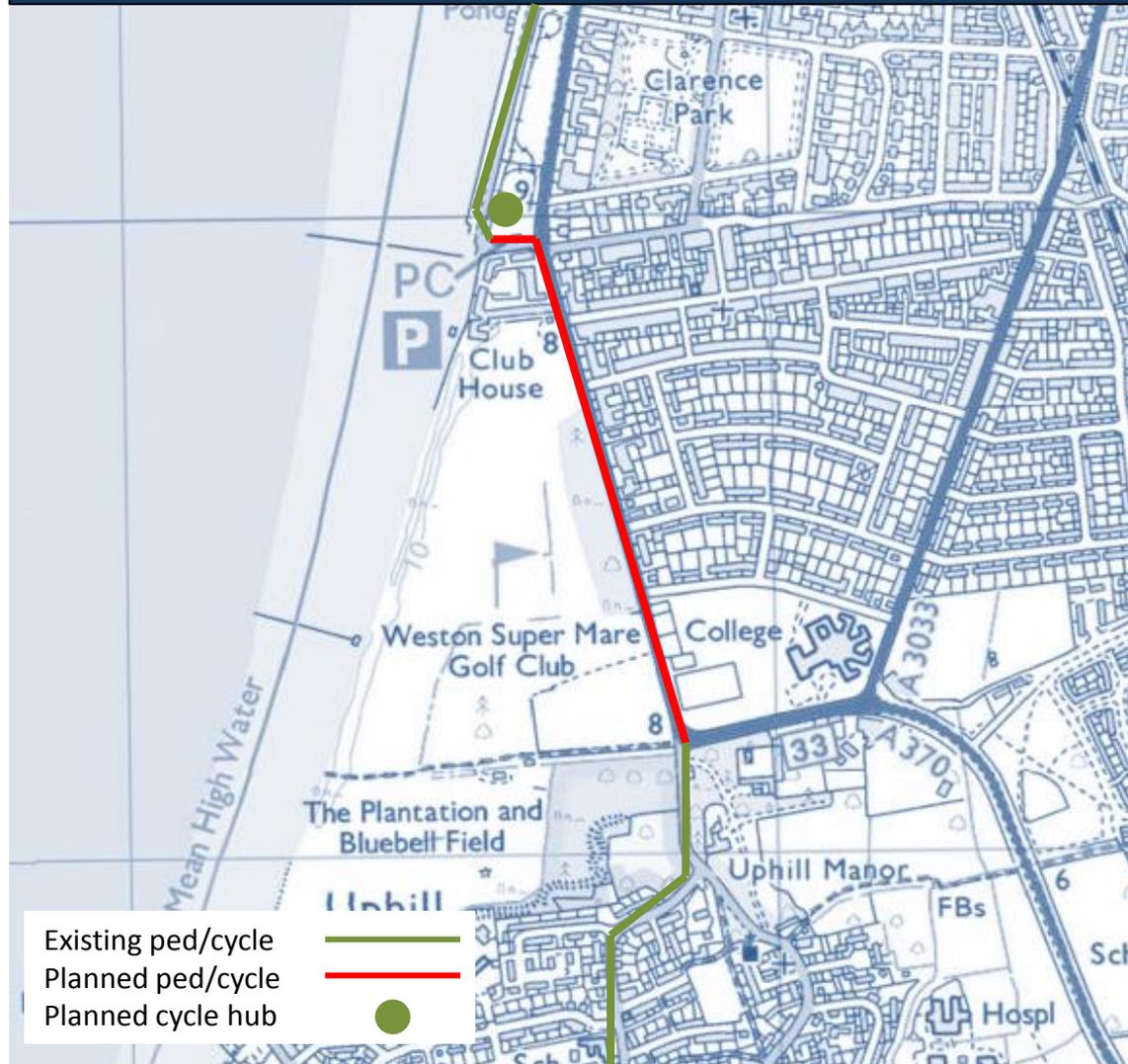
Detailed design work for improved walking and cycling facilities

Weston town centre regeneration



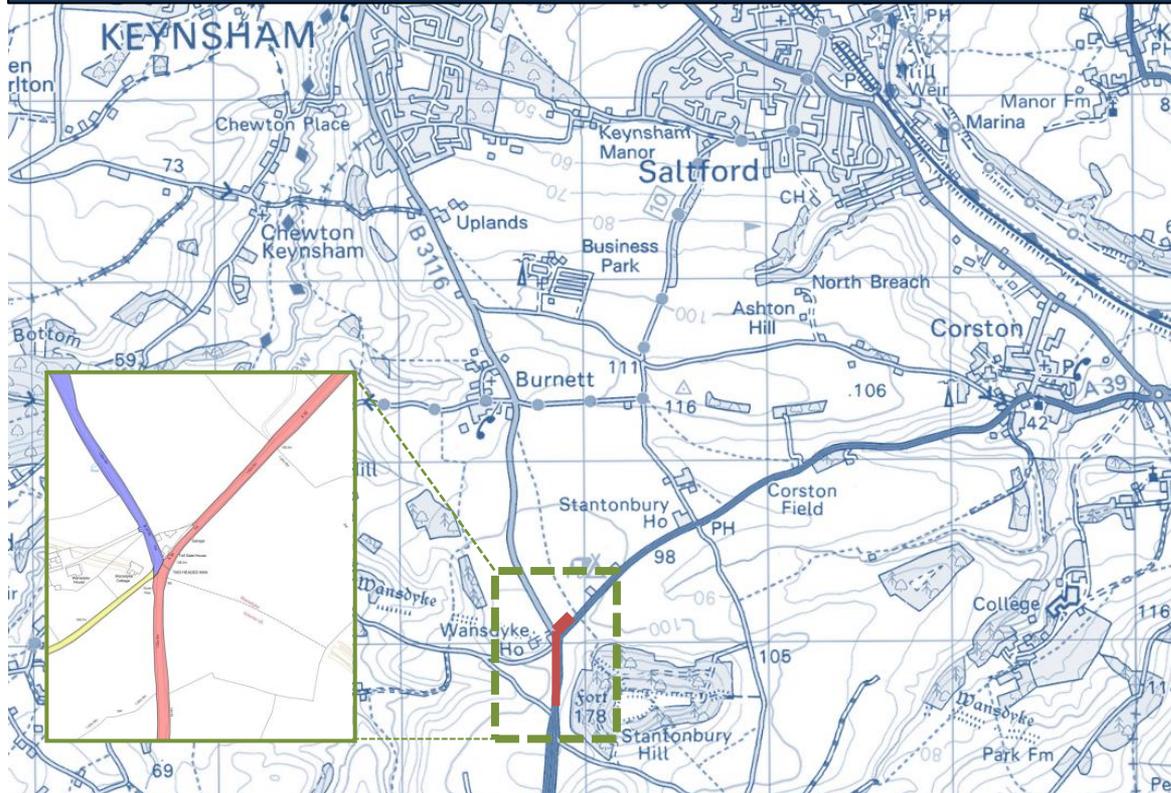
Improved walking and cycling facilities

Coastal Route



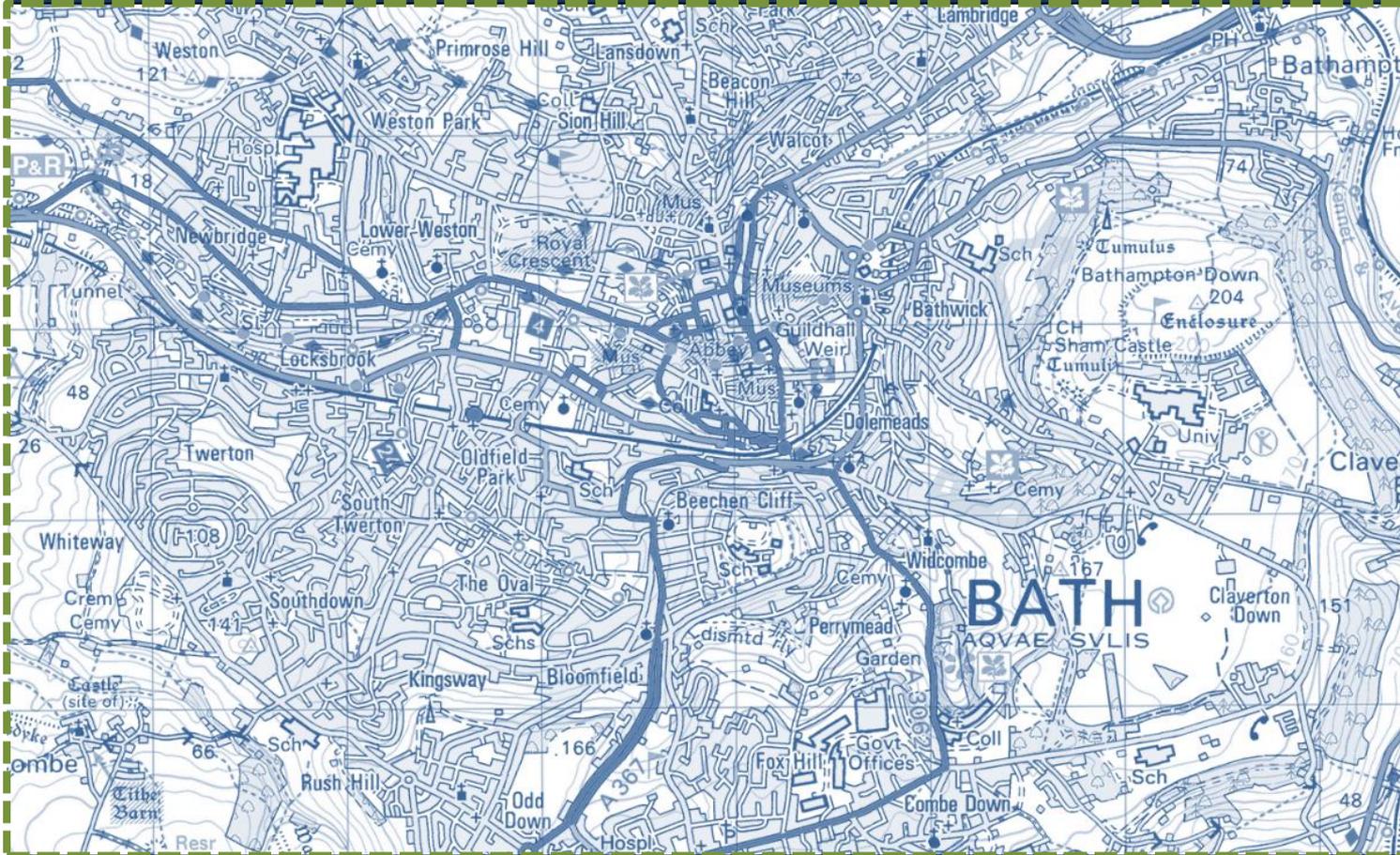
Detailed Design for Uphill Rd North Shared Path

2 Headed Man Junction



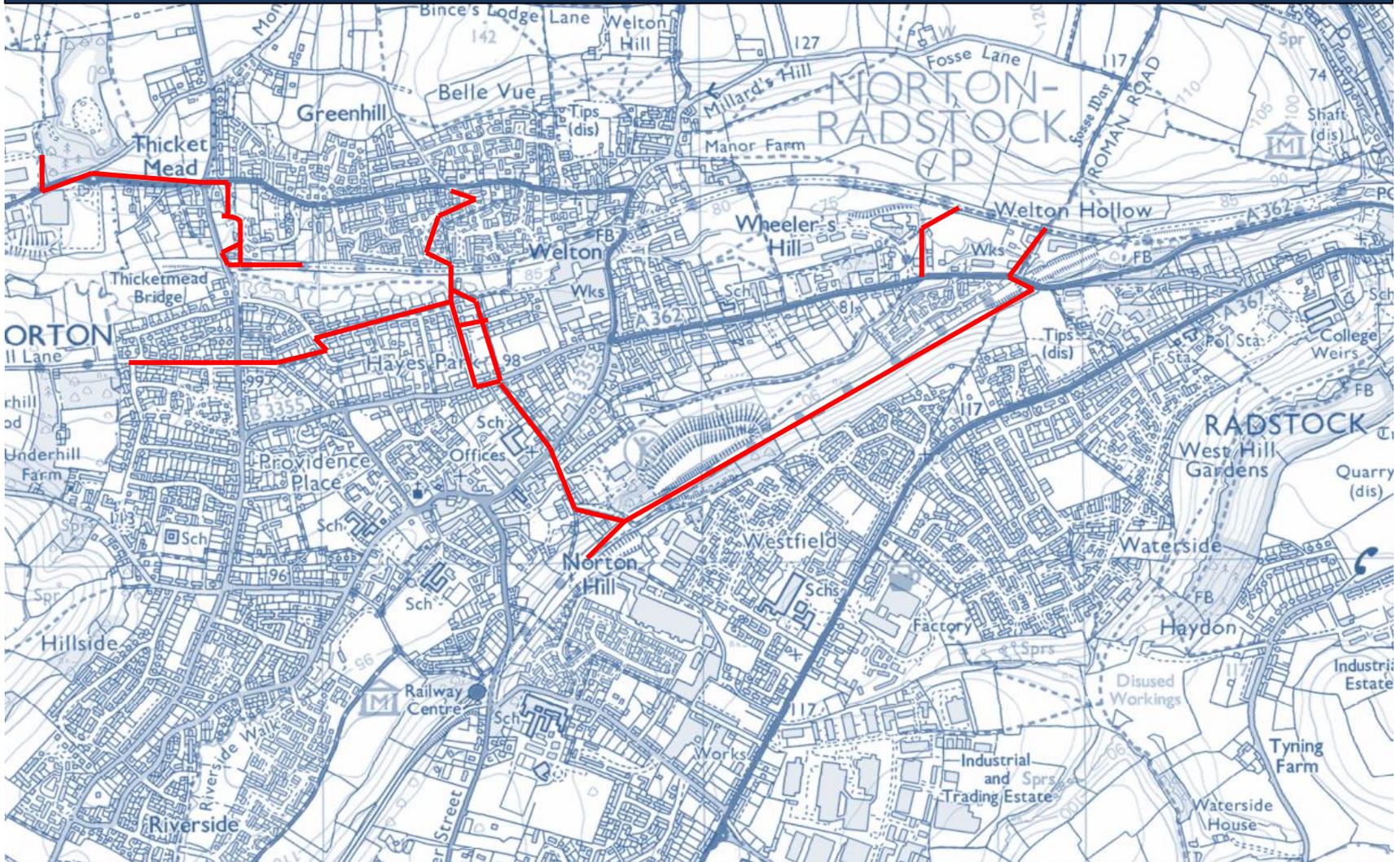
Alleviating local congestion

Employer Grants and Cycle Investment Package



Supporting business and addressing gaps in the cycle network

Midsomer Norton/Radstock



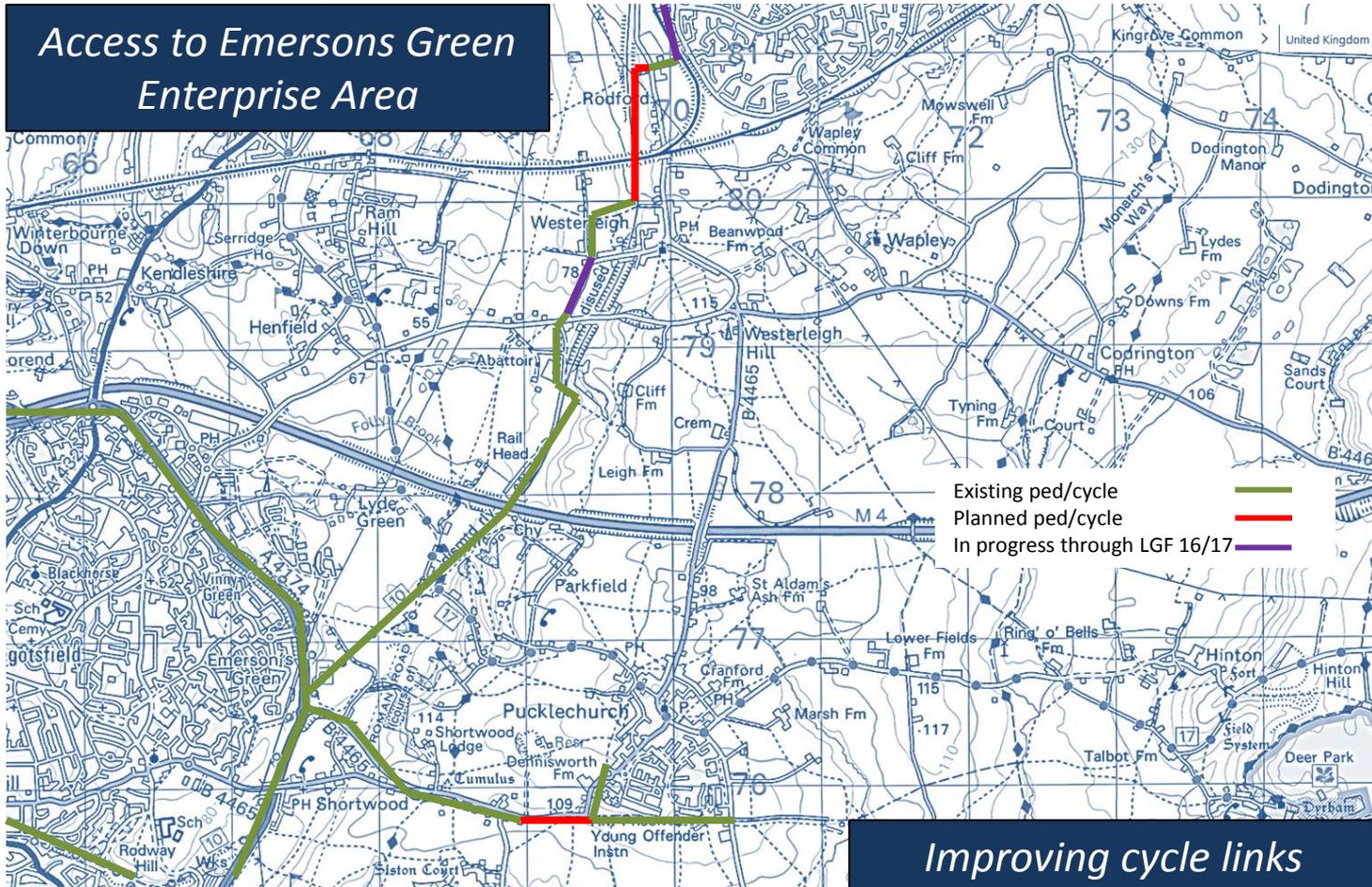
Detailed design of key walking and cycling links

Strategic Safer Routes to School

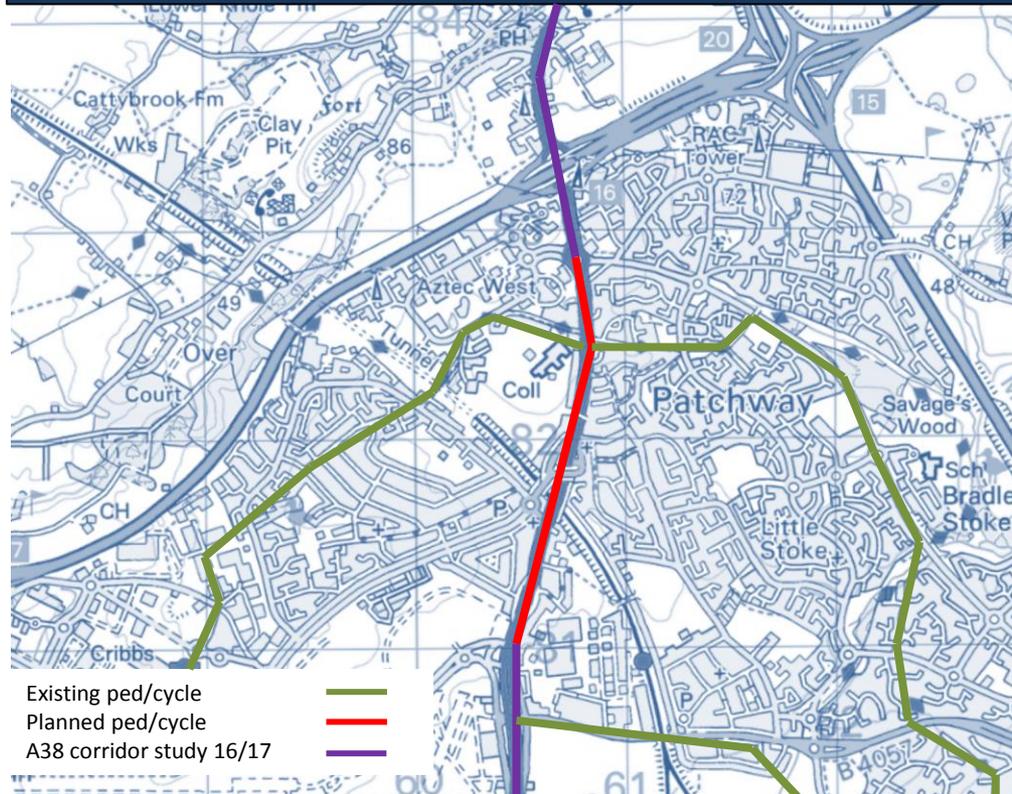


Facilitating active travel to school

Access to Emersons Green Enterprise Area

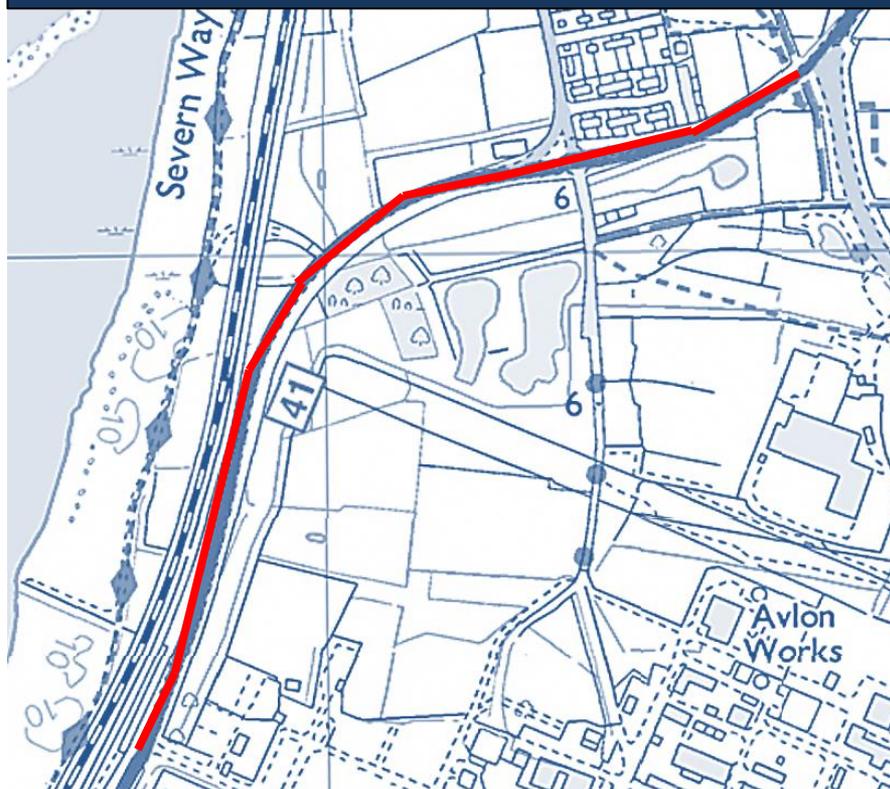


Access to Bristol North Fringe



Improved walking and cycling facilities

Access to Avonmouth/Sevenside EA



Improved walking and cycling links

Bus enforcement cameras



1. Regent Street, Kingswood
2. Filton avenue (junction with Station Rd)
3. A38 SB (near Aztec West rndbt)
4. Bradley Stoke Way NB
5. Bradley Stoke Way SB
6. Stoke Gifford Transport Link NB
7. Coldharbour Lane NB
8. Highwood Road bus only link WB



Protecting bus priority

Appendix 2 - Sustainable Transport Package 17/18 List of Schemes

WoE Local Growth Fund 17/18				
LGF Scheme	£000's	Match funding	£000's	Total Scheme Cost
BATH & NORTH EAST SOMERSET				
2 Headed Man Junction	400	S106 and TIP	150	550
BaNES Cycle Investment Package - comprising Midsomer Norton / Radstock Schemes, Employer Grants and Cycle Link Mop-up	40	Access Fund (MN/R - £10k) and (Employer Grants - £10k)	20	60
Strategic Review Safer Routes to School	75	TIP (LTP)	50	125
BaNES Total	515		220	735
BRISTOL CITY				
Rupert Street widening and bus priority	200			200
Access to Bristol Arena: Victor Street, Albert Road and surrounds	800	RIF: St Philips footbridge	300	1100
Airport Road Walking / Cycling Design Work	75			75
Bristol Total	1075		300	1375
NORTH SOMERSET				
Weston Town Centre Regeneration - Town Square/South Parade and Regent St	500	LTP	200	700
North Somerset Coastal Route - Uphill Rd North shared use path (preliminary works)	10	LTP	22.5	32.5
North Somerset Total	510		222.5	732.5
SOUTH GLOUCESTERSHIRE				
Access to Emersons Green Enterprise Area: a) Yate Spur b) Pucklechurch Link.	430	LTP	30	460
Access to Bristol North (including Filton Enterprise Area)	80			80
Access to Avonmouth/Sevenside Enterprise area - A403 Ped and Cycle Improvements	450			450
Bus Network Enforcement	240			240
South Gloucestershire Total	1200		30	1230
West of England TOTAL	3300		772.5	4072.5

Appendix 3 - Equality and Diversity Impact Assessment and Plan

Introduction

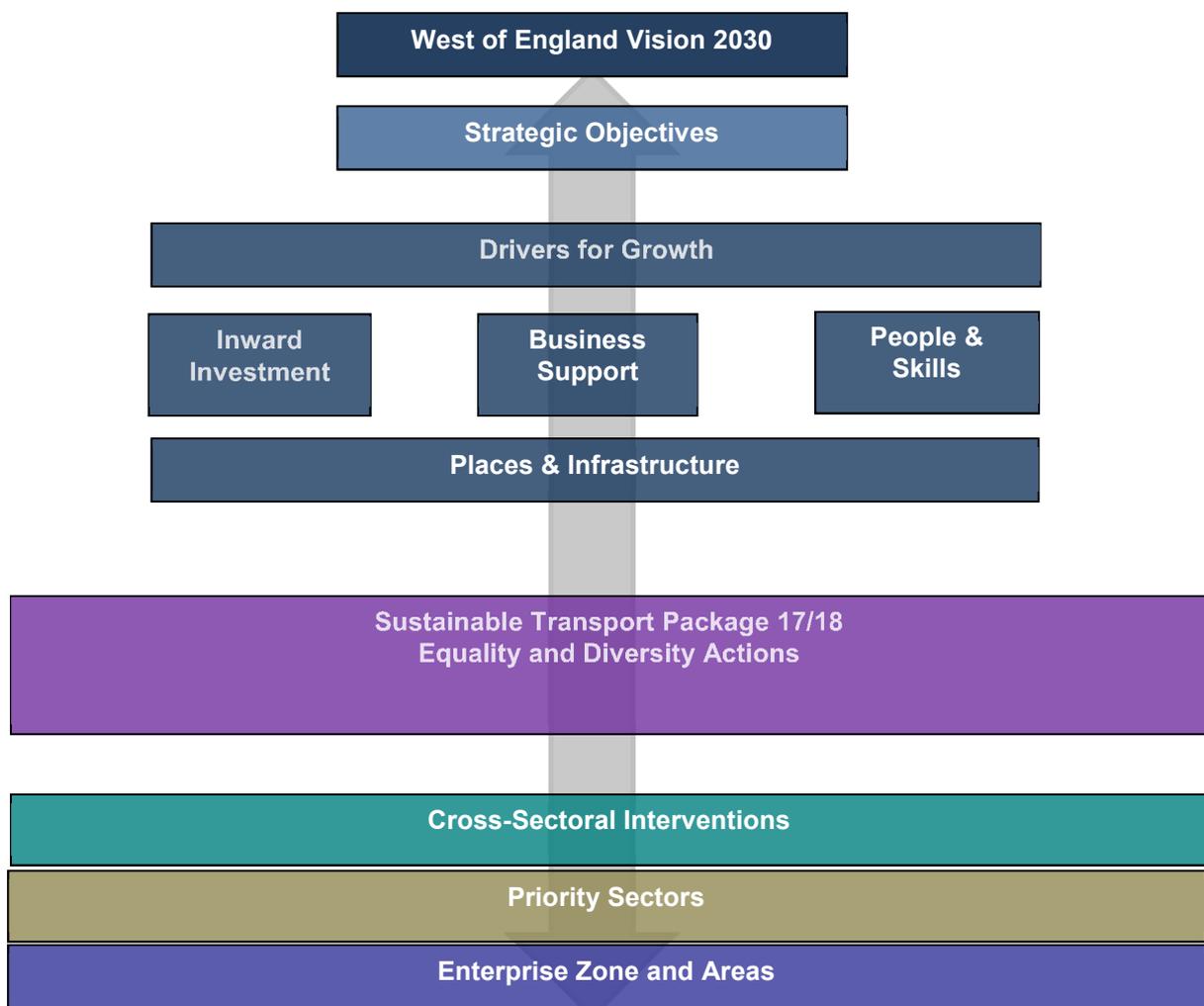
The over-arching message communicated via the West of England Vision 2030 is that of an “*Economic Region Built on Success and Delivering Success*”.

Underpinning the Vision are five Strategic Objectives:-

1. Create the right conditions for business to thrive. Give confidence and certainty to our investors to attract and retain investment to stimulate and incentivise growth.
2. Enhance & protect our natural & built environmental assets to build our resilience to climate change.
3. Create places where people want to live and work, through delivery of essential infrastructure including transport and housing to unlock suitable locations for economic growth.
4. Shape the local workforce to provide people with skills that businesses need to succeed and that will provide them with job opportunities.
5. Ensure all our communities share in the prosperity, health and well-being and reduce the inequality gap.

The Sustainable Transport Package 17/18 project has a role to play in the delivery of each of these strategic objectives, and in particular, objective 3 aligns with the core aims of the Sustainable Transport Package 17/18 programme.

Sustainable Transport Package 17/18 recognises that delivering excellence in Equality & Diversity is intrinsically linked to the successful achievement of the WoE 2030 Vision and as such we have set out a carefully considered action plan, the delivery of which will ensure our work has maximum impact on the achievement of the strategic objectives and ultimately the realisation of the 2030 Vision.



Equality & Diversity and the Sustainable Transport Package 17/18 Programme

The central principle of the project concerns increasing the accessibility of sustainable travel which is critical to supporting growth in our Enterprise Areas where we expect to see up to 70,000 new jobs. Existing road conditions are a barrier to many people choosing to walk and cycle and there is a need to make improvements to facilitate safe independent mobility for all and not just for those able to cope with high levels of traffic. In addition, by providing improved facilities for walking and cycling, the scheme will enhance the health of the local population by promoting active modes of travel. The benefits will be realised by employers, who will have a healthier, fitter workforce with a reduction in absence through sickness, and by the Health Authorities, through reduced demand on healthcare services arising from a healthier population.

In respect of equality and diversity, the central principles relating to the Sustainable Transport Package 17/18 project are:

- Ensuring accessible sustainable travel modes are in place;
- Encouraging more cycling and walking by those who are already more likely to use these methods (e.g. Males);
- Encouraging those who are less likely to use these methods to travel (e.g. Females).

Taking approaches which are tailored to the needs of diverse groups in society is critical in ensuring that the number of people using sustainable modes of travel is maximised. This also contributes to the identified strategic objectives and drivers of growth as stated above and within the below table.

There is a valuable evidence base from which the project has drawn key equality & diversity related information as shown below:

Gender	Improved cycling infrastructure through bicycle paths and lanes that provide a high degree of separation from motor traffic is likely to be important for increasing levels of cycling amongst under-represented population groups such as women ⁱ .
Children & Young People	<p>Independent mobility appears to be an important independent determinant of weekday physical activity for both boys and girls. Physical activity and factors such as independent mobility are likely to be influenced by the type of neighbourhood (housing density, land use mix, available green space) as well as perceptions of neighbourhood. Parents may be much more likely to allow independent mobility if they perceive their environment to be safe and traffic density to be lowⁱⁱ. With age-focused interventions, built green spaces, better traffic regulation and safe bike line and lit streets also having an impact on more independent mobility among childrenⁱⁱⁱ.</p> <p>There is a significant positive relationship between physical activity, improved cognitive performance and academic achievement^{iv}.</p> <p>Research has found a possible link between traffic-related air pollution outside people's homes and the onset of asthma in children during the first eight years of life. Higher levels of nitrogen dioxide, PM2.5 and soot (generated by greater traffic volumes) were more likely to be recorded at the homes of those children who developed asthma and asthma symptoms^v.</p> <p>Cycle training is valuable in terms of cycling safety skills. However, other strategies are needed when promoting cycling to school such as that any training should focus more on real cycling experiences, so that children are able to deal with traffic on school journeys, and on providing educational support to ensure safe journeys to school^{vi}.</p> <p>Research has shown that far more English children were accompanied by an adult on the journey home from school in 2010 than in 1971. In 1971, 86 per cent of the parents of primary school children surveyed said that their children were allowed to travel home from school alone. By 1990, this had dropped markedly to 35 per cent, and there was a further drop to 25 per cent being allowed to do so in 2010. In 2010, in England there was a marked increase in adult accompaniment on non-school journeys, with 62 per cent of the journeys in 2010 being accompanied, compared to 41 per cent in 1971^{vii}.</p>

<p>Older Age</p>	<p>The intensity of physical effort during cycling on an electrically assisted bicycle is sufficiently high to contribute to the physical activity guidelines for moderate-intensity health-enhancing physical activity for adults^{viii}. E-bikes have been found to provide new opportunities to people who would not otherwise consider cycling, with e-biking accounting for one third of all cycling kilometres travelled by adults aged 65 and above^{ix}.</p> <p>The risk of increasing falls among a largely sedentary older population can be reduced through physical activity. Walking, as the most readily available physical activity, can contribute to the prevention of falls through maintaining or increasing leg muscle and bone strength^x.</p> <p>Cycling is a form of physical activity with particular benefits for older people. It is non-weight bearing and therefore has less impact on the joints than jogging or other running sports, and several studies of disease causation have shown significant risk reduction for all-cause and cancer mortality, cardiovascular disease, colon and breast cancer, and obesity morbidity in middle-aged and elderly cyclists. Cycling may also contribute to improved quality of life for older people, by enhancing social networks and building empowerment, and can be incorporated easily into a daily routine. Successful methods used to promote cycling to older people include: age-targeted cycling skills courses, encouragement for Bicycle User Groups to reach out to older people, widespread availability of cycling maps, advertising the multiple benefits of cycling and continued improvement to cycle paths. Fear of cars and other motorised traffic is a strong barrier to cycling across all age groups so investment in infrastructure should also have benefits across the population^{xi}.</p>
<p>Disability (including mental health)</p>	<p>Psychologists have long recognised the potentially detrimental effect of the commute. Most studies of the commute and stress find that active travel, followed by public transport use are the least stressful modes and that active travel is often reported as a positive experience in terms of stress management^{xii}.</p> <p>The intensity of physical effort during cycling on an electrically assisted bicycle is sufficiently high to contribute to the physical activity guidelines for moderate-intensity health-enhancing physical activity for adults^{xiii}.</p> <p>There are more accessible options for cycling today than ever before. These include hand cycles, trikes, wheelchair friendly cycles, side-by-side cycles, one up one down cycles, recumbents, tandems and steer from rear tandems. As such there is large potential for promoting facilities and options which are suitable for a wide range of impairment types.</p>
<p>Safety</p>	<p>Research has noted that there would be substantial implications of a policy approach which seeks to mitigate barriers to walking and cycling so that (door to door) networks can be travelled on foot or bicycle without disproportionate risk^{xiv}. This is important information in respect of promotion for females, younger and older people.</p> <p>Evidence also informs us that design principles and good management can address conflicts that can occur within shared spaces (e.g. cyclists and pedestrians). This is important information in respect of promotion for disabled people and both younger and older people.</p> <p>Parental perception of safety has an impact on whether children are allowed to travel independently to school, with high neighbourhood walkability, high land use mix accessibility and high neighbourhood safety being associated with higher levels of active transport to school in children^{xv}.</p>
<p>Economic Benefit</p>	<p>Economic analysis of cycling interventions suggests that average benefit per additional cyclist is £590 per year, and that small increases in cycling numbers can justify investment in new cycling infrastructure principally due to the health benefits which accrue^{xvi}.</p> <p>There is a high cost to employers from absenteeism and potentially even greater costs from presenteeism (those attending work whilst suffering from illness or injury). Increasing physical activity through active travel opportunities and activities during the work day are highly likely to be cost effective in improving health^{xvii}.</p>

	Within schemes, there is also an identified benefit in relation to tourism. Using the principle that diverse groups have diverse needs and promoting opportunities accordingly has the potential to maximise usage amongst visitors to our areas.
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Health	<p>The most substantive epidemiological study to date was carried out in Copenhagen involving 13,375 women and 17,265 men aged 20-93 who were randomly selected from a population of 90,000 living in central Copenhagen^{xviii}. Of this cohort, 14,976 cycled regularly to work, for about three hours per week on average.</p> <p>The researchers concluded that: “Even after adjustments for other risk factors, including leisure time activity, those who did not cycle to work experienced a 39% higher mortality rate than those who did.”</p> <p>This is a very important finding. It provides direct evidence from a large scale study that regular cyclists are likely to have a lower risk of death compared to non-cyclists, irrespective of other physical activity they do. Additionally, later analysis has shown higher death rates among those who reduced their level of cycling compared to those who continue to cycle^{xix}.</p> <p>Walking is the most basic form of physical activity humans can undertake to maintain good health. A key paper setting out the benefits of walking was published in 1997 and remains an important resource for walking promotion^{xx}. This set out that regular walking reduces the risk of cardiovascular and respiratory diseases, type 2 diabetes, some cancers, deaths from all causes, and helps to counter depression and maintain mental wellbeing.</p> <p>Countries with the highest levels of active travel generally have the lowest obesity rates^{xxi}. Mixed use developments, at high density, with good connectivity for walking and cycling significantly affects body weight and reduce the risk of weight gain^{xxii}.</p> <p>The order of the difference in fitness in favour of cyclists is equivalent to that enjoyed by being five years younger (cycling in general) or up to 10 years younger (for regular cyclists)^{xxiii}.</p> <p>A growing body of research reveals that road transport noise can cause sleep disturbance, cardiovascular disease, elevated hormone levels, psychological problems and even premature death; studies on children have identified cognitive impairment, worsened behaviour and diminished quality of life. People with existing mental or physical health problems are the most likely to be sensitive to traffic noise. Fifty-five per cent of those living in urban areas with more than 250 000 inhabitants in the EU - almost 67 million people - endure daily road noise levels above the lower EU benchmark for excess exposure^{xxiv}.</p> <p>Where infrastructure improvements are seen to make bicycling safe from cars, the level of cycling has been shown to rise from 9% to 39%, with the primary benefits felt by racial-ethnic groups who have a higher rate of chronic disease and those who currently feel least safe cycling^{xxv}.</p>
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As a result of the analysis of the messages emerging from the SEP Equality & Diversity Impact Assessment, and our specific research, we have set our objectives for equality & diversity which will accelerate the successful delivery of the Sustainable Transport Package 17/18 programme.

Our Aim, Objectives and Actions

Aim

Our overall aim is to ensure that within all of our work, equality & diversity principles and values are applied, and actions proactively taken which contribute to the maximisation of our success in delivering and promoting sustainable travel options.

Objectives and Actions

Objectives	Key Actions	Intended Impact
To ensure that our extensive research portfolio is utilised to enhance the attractiveness of schemes.	We will conduct a review of the schemes to ensure that all research is taken account of during scheme design.	Features that meet the needs of and attract diverse groups are planned for from the earliest stages.
To promote schemes pre and post builds, ensuring that the needs of diverse groups are targeted (as highlighted via our equality & diversity related research above).	As part of the consultation of schemes we will tailor our engagement and promotion activity with: <ul style="list-style-type: none">• Businesses• Leisure sector• Communities• Schools to deliver key motivating messages to target groups as identified within our research.	Maximised usage by all, in particular identified target groups, through the delivery of messages that motivate and are relevant to the needs of diverse groups.

The above objectives will be continuously monitored in order to gauge both progress and the impact of these actions on the achievement of our project objectives.

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Appendix 4: Sustainable Transport Package - Qualitative Economic Assessment of Schemes

Project Name	Rupert Street bus priority
Location	Bristol
Brief Description	
<p>As outlined in the Central Area Plan, Bristol City Centre has seen significant growth in recent years with an additional 4,400 homes expected to be developed in the area by 2026.</p> <p>With an estimated 5% of all city centre traffic passing through the road network adjacent to the fountains the area also suffers from severe peak (and increasingly inter-peak) time congestion which impacts business operations and commuter and shopping trips. Given the overall lack of resilience in Bristol’s road network congestion in the centre often creates significant tailbacks that affects the accessibility (and therefore growth prospects) of neighboring employment and leisure destinations.</p> <p>Once completed the MetroBus works adjacent to the fountains will help to alleviate congestion in the central area by providing improved sustainable transport infrastructure and through the rationalisation of existing traffic movements.</p> <p>The scheme will build on the MetroBus works by extending and improving bus priority along the Haymarket, Rupert Street and Bridewell street, making public transport and cycling a more attractive option for those travelling to/through the centre via St James Barton roundabout and forming a key component of the MetroBus anti clockwise route.</p>	
Transport Case	
<p>Rupert Street is one of the most strategically important public transport corridors in Bristol with buses serving key leisure and retail destinations (such as Broadmead and the Old City) along this stretch of road before heading toward the waterfront.</p> <p>Survey results from 2013 show that buses carry approximately 30,000 bus passengers a day along this corridor or put another way approximately three times the number of people transported by private vehicles.</p> <p>Despite this, bus priority measures and waiting facilities are currently poor and services stopping along this route frequently disrupt general traffic flow in the adjacent two lanes due to a lack of stopping space which is exacerbated by the high number of buses using this lane to layover.</p> <p>The scheme would remove one general traffic lane from Rupert Street, changing the current layout from two general traffic lanes and a bus lane to one 5m wide traffic lane and a bus lane. With the MetroBus city centre works removing the left hand turn toward Baldwin Street for private vehicles the proposal will have a minimal impact on general traffic capacity along this route.</p> <p>The scheme is a vital component in the emerging inner centre ring of virtually continuous bus priority stretching along Temple Way, Bond Street, Rupert Street, Colston Avenue and Broad Quay and Redcliffe Way.</p>	

Wider Economic Case

Construction Stage:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £200,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 2.2 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £80,000. Applying average employment and output multipliers of 1.85 generates an extra 1.9 indirect FTE jobs and £68,000 indirect GVA uplift in the construction stage.

Operational Stage:

As noted above, Rupert Street bus priority could benefit around 30,000 bus passengers per day. The GBATS4M model suggests that current level of delay along Rupert Street is 45 seconds per bus passenger. This could be reduced to 30 seconds per passenger following implementation of the Scheme (i.e. a reduction of 15 seconds per passenger).

Following annualisation, this quantum of journey time savings can be monetised to £2.7m over a discounted, 13 year appraisal period. This monetary value is underpinned by the average value of time for public transport users. Based on experience of the relationship between the monetised value of journey time savings and job creation on major transport schemes throughout the West of England (e.g. MetroWest, AVTM), it is evident that journey time savings valued at £400,000 typically translate to 1 FTE job. This is primarily due to productivity impacts and labour supply expansion. Based on this benchmark, a journey time saving of £2.7m translates to creation of 6.8 FTE jobs.

On average, the typical level of GVA generated per employee in Bristol is around £48,000 per annum. Therefore, job creation at the scale of 6.8 FTE employees could generate almost £330,000 in GVA per annum.

The monitoring and evaluation arrangements for impacts of this projects will focus on collecting evidence on reduction in delays post investment, supported by surveys to capture further qualitative evidence (e.g. purpose of journey, ease of accessing information, and impact on journey times.)

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Access to Arena
Location	Bristol
Brief Description	
Situated next to Temple Meads Station, the Temple Quarter Enterprise Zone (TQEZ) is expected to support up to 17,000 new jobs over the next 20 years as the area is transformed from a largely derelict city centre zone into a world class city quarter. At its heart will be the 12,000 capacity	

Bristol Arena which is due to be completed by 2020 and will be situated on the former Diesel Depot site.

Several major projects are being delivered in the TQEZ to improve accessibility and provide confidence to investors that the area will benefit from high quality transport infrastructure. For instance the Temple Gate project aims to re-work the existing roundabout to provide a simplified and more direct road layout; release land for development; and provide better quality public spaces. Similarly, the Temple Greenways programme will provide better connectivity within the zone with projects such as the Harbour Walkway providing better walking and cycling facilities.

Alongside these major improvements, investment is also needed for smaller, yet similarly critical, transport infrastructure projects. The direct focus of this £800,000 scheme will be to improve pedestrian, cycle and taxi/coach drop off facilities along Albert Road and Victor Street and the immediate surrounds to bring it up to a standard befitting one of the main access points to the Bristol Arena. Further, the £800,000 scheme costs for works at Albert Road/Victor Street form part of a wider £5.22 m programme of works targeting to deliver sustainable access to the Arena (including investment for St Philips Footbridge, which is considered as match funding for the Albert Road and Victor Street and surrounds scheme for this funding application).

The benefits presented in the Economic Case only relate to the £800,000 Albert Road and Victor Street and surrounds scheme only. Benefits of the St Philips Footbridge investment, which is considered as match funding for this funding application, or any other elements of the wider programme to deliver sustainable access to the Arena are not included in this assessment.

Transport Case

The scheme focuses on the stretch of Albert Road from where it meets the Feeder Rd to the point where it meets Victor Street. The scheme also proposes improvements to Victor Street itself and Victoria Road as well as providing 'lines and signs' for taxi ranks on Avon Street and Feeder Road.

Due to constraints associated with access to the Arena from the West it is critical that a high quality route from the East is established. At present, the area adjacent to Albert Road is a light industrial zone, dominated by car movements and cut off from the rest of the city. Funding has been secured to install a footbridge leading to the Arena site and improvements made to the Avon river path route but the facilities along Albert Road and Victor Street that connect with this infrastructure are woefully inadequate from a sustainable transport and general access perspective.

The planning approval for the Diesel Depot site was granted subject to a range of conditions that would need to be met before development could commence. Given the poor transport provision around Albert Road/Victor Road, condition 20 was included, which included the following transport improvements in the area prior to development:

"Prior to commencement of development (excluding groundworks), a general arrangement plan showing the following works to the highway shall have been submitted to and been approved in writing by the Local Planning Authority:

a) The upgrading, widening and reconstruction (where necessary) of current footway /carriageway along Albert Road, Victor Street, Victoria Road, Chapel Street, Stanhope Street and Feeder Road where appropriate to incorporate the provision of crossing facilities and carriageway and drop-off / pick-up facilities for coaches and taxis.

b) The implementation of improved / upgraded lighting in the above area where necessary.

c) A scheme for the appropriate management of traffic in the above area through the provision of access and waiting restrictions to be secured as part of the TRO process”.

Within this context, failing to deliver this scheme could jeopardise the entire Diesel Depot development.

The scheme will drastically improve the overall environment for pedestrians and cyclists by upgrading the footways, lighting and crossing points along the route. Coach drop off facilities will be provided along Albert Road and Victoria Rd as well as taxi ranks on Avon Street and Rupert Street.

Wider Economic Case

Construction Phase:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £800,000, as part of a wider package of works costing £1.8m in total (including £0.3m in match funding). Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, scheme costs of £800,000 could lead to the creation of 8.9 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £320,000. Applying average employment and output multipliers of 1.85 generates an extra 7.6 indirect FTE jobs and £272,000 indirect GVA uplift in the construction stage.

Operational Stage:

The proposals at Albert Road and Victor Street and surrounds are critical infrastructure improvements that are integral to realising development at the Former Diesel Depot site within Bristol's Temple Quarter Enterprise Zone. This is evidenced by inclusion of the works as a planning condition on the decision notice that granted planning permission to the Bristol Arena planning application (subject to conditions, application reference 15/06069/F).

The total infrastructure costs to deliver the Former Diesel Depot site – which will comprise Bristol Arena, office, residential and other mixed use development – are estimated at £108 million. The additional infrastructure requirement associated with this project, estimated at £1.8m (including £800,000 for the Albert Road/Victor Street scheme and an additional £1.0m for complementary works), brings the total capital investment to £110 million. This scale of investment would facilitate creation of nearly 4,100 FTE jobs. Using a proportional approach to attributing job creation to specific infrastructure elements, the £800,000 required to deliver the Albert Road/Victor Street scheme represents 0.7% of total infrastructure costs. Therefore 0.7% of the estimated job creation can be attributed to this project, amounting to 29.5 FTEs.

On average, employees in Bristol generate more than £48,000 in GVA per employee per annum. Therefore, job creation at the scale of 29.5 FTE employees could generate £1.4 million in GVA per annum.

Our approach to monitoring the employment impacts within the Enterprise Zone (including the former Diesel Depot) will comprise a review of (and contribution towards, where necessary) Temple Quarter Enterprise Zone's ex-post evaluations (including those planned for the former Diesel Depot / Arena Island).

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Airport Rd cycle path
Location	Bristol
Brief Description	
<p>The West of England region has a high proportion of cyclists compared to the national average and, building on the success of Bristol’s Cycling City award in 2008, a reputation for sustained investment in cycle infrastructure. However, despite completing several important sections of the strategic cycle network in recent years there remain significant gaps that threaten to stall the impressive gains made to date.</p> <p>This challenge sits alongside the need to incorporate active travel facilities at new housing development sites so that sustainable travel patterns are embedded from the outset. One such development site is the designated Housing Zone in Hengrove where 1,200 homes are planned over the coming years.</p> <p>The scheme would provide design work for a cycle facility along Airport Road up to the Wells Rd Junction. These designs would then be implemented using future funding to provide a cycle route linking the Hengrove housing site with the city centre via the Whitchurch Way cycle path.</p>	
Transport Case	
<p>The northern edge of the Hengrove housing site is bordered by a cycle route along Hengrove Way but this facility currently ends abruptly where it meets the Crewickwe Rd/Bamfield Rd junction. From this point heading along Airport Rd there is a long stretch of narrow and ill-maintained footpath (not suitable for cycling) before joining an off-road cycle path after the Wells Rd junction.</p> <p>Improving the route alongside Airport Road is critical in achieving a continuous high quality cycle route from Hengrove way to the Whitchurch cycle path and into the city centre which will provide a sustainable transport link for the 1,200 planned houses at the Hengrove site as well the existing residential along the length of the route. The facility will also improve connections with the South Bristol Skills Academy, the Community Hospital and Imperial Park among other destinations.</p>	
Wider Economic Case	
<p><u>Construction Phase:</u></p> <p>The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £75,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 0.8 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £30,000.</p>	

Applying average employment and output multipliers of 1.85 generates an extra 0.7 indirect FTE jobs and £25,500 indirect GVA uplift in the construction stage.

Operational Stage:

The project is targeted at all types of cyclists, and particularly commuter and school users, by linking employees and school children to places of work and education respectively. Therefore, the uplift in commuter and school cyclists as a result of the project will drive the projects economic impacts. The catchment area for the project was defined as a 3.0 mile buffer around the route (i.e. the buffer extended 1.5 miles in all directions). This was deemed appropriate for all cycle user groups, given the average trip length for cycling reported in the National Travel Survey and reported locally.

Within this context, the baseline number of commuters within this catchment area was estimated at nearly 51,000, of which 7.5% (3,804) commuted via cycling. Similarly, the baseline number of primary school children was 5,675, of which 2.0% (113) travelled via cycling; the baseline number of secondary school children was 6,578, of which 5.0% (329) travelled via cycling. Combined, 442 children travelled to school via cycling.

Locally sourced cycle data adopted for the Access West DfT bid implies a historic growth rate of 8.6% per annum for commuter cycling in the West of England. This rate of growth has been supported and will be sustained by investment in cycling infrastructure. Capital investment in cycling infrastructure can have a long-term positive impact on cycling, therefore, the project will contribute to sustaining the historic growth rate of 8.6% per annum over a ten year period. This reflects a compound growth rate of 110% over ten years. Similarly, a historic growth rate of 3.94% per annum is reported for school cycling. This reflects a compound growth rate of 42% over ten years.

It should be noted that case study data suggests cycle use uplifts are typically very high following capital investment in cycling infrastructure. In some cases demand has increased by more than 1000% over a five year period. Therefore the growth rates identified above are considered robust and reasonable. By adopting these growth rates, the forecast number of additional commuter cyclists is 4,189 following project delivery. The forecast number of additional school cyclists is 184.

As noted above, significant residential led development is also forecast at Hengrove. Around 1,200 new homes could be delivered. This scale of development could generate 2,800 additional resident commuters and 900 additional resident school children. Based on existing cycle mode share for commuters and school children (as identified above), 272 resident commuters will be cyclists and 32 resident school children will be cyclists as a baseline. Applying the same growth factors as highlighted above, this could generate a total of 299 additional commuter cyclists (resident and workplace) and 13 additional school cyclists, as a result of potential development.

Combining the forecast uplift in cyclists associated with existing and potential development, there will be around 4,500 additional commuter cyclists and 200 additional school cyclists resulting from the project.

It is assumed the additional cyclists will purchase new cycle equipment and accessories in line with retail benchmarks in the cycle industry. These benchmarks suggest that commuters typically spend £505 on new cycle equipment and accessories. School children typically spend £430 on new cycle equipment and accessories. Applying these benchmark to the number of additional cyclists by user type results in £2.4m in forecast additional cycling expenditure as a result of the project.

Benchmarks also show that £124,000 in cycling expenditure can support 1 FTE employees. Therefore the forecast additional expenditure could support 19.0 FTE employees in retail roles within the cycle industry.

The typical level of GVA generated by a single retail employee in Bristol is around £26,000 per annum. Therefore, job creation at the scale of 19.0 FTE employees could generate £488,000 in GVA per annum. However, the project put forward as part of the present LGF application is part of the wider 'Airport Rd Cycle Path' programme which is expected to cost £800,000 in total. Therefore the current project only represent 9% of wider programme costs. As such, only 9% of the wider economic impacts outlined can be claimed at this stage. This amounts to 1.8 FTE jobs and £46,000 in GVA.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within Bristol in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	North Somerset NSC01: Weston Town Centre Regeneration: Towns Square/South Parade and Regents Street: walking and cycling improvements
Location	North Somerset
Brief Description	
Weston-super-Mare town centre regeneration is arguably North Somerset Council's top economic and transport priority, along with the Enterprise Area at Junction 21 on the M5 corridor. The job creation objective set out in the Strategic Economic Plan (SEP) is to bring in 10,500 jobs by 2026 and provide 114 hectares of land for business to address the existing imbalance in Weston-super-Mare.	
To further provide for this regeneration, Weston town centre plans to become:	
<ul style="list-style-type: none"> • A major centre for urban living: - helping to grow and sustain new shopping, leisure and cultural activities • A learning hub recognised nationally as a centre for excellence for higher and further education, providing students and professional with high quality study, accommodation and lifestyles, built around a new university campus • A place where living and learning will be the pillars that sustain a quality lifestyle for those who live in, work in or visit the town centre 	

Development opportunities within both the Enterprise Area and Weston town centre itself have great potential to create local employment, which could remain unrealised unless the area's transport infrastructure is fit for purpose, particularly through sustainable transport provision.

Weston Town Centre's masterplan and recent supplementary planning document, which went out to consultation in December 2016, outlines 3 key transport corridors into the town from the East to the centre and seafront in the West. These include:

- The Boulevard (to the North of town)
- Regent Street, Alexandra Parade, Locking Road (central area)
- Station Boulevard, Carlton Street & Hildesheim Bridge (to the South)

The Local Growth Fund bid for 2017/18 plans to complement the existing 'Town Square, Weston-super-Mare' business case by focusing on two of these corridors; The Boulevard; and Regent Street. This will realise aspirations for high quality public realm improvements through improved pedestrian areas in Towns Square and Regent Street, improved public transport provision along South Parade and Regents Street, and road reallocation to allow for better walking and cycling provision on South Parade.

Transport Case

Currently access through the town centre area is poor for walking, cycling and public transport hampered by non-existent sightlines, narrow or absent pavements and generally poor quality materials that combine to deter rather than attract footfall and investment.

The intention of the current scheme is to complement the improvement scheme outlined in 'Town Square, Weston-super-Mare', in order to improve connectivity (physically and visually), upgrade the quality of the space, introducing features that will maximise the potential of the area as a key town centre space and support and encourage investment from the surrounding businesses.

Improved open spaces help provide environmental, social and economic benefits and are therefore critical in terms of their contribution to town character, wayfinding, establishing a sense of arrival, encouraging active travel, local spend and allowing time to dwell and enjoy the outdoor space. Weston town centre has three main urban public spaces, one of which is Town Square and South Parade area. This is the focal point for the first phase of our ambitious public realm improvements.

The Town Square and South Parade improvements propose to provide road reallocation, which will benefit walking and cycling by increasing the square meterage to the Northern aspect of the Towns Square area. The new South Parade road alignment would further benefit from widened footways using a consistent palette of materials, real time information, new bus stops, including raised bus kerb provision.

As a part of the central transport corridor and public realm improvements, we are also focusing on Regent Street. Regent Street is currently the main pedestrian route to Princess Victoria Square and Weston Pier, connecting the seafront to the high street. Currently it has narrow low quality footways and cluttered parking provision, which means the space is of low quality, therefore not attracting visitors beyond the seafront area. North Somerset Council propose to upgrade this area to make a shared surface on one at-grade level, remove all parking, allow only public transport,

walking and cycling, add a gateway feature, lower the speed limit to 10mph, permit loading outside core daytime hours only.

Both South Parade and Regent Street are a part of a wider improvement and investment plan for Weston-super-Mare town centre. These projects will be followed by further improvements, such as the widening of Spider Lane to maximise the potential of the Town Square investment. In addition the 'Station Boulevard' area to the South will be improved to unlock a range of further, currently unquantified, benefits. These phases will be forthcoming in the proposed 3 year bid timeframe for LGF from 2018-2021.

Wider Economic Case

Construction Phase:

The scale of job creation during the construction phase is typically a function of project costs. The construction works expected in 2017/18 and part funded through this LGF application are estimated to cost £700,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 7.8 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £280,000. Applying average employment and output multipliers of 1.85 generates an extra 6.6 indirect FTE jobs and £238,000 indirect GVA uplift in the construction stage.

Operational Stage:

The works part-funded through this 2017/18 LGF application will complement public realm improvements outlined in the 'Town Centre, Weston-super-Mare' business case, as well as the wider works proposed for the Regent Street/South Parade/Spider Lane area. The overall programme of public realm improvements will provide further enhancement to a key areas within Weston-super-Mare town centre. The regeneration benefits outlined in the aforementioned business case are therefore attributable to the following interventions:

- The £2.06m investment outlined in the 'Town Square, Weston-super-Mare' business case;
- The £2.15m investment required to deliver improvements at Regent Street, South Parade and Spider Lane (of which, £700k will be spent in 2017/18, part funded through this current LGF application).

Within this context, the total town centre improvement works are expected to cost £4.2m.

The 'Town Square, Weston-super-Mare' business case suggests that 125 'spillover' jobs in the retail industry would be created as a result of regeneration and increased occupancy of retail units in the town centre. At a cost of £700k, the improvements works put forward as part of this LGF application represents around 17% of the entire cost of the town centre improvement schemes in Weston-super-Mare (£4.2 in total). Therefore, 17% of the spillover jobs created through regeneration and referenced in the 'Town Square, Weston-super-Mare' business case are attributable to the current LGF application. As such, 20.8 gross FTE jobs will be attributable to LGF funding in 2017/18.

The typical level of GVA generated by a single retail employee in the UK is around £28,000 per annum. Therefore, job creation at the scale of 31.7 FTE employees could generate £590,000 in GVA per annum.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Coastal Towns Cycle Route: Uphill Road North NSC02
Location	North Somerset
Brief Description	
<p>Active travel such as walking and cycling has great potential to reduce congestion and carbon emissions, promote healthy lifestyles and create economic benefits. Weston-super-Mare has traditionally had low levels of physical activity and active travel. It has been proven the provision of high quality commuter and leisure facilities can help address this. Attractive leisure facilities can also attract significant tourism spend locally*. This has been demonstrated well in tourist destinations in the South West such as Cornwall, where the Camel Trail provides a useful and attractive route between Padstow, Wadebridge and Camelford.</p> <p>Weston-super-Mare’s regeneration ethos focuses on “Living, Learning & Lifestyles”. In North Somerset Council’s recent “Prospectus for Change” document, a large element of this is defining its outdoor leisure offer for local residents and tourists alike. Weston attracts over 7 million visitors a year to its seafront, these current visitors, local residents and a larger growing market from surrounding cities such as Bristol and Bath seek healthy fun family activities, with quality trails and facilities including places to eat, drink and hire equipment. Yet the lack of facilities, cycle hire and dedicated cycle paths in and around Weston-super-Mare are impacting on the area’s ability to broaden its appeal, demographic and promote its coastline and outdoor offer.</p> <p>The Coastal Towns Cycle Route project is now well underway. The route will assist in increasing the number of visitors and commuters choosing cycling as their preferred mode of transport for leisure or utility trips alike. In particular, the route will increase attractiveness of cycle commuting between our conurbations, and major local employment destinations. The increase in cycling mode share locally will subsequently help in reducing congestion in the area and increasing road capacity.</p> <p>*Value of cycle tourism in Scotland: Transform (Zovko 2013)</p>	
Transport Case	
<p>The Coastal Towns Cycle Route project will provide a leisure and commuter route between coastal towns within North Somerset (Weston, Clevedon and Portishead) and its neighbouring authorities to the North and South. Phase 1 of the project is from Weston to Brean. The route had fallen into disrepair and the River Axe sluice gates have formed a physical barrier to the route between Weston-super-Mare and Brean. Brean Down is a busy National Trust attraction, which has always been tantalisingly close to Weston-super-Mare. It is highly visible from the seafront in Weston, but the barrier of the River Axe has meant a tortuous 9 mile circular route via a busy, bendy and hazardous road to Brean. Conversely visitors to Brean rarely visit Weston-super-Mare and local economic benefits are not realised.</p>	

North Somerset have recently upgraded almost the entire length of NCN33 from Weston-super-Mare to its boundary with Somerset, with 3.5km of trail completed in 2015/16 alone, and a further 1km of route being delivered by March 2017. By the summer of 2017, building on previous rounds of LGF funding, we plan to have opened the sluice gates over the River Axe to Somerset and working with Somerset and the charity Greenways and Cycleways complete the route to Brean Down and beach. To the South this phase of the route will link to the continuation of the NCN33 to Burnham on Sea and on to Dorset. This will significantly increase the number of visitors to Weston from Somerset and beyond. To the North of Weston-super-Mare future phases will link onwards to Clevedon, Portishead and eventually Bristol, along the jewel in the crown of route the Ashton Pill Path.

Uphill Road North is the missing link from Weston-super-Mare's busy Promenade to Uphill Village. This will be last significant barrier of the Weston to Brean phase of the Coastal Towns Cycle Route within North Somerset. This route will provide shared use along the A370 into Weston town centre and provide a useful commuter route between Weston College, Weston Hospital and the centre. Likewise this section will be the first section of road visitors' encounter on the Weston to Brean route. We have now submitted a planning application to widen the pavement in to the adjacent Royal Sands Golf Course. Funding through the LGF fund will enable tree work mitigation on the golf course, ecological mitigation for badger's including fencing and legal agreement for the route to be built the following financial year (2018/18).

Wider Economic Case

Construction Phase:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £32,500. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 0.4 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £13,000. Applying average employment and output multipliers of 1.85 generates an extra 0.3 indirect FTE jobs and £11,050 indirect GVA uplift in the construction stage.

Operational Stage:

North Somerset Council prepared the Coastal Towns Cycle Route (CTCR) Report to support future investment decisions in cycling infrastructure that could connect North Somerset's coastal communities. The Report found that by delivering the preferred strategy along the entire CTCR would result in the creation of 17 new cycling related FTEs in North Somerset, the majority of which would be leisure and tourism-oriented. At £32,500 worth of investment, the current Uphill Road North Scheme represents 1.2% of the overall costs of the preferred CTCR scheme. Therefore, 1.2% of the economic outputs resulting from the wider scheme can be attributable to the Uphill Road North investment. This means the project will be responsible for 0.2 new cycling related FTE jobs.

The average level of GVA generated by a single employee in North Somerset is around £53,000 per annum. Therefore, job creation at the scale of 0.2 FTE employees as a result of the scheme could generate £11,000 in GVA per annum.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within North Somerset in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles;
- SIC 55 Accommodation;
- SIC 56 Food and beverage service activities.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Pinch Point 2 Headed Man Junction
Location	Bath & North East Somerset
Brief Description	
<p>As identified in the Bath and North East Somerset Council Core Strategy, Keynsham is a key area of growth, with 2,150 new homes and 1,600 jobs to be delivered by 2029.</p> <p>Developments within Keynsham and its potential to create employment will remain locked unless the area’s transport infrastructure is enhanced. The proposed project will deliver much needed congestion alleviation to the South of Keynsham by redesigning the traffic light junction known as the 2 Headed Man on the A39 between Keynsham, Bath, and Marksbury.</p> <p>This scheme will increase the traffic flow in a very congested area, adding capacity to facilitate growth within Keynsham.</p> <p>Considering the scale of investment required for this project against the overall estimate of infrastructure costs to facilitate developments in Keynsham, only a proportion of employment impacts will be attributable to this project and requested LGF funding.</p>	
Transport Case	
<p>2 Headed Man is a critical link connecting the A39 to the B3116. It is subject to severe congestion at peak times. Several bus services utilise this route, which also accommodates HGVs travelling to Wells and Shepton Mallet.</p> <p>The existing road layout is single lanes in all directions, which causes vehicles on the A39 travelling North or South to be held up in traffic behind those turning towards Keynsham, causing long vehicles queues. There is an existing stretch of highway 500m to the South of the junction with 2 lanes in both directions to ease congestion along the A39, however the queues from the 2 headed man junction reach back to this section and for more than 1km in the Northern direction during peak times.</p> <p>The proposed scheme will widen the road on the southern side to allow for a left turn lane from the south and right turn lane from the north.</p>	

Resolving the chronic congestion will be vital in attracting further private investment to the growing market town of Keynsham.

Wider Economic Case

Construction Stage:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £550,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 6.1 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £220,000. Applying average employment and output multipliers of 1.85 generates an extra 5.2 indirect FTE jobs and £187,000 indirect GVA uplift in the construction stage.

Operational Stage:

As noted above, the 2-headed man junction is a critical junction linking the A39 to the B3116 which suffers from significant congestion and associated delays, queuing and extensive journey times. The junction currently accommodates an average daily 12 hour traffic flow of 16,000. The current level of average delay is estimated at 110 seconds per vehicle. This delay is expected to reduce by around 60% to 45 seconds per vehicle following implementation of the project.

This quantum of annual journey time savings can be monetised to £8m over a discounted, 13 year appraisal period. This monetary value is underpinned by the average value of time for road users. Based on experience of the relationship between the monetised value of journey time savings and job creation on major transport schemes throughout the West of England (e.g. MetroWest, AVTM), it is evident that journey time savings valued at £400,000 typically translate to 1 FTE job. This is primarily due to productivity impacts and labour supply expansion. Based on this benchmark, a journey time saving of £8m translates to creation of 20.2 FTE jobs.

On average, the typical level of GVA generated per employee in Bath and North East Somerset is around £53,000 per annum. Therefore, job creation at the scale of 20.2 FTE employees could generate almost £1.1m in GVA per annum.

The monitoring and evaluation arrangements for impacts of this projects will focus on collecting evidence on reduction in delays post investment, supported by surveys to capture further qualitative evidence (e.g. purpose of journey, ease of accessing information, and impact on journey times.)

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Midsomer Norton Cycle and Walking Schemes
Location	Bath & North East Somerset
Brief Description	

Sustainable travel modes such as cycling have the potential to unlock a range of transport (reduce congestion), environmental (reduce carbon emissions), health (promote healthy lifestyles) and economic (construction employment and jobs in the retail sector) benefits. Equally, attractive leisure trails can attract significant tourism related economic impacts. However, lack of facilities and dedicated cycle paths in Bath and North East Somerset are impacting on the area's ability to maximise its cycling potential.

The Midsomer Norton Cycle and Walking Schemes, along with other complementary cycling infrastructure investments including the Cycle Link Mop Up and Safer Routes to School, seeks to reverse this trend and realise the range of benefits mentioned above, by increasing the number of commuters and school children choosing cycling as their preferred mode of transport.

In particular, the Midsomer Norton Cycle and Walking Schemes project will deliver a range of improvements, including, widening of footpath, increased signage and raised table. Once delivered, the improvements will increase attractiveness of cycle commuting for new residents travelling into the Somer Valley to live or work and the increase in cycling mode share locally will subsequently help in reducing congestion in the area and increase road capacity.

Progressing detailed designs for schemes that have been identified as feasible and with community support under the Community Engagement tranche of the Access Fund, this project will prepare cycle and walking schemes for implementation under future LGF funding. Working alongside the Council's regeneration, economic development teams and Access Fund's community engagement this project will provide the final detailed designs and preparatory engineering ahead of full implementation in future years. The Access Fund has committed to deliver "Community-based feasibility studies, audits and engagement unlocking Local Growth Fund contributions for walking and cycling".

There are 2,470 new homes and a minimum of 900 new jobs expected to be delivered in the Somer Valley by 2029, with further jobs if economic circumstances allow. Increasing traffic flow through reducing modal share of single car occupancy will support the realisation of further jobs in the area.

Transport Case

The planned improvements, including widening of footpaths, upgrading pedestrian crossings to toucans, removing obstacles from the footway and realigning junctions would improve the attractiveness and interconnectivity of several routes around Midsomer Norton for cyclists of all types.

In addition to carbon savings and health benefits accruing from an increased number of cyclists, the scheme would reduce vehicle numbers and help reduce journey times on the local highways network in and around Midsomer Norton.

Wider Economic Case

Construction Stage:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £30,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the

project could lead to the creation of 0.3 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £12,000. Applying average employment and output multipliers of 1.85 generates an extra 0.3 indirect FTE jobs and £10,200 indirect GVA uplift in the construction stage.

Operational Stage:

The project is targeted at all types of cyclists, and particularly commuter and school users, by linking employees and school children to places of work and education respectively. Therefore, the uplift in commuter and school cyclists as a result of the project will drive the projects economic impacts. The catchment area for the project was defined as a 3.0 mile buffer around the centre of Midsomer Norton (i.e. the buffer extended 1.5 miles in all directions from the core). This was deemed appropriate for all cycle user groups, given the average trip lengths for cycling reported in the National Travel Survey and reported locally.

Within this context, the baseline number of commuters within this catchment area was estimated at nearly 10,000, of which 2.9% (282) commuted via cycling. Similarly, the baseline number of primary school children was 1,134, of which 3.4% (39) travelled via cycling; the baseline number of secondary school children was 1,558, of which 4.6% (71) travelled via cycling. Combined, 110 children travelled to school via cycling.

Locally sourced cycle data adopted for the Access West DfT bid implies a historic growth rate of 8.6% per annum for commuter cycling in the West of England. This rate of growth has been supported and will be sustained by investment in cycling infrastructure. Capital investment in cycling infrastructure can have a long-term positive impact on cycling, therefore, the project will contribute to sustaining the historic growth rate of 8.6% per annum over a ten year period. This reflects a compound growth rate of 110% over ten years. Similarly, a historic growth rate of 3.94% per annum is reported for school cycling. This reflects a compound growth rate of 42% over ten years. However, given the project will run in conjunction with the Community Engagement tranche of the Access Fund, the growth rates have been reduced to 77% and 30 respectively to take into account the appropriate contribution of Access Fund to achieving the overall growth rate.

It should be noted that case study data suggests cycle use uplifts are typically very high following capital investment in cycling infrastructure. In some cases demand has increased by more than 1000% over a five year period. Therefore the growth rates identified above are considered robust and reasonable. By adopting these growth rates, the forecast number of additional commuter cyclists is 217 following project delivery. The forecast number of additional school cyclists is 34.

As noted above, significant residential and employment development is also forecast for the Midsomer Norton area. Around 2,500 new homes and 900 new jobs could be delivered. This scale of development could generate 2,800 additional resident commuters, 750 additional resident school children and 900 additional workplace employees. Based on existing cycle mode share for commuters and school children (as identified above), 80 resident commuters will be cyclists, 31 resident school children will be cyclists and 26 workplace employees will be cyclists as a baseline. Applying the same growth factors as highlighted above, this could generate a total of 82 additional commuter cyclists (resident and workplace) and 10 additional school cyclists, as a result of potential development.

Combining the forecast uplift in cyclists associated with existing and potential development, there will be 299 additional commuter cyclists and 43 additional school cyclists resulting from the project.

It is assumed the additional cyclists will purchase new cycle equipment and accessories in line with retail benchmarks in the cycle industry. These benchmarks suggest that commuters typically spend £505 on new cycle equipment and accessories. School children typically spend £430 on new cycle equipment and accessories. Applying these benchmark to the number of additional cyclists by user type results in £170,000 in forecast additional cycling expenditure as a result of the project. Benchmarks also show that £124,000 in cycling expenditure can support 1 FTE employees. Therefore the forecast additional expenditure could support 1.4 FTE employees in retail roles within the cycle industry.

The typical level of GVA generated by a single retail employee in Bath and North East Somerset is around £28,000 per annum. Therefore, job creation at the scale of 1.4 FTE employees could generate £39,000 in GVA per annum. However, the project put forward as part of the present LGF application is part of the wider 'Midsomer Norton Cycle and Walking Schemes' programme which is expected to cost £100,000 in total. Therefore the current project only represent 30% of wider programme costs. As such, only 30% of the wider economic impacts outlined can be claimed at this stage. This amounts to 0.4 FTE jobs and £12,000 in GVA.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within Bath & North East Somerset in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Employer Grants
Location	Bath & North East Somerset
Brief Description	
Grant support for businesses seeking to improve facilities for pedestrians and cyclists at their site has been demonstrated as highly successful throughout the LSTF, STTY and previous rounds of LGF. The Access Fund is providing continued support for these Match-funded business grants across the West of England, where there is a commitment to deliver 80 match-funded business grants benefitting over 60,000 staff over the course of the project through a competitive application process.	

Bath and North East Somerset are seeking to swell their available budget for these grants to double the number of businesses it can support locally.

Since the scheme started in 2014/15 the demand for grants has always exceeded the available funding – demonstrating the latent demand for grant funding.

Transport Case

Employer Grants will provide infrastructure improvements to employment sites supporting greater walk and cycle commuting. Upgrades may include cycle shelters, lockers, showers, access improvements and will be match-funded by a minimum of 50% by the business recipients.

Delivered alongside the Business Engagement behaviour change project of the Access Fund, this scheme will lock in higher mode shift potential, realising reduction in single car occupancy during peak times, and reducing congestion in key locations around the authority.

Wider Economic Case

Construction Stage:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £20,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 0.2 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £8,000. Applying average employment and output multipliers of 1.85 generates an extra 0.2 indirect FTE jobs and £6,800 indirect GVA uplift in the construction stage.

Operational Stage:

The project is targeted at increasing commuter cycling in the local authority area. The recently successful Access Fund application for West of England (WoE) suggests that currently there are 30,729 people commuting to work, using cycling as a mode of transport in the region.

In the absence of local authority level breakdown of this estimate, the 2011 Census Travel To Work Analysis (TTWA) has been adopted to establish current level of commuter cyclists in Bath and North East Somerset (BANES). The 2011 TTWA data indicates that 9.4% of all cycling based commuters in the WoE were based in BANES. Applying this factor to the estimate of cyclists presented in the Access Fund bid suggests that currently there are some 2,880 people commuting to work in BANES using cycling as a mode of transport.

The Access Fund application suggests that revenue based funding in the West of England region could result in a 2.05% per annum growth in commuter cycling. Considering the baseline of 2,880 cycling commuters, the employer grants (along with other complementary revenue expenditure from Access Fund) would lead to 59 additional cyclists (in one year).

It is assumed the additional cyclists will purchase new cycle equipment and accessories in line with retail benchmarks in the cycle industry. These benchmarks suggest that commuters typically spend £505 on new cycle equipment and accessories. Applying this benchmark to the number of

additional commuter cyclists, results in a forecast of almost £30,000 of additional cycling expenditure as a result of the project. Benchmarks also show that some £124,000 in cycling expenditure can support 1 FTE employees. Therefore the forecast additional expenditure could support 0.2 FTE employees in retail roles within the cycle industry.

The typical level of GVA generated by a single retail employee in Bath and North East Somerset is around £28,000 per annum. Therefore, job creation at the scale of 0.2 FTE employees could generate £7,000 in GVA per annum.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within Bath & North East Somerset in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Cycle Link Mop Up
Location	Bath & North East Somerset
Brief Description	
<p>The Bath City Riverside Enterprise Area – the City of Ideas is a collection of development sites and buildings along the river corridor, beginning in central Bath and continuing west along Upper and Lower Bristol roads. The Enterprise Area has the ability to deliver 65% of the district’s jobs growth (9,000 new jobs) by 2026 and play a key role in providing much needed accommodation for the area’s flourishing high-value business sectors, including creative industries, professional and financial services, engineering consultancy activities, software, technology and other computer related group.</p> <p>Developments within the Enterprise Area and its potential to create employment will remain locked unless the area’s transport infrastructure is enhanced. The proposed project will identify quick wins in terms of missing links and barriers to accessing the existing cycle network through the city, enabling greater visibility of, connectivity between and access to cycle routes</p> <p>Considering the scale of investment required for this project against the overall estimate of infrastructure costs to facilitate developments at Bath City Riverside Enterprise Area, only a proportion of employment impacts will be attributable to this project and requested LGF funding.</p>	
Transport Case	

The planned improvements will include signage, adjustments to barriers to allow greater permeability for wheelchairs and cargo bikes will improve the attractiveness and interconnectivity of several routes around Bath for cyclists of all types, but particularly for commuters cycling to Bath Enterprise Area. In addition to carbon savings and health benefits accruing from an increased number of cyclists, the scheme would reduce vehicle numbers and help reduce journey times on the local highways network in and around Bath.

Wider Economic Case

Construction Stage:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £10,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 0.1 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £4,000. Applying average employment and output multipliers of 1.85 generates an extra 0.1 indirect FTE jobs and £3,400 indirect GVA uplift in the construction stage.

Operational Stage:

The project is targeted at all types of cyclists, and particularly commuter and school users, by linking employees and school children to places of work and education respectively. Therefore, the uplift in commuter and school cyclists as a result of the project will drive the projects economic impacts. The catchment area for the project was defined as a 3.0 mile buffer around the centre of Bath (i.e. the buffer extended 1.5 miles in all directions from the core). This was deemed appropriate for all cycle user groups, given the average trip lengths for cycling reported in the National Travel Survey and reported locally.

Within this context, the baseline number of commuters within this catchment area was estimated at nearly 35,000, of which 2.9% (1,005) commuted via cycling. Similarly, the baseline number of primary school children was 2,998, of which 3.4% (103) travelled via cycling; the baseline number of secondary school children was 3,643, of which 4.6% (167) travelled via cycling. Combined, 270 children travelled to school via cycling.

Locally sourced cycle data adopted for the Access West DfT bid implies a historic growth rate of 8.6% per annum for commuter cycling in the West of England. This rate of growth has been supported and will be sustained by investment in cycling infrastructure. Capital investment in cycling infrastructure can have a long-term positive impact on cycling, therefore, the project will contribute to sustaining the historic growth rate of 8.6% per annum over a ten year period. This reflects a compound growth rate of 110% over ten years. Similarly, a historic growth rate of 3.94% per annum is reported for school cycling. This reflects a compound growth rate of 42% over ten years.

It should be noted that case study data suggests cycle use uplifts are typically very high following capital investment in cycling infrastructure. In some cases demand has increased by more than 1000% over a five year period. Therefore the growth rates identified above are considered robust and reasonable. By adopting these growth rates, the forecast number of additional commuter cyclists is 1,107 following project delivery. The forecast number of additional school cyclists is 112.

As noted above, significant residential and employment development is also forecast at Bath Riverside Enterprise Area. Around 3,400 new homes and 9,000 new jobs could be delivered. This scale of development could generate 7,820 additional resident commuters, 750 additional resident school children and 9,000 additional workplace employees. Based on existing cycle mode share for commuters and school children (as identified above), 116 resident commuters will be cyclists, 31 resident school children will be cyclists and 259 workplace employees will be cyclists as a baseline. Applying the same growth factors as highlighted above, this could generate a total of 414 additional commuter cyclists (resident and workplace) and 13 additional school cyclists, as a result of potential development.

Combining the forecast uplift in cyclists associated with existing and potential development, there will be 1,521 additional commuter cyclists and 125 additional school cyclists resulting from the project.

It is assumed the additional cyclists will purchase new cycle equipment and accessories in line with retail benchmarks in the cycle industry. These benchmarks suggest that commuters typically spend £505 on new cycle equipment and accessories. School children typically spend £430 on new cycle equipment and accessories. Applying these benchmark to the number of additional cyclists by user type results in almost £822,000 in forecast additional cycling expenditure as a result of the project. Benchmarks also show that £124,000 in cycling expenditure can support 1 FTE employees. Therefore the forecast additional expenditure could support 6.6 FTE employees in retail roles within the cycle industry.

The typical level of GVA generated by a single retail employee in Bath and North East Somerset is around £28,000 per annum. Therefore, job creation at the scale of 6.6 FTE employees could generate £188,000 in GVA per annum.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within Bath & North East Somerset in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Safer Routes to School
Location	Bath & North East Somerset
Brief Description	
Sustainable travel modes such as cycling have the potential to unlock a range of transport (reduce congestion), environmental (reduce carbon emissions), health (promote healthy lifestyles) and economic (construction employment and jobs in the retail sector) benefits. Equally, attractive	

leisure trails can attract significant tourism related economic impacts. However, lack of facilities and dedicated cycle paths in Bath and North East Somerset are impacting on the area's ability to maximise its cycling and walking potential.

The Safer Routes to School project, along with other complementary cycling infrastructure investments including the Cycle Link Mop Up and Midsomer Norton Cycle and Walking Schemes, seeks to reverse this trend and realise the range of benefits mentioned above, by increasing the number of school commuters choosing cycling and walking as their preferred mode of transport.

In particular, the Safer Routes to School project will deliver a range of improvements, including, land acquisition, upgrading surfaces of Public Rights of Way and creation of new cycle/footpaths. Once delivered, the improvements will increase attractiveness of cycling and walking to school across the authority and the increase in cycling mode share will subsequently help in reducing congestion and increase road capacity.

Transport Case

The Safer Routes to School project will progress design and implementation of the first phase of schemes across the Authority following a strategic review of missing sections of walk and cycle routes on desire lines to school sites.

The planned improvements will include land acquisition, upgrading surfaces of Public Rights of Way and creation of new cycle/footpaths.

Improving the surfacing and creation of new routes would improve the attractiveness of the route for cyclists and walkers of all types, but particularly for school children. In addition to carbon savings and health benefits accruing from an increased number of cyclists, the scheme would reduce vehicle numbers and help reduce journey times on the nearby road network.

Wider Economic Case

Construction Phase:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £125,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 1.4 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £50,000. Applying average employment and output multipliers of 1.85 generates an extra 1.2 indirect FTE jobs and £42,500 indirect GVA uplift in the construction stage.

Operational Stage:

The project is specifically targeted at school aged cyclists, aiming to link school children to places of education. Therefore, the uplift in school cyclists as a result of the project will drive the projects economic impacts. As the specific type, scale and location of interventions has not yet been determined, it is expected that this intervention could have positive impacts across the local authority as a whole. Therefore, the whole district was considered the catchment area for this Scheme.

Within this context, the baseline number of primary school children was 11,689, of which 3.4% (403) travelled via cycling. The baseline number of secondary school children was 11,390, of which 4.6% (522) travelled via cycling. Combined, 925 children travelled to school via cycling.

Locally sourced cycle data adopted for the Access West DfT bid implies a historic growth rate of 3.94% per annum for school cycling in the West of England. This rate of growth has been supported and will be sustained by investment in cycling infrastructure. Capital investment in cycling infrastructure can have a long-term positive impact on cycling, therefore, the project will contribute to sustaining the historic growth rate of 3.94% per annum over a ten year period. This reflects a compound growth rate of 42% over ten years.

It should be noted that case study data suggests cycle use uplifts are typically very high following capital investment in cycling infrastructure. In some cases demand has increased by more than 1000% over a five year period. Therefore the growth rates identified above are considered robust and reasonable. By adopting these growth rates, the forecast number of additional school cyclists is 385.

It is assumed the additional cyclists will purchase new cycle equipment and accessories in line with retail benchmarks in the cycle industry. These benchmarks suggest that school children typically spend £430 on new cycle equipment and accessories. Applying this benchmark to the number of additional cyclists by user type results in £165,000 in forecast additional cycling expenditure as a result of the project. Benchmarks also show that £124,000 in cycling expenditure can support 1 FTE employees. Therefore the forecast additional expenditure could support 1.3 FTE employees in retail roles within the cycle industry.

The typical level of GVA generated by a single retail employee in Bath and North East Somerset is around £28,000 per annum. Therefore, job creation at the scale of 1.3 FTE employees could generate £38,000 in GVA per annum.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within Bath & North East Somerset in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Access to Emersons Green Enterprise Area: a)Yate Spur and b) Pucklechurch Link (£460,000)
Location	South Gloucestershire
Brief Description	

Sustainable travel modes such as cycling have the potential to unlock a range of transport (reduce congestion), environmental (reduce carbon emissions), health (promote healthy lifestyles) and economic (construction employment and jobs in the retail sector) benefits. Lack of facilities and dedicated cycle paths connecting employment hubs, schools and residential neighbourhoods within South Gloucestershire, acts as a deterrent for local commuters and school children to adopt cycling. As a result, the area currently has below average usage levels for sustainable modes of transport, such as cycling. The Yate Spur project, along with other complementary investments into cycling infrastructure at ASEA and the A38 Strategic Corridor, seeks to reverse this trend and realise the range of benefits mentioned above, by increasing the number of residents choosing cycling as their preferred mode of transport.

In particular, the Yate Spur provides a dedicated cycle route to connect town of Yate (and its neighbour, Chipping Sodbury) with the Emerson's Green Enterprise Area and the wider East Fringe, an employment destination of regional significance. At Emerson's Green the route connects with existing strategic cycle routes (the ring road path and the railway path) providing links to Bristol, Bath and the communities of the North and East Fringes. The project has the following key elements:

- Route from Emerson's Green Enterprise Area to approach of Westerleigh Village (southern end)
- Route from approach of Westerleigh Village (southern end) to Westerleigh Village
- Route from Westerleigh Village to Yate (including new structure under rail viaduct on approach to Yate).
- Pucklechurch Link – connecting Pucklechurch to Eastern Fringe Enterprise Area.

It is also worth noting that Yate and Emerson's Green are strategic growth points for residential and commercial development in South Gloucestershire. The scale of development proposed at these locations is very significant, which can lead to further cycling based impacts.

LGF funding in 17/18 will build on previous LGF rounds to construct additional sections of the Yate Spur strategic cycle route. This dedicated cycling facility will build on recent improvements to the spur and will see the route towards Yate Rail Station improved, providing excellent links to the ring road cycle path, Bristol and Bath Railway Path and their respective city centres.

LGF funding will also be used to aid design and land purchase negotiation of the final part of the Pucklechurch link. The route is majority built and the LGF funding will enable design of the final section of the route and negotiation of land purchase in order to complete the route. Construction of the final section of the route will be delivered through a future-year LGF bid.

Transport Case

At a distance of around 6 to 7 miles, Yate and Chipping Sodbury are within practical cycle commuting range of Bristol's North and East Fringes, major employment areas with significant labour demand. Major employers of the North Fringe include Airbus, Rolls Royce, the Ministry of Defence, University of West of England (UWE) and Frenchay hospital, and there are a myriad of industrial estates and business parks providing a range of employment opportunities, including the Filton Enterprise Area. The East Fringe is home to Emersons Green Enterprise Area, featuring key employers such as the National Composite Centre. Yate and Chipping Sodbury residents find work in the North and East Fringes, but face a major barrier in terms of cycling due to the heavily trafficked A432, an important HGV route. Although cycle-friendly infrastructure exists on different

sections of the route, much of the cycling must be undertaken on-carriageway on an environment unsuitable for anyone other than extremely keen and confident cyclists.

At Emersons Green, the Yate Spur will link up with the heavily used existing strategic cycle routes of the Ring Road Cycle Path and the Bristol and Bath Railway Path cycle route, thus providing excellent cycle connections to the North and East Fringes and Bristol city centre. The Yate Spur scheme will therefore deliver the twin benefits of reducing congestion and carbon emissions on the A432 Badminton Road whilst delivering health benefits and improving accessibility to jobs. South Yate, which is the area of Yate closest to the North Fringe, features pockets of economic deprivation so would particularly benefit from improved employment accessibility.

The scheme will also support cycling movements from the Bristol conurbation out towards Yate and Chipping Sodbury.

Wider Economic Case

Construction Phase:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £460,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 5.1 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £184,000. Applying average employment and output multipliers of 1.85 generates an extra 4.3 indirect FTE jobs and £156,400 indirect GVA uplift in the construction stage.

Operational Stage:

The project is targeted at all types of cyclists, and particularly commuter and school users, by linking employees and school children to places of work and education respectively. Therefore, the uplift in commuter and school cyclists as a result of the project will drive the projects economic impacts. The catchment area for the project was defined as a 3.0 mile buffer around the route (i.e. the buffer extended 1.5 miles in all directions). This was deemed appropriate for all cycle user groups, given the average trip lengths for cycling reported in the National Travel Survey and reported locally. However, given that the route will provide a key interurban route between Bristol/the East Fringe and Yate/Chipping Sodbury, the catchment area was extended to ensure the entire East Fringe and Yate/Chipping Sodbury urban areas were captured in the analysis. This extension also captures the intersection of the proposed route with existing routes at Bristol and Bath Railway Path and NCN route 4.

Within this context, the baseline number of commuters within the 3.0 mile catchment area was estimated at nearly 31,000, of which 3.9% (1,194) commuted via cycling. Further, Journey to Work data from the 2011 Census suggested that beyond this initial catchment, 30 commuter cyclists travelled from outlying areas in Yate/Chipping Sodbury to Bristol, with 19 commuter cyclists making the journey from the East Fringe to Yate/Chipping Sodbury. Combined, the baseline number of cyclists travelling along the route is estimated at 1,243.

Further, the baseline number of primary school children was 3,527, of which 6.7% (235) travelled via cycling; the baseline number of secondary school children was 4,416, of which 4.6% (202) travelled via cycling. Combined, 437 children travelled to school via cycling.

Locally sourced cycle data adopted for the Access West DfT bid implies a historic growth rate of 8.6% per annum for commuter cycling in the West of England. This rate of growth has been supported and will be sustained by investment in cycling infrastructure. Capital investment in cycling infrastructure can have a long-term positive impact on cycling, therefore, the project will contribute to sustaining the historic growth rate of 8.6% per annum over a ten year period. This reflects a compound growth rate of 110% over ten years. Similarly, a historic growth rate of 3.94% per annum is reported for school cycling. This reflects a compound growth rate of 42% over ten years.

It should be noted that case study data suggests cycle use uplifts are typically very high following capital investment in cycling infrastructure. In some cases demand has increased by more than 1000% over a five year period. Therefore the growth rates identified above are considered robust and reasonable. By adopting these growth rates, the forecast number of additional commuter cyclists is 1,368 following project delivery. The forecast number of additional school cyclists is 182.

As noted above, the site will connect Emersons Green Enterprise Area with Yate and Pucklechurch. Around 2,600 new homes and 4,000 new jobs could be delivered at the Enterprise Area. This scale of development could generate 3,400 additional resident commuters, 900 additional resident school children and 4,000 additional workplace employees. Based on existing cycle mode share for commuters and school children (as identified above), 131 resident commuters will be cyclists, 49 resident school children will be cyclists and 154 workplace employees will be cyclists as a baseline. Applying the same growth factors as highlighted above, this could generate a total of 315 additional commuter cyclists (resident and workplace) and 20 additional school cyclists, as a result of potential development.

Combining the forecast uplift in cyclists associated with existing and potential development, there will be 1,683 additional commuter cyclists and 202 additional school cyclists resulting from the project.

It is assumed the additional cyclists will purchase new cycle equipment and accessories in line with retail benchmarks in the cycle industry. These benchmarks suggest that commuters typically spend £505 on new cycle equipment and accessories. School children typically spend £430 on new cycle equipment and accessories. Applying these benchmark to the number of additional cyclists by user type results in £937,000 in forecast additional cycling expenditure as a result of the project. Benchmarks also show that £124,000 in cycling expenditure can support 1 FTE employees. Therefore the forecast additional expenditure could support 7.6 FTE employees in retail roles within the cycle industry.

The typical level of GVA generated by a single retail employee in South Gloucestershire is around £28,000 per annum. Therefore, job creation at the scale of 7.6 FTE employees could generate £215,000 in GVA per annum. However, the current Scheme is a sub-element of the wider Yate Spur cycle route works. The current Scheme represents 37% of route-wide Scheme costs. Therefore, 37% of the impacts associated with the entire Yate Spur cycle route are attributable to the current Scheme. Further, the Pucklechurch Link element of the current funding application only represents design works, comprising 13% of overall scheme costs for the wider Pucklechurch Link route. Therefore, only 13% of economic impacts associated with the Pucklechurch Link can be claimed at this stage. Within this context, the scale of economic impacts attributable to this stage of LGF funding is 2.4 FTE jobs and £67,000 in GVA.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within South Gloucestershire in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Access to Bristol North Fringe (including Filton Enterprise Area) (A38 scheme) (£80,000)
Location	South Gloucestershire
Brief Description	
<p>Sustainable travel modes such as cycling have the potential to unlock a range of transport (reduce congestion), environmental (reduce carbon emissions), health (promote healthy lifestyles) and economic (construction employment and jobs in the retail sector) benefits. Lack of facilities and dedicated cycle paths connecting employment hubs and residential neighbourhoods within South Gloucestershire, acts as a deterrent for local commuters to adopt cycling. As a result, the area currently has below average levels of commuters using sustainable modes of transport, including cycling. Delivery of the A38 Strategic Corridor project, along with other complementary investments into cycling infrastructure at Yate Spur and ASEA, seeks to reverse this trend and realise the range of benefits mentioned above, by increasing the number of commuters choosing cycling as their preferred mode of transport.</p> <p>The A38 is identified as a strategic cycle corridor within SGC Core Strategy, linking the town of Thornbury with Bristol. The corridor includes major employment sites such as Aztec West and the aerospace cluster within the Filton Enterprise Area, which includes strategic employers such as British Aerospace, Rolls Royce and Airbus, who rate sustainability very highly. It also serves the major growth area of the Cribbs Patchway New Neighbourhood, where around 5,750 new homes and 50 hectares of employment land are proposed for delivery over the next 15 years.</p> <p>Many improvements have been made to cycle facilities along the A38 in recent years, and others are in the pipeline, including the installation of controlled crossings for pedestrians and cyclists at the Aztec West Roundabout and at M5 Junction 16 (the latter being funded by Highways England under the Roads Investment Strategy). Despite recent ongoing / planned investments at major junctions and a successful funding application as part of the 2016/17 LGF round, a continuous, high quality cycle path offering connectivity through the A38 corridor is not yet established.</p> <p>In response and following on from the outcome of the A38 Strategic Cycle Network consultation and design stage, South Gloucestershire Council are requesting LGF funding to implement a section of the route which will begin to connect Thornbury to the Enterprise Areas of the Bristol North Fringe. Planning a high-quality cycle route for commuters along this road is imperative,</p>	

linking as it does with major employment sites, such as the aerospace cluster, Aztec West and the Filton Enterprise Area.

Transport Case

The implemented scheme will deliver an additional section of cycle path along the A38 corridor, building on enhancements already planned and funded including the installation of controlled crossings for pedestrians and cyclists at the Aztec West Roundabout and at M5 Junction 16, and various improvements north of junction 16. These improvements in South Gloucestershire will also dovetail with the existing infrastructure on the Bristol section of the A38, a hugely important cycle route to Bristol city centre along the vibrant Gloucester Road and Stokes Croft.

The corridor includes major employment sites such as Aztec West and the aerospace cluster within the Filton Enterprise Area. It also serves the major growth area of the Cribbs Patchway New Neighbourhood, where around 5,750 new homes and 50 hectares of employment land are proposed for delivery over the next 15 years. The scheme will encourage new occupants of the proposed residential development to cycle which will mitigate increased traffic congestion on the A38 corridor and surrounding highway network.

Wider Economic Case

Construction Phase:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £80,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 0.9 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £32,000. Applying average employment and output multipliers of 1.85 generates an extra 0.8 indirect FTE jobs and £27,200 indirect GVA uplift in the construction stage.

Operational Stage:

The project is targeted at all types of cyclists, and particularly commuter and school users, by linking employees and school children to places of work and education respectively. Therefore, the uplift in commuter and school cyclists as a result of the project will drive the projects economic impacts. The catchment area for the project was defined as a 3.0 mile buffer around the route (i.e. the buffer extended 1.5 miles in all directions). This was deemed appropriate for all cycle user groups, given the average trip lengths for cycling reported in the National Travel Survey and reported locally.

Within this context, the baseline number of commuters within this catchment area was estimated at around 72,100, of which 3.9% (2,784) commuted via cycling. Similarly, the baseline number of primary school children was 7,484, of which 6.7% (499) travelled via cycling; the baseline number of secondary school children was 9,005, of which 4.6% (412) travelled via cycling. Combined, 912 children travelled to school via cycling.

Locally sourced cycle data adopted for the Access West DfT bid implies a historic growth rate of 8.6% per annum for commuter cycling in the West of England. This rate of growth has been supported and will be sustained by investment in cycling infrastructure. Capital investment in cycling infrastructure can have a long-term positive impact on cycling, therefore, the project will

contribute to sustaining the historic growth rate of 8.6% per annum over a ten year period. This reflects a compound growth rate of 110% over ten years. Similarly, a historic growth rate of 3.94% per annum is reported for school cycling. This reflects a compound growth rate of 42% over ten years.

It should be noted that case study data suggests cycle use uplifts are typically very high following capital investment in cycling infrastructure. In some cases demand has increased by more than 1000% over a five year period. Therefore the growth rates identified above are considered robust and reasonable. By adopting these growth rates, the forecast number of additional commuter cyclists is 3,066 following project delivery. The forecast number of additional school cyclists is 379.

As noted above, significant residential and employment development is also forecast for the Filton Enterprise area and Cribbs Patchway New Neighbourhood. Around 5,750 new homes and 7,000 new jobs could be delivered. This scale of development could generate 7,500 additional resident commuters, 1,700 additional resident school children and 7,000 additional workplace employees. Based on existing cycle mode share for commuters and school children (as identified above), 290 resident commuters will be cyclists, 95 resident school children will be cyclists and 270 workplace employees will be cyclists as a baseline. Applying the same growth factors as highlighted above, this could generate a total of 617 additional commuter cyclists (resident and workplace) and 39 additional school cyclists, as a result of potential development.

Combining the forecast uplift in cyclists associated with existing and potential development, there will be 3,683 additional commuter cyclists and 419 additional school cyclists resulting from the project.

It is assumed the additional cyclists will purchase new cycle equipment and accessories in line with retail benchmarks in the cycle industry. These benchmarks suggest that commuters typically spend £505 on new cycle equipment and accessories. School children typically spend £430 on new cycle equipment and accessories. Applying these benchmark to the number of additional cyclists by user type results in £2m in forecast additional cycling expenditure as a result of the project. Benchmarks also show that £124,000 in cycling expenditure can support 1 FTE employees. Therefore the forecast additional expenditure could support 16.5 FTE employees in retail roles within the cycle industry.

The typical level of GVA generated by a single retail employee in South Gloucestershire is around £28,000 per annum. Therefore, job creation at the scale of 16.5 FTE employees could generate £468,000 in GVA per annum. However, the project put forward as part of the present LGF application is part of the wider 'A38 Cycling Routes' programme which is expected to cost £3.49m in total. Therefore the current project only represent 2.3% of wider programme costs. As such, only 2.3% of the wider economic impacts outlined can be claimed at this stage. This amounts to 0.4 FTE jobs and £11,000 in GVA.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within South Gloucestershire in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	Access to Avonmouth/Sevenside Enterprise Area (A403 scheme) (£450,000)
Location	South Gloucestershire
Brief Description	
<p>The Avonmouth/Sevenside Enterprise area is undergoing significant growth at present, and is expected to continue to do so over the next ten years. Its proximity to both the port of Avonmouth and the Strategic road network lead to this growth being predominantly in the Warehousing and Distribution industry, meaning that the A403 carries a far greater proportion of Heavy Goods Vehicles than most roads (27% compared to the National average of 5%). Combined with a sub-standard off-road provision for cyclists, the high HGV flows provide a significant barrier to the take up of sustainable travel modes in the area.</p> <p>Access to the Enterprise Area will be improved by the construction of a new section of shared use path on the A403 between Ableton Lane and Govier Way, and by widening and improving the existing sub-standard shared use path on the A403 between Ableton Lane and Central Avenue, These schemes will improve walking and cycling access from Severn Beach Station to the Enterprise area.</p>	
Transport Case	
<p>The planned A403 walking and cycling improvements will significantly improve the current 1.1km route from Ableton Lane to Central Avenue for commuters, improving road safety by encouraging existing cyclists to use the off-road provision, avoiding conflict with HGV's, and providing a safe attractive option to encourage new, less confident users. In addition to the commuter benefits, this section is also part of the National Cycle Network's Avon Cycleway (NCN41), so provision for leisure cyclists and tourists will also be improved.</p> <p>The current pedestrian and cycle routes between Severn Beach (and its Rail Station) and the Western Approach Distribution Park at the Northern end of the Enterprise Area, requires the use of un-lit narrow alleyways, which not only discourages sustainable travel to the Distribution Park, but also has resulted in the creation of an informal footway in the grass verge alongside the highway between Govier Way and Ableton Lane. The planned new 310 metre shared-use path will provide a safer and more attractive route for pedestrians and cyclists, encouraging travel by sustainable modes, and increasing accessibility for those without access to a motor vehicle. This link will also benefit leisure cyclists, providing an improved link between the National Cycle Networks NCN41 and NCN4 routes.</p>	
Wider Economic Case	
<p><u>Construction Phase:</u></p> <p>The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £450,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the</p>	

project could lead to the creation of 5.0 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £180,000. Applying average employment and output multipliers of 1.85 generates an extra 4.3 indirect FTE jobs and £153,000 indirect GVA uplift in the construction stage.

Operational Stage:

Being located in an area with significant current and future employment potential, the project is targeted at commuter cyclists, aiming to link employees to places of work. Therefore, the uplift in commuter cyclists as a result of the project will drive the projects economic impacts.

Currently, the baseline number of commuters working with ASEA (defined using relevant workplace zone data) is 2,600, of which 2.8% (73) commuted via cycling.

Locally sourced cycle data adopted for the Access West DfT bid implies a historic growth rate of 8.6% per annum for commuter cycling in the West of England. This rate of growth has been supported and will be sustained by investment in cycling infrastructure. Capital investment in cycling infrastructure can have a long-term positive impact on cycling, therefore, the project will contribute to sustaining the historic growth rate of 8.6% per annum over a ten year period. This reflects a compound growth rate of 110% over ten years.

It should be noted that case study data suggests cycle use uplifts are typically very high following capital investment in cycling infrastructure. In some cases demand has increased by more than 1000% over a five year period. Therefore the growth rates identified above are considered robust and reasonable. By adopting this growth rate, the forecast number of additional commuter cyclists is 80 following project delivery.

As noted above, ASEA has the potential to accommodate significant additional employment led development. In particular, nearly 4,700 new FTE jobs are forecast at the Westgate Redevelopment, in proximity to the Scheme. Based on existing cycle mode share for commuters, 132 workplace commuters will be cyclists. Applying the same growth factors as highlighted above, this could generate a total of 145 additional commuter cyclists as a result of potential development.

Combining the forecast uplift in cyclists associated with existing and potential development, there will be around 226 additional commuter cyclists resulting from the project.

It is assumed the additional cyclists will purchase new cycle equipment and accessories in line with retail benchmarks in the cycle industry. These benchmarks suggest that commuters typically spend £505 on new cycle equipment and accessories. Applying this benchmark to the number of additional cyclists by user type results in £114,000 in forecast additional cycling expenditure as a result of the project. Benchmarks also show that £124,000 in cycling expenditure can support 1 FTE employees. Therefore the forecast additional expenditure could support 0.9 FTE employees in retail roles within the cycle industry.

The typical level of GVA generated by a single retail employee in South Gloucestershire is around £28,000 per annum. Therefore, job creation at the scale of 0.9 FTE employees could generate £26,000 in GVA per annum.

In combination with the other cycle projects proposed across the West of England, this project has the potential to facilitate the development of a cycling cluster, centred on an increased level of cycle use and the associated increased volume of cycle sales throughout the sub-region.

Our proposed arrangements for monitoring and evaluation of the impacts for proposed cycling improvement projects is to review the change in employment in the following Standard industrial classification of economic activities (SIC) 2007, within South Gloucestershire in the coming years:

- SIC 47640 Retail sale of sports goods, fishing gear, camping goods, boats and bicycles.

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Project Name	South Gloucestershire SGC05: Bus Network Enforcement - public transport improvements (£240,000)
Location	South Gloucestershire
Brief Description	
<p>The Joint Local Transport Plan (JLTP3) sets out the vision of a comprehensive high quality, integrated public transport system in the West of England that is accessible, comfortable, reliable and sustainable. Aside from major investment schemes in significant public transport infrastructure projects (i.e. Metrobus, Metrowest), there is also a strategy to encourage and facilitate greater use of existing bus in order to achieve a modal shift from car. A key tool available to South Gloucestershire Council to achieve this shift away from car is the provision of dedicated bus lanes. Bus lanes offer the potential for bus services to avoid highway congestion, offering improved journey times and enhanced service reliability.</p> <p>However the full benefit of the provision of a bus lane can only be achieved if there is strong and effective enforcement. Bus Lane Enforcement cameras act as a deterrent to non-compliant vehicles using bus lanes thereby delaying the bus services. Delays to bus services have the following impacts:</p> <ul style="list-style-type: none"> • Reliability falls, resulting in loss of confidence in the service; • Bus journey time reduces, reducing the attractiveness of the service; • Unreliability and increased journey times result in people being late for work, reducing productivity; • A congested transport network with perceived lack of good quality reliable public transport services may discourage commercial investment which will impact on employment opportunities; • Costs to the bus operator increase, resulting in issues with commercial viability, potential withdrawal or reduction in service and increased demand for public subsidy <p>The Local Growth Fund bid for 2017/18 plan will support the substantial investment being made in bus based public transport schemes across South Gloucestershire.</p>	
Transport Case	
<p>South Gloucestershire Council has made an assessment of the locations where bus lane cameras would help solve the problem of non-compliant vehicles using the bus lane thereby diluting the benefit to bus services. These are areas where the bus lane is on the approach to a roundabout or junction, or where the bus lane ends and feeds into the traffic flow.</p>	

The proposal is to put a pole, power supply and relevant signing at each of these locations, to allow a camera to be placed at each location for a period of time each year. Cameras will be able to be moved between locations, reducing the amount of cameras required but still providing the flexibility to provide the deterrent and enforce at each location.

The locations identified are:

- Regent Street, Kingswood
- Filton Avenue by the lights on the junction with Station Road
- A38 southbound, just south of Aztec West Roundabout
- Bradley Stoke Way, northbound just before Patchway Brook Roundabout
- Bradley Stoke Way southbound, just north of Great Stoke Roundabout
- Stoke Gifford Transport Link northbound, just before Hunts Ground Road Roundabout
- Coldharbour Lane northbound, just before UWE roundabout
- Highwood Road bus only link (Westbound)

Strategic modelling suggests that around 14,800 passengers per day are forecast to travel on bus services using these bus lanes. The modelling also suggests that an effectively enforced bus lanes can provide on average 22 secs of benefit in peak periods, and 18 secs in interpeak (compared to being caught in congestion caused by general traffic).

Whilst journey time benefits provided by the enforcement cameras are limited and low when compared to the average bus journey times (i.e. 22mins in GBAT4M base year model), they are important tools in improving the public perception of the bus network reliability.

Some of these benefits may already be included in the Metrobus Economic Appraisal; however the full cost of unlocking and realising the benefits was not included at the time.

Wider Economic Case

Construction Phase:

The scale of job creation during the construction phase is typically a function of project costs. The project is estimated to cost £240,000. Based on a benchmark of £90,000 of construction investment equating to 1 full-time equivalent (FTE) employee in the construction sector, the project could lead to the creation of 2.7 direct FTE jobs in the construction phase. Based on an expenditure to GVA ratio of 0.4, the project could also lead to direct GVA uplift of £96,000. Applying average employment and output multipliers of 1.85 generates an extra 2.3 indirect FTE jobs and £81,600 indirect GVA uplift in the construction stage.

Operational Stage:

As noted above, the bus lane enforcement cameras could improve bus users' journey times by 22 seconds in peak periods and 18 seconds during interpeak periods, with a weighted average saving of 19 seconds overall. There are nearly 15,000 bus passengers who would benefit from this journey time saving on a daily basis. Therefore, the aggregate level of journey time savings as a result of the scheme is approximately 1.2 million minutes or 20,000 hours per annum. As mentioned previously some of these benefits may already be included in the Metrobus Economic Appraisal. However the full cost of unlocking and realising the benefits was not included at the time.

Through application of values of time for bus users by different journey purposes and annualisation, this quantum of journey time savings can be monetised to £1.7m over a discounted, 13 year appraisal period.. Based on experience of the relationship between the monetised value of journey time savings and job creation on major transport schemes throughout the West of England (e.g. MetroWest, AVTM), it is evident that journey time savings valued at £400,000 typically translate to 1 FTE job. This is primarily due to productivity impacts and labour supply expansion. Based on this benchmark, a journey time saving of £1.7m translates to creation of 4.3 FTE jobs.

On average, the typical level of GVA generated per employee in South Gloucestershire I is around £53,000 per annum. Therefore, job creation at the scale of 4.3 FTE employees could generate almost £232,000 in GVA per annum.

The monitoring and evaluation arrangements for impacts of this projects will focus on collecting evidence on reduction in delays post investment, supported by surveys to capture further qualitative evidence (e.g. purpose of journey, ease of accessing information, and impact on journey times.)

Note: All project specific input assumptions and calculations performed to forecast the wider economic impacts of this project are provided in the appended spreadsheet.

Appendix 5 - Sustainable Transport Package 17/18 - GVA Assessment of Schemes

Ref	Project	Scheme Costs	Gross Job Creation				Gross GVA Uplift			
			Direct: Construction (FTEs)	Indirect: Construction (FTEs)	Construction (FTEs)	Operation (FTEs)	Direct: Construction GVA	Indirect: Construction GVA	Construction GVA	Operational GVA
Bath and North East Somerset										
BA01	Pinch Point 2 Headed Man Junction	£550,000	6.1	5.2	11.3	20.2	£220,000	£187,000	£407,000	£1,078,542
BA02	Midsomer Norton Cycle and Walking Schemes	£30,000	0.3	0.3	0.6	0.4	£12,000	£10,200	£22,200	£11,664
BA03	Employer Grants	£20,000	0.2	0.2	0.4	0.2	£8,000	£6,800	£14,800	£6,850
BA04	Cycle Link Mop up	£10,000	0.1	0.1	0.2	6.6	£4,000	£3,400	£7,400	£188,470
BA05	Strategic Review Safer Routes to School	£125,000	1.4	1.2	2.6	1.3	£50,000	£42,500	£92,500	£37,930
Bristol										
BS01	Rupert Street Bus Priority	£200,000	2.2	1.9	4.1	6.8	£80,000	£68,000	£148,000	£329,465
BS02	Access to Arena	£800,000	8.9	7.6	16.4	29.5	£320,000	£272,000	£592,000	£1,423,180
BS03	Airport Rd Cycle Scheme	£75,000	0.8	0.7	1.5	1.8	£30,000	£25,500	£55,500	£45,742
North Somerset										
NSC01	Weston Town Centre Regeneration	£700,000	7.8	6.6	14.4	20.8	£280,000	£238,000	£518,000	£589,690
NSC02	Coastal Towns Cycle Route	£32,500	0.4	0.3	0.7	0.2	£13,000	£11,050	£24,050	£10,983
South Gloucestershire										
SGC01	Yate Spur	£460,000	5.1	4.3	9.5	2.4	£184,000	£156,400	£340,400	£67,186
SGC02	A38 Corridor Scheme	£80,000	0.9	0.8	1.6	0.4	£32,000	£27,200	£59,200	£10,722
SGC03	Access to ASEA	£450,000	5.0	4.3	9.3	0.9	£180,000	£153,000	£333,000	£26,127
SGC04	Bus Lane Enforcement Cameras	£240,000	2.7	2.3	4.9	4.3	£96,000	£81,600	£177,600	£231,584
Total		£3,772,500	41.9	35.6	77.5	96.0	£1,509,000	£1,282,650	£2,791,650	£4,058,134

Cost per Job (excluding construction jobs)

£39,278

Cost per Job (including construction jobs)

£21,732

Disclaimer: This analysis represents a high-level exercise using publicly available benchmarks and data provided by project sponsors. No primary research has been undertaken as part of the analysis.

Project Name		Pinch Point 2 Headed Man Junction (BA01)	
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£550,000	BANES, WoE LGF Shortlist	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	6.1 FTEs	Estimate	
Operational impacts	Estimate	Source	Comments
D. Pre and Post-Scheme 12 hour flow	15,954	Based on expanded data from LINSIG model	
E. Pre-Scheme annualised average vehicle delay (secs)	110	BANES LINSIG modelling	
F. Post-Scheme annualised average delay (secs)	45	BANES LINSIG modelling	
G. Average vehicle delay saving	65	Derived	G = E-F
H. Journey Time Savings (£, 13 Year Appraisal)	£8,045,056	Estimate	Estimate discounted benefit stream
I. Journey Time Saving per New Job Benchmark	£397,374	Benchmark from MetroWest experience	Based on JTS per gross job created, calculated as part of MetroWest Phase 1 & 2 business case development
J. Number of New Jobs Created	20.2	Estimate	J = H / I
K. Per employee GVA in BNES	£53,273	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices)
L. GVA impact of the project	£1,078,542	Estimate	L = J*K

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£220,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	5.2	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£187,000	Estimate	

Midsomer Norton Cycle and Walking Schemes (BA02)			
Project Name	Estimate	Source	Comments
Construction stage impacts			
A. Project costs	£30,000	BNES	Need Breakdown by Scheme for BA02 to BA04
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	0.33 FTEs	Estimate	A/B
Operational impacts			
Current Commuter Analysis			
D. Project's catchment area definition (miles)	3.0	National Travel Survey (2015); Table NTS0306	Average bicycle trip length (buffer assumes 1.5 miles each side); also appropriate for schools based on weighted average education cycling trip (2.6km = 1.6 miles) from Access West analysis.
E: Commuters in catchment area	9,797	ONS, Census 2011	Economically Active
F: % of Commuters in catchment area who cycle	2.9%	ONS, Census 2011	Mode Split for Bath and North East Somerset
G: Baseline cycling commuters	282	Estimate	E*F
Current Education Analysis			
H: Current Primary School Population	1,134	ONS, Census 2011	5-9 year olds
I: Current Secondary School Population	1,558	ONS, Census 2011	10-15 year olds
J: Proportion of Primary School Population who Cycle	3.4%	Access Fund	Based on combination of CENSUS and LA data
K: Proportion of Secondary School Population who Cycle	4.6%	Access Fund	Based on combination of CENSUS and LA data
L: Baseline cycling for Primary Education	39	Estimate	H*J
M: Baseline cycling for Secondary Education	71	Estimate	I*K
N: Baseline cycling education	110	Estimate	L+M
Uplift in Current Commuter and Education Cyclists			
O. Percentage increase in cycling as a result of the project: commuters	77%	Access Fund	Access fund application suggests 8.6% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for ten years. Compounded, this reflects ten year growth >100%.
P. Percentage increase in cycling as a result of the project: education	30%	Access Fund	Access fund application suggests 3.94% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for ten years. Compounded, this reflects ten year growth >40%.
Q. Project's catchment area additional commuters: post investment	217	Estimate	G*O
R. Project's catchment area additional education cyclists: post investment	34	Estimate	N*P
Future Residential Development: Commuters			
S. Future housing development	2,470	BANES	
T. Average household size	2.3	ONS, Census 2011, Table H01UK	2011 Census: Households with at least one usual resident, household size and average household size, local authorities in the United Kingdom
U. Baseline population at new development	5,681	Estimate	S*T
V. Population in employment as proportion of total population	49%	Estimate	E/AA
W. Baseline population in employment at new development	2,784	Estimate	U*V
X. Baseline population who commute via cycling at new devt	80	Estimate	F*W
Y. Commuter Uplift Factor	77%	Professional Judgement	Assumed the same uplift applies as identified above - i.e. the intervention will result in the same scale of uplift in cycling at new devts as at existing devts.
Z. Additional commuter cyclists at new development	62	Estimate	X*Y
Future Residential Development: Education			
AA. Current Population in catchment	19,995	ONS, Census 2011	
AB. Current Proportion of population primary school aged	6%	Estimate	H/AA
AC. Current Proportion of population secondary school aged	8%	Estimate	I/AA
AD. Baseline primary school population at new development	322	Estimate	U*AB
AE. Baseline secondary school population at new development	443	Estimate	U*AC
AF. Baseline primary school population who cycle at new devt	11	Estimate	J*AD
AG. Baseline secondary school population who cycle at new devt	20	Estimate	K*AE
AH. Baseline school population who cycle at new development	31	Estimate	AF+AG
AI. School Uplift Factor	30%	Professional Judgement	Assumed the same uplift applies as identified above - i.e. the intervention will result in the same scale of uplift in cycling at new devts as at existing devts.
AJ. Additional school cyclists at new development	10	Estimate	AH*AI
Future Employment Development: Commuters			
AK. Future Employment Development (jobs)	900	BANES	
AL. Baseline Commuter Cyclists at New Development	26	Estimate	F*AK

AM. Commuter Uplift Factor	77%	Professional Judgement	Assumed the same uplift applies as identified above - i.e. the intervention will result in the same scale of uplift in cycling at new devts as at existing devts.
AN. Additional Commuter Cyclists at New Development	20	Estimate	AL*AM
Total Cycling Impact			
AO. Current and future commuter cyclist uplift estimate	299	Estimate	Q+Z+AN
AP. Current and future education cyclist uplift estimate	43	Estimate	R+AJ
Expenditure and Economic Impact			
AQ. Per capita cycling expenditure p.a.: commuters	£505	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Commuter expenditure on bicycles and accessories
AR. Per capita cycling expenditure p.a.: education	£430	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Family expenditure on bicycles and accessories
AS. Forecast additional expenditure p.a.: commuters	£150,961	Estimate	AO*AQ
AT. Forecast additional expenditure p.a.: education	£18,578	Estimate	AP*AR
AU. Forecast additional expenditure p.a.: total	£169,539	Estimate	AS+AT
AV. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
AW. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
AX. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	AW/AV
AY. Total Cycle Expenditure Triggered by Scheme	£169,539	Estimate	AS+AT
AZ. Forecast new cycle sales jobs:	1.4	Estimate	AY/AX
BA. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
BB. Forecast additional GVA	£38,879	Estimate	AZ*BA
Proportionality			
BC. Total Scheme Costs	£100,000	BANES	This round of LGF funding is for design works only. The £100k figure is a high level, indicative estimate for completion of the Scheme, as provided by BANES.
BD. Proportional Cost of this Stage of Works	30%	Estimate	A/BC
BE. Proportional forecast new cycle sales jobs	0.4	Estimate	AZ*BD
BF. Proportional forecast additional GVA	11,664	Estimate	BB*BD

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£12,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	0.3	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£10,200	Estimate	

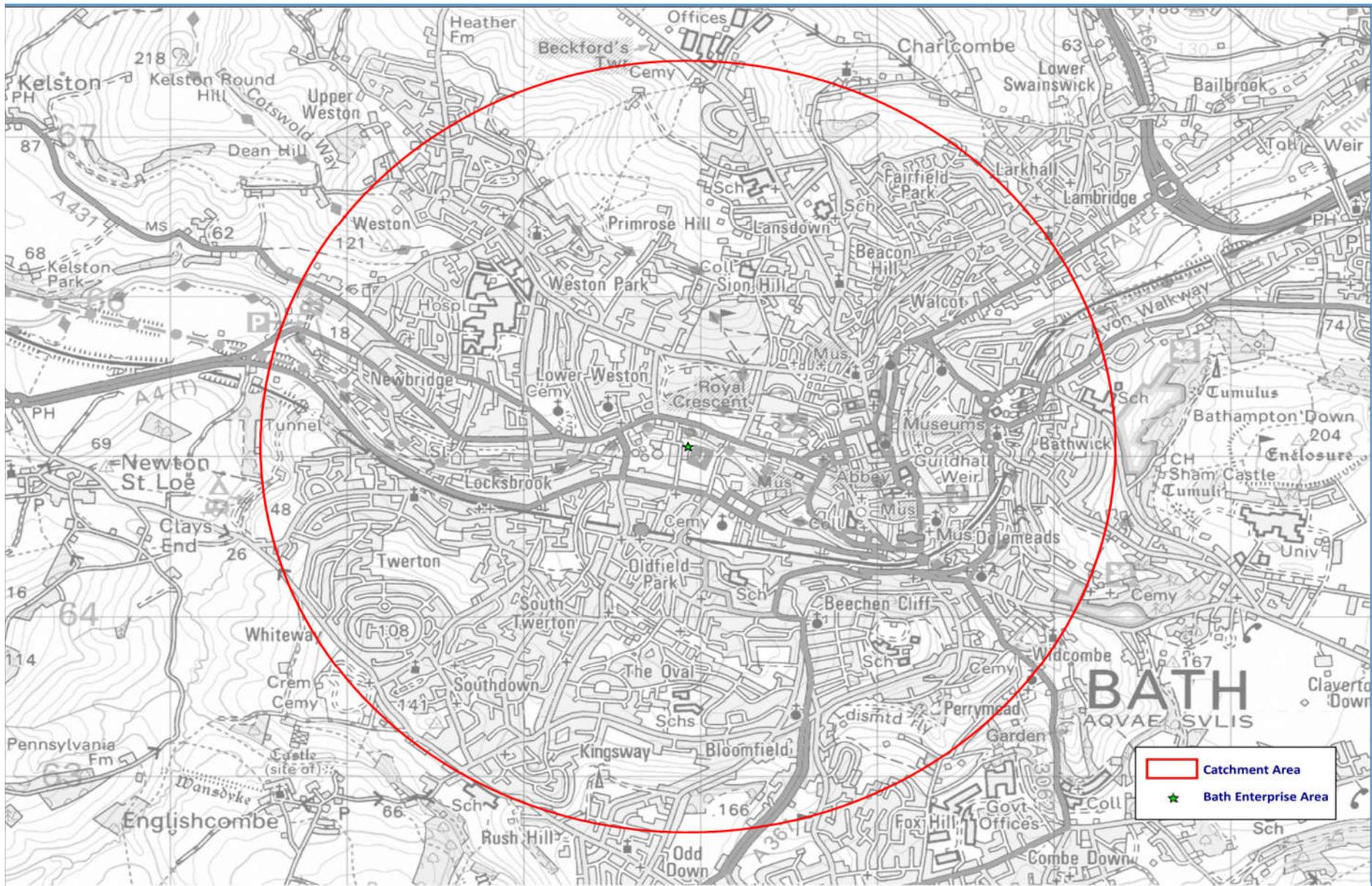
Project Name		Employer Grants (BA03)	
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£20,000	BNES	Need Breakdown by Scheme for BA02 to BA04
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	0.2 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
D: Additional Cyclists	59	Access Fund bid	Estimate from Access Fund bid: The Access Fund application suggests that currently there are 30,729 people commuting to work, using cycling as a mode of transport in the West of England region. The 2011 Census Travel to Work Analysis suggests that 9.4% of all cycling based commuters are based in BANES. This suggests that currently there are 2,880 people commuting to work in BANES using cycling as a mode of transport. The Access Fund application suggests that revenue based funding in the West of England region could result in a 2.05% per annum growth in commuter cycling. Considering the baseline of 2,880 cycling commuters, the employer grants (along with other complementary revenue expenditure from Access Fund) would lead to 59 additional cyclists (in one year)
E. Per capita cycling expenditure p.a.: commuters	£505	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Commuter expenditure on bicycles and accessories
F. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
G. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
H. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	G/F
I. Total Cycle Expenditure Triggered by Scheme	£29,873	Estimate	D*E
J. Forecast new cycle sales jobs:	0.24	Estimate	I/H
K. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
L. Forecast additional GVA	£6,850	Estimate	J*K

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£8,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	0.2	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£6,800	Estimate	

Project Name	Cycle Link Mop Up (BA04)		
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£10,000	BNES	Need Breakdown by Scheme for BA02 to BA04
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	0.1 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
Current Commuter Analysis			
D. Project's catchment area definition (miles)	3.0	National Travel Survey (2015); Table NTS0306	Average bicycle trip length (buffer assumes 1.5 miles each side); also appropriate for schools based on weighted average education cycling trip (2.6km = 1.6 miles) from Access West analysis.
E: Commuters in catchment area	34,872	ONS, Census 2011	Economically Active
F: % of Commuters in catchment area who cycle	2.9%	ONS, Census 2011	Mode Split for Bath and North East Somerset
G: Baseline cycling commuters	1,005	Estimate	E*F
Current Education Analysis			
H: Current Primary School Population	2,998	ONS, Census 2011	5-9 year olds
I: Current Secondary School Population	3,643	ONS, Census 2011	10-15 year olds
J: Proportion of Primary School Population who Cycle	3.4%	Access Fund	Based on combination of CENSUS and LA data
K: Proportion of Secondary School Population who Cycle	4.6%	Access Fund	Based on combination of CENSUS and LA data
L: Baseline cycling for Primary Education	103	Estimate	H*J
M: Baseline cycling for Secondary Education	167	Estimate	I*K
N: Baseline cycling education	270	Estimate	L+M
Uplift in Current Commuter and Education Cyclists			
O. Percentage increase in cycling as a result of the project: commuters	110%	Access Fund	Access fund application suggests 8.6% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same
P. Percentage increase in cycling as a result of the project: education	42%	Access Fund	Access fund application suggests 3.94% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same
Q. Project's catchment area additional commuters: post investment	1,107	Estimate	G*O
R. Project's catchment area additional education cyclists: post investment	112	Estimate	N*P
Future Residential Development: Commuters			
S. Future housing development	3,400	BANES	BATH CITY RIVERSIDE ENTERPRISE AREA MASTERPLAN 2014-2029 MASTERPLAN VISION REPORT
T. Average household size	2.3	ONS, Census 2011, Table H01UK	2011 Census: Households with at least one usual resident, household size and average household size, local authorities in the United Kingdom
U. Baseline population at new development	7,820	Estimate	S*T
V. Population in employment as proportion of total population	52%	Estimate	E/AA
W. Baseline population in employment at new development	4,030	Estimate	U*V
X. Baseline population who commute via cycling at new devt	116	Estimate	F*W
Y. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same uplift applies as identified above - i.e. the intervention will result in the same scale of uplift in cycling at new devts as at existing devts.
Z. Additional commuter cyclists at new development	128	Estimate	X*Y
Future Residential Development: Education			
AA. Current Population in catchment	67,666	ONS, Census 2011	
AB. Current Proportion of population primary school aged	4%	Estimate	H/AA
AC. Current Proportion of population secondary school aged	5%	Estimate	I/AA
AD. Baseline primary school population at new development	346	Estimate	U*AB

AE. Baseline secondary school population at new development	421	Estimate	U*AC
AF. Baseline primary school population who cycle at new devt	12	Estimate	J*AD
AG. Baseline secondary school population who cycle at new devt	19	Estimate	K*AE
AH. Baseline school population who cycle at new development	31	Estimate	AF+AG
AI. School Uplift Factor	42%	Professional Judgement	Assumed the same uplift applies as identified above - i.e. the intervention will result in the same scale of uplift in cycling at new devts as at existing devts.
AJ. Additional school cyclists at new development	13	Estimate	AH*AI
Future Employment Development: Commuters			
AK. Future Employment Development (jobs)	9,000	BANES	BATH CITY RIVERSIDE ENTERPRISE AREA MASTERPLAN 2014-2029 MASTERPLAN VISION REPORT
AL. Baseline Commuter Cyclists at New Development	259	Estimate	F*AK
AM. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same uplift applies as identified above - i.e. the intervention will result in the same scale of uplift in cycling at new devts as at existing devts.
AN. Additional Commuter Cyclists at New Development	286	Estimate	AL*AM
Total Cycling Impact			
AO. Current and future commuter cyclist uplift estimate	1,521	Estimate	Q+Z+AN
AP. Current and future education cyclist uplift estimate	125	Estimate	R+AJ
Expenditure and Economic Impact			
AQ. Per capita cycling expenditure p.a.: commuters	£505	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Commuter expenditure on bicycles and accessories
AR. Per capita cycling expenditure p.a.: education	£430	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Family expenditure on bicycles and accessories
AS. Forecast additional expenditure p.a.: commuters	£767,937	Estimate	AO*AQ
AT. Forecast additional expenditure p.a.: education	£53,919	Estimate	AP*AR
AU. Forecast additional expenditure p.a.: total	£821,856	Estimate	AS+AT
AV. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
AW. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
AX. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	AW/AV
AY. Total Cycle Expenditure Triggered by Scheme	£821,856	Estimate	AS+AT
AZ. Forecast new cycle sales jobs:	6.6	Estimate	AY/AX
BA. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
BB. Forecast additional GVA	£188,470	Estimate	AZ*BA

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£4,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	0.1	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£3,400	Estimate	



Project Name		Cycle Link Mop Up (BA04)	
Construction stage impacts		Estimate	Source
A. Project costs	£10,000	BNES	Need Breakdown by Scheme for BA02 to BA04
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	0 FTEs	Estimate	C = A/B
Operational impacts		Estimate	Source
D. Bath Enterprise Area Total Development Costs	£1,000,000,000	Bath City Riverside Enterprise Area Masterplan	
E. Bath Enterprise Area Total Infrastructure Costs	£69,470,000	BNES	
F. Proportional Scheme Cost	0.01%	Estimate	F = A/E
G. Bath Enterprise Area Total Jobs Created	9,000	Bath City Riverside Enterprise Area Masterplan	
H. Proportional Jobs Created due to Scheme	1.3	Estimate	H = G*F
I. Per employee GVA in BNES	£53,273	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices)
J. Proportionate GVA impact of Scheme	£69,016	Estimate	J = I*H

Project Name		Safer Routes to School (BA05)	
Construction stage impacts		Estimate	Source
Operational impacts		Estimate	Comments
A. Project costs	£125,000	BANES	This is the total of funding sought plus match funding
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	1.4 FTEs	Estimate	A/B
D: Current Primary School Population	11,689		Access Fund Bid 5-9 year olds
E: Current Secondary School Population	11,390		Access Fund Bid 10-15 year olds
F: Proportion of Primary School Population who Cycle	3.4%	Access Fund	Based on combination of CENSUS and LA data
G: Proportion of Secondary School Population who Cycle	4.6%	Access Fund	Based on combination of CENSUS and LA data
H: Baseline cycling for Primary Education	403	Estimate	D*F
I: Baseline cycling for Secondary Education	522	Estimate	E*G
J. Percentage increase in cycling as a result of the project: education	42%	Access Fund	Access fund application suggests 3.94% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for ten years. Compounded, this reflects ten year growth >40%.
K. New Cyclists post investment	385	Estimate - One year of growth applied to baseline position	(H+I)*J
L. Per capita cycling expenditure p.a.: education	£430	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Family expenditure on bicycles and accessories
M. Forecast additional expenditure p.a.: education	£165,402	Estimate	K*L
N. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
O. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
P. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	O/N
Q. Total Cycle Expenditure Triggered by Scheme	£165,402	Estimate	M
R. Forecast new cycle sales jobs:	1.3	Estimate	Q/P
S. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
T. Forecast additional GVA	£37,930	Estimate	R*S

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£50,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	1.2	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£42,500	Estimate	

Project Name			
Weston-super-Mare Town Centre Regeneration (NSC01)			
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£700,000	NSC	Regent Street cost is adopted
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	7.8 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
D. Total operational stage jobs facilitated by wider town centre improvements scheme	125	Town Centre, Weston-super-Mare' business case	Pivoting from 'spillover' jobs figure
E. Cost of improvement works specified in 'Town Centre, Weston-super-Mare' business case	£2,057,500	Town Centre, Weston-super-Mare' business case	Capital and revenue spend profile
F. Total cost of complementary town centre improvement package,	£4,207,500	Derived	A+E, plus £1.2m for South Parade and £250k for Spider Lane (future improvements, as advised by NSC)
G. Proportional cost of NSC01 scheme	17%	Derived	A/F
H. Proportional operational stage jobs facilitated by NSC01 scheme	20.8	Derived	D*G
I. GVA per employee benchmark	£28,356	ONS Regional and Subregional Productivity January 2017 release, ABS	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted by retail GVA at a national level from ABS
J. GVA attributable to scheme	£589,690	Derived	H*I

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£280,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	6.6	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£238,000	Estimate	

Coastal Towns Cycle Route: Uphill Road North (NSC02)			
Project Name			
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£32,500	NSC	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	0.4 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
D. Forecast other (leisure) cycle-related jobs generated by scheme	17	Coastal Towns Cycle Route Report	
E. Total Coastal Towns Cycle Route cost	£2,680,000	Coastal Towns Cycle Route Report	
F. Proportional cost of Scheme	1.2%	Estimate	F = A/E
G. Proportional new cycle-related jobs generated by scheme	0.2	Estimate	G = D*F
H. GVA per employee	£53,273	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices)
I. Forecast additional GVA	£10,983	Estimate	I = G*H

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£13,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	0.3	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£11,050	Estimate	

Project Name		Rupert Street Bus Priority	
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£200,000	BCC, WoE LGF Shortlist	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	2.2 FTEs	Estimate	
Operational impacts	Estimate	Source	Comments
D. Pre and Post-Scheme 24 hour bus pax flow	29,500	Based on expanded data from GBATS4M model	
E. Pre-Scheme average vehicle delay (secs)	45	GBATS4M estimate	
F. Post-Scheme average delay (secs)	30	GBATS4M estimate	
G. Average bus passenger saving (secs)	15	Derived	G = E-F
H. Journey Time Savings (£, 13 Year Appraisal)	£2,716,196	Estimate	Estimate discounted benefit stream
I. Journey Time Saving per New Job Benchmark	£397,374	Benchmark from MetroWest experience	Based on JTS per gross job created, calculated as part of MetroWest Phase 1 & 2 business case development
J. Number of New Jobs Created	6.8	Estimate	J = H / I
K. Per employee GVA in Bristol	£48,200	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bristol (2015 prices)
L. GVA impact of the project	£329,465	Estimate	L = J*K

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£80,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	1.9	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£68,000	Estimate	

Access to Arena - Albert Road and Victor Street (BS02)			
Project Name	Estimate	Source	Comments
Construction stage impacts			
A. Project costs	£800,000	BCC	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	8.9 FTEs	Estimate	C = A/B
Operational impacts			
D. Arena (Former Diesel Depot) Masterplan costs, including River Walkway	£110,084,004	HCA Green Book Appraisal for Infrastructure Investments of the Former Diesel Depot	All infrastructure costs for the preferred option (Option 2a, including cost of arena, excluding any cost of finance). Albert Road/Victor Street infrastructure is additional, as is the £1m match funding for complementary measures (not part of the Albert Road/Victor Street scheme explicitly); therefore additional costs added
E. Total costs for River Avon Path	£800,000	BCC	
F. River Avon Path costs as a percentage of total project costs for Arena Masterplan	0.7%	Estimate (derived)	G = F / D
G. Employment impact of Arena Masterplan	4,063	HCA Green Book Appraisal for Infrastructure Investments of the Former Diesel Depot	Outputs forecast for the preferred option.
H. Proportionate employment impact of the Albert Road/Victor Road	30	Estimate (derived)	I = H x G
I. Per employee GVA in Bristol	£48,200	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bristol (2015 prices)
J. Proportionate GVA impact of River Avon Path	£1,423,180	Estimate (derived)	K = I x J

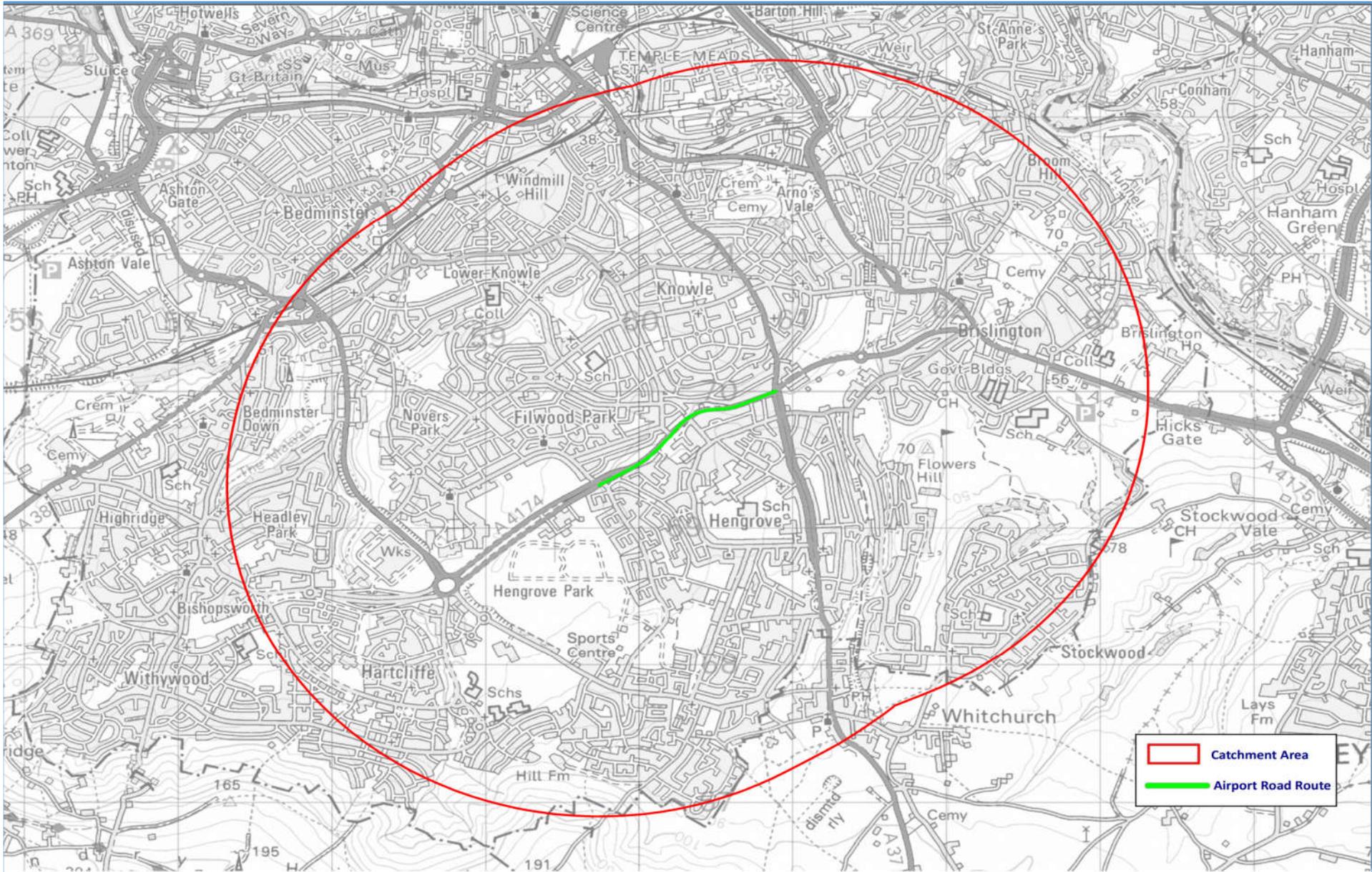
Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£320,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	7.6	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£272,000	Estimate	

Project Name		Airport Road Cycle Path (BS03)	
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£75,000	SGC	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	0.8 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
Current Commuter Analysis			
D. Project's catchment area definition (miles)	3.0	National Travel Survey (2015); Table NTS0306	Average bicycle trip length (buffer assumes 1.5 miles each side); also appropriate for schools based on weighted average education cycling trip (2.6km = 1.6 miles) from Access West analysis.
E: Commuters in catchment area	50,798	ONS, Census 2011	Economically Active
F: % of Commuters in catchment area who cycle	7.5%	ONS, Census 2011	Mode Split for Bristol
G: Baseline cycling commuters	3,804	Estimate	E*F
Current Education Analysis			
H: Current Primary School Population	5,675	ONS, Census 2011	5-9 year olds
I: Current Secondary School Population	6,578	ONS, Census 2011	10-15 year olds
J: Proportion of Primary School Population who Cycle	2.0%	Access Fund	Based on combination of CENSUS and LA data
K: Proportion of Secondary School Population who Cycle	5.0%	Access Fund	Based on combination of CENSUS and LA data
L: Baseline cycling for Primary Education	113	Estimate	H*J
M: Baseline cycling for Secondary Education	329	Estimate	I*K
N: Baseline cycling education	442	Estimate	L+M
Uplift in Current Commuter and Education Cyclists			
O. Percentage increase in cycling as a result of the project: commuters	110%	Access Fund	Access fund application suggests 8.6% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
P. Percentage increase in cycling as a result of the project: education	42%	Access Fund	Access fund application suggests 3.94% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
Q. Project's catchment area additional commuters: post investment	4,189	Estimate	G*O
R. Project's catchment area additional education cyclists: post investment	184	Estimate	N*P
Future Residential Development: Commuters			
S. Future housing development	1,200	BCC	Scale of homes proposed at the designated Housing Zone of Hengrove
T. Average household size	2.3	ONS, Census 2011, Table H01UK	2011 Census: Households with at least one usual resident, household size and average household size, local authorities in the United Kingdom
U. Baseline population at new development	2,760	Estimate	S*T
V. Population in employment as proportion of total population	132%	Estimate	E/AA
W. Baseline population in employment at new development	3,631	Estimate	U*V
X. Baseline population who commute via cycling at new devt	272	Estimate	F*W
Y. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same SUSTRANS uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
Z. Additional commuter cyclists at new development	299	Estimate	X*Y
Future Residential Development: Education			
AA. Current Population in catchment	38,613	ONS Census, 2011	
AB. Current Proportion of population primary school aged	15%	Estimate	H/AA

AC. Current Proportion of population secondary school aged	17%	Estimate	I/AA
AD. Baseline primary school population at new development	406	Estimate	U*AB
AE. Baseline secondary school population at new development	470	Estimate	U*AC
AF. Baseline primary school population who cycle at new devt	8	Estimate	J*AD
AG. Baseline secondary school population who cycle at new devt	24	Estimate	K*AE
AH. Baseline school population who cycle at new development	32	Estimate	AF+AG
AI. School Uplift Factor	42%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AJ. Additional school cyclists at new development	13	Estimate	AH*AI
Future Employment Development: Commuters - Hengrove assumed to be resi-led, no employment			
AK. Future Employment Development (jobs)		Emersons Green Enterprise Area Estimate	Based on conservative estimate, i.e. low end of the range 4,000-7,000
AL. Baseline Commuter Cyclists at New Development		Estimate	F*AK
AM. Commuter Uplift Factor		Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AN. Additional Commuter Cyclists at New Development		Estimate	AL*AM
Total Cycling Impact			
AO. Current and future commuter cyclist uplift estimate	4,489	Estimate	Q+Z+AN
AP. Current and future education cyclist uplift estimate	197	Estimate	R+AJ
Expenditure and Economic Impact			
AQ. Per capita cycling expenditure p.a.: commuters	£505	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Commuter expenditure on bicycles and accessories
AR. Per capita cycling expenditure p.a.: education	£430	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Family expenditure on bicycles and accessories
AS. Forecast additional expenditure p.a.: commuters	£2,266,920	Estimate	AO*AQ
AT. Forecast additional expenditure p.a.: education	£84,669	Estimate	AP*AR
AU. Forecast additional expenditure p.a.: total	£2,351,589	Estimate	AS+AT
AV. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
AW. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
AX. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	AW/AV
AY. Total Cycle Expenditure Triggered by Scheme	£2,351,589	Estimate	AS+AT
AZ. Forecast new cycle sales jobs:	19.0	Estimate	AY/AX

BA. GVA per employee	£25,655	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bristol (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
BB. Forecast additional GVA	£487,918	Estimate	AZ*BA
Proportionality			
BC. Total Scheme Costs	£800,000	BCC	This round of LGF funding is for design works only. The £800k figure is a high level, indicative estimate for completion of the Scheme, as provided by BCC.
BD. Proportional Cost of this Stage of Works	9%	Estimate	A/BC
BE. Proportional forecast new cycle sales jobs	1.8	Estimate	AZ*BD
BF. Proportional forecast additional GVA	£45,742	Estimate	BB*BD

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£30,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	0.7	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£25,500	Estimate	



Project Name	Yate Spur (SGC01a)		
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£430,000	SGC	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	5 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
Current Commuter Analysis			
D. Project's catchment area definition (miles)	3.0	National Travel Survey (2015); Table NTS0306	Average bicycle trip length (buffer assumes 1.5 miles each side); also appropriate for schools based on weighted average education cycling trip (2.6km = 1.6 miles) from Access West analysis. Also extends out to cover wider East Fringe commuting to Yate
E: Commuters in catchment area	21,041	ONS, Census 2011	Economically Active
E(i): Commuters outside catchment area travelling from East Fringe to Yate	19	ONS, Census 2011	JtW Movements
E(ii): Commuters outside catchment area travelling from Yate to Bristol	30	ONS, Census 2011	JtW Movements
F: % of Commuters in catchment area who cycle	3.9%	ONS, Census 2011	Mode Split for South Gloucestershire
G: Total baseline cycling commuters	862	Estimate	(E*F)+E(i)+E(ii)
Current Education Analysis			
H: Current Primary School Population	2,476	ONS, Census 2011	5-9 year olds
I: Current Secondary School Population	3,047	ONS, Census 2011	10-15 year olds
J: Proportion of Primary School Population who Cycle	6.7%	Access Fund	Based on combination of CENSUS and LA data
K: Proportion of Secondary School Population who Cycle	4.6%	Access Fund	Based on combination of CENSUS and LA data
L: Baseline cycling for Primary Education	165	Estimate	H*J
M: Baseline cycling for Secondary Education	140	Estimate	I*K
N: Baseline cycling education	305	Estimate	L+M
Uplift in Current Commuter and Education Cyclists			
O. Percentage increase in cycling as a result of the project: commuters	110%	Access Fund	Access fund application suggests 8.6% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
P. Percentage increase in cycling as a result of the project: education	42%	Access Fund	Access fund application suggests 3.94% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
Q. Project's catchment area additional commuters: post investment	949	Estimate	G*O
R. Project's catchment area additional education cyclists: post investment	127	Estimate	N*P
Future Residential Development: Commuters			
S. Future housing development	2,600	SGC	Inferred from BNP Paribas 'ASSESSMENT OF DELIVERY OF HOUSING SITES AS AT NOVEMBER 2016'
T. Average household size	2.4	ONS, Census 2011, Table H01UK	2011 Census: Households with at least one usual resident, household size and average household size, local authorities in the United Kingdom
U. Baseline population at new development	6,240	Estimate	S*T
V. Population in employment as proportion of total population	54%	Estimate	E/AA

W. Baseline population in employment at new development	3,400	Estimate	U*V
X. Baseline population who commute via cycling at new devt	131	Estimate	F*W
Y. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
Z. Additional commuter cyclists at new development	145	Estimate	X*Y
Future Residential Development: Education			
AA. Current Population in catchment	38,613	ONS Census, 2011	
AB. Current Proportion of population primary school aged	6%	Estimate	H/AA
AC. Current Proportion of population secondary school aged	8%	Estimate	I/AA
AD. Baseline primary school population at new development	400	Estimate	U*AB
AE. Baseline secondary school population at new development	492	Estimate	U*AC
AF. Baseline primary school population who cycle at new devt	27	Estimate	J*AD
AG. Baseline secondary school population who cycle at new devt	23	Estimate	K*AE
AH. Baseline school population who cycle at new development	49	Estimate	AF+AG
AI. School Uplift Factor	42%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AJ. Additional school cyclists at new development	20	Estimate	AH*AI
Future Employment Development: Commuters			
AK. Future Employment Development (jobs)	4,000	Emersons Green Enterprise Area Estimate	Based on conservative estimate, i.e. low end of the range 4,000-7,000
AL. Baseline Commuter Cyclists at New Development	154	Estimate	F*AK
AM. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AN. Additional Commuter Cyclists at New Development	170	Estimate	AL*AM
Total Cycling Impact			
AO. Current and future commuter cyclist uplift estimate	1,263	Estimate	Q+Z+AN
AP. Current and future education cyclist uplift estimate	147	Estimate	R+AJ
Expenditure and Economic Impact			
AQ. Per capita cycling expenditure p.a.: commuters	£505	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Commuter expenditure on bicycles and accessories
AR. Per capita cycling expenditure p.a.: education	£430	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Family expenditure on bicycles and accessories
AS. Forecast additional expenditure p.a.: commuters	£638,034	Estimate	AO*AQ

AT. Forecast additional expenditure p.a.: education	£63,301	Estimate	AP*AR
AU. Forecast additional expenditure p.a.: total	£701,335	Estimate	AS+AT
AV. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
AW. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
AX. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	AW/AV
AY. Total Cycle Expenditure Triggered by Scheme	£701,335	Estimate	AS+AT
AZ. Forecast new cycle sales jobs:	6	Estimate	AY/AX
BA. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
BB. Forecast additional GVA	£160,831	Estimate	AZ*BA
Proportionality			
BC. Total Scheme Costs	£1,150,000	SGC	The scheme is only a subset of the total scheme and therefore only represents a proportion of the total scheme costs.
BD. Elemental Scheme Costs	£430,000	SGC	
BE. Proportional Cost of this Stage of Works	37%	Estimate	BD/BC
BF. Forecast total new jobs attributable to scheme	2.12	Estimate	AZ*BE
BG. Forecast additional GVA attributable to scheme	£60,137	Estimate	AO = AJ*AM

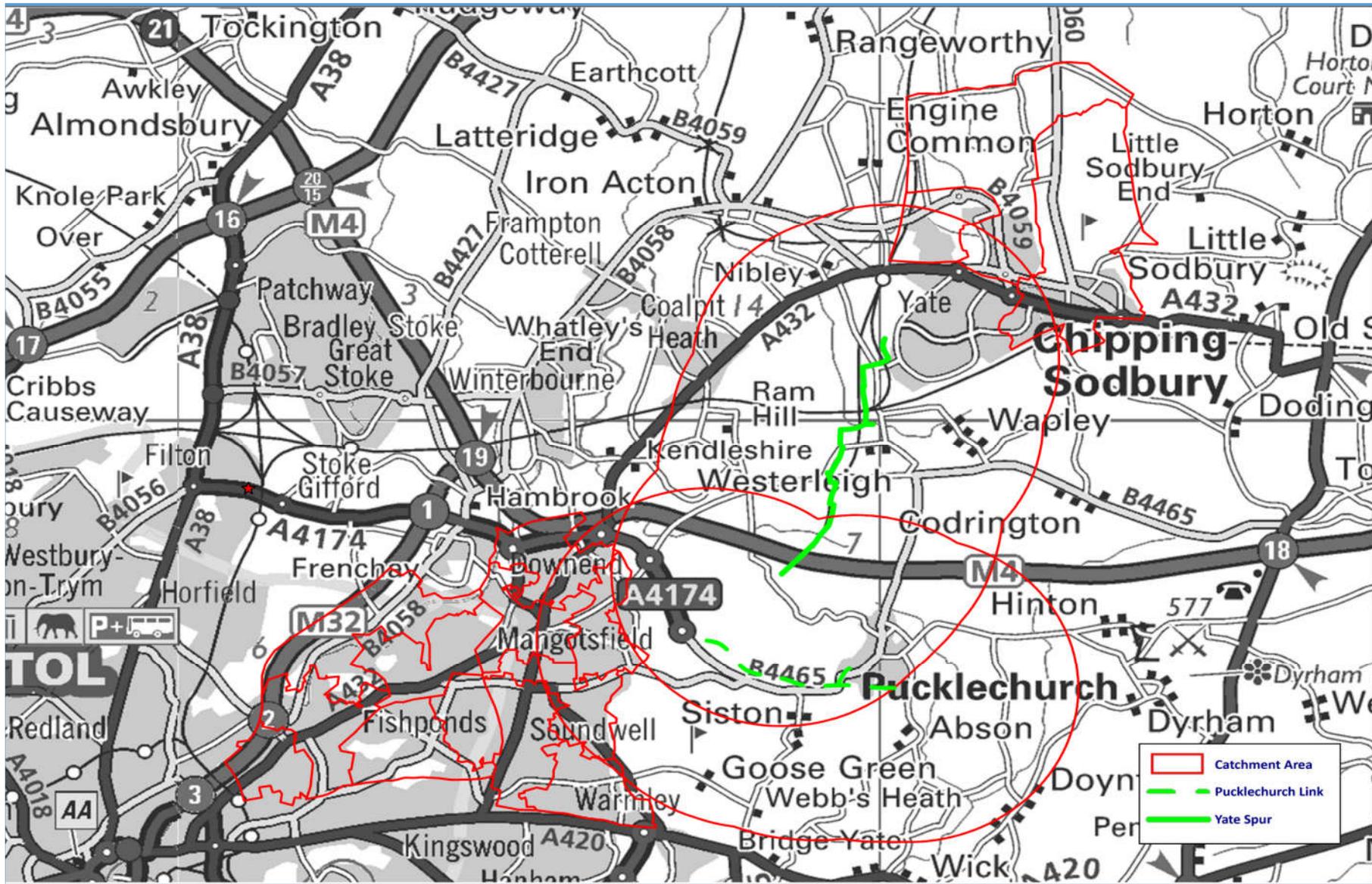
Project Name	Pucklechurch Link (SGC01b)		
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£30,000	SGC	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	0 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
Current Commuter Analysis			
D. Project's catchment area definition (miles)	3.0	National Travel Survey (2015); Table NTS0306	Average bicycle trip length (buffer assumes 1.5 miles each side); also appropriate for schools based on weighted average education cycling trip (2.6km = 1.6 miles) from Access West analysis.
E: Commuters in catchment area	9,867	ONS, Census 2011	Economically Active
F: % of Commuters in catchment area who cycle	3.9%	ONS, Census 2011	Mode Split for South Gloucestershire
G: Baseline cycling commuters	381	Estimate	E*F
Current Education Analysis			
H: Current Primary School Population	1,051	ONS, Census 2011	5-9 year olds
I: Current Secondary School Population	1,369	ONS, Census 2011	10-15 year olds
J: Proportion of Primary School Population who Cycle	6.7%	Access Fund	Based on combination of CENSUS and LA data
K: Proportion of Secondary School Population who Cycle	4.6%	Access Fund	Based on combination of CENSUS and LA data
L: Baseline cycling for Primary Education	70	Estimate	H*J
M: Baseline cycling for Secondary Education	63	Estimate	I*K
N. Baseline cycling education	133	Estimate	L+M
Uplift in Current Commuter and Education Cyclists			
O. Percentage increase in cycling as a result of the project: commuters	110%	Access Fund	Access fund application suggests 8.6% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
P. Percentage increase in cycling as a result of the project: education	42%	Access Fund	Access fund application suggests 3.94% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
Q. Project's catchment area additional commuters: post investment	420	Estimate	G*O
R. Project's catchment area additional education cyclists: post investment	55	Estimate	N*P
Future Residential Development: Commuters			
S. Future housing development			
T. Average household size	2.4	ONS, Census 2011, Table H01UK	2011 Census: Households with at least one usual resident, household size and average household size, local authorities in the United Kingdom
U. Baseline population at new development	0	Estimate	S*T
V. Population in employment as proportion of total population	26%	Estimate	E/AA
W. Baseline population in employment at new development	0	Estimate	U*V
X. Baseline population who commute via cycling at new devt	0	Estimate	F*W

Y. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
Z. Additional commuter cyclists at new development	0	Estimate	X*Y
Future Residential Development: Education			
AA. Current Population in catchment	38,613	ONS Census, 2011	
AB. Current Proportion of population primary school aged	3%	Estimate	H/AA
AC. Current Proportion of population secondary school aged	4%	Estimate	I/AA
AD. Baseline primary school population at new development	0	Estimate	U*AB
AE. Baseline secondary school population at new development	0	Estimate	U*AC
AF. Baseline primary school population who cycle at new devt	0	Estimate	J*AD
AG. Baseline secondary school population who cycle at new devt	0	Estimate	K*AE
AH. Baseline school population who cycle at new development	0	Estimate	AF+AG
AI. School Uplift Factor	42%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AJ. Additional school cyclists at new development	0	Estimate	AH*AI
Future Employment Development: Commuters			
AK. Future Employment Development (jobs)			
AL. Baseline Commuter Cyclists at New Development	0	Estimate	F*AK
AM. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AN. Additional Commuter Cyclists at New Development	0	Estimate	AL*AM
Total Cycling Impact			
AO. Current and future commuter cyclist uplift estimate	420	Estimate	Q+Z+AN
AP. Current and future education cyclist uplift estimate	55	Estimate	R+AJ
Expenditure and Economic Impact			
AQ. Per capita cycling expenditure p.a.: commuters	£505	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Commuter expenditure on bicycles and accessories
AR. Per capita cycling expenditure p.a.: education	£430	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Family expenditure on bicycles and accessories
AS. Forecast additional expenditure p.a.: commuters	£211,896	Estimate	AO*AQ
AT. Forecast additional expenditure p.a.: education	£23,751	Estimate	AP*AR
AU. Forecast additional expenditure p.a.: total	£235,647	Estimate	AS+AT

AV. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
AW. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
AX. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	AW/AV
AY. Total Cycle Expenditure Triggered by Scheme	£235,647	Estimate	AS+AT
AZ. Forecast new cycle sales jobs:	2	Estimate	AY/AX
BA. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
BB. Forecast additional GVA	£54,039	Estimate	AZ*BA
Proportionality			
BC. Total Scheme Costs	£230,000	SGC	This round of LEP funding is for design works/land purchase only only (£230k). The £230k figure is a high level, indicative estimate for completion of the Scheme, as provided by SGC.
BD. Elemental Scheme Costs	£30,000	SGC	
BE. Proportional Cost of this Stage of Works	13%	Estimate	BD/BC
BF. Proportional forecast new cycle sales jobs	0.2	Estimate	AZ*BE
BG. Proportional forecast additional GVA	£7,049	Estimate	BB*BE

Project Name	Yate Spur and Pucklechurch Link (SGC01)		
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£460,000	SGC	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	5.1 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
Yate Spur Impacts			
A. Forecast total new jobs attributable to scheme	2.1	Estimate	Yate Spur Calcs
B. Forecast additional GVA attributable to scheme	£60,137	Estimate	Yate Spur Calcs
Pucklechurch Link Impacts			
C. Forecast total new jobs attributable to scheme	0.2	Estimate	Pucklechurch Calcs
D. Forecast additional GVA attributable to scheme	£7,049	Estimate	Pucklechurch Calcs
Total Impacts			
E. Forecast total new jobs attributable to scheme	2.4	Estimate	A+C
F. Forecast additional GVA attributable to scheme	£67,186	Estimate	B+D

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£184,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	4.3	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£156,400	Estimate	



Project Name	Access to Bristol North Fringe Enterprise Area (A38) (SGC02)		
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£80,000	SGC	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	0.9 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
Current Commuter Analysis			
D. Project's catchment area definition (miles)	3.0	National Travel Survey (2015); Table NTS0306	Average bicycle trip length (buffer assumes 1.5 miles each side); also appropriate for schools based on weighted average education cycling trip (2.6km = 1.6 miles) from Access West analysis.
E: Commuters in catchment area	72,100	ONS, Census 2011	Economically Active
F: % of Commuters in catchment area who cycle	3.9%	ONS, Census 2011	Mode Split for South Gloucestershire
G: Baseline cycling commuters	2,784	Estimate	E*F
Current Education Analysis			
H: Current Primary School Population	7,484	ONS, Census 2011	5-9 year olds
I: Current Secondary School Population	9,005	ONS, Census 2011	10-15 year olds
J: Proportion of Primary School Population who Cycle	6.7%	Access Fund	Based on combination of CENSUS and LA data
K: Proportion of Secondary School Population who Cycle	4.6%	Access Fund	Based on combination of CENSUS and LA data
L: Baseline cycling for Primary Education	499	Estimate	H*J
M: Baseline cycling for Secondary Education	412	Estimate	I*K
N. Baseline cycling education	912	Estimate	L+M
Uplift in Current Commuter and Education Cyclists			
O. Percentage increase in cycling as a result of the project: commuters	110%	Access Fund	Access fund application suggests 8.6% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
P. Percentage increase in cycling as a result of the project: education	42%	Access Fund	Access fund application suggests 3.94% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
Q. Project's catchment area additional commuters: post investment	3,066	Estimate	G*O
R. Project's catchment area additional education cyclists: post investment	379	Estimate	N*P
Future Residential Development: Commuters			
S. Future housing development	5,750	SGC	CPNN only
T. Average household size	2.4	ONS, Census 2011, Table H01UK	2011 Census: Households with at least one usual resident, household size and average household size, local authorities in the United Kingdom
U. Baseline population at new development	13,800	Estimate	S*T
V. Population in employment as proportion of total population	54%	Estimate	E/AA
W. Baseline population in employment at new development	7,497	Estimate	U*V
X. Baseline population who commute via cycling at new devt	290	Estimate	F*W

Y. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
Z. Additional commuter cyclists at new development	319	Estimate	X*Y
Future Residential Development: Education			
AA. Current Population in catchment	132,712	ONS Census, 2011	
AB. Current Proportion of population primary school aged	6%	Estimate	H/AA
AC. Current Proportion of population secondary school aged	7%	Estimate	I/AA
AD. Baseline primary school population at new development	778	Estimate	U*AB
AE. Baseline secondary school population at new development	936	Estimate	U*AC
AF. Baseline primary school population who cycle at new devt	52	Estimate	J*AD
AG. Baseline secondary school population who cycle at new devt	43	Estimate	K*AE
AH. Baseline school population who cycle at new development	95	Estimate	AF+AG
AI. School Uplift Factor	42%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AJ. Additional school cyclists at new development	39	Estimate	AH*AI
Future Employment Development: Commuters			
AK. Future Employment Development (jobs)	7,000	Filton Enterprise Area Estimate	Based on conservative estimate, i.e. low end of the range 7,000-12,000
AL. Baseline Commuter Cyclists at New Development	270	Estimate	F*AK
AM. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AN. Additional Commuter Cyclists at New Development	298	Estimate	AL*AM
Total Cycling Impact			
AO. Current and future commuter cyclist uplift estimate	3,683	Estimate	Q+Z+AN
AP. Current and future education cyclist uplift estimate	419	Estimate	R+AJ
Expenditure and Economic Impact			
AQ. Per capita cycling expenditure p.a.: commuters	£505	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Commuter expenditure on bicycles and accessories
AR. Per capita cycling expenditure p.a.: education	£430	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Family expenditure on bicycles and accessories
AS. Forecast additional expenditure p.a.: commuters	£1,859,700	Estimate	AO*AQ
AT. Forecast additional expenditure p.a.: education	£179,990	Estimate	AP*AR
AU. Forecast additional expenditure p.a.: total	£2,039,690	Estimate	AS+AT

AV. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
AW. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
AX. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	AW/AV
AY. Total Cycle Expenditure Triggered by Scheme	£2,039,690	Estimate	AS+AT
AZ. Forecast new cycle sales jobs:	16.5	Estimate	AY/AX
BA. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
BB. Forecast additional GVA	£467,746	Estimate	AZ*BA
Proportionality			
BC. Total Scheme Costs	£3,490,000	SGC	Cost of Almondsbury to Thornbury route and Aztec West to Bristol boundary routes combined
BD. Proportional Route Costs	2.3%	Estimate	A/BC
BE. Attributable new cycle sales jobs	0.4	Estimate	AZ*BD
BF. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
BG. Attributable additional GVA	£10,722	Estimate	AZ*BA

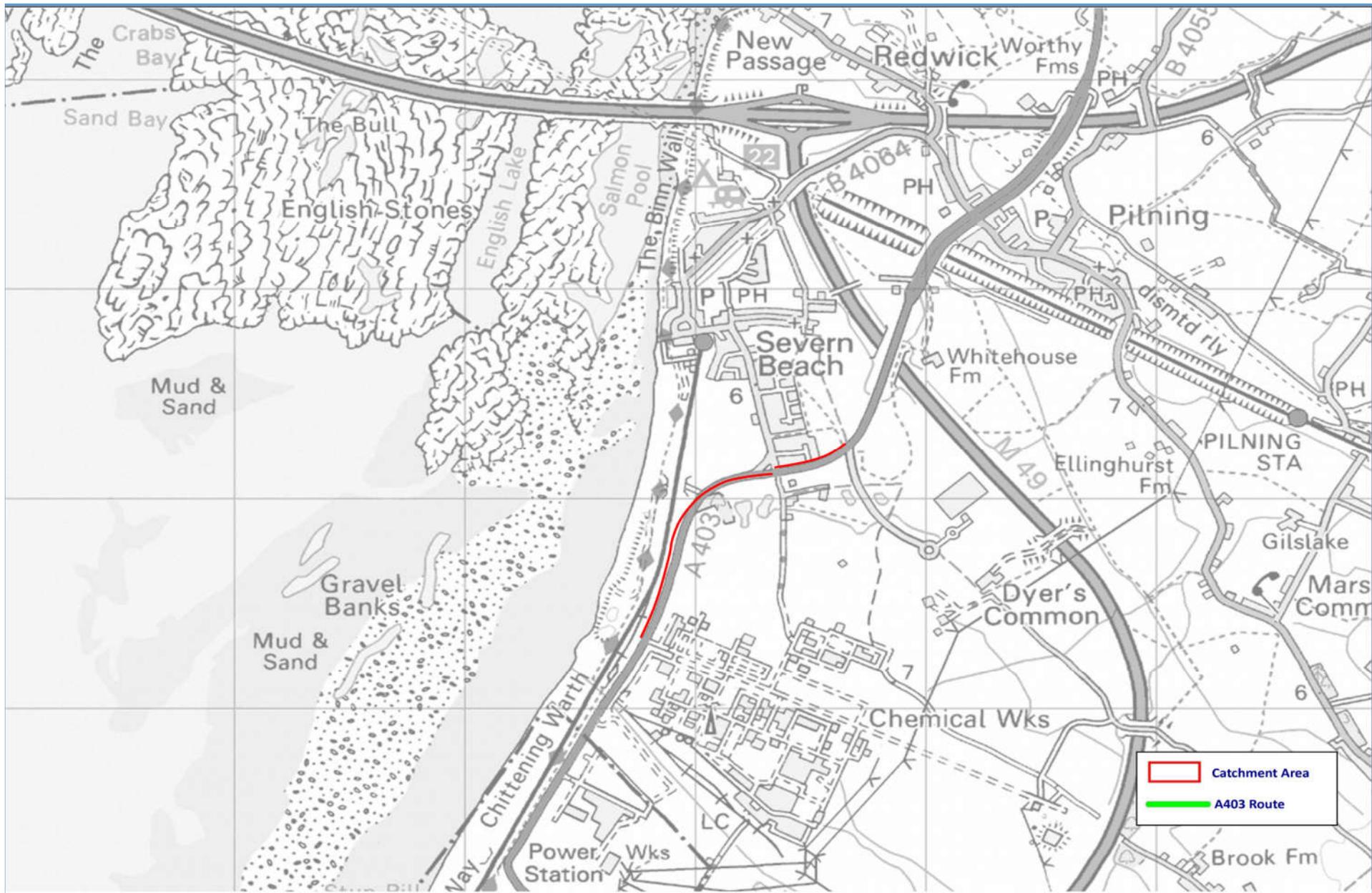
Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£32,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	0.8	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£27,200	Estimate	

Project Name	Access to ASEA (SGC03)		
Construction stage impacts	Estimate	Source	Comments
A. Project costs	£450,000	SGC	
B. Construction cost per job benchmark	£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created	5.0 FTEs	Estimate	C = A/B
Operational impacts	Estimate	Source	Comments
Current Commuter Analysis			
D. Employees at Western Approach Business Park and surrounding employment area	2,589	BRES/2011 Census	Workplace zone data from Census 2011 growthed to 2015 value using growth in LSOA data from BRES (2011 to 2015)
E: Commuters in catchment area	0	ONS, Census 2011	Economically Active
F: % of Employees who cycle	2.8%	ONS, Census 2011	Workplace zone data from Census 2011
G: Baseline cycling commuters	73	Estimate	D*F
Current Education Analysis - N/A for this scheme; commuter focus only			
H: Current Primary School Population		ONS, Census 2011	5-9 year olds
I: Current Secondary School Population		ONS, Census 2011	10-15 year olds
J: Proportion of Primary School Population who Cycle		Access Fund	Based on combination of CENSUS and LA data
K: Proportion of Secondary School Population who Cycle		Access Fund	Based on combination of CENSUS and LA data
L: Baseline cycling for Primary Education		Estimate	H*J
M: Baseline cycling for Secondary Education		Estimate	I*K
N. Baseline cycling education		Estimate	L+M
Uplift in Current Commuter and Education Cyclists			
O. Percentage increase in cycling as a result of the project: commuters	110%	Access Fund	Access fund application suggests 8.6% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
P. Percentage increase in cycling as a result of the project: education	42%	Access Fund	Access fund application suggests 3.94% commuter cycling growth per annum based on historic capital and revenue funding. Continuation of such funding, in the form of this project, will maintain cycling growth in the project's study area at the same levels for
Q. Project's catchment area additional commuters: post investment	80	Estimate	G*O
R. Project's catchment area additional education cyclists: post investment	0	Estimate	N*P
Future Residential Development: Commuters - n/a for this scheme; employment-led devt at ASEA only			
S. Future housing development		SGC	CCPN only
T. Average household size		ONS, Census 2011, Table H01UK	2011 Census: Households with at least one usual resident, household size and average household size, local authorities in the United Kingdom
U. Baseline population at new development		Estimate	S*T
V. Population in employment as proportion of total population		Estimate	E/AA
W. Baseline population in employment at new development		Estimate	U*V
X. Baseline population who commute via cycling at new devt		Estimate	F*W
Y. Commuter Uplift Factor		Professional Judgement	Assumed the same SUSTRANS uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
Z. Additional commuter cyclists at new development		Estimate	X*Y
Future Residential Development: Education - n/a for this scheme; employment-led devt at ASEA only			
AA. Current Population in catchment		ONS Census, 2011	
AB. Current Proportion of population primary school aged		Estimate	H/AA
AC. Current Proportion of population secondary school aged		Estimate	I/AA

AD. Baseline primary school population at new development		Estimate	U*AB
AE. Baseline secondary school population at new development		Estimate	U*AC
AF. Baseline primary school population who cycle at new devt		Estimate	J*AD
AG. Baseline secondary school population who cycle at new devt		Estimate	K*AE
AH. Baseline school population who cycle at new development		Estimate	AF+AG
AI. School Uplift Factor		Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AJ. Additional school cyclists at new development		Estimate	AH*AI
Future Employment Development: Commuters			
AK. Future Employment Development (jobs)	4,670	ASEA - Westgate Development only	Pivots from existing analysis developed for ASEA LEP business case
AL. Baseline Commuter Cyclists at New Development	132	Estimate	F*AK
AM. Commuter Uplift Factor	110%	Professional Judgement	Assumed the same Sustrans uplift applies as identified above - i.e. the intervention will result in a 100% uplift in cycling compared to the baseline position (which is in line with current mode share)
AN. Additional Commuter Cyclists at New Development	145	Estimate	AL*AM
Total Cycling Impact			
AO. Current and future commuter cyclist uplift estimate	226	Estimate	Q+Z+AN
AP. Current and future education cyclist uplift estimate	0	Estimate	R+AJ
Expenditure and Economic Impact			
AQ. Per capita cycling expenditure p.a.: commuters	£505	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Commuter expenditure on bicycles and accessories
AR. Per capita cycling expenditure p.a.: education	£430	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Family expenditure on bicycles and accessories
AS. Forecast additional expenditure p.a.: commuters	£113,932	Estimate	AO*AQ
AT. Forecast additional expenditure p.a.: education	£0	Estimate	AP*AR
AU. Forecast additional expenditure p.a.: total	£113,932	Estimate	AS+AT
AV. Total Cycle Sales Jobs in UK	20,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Sales channels employment
AW. Total Cycle Expenditure in UK	£2,473,000,000	LSE 'The British Cycling Economy' 'Gross Cycling Product' Report	Bicycle and accessories cycle
AX. Cycle Expenditure per Cycle Sales Job	£123,650	Estimate	AW/AV
AY. Total Cycle Expenditure Triggered by Scheme	£113,932	Estimate	AS+AT
AZ. Forecast new cycle sales jobs:	0.9	Estimate	AY/AX

BA. GVA per employee	£28,356	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices); weighted using ABS (2015) to reflect jobs in SIC 47 Retail specifically as jobs based on cycle retail
BB. Forecast additional GVA	£26,127	Estimate	AZ*BA

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£180,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	4.3	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£153,000	Estimate	



Project Name		Bus Lane Enforcement Cameras (SGC04)		
Construction stage impacts		Estimate	Source	Comments
A. Project costs		£240,000	SGC, WoE LGF Shortlist	
B. Construction cost per job benchmark		£90,000	WoE's Impact Guidance Note for Infrastructure Projects	
C. Construction stage impacts: jobs created		2.7 FTEs	Estimate	
Operational impacts		Estimate	Source	Comments
D. Peak and Interpeak Demand		3,520	GBATS3, GBATS 3 NFHP Modelling Report and GBATS4	
E. Weighted Delay Saving (mins)		0.32	GBATS	Volume weighted saving from allowing buses to operate at free flow speed rather than general traffic speed
F. Journey Time Savings (£, 13 Year Appraisal)		£1,727,430	Estimate	Estimate discounted benefit stream
G. Journey Time Saving per New Job Benchmark		£397,374	Benchmark from MetroWest experience	Based on JTS per gross job created, calculated as part of MetroWest Phase 1 & 2 business case development
H. Number of New Jobs Created		4.3	Estimate	$J = H / I$
I. Per employee GVA in BNES		£53,273	ONS Regional and Subregional Productivity January 2017 release	Nominal (smoothed) GVA per filled job (£) for NUTS3 Area: Bath and North East Somerset, North Somerset and South Gloucestershire (2015 prices)
J. GVA impact of the project		£231,584	Estimate	$L = J * K$

Addendum: Indirect Jobs and GVA Impacts of the Construction Stage			
Direct GVA Ratio	0.4	WoE Impact Guidance Note	
Direct GVA Impact	£96,000	Estimate	
Employment Multiplier	0.85	WoE Impact Guidance Note	
Indirect Employment Impact	2.3	Estimate	
Output Multiplier	0.85	WoE Impact Guidance Note	
Indirect GVA Impact	£81,600	Estimate	

Please answer the following questions with your best estimates to obtain a benefit cost ratio of your scheme. By varying your answers you can test the importance of the input data on the overall value for money of your scheme. The answers provided are for the example case study from Appendix B of WebTAG unit A5.1. This case study provides further helpful commentary that users of this tool might want to refer to.

Scheme details

When would the scheme be likely to open?
 What is the last year of initial funding?
 Decay rate (starting from last year of funding)
 WebTAG A5.1 explains - the impacts especially of revenue funded initiatives such as cycle training or personalised travel planning are likely to diminish year by year following the investment. For the case study here this is likely to be conservative.
 Appraisal period (should be the expected asset life, maximum 60) yrs

Costs

Please provide estimates for upfront costs as well as future maintenance costs in the table below. Please enter the full costs of the scheme in the first column and any private sector contribution to those costs in the second. All other funds are assumed to be from local or central Government.
 Please use a constant price base and specify the year here
 Please refer to WebTAG unit A1.2 to set Optimism Bias

Do Nothing scenario

This is what is most likely to happen if the scheme is not implemented. The data could for example be from automatic or manual traffic counts.

Number of cycling journeys per day, average length km and speed kph
 Number of walking journey per day, average length km and speed kph
 Ideally the data is taken from 'average weekday' in spring or autumn to avoid seasonal bias.
 A return trip involves two journeys and would need to be counted as such.
 To identify how many individual users this implies, please estimate the share of journeys that form part of a return trip here:

Do Something scenario

Once your scheme has reached it's full impact (ignoring any initial build up here), how would these figures have changed (due to the intervention)?
 Number of cycling journeys per day, e.g. from automatic or manual cycle count.
 Number of walking journey per day
 For simplicity it is assumed that the length and speed of journeys is largely unaffected by the intervention.

Journey Quality impacts

WebTAG units A5.1 and A4.1 provides guidance, the Databook provides suggested values that users might place on the improved infrastructure your scheme provides. The values are shown in the WebTAG journey quality tab. The improvement over the 'do nothing' scenario should be valued, rather than the absolute level.

For cyclists pence per minute pence per trip (e.g. shower facilities)
 For pedestrians pence per km
 As demonstrated in the case study, these values should take account of the proportion of the average journey that would be made on the improved infrastructure.

Decongestion benefits

What proportion of new users would most likely be using a car in the do nothing scenario?
 for cyclists
 for pedestrians

Which area type from the drop down is most similar to the area your scheme is located in?

Additional information

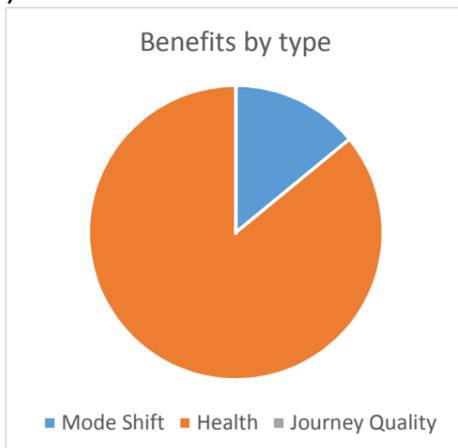
Background Growth
 If you have an estimate of the growth in background use (in both scenarios), please set the annual growth rate
 the period over which this applies years

Number of days in the year that you would expect the above usage figures days p.a.
 In the case study this is assumed to the typical number of working days - but might more appropriately be set to the number of weekdays.

Results

Analysis of Monetised Costs and Benefits (in £'000)

Noise	17.69
Local Air Quality	0.00
Greenhouse Gases	59.84
Journey Quality	0.00
Physical Activity (incl. absenteeism)	6657.25
Accidents	268.97
Decongestion	1074.22
Indirect taxation	-340.09
Private contribution	0.00
Present Value of Benefits (PVB)	7737.88
Present Value of Costs (PVC)	-8.17
Benefit Cost Ratio (BCR)	-947.23



Year	Total scheme costs '000£	3rd party contributions '000£
2009		
2010		
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The case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specific nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Appendix 6 - Sustainable Transport Package Indicative Delivery Programme

Indicative Delivery Programme - LGF programme 17/18 - 18/19

Mobilisation (if required)	M
Detailed Design (if required)	D
NRSWA, consents etc. (if required)	N
Procurement	P
Construction	C
Completion	F

	17/18												18/19			
	April	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
BATH & NORTH EAST SOMERSET																
2 Headed Man Junction	N	P	P	C	C	C	C	F								
BaNES Cycle Investment Package	M	M	D	D	N	N	P	P	C	C	C	F				
Strategic Review Safer Routes to School	M	M	M	D	D	N	N	P	P	C	C	F				
BRISTOL CITY																
Rupert Street widening and bus priority			N	M	C	C	C	F								
Victor Street, Albert Road and surrounds: improved ped and cycle links and coach drop off point for the Arena		D	D	D	D	D	D	D	D	D	P	C	C	C	C	F
Airport Road Walking / Cycling Design Work		M	M	M	M	M	M	D	D	D	D	N	N	N	N	N
NORTH SOMERSET																
Regents Street / South Parade walking, cycling and public transport improvements		M	M	N	N	N	D	D	P	P	P	C	C	C	C	F
Coastal Route		M	M	M	N	N	N	N	N	N	N	D	D	P	P	P
SOUTH GLOUCESTERSHIRE																
Access to Eastern Fringe Enterprise Area - a) Yate Spur b) Pucklechurch Link.				M	C	C	C	D	D	D	D	C	C	C	F	
Access to Bristol North Fringe Enterprise Area - A38				M	D	D	D	N	N	C	C	C	C	C	F	
Access to Severnside - A403 Pedestrian and Cycle Improvements				M	D	D	C	C	C	D	D	D	C	C	F	
Bus Network Enforcement				M	D	N	C	C	C	C	F					

PROGRAMME NAME:		Sustainable Transport Package 17/18							PROGRAMME ID:		-					
PROGRAMME MANAGER:		Douglas Sole							DATE LAST AMENDED:		28/03/2017					
Category: S = Strategic; PG = Programme; PJ = Project; O = Operational										Type: R = Risk; O = Opportunity		Probability/Impact: 4 = Very high; 3 = High; 2 = Medium; 1 = Low				
Priority status/score: Red (12-16); Red/Amber (6-9); Amber/Green (3-4); Green (1-2)										Status: O = Open; C = Closed; R = Referred						
ID	Category	Type	Date Identified	Description (inc. consequence & impact)	Likelihood	Impact	Priority	Countermeasure / Risk response (inc. contingency)	Residual			Risk owner (Initials)*	Risk actioner (Initials)*	Date of last update	Status	
									Likelihood	Impact	Priority					
GENERAL/FINANCIAL																
R001	PG	R	Mar-17	Failure to secure all LGF funding at key milestones causing insufficient funding to complete the programme measures and abortive costs.	3	4	12	REDUCE Close adherence to LGF grant funding requirements. Robust programme and project management to ensure delivery in line with funding profile. Regular liaison and progress reporting to LEP. FALLBACK/TRANSFER Use of local contributions to smooth out year ends, including sub-regional work across the programme to manage under/over spends across tranches and UAs.	2	2	4	SRO	PgM / UA Leads	28/03/2017	O	
R002	PG	R	Mar-17	Insufficient delivery resources available within authorities and partners.	2	3	6	REDUCE 1) Fallback plans for unspent budget. 2) Fallback use of existing frameworks with CH2M.	2	1	3	SRO	PgM / UA Leads	28/03/2017	O	
R005	PG	R	Mar-17	Failure to harness match-funding required to deliver programme measures.	2	2	4	REDUCE 1) Formalise partner, UA and LEP contributions. Involvement of key stakeholders in governance and delivery arrangements. 2) Quarterly analysis of match spend.	1	2	2	SRO	PgM / UA Leads	28/03/2017	O	
STRATEGIC AND POLITICAL																
R006	S	R/O	Mar-17	Other major projects/initiatives (e.g. CAF, Metrobus, RIF) impacting on delivery or effectiveness of LGF due to staff capacity or reputation of sustainable transport.	3	3	9	REDUCE: 1) Plan to ensure work does not conflict. 2) Ensure LGF needs considered alongside other capacity and priorities.	2	2	4	SRO	PgM / UA Leads	28/03/2017	O	
R007	PG	R	Mar-17	Ability to demonstrate impact and value for money of short term programme, when the effects may be long term and after the closure of the programme.	2	3	6	ACCEPT: Ensure M&E plan in place and Evaluation Plans can be easily communicated (eg to the media/public). REDUCE: Ensure M&E plan is adequately resourced.	2	2	4	SRO	PgM / UA Leads	28/03/2017	O	
R008	S	R	Mar-17	Failure to optimise outcomes or inability to measure outputs/benefits due to breadth of programme and number of individual projects.	2	3	6	REDUCE: Agree robust M&E plan with LEP	1	3	3	SRO	PgM / UA Leads	28/03/2017	O	
R009	S	R	Mar-17	Impact on reputation from poor project delivery or outcomes leading to reputational damage with the LEP	2	3	6	AVOID 1) Establish robust governance and project management arrangements 2) Regular liaison and progress reporting to LEP to ensure expectations are met.	2	2	4	SRO	PgM / UA Leads	28/03/2017	O	
R010	S	R/O	Mar-17	Negative coverage in the media of some components of the scheme causing poor public perception of the programme that effects its benefit. Potential loss of political support for some components.	2	2	4	REDUCE Manage expectations with 'smart' targets and be more outcome than target focused. REDUCE/EXPLOIT Development of communications strategy. including timely dialogue with press and scanning projects which may be controversial to ensure defensive briefings immediately available.	2	1	2	SRO	PgM / UA Leads	28/03/2017	O	
R011	S	R	Mar-17	Programme fails to maintain political support during/after May 2017 WECA elections.	1	3	3	REDUCE/ACCEPT 1) Briefing and reporting to UA Members and WECA board as appropriate 2) Maintain cross-party support for the programme and report outcomes to ensure Members are informed. ACCEPT: Reassess post May 2017	1	2	2	SRO	PgM / UA Leads	28/03/2017	O	
R012	S	R	Mar-17	Failure to carry out effective engagement with stakeholders and/or partners including joint working with partners, priority neighbourhoods, Neighbourhood partnerships, Parish/Town Councils and other stakeholders, causing delays and competing priorities.	1	3	3	REDUCE Identify range of stakeholders and best methods of engagement REDUCE ensure prioritisation process in place FALLBACK ensure other options available.	1	2	2	SRO	PgM / UA Leads	28/03/2017	O	
INFRASTRUCTURAL/CONSTRUCTION																

Category: S = Strategic; PG = Programme; PJ = Project; O = Operational

Type: R = Risk; O = Opportunity

Probability/Impact: 4 = Very high; 3 = High; 2 = Medium; 1 = Low

Priority status/score: Red (12-16); Red/Amber (6-9); Amber/Green (3-4); Green (1-2)

Status: O = Open; C = Closed; R = Referred

ID	Category	Type	Date Identified	Description (inc. consequence & impact)	Likelihood	Impact	Priority	Countermeasure / Risk response (inc. contingency)	Residual			Risk owner (Initials)*	Risk actioner (Initials)*	Date of last update	Status
									Likelihood	Impact	Priority				
R014	O	R	Mar-17	Underestimation of scheme costs, leading to cost increases.	2	4	8	REDUCE Develop detailed and costed Project Plans for individual Projects. Benchmarking of costs against previous work and other LAs. Strong Programme Management and change control processes implemented.	2	3	6	SRO	PgM / UA Leads	28/03/2017	O
R015	O	R	Mar-17	Risk of delays due to extreme weather events, leading to increased costs and inability to draw down LGF grant.	4	3	12	REDUCE: 1) Ensure programming/sequencing allows for delays and contingency in place in line with programme manual recommendations. 2) Negotiate budget terms with LEP.	3	2	6	SRO	PgM / UA Leads	28/03/2017	O
R016	O	R	Mar-17	Possible objections to TROs or planning from public or from statutory consultees leading to schemes being delayed or terminated.	1	3	3	REDUCE Secure Positive Member support, early consultants to ascertain likely objections and ensure correct officers in statutory agencies consulted with.	1	2	2	SRO	PgM / UA Leads	28/03/2017	O
R017	O	R	Mar-17	Inability to secure land and/or planning consent for infrastructure schemes within necessary timescales, leading to an impact on funding and failure to deliver the whole programme.	1	3	3	REDUCE 1) Build on existing design, engagement and delivery arrangements for each local authority 2) Involvement of partners, stakeholders and communities in development and implementation of project measures.3) FALLBACK Have alternative routes ready that do not require land/ planning consent. ACCEPT Analysis of schemes and potential permissions required.	1	2	2	SRO	PgM / UA Leads	28/03/2017	O
R018	O	R	Mar-17	Windows for construction associated with environmental constraints constrain programming.	2	2	4	REDUCE: Ensure programming/sequencing allows for seasonal constraints.	1	2	2	SRO	PgM / UA Leads	28/03/2017	O

Risk owner/actioner initials: PGB - Programme Board; PB - Project Board; PMs - Project Managers; JTEC - Joint Transport Executive Committee

Risk responses

- Avoid** - Typically involves changing some aspect of the project i.e. the scope, procurement route, supplier or sequence of activities, so that the threat either can no longer have an impact or can no longer happen.
- Reduce** - Proactive actions taken to: a) reduce the probability of the event occurring, by performing some form of control b) reduce the impact of the event should it occur.
- Fallback** - Putting in place a fallback plan for the actions that will be taken to reduce the impact of the threat should the risk occur. This is a reactive form of the 'reduce' response which has no impact on likelihood.
- Transfer** - A third party takes on responsibility for some of the financial impact of the threat (e.g. through insurance or by means of appropriate clauses in a contract). This is a form of the 'reduce' response which only reduces the financial impact of the threat.
- Accept** - A conscious and deliberate decision is taken to retain the threat, having discerned that it is more economical to do so than to attempt a threat response action. The threat should continue to be monitored to ensure that it remains tolerable.
- Share** - Modern procurement methods commonly entail a form of risk sharing through the application of a pain/gain formula: both parties share the gain (within pre-agreed limits) if the cost is less than the cost plan; and share the pain (again within pre-agreed limits) if the cost-plan is exceeded. Several industries include risk-sharing principles within their contracts with third parties.
- Enhance** - Proactive actions taken to: a) enhance the probability of the event occurring b) enhance the impact of the event should it occur.
- Reject** - A conscious and deliberate decision is taken not to exploit or enhance the opportunity, having discerned that it is more economical not to attempt an opportunity response action. The opportunity should continue to be monitored.

Risk Colour Coding

- Red** - New risk.
- Amber** - Description/countermeasure updated.
- Blue** - Scoring updated.
- Green** - recommended removal.

Scheme: Sustainable Transport Package 17/18

Full Business Case Monitoring & Evaluation Plan

1. Scheme background and context

The Sustainable Transport Package 17/18 will deliver jobs and growth in the West of England region by providing high-quality connections to, and between, our Enterprise Zone and Areas. With major investment being made in local rail and bus through the MetroWest and MetroBus schemes, the programme focusses in on the local-level pinch points that exist within the transport network: improving walking and cycling links, giving greater priority to public transport and creating high quality public spaces that will encourage retail and tourism activity. The programme focusses on sustainable transport as a key driver of growth, recognising that in Bristol and the surrounding area it is often impractical to 'build in' extra road capacity.

The Sustainable Transport Package 17/18 will help the region meet the core objectives of the Joint Local Transport Plan which include:

- Stimulating Growth in Enterprise Areas;
- Promoting Connected and Thriving Centres, and;
- Supporting Transitions to Low Carbon Lifestyles.

The capital grant will supplement investment in sustainable transport measures being made by the West of England authorities, local businesses, transport operators, and from new developments. The West of England authorities will use their extensive experience of delivering cross boundary projects to ensure that the programme is completed on time and to budget, while offering excellent value for money.

The total programme value is £3.8m, of which **£3.3m capital grant is sought from the Local Growth Fund** over 2017/18-2018/19. Works will start onsite from June 2017, with a completion date of July 2018. The key milestones completion dates are summarised below.

Milestone completion dates	Baseline month/year	Actual completion
<i>Full Business Case approval</i>	May 2017	
<i>Programme implementation start</i>	June 2017	
<i>Programme scheme completion</i>	July 2018	
<i>Largest capital component</i>		
<i>Albert Road & Victor Street: improved ped & cycle facilities & coach drop off point</i>		
<i>Start of design works</i>	June 2017	
<i>Complete design works</i>	Jan 2018	
<i>Start of construction</i>	March 2018	
<i>Complete construction</i>	June 2018	

Scheme: Sustainable Transport Package 17/18

Logic Model

Context and Rationale					
<p><i>Provide a brief description of the strategic and policy context (link to local and national strategy policy). Briefly describe the market failure rationale for the intervention.</i></p> <p>Private funding for this project is considered difficult to achieve given that the rail station will provide geographically dispersed benefits and will serve an existing Bristol City Council-owned asset – the bus-based P&R service. The Portway park & ride rail station project will provide open access infrastructure forming part of the local rail based transport network.</p>					
Objectives	Resources/ Input	Activities	Outputs	Direct & Indirect Outcomes	Impact
<p><i>The aims/ objectives of the scheme are: (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: (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: (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: (Provide measurable outputs e.g. length of new road/cycle path, m² 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: (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: (quantitative economic impacts e.g. indirect jobs and/or GVA to be <u>cross-referenced</u> with FBC as appropriate)</i></p>
<ul style="list-style-type: none"> • Provide high quality sustainable transport infrastructure to enhance connectivity to, and between, our Enterprise Zone and Areas. 	<ul style="list-style-type: none"> • Capital investment <ul style="list-style-type: none"> • LGF: £3.300m 2017-2018 • Private and public match-funding: £1.472m 2017-2018 • Planning consent and related approvals • Officer resource to develop and deliver the programme • Input from specialist advisers • Input from elected members and other key stakeholders • Contractor time to deliver construction works 	<ul style="list-style-type: none"> • The programme will need to be progressed through the following stages: <ul style="list-style-type: none"> • FBC approval: 06/17 • Programme start: 06/17 • Programme completion: 07/18 • Largest Capital component: Albert Road and Victor Street <ul style="list-style-type: none"> • Start of design works: 06/17 • Complete design works: 01/18 • Start of construction: 03/18 • Complete construction: 06/18 	<ul style="list-style-type: none"> • Employer Grants <ul style="list-style-type: none"> • Harnessing minimum of 40k of match funding for onsite employer sustainable transport improvements • Design for walk/ped routes <ul style="list-style-type: none"> • Produce 3 detailed designs for ped/cycle routes ready for future delivery. • Albert Road/Victor Street <ul style="list-style-type: none"> • Provide 9 coach drop off points for the Diesel Depot site. • Rupert Street <ul style="list-style-type: none"> • Provide approx.300m of bus priority • Bus Network enforcement <ul style="list-style-type: none"> • 9 camera polls and 5 movable cameras • Cycle/ped schemes <ul style="list-style-type: none"> • Total of 2.75km of new/improved cycle/shared path 	<ul style="list-style-type: none"> • Estimated 10-100% higher rates of walking and cycling along new ped/cycle routes. • Estimated 2% of trips to the Arena to be made by coach following Albert Road improvements • Estimated 15% increase in sustainable modes where business have been supported by match-funded grant • Estimated 50 - 90% fewer non-compliant vehicles using sections of the enforced bus routes in comparison to non-enforced bus routes. SGC anticipate figure will reduce in future years as drivers become accustomed to enforcement. • Reliability of bus services (actual journey times vs timetable) to increase by up to 5% on sections of enforced bus routes compared to non-enforced bus routes. <p>Indirect and/or un-measurable outcomes (not measurable/distinguishable from</p>	<ul style="list-style-type: none"> • Direct and indirect benefits during the construction stage amounting to approx. 78 FTEs and £2.8m in GVA. • Direct and indirect benefits during the operational stage amounting to approx. 96 FTEs and £4.0m GVA. • Better access to sustainable travel options • Reduced congestion, airborne pollutants and carbon emissions • Improved reliability and reduced journey times for public transport services (related to Rupert Street and Bus Network Enforcement Camera schemes)

Scheme: Sustainable Transport Package 17/18

				<p>background changes). Monetised benefits (£000s):</p> <ul style="list-style-type: none">• Noise: 17.69• Green House Gases: 59.84• Physical Activity: 6,657• Accidents: 269• Decongestion: 1,074• Indirect taxation: 340 <p>Present Value Benefits: 7,737</p> <ul style="list-style-type: none">• Estimated 15sec reduction in delay per bus passengers using Rupert Street• Estimated 65sec reduction in delay per vehicle using Two Headed Man Junction.• Estimated 19sec reduction in delay per bus passenger where bus lane enforcement cameras present.	
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Scheme: Sustainable Transport Package 17/18

3. Evaluation design and methodologies

Key evaluation questions

- Have outputs been delivered?
- Have measurable direct and indirect outcomes been achieved including:
 - Increase in walking and cycling rates
 - Increase in sustainable modes of transport for employer beneficiaries
 - Uplift in GVA and jobs in the construction and operation stage
 - Trips to the Arena site by coach
 - Fewer non-compliant vehicles using the enforced bus network
 - Improvement to journey time reliability on the enforced bus network
- Have any un-anticipated outcomes been achieved?
- What lessons have been learned about programme delivery, considering: stakeholder, partner and beneficiary feedback?
- Have scheme designs enabled subsequent delivery?

Evaluation methodology

Process – scheme development via West of England programme management, engagement with stakeholders, lessons learned.

Combination of outcome and impact - by capturing the metrics on an annual basis via surveys and traffic counts. For instance:

Jobs and GVA uplift: estimated using project spend in line with '*Impact Guidance Note: A guide to estimating economic impact for infrastructure projects in the West of England*'.

Walking and Cycling uplift: - measured using traffic count (and where linkages can be made) annual Travel to Work survey data

Increase in sustainable mode share of employees supported by grant: - measured through annual Travel to Work survey data

Travel to Arena by coach: - measured through Arena travel plan and/or onsite count

Non-Compliant Vehicles in Bus Lanes: measured through a comparison of enforced sections of the bus network and non-enforced sections.

Bus Journey Time Reliability: measured through a comparison of enforced and non-enforced sections of the bus network.

Audience

The audience for the evaluation reports and medium of communication are below:

LEP : - Quarterly Reports, Yr 1 and 3 evaluation reports

Members: - Yr 1 and 3 evaluation reports

Public: - Yr 1 and 3 evaluation reports Published at: <https://travelwest.info/projects>

Scheme: Sustainable Transport Package 17/18

4. Data requirements

4.1 For schemes fully or part-funded via the Local Growth Fund only

Metric (inc. Target)	Unit	Frequency	Data source (& Responsibility)	Baseline date	Reporting to?
Inputs					
Expenditure Capital – LGF £3,300m 2017-2018	£, by source	Quarterly	Supplier invoices; Quarterly grant claims – Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
Funding breakdown (private/public match) – £1.472m match: <i>£10k private</i> <i>£1.462 local</i>	£, by source	Quarterly	Contracts and agreements with funding bodies– Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
Outputs					
<i>Type of infrastructure delivered – walking/cycle path</i>	km	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
<i>Type of infrastructure delivered – bus lane</i>	km	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
<i>Type of product delivered – walking/cycle route design work</i>	#	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
<i>Type of infrastructure delivered – Bus lane enforcement cameras</i>	#	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
<i>Type of infrastructure delivered – Coach drop off points</i>	#	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
<i>Type of investment harnessed – match funding through match-funded grant programme</i>	£, by source	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance

Metric (inc. Target)	Unit	Frequency	Data source (& Responsibility)	Baseline date	Reporting to?
Outcomes and impacts					
<i>Direct and indirect benefits during the construction stage amounting to approx. 98 FTEs and almost £3.5m in GVA.</i>	# FTEs £ GVA	Quarterly	Supplier invoices; Quarterly grant claims – Programme Manager	FBC at full approval 05/2017	Yr 1 and 3 evaluation reports
<i>Direct and indirect benefits during the operational stage amounting to approx. 144 FTEs and £6.1m GVA.</i>	# FTEs £ GVA	Quarterly	Supplier invoices; Quarterly grant claims – Programme Manager	FBC at full approval 05/2017	Yr 1 and 3 evaluation reports
<i>Estimated 10-100% higher rates of walking and cycling along new ped/cycle routes.</i>	#	Annual (2017 and 2018)	Traffic counts and/or travel to work survey where applicable - UA project lead reporting to Programme Manager	10/2017	Yr 1 and 3 evaluation reports
<i>Estimated 2% of trips to the Arena to be made by coach following Albert Road improvements</i>	#	Annual 2020 (after Arena 2020 opening)	Arena travel plan/onsite count - UA project lead reporting to Programme Manager	01/2020	Year 3 evaluation report
<i>Estimated 15% increase in sustainable modes where business have been supported by match-funded grant</i>	#	Annual (2019)	Travel to Work Survey - UA project lead reporting to Programme Manager	03/2018	Yr 1 and 3 evaluation reports
<i>Estimated 50 – 90% fewer non-compliant vehicles on enforced bus network</i>	#	Annual 2018	UA project lead reporting to Programme Manager. Data collected through camera surveys.	09/2018	Yr 1 and 3 evaluation reports
<i>Estimated up to 5% improvement in journey time reliability</i>	#	Annual 2018		09/2018	Yr 1 and 3 evaluation reports

4.2 Data collection methods

- FTE's and GVA:** – established through project spend in reference to job and GVA benchmarks in: 'Impact Guidance Note: A guide to estimating economic impact for infrastructure projects in the West of England'.
- Walking/Cycling uplift:** - measured using traffic count (and where linkages can be made) annual Travel to Work survey data. Baseline captured onsite in Aug 2017 with follow up count in Aug 2018.
- Increase in sustainable mode share of employees supported by grant:** - measured through annual Travel to Work survey data. Baseline March 2018 with follow up in March 2019
- Travel to Arena by coach:** - measured through Arena travel plan and/or onsite count after opening (2020). No baseline required
- Fewer non-compliant vehicles on the enforced bus network:** - measured through a comparison of enforced and non-enforced sections of bus network. Data collection through video camera survey at a non-enforced section of the bus network and results compared with data from the enforced network.
- Journey Time Reliability Improvement:-** measured through a comparison of enforced and non-enforced sections of bus network. Actual journey times will be recorded and compared against timetabled schedules at selected timing points on the route. This data will be cross-referenced with data from the network with no camera enforcement.

Scheme: Sustainable Transport Package 17/18

4.3 Data collection and establishing the baseline

- Refer to the scheme logic model to help structure the baseline data collection and reporting activities.

As in table 4.1 with addition of metrics below:

Metric (inc. Target)	Unit	Frequency	Data source (& Responsibility)	Baseline date	Reporting to?
Outputs					
Type of infrastructure delivered – walking/cycle path	km	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
Type of infrastructure delivered – bus lane	km	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
Type of product delivered – walking/cycle route design work	#	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
Type of infrastructure delivered – Bus lane enforcement cameras	#	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
Type of infrastructure delivered – Coach drop off points	#	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance
Type of investment harnessed – match funding through match-funded grant programme	£, by source	B/A	UA project lead reporting to Programme Manager	FBC at full approval 05/2017	LEP highlight report; Project governance

Employer Grants

- Harnessing minimum of 40k of match funding for onsite employer sustainable transport improvements

Design for walk/ped routes

- Produce 3 detailed designs for ped/cycle routes ready for future delivery.

Albert Road/Victor Street

- Provide 9 coach drop off points for the Diesel Depot site.

Rupert Street

- Provide approx.300m of bus priority

Bus Network enforcement

- 9 camera polls and 5 movable cameras

Cycle/ped schemes

- Total of 2.75km of new/improved cycle/shared path

Scheme: Sustainable Transport Package 17/18

5. Delivery plan

M&E delivery plan																				
	2017				2018				2019				2020				2021			
Activity	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Quarterly Grant Claims																				
Highlight Report																				
Walk/Cycle baseline and follow up counts																				
Travel to work survey baseline and follow-up																				
Yr 1 Evaluation Report																				
Arena coach count																				
Year 3 evaluation report																				

6. Resourcing and Governance

- Provide details of the monitoring and evaluation budget, including details of source and what costs/activities this will pay for.
- Clarify procedures for risk management and any quality checking.
- Describe opportunities for different stakeholders to input into the scheme evaluation process.
- Provide a named contact responsible for delivering the plan, including name, address, telephone and email.

(indicative 250 words)

Given the relatively small-scale nature of the projects, the budget for monitoring has been built into scheme costs. For walking, cycle and coach drop off (traffic) counts a sum of £300/count has been identified. This equates to £3,600 for baseline and follow up monitoring for relevant schemes included.

The resource budget for M&E has been built into the allocation for scheme project management and estimated at 16 days. Regular communication between the Programme Manager and UA project leads will ensure that data is provided to meet LEP deadlines. The quality checking of this data will be undertaken by the Programme Manager and SRO.

Named M&E contact: Douglas Sole, Sustainable Transport Package 17/18 programme manager, , City Hall, Bristol, BS3 9FS Tel: 0117 903 6539 Email: douglas.sole@bristol.gov.uk

7. Dissemination

The evaluation will be used to improve future investment in sustainable transport. The impact and experience of users will inform future design and delivery of interventions. It will help us understand and support the research on impacts both (positive and negative) on the needs of diverse groups.

The evaluation will be shared with elected members, interested stakeholders, and staff within each delivery authority as well as the funding body to ensure that the impact and outcome of the funding can be demonstrated to future decision makers. The evaluation will also present case studies for any future similar interventions within other communities within the region and beyond.

Evaluation reports will be published on the LEP website.

Date: 5 April 2017
Our ref: ANP/ BG

Pete Davis
West of England Partnership
The Engine Shed

Andrew Pate Strategic Director - Resources
Bath and North East Somerset Council
Lewis House
Manvers St
Bath BA1 1JG

By email

Dear Pete

West of England Local Authorities submission to the West of England LEP's Sustainable Transport Package for 2017/2018

Further to the submission by the WoE UA's to the above funding line of the SEP as the duly authorised S151 signatory I confirm on behalf of Bath and North East Somerset Council that:

- I have approved the Bath and North East Somerset schemes contained in the final Full Business Case for submission to the West of England Investment Board.
- All relevant financial approvals are in place within Bath and North East Somerset Council to deliver the Bath and North East Somerset Council schemes as set out in the Full Business Case.
- All appropriate financial due diligence has been undertaken by Bath and North East Somerset Council in respect of the Bath and North East Somerset Council schemes contained in the Full Business Case.
- Bath and North East Somerset Council is responsible and accountable for ensuring that the project delivers good value for money in the use of public resources, that being the suitability and effectiveness of the project as well as the economic growth and wider societal outcomes achieved in return for the public resources received.

Yours sincerely

**Andrew Pate Strategic Director - Resources
Bath and North East Somerset Council**

Appendix 3: Chief Finance Officer Declaration



Sustainable Transport Package 17/18 Bid Submission

To whom it may concern

- I have approved the final Full Business Case for submission to the West of England Investment Board.
- All relevant financial approvals are in place within Bristol City Council to deliver the Bristol schemes as set out in the Full Business Case.
- All appropriate financial due diligence has been undertaken by Bristol City Council in respect of the Bristol City Council schemes in the Full Business Case.
- I am a responsible and accountable for ensuring that the project delivers good value for money in the use of public resources, that being the suitability and effectiveness of the project as well as the economic growth and wider societal outcomes achieved in return for the public resources received.

Signed: *C. House*

Name: *CHRIS HOUSE*

Date: *19/4/17*

Date: 11 April 2017
My Ref: MC/FM
Your Ref:



Contact: Malcolm Coe
Direct dial: 01275 884353

Malcolm Coe
Head of Finance & Property
North Somerset Council
Town Hall
Weston-super-Mare
BS23 1UJ

Via email

Pete Davis
WoE Local Enterprise Partnership

www.n-somerset.gov.uk

Dear Pete

Re: West of England Local Authority submission to the West of England LEP Sustainable Transport Package for 2017/18

- I have approved the North Somerset Council schemes contained in the final Full Business Case submission to the West of England Investment Board
- All relevant financial approvals are in place within North Somerset Council to deliver the North Somerset Council schemes as set out in the Full Business Case
- All appropriate financial due diligence has been undertaken by North Somerset Council in respect of the North Somerset Council schemes contained in the Full Business Case
- North Somerset Council is responsible and accountable for ensuring that the project delivers good value for money in the use of public resources, that being the suitability and effectiveness of the project as well as the economic growth and wider societal outcomes achieved in return for the public resources received.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'M Coe'.

Malcolm Coe
Head of Finance & Property and S151 Officer
North Somerset Council

4 April 2017

<i>Pete Davis, West of England Local Enterprise Partnership, By email</i>	South Gloucestershire Council Chief Executive & Corporate Resources Department PO Box 300 Civic Centre High Street Kingswood Bristol BS15 0DS
--	--

Dear Pete,

West of England Local Authority submission to the West of England LEP Sustainable Transport Package for 2017/18

- *I have approved the South Gloucestershire Council schemes contained in the final Full Business Case submission to the West of England Investment Board.*
- *All relevant financial approvals are in place within South Gloucestershire Council to deliver the South Gloucestershire Council schemes as set out in the Full Business Case.*
- *All appropriate financial due diligence has been undertaken by South Gloucestershire Council in respect of the South Gloucestershire Council schemes contained in the Full Business Case.*
- *South Gloucestershire Council is responsible and accountable for ensuring that the project delivers good value for money in the use of public resources, that being the suitability and effectiveness of the project as well as the economic growth and wider societal outcomes achieved in return for the public resources received.*

N. Philippidis

Nina Philippidis

Deputy Head of Finance

South Gloucestershire Council