East Bristol Mini-Holland

Draft Feasibility Study

March 2023



Foreword



Marvin Rees,
Mayor of Bristol

Our city is changing. The pandemic has affected our lives in different ways and tested every feature of public life. It has been extremely challenging for everyone but has hit our most vulnerable communities hardest.

Despite the challenges we have faced, Bristol has responded and is rebuilding. The pandemic has certainly highlighted pre-existing inequalities; however, it has also shown that there is real appetite for more multi-functional neighbourhoods that have more opportunities for children's play space, better local connections and more greenery.

Community cohesion is about people taking ownership in placemaking and being actively involved in shaping their local area. As we build back better, Bristol is undertaking one of the largest regeneration projects in the UK. Our liveable neighbourhood bid will allow for deeper integration between this regeneration project and some of the poorest areas of the city; ensuring the growth we gain as a city is inclusive and fair.

We have a great story to tell in Bristol: a £15 billion economy with sectors of high growth and opportunity. And yet we are one of the most unequal cities in England with six areas in the top 1% most deprived in the UK and 20% of our children at risk of hunger every day. Through a One City approach we are working together to organise the city to take challenges on. Increasing access to opportunities for all is at the heart of our One City Approach.

Levelling up will only be successful if it targets those living in deprivation. We need to focus on the challenges of poverty, social mobility, inequalities, and on the groups most affected by these challenges, that the pandemic has further entrenched.

Our liveable neighbourhood scheme will focus on improving the lives of Bristol citizens whose communities are most in need of investment. Tackling inequality and deprivation while building cohesion and empowerment in a community can make great strides into levelling up this city.

We need an approach that recognises that our focus is addressing the big challenges of the day – including the climate and ecological emergencies – in a way which takes all communities forward and provides ample opportunities for everyone. Central to this is how we reimagine our neighbourhoods so that they work better for our communities.

The central vehicle for this change is this Liveable Neighbourhoods approach; we want communities to feel empowered enough to transform their neighbourhoods into places which provide better access to green space, more connections to local amenities, increased use of sustainable forms of travel, and more space for social and community activity.

Foreword



Councillor Kye Dudd - Cabinet Member for Climate, Ecology, Waste and Energy

Making communities more resilient to the effects of the climate emergency must be a priority when it comes to urban planning.

The Liveable Neighbourhood proposals intends to embed this resilience while simultaneously empowering communities to transform their neighbourhoods. Easier access to green and play spaces within communities must be part of this enabling process, as we have seen the huge effect this can have on the wellbeing of communities; especially those households without their own outdoor space available to them.

Our recent responses to consultations have shown overwhelmingly how large an issue the climate emergency is for Bristol citizens, as well as for Bristol City Council. Therefore, a co-operative approach to redesigning neighbourhoods as suggested would ensure resilience to the climate emergency via methods, such as planting and Sustainable Urban Drainage Systems, will be centre stage and already have the overwhelming support of the local area.



Councillor Don Alexander - Cabinet Member for Transport

For active travel to be a success, we must make sure people feel safe to cycle and walk, especially within their own communities.

Designing neighbourhoods alongside the people who live in them is a sure-fire way to make sure we do this. It's important that our proposals help create spaces where people feel safe to get on a bike and gain the confidence to go further afield on one, while making sure there are key active travel routes in place for people to access their local services without having to drive.

When it comes to tackling congestion throughout the city, providing high quality public transport is vital. It will help to make sure the connectivity on and between different modes of public transport meets the needs of Bristol citizens.



Councillor Ellie King – Cabinet Member for Public Health, Communities and Bristol One City

We aspire to be a Public Health Council, which means tackling health inequalities is high on our agenda. Creating a blueprint for liveable neighbourhoods will help us as we work towards this shared aim.

We must empower our communities to work with us to build environments that drive community cohesion, while reducing the factors that lead to health inequalities.

Reducing air pollution in local neighbourhoods and improving road safety will encourage more people to walk, cycle and socialise; bringing significant benefits to our health, fitness and wellbeing.

We need to embed community cohesion into our city's design, to encourage community activity, reduce inequality, and strengthen relationships throughout Bristol.

Executive summary

This executive summary provides a condensed review of Bristol's Mini-Holland feasibility study.

It covers a basic definition of a Mini-Holland scheme, sets out why we are applying for funding, and provides a brief synopsis of each chapter in the document.

What is a Mini-Holland scheme?

The Department for Transport is inviting feasibility studies from local authorities for the government's Mini-Holland programme. In Bristol we refer to Mini Hollands as Liveable Neighbourhoods.

In the words of the government, Mini Hollands aim to create environments that are as cycle and pedestrian friendly as their Dutch equivalents.

Principally they involve introducing traffic filters in a defined neighbourhood area to reduce or remove the number of car trips passing through residential streets - commonly referred to as 'rat running'.

By reducing the number and speed of cars passing through an area, the space can be given over to other community assets, such as trees, planters and cycle hangars, and, for more significant schemes, new public and play space can be created.

For the Mini Holland area and nearby neighbourhoods, the reduction in traffic makes it easier and safer for people to walk and cycle to local destinations, while still retaining vehicle access for residents, deliveries, and servicing.

Mini Holland schemes also seek to reallocate more space to walking, cycling and public transport on the busier roads bordering the neighbourhood, as well as provide more crossing points between neighbourhood areas.

Mini Holland schemes place a strong emphasis on intensive and representative engagement and co-design to make sure improvements reflect community needs.



Executive summary

Why have we developed a feasibility study?

In this feasibility study, Bristol demonstrates the case for change for creating a Mini-Holland scheme for communities in east Bristol.

The study sets out how we will build upon our existing pilot Liveable Neighbourhood (see 'EBLN scope' below) and expand this to include the entire St George area as well as communities in Easton.

The following sections will set out a brief synopsis of each chapter in the feasibility study.

Context and Strategic Fit

This chapter outlines how national, regional, and local policy aligns with Bristol's Mini Holland proposal. As the first local authority to declare a climate and ecological emergency, the city has also pledged to be carbon neutral by 2030 – a challenge reflected in our One City Climate Strategy where we target a 40% reduction in vehicle miles by the end of the decade.

Liveable Neighbourhoods are a critical pillar in our overarching transport strategy, and this filters down to our Local Cycling and Walking Infrastructure Plan where an area wide traffic reduction scheme for east Bristol was initially planned for and consulted on back in 2020. In January 2023 we will publish our Liveable Neighbourhood Handbook, which will provide a concise summary of the pre-conditions, aims and objectives of these schemes for members of the public and local councillors. Lessons learned from our pilot project will feed into our overarching Liveable Neighbourhood Strategy planned for 2024.

This chapter also sets out why we are considering a Mini Holland scheme for Bristol, citing the numerous public health, environmental and transport challenges we face as a city. This includes lower than average healthy life expectancy, being home to some of the most deprived wards in the country and managing a population growing much faster than our peers. But there are also things to celebrate that make Bristol best placed to make use of Mini Holland investment. We know that there is strong support for liveable neighbourhoods (65% support, 14% oppose), a sense of individual responsibility among Bristolians in tackling the climate crisis (in 2021 nearly 40% changed the way they travelled citing climate change as the key motivation), and our recent Citizens' Assembly almost unanimously voted for the motion to 'reimagine the places we live so they are more people centred'.

Finally, this section also details how our Mini Holland proposal will knit together with other projects and programmes being delivered in the area and help to create efficiencies in delivery as well as amplify the overall benefits. The key project in this regard is our existing pilot Liveable Neighbourhood where we have already gained a wealth of valuable data and organisational experience. Led by our in-house team this project has already progressed through the 'co-discover' (asking the community to tell us about local issues) and 'co-design' (inviting the community to design the scheme with us through workshops and online tools) phases of the project returning impressive and representative engagement numbers and demonstrating that there is real appetite for change in the community. Details of this project and progress to date can be found at www.bristol.gov.uk/eastbristolliveableneighbourhood.

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Executive summary

Current State Assessment

This chapter contains the technical baseline information for the proposed Mini-Holland area and follows the guidance set by Active Travel England.

The assessment outlines existing cycle infrastructure in the area and concludes that there are only a handful of short sections of route that are compliant with the latest LTN 1/20 standards. While the Bristol to Bath off-road railway path is a great local asset, connections to it are either non-existent or require mixing with high levels of traffic and/or navigating busy junctions. There is virtually no segregated infrastructure on all the principal roads in the area and local traffic conditions are creating severance between communities. This is particularly true for Church Road which carries over 10,000 vehicles each day. The overall density of the cycle network is substandard meaning that most residents lack access to safe cycle infrastructure close to their home or local destinations.

The gateways and porosity analysis illustrates how connections between neighbourhood areas are very poor with residents lacking high quality signalised crossing points at several locations in the study area. Moreover, the rat run analysis shows there are several key through routes for vehicles to pass through (particularly heading north) which are likely serving as a barrier for more local trips by cycling and on foot.

Future State

This chapter outlines the vision for our Mini Holland area, including reliable public transport, more climate resilient streets, and improved social, mental and physical health for our communities. The transformational aspect of our project is described here, such as improving Church Road high street as a destination, the creation of 'green routes' connecting different communities together (see map on overleaf), as well as the promotion of behaviour change and cultural activities like cycle training and a walking forest.

These changes will be underpinned by the development of a coherent and safe cycle and walking network, improved crossing points and modal filters to reduce the overall volume and speed of through traffic in the area. Working with the community through the co-design process we will be ambitious in reallocating road space to other uses such as hospitality spill out space, cycle hangars and parklets. Overall, the Mini Holland area should feel a more connected, accessible and pleasant place to live in and visit.

The remainder of this section details the evidence and case studies for our proposals. What puts Bristol in such a strong position to deliver a Mini Holland programme is historic and recent experience in delivering the intervention required. To take some examples from the last two years, we have progressed three major high street pedestrianisation schemes (Cotham Hill, Princess Victoria Street and the Old City), introduced a bus gate in the heart of our city centre at Bristol Bridge, as well as delivering 1km of temporary cycle route outside the Bristol Royal Infirmary – to be made permanent.

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Executive summary

Scheme Credibility

The final chapter in the feasibility study makes the case for why Bristol will provide a great return on investment for Active Travel England.

As we have seen from LTN's being installed across the country political leadership can make or break a scheme. We have cross party support for our proposal, and we are already actively working with local councillors providing regular briefings and guidance as we move through the process. All members were invited to a recent Liveable Neighbourhood briefing event where they heard from a range of experts, including Brian Deegan, Dr Adrian Davis and Cllr Clyde Loakes. Officers have worked hard to achieve buy-in from across a range of disciplines and we present endorsements from our transport, health and climate change leads respectively while noting that the pilot is a key pledge in the manifesto of our Mayor, Marvin Rees.

With our smaller pilot area underway Bristol has the in-house skills and experience to deliver at pace. We have developed engagement materials and methods that are proven to work, framework contractors are already in place to support the project and our costings and project plans are based on recent, real-world examples. The economic case for the project is outlined in this section as well as a robust monitoring and evaluation plan that will make the case for future Mini Holland project in Bristol and nationally.

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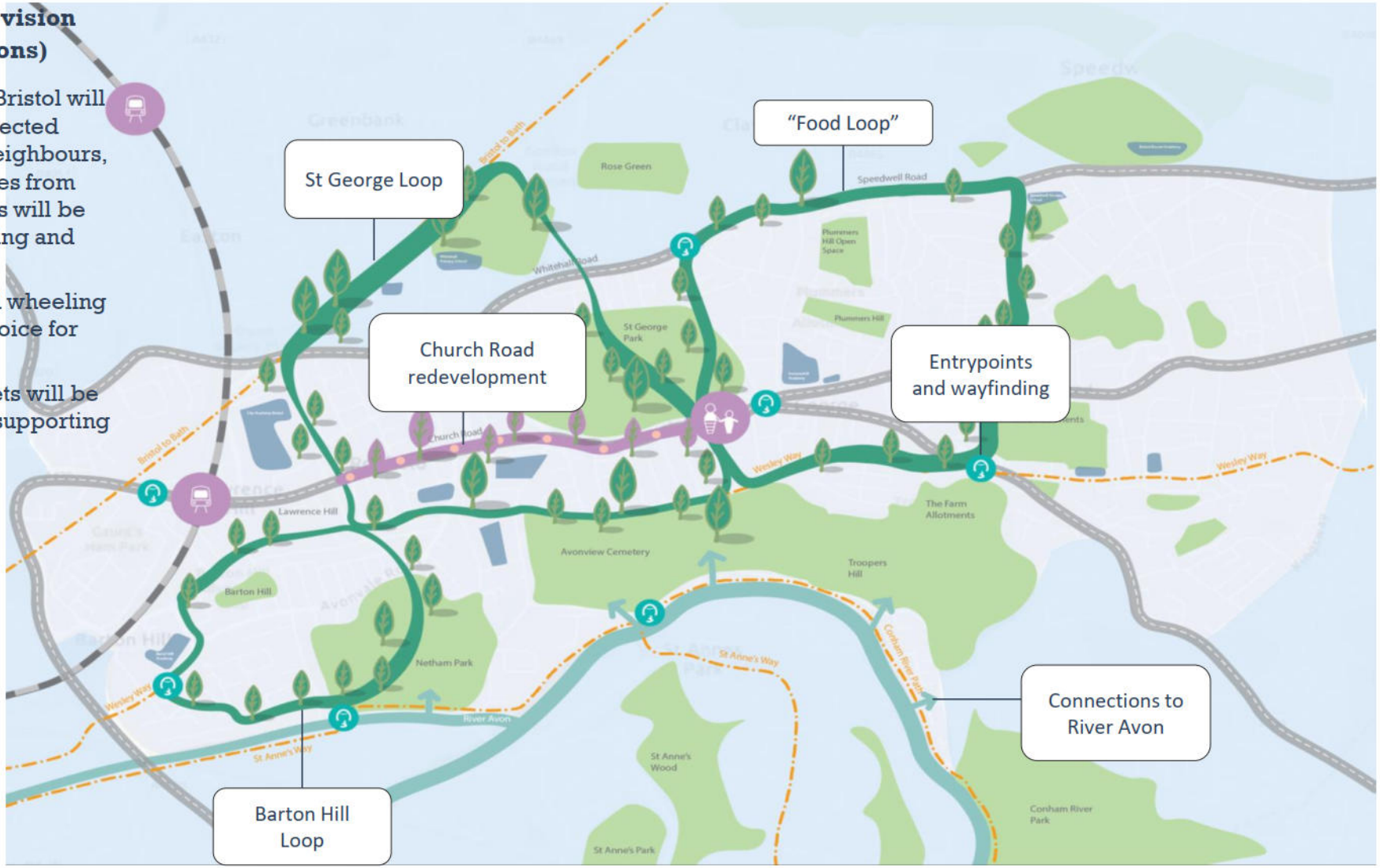
Executive summary

The Mini-Holland vision (long-term ambitions)

In 5 years time, East Bristol will be a safer more connected community, where neighbours, visitors and businesses from different communities will be able to meet on thriving and attractive streets.

Walking, cycling and wheeling will be the natural choice for getting around.

Neighbourhood streets will be calmer and greener supporting healthier lifestyles.



Executive summary

Policy and Bristol support

Key policy goals and targets that the Mini-Holland project will address are as follows:

- The Bristol **Labour Manifesto** (2021) set out a commitment to promoting safer neighbourhoods by tackling through and speeding traffic and giving people more confidence to walk and cycle. The commitment extended to the rollout of two Liveable Neighbourhood pilots - the first of which, in East Bristol, is already in development.
- The **Bristol Transport Strategy** includes key outcomes which this project will relate to, including #14 '*key facilities and services increasingly accessible to all citizens without the need to rely on a car*' and #15 '*safer places to live by working with citizens to design and deliver measures to improve movement and liveability in our neighbourhoods*'.
- Of the 528 goals listed in the **One City Plan**, liveable neighbourhoods align to over 120, which cut across six themes: Children and Young People, Economy and Skills, Environment, Health and Wellbeing, Homes and Communities, and Transport.
- The scheme will deliver against three **LCWIP** routes including a Core Walking Zone.
- The Bristol **Liveable Neighbourhood Handbook** is a live document and will reflect the Co-Design approach that liveable neighbourhoods are taking in Bristol. This developing policy is based on live projects and community engagement. This will lead to a future Strategy.
- The **Walking and Cycling Index** for Bristol found that more than 65% of people support the creation of more Low Traffic Neighbourhoods with only 14% opposing.

What do Bristolian residents want to see?

Strong support from local community

We have been consulting and polling our residents more now than at any time prior to the pandemic and the responses highlight a common theme: Bristolians are ready for a radical change.

The Citizens' Assembly

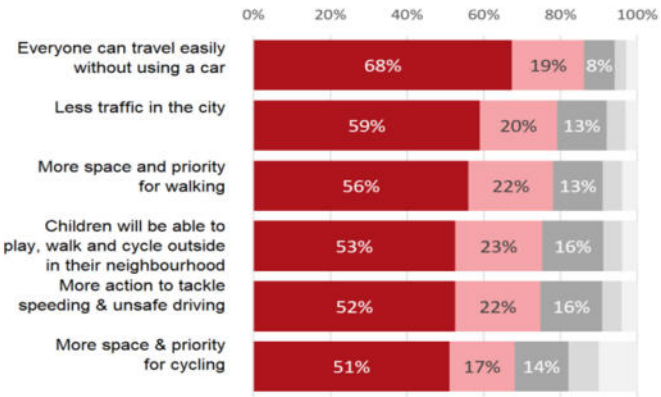
In January 2020, Bristol begun a significant trial in deliberative democracy by running the city's first Citizens' Assembly. The transport theme posed the question: "What changes should we make to our neighbourhoods to make how we travel easier, healthier and better for the environment".

The recommendations of the Assembly show the appetite for transformative neighbourhood improvements with over 90% of the panel supporting the following:

- Fundamentally reimagine the places we live so that they are people centred (i.e. create liveable neighbourhoods)
- Develop a pilot programme to showcase what could be achieved if a citywide approach to being carbon neutral was taken
- Empower local communities in the decision-making to deliver the services and activities that they want to promote healthy lifestyle.

Citizen support – Your City, Our Future

In January 2020, Bristol ran the Your City Our Future survey which polled 6,535 residents on their experiences of lockdown and the changes they would like to see as the city built back better. This chart shows the priorities of our residents.



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Executive summary

Experience in delivery

Bristol has a wealth of experience in delivering innovation programmes and an international reputation for pioneering new approaches.

From being nominated the UK's first Cycling City and more recently our involvement as a delivery partner in the West of England Future Transport Zone, we are willing to do things differently and make a success of them. We want to build on our existing commitment to deliver a Liveable Neighbourhood in the east of the city and expand this project to be 1 of the 12 Mini-Holland pilot areas.

With the East Bristol Liveable Neighbourhood (EBLN) pilot live and progressing through the co-design process we already have a series of key learnings that we can take into the delivery of a more ambitious Mini-Holland.

Teams from right across the organisation have benefitted from a bespoke 2-day training course in Mini-Hollands delivered in spring 2021 by Brian Deegan, Chris Martin and Jon Little. Since then, we have been building our expertise in house through the co-discover and co-develop stages of the east Bristol project, returning impressive levels of engagement from a diverse range of respondents. This initial work has also provided us the foundations for briefing and preparing our local ward councillors and political leaders for some of the challenges we could face ahead in the co-deliver stage.

Bristol's decisive action to safeguard key walking and cycling routes during the pandemic show that the organisation can deliver quality schemes at pace. Our temporary schemes from EATF T1 and 2 are now being converted into high-quality, permanent schemes through Tranche 3 and include four high street pedestrianisation schemes, a bus gate in the heart of the city and a key new segregated cycle route on the inner ring road.

Owing to historic and sustained investment in walking and cycling Bristol boasts impressive active travel numbers with 191.1 million walking and wheeling trips being made in the past year and 28% of residents saying that they cycle at least once a week.

Much of this success is owed to the quality of provision being delivered as well as our impressive engagement and behaviour change teams that promote such schemes in the city. Data from the Walking and Cycling Index, shows that women and ethnic minority groups are better represented in Bristol in walking and cycling compared to peers.

Whenever Bristol has invested in dedicated high-quality walking and cycling infrastructure in the city, there has been a significant increase in users.

The map below shows percentage increase in cycling numbers at four locations in Bristol where schemes delivered improvements for active travel.

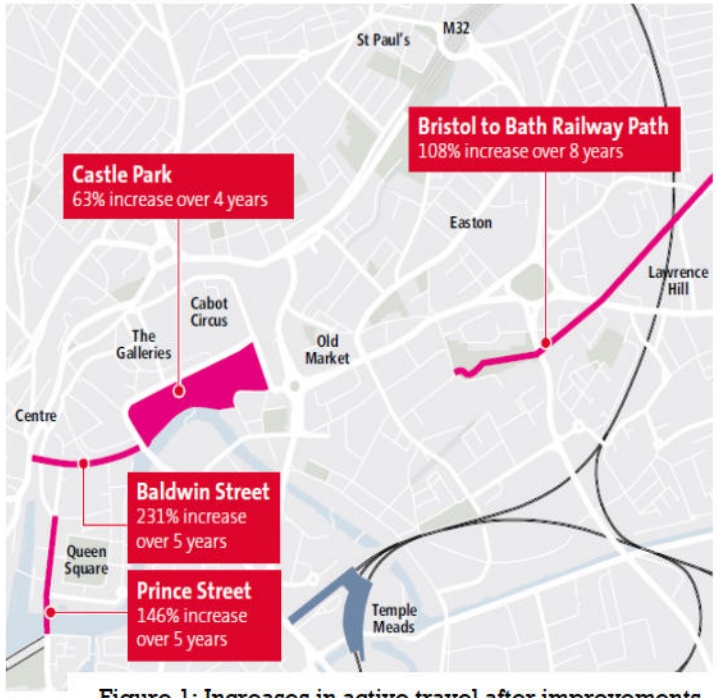


Figure 1: Increases in active travel after improvements

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1. Introduction



Church Road

1. 1 Introduction

East Bristol is a densely populated inner-city area comprised of several wards, each with their own unique histories and cultures. The population is diverse and levels of deprivation between wards is stark.

Situated on the western boundary of the project area Lawrence Hill is among the top 10% most deprived wards in the country, almost 30% of residents don't register English as their main language and much of the housing stock is council owned high-rise. The community is much younger than the city average and is home to Bristol's biggest Muslim population. In contrast Troopers Hill (on the eastern boundary) has a much less ethnically diverse and older population, sitting between deprivation deciles 7 and 8 and is characterised by terraced housing with higher levels of car ownership.

Community engagement across all wards in east Bristol show that residents feel a strong sense of belonging to their local area and – broadly speaking - have a positive view of community cohesion, local amenities and activities.

St George's Park, Netham Park, and Troopers Hill are the principal green spaces serving the neighbourhood which is bordered by the popular and traffic free Bristol to Bath Railway path to the north as well as the River Avon and Feeder Canal to the south.

The physically constrained and congested Church Road/A420, runs straight through the middle of our proposed Mini Holland area and carries over 17,000 vehicles a day. This corridor is home to clusters of retail and hospitality from St George's Park all the way down to where the A420 meets the western boundary of the project area at Lawrence Hill roundabout. Bus priority is inconsistent, pavements are generally substandard and narrow and cycle infrastructure is virtually non-existent.

Over the next few years, the fast-growing population in East Bristol and new developments in the Temple Quarter Enterprise Zone will place additional pressure on the transport network and local services. This area of the city needs investment so that it can adapt to future challenges and continue to thrive. A rebalancing of the transport network in favour of more sustainable modes is essential in meeting wider goals around health, the environment and the economy and we propose that this is best delivered through robust and meaningful co-design with the community.



1.2 Citizen Support

Consultations and engagements to gather citizen's support and empower their influences

To look at how improvements could make the neighbourhood more 'liveable', we need to better understand how people like to use local streets and spend time in the area. Our community engagement has not only been developed to understand these issues, but also to raise awareness of the scheme, to ensure people know how to get involved, and to ultimately support behaviour change through active travel programmes.

We have been consulting and polling our residents more now than at any time prior to the pandemic and the responses highlight a common theme: *Bristolians are ready for radical change.*

The Assembly

In January 2020, Bristol begun a significant trial in deliberative democracy by running the city's first Citizens' Assembly. The transport theme posed the question: "What changes should we make to our neighbourhoods to make how we travel easier, healthier and better for the environment".

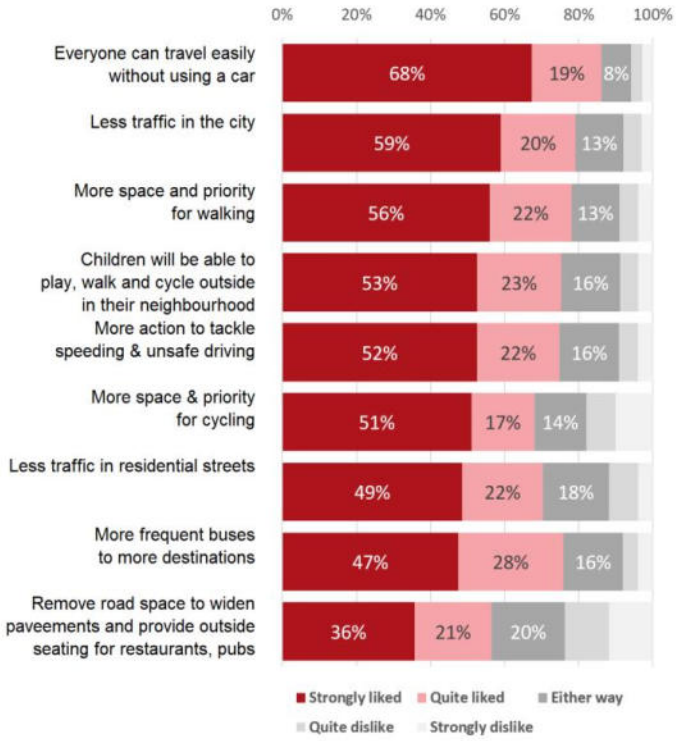
The recommendations of the Assembly demonstrate the appetite for transformative neighbourhood improvements with over 90% of the panel supporting the following:

- Fundamentally reimagining the places we live so that they are people centred (i.e. create liveable neighbourhoods)
- Developing a pilot programme to showcase what could be achieved if a citywide approach to being carbon neutral was taken
- Empower local communities in the decision-making process to deliver the services and activities that they want to promote healthy lifestyle choices.

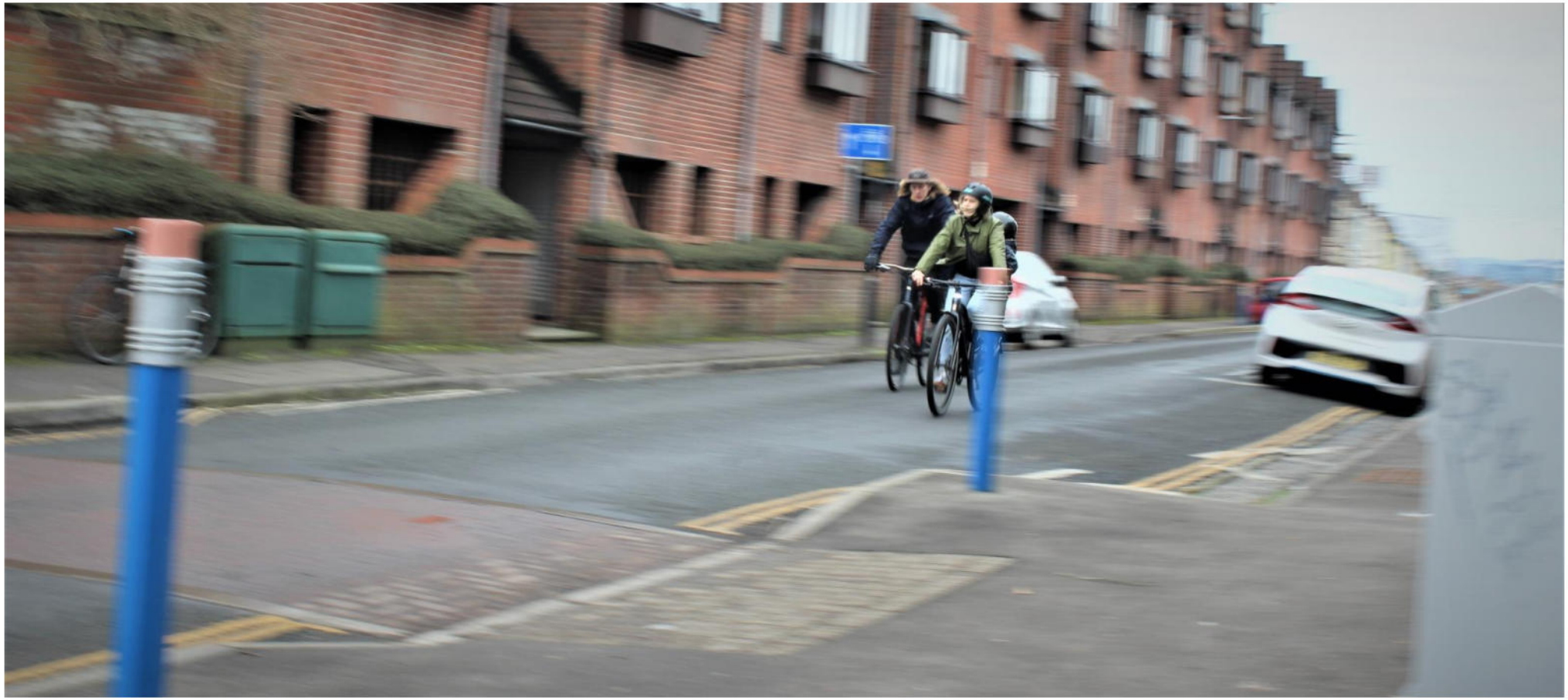
The report was received by Bristol's Cabinet in June 2021 with progress reported on the goals reported annually.

Your City, Our Future Survey

In January 2020, Bristol ran the Your City Our Future survey which polled 6,535 residents on their experiences of lockdown and the changes they would like to see as the city recovered from the impacts of the pandemic. The result were revealing with residents voting with a clear majority for a future with fewer cars and more space for walking, cycling and public transport. The graph to the right highlights the priorities of our residents



2. Local context



2.1 Changing lifestyles

The pandemic has changed Bristolians' lifestyles: Our Mini-Holland can help address the negative impacts and amplify the positive changes.



The proportion of **people satisfied with their local area** rose during the pandemic to 79.8% in 2020 but has since fallen to 74.2 % - the lowest level since the survey began

Walking & cycling trips in Bristol are growing faster than other major UK cities (Sheffield, Cambridge, Greater Manchester). The proportion of people walking or cycling > 5 times a week increased from 36.2% to 41.6% last year.

In 2021, 74.7% of Bristolians think **air quality and traffic pollution** are local problems compared to 70.5% in 2020.

2.1 Changing lifestyles

Various factors such as the awareness of climate change and the introduction of more shared mobility have changed how Bristolians travel.



2.2 Bristol snapshot

Key statistics relating to public health, environment, crime, transport and communities in Bristol



Public health in Bristol

Inequalities gap: life expectancy between the most and the least deprived areas is 9.9 yrs. for men and 6.9 yrs. for women.

Bristol's **healthy life expectancy** is 61.5 yrs. for women and 59.8 yrs. for men (2018-20; significantly lower than the national ave. of 63.9 and 63.1 yrs. respectively).

55.7% of adults, 23.0% of 4-5yr olds have **excess weight**, rising to 33.9% for 10-11yr olds (2019/20).

Approx. 169 **deaths** per annum are attributable to NO2 pollution and 184 to PM2.5 pollution.

55.7% of adults is **overweight of obese.**



Communities in Bristol

74% of residents are **satisfied with their local area** as a place to live, but only 51% of people in the most deprived areas.

5% of households have experienced moderate to severe "**food insecurity**" in the last 12 months, but this rises to 11% in the most deprived areas.



Crime in Bristol

Rates of people whose day-to-day life is **affected by fear of crime** has risen to 19% (from 16% the last 2 years), and is now 36% in the most deprived areas of the city.

Source: QoL 2021/22

2.2 Bristol snapshot

Key statistics relating to public health, environment, crime, transport and communities in Bristol



Cost of Living

8.7% finds it **difficult to manage financially** in 2021 compared to 6.8% in 2020

Historically, households are spending the majority of their weekly budget on transport, according to ONS and Gov figures. In 2017/18, **spend on transport** made up 14% of all weekly household expenditure, making it the largest category of spend. The average UK household spent £81 per week on transport in 2017/18, three quarters of which were costs associated with motoring.



Transport

Increase from 70% to 74% of Bristolians feel that **traffic congestion** is a problem in their area (from 56% to 62% in the most deprived areas).

Children in the most deprived areas are six times more likely to be injured in **motor traffic collisions** than those in the last deprived areas.

57% of residents walk at least 5 days a week but only 48% of residents think the level of safety for children is good.

65% agree that there should be **more space for socialise, walking and cycling** on their local highstreets. (W&C index)



Environment and Decarbonisation

87% of residents are **concerned** about the impacts of **climate change**.

Bristol became the first major city in the UK to **declare an Ecological Emergency** and one of the key targets we have committed to is increasing tree canopy cover by 25% within the next 15 years and doubling it in the next 20.

Source: QoL 2021/22

2.3 Project area and wards

The Mini-Holland spatial scope includes parts of Easton, Troopers Hill, Lawrence Hill, St George, Crew's Hole and Hanham.

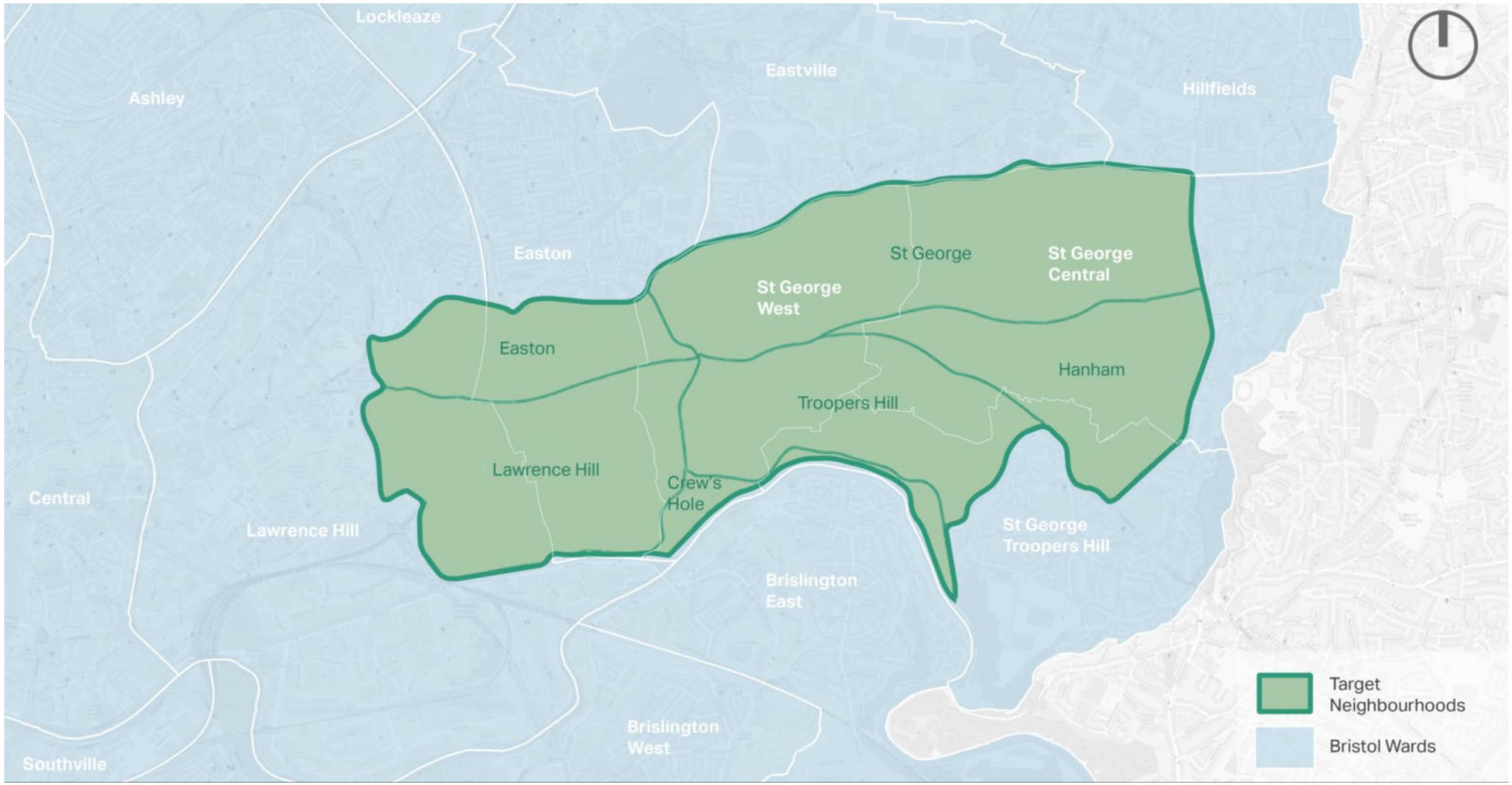
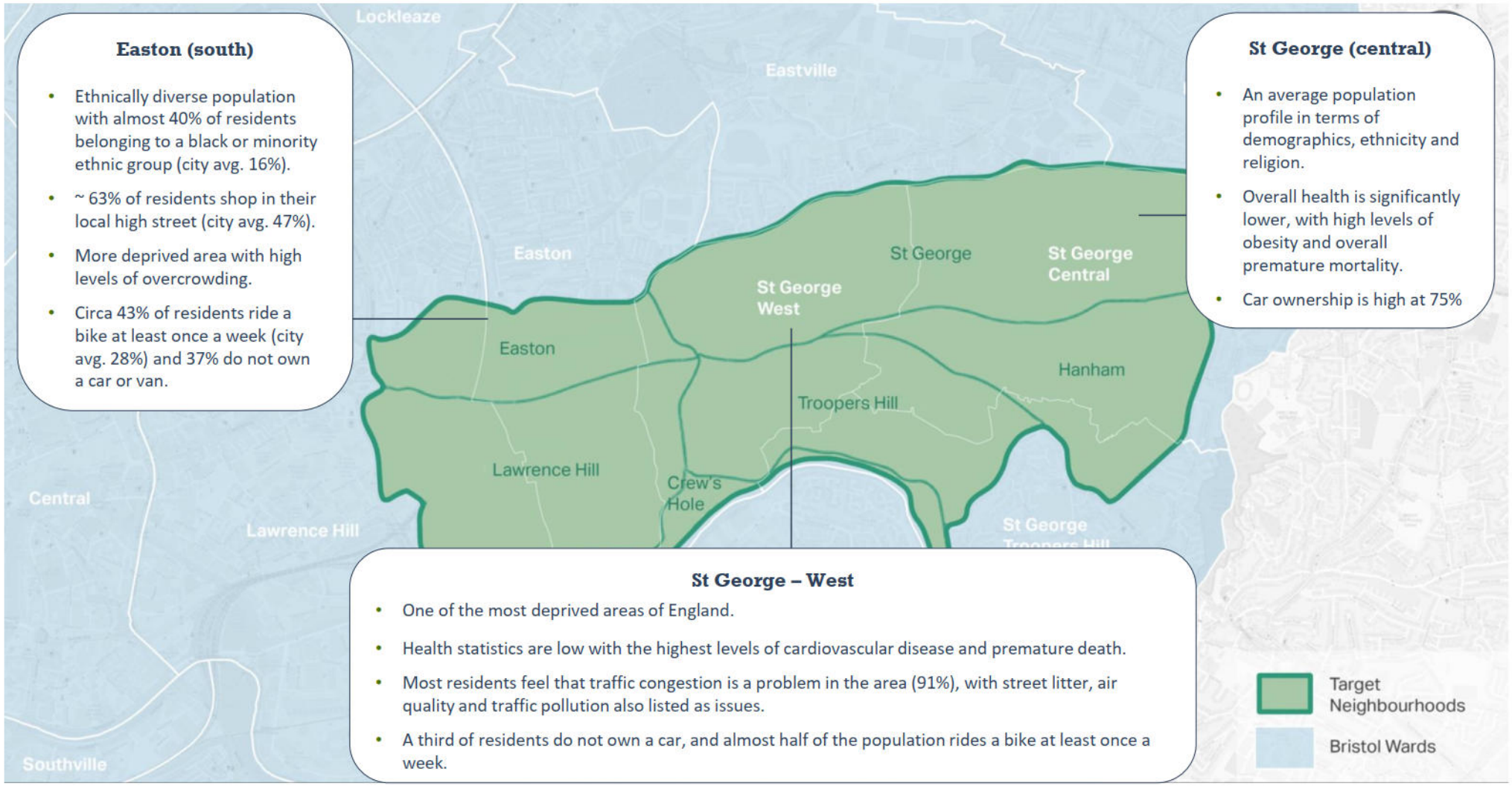


Figure 2: Mini-Holland scope

2.3 Project area and wards

The western wards tends to be younger, more diverse and deprived, and the eastern wards older, less diverse, more car reliant and affluent.



Easton (south)

- Ethnically diverse population with almost 40% of residents belonging to a black or minority ethnic group (city avg. 16%).
- ~ 63% of residents shop in their local high street (city avg. 47%).
- More deprived area with high levels of overcrowding.
- Circa 43% of residents ride a bike at least once a week (city avg. 28%) and 37% do not own a car or van.

St George (central)

- An average population profile in terms of demographics, ethnicity and religion.
- Overall health is significantly lower, with high levels of obesity and overall premature mortality.
- Car ownership is high at 75%

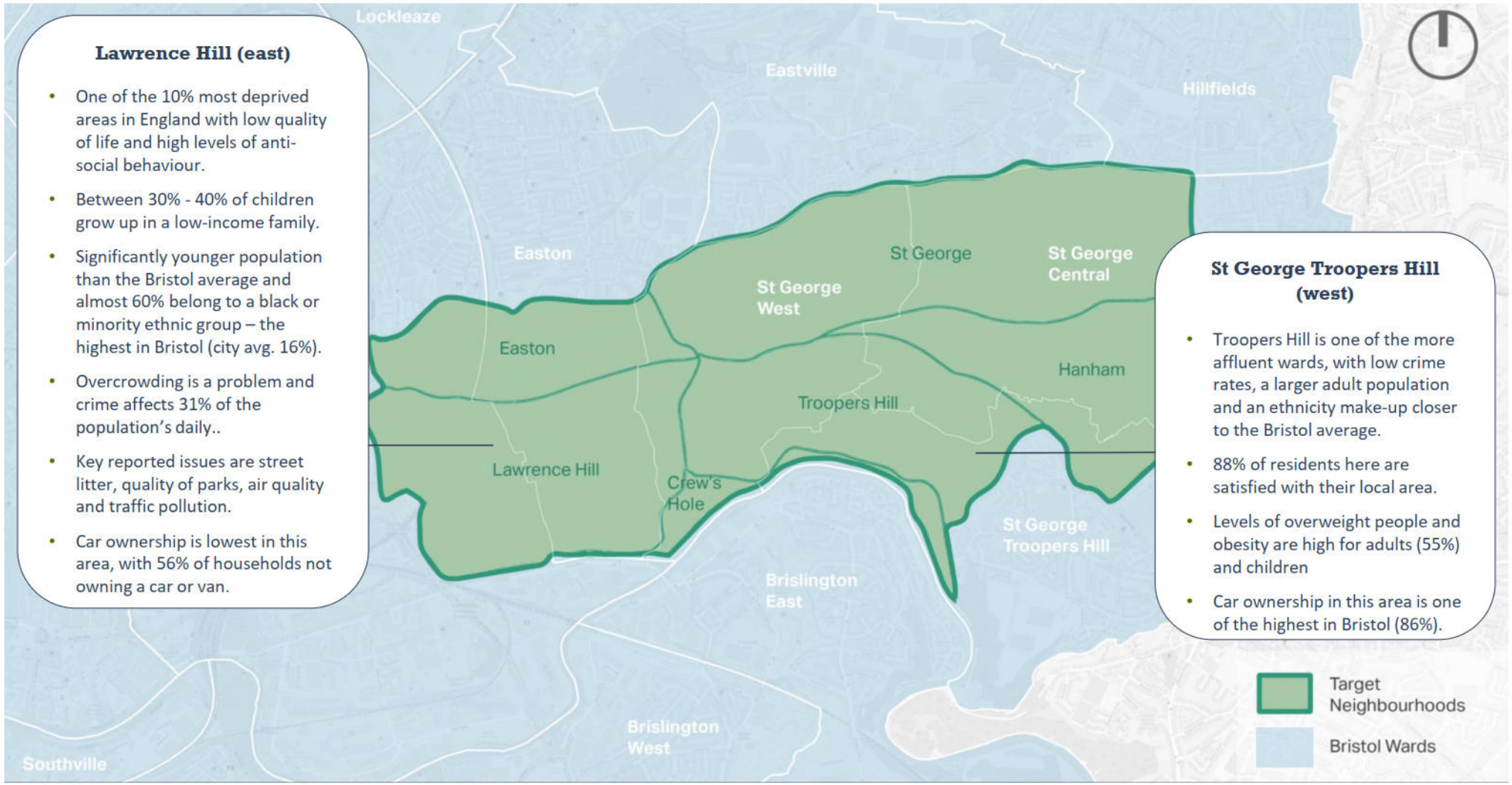
St George – West

- One of the most deprived areas of England.
- Health statistics are low with the highest levels of cardiovascular disease and premature death.
- Most residents feel that traffic congestion is a problem in the area (91%), with street litter, air quality and traffic pollution also listed as issues.
- A third of residents do not own a car, and almost half of the population rides a bike at least once a week.

Source: Data used for these profiles comes from the Ward Profile Data Report (2022).

2.3 Project area and wards

The western wards tends to be younger, more diverse and deprived, and the eastern wards older, less diverse, more car reliant and affluent.



Lawrence Hill (east)

- One of the 10% most deprived areas in England with low quality of life and high levels of anti-social behaviour.
- Between 30% - 40% of children grow up in a low-income family.
- Significantly younger population than the Bristol average and almost 60% belong to a black or minority ethnic group – the highest in Bristol (city avg. 16%).
- Overcrowding is a problem and crime affects 31% of the population's daily..
- Key reported issues are street litter, quality of parks, air quality and traffic pollution.
- Car ownership is lowest in this area, with 56% of households not owning a car or van.

St George Troopers Hill (west)

- Troopers Hill is one of the more affluent wards, with low crime rates, a larger adult population and an ethnicity make-up closer to the Bristol average.
- 88% of residents here are satisfied with their local area.
- Levels of overweight people and obesity are high for adults (55%) and children
- Car ownership in this area is one of the highest in Bristol (86%).

Source: Data used for these profiles comes from the Ward Profile Data Report (2022).

Key issues and opportunities



Lawrence Hill, Bristol

2.4 Key issues in the area

Weaknesses and threats identified through community engagement, SWOT analysis and research.

Mini-Holland investment is the right solution for East Bristol, an area of the city which suffers from car dominated streets, poor active and public transport connections, low quality public realm and high street space and critical challenges around public health and deprivation.

Car dominated

- Church Road is a key, high volume arterial route and several adjacent residential streets in the area are used as through routes, causing issues around safety, noise and air pollution
- Surrounding residential streets are narrow and compact and are dominated by car parking taking up space for alternative uses
- Hard surfacing and carriageway are the principle design materials resulting in poor overall street quality
- Substantial differences in speed limits along Church Road increase the chance of collisions
- Traffic collisions are common throughout the area and road traffic accident statistics show that most severe incidents are concentrated along Church Road
- Boundary roads are at capacity, limiting their ability to absorb any traffic displaced from the area
- Residential parking is uncontrolled and at some risk of being used for commuter parking after introduction of the CAZ
- Car ownership tends to increase from west to east, with the lowest levels of ownership in Lawrence Hill (46%) and highest levels in St George Troopers Hill (86%); the 3rd highest average number of cars per household in Bristol



Figure 5: Church Road used as through route and commuter arterial route into the centre



Figure 6: Hard surfacing and wide lanes without crossings result in poor overall street quality

2.4 Key issues in the area

Poor connections

- Poor wayfinding across the area to local shops, retail areas, parks, schools and active travel routes
- Significant transport infrastructure in the area such as rail lines and multi lane junctions causes severance between communities

Unreliable public transport

- Despite a strong demand for buses, passenger satisfaction is low. Responses to the WECA Joint Local Transport Plan showed people's perceived local bus journeys to be unreliable, not good value for money and difficult to plan
- East Bristol is well connected to Bristol city centre and key places in the eastern fringe by buses, but orbital services are limited, and most services end in the city centre. Walking and cycling is therefore important in improving the reach and quality of interchange with buses
- Buses driving from the east to west along Church Road are often at capacity
- Inconsistent priority for buses on Church Road due to limited carriageway space which leads to delays
- In line with national trends, bus patronage has been falling since 2018, and the fall has exacerbated due to the pandemic and the national bus driver shortage
- Lawrence Hill Rail Station suffers from a lack of step free access on the inbound line and limited-service frequency



Figure 7: Car dominated streets that are unsafe and substandard for cyclists and pedestrians



Figure 8: Congestion on Church Road without marked or protected cycle paths and bike parking, or safe marked crossings for pedestrians

2.4 Key issues in the area

Substandard walking and cycling routes

- Lack of safe crossing points and pedestrian infrastructure, limiting movement between neighbourhoods
- Lack of cycle infrastructure on busy roads and cycle parking at main destinations (e.g. on Church Road)
- Some residential streets carrying high volumes of traffic reducing overall permeability of neighbourhoods
- The area has some challenging topography
- Lack of coherent and attractive routes to River Avon and key green spaces
- EBLN highlighted key barriers to cycling include safety concerns, cycle theft, attractiveness of routes, lack of rider confidence, access to a bike, air pollution, perceptions and lack of infrastructure

Low quality public realm

- Littering issues all across the area
- Lack of destinations and places where people want to spend time and interact
- Businesses are unable to 'spill out' on to streets limiting social space, due to narrow pavements, high speeds, noise and pollution
- Several poor quality and run down shop fronts towards the west and boundary treatments, vacant sites and boarded properties give an overall neglected feel
- 64% of residents would like more variety in shops
- High vacancy rate for Church Road; 5.2% (High Street Renewal, 2021)



Figure 9: Littering and waste outside on pavements, blocking access



Figure 10: Littered, narrow, unsafe and poorly waymarked cycling and pedestrian routes

2.4 Key issues in the area

Deprivation, health issues and inequality

- Home to some of the most deprived communities in England, such as Lawrence Hill, creating a large imbalance between communities from east to west and differences in level of engagement
- Poor health in the area overall (obesity, cardiovascular disease) and high number of premature deaths
- Traditionally a more affordable area of Bristol but house prices have risen at some of the fastest rates in the city over the last decade
- Communities are vulnerable to gentrification and displacement exacerbating inequalities
- Church Road within the cities Air Quality Management Area.

Non-resilient and climate proof environment

- Lack of street trees and greenery with poor connections to local parks.
- Area vulnerable to urban heat island effect, surface flooding and poor biodiversity as a result.
- Most of the project area scores 'very high' on the Heat Vulnerability Index developed for BCC.
- Lack of quality paving and permeable surface treatments (incl. SUDs) increase flood risk of surface flooding
- Flood risk for communities north of River Avon



Figure 11: High vehicle speeds and differences in speed limits along Church Road



Figure 12: Non-resilient residential streets vulnerable to heat island effect and difficulties processing rain water

2.5 Opportunities in the area

Opportunities and strengths identified through community engagement, SWOT analysis and research.

The strengths and opportunities that make the east Bristol area unique and suitable for investment are the significant levels of active travel, its central location and proximity to key destinations, the strong sense of community and engagement as well as supporting developments and initiatives.

Central location

- East Bristol is conveniently located; in close proximity to Bristol's city centre, Bristol Temple Meads Station, Lawrence Hill Station and some key cycle routes (see next section), giving this area a high propensity for increasing trips by sustainable modes.
- Some planned mixed-use developments (Temple Quarter & Silverthorne Lane) are located between the city centre and East Bristol, creating opportunities to better connect established communities in east Bristol to new communities in the city centre, through improving public realm and access



Figure 13: Significant levels of walking and cycling and dependency on buses across the area

Significant levels of cycling and walking and potential for uplift

- Three cycle routes of varying quality and popularity cross the area from east to west; Bristol to Bath Railway path, the Wesley Way and the River Avon trail
- The share of residents in East Bristol riding a bike at least once a week is significant, with Easton at 43%, Lawrence Hill at 34% and St George West 45% (Bristol average 28%) (Ward Profiles, 2022)
- The EBLN engagement shows that 34% - 45% of residents report that they cycle once per week, 93% of people walk to the main high street Church Road, 98% of children walk, cycle or scoot to school and 74% of households have at least one bike
- The EBLN engagement shows that to get to work 52% of residents cycle or walk and for educational purposes that rises to 64%
- The area is reaching a 'critical mass' of cyclists that will change perceptions and norms and lead to an exponential growth in numbers with targeted investment.
- Wards in East Bristol have some of the lowest average number of cars per household, e.g. Lawrence Hill 52%.

2.5 Opportunities in the area

Significant levels of cycling and walking and potential for uplift (continued)

- The PCT "Go-Dutch" scenario provides insight into cycle uptake when infrastructural and cultural barriers have been overcome. Overall, a +10% to +15% increase could be achieved for East Bristol.
- The top supported measures to increase cycling usage according to residents are access to secure cycle storage near their home and access to a bike or cycle sharing scheme (Sustrans walking and cycling index, 2022)
- Parts of Church Road and neighbouring streets have space to repurpose car parking for alternative uses, such as secure bike parking

Potential for growth in public transport

- East Bristol is well connected to the city centre and key destinations in the eastern fringe by buses. However, orbital services are limited, and most services end in the city centre. Walking and cycling is therefore important in extending the reach and quality of interchange with public transport
- Lawrence Hill station at the bottom of Church Road provides direct rail services to Temple Meads, Cotham, Clifton and Avonmouth.
- Lawrence Hill Station lies along the key Cardiff - Bristol corridor and provides regular services to stations within the wider Bristol area. Despite being on corridor, only a few services per day to Cardiff stop at the station.



Figure 14: Central location in the city's active travel network, close to the city centre, Temple Meads and Lawrence Hill stations, River Avon and more

2.5 Opportunities in the area

Core high street on Church Road with independent shops and secondary local shops

- Businesses are generally satisfied and feel confident about the future of Church Road (source: Reopening High Streets)
- Church Road High Street has a mix of independent shops and local businesses, with investment secured from the High Street fund
- Untapped potential to celebrate the diversity and local identity of the area; the multi-cultural and vibrant communities can be reflected in the design and use of the street scape

Strong sense of community and high levels of engagement and participation

- Local residents feel a sense of belonging and community cohesion
- Wide variety of faith spaces that serve different communities, improving social cohesion
- High number of engaged residents (EBLN), contributing to community engagement
- Well organised lobby groups interested in restoring places for local communities
- Three play street orders – where streets are closed on scheduled dates to allow play - are in place
- Strong street art scene, including works from Banksy
- Appetite for events and activities, especially in the evenings. Area served as destination for music and culture festivals, such as Redfest and the yearly recurring Lantern Parade



Figure 15: Various green spaces that service different functions, such as dog walking, leisure and sport activities



Figure 16: Strong local street art scene including works from Banksy and local artists

2.5 Opportunities in the area

Schools and educational facilities

- The area has a wide variety of local schools, academies and nurseries
- School streets have been introduced at Redfield Educate Together (2021) and Whitehall Primary School (2022), illustrating the appetite for change
- Close working relationships with schools
- There is an opportunity to open and embed education around public health and air quality into the community programme

Green spaces and healthy streets

- Multiple green spaces across the area – St George's Park, Netham Park, Trooper's Hills – serving different needs, e.g. sports and leisure
- A strong network of well-maintained allotments spread across the area, especially in the eastern residential areas of St George
- Neighbourhood is located above the River Avon where green active corridors are proposed to reduce flooding risk
- Opportunity for flexible open spaces that can be used for different functions



Figure 17: Appetite for more street greenery in the area



Figure 18: Educational facilities scattered around the area serving the local community

2.6 Projects in East Bristol

The Mini-Holland scheme will draw together and amplify the benefits of complementary projects in the area

Within the scope of our Mini Holland proposal we have several planned or ongoing complementary projects which we plan to pull together under a unified programme of works and governance.

Taking this approach we will find efficiencies between projects (e.g. shared comms resource and streamlined governance/decision making) as well as seek synergies that amplify the overall benefits of projects beyond their individual impact. An example of this would be how we will combine our School Streets, Cycle Hangar and Mini Holland engagement programmes to help us reach a larger and more diverse audience than if the projects continued independently of each other.

The following sections describe planned or active projects our Mini Holland area

East Bristol Liveable Neighbourhood

The East Bristol Liveable Neighbourhood (EBLN) is the first Liveable Neighbourhood to be piloted in the city. In line with the core principles of a 'low traffic neighbourhood' the project aims to provide safer streets for residents through the strategic placement of modal filters. The filters will reduce non-residential traffic passing through the community to encourage more trips by foot, bike, bus and wheeling.

Figure 3 shows the geographical scope of the EBLN scheme and how it overlays on to our Mini Holland proposal. Ultimately our EBLN and Mini Holland programme are strongly related and share the same overall approach and objectives. Our bid proposes that we take lessons from the initial delivery stages of our EBLN and be much more ambitious in delivering transformative change on a larger scale.

While a separate project in financial terms EBLN, is seen as the first phase of the Mini-Holland project. Chapter 5.3 describes how these projects will interact with each other in much greater detail including the phasing of engagement activity and build.

In early 2022 EBLN progressed through the 'co-discover' stage with the community. Over 6000 households and 400 businesses responded.

The 3 most crucial indicators to respondents were:

- safety during walking and cycling,
- good air quality,
- easy to walk, cycle and use public transport.

The top 3 reported issues were poor air quality, noisy traffic and areas that feel unsafe to walk and cycle.

The engagement also captured the top priorities for residents:

- traffic calming measures;
- road safety for pedestrians and children;
- reducing overall congestion;
- safer junctions for walking and cycling;
- additional crossing measures.

EBLN is currently in co-design stage with a trial programmed in from summer 2023.

More on the EBLN project can be found on the project's Commonplace: Have Your Say Today - East Bristol Liveable Neighbourhood - Commonplace

LCWIP

Adopted in 2020 our local LCWIP sets out our walking and cycling investment properties up to 2036.

Our Mini Holland proposal would look to deliver improvements to four LCWIP cycle routes in the area as well as the Church Road 'Core Walking Zone.' These improvements will complement the ongoing investment to these routes through ATF and CRSTS. The specific improvements to these routes are outlined in detail here and include LTN 1/20 standard infrastructure along these major cycling corridors:

- Concorde Way
- Feeder Road
- Bristol Bath Railway Path
- Beaufort Road/Victoria Avenue

We expect non-LCWIP proposals to also form an important part of our programme of works to ensure that different types of trips are catered for and to ensure there are safe and convenient connections to our high capacity LCWIP routes.

2.6 Projects in East Bristol

The Mini-Holland scheme include the current East Bristol Liveable Neighbourhood pilot scheme



Figure 3: EBLN scope

2.6 Projects in East Bristol

Complementary projects in the area

Church Road – High Street Improvements

Church Road is one of Bristol's most diverse and fast-changing high-streets with a wide range of shops and services. In the wake of the pandemic the council secured £4.72m of funding to help local high streets recover from the impact of Covid 19 and £208,000 has been allocated to Church Road.

Engagement with visitors, businesses and residents have shown that most people walk (87%) or cycle (6%) to Church Road for their weekly visits, supporting the case for reorganising the available space to better cater for people travelling by foot, cycle or scooter.

Improvements people would like to see are:

- more greenery,
- better litter and recycling facilities,
- more events,
- parking and traffic calming measures

Promotional activities and physical high street improvements will be rolled out in summer 2023 in line with our EBLN trial. Our Mini Holland proposal will look to build on the relatively modest budget of the High Street fund and put in place more permanent and far-reaching improvements

More information on the fund can be found here: High street improvements (bristol.gov.uk)

School Streets and play streets

The city is currently delivering a programme of School Streets to improve road safety and encourage walking, cycling and scooting. These schemes work by closing streets to non-essential traffic during school opening and closing times and help to improve air quality and the general environment for children, parents and residents.

The programme launched in February 2020 with two schools initially being piloted. Another two schools joined in 2021 (inc. a school in our Mini Holland area), with three more schools added to the programme in 2022 (inc. another in our Mini Holland area). A further 3 schools will be on the programme for 2023 and the Mini Holland proposal provides an opportunity to expand the scheme even further still to encompass the remaining primary schools in the scope of the project.

More information on the programme can be found here: Bristol School Streets – Travelwest

Bristol Bath Railway Path 'One Path Initiative'

This project seeks to tackle conflict between users on the shared use, off road and heavily congested Bristol to Bath Railway Path which marks the northern boundary of our Mini Holland project area. The project is almost complete and through the co-design process has seen improvements ranging from segregation to new seating and planting

In this project, the Council is working with Sustrans and the communities who use and live near the path to ensure the path is accessible to all and for everyone to enjoy. More information on the project can be found here: Making the Bristol and Bath Railway Path better for all - Sustrans.org.uk

Bristol Clean Air Zone (CAZ)

Bristol's Clean Air Zone was introduced on the 29th of November 2022 and charges non-compliant diesel and petrol cars entering the zone. The Council has a comprehensive mitigation package to help businesses and individuals adapt to the new arrangements including grants, mobility credits and travel planning support. Our Mini Holland proposal will help improve conditions for people travelling into the zone via compliant means by improving active and public transport links as well acting as a vehicle for additional, targeted promotion of the existing mitigation package. More information can be found here: Bristol's Clean Air Zone

2.7 Projects in the wider area

Complementary projects in the area

River Avon Flood Strategy

To the south of the Mini-Holland area runs the River Avon, an important asset to the city but one that also creates challenges around flooding. With funding from WECA's Investment Fund Programme an outline business case for a flood strategy is currently being produced and will be completed in summer 2023. As well as detailing plans for new flood defences the strategy will create an investment strategy for wider measures that

- Create or improve existing active travel routes
- Create more cohesive, resilient and healthier communities
- Protect and enhance recreational, heritage and wildlife spaces

Our Mini Holland proposal will link into this work to identify what additional investment opportunities could supplement any funding we receive from the DfT. More information on the scheme can be found here: Flood risk strategy and responsibility (bristol.gov.uk)

Temple Quarter development & Temple Meads regeneration

Bristol City Council, WECA and their partners are working on an ambitious plan to develop the Temple Quarter area which lies adjacent to the south western boundary of our Mini Holland boundary.

The programme will transform over 130 hectares of brownfield land over the next 25 years into a series of thriving, well-connected mixed-use communities. The regeneration of the area will deliver 10,000 new homes and 22,000 new jobs. £95 million has been awarded by government to deliver this programme.

It's critical that this new community is sensitively integrated into east Bristol and the rest of the city and our Mini Holland proposal will contribute to this by improving the physical connections between this major regeneration project and our pilot area. More details of the scheme can be found here: Vision – Bristol Temple Quarter Enterprise Zone



2.7 Projects in the wider area

The projects introduced on the previous pages are located in and around East Bristol.

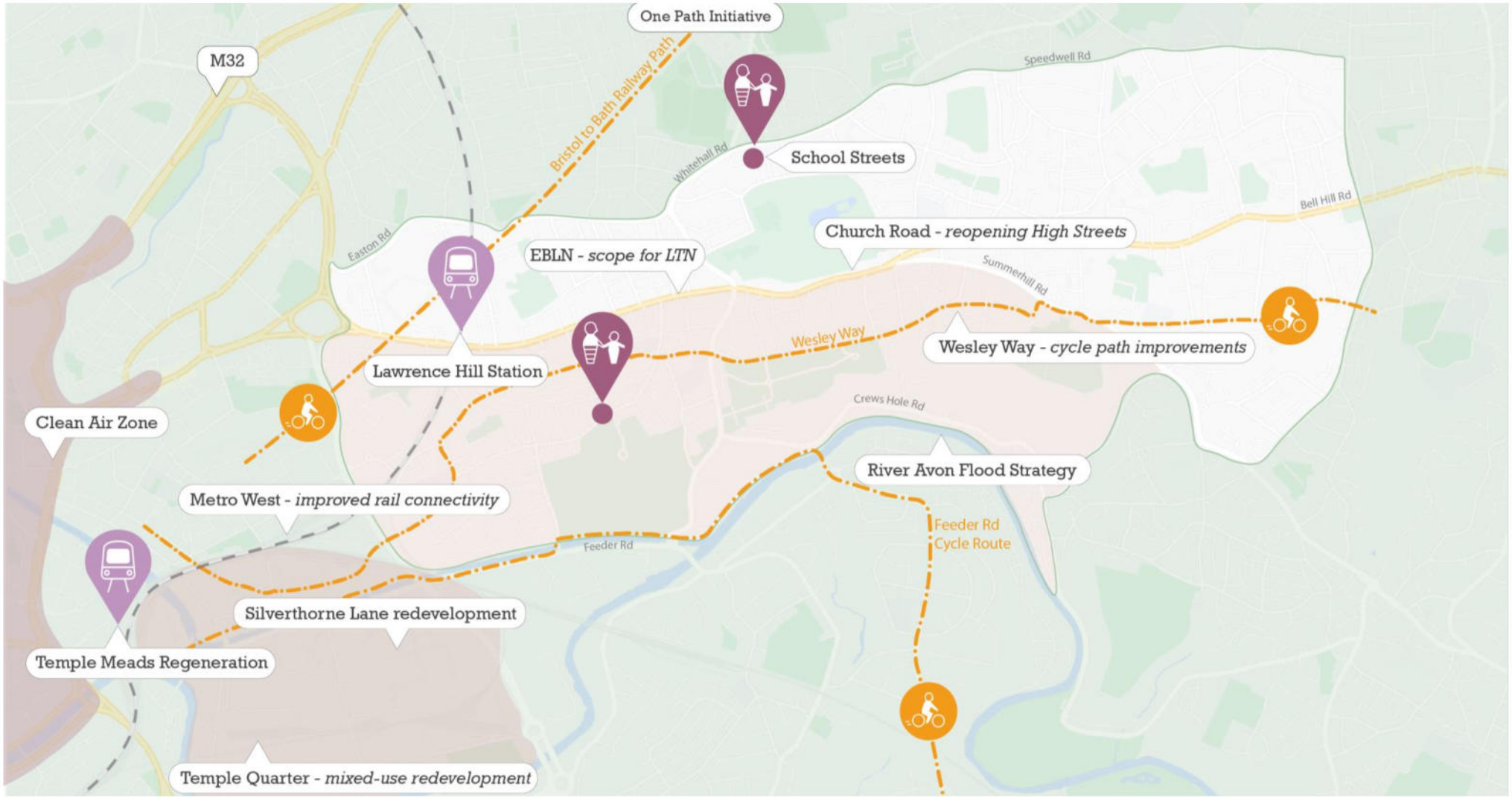


Figure 4: Projects in and around East Bristol

3. Current State



3.1 The existing transport infrastructure

An analysis of the existing cycle links in the East Bristol area.

Existing cycle provision within East Bristol is limited and sign posted, segregated cycle lanes are scarce, often forcing users to cycle along heavily trafficked roads.

Existing Cycle Network

Figure 19 shows the current state of the cycle network. Segregated cycle lanes only exist on the connection from the Bristol to Bath Railway Path past Lawrence Hill roundabout to the north along Easton Way (see photo). An additional small section connects Barrow Road to St Phillips Causeway.

Using BCC's cycle network map, signposted routes were assessed based on cycleability. Routes that are compliant with LTN 1/20 include:

- Bristol to Bath Railway Path – off-road mixed-use path connecting the east to the city centre. 3m wide at minimum and recently widened to 4.5m in parts, but high pedestrian and cyclist volumes tend to lead to overcrowding
- Wesley Way – on-road east-west route from Bristol Temple Meads to Kingswood (South Gloucestershire). Sections on high traffic volume roads were removed
- St George Park – off-road shared use paths

The River Avon Trail is a popular off-road east-west shared use path mainly along the river. However, its width is not LTN 1/20 compliant, and a key issue is the busy Marsh Lane and Netham Road junction where there is only an informal ped/cycle crossing . It is shown on the map for context but will not be included in the existing route assessment.





Figure 19: Current cycle network in East Bristol

3.1 The existing transport infrastructure

An analysis of how people currently cycle in the East Bristol area.

Due to the absence of a coherent cycle network within the area, Strava and the Propensity to Cycle Tool are used to show active travel use.

Strava

Strava is a programme that allows users to track their physical exercise by mode. User data is aggregated and high activity routes are identified based on the provided GPS data. For Bristol, the user split is approximately 34% leisure and 66% commuting use. Within the study area the off-road Bristol to Bath Railway Path and the River Avon Trail act as key routes. In addition to this, the Church Road corridor and Blackswarth Road are shown as important routes, despite these having high volumes of traffic.

Propensity to Cycle Tool (PCT)

The PCT can help to inform cycling investment as it identifies areas that have potential for more cycling trips.

Within the project area, levels of cycling ranges from 4-6% in the east (Crew's Hole, Hanham, St George's) and 10-15% more towards the west (Lawrence Hill, Redfield, Easton).

The PCT "Go-Dutch" scenario provides insight into cycle uptake when infrastructural and cultural barriers have been overcome. Easton is the area most appropriate to cycling. Overall, a +10% to +15% uplift could be achieved for East Bristol.



Figure 20: Strava flow data

3.1 The existing transport infrastructure

An analysis of the current public transport network in the East Bristol area.

East Bristol is well connected to Bristol city centre and key places in the eastern fringe by buses. However, orbital services are limited, and most services end in the city centre. Walking and cycling is therefore important in extending the first and last miles to support the public transport service.

Lawrence Hill Station provides direct rail services to Temple Meads, Cotham, Clifton and Avonmouth.

Bus network

Despite a strong demand for buses, passenger satisfaction with the bus service offering in Bristol is low. Responses to the WECA Joint Local Transport Plan (JLTP4) showed people's real and perceived views of local bus journeys to be unreliable, not good value for money and difficult to plan.

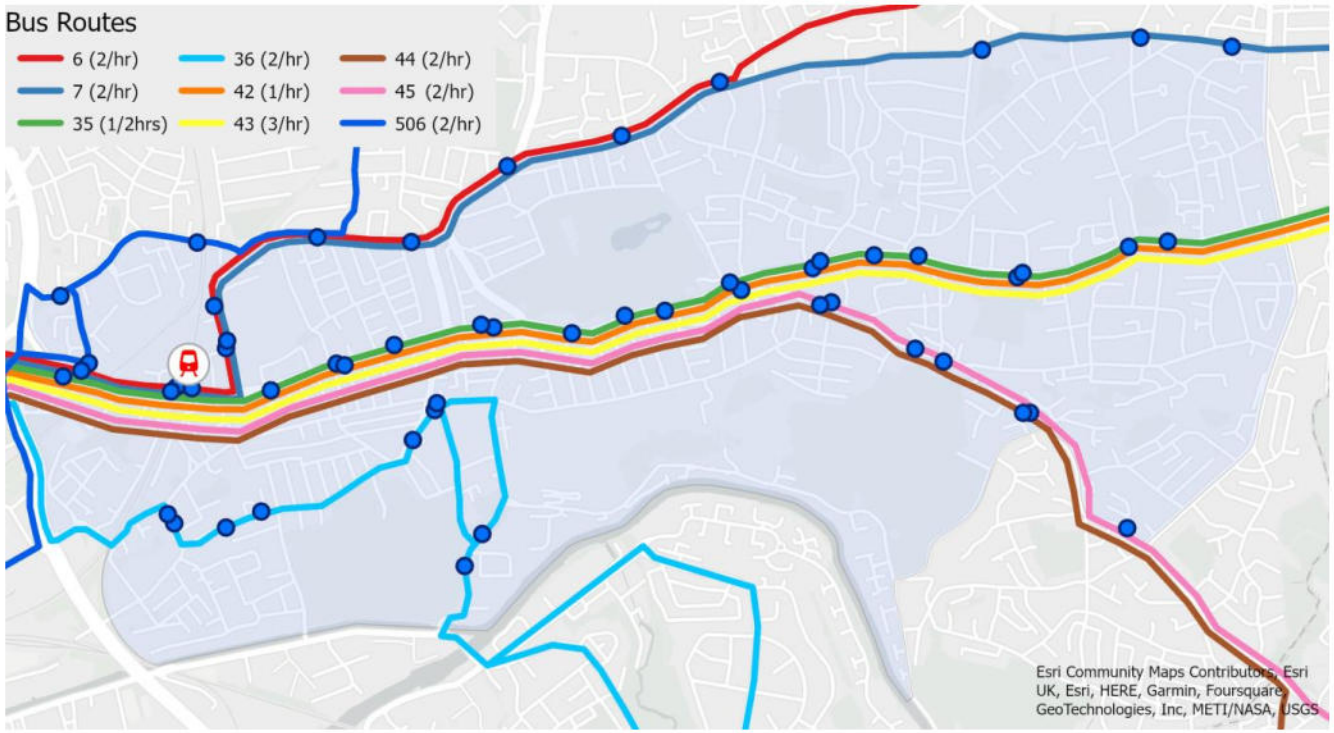
Bus patronage has been falling since 2018, and the fall has been exacerbated by the Covid-19 pandemic and the national bus driver shortage.

Rail Network

Lawrence Hill Station lies along the key Cardiff - Bristol corridor and provides regular services to stations within the wider Bristol area. Despite being on such a busy corridor, only a few services per day to/from Cardiff stop at the station. In addition, select destinations in the South West can be reached from the station.

Step free access to the outbound platform is available via the Lidl car park. The inbound platform (to Temple Meads) can only be accessed via a set of steps.

Rail Services Lawrence Hill Station	
Service stopping at	**Frequency**
Bristol Temple Meads	3/hr
Avonmouth/Montpellier/Clifton	2/hr
Weston-super-Mare	1/hr
Severn Beach	1/hr
Westbury	3/day
Cardiff Central	2/day
Portsmouth Harbour	1/day



3.2 The Active Travel England Assessments

An overview of the DfT assessment for our Mini-Holland scheme.

Approach to assessment

The current state condition and the proposed scheme have been assessed following DfT and Active Travel England (ATE) guidance.

The assessment seeks to quantify the level of improvements and the likely benefits to those who use active travel modes. It also examines the effectiveness of the scheme and helps to refine the proposal.

There are 6 key stages in the assessment:

1. Network Audit – identify existing infrastructure and determine whether their level of service is adequate to attract new active travel trips;
2. Severance and LTNs – identify high traffic roads without cycle infrastructure or formal crossings. These create a starting point for LTN boundaries;
3. Gateways and Porosity – identify potential crossing points that could conveniently connect local streets in one LTN with other local streets in adjoining LTNs;
4. Local and Strategic routes – identify local routes, i.e. The shortest logical routes between gateways to take people around the LTNs; identify major routes to be transformed into walking and cycling friendly environment;
5. LTN internal interventions – identify potential interventions such as modal filters, play streets and pocket parks to stop motor traffic from passing through an area.
6. Perimeter Road treatments – identify mitigation measures such as segregated active travel infrastructure, signage and wayfinding treatments to increase awareness of LTNs. Introduction of SUDs and planting.

There are four tests to support the assessment:

1. Porosity test – how many gateways are there per LTN?
2. Mesh density test – how much cyclable route is there per km^2?
3. Permeability test – how many clear routes run through at least two LTNs?
4. Rat-run test – are there any rat-runs within the proposed LTNs?



3.3 Severances and LTNs

An analysis of current traffic flows and severances in East Bristol.

The analysis of traffic flows and existing severances helps to understand the current issues informs which interventions are needed and where they would be best located. Severances are high traffic roads with no segregated cycle infrastructure.

Severances

The Church Road corridor connects central Bristol with the residential areas of South Gloucestershire to the east. There is high volumes of traffic and congestion along the corridor, extending onto Clouds Hill Road and Summerhill Road.

Recent observed traffic survey data show that a significant number of corridors have over 2,000 vehicles/day. Hence, even at 20mph, these roads act as a severance as mixed traffic cycling is not suitable for all people in these conditions[1].

Both the railway line and the limited number of access points to the Bristol and Bath Railway Path create a physical severance. However, once accessed, the Bristol to Bath Railway Path itself acts as a gateway as it passes under Church Road and St Phillip's Causeway. Thus, the path will be treated partially as a severance and partially as a gateway, depending on the context.

The map shows an overview of the severances within the area. It should be noted that the private industrial property at Barrow Road (south-western extent of the map) is not shown within the boundary of the study area as it is fenced in all around and hence shifts the accessible area boundary onto Barrow Road.

High Flow Routes:

- Physical severance
- 2,000-5,000 veh/day
- 5,000-8,000 veh/day
- 8,000-10,000 veh/day
- 10,000+ veh/day
- No data but likely 2000+ veh/day

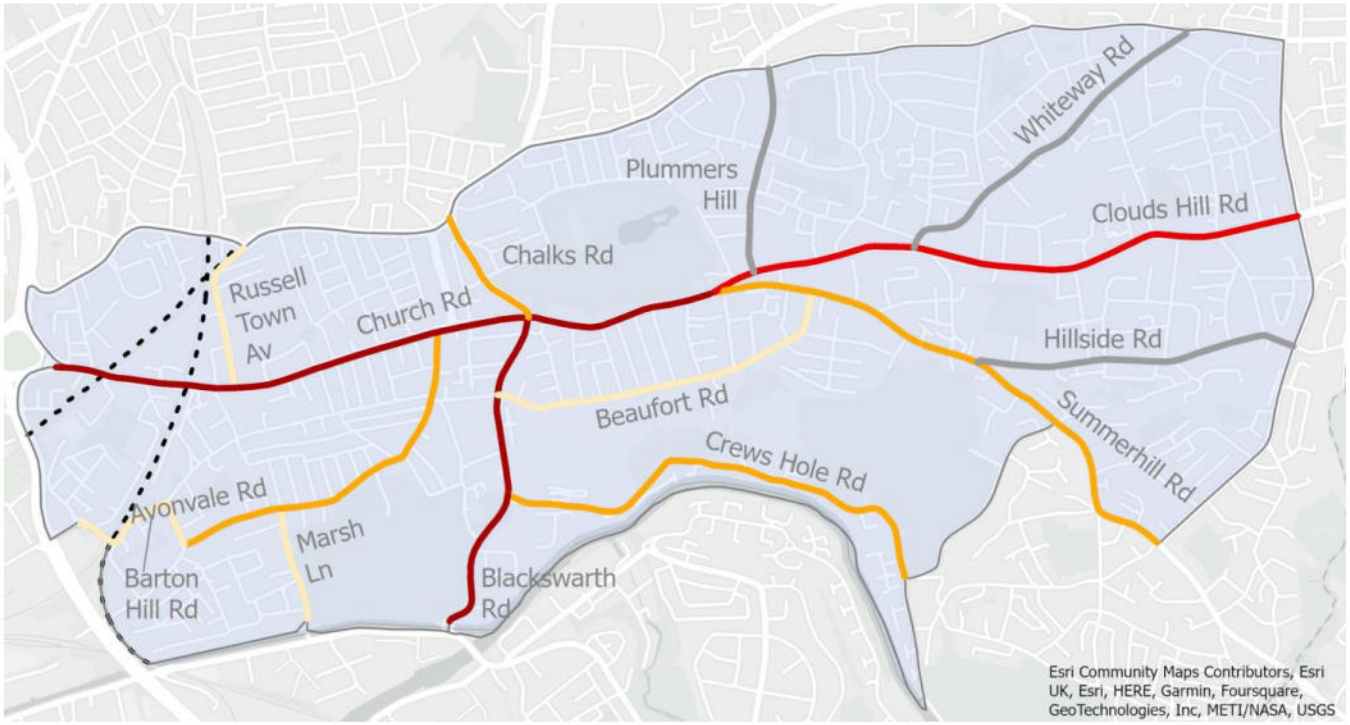


Figure 21: High Flow Routes

[1] Cycle Infrastructure Design Local Transport Note 1/20

3.3 Severances and LTNs

Identification of main severances and traffic flows are used to define neighbhourhoods and develop LTNs.

Possible neighbourhoods

When the existing severances are used as neighbourhood boundaries this results in 18 neighbourhood cells . Areas (in km^2) for each cell are shown on the left map. The study area covers approx. 4km^2 and hence the cells do not meet the recommended LTN size of 1km^2. To create high quality LTNs, the cells are re-grouped into larger areas within which severances can be resolved.

Proposed LTNs

Church Road was taken as the starting point for the LTNs. Blackswarth Road was then identified as a key north-south axis which has to be retained with either Chalks Road, Plummers Hill or Whiteway Road serving as the northern connection. Through several iterations, the LTNs were refined using local knowledge of soft boundaries within local communities, such as identity and spatial differences. This led to the following decisions:

- Division between Easton and St George LTNs via Chalks Road instead of Plummers Hill, so that St Georges Park is part of St George. Furthermore, this puts Summerhill Infant School and Academy (which lies along Plummers Hill) into a LTN rather than on a boundary road.
- Creating a separate Crew's Hole LTN instead of merging this with Troopers Hill to maintain Crews Hole Road as a possible diversion route for Church Road. Additionally, the Troopers Hill Nature Reserve forms a natural boundary between to communities to the north and the south of the reserve.

The resulting LTNs (shown on the map on the right) better match the sizing recommendation of 1km^2 per LTN whilst recognising strategic transport routes. Due to the significant difference between the 18 cell existing layout and the proposed LTN one, baseline assessments will be carried on both layouts.

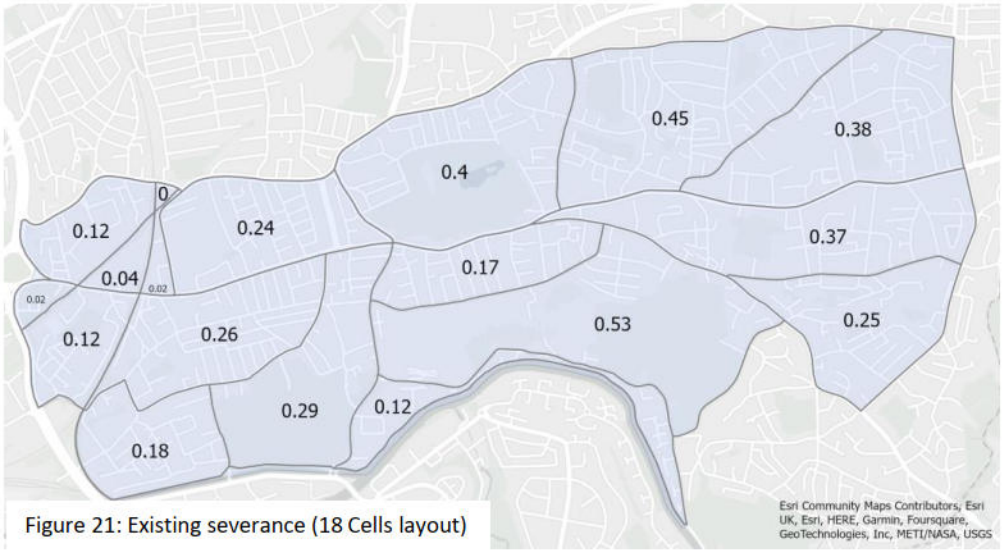


Figure 21: Existing severance (18 Cells layout)

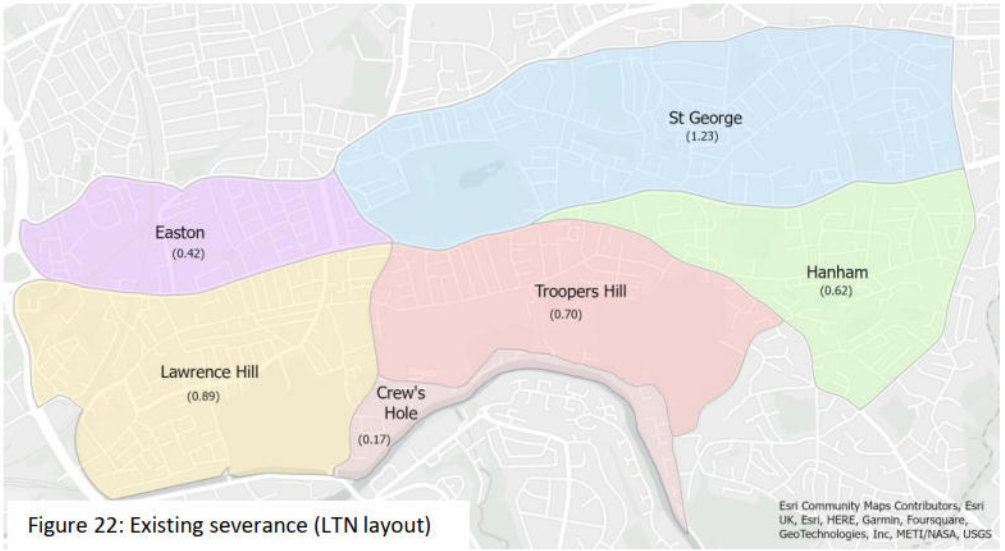


Figure 22: Existing severance (LTN layout)

3.4 Gateways and porosity

A baseline analysis of the main gateways and porosity of the area.

The analysis shows that the majority of crossings are not fit to be neighbourhood gateways, those on high streets and local centres are particularly poor.

Crossings and gateways (baseline)

Results from a survey of all crossings along existing severances is shown in figure 23. Two stage signalised puffin crossings are most common in the area, particularly along Church Road. However, site visits confirmed that due to their long cycle phases, these are not well used and pedestrians tend to walk on red if there is a gap in traffic.

On other roads, uncontrolled crossings with and without islands (i.e. dropped kerb and tactile only) are most common. This requires pedestrians and cyclists to cross two lanes of traffic at once without any assistance.

Active Travel only crossings are located mainly along the Bristol to Bath Railway Path which passes underneath Church Road, Whitehall Road and St Phillips Causeway. Under the latter, two more underpasses with modal filters are present. In the south, a pedestrian and cycle footbridge connects Crew's Hole to St Annes.

Comparing the existing crossings with the Greater Manchester Bee Network guidance, only the crossings shown on the second map are compliant and can thus become neighbourhood gateways. It should be noted that the gateway crossings are all unsignalized and hence are only compliant up to 8,000 vehicles per day.

Overall, existing gateway provision is poor, with most gateways located in the west of the study area.

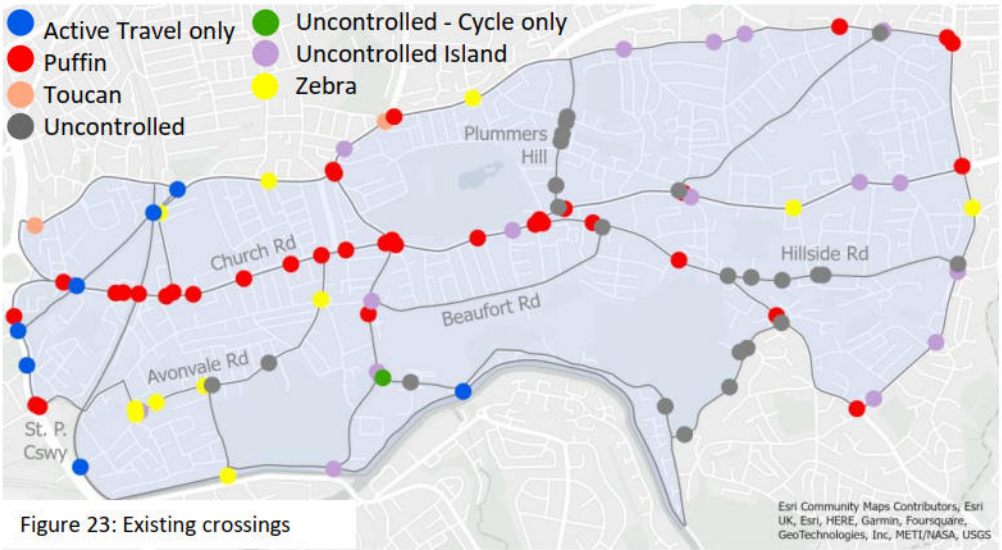


Figure 23: Existing crossings

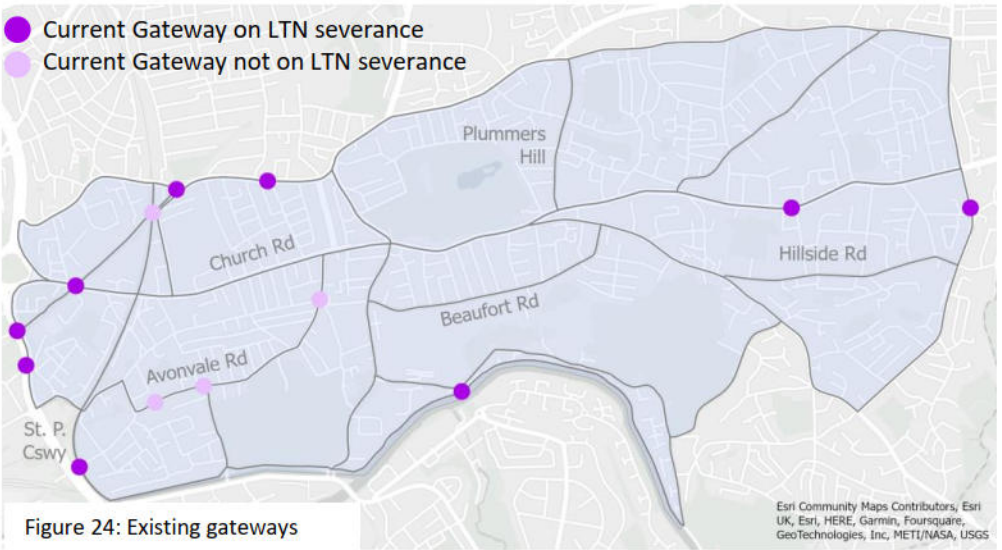


Figure 24: Existing gateways

3.4 Gateways and porosity

A baseline analysis of the gateways within the area helps understand how neighbourhoods are connected and accessed.

The porosity test assesses the number and location of gateways for each LTN; high porosity allows users to pass from one LTN to the next. The baseline assessment of this is outlined below. Results show that porosity is lowest in Troopers Hill.

Porosity test (baseline)

Few existing gateways were identified and hence the study area performs poorly in the porosity test. In the existing severance layout, approximately half of the areas are accessible by one gateway only. This means that active travellers cannot connect to other areas, as gateways on the opposite side of the area are missing. It should be noted that in the north west, the Bristol Bath Railway Path (BBRP) creates several gateways. However, it can mainly be accessed from the west, with areas A & B benefitting from this. The path offers a traffic free connection between these two areas and the wider Bristol to the north and south. Yet, due to the lack of access points to the BBRP from the east, the path also serves as a severance for areas C & D as these do not have an access point to the path.

Area E does have a connection to the BBRP but this is accessed via a severance road and hence is not included as a gateway.

For the proposed LTN layout, it can be seen that Easton and Lawrence Hill benefit from the connection to the BBRP. However, this layout significantly overestimates the area that is currently accessible and hence highlights the importance of assessing the existing conditions to the 18 cells severance layout.

	18 cells	6 LTNs
Fully open	4%	33%
Partially open	42%	50%
Closed	54%	17%

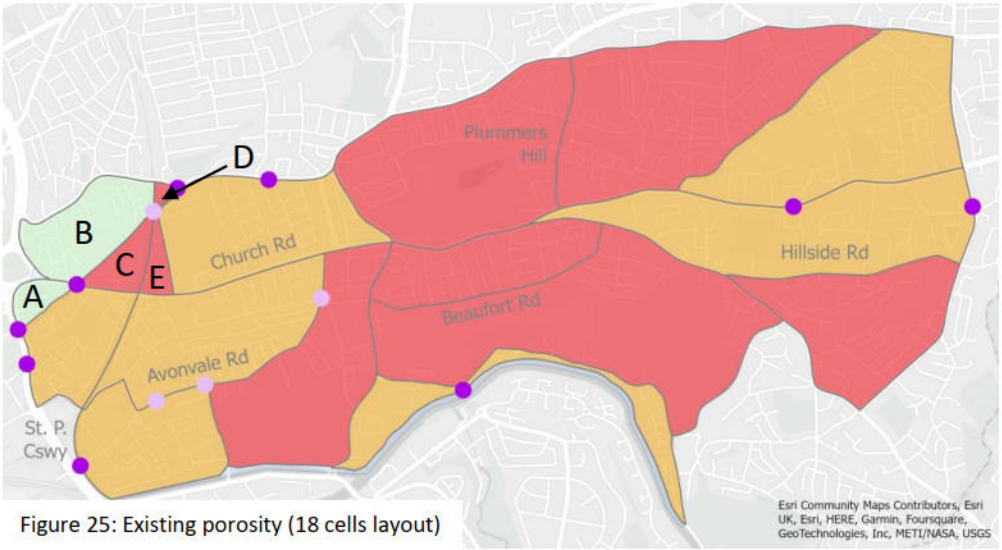


Figure 25: Existing porosity (18 cells layout)

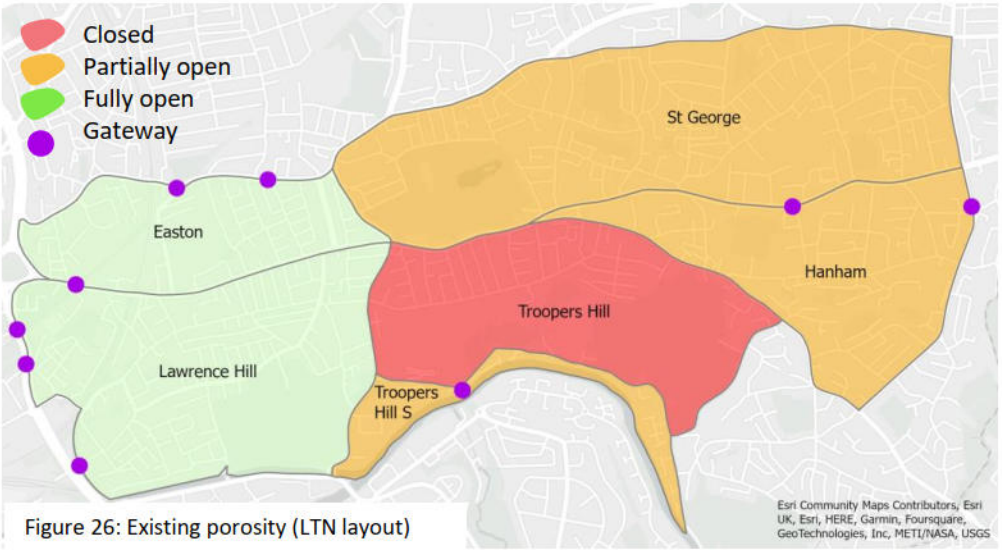


Figure 26: Existing porosity (LTN layout)

3.5 Local and strategic zones

A baseline analysis of the existing cycle network shows the coverage and identifies gaps in the network

The mesh density test assesses how far away from a cycle route a user is at any point in the network. In turn, this is a measure of how much cycle route there is per km^2. The baseline assessment of this is shown below. Results show that coverage of the existing cycle network is poor, especially towards the east.

Mesh Density Test (baseline)

The Mini-Holland guidance sets a 250m mesh as target whilst a 800m mesh is also still considered acceptable. Thus, meshes of 800m or less are rated green.

To increase granularity, the grading was adjusted to also include a 400m threshold from the London Cycling Design Standards. This results in 3 different shades of green, with the darker shades representing tighter meshes.

Looking at the LTN layout, it can be seen that the Lawrence Hill area benefits from Wesley Way, but overall the network is disjointed. Wesley Way itself is disrupted by being located on major severances with no segregated infrastructure. The impact of the BBRP is limited by poor access.

As before, it was expected that the LTN layout would overestimate mesh density, however this was not the case. For consistency, both maps are shown.

Rating	Mesh density	18 cells	6 LTNs
Bad	> 1.4 km mesh	75%	67%
Mediocre	800m – 1.4km mesh	7%	33%
Still good	800m – 400m mesh	15%	0%
LCDS compliant	400m – 250m mesh	3%	0%
Perfect	<250m mesh	1%	0%

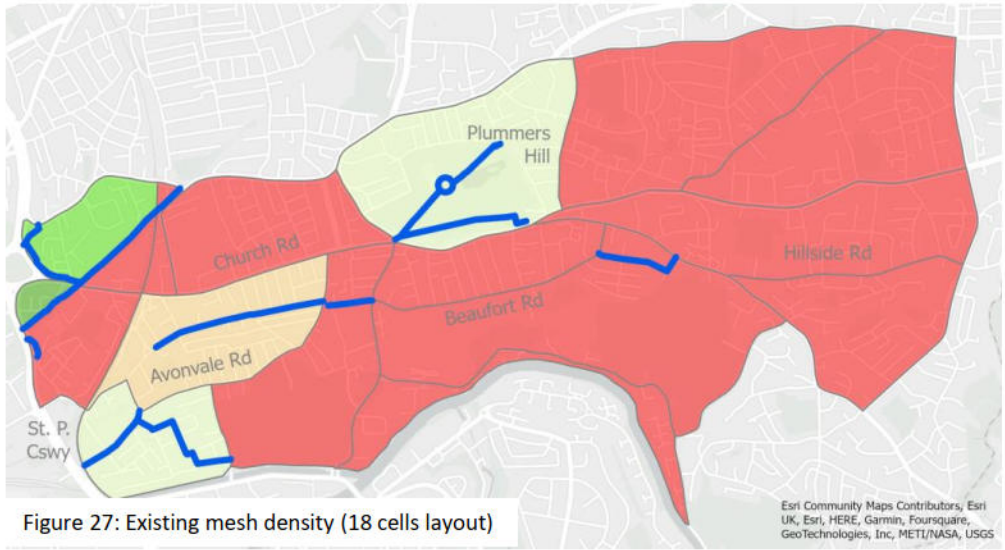


Figure 27: Existing mesh density (18 cells layout)

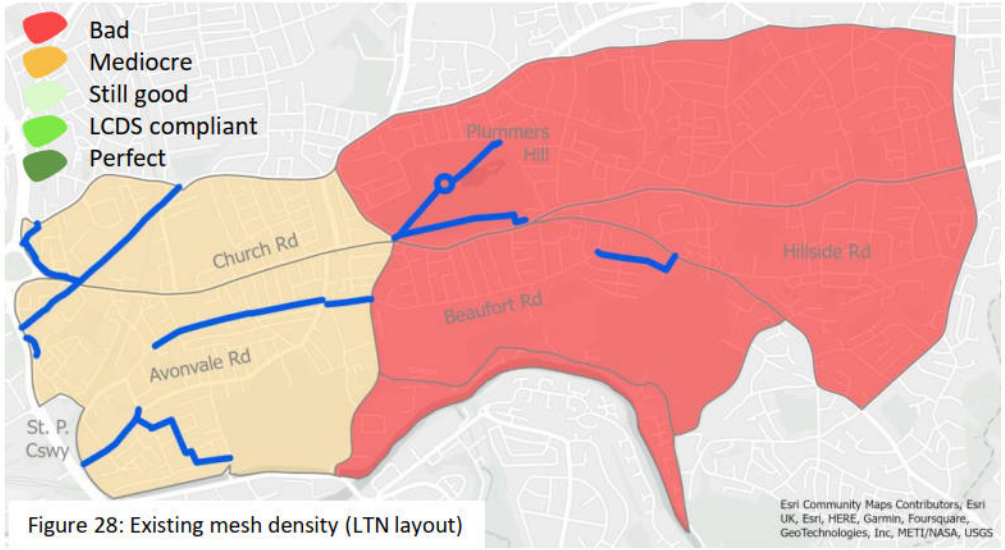


Figure 28: Existing mesh density (LTN layout)

3.5 Local and strategic zones

A baseline analysis of cycle routes that run through more than one LTN shows how users can travel through the wider area.

The permeability test examines the number of clear routes that run through each LTN areas using suitable gateways. The baseline assessment of this is shown below. Results show that a lack of north-south routes results in poor permeability in certain areas.

Permeability Test (baseline)

Due to the disjointed network and the limited number of gateways between cells and LTNs, there are few routes that allow cyclists to permeate through the cells from one LTN neighbourhood area to the next.

Clear through routes are shown in yellow, with gateways and porosity test results overlain for context. Routes are only considered clear through routes if they pass through a gateway. Hence, whilst the River Avon Trail passes through 3 cells / 2 proposed LTNs it does not classify as a clear route due to the lack of suitable crossings on Marsh Lane and Netham Road.

In both setups the BBRP provides a through connection to the city centre and beyond. Within the smaller 18 cell layout a gateway on Avonvale Road connects Wesley Way across the severance, making it a clear through route. This is not the case in the proposed LTN layout, as Avonvale Road is no longer expected to be a severance.

The lack of clear north-south routes in the east of the study area means poor permeability in Hanham, Troopers Hill, Crew's Hole and St George.

Redfield Educate Together Primary Academy is the first School Streets School within the area, followed by Whitehall Primary School. It can be seen that both schools are not well connected with the existing cycle network.

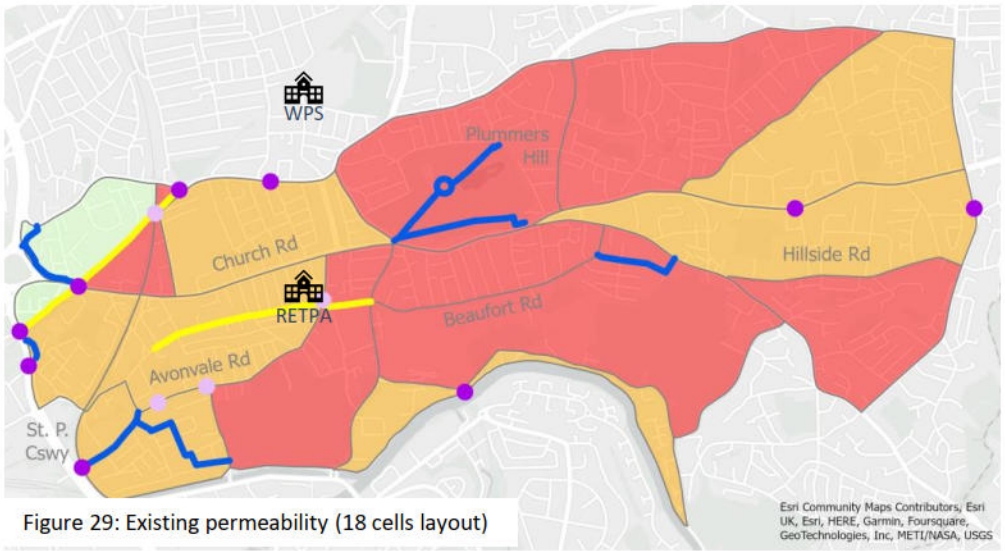


Figure 29: Existing permeability (18 cells layout)

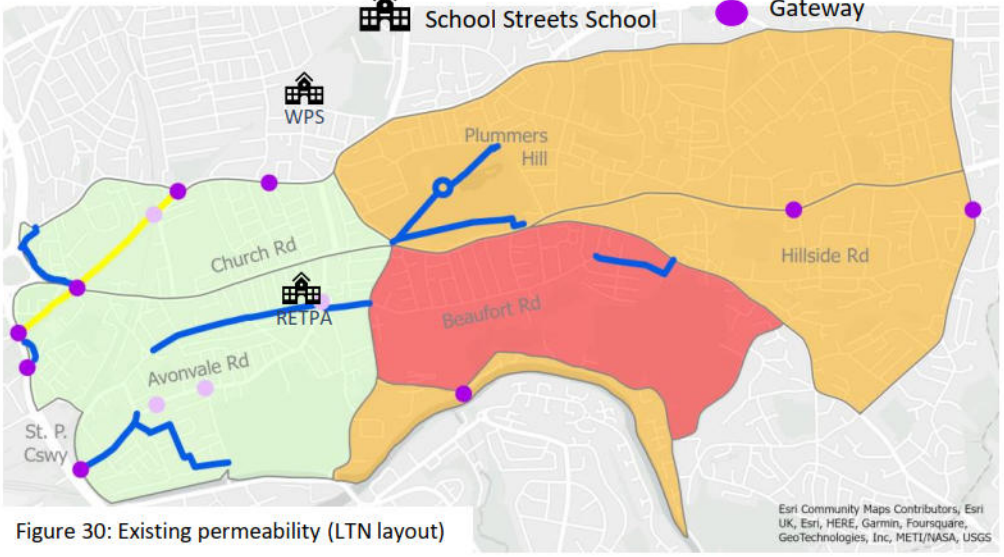


Figure 30: Existing permeability (LTN layout)

3.6 Rat-run assessment

A baseline analysis of rat-running – through traffic using side roads – in the area helps understand where through traffic causes problems.

Rat-running increases traffic on residential streets. Rat-run tests identify which roads are likely to experience this behaviour. In the East Bristol area there are multiple potential rat-run routes, especially towards the north.

Rat-Run Test (baseline)

The following sources are consulted to obtain an understanding of the rat run journeys within the area:

- CycleStreets LTN Tool
- A/B Street
- EBLN Traffic Data

The CycleStreets LTN Tool is recommended in the Mini-Holland assessment guidance to assess rat-running potential. This tool uses OSM metadata to understand which road could be used for rat-running. An extract of this for the study area is shown to the right.

A/B Street is a traffic simulation tool that allows users to examine the way different LTN features affect vehicle routing in an area. At the start the tool calculates likely rat-runs throughout a proposed LTN area and qualitatively indicates which roads experience most rat-run traffic (light = few route paths, dark = many route paths), as shown overleaf. This tool is used to supplement CycleStreets as it provides more detailed information on rat-running likelihood. Overall, A/B Street shows that in its current state the study area suffers from significant rat running potential. Areas with no rat runs are mainly green spaces that are inaccessible by car such as Netham Park, St Georges Park and Troopers Hill Nature Reserve.

The existing configurations of Crew's Hole and Hanham, with multiple cul-de-sacs and modal cul-de-sac arrangement in the south western corner of Lawrence Hill prevents rat running. This was positively raised in the EBLN consultation.

EBLN Traffic Data

Traffic count data from the EBLN pilot data was used to gauge the extent of rat-running within the area. Results are annotated as percentages overleaf.

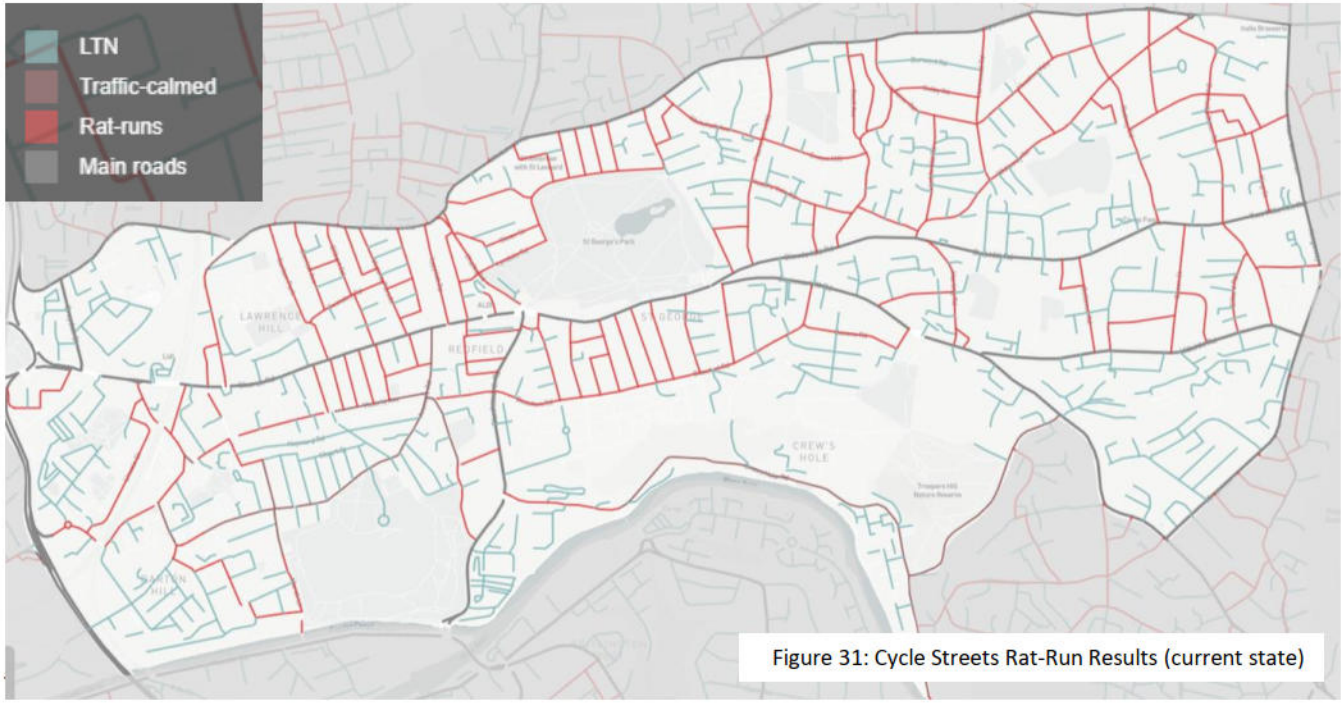
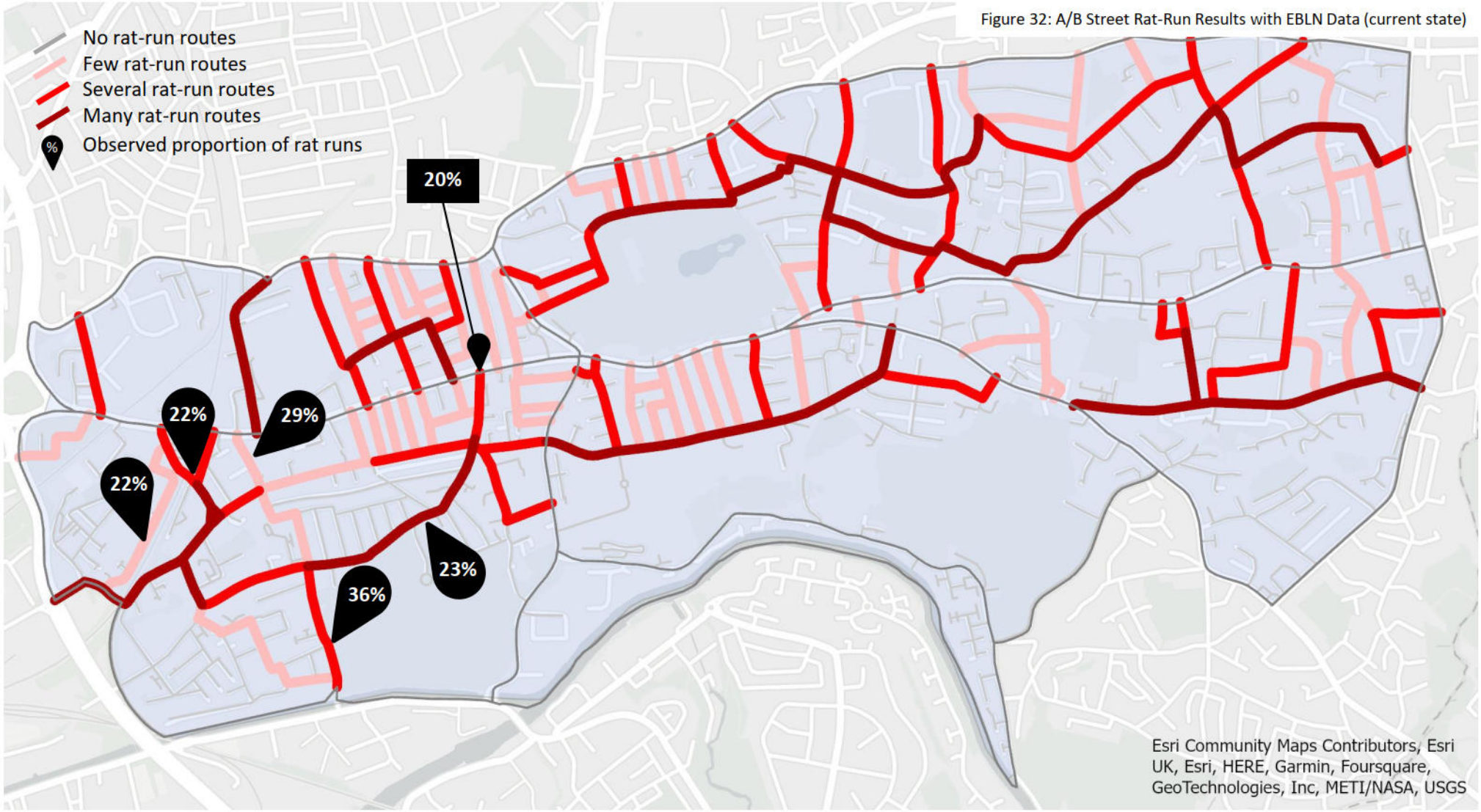


Figure 31: Cycle Streets Rat-Run Results (current state)

3.6 Rat-run assessment

The map below shows the results from the A/B Street Tool and the EBLN pilot.

Figure 32: A/B Street Rat-Run Results with EBLN Data (current state)



4. Future State



Modal Filters, Bristol

4.1 The Mini-Holland vision





4.1 The Mini-Holland vision

The vision will be achieved by:

Supporting healthier lifestyles and strong social connections by making active travel the most convenient and safe way of travelling in and around East Bristol;

Improve social, mental and physical health

Improving the experience of using public transport through creating more pleasant and accessible walking routes, better bus stop waiting infrastructure and bus priority measures;

Reliable public transport

Improving the perception and feel of the area by creating attractive destinations and places for visitors, residents, and local businesses;

An attractive mixed environment

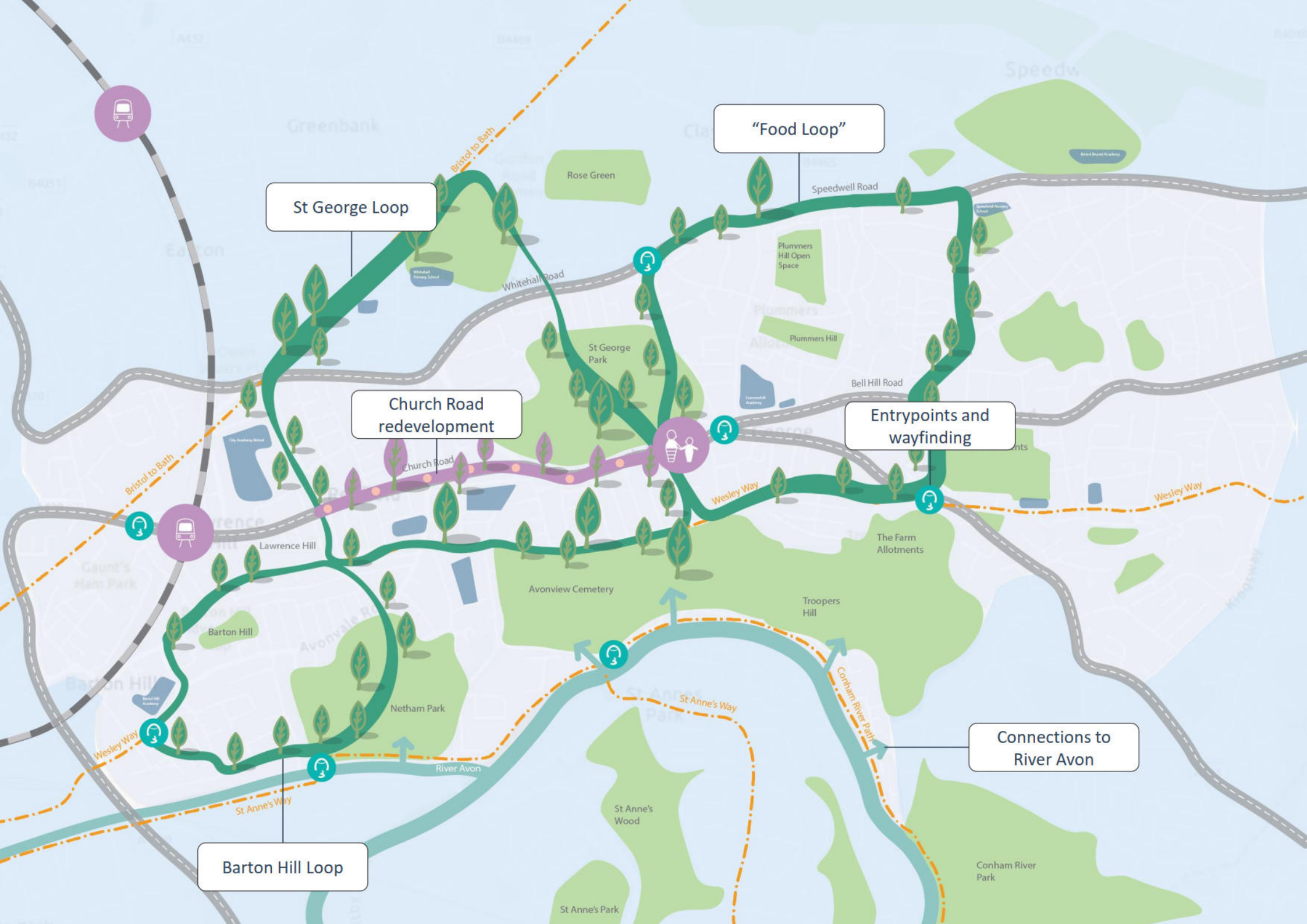
Adapting to climate change by increasing biodiversity and creating climate proof streets by increasing tree canopy, green infrastructure and sustainably managing surface water;

Climate resilient streets

Offering equal opportunities and bespoke interventions to the wide range of different communities living, visiting and working in East Bristol.

Improved equity

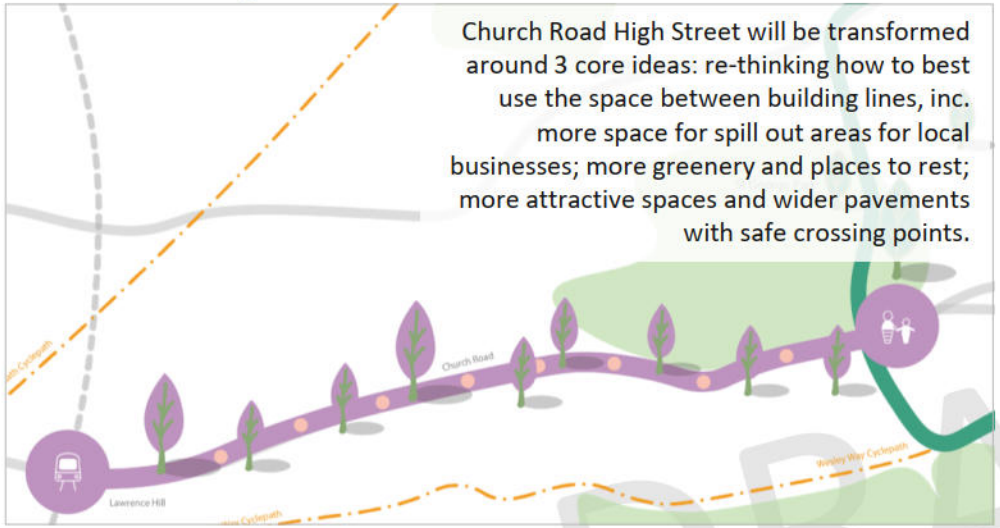
The following maps is a representation of our vision for our Mini-Holland scheme.


"Food Loop"
St George Loop
Church Road redevelopment
Entrypoints and wayfinding
Connections to River Avon
Barton Hill Loop
Rose Green
Speedwell Road
Plummers Hill Open Space
Plummers Hill
Whitehall Road
St George Park
Bell Hill Road
Bristol to Bath
Church Road
Wesley Way
Lawrence Hill
The Farm Allotments
Avonview Cemetery
Troopers Hill
Barton Hill
Netham Park
River Avon
St Anne's Way
Conham River Path
St Anne's Wood
Conham River Park
St Anne's Park

4.2 Key moves – new infrastructure

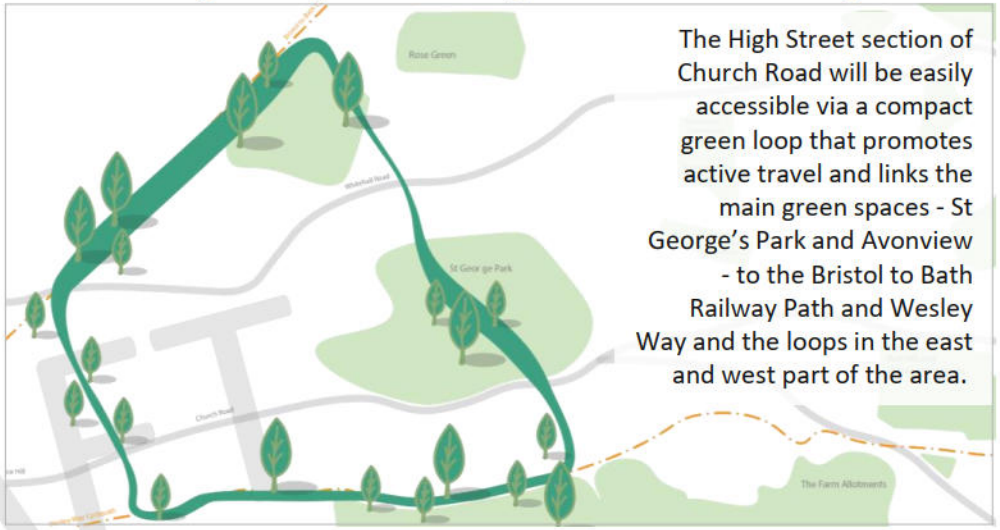
The key moves presented below form the main interventions to reach the vision

4.2.1 A new image for Church Road



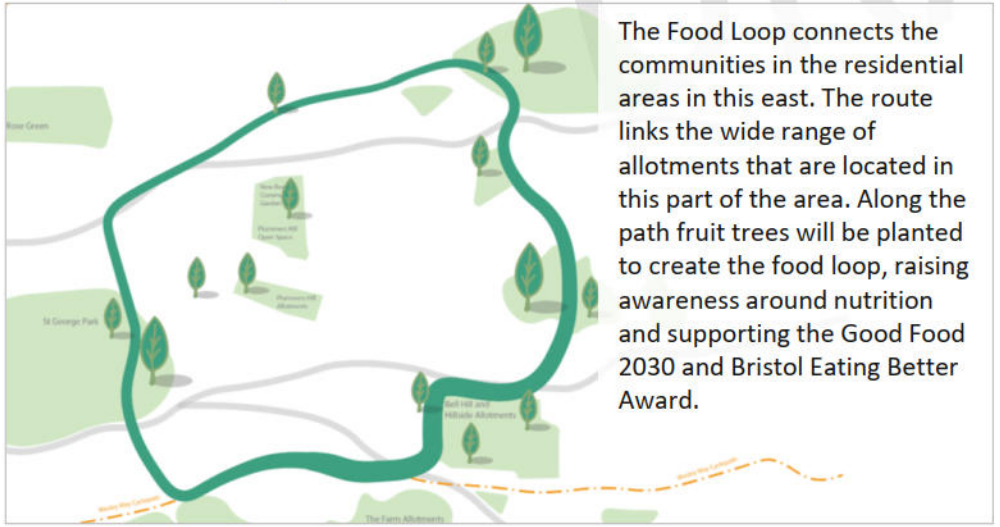
Church Road High Street will be transformed around 3 core ideas: re-thinking how to best use the space between building lines, inc. more space for spill out areas for local businesses; more greenery and places to rest; more attractive spaces and wider pavements with safe crossing points.

4.2.2 St George's Loop – connecting to Church Road as highstreet



The High Street section of Church Road will be easily accessible via a compact green loop that promotes active travel and links the main green spaces - St George's Park and Avonview - to the Bristol to Bath Railway Path and Wesley Way and the loops in the east and west part of the area.

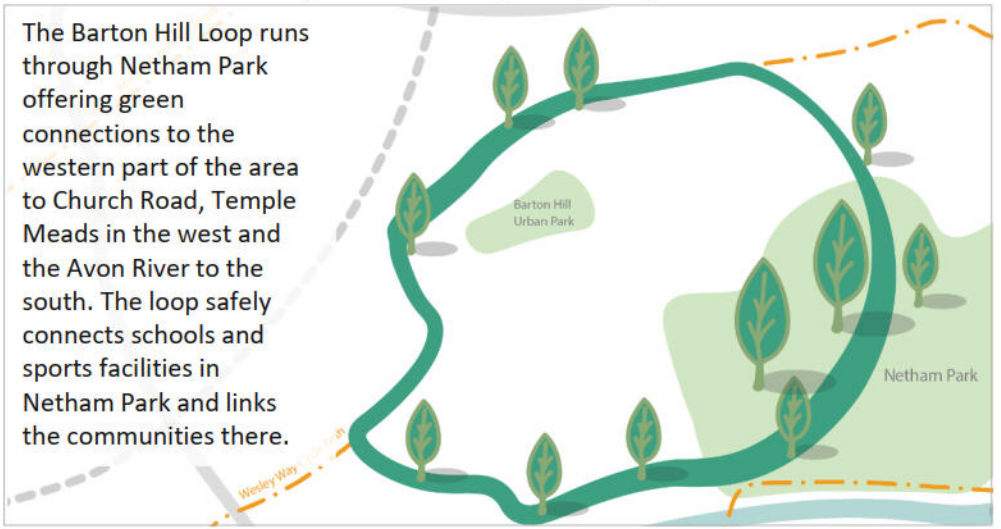
4.2.3 The Food Loop



The Food Loop connects the communities in the residential areas in this east. The route links the wide range of allotments that are located in this part of the area. Along the path fruit trees will be planted to create the food loop, raising awareness around nutrition and supporting the Good Food 2030 and Bristol Eating Better Award.

4.2.4 Barton Hill Loop – connecting Netham park

The Barton Hill Loop runs through Netham Park offering green connections to the western part of the area to Church Road, Temple Meads in the west and the Avon River to the south. The loop safely connects schools and sports facilities in Netham Park and links the communities there.

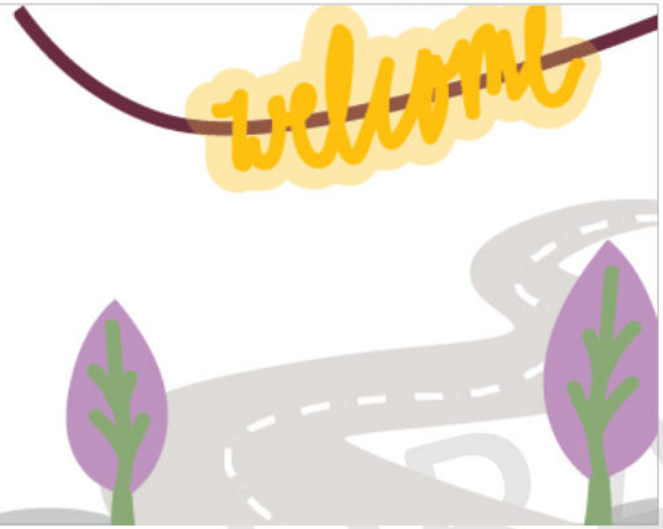


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4.2 Key moves – infrastructure

4.2.5 Community driven design of distinctive entry points

At identified locations distinctive entry points will be created with the local community through co-design, showcasing East Bristol's identity to those entering the area.



4.2.6 Improved wayfinding in and around the area

To ensure that cyclists and pedestrians safely find their way in and around the area, main entry points will be improved through wayfinding, making optimal use of existing routes.



4.2.7 Expanding tree canopies and green infrastructure

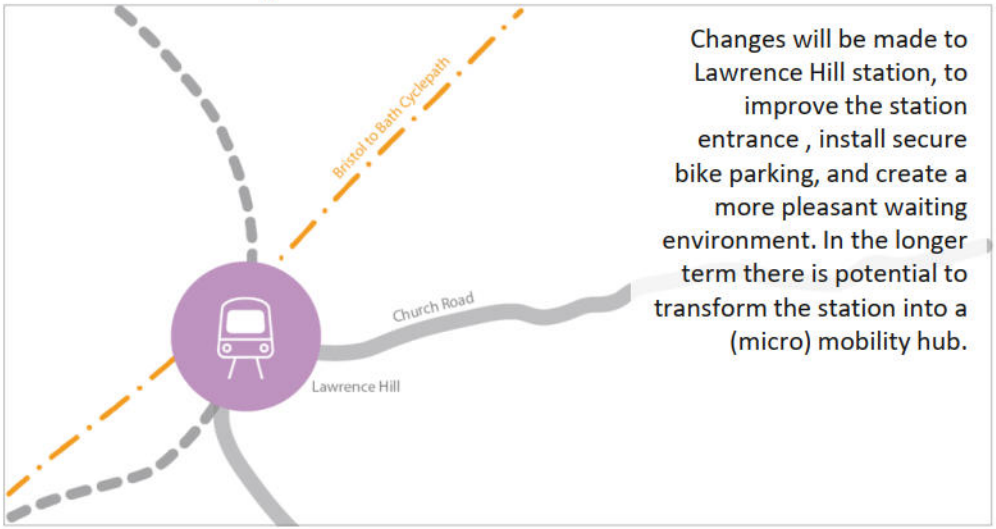
Space will be created to:

- Double the tree canopy
- SUDs and gardens
- Pocket parks



4.2.8 Transforming Lawrence Hill's station entrance

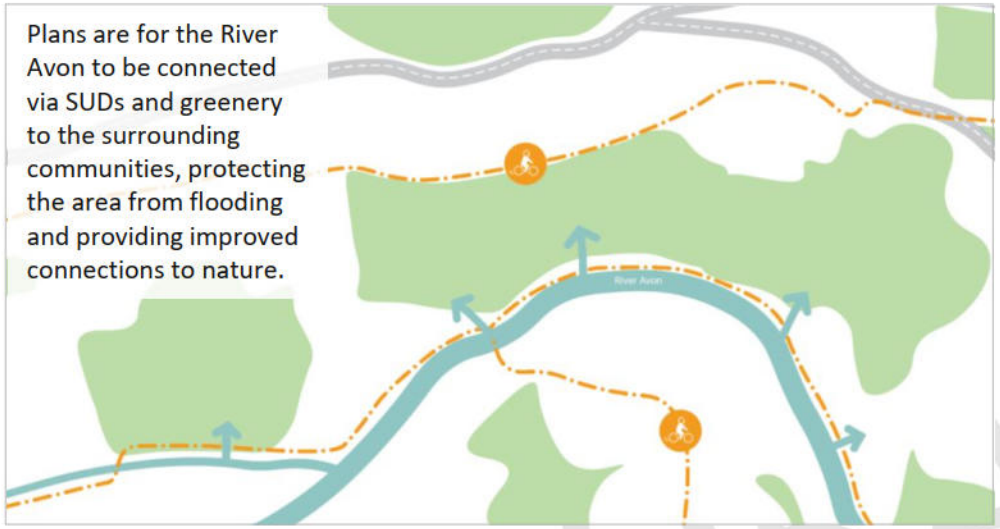
Changes will be made to Lawrence Hill station, to improve the station entrance , install secure bike parking, and create a more pleasant waiting environment. In the longer term there is potential to transform the station into a (micro) mobility hub.



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4.2 Key moves – infrastructure

4.2.9 Resilient connections to River Avon



4.2.10 LTN internal interventions



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4.3 Key moves – behaviour change

Bristol has a history of delivering successful behaviour change programmes. These will be deployed alongside our infrastructure measures.

4.3.1 Learning how to cycle

To ensure that all residents can benefit from the investment in cycle infrastructure we will use our travel engagement officers to promote and provide an 'accompanied ride' service, 'free cycle lessons' and our 'borrow a bicycle scheme'



4.3.2 Community facilities on bikes

We have been making community facilities and services more accessible by using cargo bikes to deliver pop-up services in the heart of the community.

Last year, Bristol received funding to rollout 3 cargo bikes to provide pop-up libraries to communities that don't normally use this service. These libraries have been tailored for a range of events from story-time in a park to a pop-up job fair.



4.3.3 Community offer

Our long standing community offer will be deployed in our Mini Holland area, giving local community groups the tools to help people make the transition to more sustainable modes of transport. Offers will include:

- Dr Bike maintenance
- Bike maintenance courses
- Bike security marking
- Personalised EV purchase advice



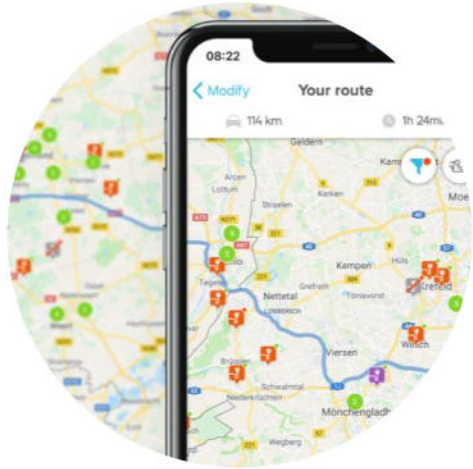
4.3.4 Personalised journey plans

Our transport engagement officers BCC will help residents plan their journeys in our Mini Holland area. This service will be supported by a number of key incentives including

Examples include;

- VOI e-scooter credits
- Bus taster tickets
- Train taster tickets

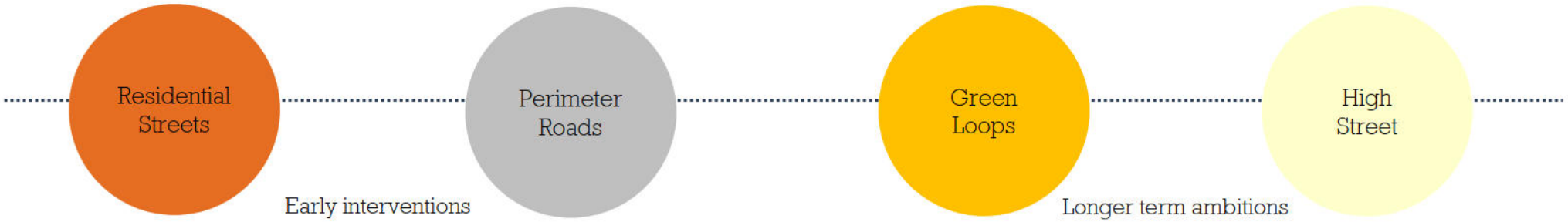
More information on these offers can be found here: Individual Support - Travelwest



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4.4 Interventions

Different scales of intervention for different street typologies



Residential streets

- Refreshing existing cycle routes
- Traffic calming measures
- Modal filters
- Play streets
- School streets
- Community arts initiatives
- Secure bike parking facilities
- Repurposing some car parking
- Meanwhile interventions
- Re-wilding/ green infrastructure and SUDs

Perimeter roads

- Liveable neighbourhood Gateways
- Traffic calming measures
- Wayfinding and signage
- Segregated cycle lanes and paths
- Living, green walls
- Secure bike parking facilities

Green loops

- Carriageway redesigned for cycling and walking
- Linear park with integrated green infrastructure
- SUDs
- Wayfinding and signage
- Street art and installations
- Social spaces at key intersections- pavement improvements, mini gateways, seating, cycle parking

High Street

- Gateways (Lawrence Hill & Clouds Hill Rd/ Summerhill Rd)
- Wayfinding and signage
- Cycle lane/bus lane improvements
- Spill out space for local businesses
- Micro mobility hubs
- Reduced on-street car parking
- Tree planting
- SUDs
- Bike parking facilities
- Restricting traffic on High Street

Internal treatment opportunities (long-term ambitions)



4.4 Interventions - High Street

An impression of the high street interventions, consisting of gateways, mixed use clusters, spill out space and road space reallocation.



main gateway

light bunting with local phrases



mixed use clusters

with own identities and bike parking facilities



spill out space

space for local businesses



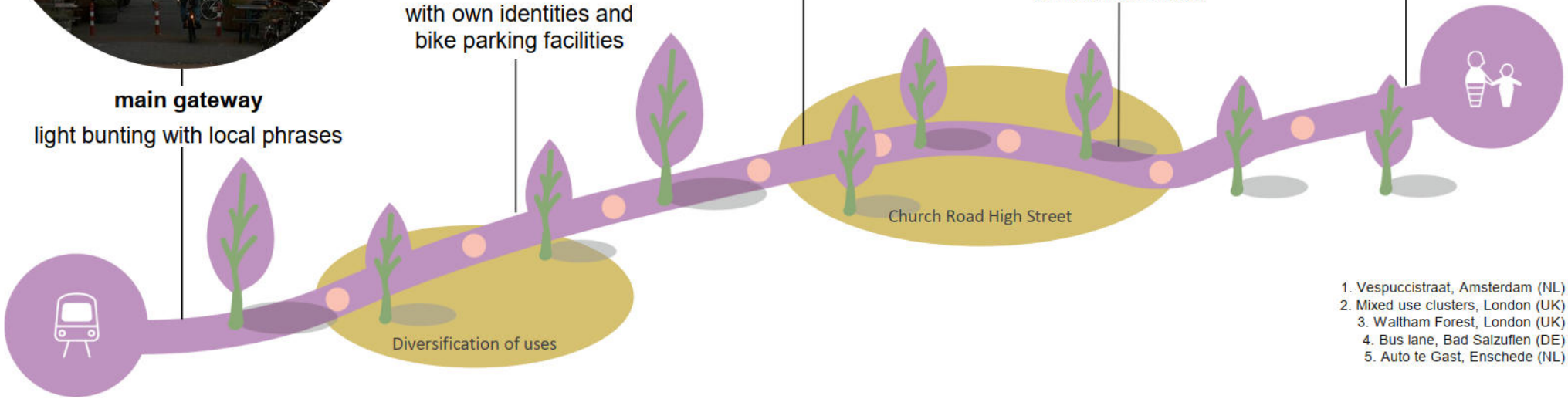
bus priority

on the main road



restricting traffic

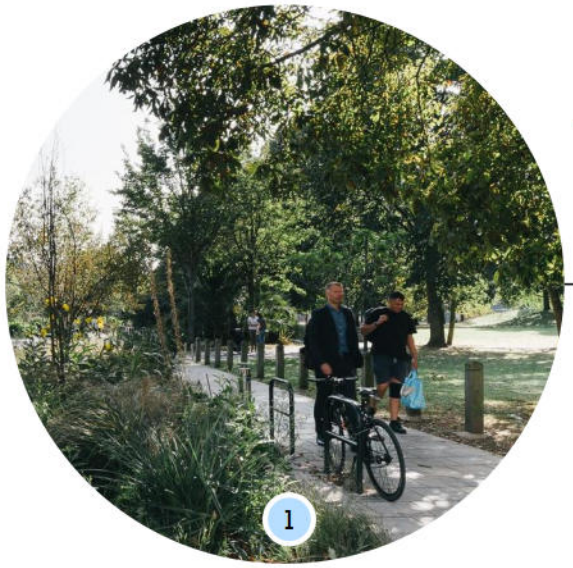
prioritising active modes on the high street



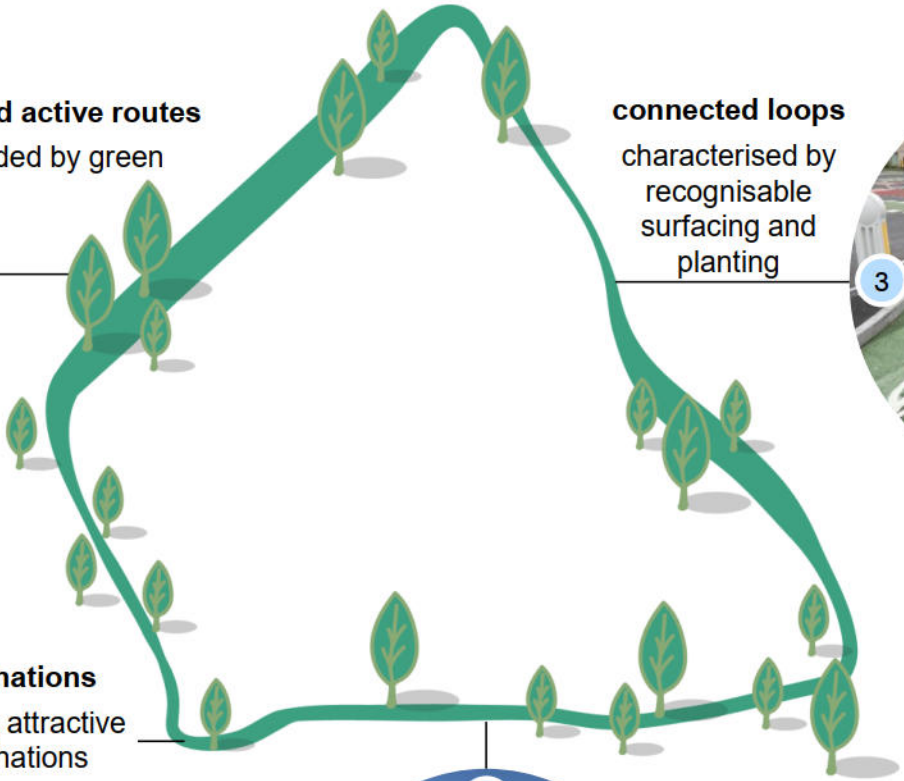
1. Vespuccistraat, Amsterdam (NL)
2. Mixed use clusters, London (UK)
3. Waltham Forest, London (UK)
4. Bus lane, Bad Salzuflen (DE)
5. Auto te Gast, Enschede (NL)

4.4 Interventions - Green Loops

An impression of the green loop interventions, consisting of segregated active routes where possible, local art and continuous routes.



segregated active routes
surrounded by green



connected loops
characterised by recognisable surfacing and planting





destinations
creating attractive destinations

local art
celebrating different identities and cultures



1. Vauxhall Missing Link, London (UK)
2. Hivzi Sylejmani, Prishtina (Kosovo)
3. Green cycle lanes (UK)
4. Superkilen Urban Park, Copenhagen (DK)

4.4 Interventions - Perimeter roads

An impression of the perimeter road interventions, with segregated cycle lanes and paths, modal filters, bike parking and bin gardens.



prioritised pedestrian crossings
Between important destinations



segregated cycle lanes and paths



green walls near schools
to act as a barrier between pollution sources and people



secure bike facilities
road space reallocation

bin garden
to reduce littering



1. Bristol UK)
2. Trapéze, Paris (FR)
3. Living Walls, London (UK)
4. Fietsvlonders, The Hague (NL)
5. Container tuintje, Netherlands (NL)

4.4 Interventions - Residential streets

An impression of the residential street interventions with SUD's, street greenery, art projects, play streets, modal filters and rewilding.



movable trees
creating art with local communities

attractive modal filters
serving as entrance ways





play streets
to strengthen social cohesion and support play

adding green and SUDs
to future proof streets





rewilding and planting
repurpose parking into parks

1. Waltham Forest (UK)
2. Moveable trees art project, Leeuwarden (NL)
3. Frog Marsh, Bristol (UK)
4. Play streets, Bristol (UK)
5. Meet you at the planter, London (UK)

4.1 Interventions - Theory of Change

Creation of theory of change based upon local strengths, weaknesses, opportunities and threats.

Weakness and Threats

- Barriers to walking, wheeling and cycling
- Limited street space, severance and poor legibility
- Car dependency and through traffic
- Local health issues, deprivation and inequality
- Poor public realm
- Safety and air quality challenges

Opportunities and Strengths

- Well used greenspaces
- Strong sense of community
- Central location
- Propensity for cycling & walking
- Mixed use high street
- Engaged local schools

Strategic Context

- Bristol One City goal of becoming carbon neutral by 2030; 60% of all journeys to be made by active modes by 2044 and a 50% reduction in those seriously killed or injured on incidents on Bristol roads
- Local Cycling and Walking Infrastructure Plan

Outputs (Interventions)

General

- Gateways
- Wayfinding, art and signage
- Green Infrastructure / SUDs
- Traffic calming
- Bike facilities and cycle parking

Church Road:

- Cycle lane/bus lane improvements
- Spill out space for local businesses
- Micro mobility hubs
- Reduced on-street car parking
- Tree planting
- Restricting traffic

Green loops:

- Cycling & walking infrastructure
- Social spaces at key intersections, pavement improvements, mini gateways, seating, art and cycle parking

Perimeter Roads:

- Segregated cycle ways
- Living, green walls

Residential Streets:

- Play and School streets
- Repurposing car parking

Outcomes

Transport benefits:

- More accessible and safe walking, wheeling and cycling
- Improved active mode share and physical activity benefits
- Increased public transport mode share and fare box revenues
- Reduced through traffic and congestion
- Reduced dependency on cars and fewer car trips on local streets

Transport disbenefits:

- Reduced traffic speed and capacity in residential areas

Environmental benefits:

- Reduced pollution
- Reduced heat island effect
- Access to greenspace

Social benefits:

- Urban realm amenity
- Reduced social isolation
- Improved mental health
- Improved safety and reduction in crime and anti social behaviour

Economic benefits:

- Increased footfall and spend at local shops and on the high street
- Improved property values

Impacts

- Reduced greenhouse gas emissions
- Improved climate change resilience
- Improved air quality
- Reduced noise
- More cohesive communities
- Improved health and wellbeing outcomes
- Increased resilience of public transport
- Maintain area affordability
- Improved local economy (reduced vacancy rates and increased rental values)
- Improved equality

4.5 Network option development - principles

The principles established for creating high quality LNs

Introduction

The network development principles are based on the assumption of the liveable neighbourhoods proposed. In order to remove through traffic in the neighbourhood areas, consideration has to be given to minimise opportunities for rat-running within and between cells.

Filtering traffic on one road may shift rat-running onto a different road and cause issues elsewhere. Thus a view of the complete road network within the area has to be taken to avoid any unintended consequences.

Community Co-Design

Residents in East Bristol will be affected by the changes and hence the project will consider their views on what and how measures are to be implemented. More information on the co-design process and the evidence of delivery and partnership working in the EBLN pilot area can be found in Section 4.7.

General Principles

To ensure that high quality neighbourhoods are created which have maximum benefits for the residents, the following principles were developed:

- Create sub-neighbourhood cells with entries & exits close to one another so that there is no incentive for through traffic to access the LNs.
- Keep cells rectangular to reduce long trips through liveable neighbourhoods and provide sensible access points for residents
- Use modal filters rather than one-ways or banned turns (restriction by design rather than regulation)
- Create loops rather than cul-de-sacs to minimize the danger reversing may pose for active travellers
- Safeguard and improve access for bus routes through the use of bus gates.

Sample

A proof of concept design was developed for each neighbourhood in the study area to show that the elimination of rat-runs is possible and to provide a basis for costing. They utilise the ABStreet tool which is also used during the community co-design. From the results of the pilot EBLN area, the interventions proposed by the community overall match with the proof of concept design.

- the detailed design templates can be found in appendix A
- the potential EBLN impacts can be found in appendix B



4.5 Network option principles

The baseline analysis results in a set of key considerations that will input the development of the cycle network and LTNs.

Proposed Cycle Network

A continuous and coherent cycle network is the basis for a successful Mini-Holland scheme. It connects people and places, and in combination with Low Traffic Neighbourhoods, facilitates a modal shift away from car based trips towards active travel.

The baseline assessment has led to the following set of aims, assumptions and challenges in relation to the proposed cycle network based on the principles of LTN1/20:

Key aims

- Providing a coherent, clear direct and safe network that connects communities and makes active journeys the most convenient mode of travel.
- Enabling safe connections to local amenities to reduce car trips within the area and on perimeter roads and bringing the community together.
- Kickstarting modal shift through an initial focus on short journeys within the study area. In the longer term, longer journeys to and from outside of the area will play an important role in sustaining the momentum that is generated by this scheme.

Key assumptions

- Active travel desire lines in the area are mainly east-west and north-south.
- East-west routes have a stronger impact when connected to routes to Bristol and Kingswood centres. Convenient north-south access to these east-west corridors will significantly boost modal shift.
- Segregated cycle infrastructure is required along perimeter roads.
- The local community will engage in the neighbourhoods co-design process and any agreed upon interventions will be welcomed by the local communities.
- Once implemented traffic volumes within neighbourhoods are low enough for safe on road cycling.
- Wayfinding and placemaking improvements are required along internal roads.

Key challenges

- Topography limits north-south opportunities
- Street alignment in the Easton neighbourhood does not allow clear east-west through route. This requires routing via Whitehall Road or via Church Road. Whitehall Road preferred due to less traffic.
- Rigid street network in St George means east-west route involves high number of turns. Clear wayfinding will be crucial.
- Wesley Way (i.e southern E-W route) requires a segregated section along the severance road between Summerhill Terrace & Hillside Road
- Transformation of severances/perimeter routes that have a strategic function will require coordination with other schemes such as mass transit and local town centre improvements.

Proposed changes to existing signposted routes

- Wesley Way: routed along Avonvale Road rather than Victoria Avenue to benefit from wider road with less parked cars. No contraflow necessary.
- River Avon trail: routed along Avonvale Road and Marsh Lane rather than weaving through residential and industrial area to benefit from a more legible route with less turns.

4.5 Network option principles

Additional considerations to ensure effectiveness of the proposed LTNs

Bus Considerations

Buses are an integral part of Bristol's public transport offering and connect East Bristol with the wider city. Having these services permeate into residential neighbourhoods is essential as it makes them as accessible and convenient as possible. The map on the left shows the bus network within the area. Service 36 passes through the centre of the proposed Lawrence Hill LTN, whilst services 6&7 and 506 pass through the Easton LTN. To retain access for these services, bus gates will have to be installed along the route.

Given the temptation that an uncontrolled bus gate (i.e. signage only) can pose for rat-runners, it is recommended that ANPR control measures are implemented as part of the bus gates.

School Streets

Temporary closures of streets outside of school drop off and pick up hours creates a safer active travel environment. Within the study area, two school streets have been implemented along the eastern end of Victoria Avenue at Redfield Educate Together Primary Academy and Johnson Lane at Whitehall Primary School. Here the roads are closed between 08:30-09:15 and 14:40-15:30. Considering educational institutions with significant numbers of students (i.e. excluding nurseries and special ed schools) the following school streets are potential candidate schemes as part of this scheme (subject to consultation and feasibility):

- Dillon Court – *St Patricks Primary*
- Hillside Road – *Air Balloon Hill Primary*
- Plummers Hill – *Summerhill Academy*
- Queen Ann Road – *Barton Hill Academy*
- Russell Town Avenue – *City Academy*



Figure 33: Local Bus Routes

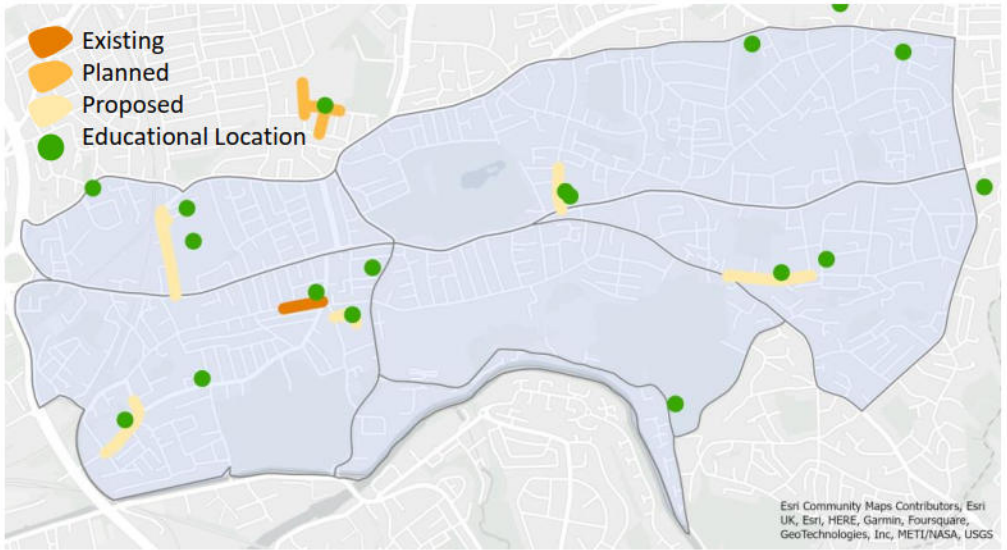


Figure 34: Existing & Proposed School Streets

4.5 Network option principles

Identified amenities are key destinations, or attractors, that influence which routes the network should focus on.

Amenities

Amenities within the study area are destinations that can easily be reached by active modes – if there is a direct and safe route to them. To understand their distribution across the area, OpenStreetMap data was split into seven main categories which reflect key aspects of day to day life.

Due to the high density of businesses along Church Road and Clouds Hill Road, these have been grouped together as the Church Road Amenity Corridor.

The amenity study revealed the following:

- Schools (incl. nurseries) are distributed evenly across the area and should be a primary focus to help encourage active travel amongst future generations. This will be crucial for the success of future more ambitious schemes.
- Play areas are concentrated towards the west, highlighting placemaking opportunities in the east.
- There is a high density of religious establishments of various denominations, emphasising the diversity of the area.

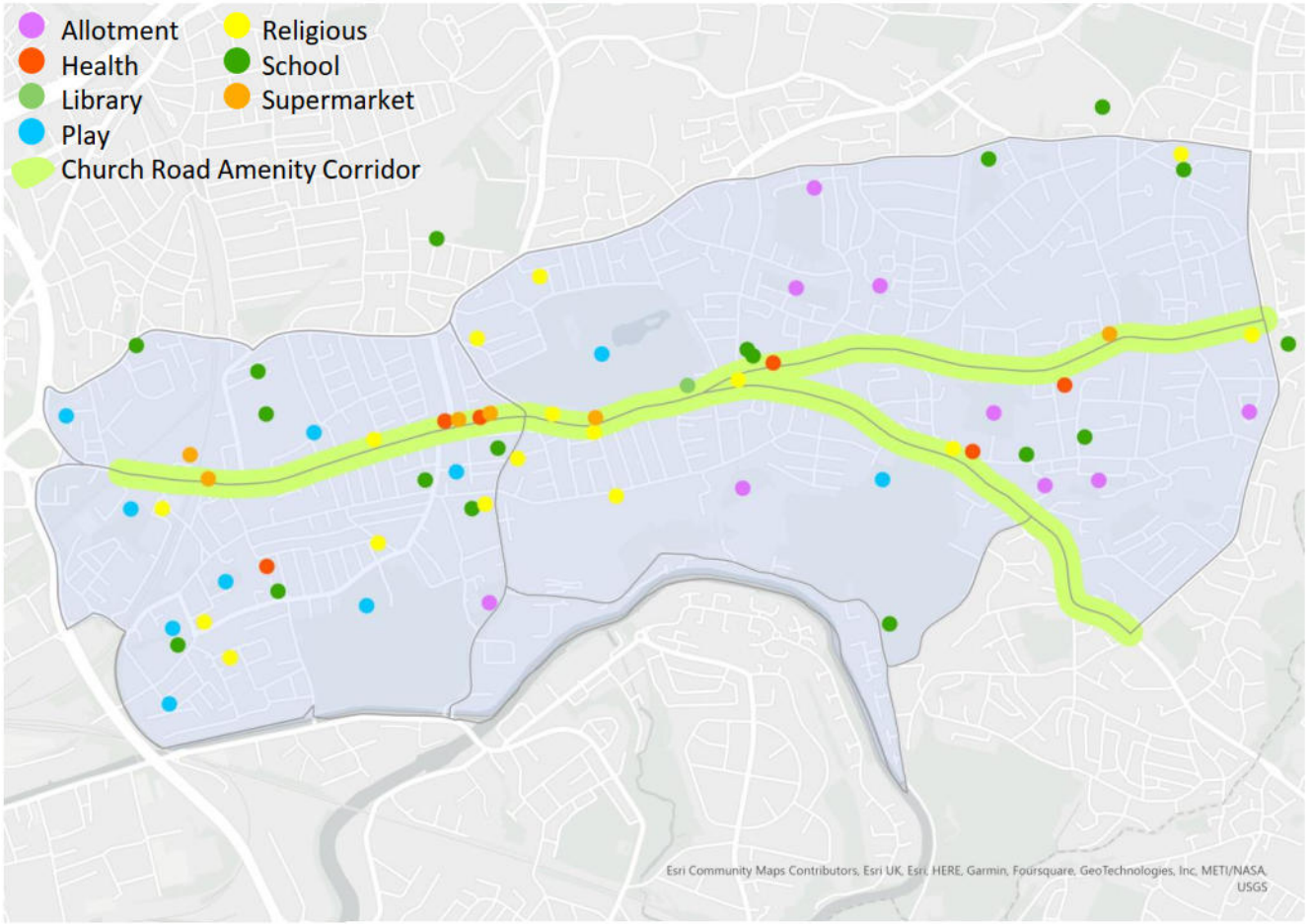


Figure 35: Local Amenities Map

4.6 The future network

The proposed cycle network

Routes

Using the amenities presented on the previous page, a proposed cycle network was developed. This network targets both local trips that connect neighbourhoods to amenities and to each other, whilst also taking a broader view and that enables east-west and north-south connectivity.

The proposed network has four times the length of the existing cycle network and closes any existing gaps and improves on the following:

- Wesley Way serves as a clear east-west route and as an alternative to the busy Church Road.
- Improved access to the River Avon Trail to enable recreational use of the area
- Straightforward north-south connections where possible

Dotted lines show alternative routes that can be used in case other routes turn out to be infeasible during later stages of the project.

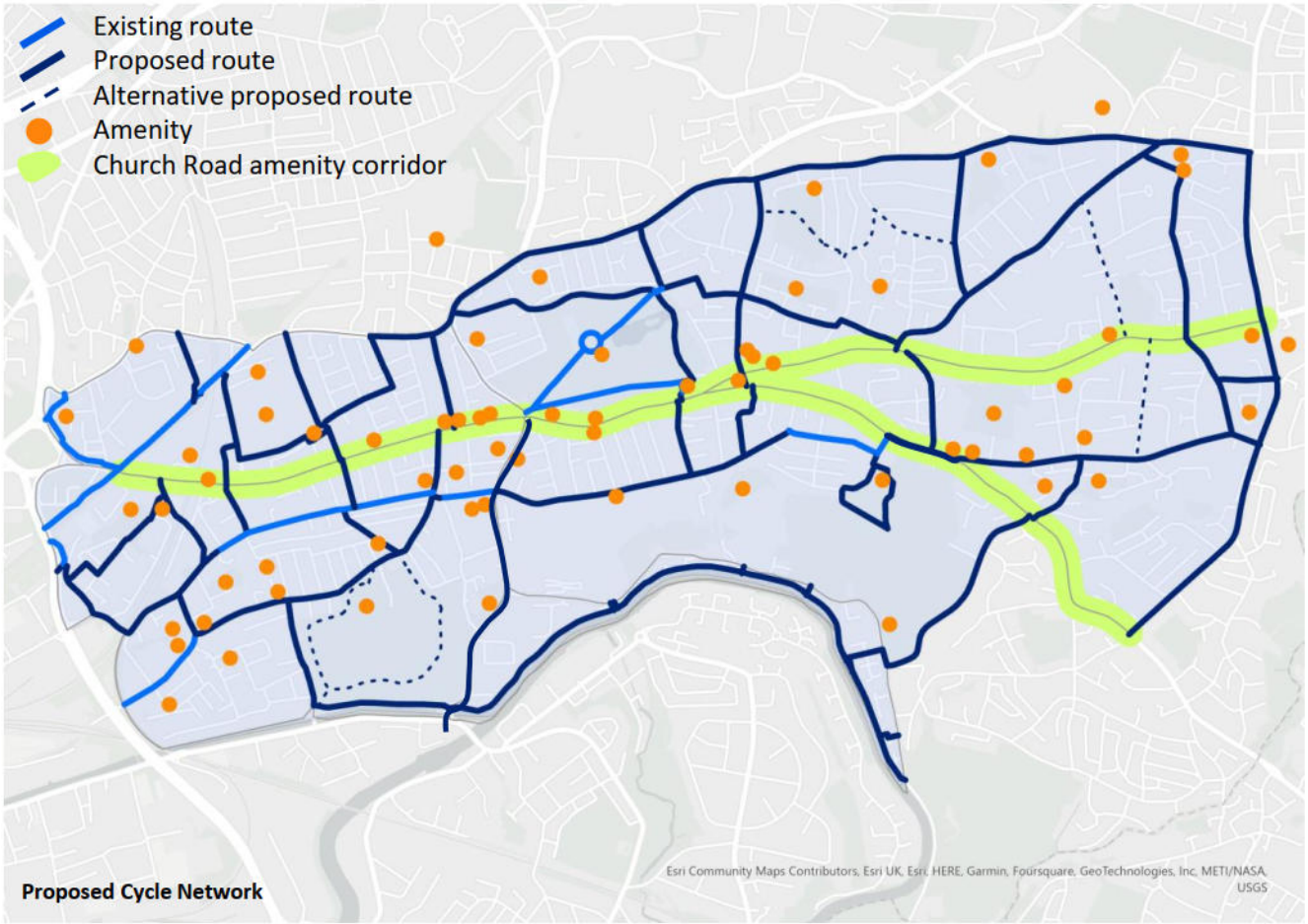


Figure 36: Proposed Cycle Network

4.6 The future network

An increased number of gateways allow save travel between LTNs

Proposed Gateways

Based on the developed network, gateways are positioned to allow for safe and convenient crossing at points where the network meets severances. This is done through a mix of upgrading existing crossings and implementing new crossings. The topography of the Troopers Hill Nature Reserve does not allow for cycling (steps, narrow unpaved paths) and hence the new gateways between Troopers Hill & Crew's Hole are proposed as pedestrian only.

As this is the feasibility study stage, later stages may show some gateways are not feasible. Alternative locations have been suggested (grey) but are limited due to the existing street pattern.

It should be noted that the map only shows gateways that have a clear cycle network connection. There are numerous crossings on Church Road which do not clearly tie into the cycle network but play an important role for pedestrians. Upgrades to these facilities will be considered as part of the development of the scheme.

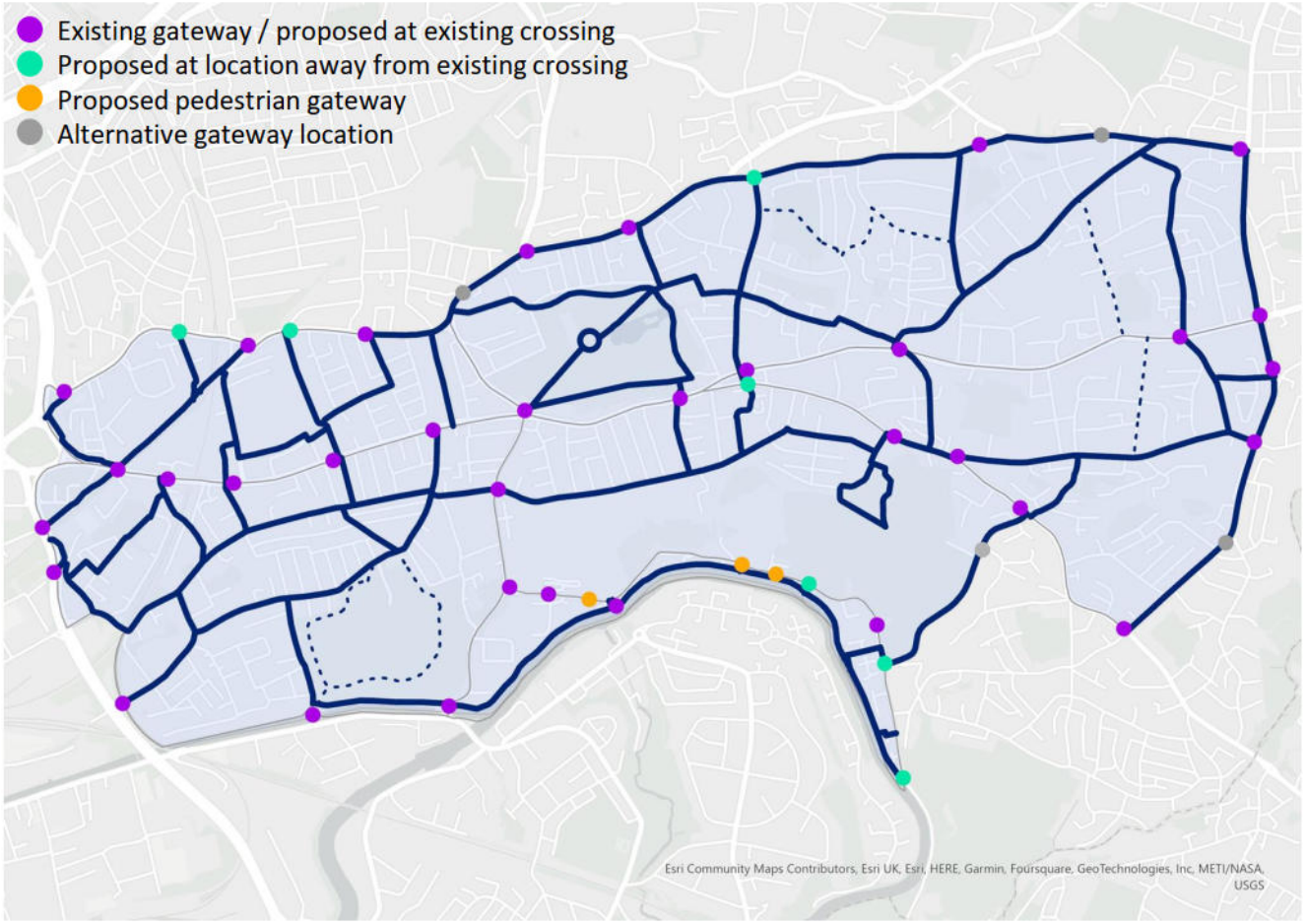


Figure 37: Proposed Gateways

4.6 The future network

The proposed gateways increase porosity and allow for clear routes through LTNs for active travelers.

Porosity Test

With the proposed gateways, porosity within the study area increases significantly. It is now possible for active travellers to safely cross severances and move from one LTN to the next. This unlocks the area and allows users to make trips in confidence.

All areas are rated as fully open because they each have two or more gateways that allow both east-west and north-south through travel for active modes.

Whilst not part of this assessment, it can be seen that gateways are distributed at regular intervals along the key severances. This not only makes it easy for cyclists to permeate the different LTNs, but also provides pedestrians with high quality crossings. This is especially important along Church Road where shops, businesses and gastronomy are located on either side of the road and thus users are likely to regularly switch sides.

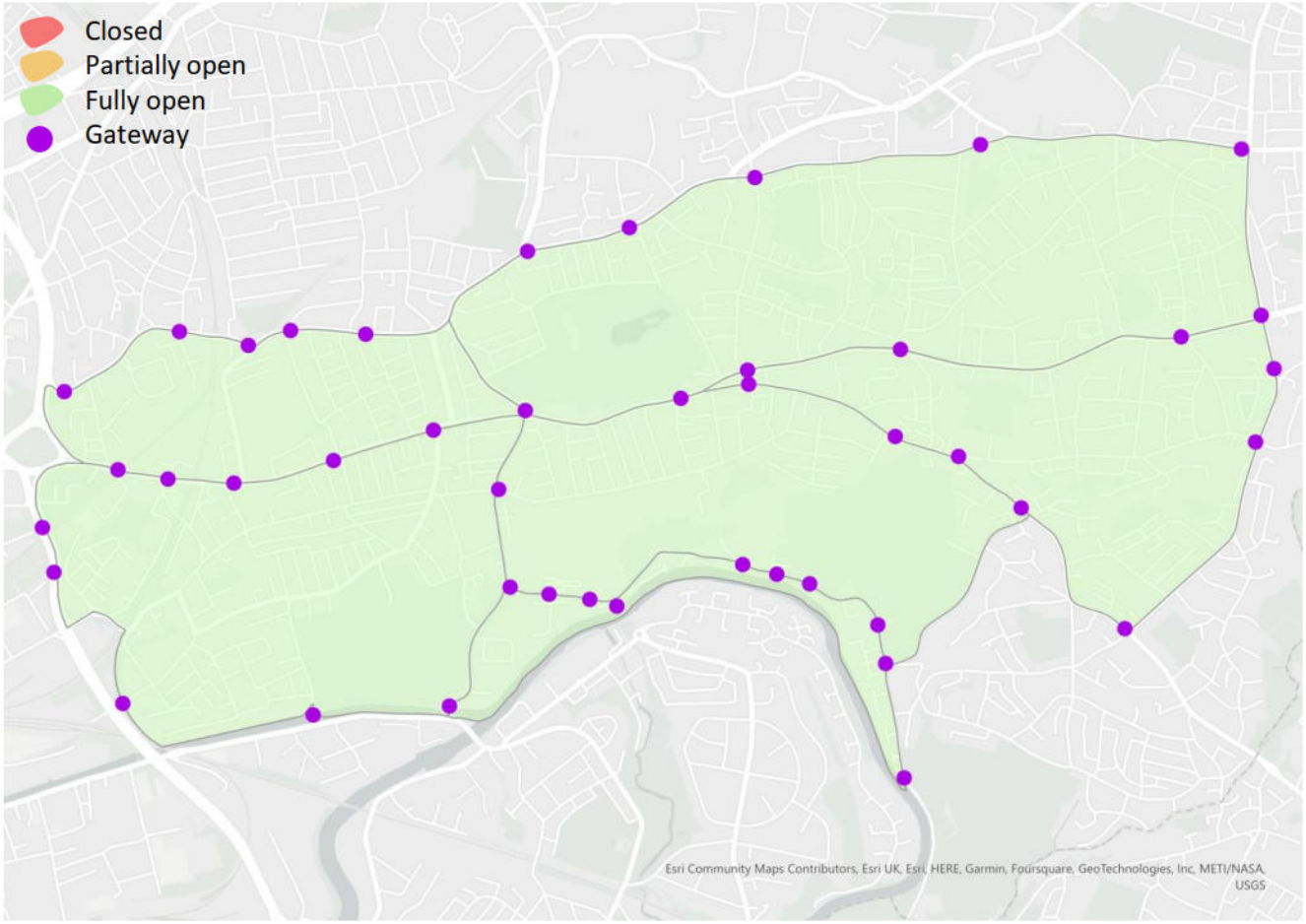


Figure 38: Porosity Test Results (proposed layout)

4.6 The future network

The proposed network increases mesh density to desirable levels, mostly exceeding LCDS standards.

Mesh Density Test (proposed layout)

Tests carried out on the baseline were repeated on the proposed layout to assess if and how the proposed network improves active travel in the area.

As the dashed blue lines represent alternatives to the proposed network, these have not been assessed within the mesh density test.

It can be seen that the proposed network drastically improves mesh density within the study area. All LTNs achieve the minimum acceptable threshold of a 800m mesh and 67% of the area exceed London Cycling Design Standard. The table below details the mesh sizes that are achieved.

LTNs	Mesh size (m)	% area
Crew's Hole	159	4%
Easton	290	11%
Hanham	415	15%
Troopers Hill	492	17%
St George	291	31%
Lawrence Hill	342	22%

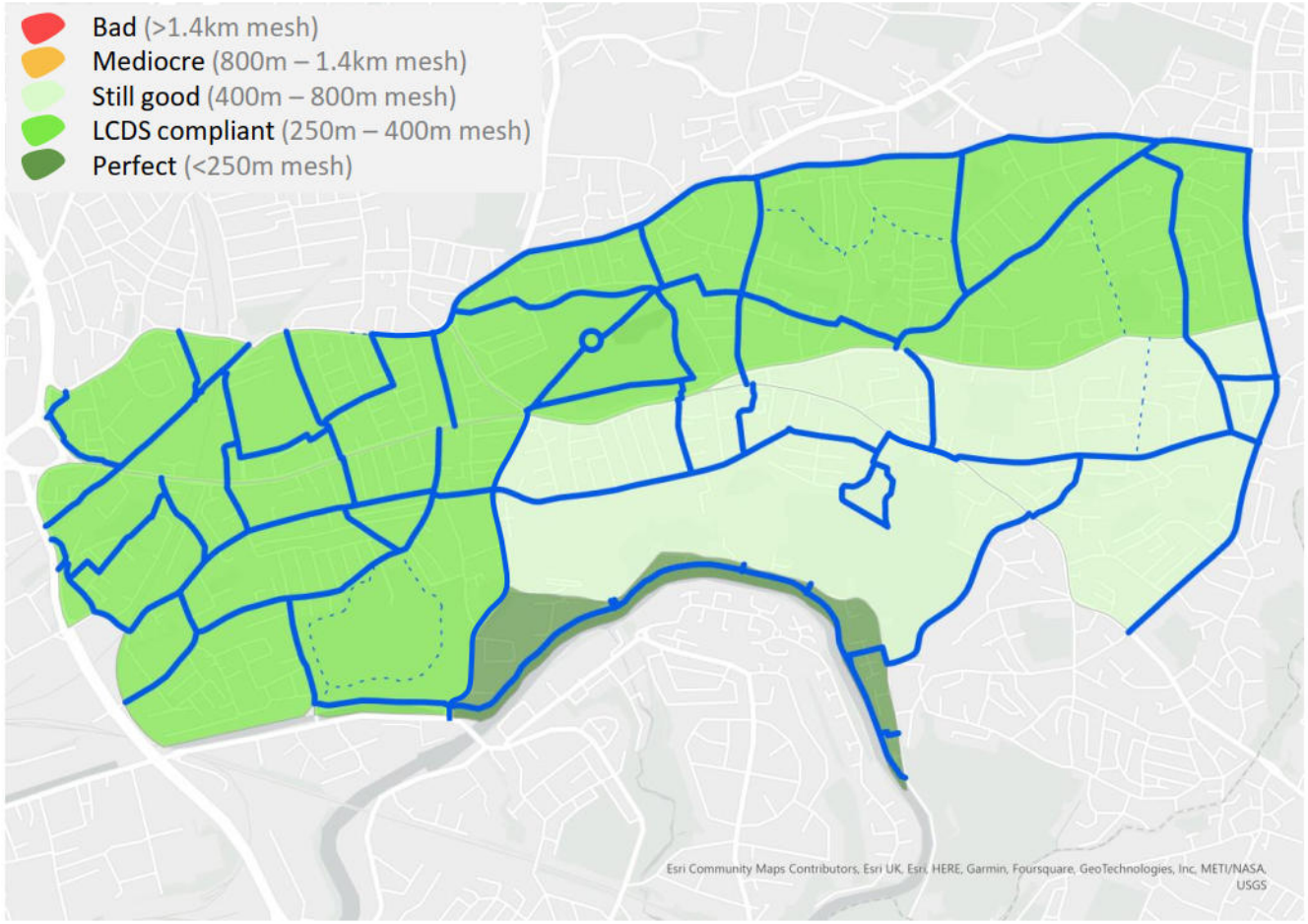


Figure 39: Mesh Density Test Results (proposed layout)

4.6 The future network

Due to the increased number of gateways and denser network, the permeability improves, meaning that LTNs are fully connected

Permeability Test

The proposed gateways significantly increase the permeability of the area. 87% of routes now pass through more than one LTN, allowing for clear routes through the entire network.

As before, the yellow lines indicate routes that pass through more than one LTN and the proposed gateways and porosity test results are overlain for context.

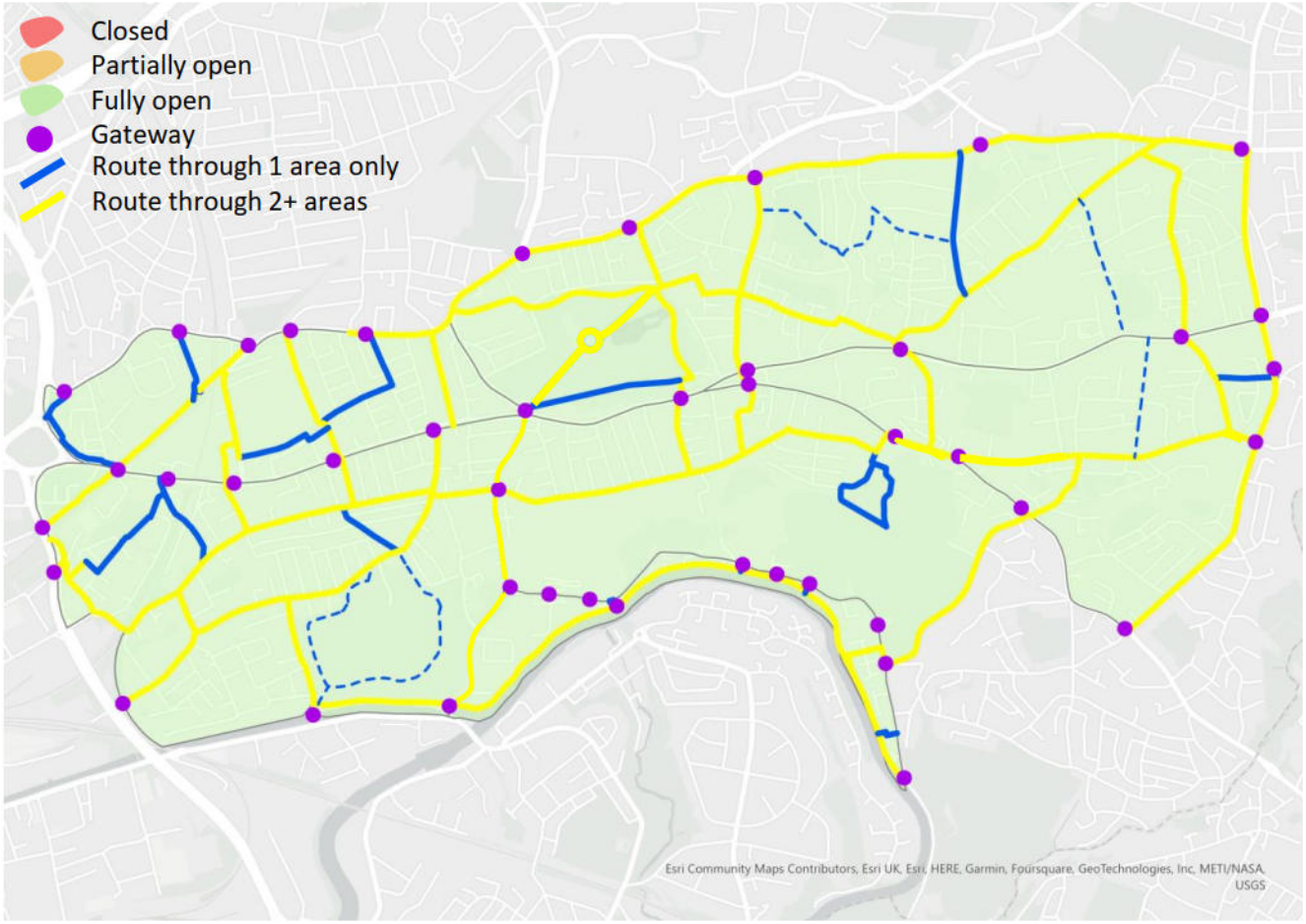


Figure 40: Permeability Test Results (proposed layout)

4.6 The future network

A summary of scheme impact.

	Existing	Proposed (subject to consultation)	Impact
Severances	27.87km	17.98km	-9.89km ↓
Cycle Routes	6.7km	25.1km	+18.4km ↑
Mesh Density (average; weighted by area size)	1.22km	330m	-890m ↓
Permeable Cycle Route	0.78km	21.75km	+20.97km ↑
Gateways	9	44	+35 ↑
School Streets	0.40km, 2 schools	1.57km*, 7 schools	+1.17km, +5 schools ↑
Modal Filters	10	45+*	+35 ↑



4.7 Case studies – what can we learn from others

Key lessons we can learn from case studies that prioritised active mobility and how they apply to the Mini-Holland scheme.



Waltham Forest, London (UK)

How this links to our vision

- Well-known, exemplar LTN scheme
- Traffic has fallen by an average of 56% across the scheme area
- The scheme has seen a 10% decrease in crime
- 35-170% increases in cycling across the area



Grotestraat, Nijverdal (NL)

How this links to our vision

- A car dominated high street of 800 meters long that was in need of revitalisation has been turned into a partly car free (cars as guests) attractive destination for visitors, residents and local businesses with more space for terraces, shops and greenery
- Through this project a climate adaptive street was created by prioritising green and blue structures; a climate wadi (SUDs) to store rainwater and reduce surface flooding
- High quality public realm has led to a sharp increase in the number of visitors
- Co-design with local stakeholders was key to its success. After implementation the space was monitored and together with local stakeholders improvements were made



Kirkegata, Oslo (NO)

How this links to our vision

- This project uses temporary compact design measures to experiment and demonstrate how car-dominated streets in cities can change into active streets for people.
- Temporary bollards and pocket parks are used to add greenery to an area that is normally used for car parking
- This type of project helps local communities and businesses understand and feel how streets can change

4.7 Case studies – what can we learn from others

Key lessons we can learn from case studies and how they apply to the Mini-Holland scheme.



Living Walls, London (UK)

How this links to our vision

- Parents at a London primary school have crowdfunded the installation of a living wall in the playground of their children's schools to reduce pollutants from an adjacent road
- The are schools and academies in east Bristol near busy roads heavily impacted by high level of traffic noise and air pollution. Parents in Bristol are also taking matters in their own hands working with the Council to implement School Streets to address these issues
- Such partnership working approaches have been shown to be successful in triggering changes, and should be given support where possible.



Greener Grangetown, Wales (UK)

How this links our vision

- Greener Grangetown is a densely populated ward and considered an area of high deprivation
- Poor streetscapes and aged infrastructure, built for a different generation of users, received treatment to future proof it and make it suitable for multi-generational use
- Flooding and pollution are addressed through mimicking natural drainage (SUDs)
- New green areas have increased biodiversity and air quality
- The scheme has increased sustainable travel behaviours significantly
- The green corridors in this project could be applied to the River Avon, bordering the south of the Mini-Holland scope.



Containertuintje, Den Haag (NL)

How this links to our vision

- Littering is seen as a key issue raised by residents and business owners in the Mini-Holland neighbourhoods
- Dutch cities are now experimenting with placing container gardens around bins to nudge people to throw their litter in the bin and keep the space around it clean.
- The gardens add greenery to the streets, catch rain and are maintained by local residents, helping to create a sense of shared responsibility and cohesion between neighbours

> More information on these case studies can be found in appendix C

5. Scheme Credibility



Lantern Parade, Church Road

5.1 National, regional & local policies

This project should be viewed in the wider context of national, regional and local policy across transport, public health, the economy and more

Our Mini-Holland scheme aligns well with national, regional and local policies. The key Policy links are described below

Gear Change & LTN 1/20

In 2020, Government released 'Gear Change: A Bold Vision for Cycling and Walking' to make England a walking and cycling nation. It sets out the actions required at all levels of government to make this a reality. Gear Change also outlines future aspirations regarding liveable neighbourhoods, stating:

"We will consult on creating a community right to close side streets and create Low-traffic Neighbourhoods, with groups of residential side streets able to petition local authorities for through traffic closures."

As an accompanying document to Gear Change, the government also released 'Local Transport Note 1/20' (LTN 1/20) in 2020 to guide Local Authorities on delivering high quality, cycle infrastructure. Following the publication of this document, Bristol has embedded these standards into our design process.

Levelling Up

The Government has awarded Bristol a £95m to unlock the first phase of the Temple Quarter regeneration programme. The scheme seeks to address regional inequalities by focussing on some of the most deprived communities of Bristol by delivering new affordable homes, generating skills, training, and employment opportunities; while improving transport, boosting regional productivity, and economic growth.

Bristol is looking to make best use of this investment by coordinating this regeneration funding with the Mini Holland scheme to manage sustainable growth.

Decarbonising transport

By sector, transport is the largest contributor to the UK's emissions, responsible for 27% in 2019. The government has a target to be net zero carbon by 2050 and has put in place several key sub-targets to reach this goal including 'half of journeys in towns and cities to be cycled or walked by 2030'.

For Bristol, the Mini-Holland programme provides us with the opportunity to transform how journeys are made across the city and builds on Bristol's own commitment to be carbon neutral by 2030.

Bristol One City Plan & One City Climate Strategy

The One City Plan brings together public, private and third-sector partners in Bristol around a shared vision for the city up to 2050. Of the 528 goals listed in the plan liveable neighbourhoods align to over 120.

Underneath the One City Plan is the One City Climate Strategy which outlines that 60% of all journeys need to be made by active modes by 2044 and for a 50% reduction in those seriously injured or killed in collisions.

This plans also highlights the need for a 40% reduction in vehicle miles by 2030.

Bristol Transport Strategy

Bristol's Transport Strategy sets the overall trajectory for improving the city's transport network up to 2036.

The strategy outlines 15 key outcomes which include outcome 14: 'key facilities and services increasingly accessible to all citizens without the need to rely on a car' and outcome 15 'safer places to live by working with citizens to design and deliver measures to improve movement and liveability in our neighbourhoods'.

5.1 National, regional & local policies

The Mini-Holland project aligns and contributes to regional and local transport policies and strategies, such as the Bristol One City Plan.

Local Cycling and Walking Infrastructure Plan

The East Bristol Liveable Neighbourhood pilot was derived from the LCWIP and the Mini-Holland programme would continue to deliver against three additional LCWIP routes as well as a Core Walking Zone.

Bristol's Liveable Neighbourhood Handbook

Bristol's Liveable Neighbourhoods handbook is for the public, local councillors and stakeholder groups. It's a living document that will be updated to incorporate learnings from our pilot project in East Bristol, the second pilot as it comes forward and examples from across the country. The handbook can help local councillors and communities to have informed conversations about these projects, and whether they're appropriate for their local areas.

The handbook is not intended to be used by groups to develop proposals for a Liveable Neighbourhood in their area without council input. It provides clarity on the necessary conditions for successful projects, to help set expectations and lay the foundations for how projects can be progressed.

WECA Joint Local Transport Plan 4

The Joint Local Transport Plan 4 (JLTP4) is the overarching transport plan for the West of England area, setting out the region's vision for travel and transport to 2036. It recognises the pressing need to combat the climate emergency, whilst providing for the regions planned housing and jobs growth over the next 15 years.

Implementing liveable neighbourhoods across Bristol will help in meeting these challenges and contribute towards achieving the JLTP4's key objectives around health and wellbeing, equality and accessibility, and addressing poor air quality.

WECA Bus Strategy and Bus Service Improvement Plan

WECA's Bus Strategy will provide opportunities to fund and co-deliver 'whole corridor' improvements to enhance sustainable transport options to help us tackle congestion, poor air quality and meet our carbon neutral targets.

The recently published Bus Service Improvement Plan is also committed to LNs and segregated walking and cycling infrastructure to ensure a network of walking and cycling routes to access bus stops and community transport hubs.

Bristol Health and Wellbeing Strategy

Bristol's approach for health and wellbeing in the city has a focus on a preventative approach as well as reducing health inequalities. The vision to 'significantly reduce the gaps in health outcomes between the most economically deprived areas and the most affluent areas of Bristol' relates to the outcomes liveable neighbourhoods wants to achieve.

One City Economic Plan

The priorities for this plan include: enabling development to ensure provision for future homes, jobs and quality places; improving connectivity and the protection and enhancement of green space; protecting and enhancing the viability of high streets and local centres; and targeting place based intervention on areas with communities experiencing long term deprivation.

DRAFT

5.2 Evidence of support

Liveable Neighbourhood Scrutiny

Scrutiny Inquiry

A Scrutiny Inquiry day was held in June 2022 in Bristol to explore what Liveable Neighbourhoods are and helped cross party Members to understand the aims and purposes of Liveable Neighbourhoods.

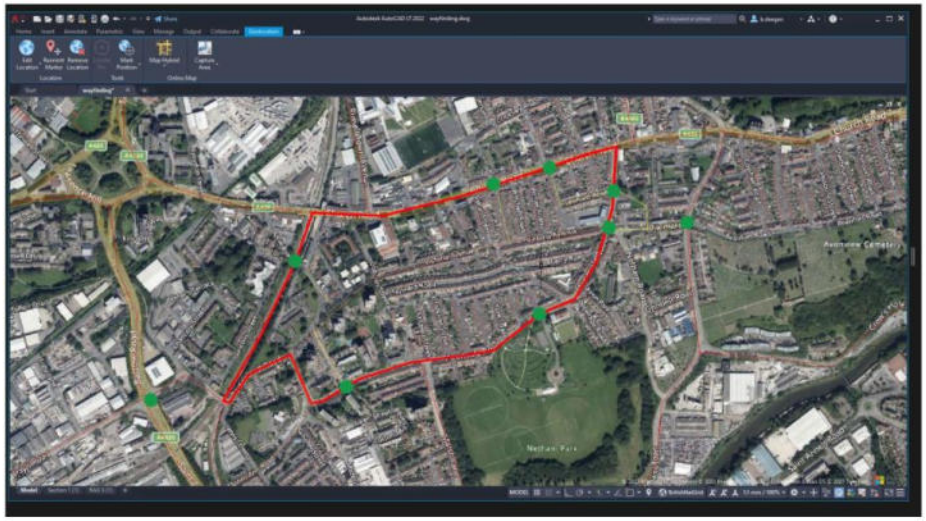
The Overview and Scrutiny Management Board ran the session with a number of key speakers to inform Members about what is going on in Bristol, why they are appropriate in Bristol and lessons learnt from other Liveable Neighbourhoods in the UK.

The Inquiry day also informed Members of the Liveable Neighbourhood Handbook and allowed them to feed into the content. This public facing document outlines what Bristol's stance is for approaching Liveable Neighbourhoods design and engagement principles.

This inquiry day enabled councillors to ask questions about Liveable Neighbourhoods and made them aware of the plans for Liveable Neighbourhoods in Bristol.

The slide overleaf shows the support for Liveable Neighbourhoods from cross party Councillors.





5.2 Evidence of support

Local ward councillors and local MPs – full letters can be found in Appendix D

Letters of support for the Mini-Holland programme have been received by the following MPs and local ward Councillors.



Thangham Debbonaire

Labour MP for Bristol West, and has been an MP continuously since 7 May 2015. She currently undertakes the role of Shadow Leader of the House of Commons.



Kerry McCarthy

Labour MP for Bristol East, and has been an MP continuously since 5 May 2005. She currently undertakes the role of Shadow Minister (Climate Change and Net Zero).



Jenny Bartle

Green Councillor for Easton.



Nicola Beech

Labour Councillor for St George Central and Cabinet Member with responsibility for Strategic Planning, Resilience and Flood.



Fabian Breckles

Labour Councillor for St George Troopers Hill.



Yassin Mohamud

Green Councillor for Lawrence Hill.



Barry Parsons

Green Councillor for Easton.

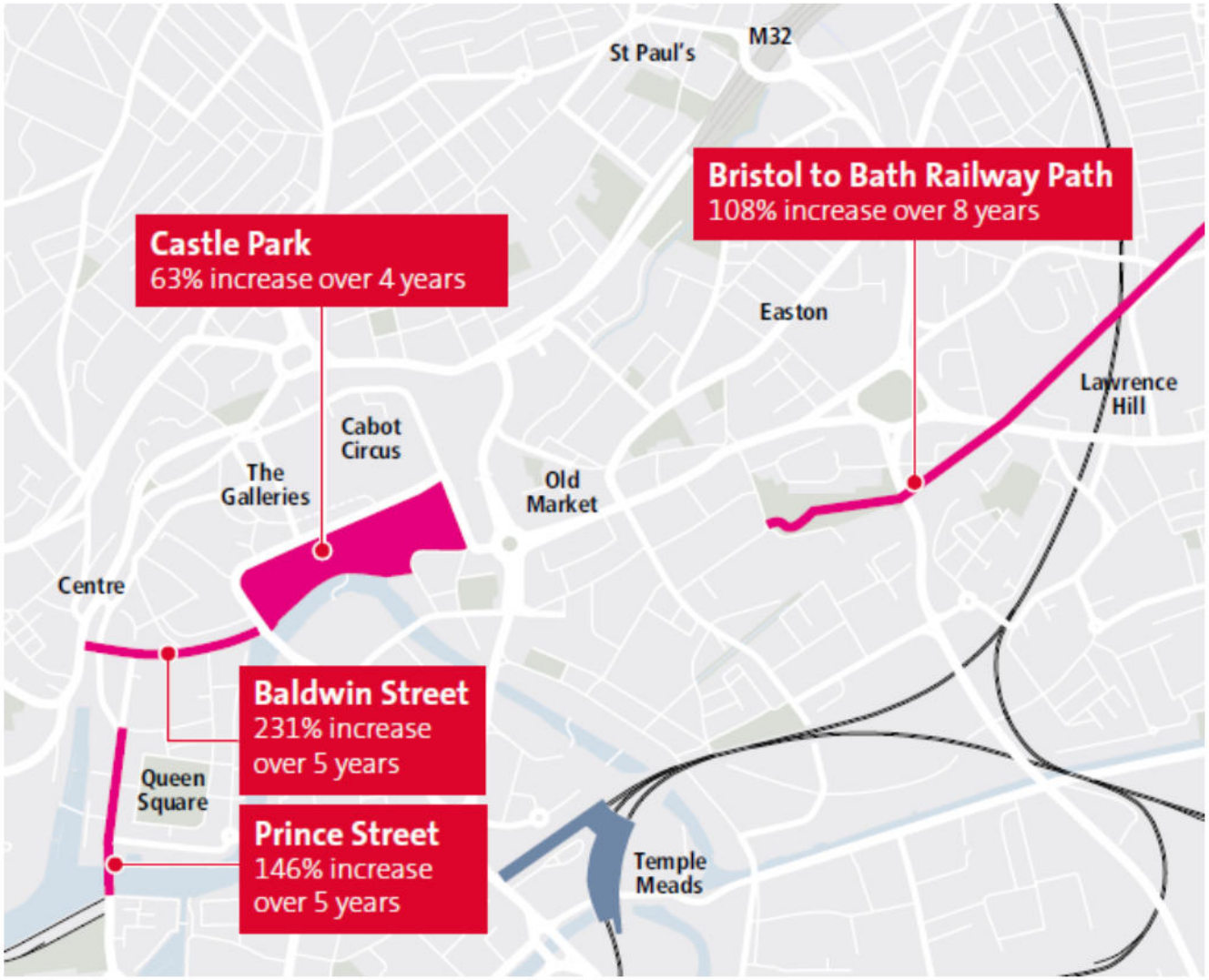


Steve Pearce

Labour Councillor for St George Central and leader of the Labour group.

Bristol's own

5.3 Evidence of Delivery and Partnership working



Pandemic response

Bristol's decisive action to safeguard key walking and cycling routes during the pandemic show that the organisation can deliver quality schemes at pace and using novel approaches. Delivery included four high street pedestrianisation schemes, a bus gate in the heart of the city and a key new segregated cycle route on the inner ring road. See examples overleaf

Historic Investment

Owing to historic and sustained investment in walking and cycling Bristol boasts impressive active travel numbers with 191.1 million walking and wheeling trips being made in the past year and 28% of residents saying that they cycle at least once a week. Data from the Walking and Cycling Index, shows that women and ethnic minority groups are better represented in Bristol in walking and cycling compared to peers.

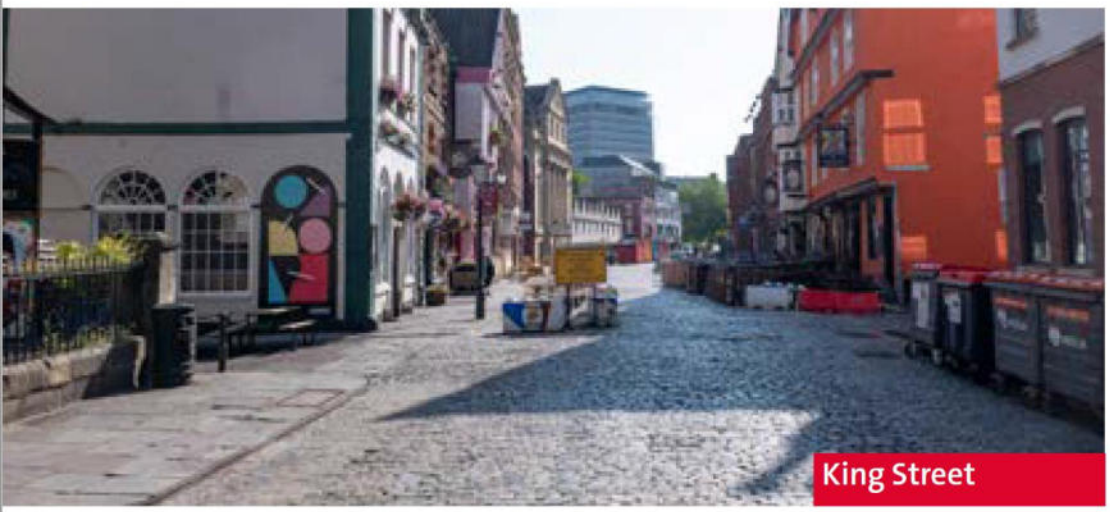
The map to the left provides some examples of cycling uplift in Bristol following delivery of high quality infrastructure



Cotham Hill



Upper Maudlin Street


King Street



Frog Marsh



Bristol Bridge



Queens Road

Bristol's own

5.3 Evidence of Delivery and Partnership working

Bristol has a positive reputation for innovate and ambitious active travel schemes

Cotham Hill, Cotham (Bristol, UK)



"We have had our best ever summer months in terms of turnover … it has brought many new customers, who may not have noticed us before" – business owner

"We love it. Closing Cotham Hill to traffic has made it a much calmer, quieter and safer environment which is reflected in our salon and is enjoyed by both our staff and clients" – business owner

Pedestrianised streets and spill out

As part of the Bristol's response to the pandemic several temporary walking, cycling and high street pedestrianisation schemes have been delivered which are now being made permanent through ATF3. One example of this is the pedestrianisation of Cotham Hill which has garnered overwhelming support (>90% in favour) from residents and businesses. The scheme – which was a priority route in our LCWIP - is in the process of being made permanent which includes further pedestrianisation area of Cotham.

How will this help achieve our vision

- Introducing temporary changes and filters is a quick and cost-effective way to demonstrate to local business owners and residents the benefits of pedestrianisation
- Cotham Hill is an example of a temporary intervention that helped locals understand the benefits of change
- Local business are responsible for their own outdoor structures and seating areas, creating a sense of ownership

Bristol's own

5.3 Evidence of Delivery and Partnership working

St Mark's Road, Easton (Bristol, UK)



Grand Iftar event, St. Mark's Road

Cultural events and markets

St Mark's Road is an example of a street where different ethnicities, religions and cultures mix and are celebrated through cultural events and design of the built environment.

The street offers a range of cafes, restaurants, pubs, bakeries, faith spaces and a supermarket that serves different communities.

How will this help achieve our vision

- The built environment is inclusive in the sense that it celebrates and mirrors the cultures that live and work there through street art, colourful facades, street furniture, and bunting
- The mix of businesses and services helps create an atmosphere where people feel welcome, respected and at home
- Faith spaces form an integral part of the street scape and create liveliness
- Popular cultural events and celebrations make the street a hub to meet new people from different cultures
- The one-way traffic in the street makes for a more pleasant and safe reduced-traffic environment

Bristol's own

5.3 Evidence of Delivery and Partnership working

Spill out, Easton (Bristol, UK)



Pop up parks and business space

Even before COVID-19, there were initiatives to repurpose street space into people friendly environments. Extending pavements and creating pop ups space for cafes, retail and restaurants improves the appearance of the street, business viability, slows traffic and allows friends and neighbours to meet locally. Examples can be found across the UK including pop up cafés across Bristol.

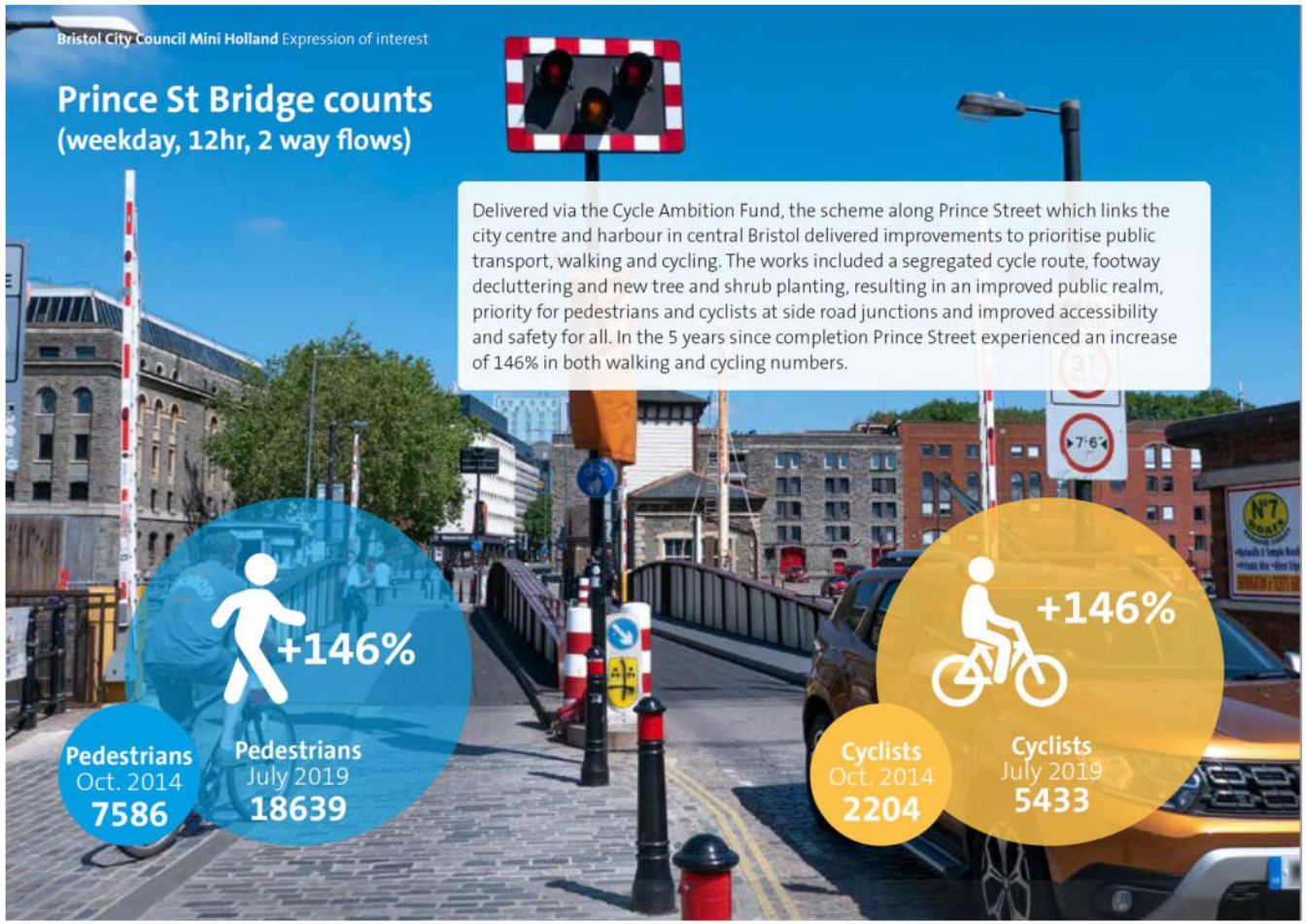
How will this help achieve our vision

- Repurpose parking spaces for alternative uses
- Improve the attractiveness of High Streets to visitors and residents
- Create space for business owners to expand and grow their business
- Signal to traffic to slow down as they are entering an area where cars are guests

Bristol's own

5.3 Evidence of Delivery and Partnership working

Prioritise cyclists and pedestrians (Bristol, UK)



Prince Street Bridge

Improvements have been made to this key route to the city centre to make it safer and more convenient for cyclists and pedestrians. Works included providing a segregated cycle path, improved footpaths, a bus-stop bypass, resurfacing and the introduction of one-way system.

How will this help achieve our vision

- High quality segregated infrastructure will be an important treatment for perimeter roads in our Mini Holland area
- The scheme demonstrates that there is an appetite for road space reallocation even in busy central locations
- Monitoring of the scheme makes the case for future improvements. As the figure to the left shows pedestrian and cycle numbers have increased by almost 150% since the scheme was delivered

5.3 Evidence of Delivery and Partnership working

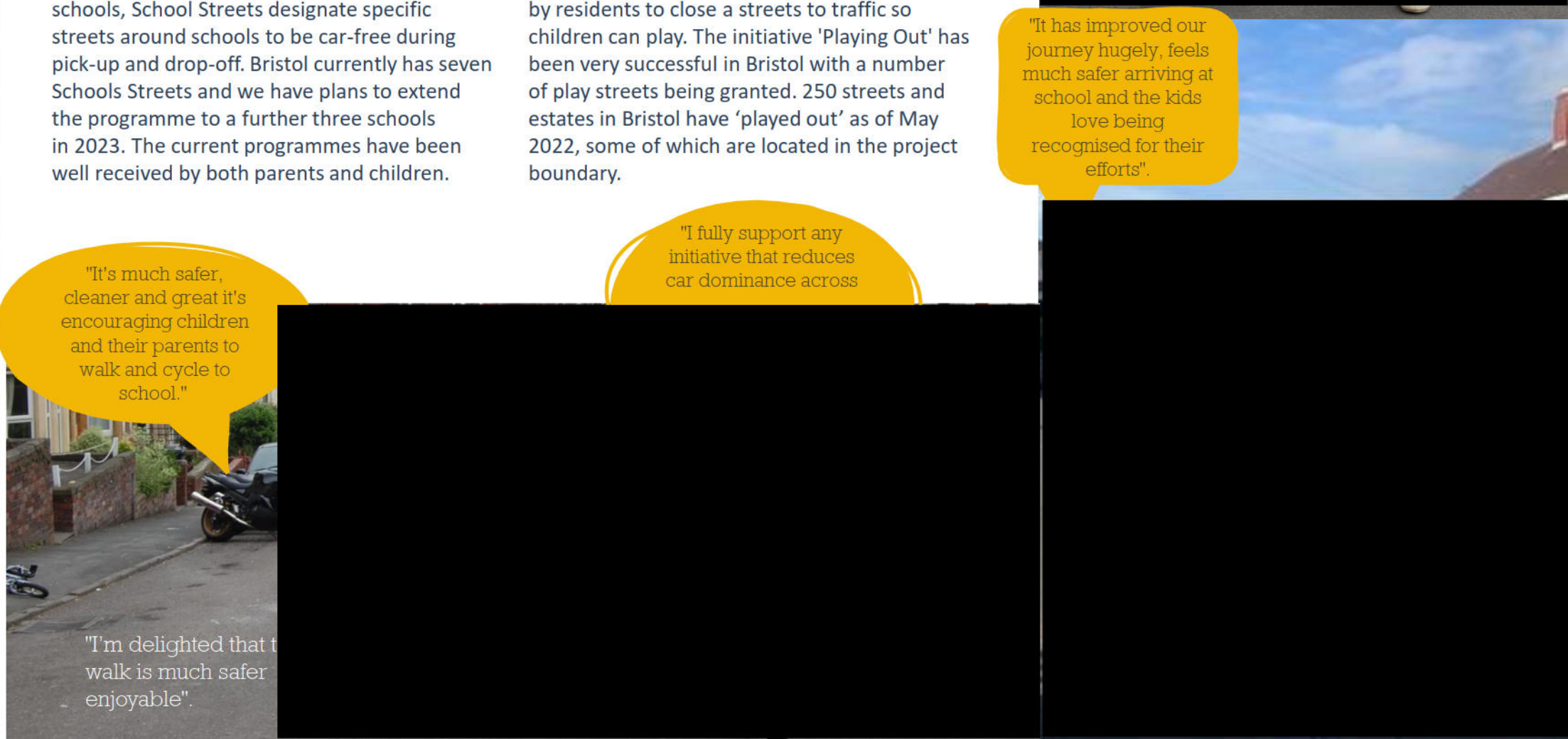
Successful engagement with schools, local communities, businesses, and charities.

Bristol's School Streets programme

To address safety and air quality issues around schools, School Streets designate specific streets around schools to be car-free during pick-up and drop-off. Bristol currently has seven Schools Streets and we have plans to extend the programme to a further three schools in 2023. The current programmes have been well received by both parents and children.

Playing Out

Temporary Play Street Orders can be requested by residents to close a streets to traffic so children can play. The initiative 'Playing Out' has been very successful in Bristol with a number of play streets being granted. 250 streets and estates in Bristol have 'played out' as of May 2022, some of which are located in the project boundary.



5.3 Evidence of Delivery and Partnership working



Lawrence Weston bike hubs

The council and SevernNet (a local organization representing major employers in Avonmouth), delivered a series of bike repair workshops through the Bike Hub in nearby Lawrence Weston. The project has been a success with participants reporting increase usage of their bikes helping residents without access to a car to reach jobs in the local area.

Bristol Cycling Sisters learning session

Our engagement team have experience of delivering targeted activities with different cultural and religious groups. For instance, working in partnership with the Bristol Muslim Cultural Society in Lawrence Hill we helped to provide opportunities for women to learn to ride in a safe environment.

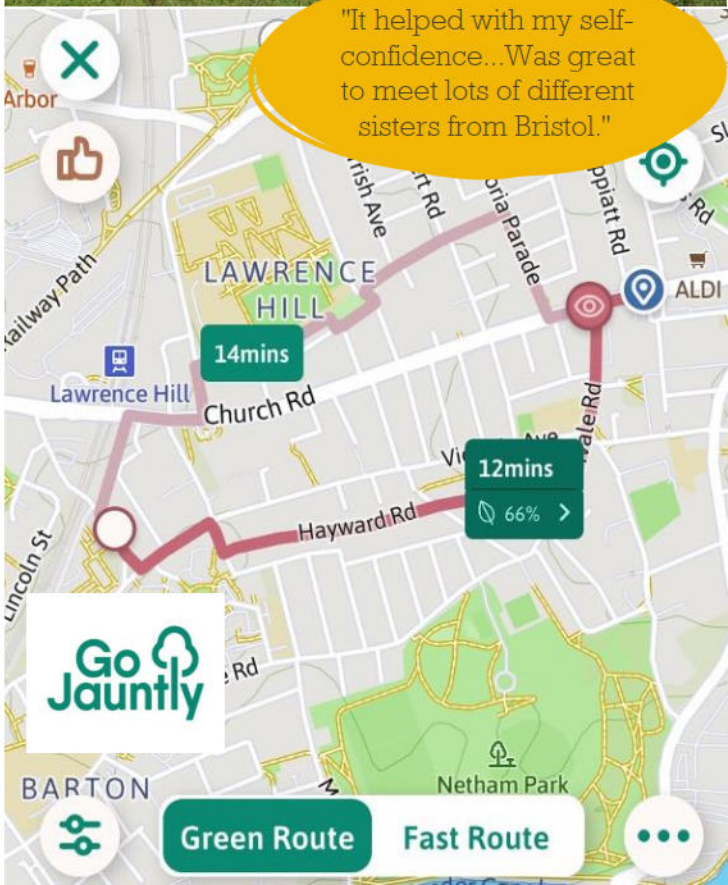
Go Jauntly launch

Our sustainable travel team have successfully launched the 'Go Jauntly' app in partnership with Tranquil City. The app contains 90 local walks that raise awareness of local nature spots and historic points of interest. The app is a successful example of improving the health and wellbeing of residents through the promotion of local historic, green and cultural assets. The partnership undertook workshops to help develop 'Green Routes' across the city. A workshop in Barton Hill (in our Liveable Neighbourhood pilot area) explored local routes to amenities on Church Road considering participant views and knowledge of the environment.

Join My Journey

Bristol City Council has seen recent successes with the launch of the Join my Journey platform. This new journey sharing platform allows commuters in Bristol to match their journeys with other people in their workplace, either on foot, by bike or by car.

As part of the Council's work with Go Jauntly, we're helping to develop a new Enhanced Green Routes calculator for Bristol that offers greener, healthier, quieter and less polluted walking and cycling routes through the app.



5.3 Evidence of Delivery and Partnership working

Zedify

Bristol City Council awarded a start up grant to Zedify to establish a zero-emission freight consolidation centre that operates in the city's Air Quality Management Area (AQMA).

The company is providing a zero emission delivery service to businesses across the city from St. Nicks to St. Werburgh's using electric cargo bikes. The project enabled 33,669 zero tailpipe emission deliveries in the first year saving 7 tonnes of CO_2 and replacing almost 25,000 van trips.

West of England Centre for Inclusive Living

WECIL (West of England Centre for Inclusive Living) is an organisation led by disabled people working together to enable choice. They support over 4,000 people in Bristol and the surrounding area every year.

They have undertaken accessibility audits for a number of projects for the Council, challenging specific barriers to independent living. The findings offer our projects valuable insight into local accessibility and connectivity, and deliver inclusive designs in new developments.

Sustrans

Sustrans is a UK charity promoting walking, wheeling and cycling for everyone, and the custodian of the National Cycle Network. They recently published the Bristol Walking and Cycling Index Report (formerly Bike Life Bristol) to give us an insight into the measures that we can adopt t enable more people to walk and cycle.

Bristol City Council have worked with Sustrans on a number of projects, including the 'One Path' project along the 13 miles long Bristol to Bath traffic free cycle path that sits on the boundary of our Mini Holland area. This project aims to make the path a safer and more inclusive space.







5.4 Delivery

A credible and deliverable plan.

Our experience

Bristol City Council has successful experience of delivering large and complex projects, such as Cycle Cities Ambition 1 and 2, Metrobus and the Clean Air Zone.

Most recently, the Council has gained greater experience of delivering high quality LTN 1/20 compliant schemes at pace through the Emergency ATF and ATF Tranche 2 and 3.

The development of the East Bristol Liveable Neighbourhood and associated OBC (programmed for completion in March 2023) has enabled the team to put in place the systems and processes that have contributed to successful and innovative community engagement. The advanced nature of the pilot project allows the Council to front end the Mini-Holland project with delivery, so that benefits can be realised at the start of the programme.

The programme has been phased so that engagement with surrounding areas dovetails with delivery of the trial scheme to minimise disruption and provide funded solutions for adjoining areas.

The majority of interventions such as modal filters are scalable and can be implemented at lower cost to insulate the programme against inflation costs in the market, with showcase schemes deliverable where there is sufficient community desire and support.

Liveable Neighbourhood Handbook - Scheme requirements

As outlined in our Liveable Neighbourhood Handbook there are pre-conditions for proposed schemes coming forward to ensure they align with wider city plans and strategies regarding transport, housing, and planning. These include:

Community support:
There is evidence that there is appetite in the local community for change.

Strategic fit:
The scheme can be delivered alongside and compliment citywide strategic transport schemes to deliver co-benefits and reduce disruption.

Network impact:
The scheme can be delivered without creating undesirable impacts on the surrounding neighbourhoods.

Funding alignment:
The scheme must align with the requirements of the funding, with interventions delivering against the objectives.

Programme:

The project plan below outlines the high-level phasing stages and timescales of the Mini-Holland programme.

Project Plan			
Project initiation & Sign-off	55 days	04/23	06/23
Phase 1, Barton Hill, Redfield & St George	320 days	06/23	09/24
Phase 2 & Phase 3 Co-Discover Engagement	160 days	06/23	02/24
Phase 2 & Phase 3 Co-Develop	300 days	02/24	03/25
Phase 2 & Phase 3 Co-Deliver	630 days	03/25	08/27
Phase 4 Perimeter & Crossing	1070 days	09/24	10/28
Monitoring & Evaluation	160 days	10/28	06/29

- The Full Project Plan can be found in appendix E
- the Liveable Neighbourhood Handbook can be found in appendix F

5.4 Delivery

Phased approach - How community engagement will shape Mini-Holland.

East Bristol is home to a range of different communities from east to west, all shaped by their own cultures, lifestyles and environments. To bring about successful change in the way people travel and engage with streets and public spaces needs careful consideration. One of the main challenges is to help people impacted by the scheme see beyond the short term impacts (such as disruption to access and parking) to long-term gains (such as climate resilient and liveable streets). The phased approach suggested will help get the different communities on that journey.

Different needs from east to west

The eastern part of the area requires different levels of interventions than the areas in the west:

- East – more car ownership, high levels of obesity, further away from city centre
- West – close to city centre, low levels of car ownership, ethnically diverse, higher levels of crime

The intervention packages all require different starting points and approaches:

- **Residential streets** – focuses on early interventions that will be introduced to streets where residents are new to the concepts of LTNs and more community engagement is needed to bring desired and bespoke change. Interventions are:
- **Perimeter roads** – focuses on the enabling interventions that will significantly improve walking and cycling quality by further calming traffic and lift the quality of place.
- **Green loops** – focuses on developing coherent cycle network for the East Bristol area, with a step change in high quality and permanent infrastructure for the communities.
- **High street** – focuses on strong interventions to reduce car uses on perimeter roads . Better integration with buses and mass transit.

From temporary to permanent

BCC has introduced several temporary schemes across Bristol that are currently turning into permanent interventions, after local communities have experienced the benefits. Examples are:

- School Streets – Traffic bans outside two Bristol schools that were put in place as part of the School Streets programme are made permanent.
- Pedestrianisation – The initially temporary closure of local high streets to traffic in Cotham Hill (Cotham Road) and Clifton (Princess Victoria Street) have gained strong support from residents and local businesses. The Council recently announced both schemes to be made permanent, along with the announcement of further trials throughout 2023/24.

Lessons learned in Oxford

BCC has been actively consulting colleagues from Oxford City Council on their recent LTN implementation, to identify useful lessons learned than can benefit both EBLN and Mini-Holland. CoHSAT, Coalition for Healthy Streets and Active Travel, has also written a guide based on experience in Oxford where LTNs were successfully introduced between 2018 and 2021, which will be a useful reference.

5.4 Delivery

How we will deliver the programme

The Mini-Holland programme will be delivered in four phases, so that engagement and construction can be managed across the network.

Phase 1 – East Bristol Pilot

The first phase of the programme will deliver the East Bristol Liveable Neighbourhood pilot scheme. The design is well advanced and has progressed through the first two rounds of engagement. Delivery of the trial scheme will act as a local example and kick start engagement in the adjacent areas.

The co-design engagement process will start in Easton following the implementation of the pilot. This will help to shape the conversation with the wider community as there will be fundable solutions to mitigate any temporary traffic displacement from the trial scheme.

Phase 2 – Easton

Construction of Easton will follow next as the area is smaller with a less complicated street network. The aim is to deliver high quality north/south connections to major radial walking and cycle routes such as the Bristol to Bath Railway Path.

Phase 3 – Hanham and St George

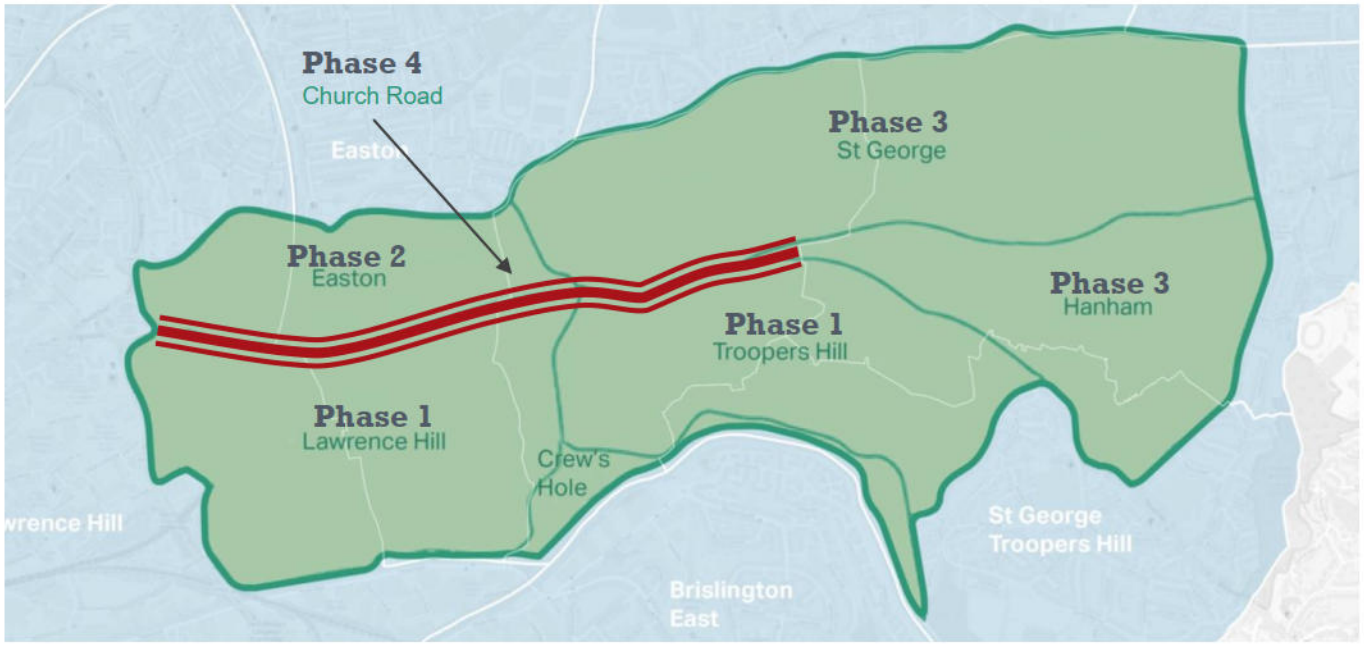
Phase 3 will be delivered towards the end of the progamme, recognising that the area is larger, with a more complex street network and a higher dependency on car trips.

Phases 1 and 2 will ensure that a high-quality walking and cycling network is already in place to demonstrate the benefit of walking and cycling as natural alternatives to car.

Phase 4 – Church Road High Street

Church Road will be delivered last as a separate package to connect each of the Liveable Neighbourhoods and support the regeneration of the local high street. This package will be delivered last as the exact locations of the gateways will only be known until after the LTN modal filter have been delivered.

Where possible, gateways that are not linked to this phase will be delivered throughout the programme so that construction disruption on the network can be phased and managed.



5.4 Delivery

Professional services frameworks and Delivery framework

Professional services frameworks

Bristol City Council has access to a wide range of professional services support and can call on additional resources and expertise of six separate companies. With these frameworks in place, Bristol can effectively manage resource and skills gaps across the programme to ensure that the project is delivered to the necessary quality, timescale and budget.

BCC Strategic Partnership

The Strategic Partnership have been appointed by Bristol to assist with the delivery of the capital programme. The Partnership includes; Arup, Mott MacDonald and Arcadis and was established in 2021 and scheduled to run until 2025. The Strategic Partner has assisted the Council with the development of the East Bristol Liveable Neighbourhood.

ARCADIS

Working with

ARUP MOTT MACDONALD

WECA Professional Services Framework

Bristol can access the West of England's Professional Services Framework. This framework enables the Council to procure professional services via either direct awards or competitive mini-tenders over a certain value. Consultancies on the framework include, Aecom, Atkins and WSP.

AECOM WSP ATKINS

Member of the SNC-Lavalin Group

Delivery frameworks

The Transport Team for BCC has a Highways Asset and Associated Works Framework' (HAAWF) in place to ensure that the Department can draw upon the services of contractors via an OJEU compliant process. The framework allows the council to test the market and ensure value for money through a mini-tender process based on a Bill of Quantities and specification set by the client.

It is proposed that the project would principally procure services through the Bristol Highways Asset Management and Associated Works Framework 2021-25 (HAAWF) through 'Lot 6' that applies to projects over £150,000 in value. The council will choose the most economically advantageous tender bid for by the contractors permitted to bid to Lot 6 which comprise ETM, Alun Griffiths, Colas and South-West Highways.

Small scale works can be delivered through 'Lot 5' which applies to projects under £150,000 in value. Colas are the sole contractor on this framework and works can be directly awarded.

BCC will manage the procurement process internally, with support from their Procurement team.

SWH GRIFFITHS civil engineering and construction

ETM COLAS

5.4 Delivery

Project risks and mitigation: PESTLE analysis (Full risk register in Appendix E)

Political

Risks:
- Change of administration
- Re-profile of the CRSTS programme
- Change of governance
- Cross-party ward Councillor rep
- Varying levels of local & regional Govts
- Change of direction from central Govt

Mitigation
- Engaging with emerging committee system
- Continual engagement with local Cllr's during the lifespan of the project
- Remaining engaged with funding bodies

Economic

Risks:
- Inflation in construction market
- Labour shortage
- Construction competition

Mitigation
- Market testing
- Contingency planning
- Existing procurement frameworks

Social

Risks:
- Cost of living
- Increased demand for change
- Scheme opposition (attitudes to non-transport Issues e.g. health, climate)
- diversity and representation of demographics

Mitigation
- Ensuring objectives recognise current socio-economic issues
- Engagement process (representative of wider community)

Technological

Risks:
- Emerging technologies as part of engagement toolkit (e.g. some technologies may impact certain groups, I.e. access to internet)
- Data collection/validity

Mitigation
- Engagement process (delivered via multiple channels)
- Draw upon lessons learned from pilot liveable neighbourhood

Legal

Risks:
- GDPR (data input)
- Ensuring frameworks/process are in line with equalities acts, safeguarding e.g. risk registers

Mitigation
- Input from Legal Teams
- Following processes in place (e.g., Legal, Finance Teams input)

Environment

Risks:
- Carbon footprint
- Suitability of trial and/or permanent materials
- Pollution level I.e., may worsen in the short term in certain locations

Mitigation
- Through existing Frameworks
- Engagement with relevant Teams from the outset (e.g., Sustainability)
- Modelling scheme prior to implementation

P E S T L E

5.5 Stakeholder management

Innovative approve to drive citizen's participation

Engagement methodology

The feasibility study outlines the high-quality walking and cycling network that can be delivered in the area. However, as the pilot project has demonstrated, successful community engagement plays a critical role in realising the vision. The EBLN project has piloted the co-design method and the Mini-Holland programme will largely follow the same process.

Community engagement will be centered around the use of the "design toolkit", asking communities to plot where they would like to see different measures on their streets. The Co-develop phase of engagement will have a strong emphasis on the "local street" measures i.e. measures to address through traffic. This process will be supported through the use of ABStreets, an interactive toll that helps the community understand and plan their Liveable Neighbourhood.

Throughout the process, community engagement and scheme development will be supported by a programme of behaviour change, underpinned by offers such as, personalised travel plans, bus taster tickets, and loan bikes. Specialised behaviour change offers will be provided at key points in the engagement process to maximise the positive impact of scheme implementation such as, bikeability classes, cycle mechanic courses and guided walks.

East Bristol Liveable Neighbourhood pilot – lessons learnt

Bristol has been developing its engagement approach to Liveable Neighbourhoods through the East Bristol pilot. This has provided an opportunity to learn lessons so that the council is equipped for delivery of the Mini-Holland programme.

A co-design approach has been trialed and opportunities for acceleration have been identified. Significant milestones in Bristol's approach to Liveable Neighbourhoods include:

Publishing of the "Liveable Neighbourhoods handbook" – a precursor to a citywide strategy.

Accessible approach to engagement that utilises community champions in the local area, ensuring that barriers to participation are addressed.

Empowering local communities by making scheme design accessible through design tools such as ABStreet, Commonplace and design workshops.

Development of a "design toolkit" and associated template designs that improve design efficiency and develop shared knowledge and language with the community.

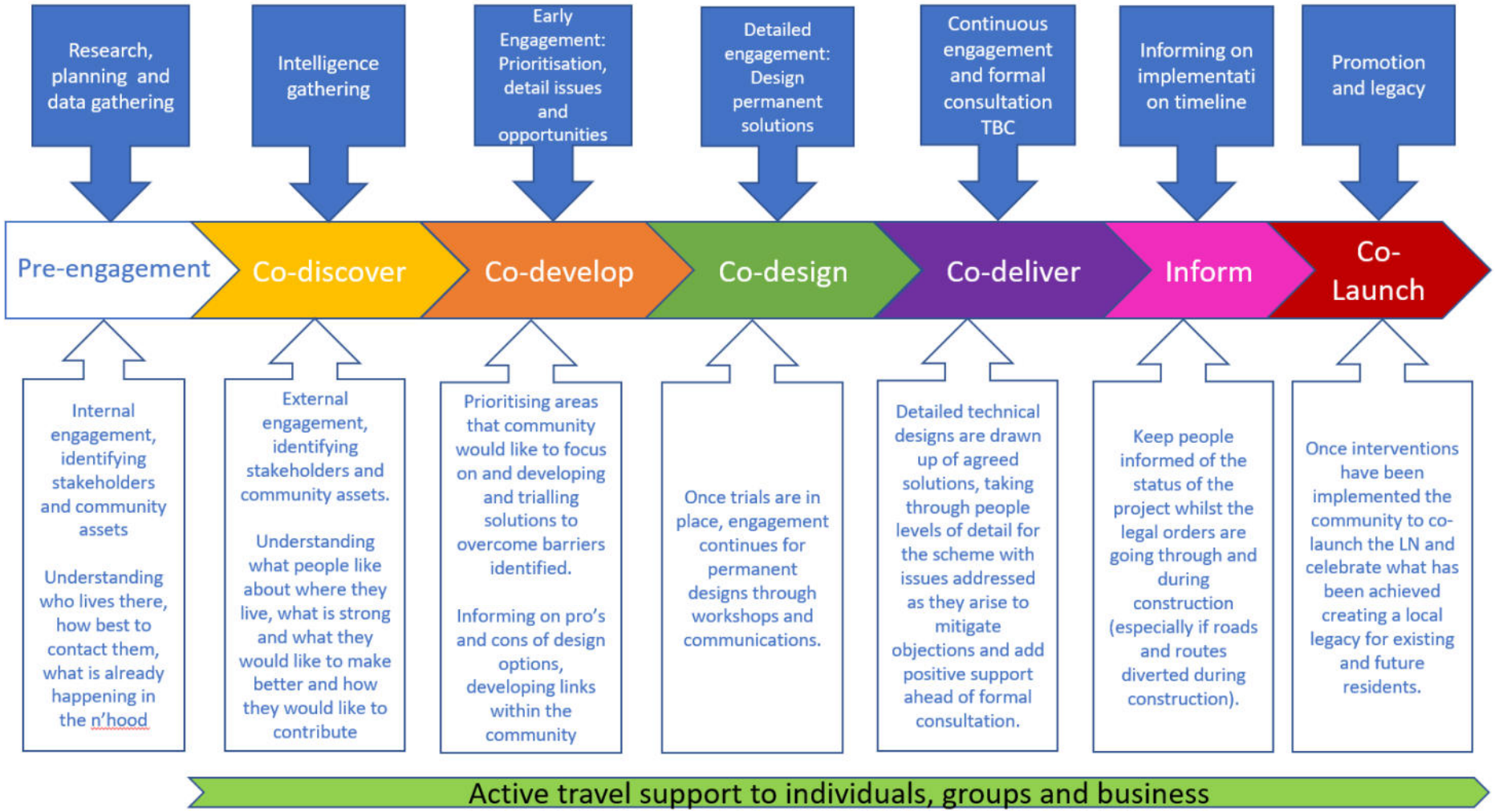
Innovative approach to business case development, incorporating lessons learnt from Transport for Greater Manchester.

These achievements to date have prepared Bristol and contribute to making the delivery plans robust and realistic.



5.5 Stakeholder management

A clear Engagement Plan



5.5 Stakeholder management: lessons learnt

Design toolkit and palette

Design toolkit

A design toolkit has been developed to assist with community engagement by informing people of the advantages and disadvantages of each measure. The toolkit is broken down into three distinct categories:

- **Main roads** – measures that address severance and make it safe and attractive to walk and cycle on busy roads.
- **Local streets** – measures that, when designed holistically will prevent through traffic, so that walking and cycling becomes the first choice for local trips.
- **Community assets** - From parklets to street trees and cycle hangars, measures that rebalance how Bristol's streets are used. The measures themselves help inspire community ownership and bring streets to life.

Design palette

To accompany the design toolkit, Sustrans developed several 'template' approaches to temporary design. These designs provide a standardised approach to measures such as modal filters, diagonal filters, bus gates and pocket parks. These designs are scalable and will assist with effective scheme delivery and could be re-used at different sites within the Mini-Holland programme.

The mockup designs below show how some of our point closures and street greening measures will look in our East Bristol pilot area.

> ➢ The template designs for these filters, parks and bus gates can be found in appendix A







5.5 Stakeholder management: successes from the pilot

Empowering scheme design

Through the East Bristol Liveable Neighbourhood Pilot, Bristol has sought to make engagement as accessible as possible, so that everyone can take part in scheme design and ensure that the scheme reflects their needs whilst delivering a high-quality walking and cycling network.

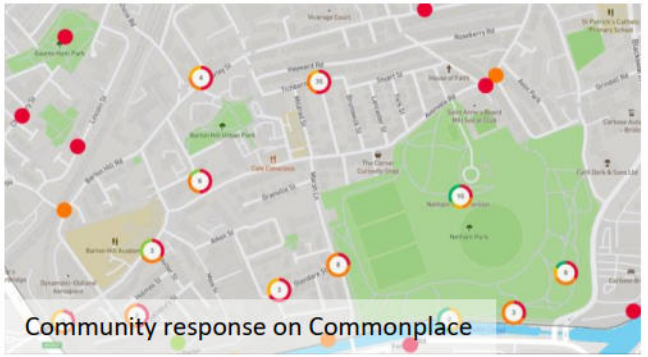
Bristol has developed several unique aspects to its community engagement approach through the Pilot which will be expanded upon through the Mini-Holland programme.



'Postcards' received at engagement events

Commonplace

Bristol has worked in partnership with Commonplace to develop community mapping with the use of the icons from the design toolkit. This has made it easier for the community to see what other suggestions have been made whilst enabling the design team to analyse the results at pace. Our commonplace website can be found here: Have Your Say Today - EBLN Commonplace



Community response on Commonplace

Design tokens

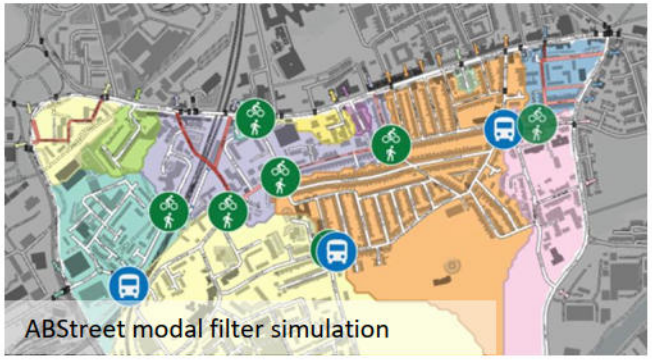
This approach has been replicated during the community workshops by using large paper maps and design tokens which the community can place on the map to indicate which measures they would like to see in their area. This has addressed issues around access to technology, meaning that the whole community can participate.



Design tokens in community workshops

ABStreet

Bristol has also worked in partnership with the Alan Turing Institute and has assisted with the development of ABStreet. This interactive web tool helps the community to understand the principles behind the scheme design and assess how access may change with the use of modal filters in the area. ABStreet has been used at community workshops to discuss proposals to great effect.



ABStreet modal filter simulation

5.5 Stakeholder management

Monitoring and evaluating project development & live delivery

Monitoring, evaluation and transparency are critical aspects of scheme development and delivery. The scheme will be monitored at key points in the programme, with results being presented to the community to increase trust in the process and the Council.

Co-discover

- Area-wide perception survey based on the Healthy Streets indicators issued to understand community perceptions.
- Traffic, air quality, walking and cycling data collected to inform baseline.

Co-Develop

- Participation mapped against ward demographic data.
- Pilot of crowd sourced data collection like Telraam and Vivacity once the scheme has developed.

Co-Design & Co-Deliver

- Continuous feedback on traffic, air quality, walking and cycling data to allow for pre-post comparison.
- Data collected around infrastructure delivered i.e. tree canopy, cycle parking etc.
- Trial/Post scheme perception survey re-issued to determine change in communities' attitudes and travel patterns.

Behaviour Change

Statistics collected throughout the project to track the number of active travel offers taken up, number of bikes fixed, number of people taught to ride etc.

5.5 Stakeholder management

Monitoring and evaluation toolkit

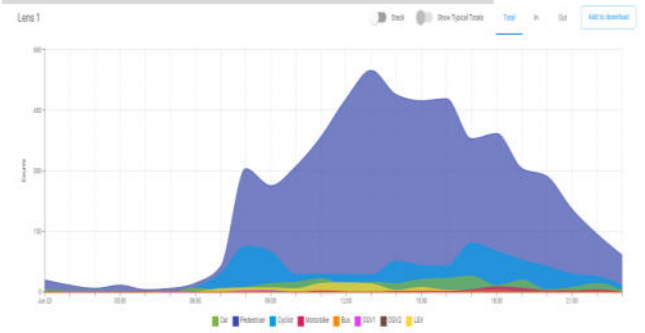
Primary monitoring toolkit

The following describes the monitoring tools that could be used to evaluate Bristol's Mini-Holland scheme and how the data will be captured and monitored.

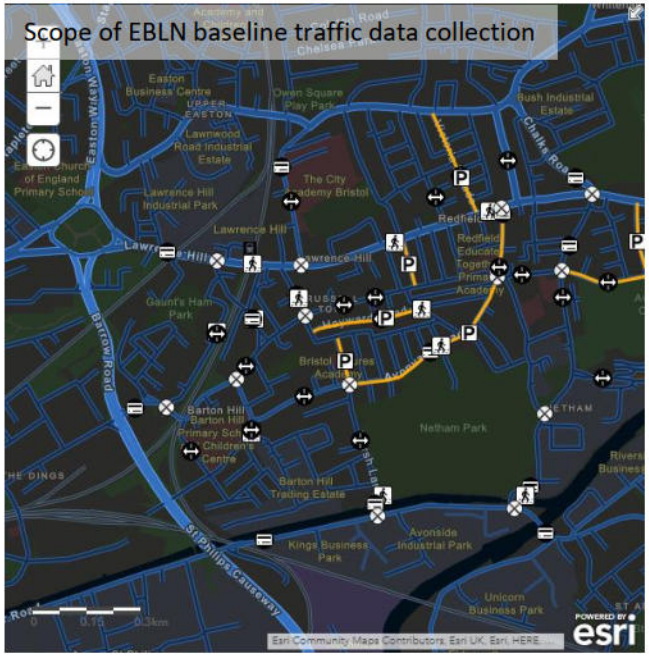
- **The Liveable Neighbourhood community survey** will be the primary tool to evaluate the Mini-Holland scheme. It will be undertaken pre and post scheme implementation, and ask questions on:
  - Key themes from the community engagement phase
  - Travel behaviour (i.e. trips per week by mode)
  - Perceived safety
  - Levels of physical activity
  - Social cohesion and sense of community
  - Perception of the local environment
  - Feedback on the neighbourhood interventions

- **Observed traffic data** like Automatic Traffic Counts, Manual Classified Counts, Automatic Number Plate Recognition and parking survey, have been collected to provide a baseline of existing conditions throughout the area. During the scheme implementation we gather data to inform in-depth analysis through the use of Artificial Intelligence traffic censors. The graphics below show data that has been collected as part of Cotham Hill pedestrianisation.

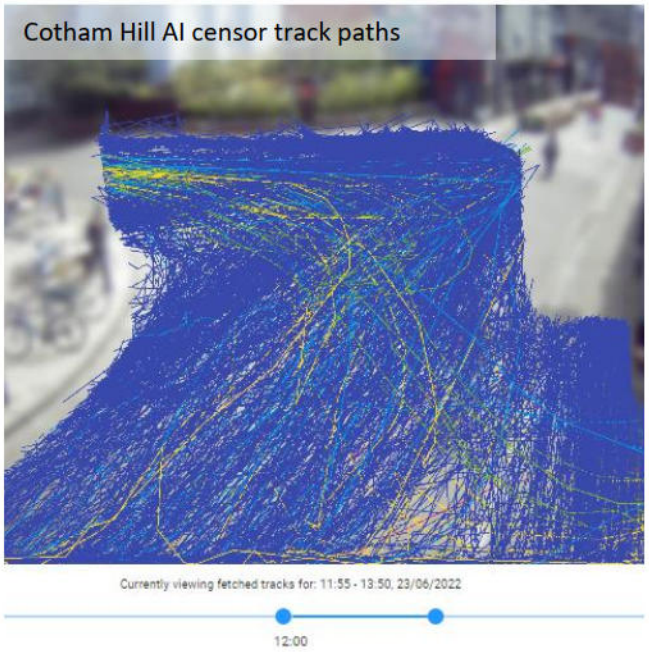
Cotham Hill traffic data dashboard



Scope of EBLN baseline traffic data collection



Cotham Hill AI censor track paths



5.5 Stakeholder management

Monitoring and evaluation toolkit continued

Secondary monitoring toolkit:

The following datasets can be used to provide regular information on indicators relevant to the scheme. This data can be collated annually, to provide a year-on-year picture of evolving patterns and trends around the Mini-Holland area.

- **Bristol Quality of Life survey**
  The survey includes relevant indicators, such as 'Health & Wellbeing', 'Sustainability & Environment' and 'Transport'.
- **Healthy Streets**
  Street audits pre and post scheme implementation can be used to demonstrate improvements when measured using the Healthy Streets Index.
- **Walking and Cycling data**
  Options for walking and cycling data could include automatic counters on strategic routes, Vivacity sensors, Go Jauntly app data, Teralytics and Voi e-scooter data.
- **Mode Shift STARS**
  Mode Shift STARS data can be used to provide an indication of travel mode for travel to school within the Mini-Holland area.
- **Canopy Levels and Green Space**
  Canopy levels are measured using an asset register maintained by Bristol, to track progress against a central target to increase tree coverage.
- **Road Safety Statistics (Stats19)**
  Road collisions and safety statistics reported to the police are recorded in the Stats19 database. To understand the road safety impacts, a comparison of reported road collision incidents at locations where liveable neighbourhoods have been delivered can be made.
- **Crime and Incidents Dataset**
  Existing police databases can be used to access street-level crime, outcome and stop and search data. A comparison of the crime rate across years at ward level, or if possible, to disaggregate to street level, may provide additional contextual evidence about safety in a liveable neighbourhood area and any changes over time.
- **Air quality monitoring data**
  Bristol maintains a database of regular air quality monitoring data which can be used to understand the air quality impacts of liveable neighbourhood delivery.
- **Business Rates Register and Economic Development datasets**
  For measuring impacts on the local economy, Bristol City council Business Rates Register and Economic Development datasets can be used to monitor changes in:
  - High street occupancy rates including number of new businesses opening/registering in the area,
  - Revenue for local businesses

Flexibility of the evaluation approach

There is a need for flexibility in the evaluation approach given the delivery context for each liveable neighbourhood area will vary. Each liveable neighbourhood will vary according to existing place-making and travel behaviour, relevant stakeholder groups, community engagement feedback received and differing interventions.

5.5 Stakeholder management

Data table from the LN Handbook that outlines monitoring and evaluation detail

Bristol Liveable Neighbourhood Objective	What will be monitored?	Monitoring tool or dataset
Transform our neighbourhoods to places where people want to spend time, can interact with neighbours, and enjoy their unique identities	Increased presence of people on residential streets Levels of life satisfaction Levels of loneliness Increased street play (children) Increased physical activity (walking, cycling and other)	Liveable Neighbourhood Community Survey Quality of Life survey Healthy Streets tools
Reflect the needs and characteristics of the local community and increase the sense of pride and belonging	Improved public perceptions of local environment Increased social cohesion Increased sense of community	Bristol Quality of Life Survey Liveable Neighbourhood Community Survey Healthy Streets tool(s)
Improve levels of physical and perceived safety in our communities	Perceived safety (using public space, active travel) Safety incidents (crime and collisions)	Liveable Neighbourhood Community Survey Healthy Streets tool(s) STATS19 database Crime statistics
Improve local accessibility and connectivity to shops, schools, services, and other amenities for everyone to move around safely and sustainably	Mode shift and travel behaviour Bus patronage and service reliability Travel demand – trips by travel mode and route information (including origin and destination)	Liveable Neighbourhood Community Survey Quality of Life survey Mode Shift STARs First Move data ANPR sensors measuring origin-destination along key cut-throughs
Improve residents' physical and mental health and wellbeing	Level of active travel (as a contributing factor towards improved health and wellbeing) Health and wellbeing indicators	Liveable Neighbourhood Community Survey Travel to work data Quality of Life survey Traffic counts
Contribute to reducing inequality and opening opportunities for all in our communities	People able to access services in their neighbourhood easily People in employment and education	Liveable Neighbourhood Community Survey Quality of Life survey
Increase resilience and support the economy by improving local centres and high streets and access to jobs, skills, and training Improve local and citywide air quality and contribute to meeting the climate and ecological emergency	Reduced vacancy rates on local high streets (indirect) Increased footfall to the high street (direct) Increase in neighbourhood level economic activity (businesses opening, footfall, business revenue, etc.) Air quality Mode shift and travel behaviour (including carbon savings and air quality because of mode shift) Tree canopy cover Managing risk of flood-reducing volume and improving quality of surface water entering sewers	Air quality monitors Travel to work data Quality of Life survey Traffic counts Measurement of tree pits with a soil volume greater than two-thirds of the projected canopy area of the mature tree Monitors in sewers Number of permeable areas Fix My Street flood reports

5.6 Financial assurance

Cost breakdown of design toolkit

Bristol's Mini-Holland programme will engage communities to develop the network that has been outlined during the feasibility study. The interventions to deliver the network can be found in the design toolkit that has been developed during the East Bristol Liveable Neighbourhood pilot.

A high-level cost estimate for each of the design tools has been provided here. Costs have been developed using the Council's schedule of rates alongside lessons learnt during the Emergency Active Travel Fund programme.

Costs are indicative at this stage and an updated assessment can be provided during Active Travel England gateway reviews.

Community assets

Like many cities, Bristol's streets are mostly used for parking private cars. The programme will explore how streets can be fundamentally changed by the inclusion of a range of assets that the community can take ownership for.

These can range from measures to support behaviour change, such as cycle hangars and e-scooter parking, to measures that improve the environment and reduce social isolation such as, parklets and street trees.

Main Roads

The feasibility study demonstrates how communities currently suffer from severance by main roads and a lack of safe and high-quality gateways prevent people from reaching the goods and services they require.

The programme will engage with communities to understand where treatments on main roads are required. This activity supports the technical assessment undertaken during the feasibility study.

Local Streets

The early engagement phase of the East Bristol Liveable Neighbourhood illustrated how people felt that the area does not feel safe for pedestrians, streets were stressful, difficult to cross, and that people wanted to see less traffic in the area.

The programme will engage with the community to understand which treatments are acceptable streets that are impacted by through traffic. The engagement process will look to work with the community to develop holistic schemes that do not simply displace traffic onto other local streets.

Community assets		
Street tree and tree pit	£5,995	Per unit
Parklet	£25,669	Per unit
Cycle & E-scooter parking	£2,555	X6 stands
Cycle hangar	£6,795	Per unit
Street art & Wayfinding	£12,995	Per kmsq
Electric vehicle charge point	£9,899	Per unit

Main Roads		
Protected cycle track	£200k	Per km
Side road treatment	£26,995	Per unit
Uncontrolled crossing	£6,995	Per unit
Zebra/Parallel crossing	£46,995	Per unit
Signal controlled crossing	£148,995	Per unit
Junction upgrade	£522,995	Per unit

Local Streets		
School street	£12,775	Per site
One-way & banned movement	£19,575	Per unit
Bus gate	£49,995	Per site
Modal filter/Diagonal filter	£35,995	Per site
Pocket Park	£55,695	Per site

5.6 Financial assurance

Phase 1 Cost breakdown, Proposed budget, capital and revenue funding

East Bristol Liveable Neighbourhood

The first phase of the Mini-Holland programme (East Bristol Liveable Neighbourhood) has progressed through the second stage of community engagement. The team is currently undertaking a technical review to develop the trial scheme and Outline Business Case.

The pilot scheme covers two areas within the Mini-Holland feasibility study area. Indicative cost estimates have been prepared for the two areas, which have been used to provide a range of how much a Liveable Neighbourhood could cost to deliver, depending on the technical complexity and level of community aspiration.

For example, the Barton Hill & Redfield area is estimated to cost in the region of £3.6m to deliver. This estimate includes capital costs for infrastructure as well as the professional services required to support the delivery. This scheme area is more complex due to the network of streets and bus routes.

The St George & Troopers Hill area is estimated to cost in the region of £1.7m to deliver. This lower cost reflects the smaller size of scheme area and the simplicity of the road network.

Allocation of Funding

A detailed proposal for allocation of both Capital and Revenue has been developed using lessons learnt from the East Bristol Liveable Neighbourhood pilot.

Capital funding will primarily be used for scheme development and installation of new infrastructure. Activities such as engagement and behaviour change will be delivered through revenue funding.

Bristol City Council has an established behaviour change programme with active travel offers such as, bikeability, tailored journey advice, cycle mechanic training and bus taster tickets. These activities will be delivered alongside engagement and scheme delivery to bring people on the journey.

Allocation of funding		
Capital	Revenue	Total
£24,899,664.72	£590,000	£25,489,664.72

Capital and Revenue

Elements of the Mini-Holland programme are under development and can be accelerated by utilising existing funding streams such as Transforming Cities Fund and CRSTS.

Bristol has an allocation of £12m for Liveable Neighbourhoods via the CRSTS programme, with £4-6m earmarked for the East Bristol pilot scheme. This funding will contribute towards delivering the first phase of the Mini-Holland programme, as the pilot is well developed with an OC due to be delivered in March 2023.

Additional match funding of £290k has been secured via the EU Horizon project to support the delivery of engagement activities for the East Bristol Liveable Neighbourhood. The funding is currently due to be approved in January 2023 and would be used to complement the revenue funded activities outlined in the Mini-Holland feasibility study.

➢ Details of the proposed budget, capital and revenue funding can be found in appendix H

5.7 Governance

Governance structures in place, ready to deliver

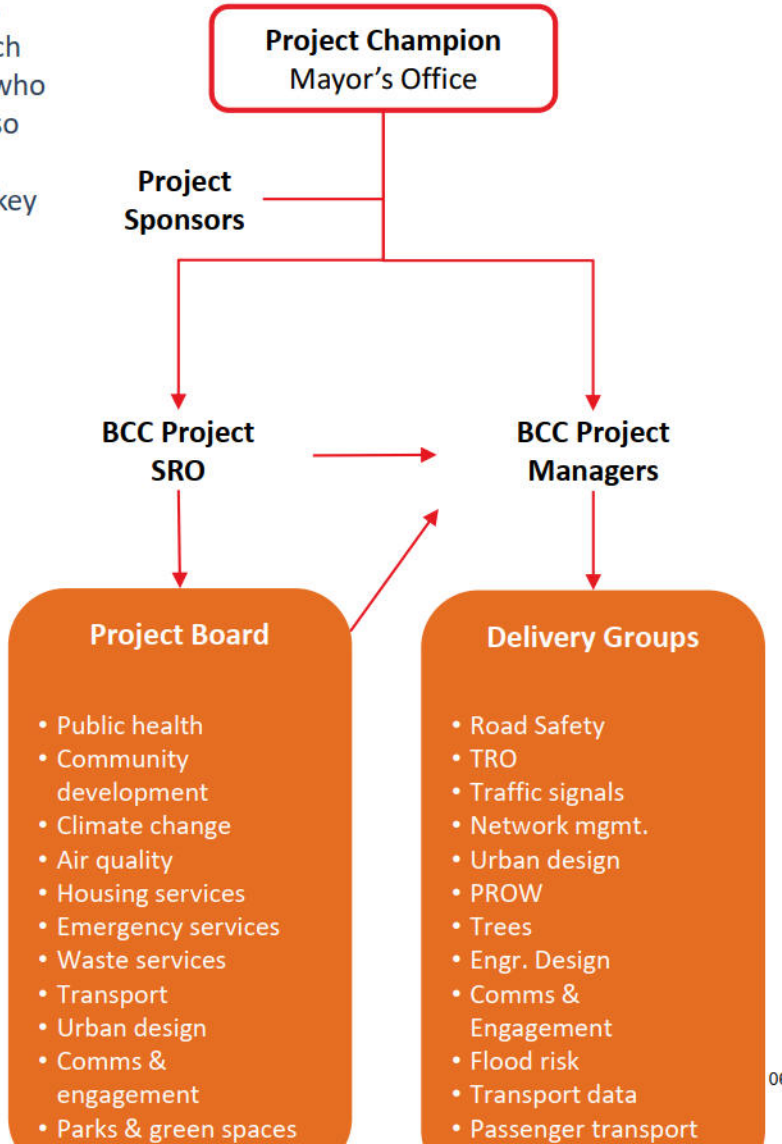
Governance structure

The project team and project board are already in place and have had the benefit of delivering the pilot Liveable Neighbourhood throughout the last 18 months. The structure has worked effectively and has guided project development through the initial phases, shaping the community engagement and Outline Business Case.

The Delivery Group is responsible for each aspect of project delivery, drawing on the technical expertise of a wide range of council services. The delivery group will report to project managers on a bi-weekly basis, who will then report to the Mini-Holland SRO. The Project managers will be responsible for co-ordination and delivery of each work package, reporting to the Project Board on a monthly basis.

The Project Board will be led by the SRO and will assist the political champions with decision making and steering the delivery of the Mini-Holland programme. The Board itself is also made up of a diverse range of Council services to ensure that resources can be co-ordinated effectively.

The Mini-Holland programme will expand this existing structure to include sub teams for each Liveable Neighbourhood and perimeter area who would then report to a programme manager so that budget, timescale and quality can be effectively reported to the Project Board and key stakeholders such as ATE and DfT.



5.8 Value for Money

How East Bristol Mini-Holland will provide Value for Money

The impact of Mini-Holland schemes

Liveable neighbourhoods, modal filters, school streets, and biodiversity all have a number of benefits for local residents. In economic terms, these measures can help to reduce traffic congestion, which can save time and money for people who live and work in the area. This can also make the area more attractive to businesses, which can lead to job creation and economic growth.

From a social standpoint, these measures can help to improve the quality of life for residents by making the area safer and more pleasant to live in. liveable neighbourhoods and modal filters, for example, can make it easier and safer for people to walk or bike, which can increase physical activity and improve overall health. School streets can also make it safer for children to walk or bike to school, which can help to promote independence and improve social connections in the community.

In terms of the environment, liveable neighbourhoods, modal filters, and school streets can help to reduce air and noise pollution, which can improve overall air and water quality. Biodiversity, on the other hand, can help to support the local ecosystem and protect against the loss of important species.

This can also provide a number of other benefits, such as improved water and soil quality, and the provision of ecosystem services and reducing the urban heat island effect.



5.8 Value for Money

Creating a theory of change based upon local strengths, weaknesses, opportunities and threats.

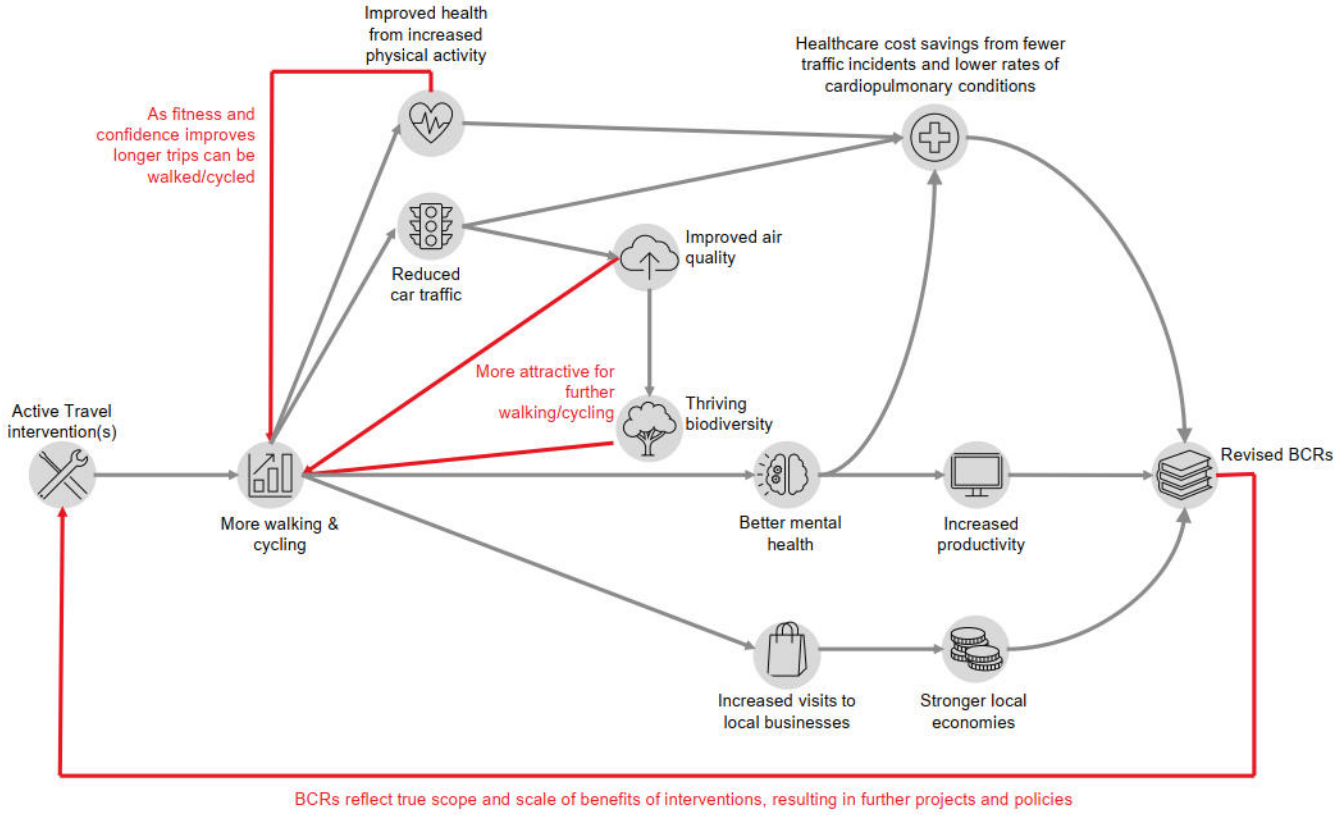
Theory of Change

Investment in the streets and neighbourhoods in East Bristol will have an impact on the local communities who live in the area. We believe that the interventions proposed will support an increase in walking, wheeling and cycling in these communities – created by and reinforcing the lack of need to drive to access local services.

For local residents, we anticipate that this will have a positive impact on their health and wellbeing, improving local air quality and creating more vibrant communities and reinforcing more walking and cycling journeys over the medium term and leading to lower reliance on and ownership of private cars.

For through traffic, we know that there will be short term impacts of rerouting onto boundary roads, but evidence shows in many boroughs in London that this results in traffic evaporation over the medium term as people seek to change their route, travel time and mode of transport.

Church Road is heavily serviced by public transport, which will provide a ready alternative to private car usage in the wider East Bristol area.



5.8 Value for Money

Value for Money Assessment

Building the case for demand

To understand whether there is case for investment we have utilised tools provided by the Department for Transport to understand the likely demand from investment in the East Bristol Mini Holland scheme.

The tool uses evidence from the Cycling and Walking Investment Strategy (CWIS) tool to estimate additional trips resulting from investment in various types of infrastructure interventions – whilst there is much of our investment that will be on items to included in the model, such as cycle training and street activation, it is a useful and accepted process to estimate the additional walking, wheeling and cycling stages.

We have utilised the financial costs included in this bid as the basis for estimating demand. We have deflated (using assumed 10% increase in costs from 2021 to 2022) these to 2021 price base year to align with the requirements of the tool and split the investment amongst the following intervention types:

- Area-wide cycling network
- Liveable neighbourhoods
- Town centre walking infrastructure
- Neighbourhood traffic calming measures

As the 'liveable neighbourhoods' schemes enable both cycling and walking we have accommodated this in the model as per guidance.

This provided us with an estimate of the demand potential for schemes in the City of Bristol, based upon these construction costs.

Intrinsic cycling/walking potential category	Cycling	Walking
Low	961	12,459
Middle	1,624	18,984
High	3,408	30,914

These demand figures will be used to appraise the potential value for money of the scheme.

What do the economic impacts look like?

We believe there is huge potential for a mini-holland in East Bristol to be a success and create lasting change in the region, which would act as a pilot for implementing similar schemes across the South-West.

There are many impacts that we would expect to see occur as a result of the investment, including:

Health

- Increased health and wellbeing outcomes
- Decreased absenteeism from work
- Increased life expectancies
- Decrease in admissions and costs to the NHS
- Decreased health issues from air quality
- Enabling health social prescribing
- Improving children's health from walking to school
- Safer journeys and less collisions

Economic

- Thriving high street and local economy
- Reduced vacancy rates and increased rental values
- More cycling-related businesses
- Increase in spending as more people explore the River Avon cycle way

Environmental

- Reduced greenhouse gas emissions
- Improved local air quality
- Reduced noise pollution
- Improved townscape and landscape

Other

- Climate change resilience
- Stronger communities
- Increased resilience of public transport
- More public transport fare revenue
- Maintain area affordability
- Improved equality
- Lower demand for car ownership
- Lower risk of heat island effects
- Social cohesion

5.8 Value for Money

Value for Money Assessment

Does it provide Value for money?

A Cost-Benefit Analysis was undertaken using the Department for Transport's Active Mode Appraisal Toolkit (AMAT). Using local information about existing infrastructure and estimates of walking and cycling trips we were able to quantify the standard benefits for active travel schemes (version Nov 2022).

These impacts focus on the health and wellbeing impacts of more people walking and cycling, and quantifying the benefits of people shifting from other modes of transport. It only captures a fraction of the benefits of a mini-holland and should be considered a lower-bound estimate of the potential benefits.

The appraisal found:

- Significant health and wellbeing outcomes from more people walking and cycling
- Decrease in absenteeism from workplaces, increasing local productivity
- Reduced risk of premature death from a healthy population
- Decrease in congestion as more people stop driving and start walking, cycling or taking public transport
- Reduced accidents (highway only)
- Less greenhouse gas emissions and noise
- Improved enjoyment of walking/cycling journeys
- Decrease in tax revenue from less car miles

In summary, there is approximately £117m of benefits (Present Value of Benefits) and £19m of costs (Present Value of Costs), resulting in £98m (Net Present Value) of and a Benefit Cost Ratio (BCR) of over 6.0. **The East Bristol Mini-Holland will return £6 per £1 invested.**

A summary of the Appraisal Summary Table is provided on this slide below.

All figures above are in 2010 prices discounted.

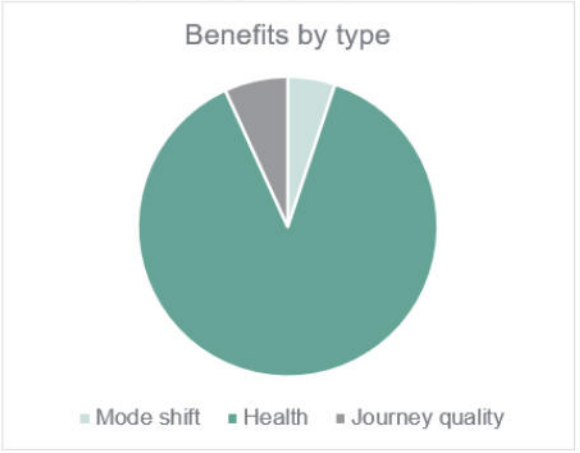
What about other impacts?

In future stages of the business case we will look to quantify improvement to the public realm, local accident savings, journey time changes and increased public transport revenue.

Where we are not able to quantify these impacts – such as reduction in NHS costs, more economic activity on Church Road, etc. – we will provide a qualitative description of these impacts for your consideration.

Analysis of Monetised Costs and Benefits (in £'000s)	
Congestion benefit	5022.13
Infrastructure maintenance	28.01
Accident	858.56
Local air quality	118.27
Noise	57.24
Greenhouse gases	390.40
Reduced risk of premature death	84053.83
Absenteeism	19204.14
Journey ambience	8008.69
Indirect taxation	-478.18
Investment costs	19218.31
Operating costs	0.00
Private contributions	0.00
PVB	117235.08
PVC	19190.30
BCR	**6.11**

Benefits by type:		
Mode shift	5996.44	5.1%
Health	103257.96	88.1%
Journey quality	8008.69	6.8%

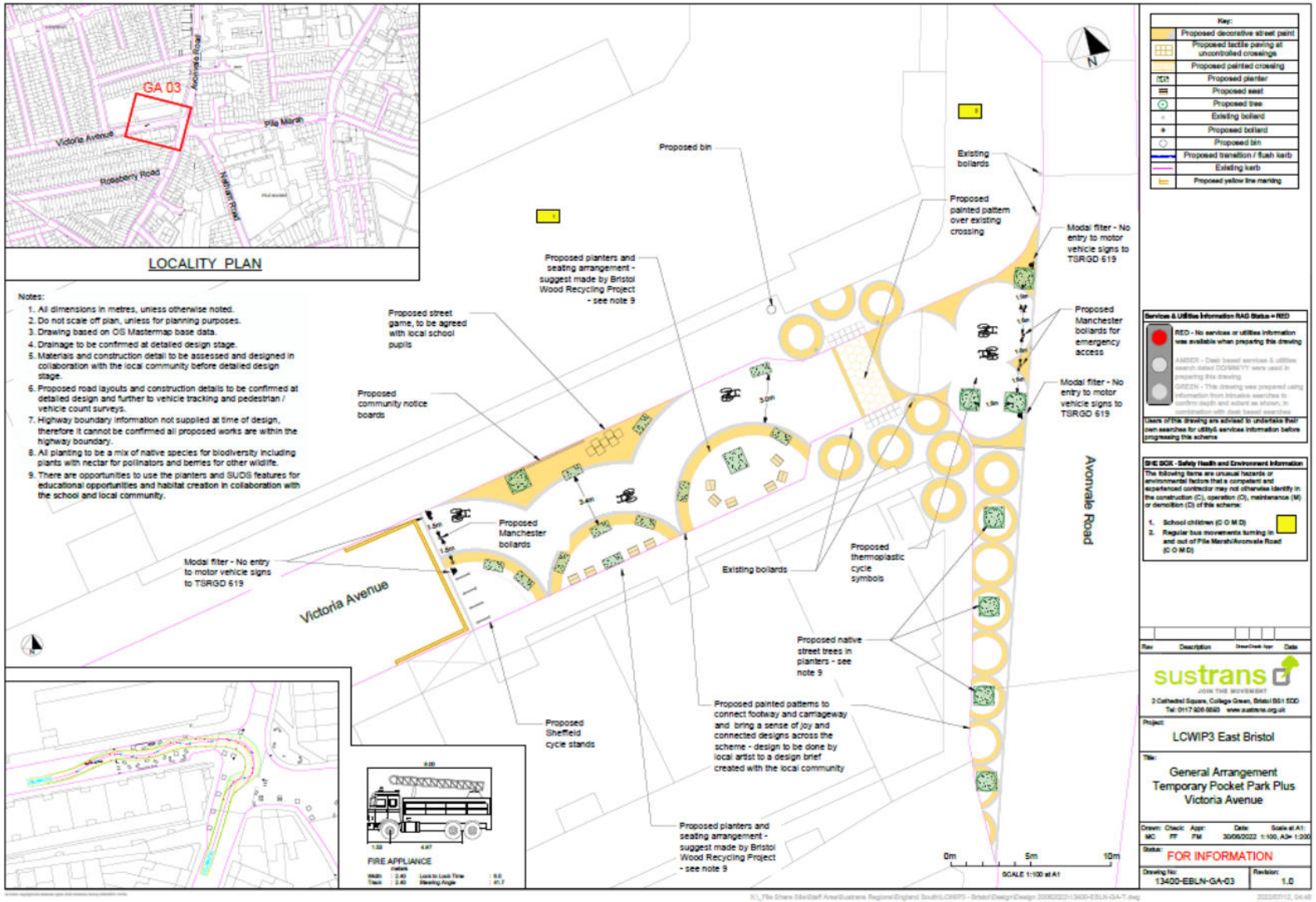


Appendices



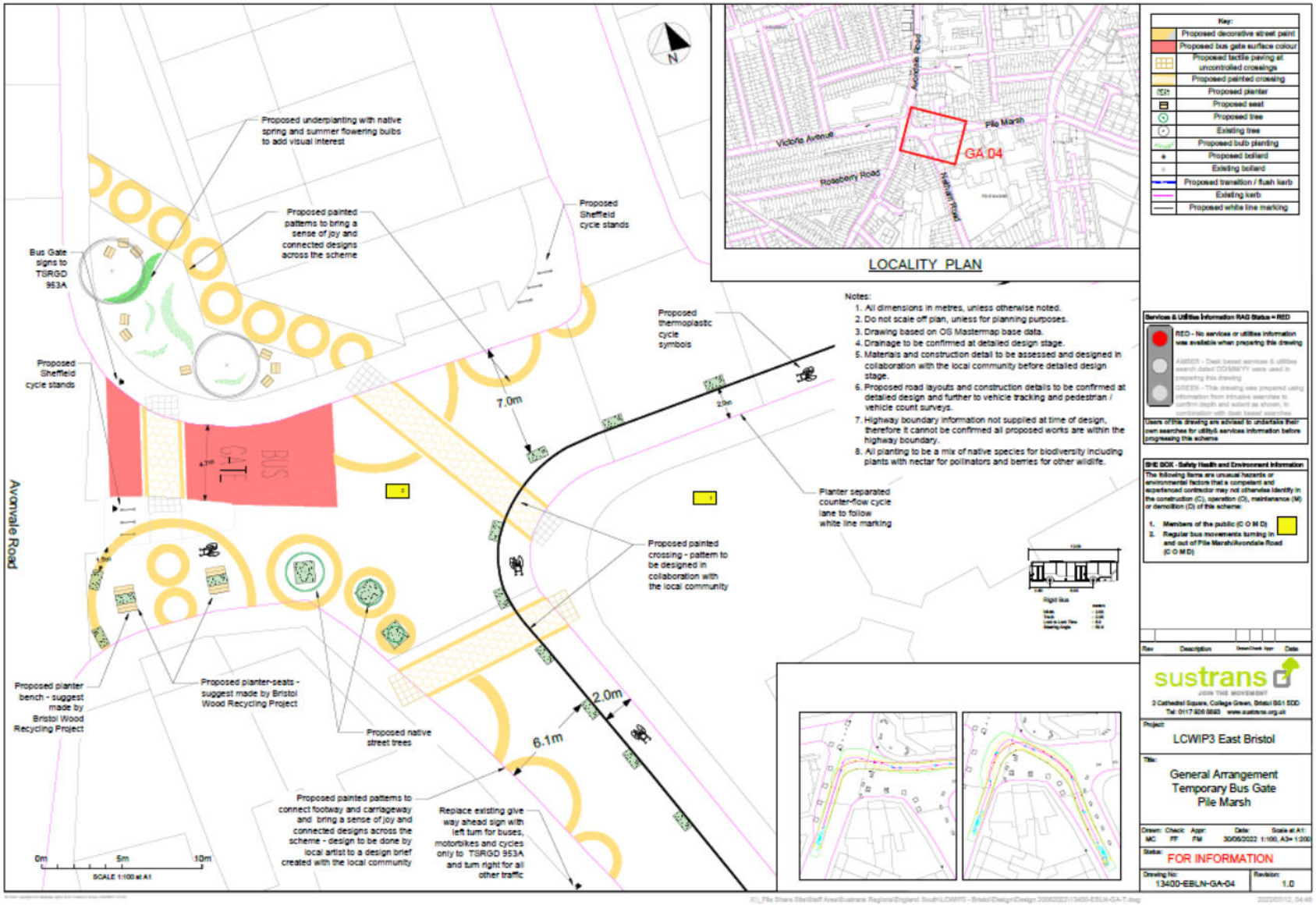
Appendix A: concept design pocket park plus

Sustrans has helped Bristol design template approaches to temporary designs. This page shows the detailed design for a pocket park



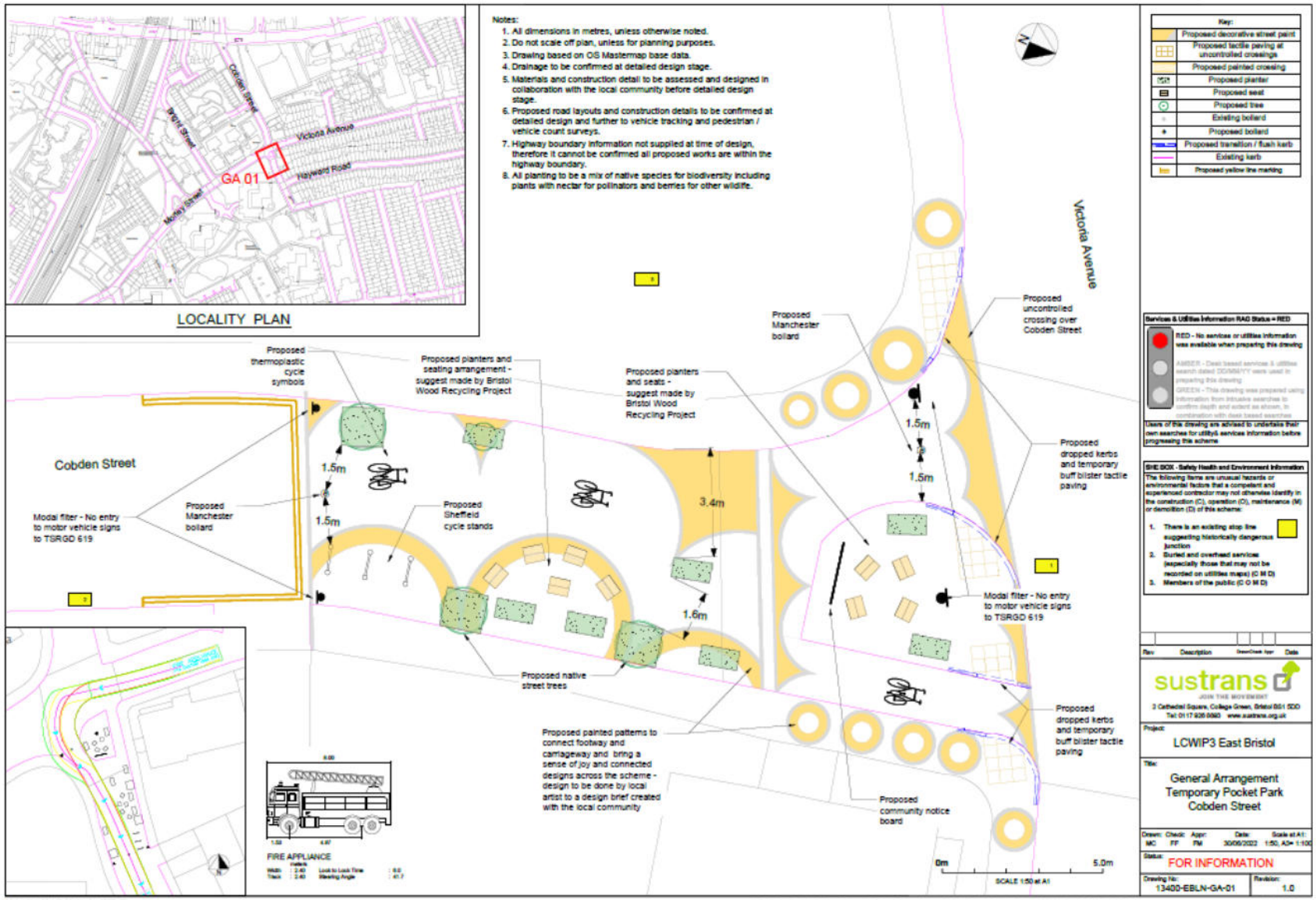
Appendix A: concept design bus gate

Sustrans has helped Bristol design template approaches to temporary designs. This page shows the detailed design for a bus gate



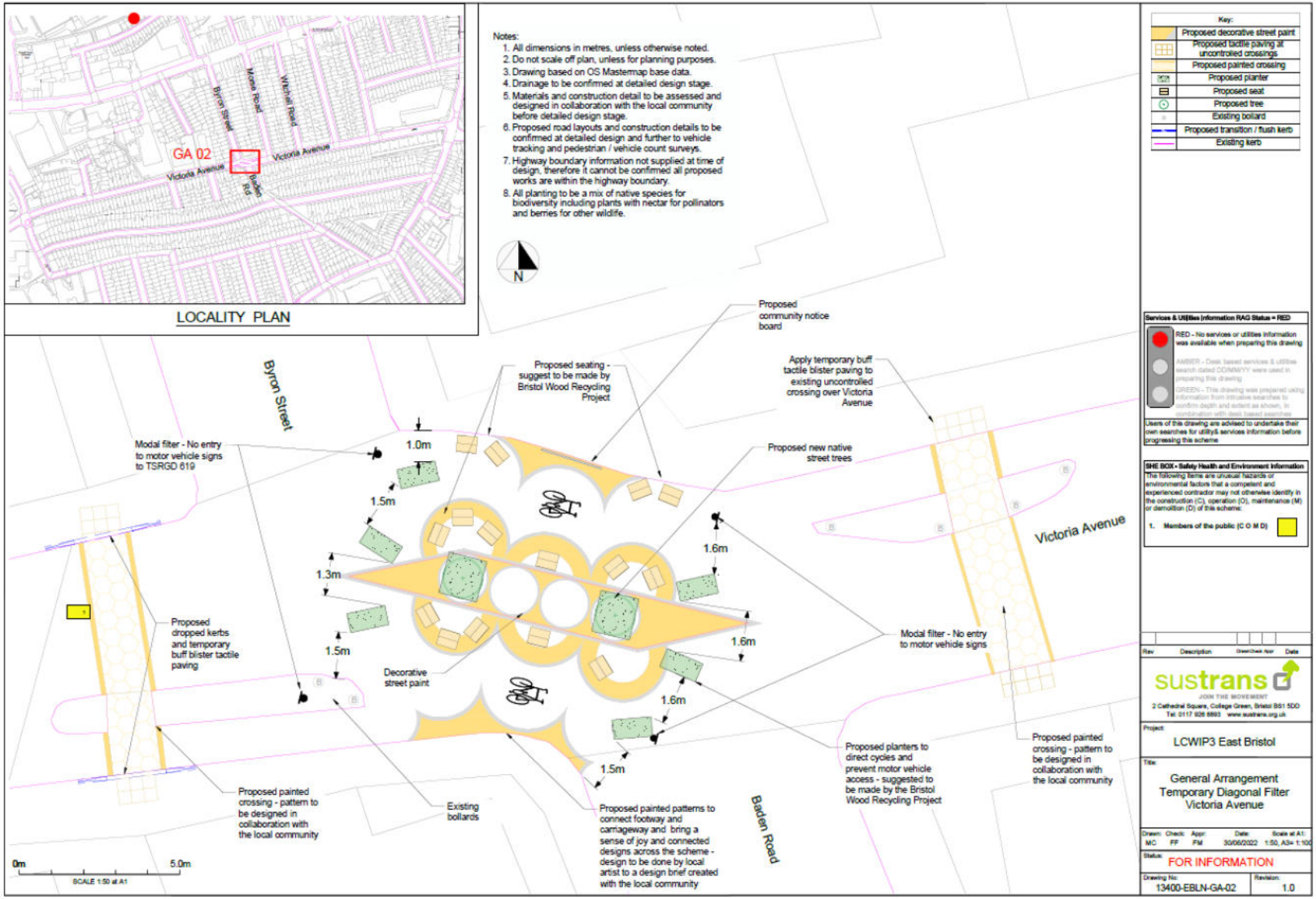
Appendix A: concept design pocket park

Sustrans has helped Bristol design template approaches to temporary designs. This page shows the detailed design for a pocket park.



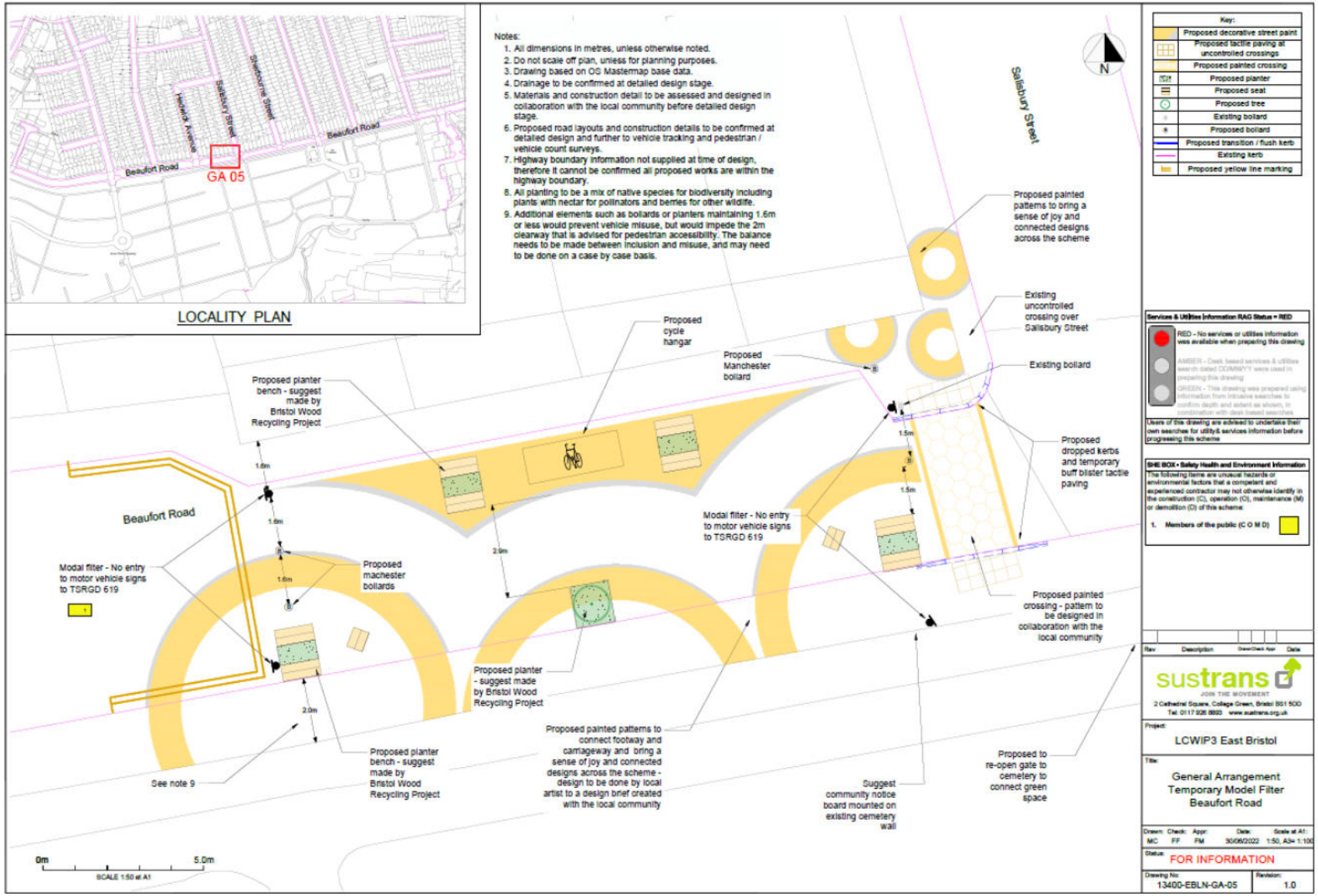
Appendix A: concept design diagonal filter

Sustrans has helped Bristol design template approaches to temporary designs. This page shows the detailed design for a pocket park.



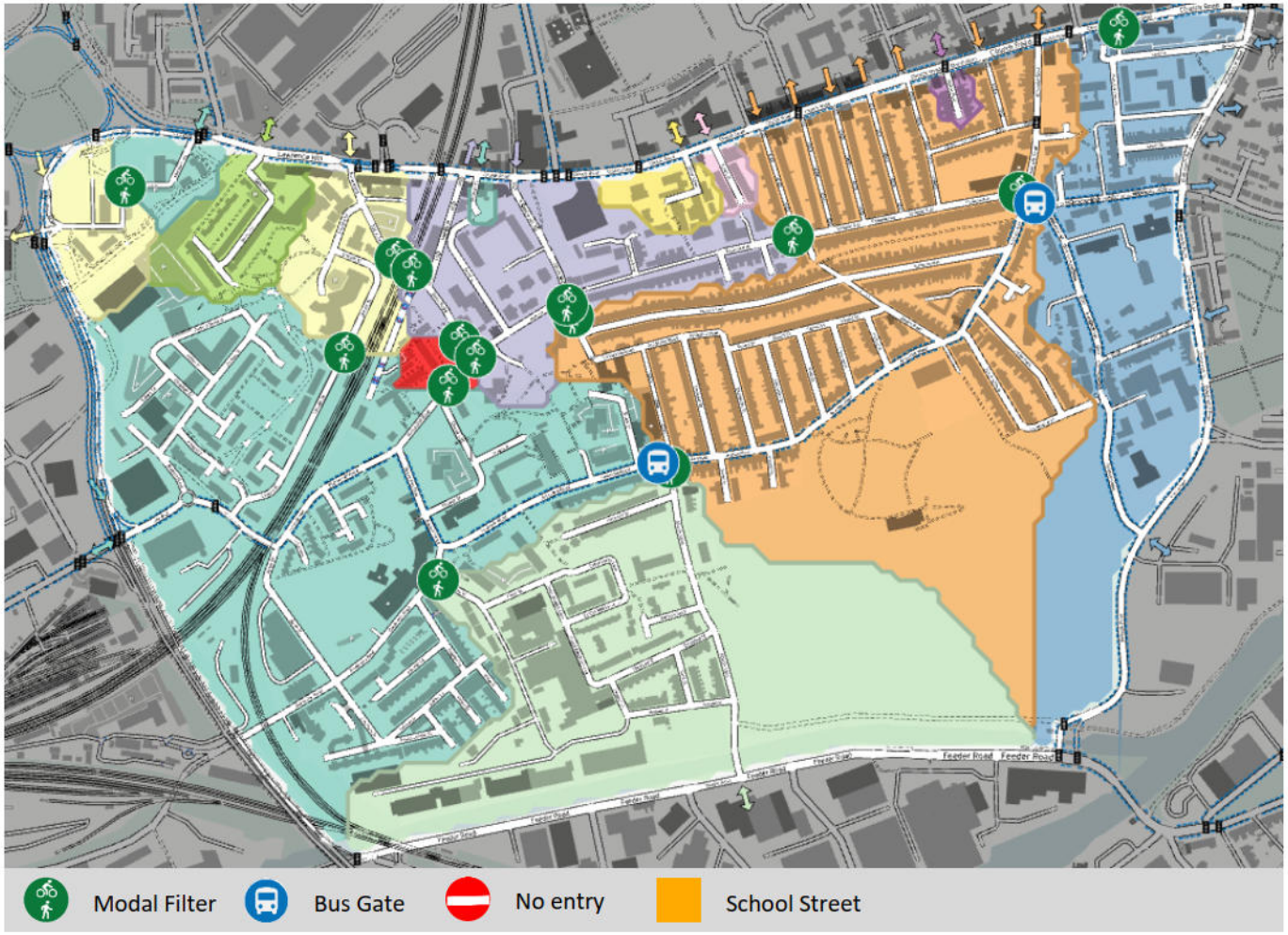
Appendix A: concept design modal filter

Sustrans has helped Bristol design template approaches to temporary designs. This page shows the detailed design for a pocket park.



Appendix B: Potential transport interventions and impacts

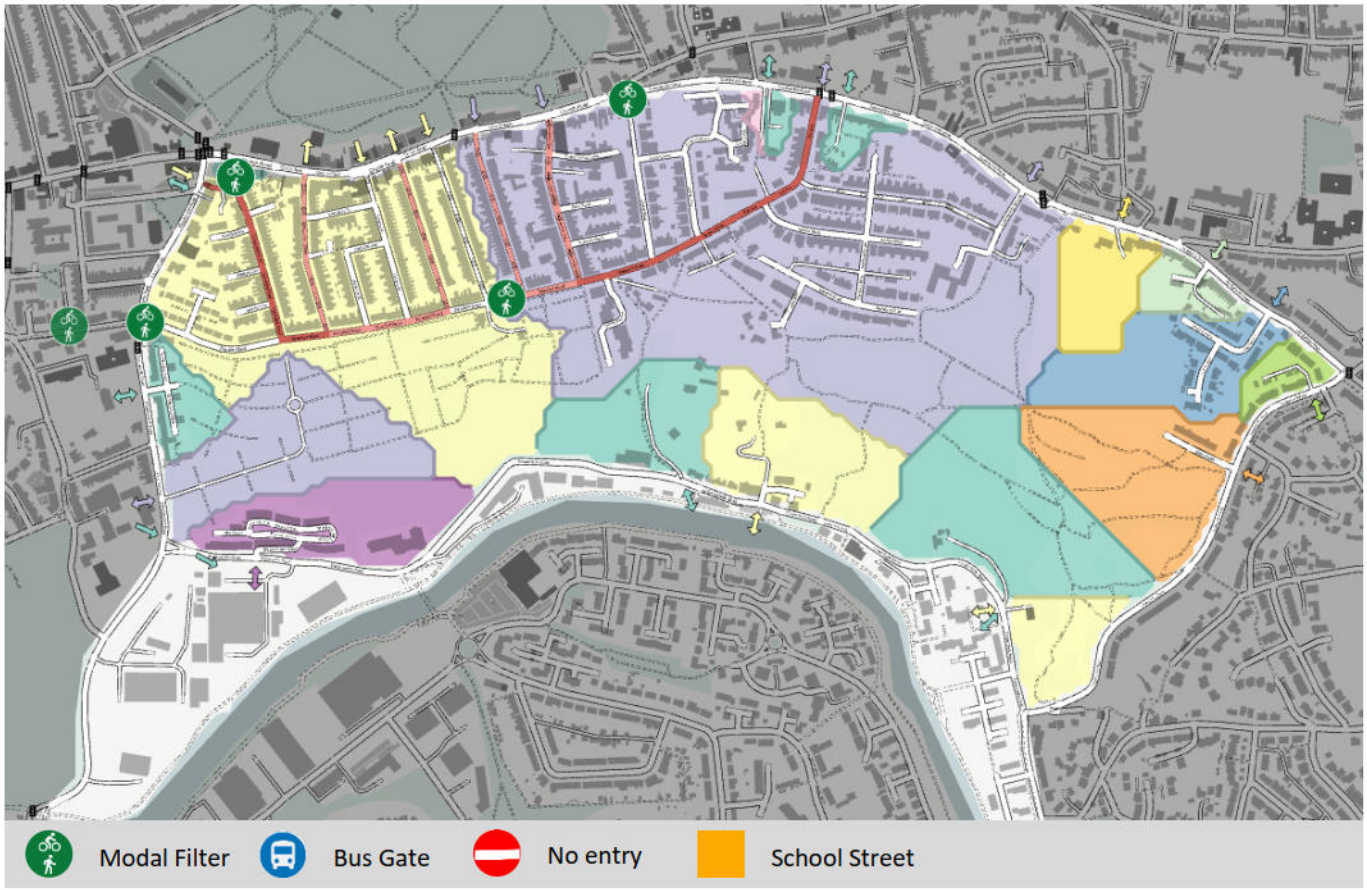
EBLN Lawrence Hill LTN – Current aspiration, subject to consultation



- Modal filters at the junction of Marsh Lane/Avonvale Road and Maze Street/Queen Ann Road.
- Splits access by vehicles evenly across the south western section of the scheme
- Reduces the need for one bus gate and facilitates a school street outside Barton Hill Academy.
- Vehicles enter and exit the area via Marsh Lane/Feeder Road and Days Road/St Philips Causeway.
- Modal filters on Lincoln Street, Ducie Road, Barton Hill Road and Kingsmarsh Way
- Opportunity to upgrade modal filters at Barton Hill Road and Cobden Street to pocket parks
- Introduction of one-way on Morton Street and reversal of one-way on Cobden Street to create access gyratory.
- Modal filters placed in locations where there are existing restrictions to minimise impact on parking.
- Modal filters on Victoria Avenue and Barnes Street
- Upgrading school street to a pocket park, within existing restrictions to minimise impact on parking and access
- Bus gate on Pile Marsh to create access gyratory around Pilemarsh, Netham Road, Grindell Road
- Main access points though junctions such as Avonvale Road and Netham Road

Appendix B: Potential transport interventions and impacts

EBLN St George and Troopers Hill LTNs – Current aspiration, subject to consultation



- Modal filters at Wicket Lane, Glebe Road, Beaufort Road and the junction of Beaufort Road/Blackswarth Road
- One way reversed on Northcote Road and a southbound one-way introduced on Beaconsfield Road to facilitate access in conjunction with the Avenue.
- Modal filter on Beaufort Road/Blackswarth Road junction enables new crossing connecting routes to schools.

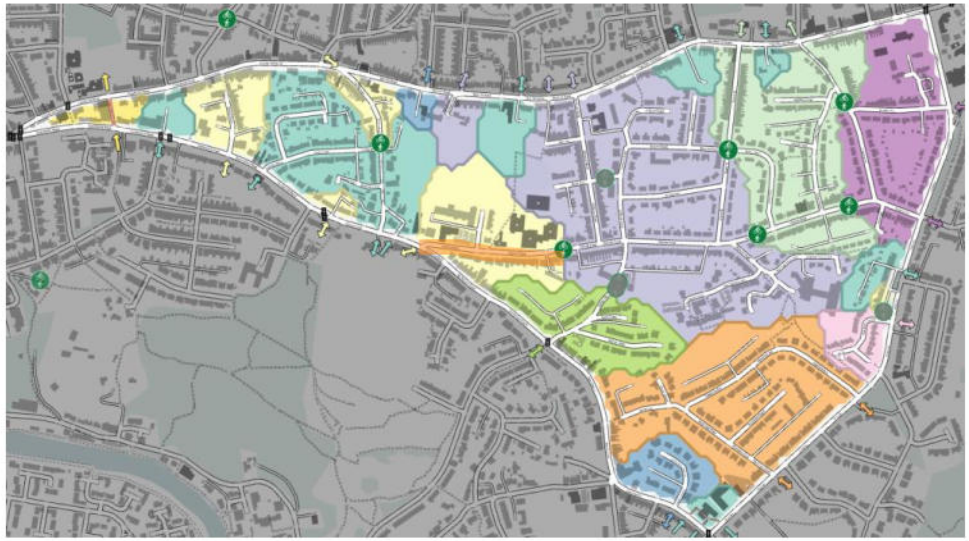
Appendix B: Potential transport interventions and impacts

Easton, St George and Hanham LTNs – Current aspiration, subject to consultation









Appendix C: Case studies – prioritising cycling and walking

Cities all over the world are implementing projects to support more active and sustainable lifestyles, by prioritising cycling and walking.

Waltham forest (London, UK)



Better Streets for Enfield

Waltham Forest Council introduced LTN redesigning what were car dominated streets into spaces that promote walking and cycling. This project has reduced the number of streets available for rat runs and cut throughs. The initiative began with trees in planters and is now permanent. LTN's have proved to be popular and have encouraged play and safer cycling. Community planting within the streetscape has produced flowers and vegetables and brought neighbours together.



Appendix C: Case studies – prioritising cycling and walking

Grotestraat Nijverdal (Nijverdal, NL)



"Shopping should become more of an experience if it wants to compete with online stores, so we want to attract and retain visitors in the city centre."

High street revitalisation

Transformation of a noisy, car dominated road in to a green and attractive destination for pedestrians and cyclists, with spill out areas for businesses and addressing flooding issues by introducing attractive wadi's and greenery.





Appendix C: Case studies – prioritising cycling and walking

Gata Gronland, Oslo (NR)



Temporary street transformation

Until October 2022 this street in Oslo city centre is car-free, filled with an urban forest, flowers, and insects and street furniture to enjoy the new green space. The street now offers cyclists and pedestrians an attractive route through the centre.

The goal of the project is to investigate how a new type of urban nature can be introduced into our city centres.



Appendix C: Case studies – prioritising cycling and walking

Cities are implementing projects to integrate nature in their streets and public areas, to ensure future proof and resilient cities.

Living Walls, London (UK)



Living walls

Primary schools located next to some of the most polluted roads in London Green have received so-called “pollution barriers”, made up of hedges and plants. These walls are being set up around playgrounds in London’s primary schools to act as a barrier to pollution from the roads to improve air pollution on the school grounds.



Appendix C: Case studies – green infrastructure

Walking trees, Leeuwarden (NL)



Walking trees

This art installation titled 'Bosk' (NL) is a 100 day project which sees 1,200 trees 'walk' through the city to a variety of locations. Roads are closed as the trees move position from Monday to Friday then they 'rest' in one place during the weekend. Once completed the trees will be placed in a permanent home in the city.

The project aims to highlight the issues of climate change but the outcomes also include community participation, temporary greening of the city and discussion on urban design and how we can influence improvements to the climate.



Appendix C: Case studies – green infrastructure

Greener Grangetown (Cardiff, UK)



Natural drainage and sustainable lifestyles

Commissioned by Cardiff Council and NRW this Sustainable Urban Drainage (SUD) project maximises the use of green infrastructure to future proof the drainage network, enhancing public space and ecology.



Appendix C: Case studies – green infrastructure

Various projects focussing on improving streetscapes are helping nudge people's behaviour and create attractive streets.

Lichtslingers – Vespuccistraat, Amsterdam (NL)



Community co-design and artwork

Simple interventions can life a space and provide opportunity for artistic expression. The examples shown here are from the Netherlands but Bristol has its own light festival that can be extended into East Bristol or a more permanent fixture created in key areas including ' gateways' and retail streets.



Appendix C: Case studies - streetscape

Containertuintje, Den Haag (NL)



Bin gardens

In the city of The Hague in the Netherlands lush green gardens are placed around bins to nudge people to throw their waste in the bin, improve the quality of the streetscape, support neighbourhood cohesion and keep the pavements free from littering.

First responses from residents are very positive and 93% in The Hague requested more of these container gardens.



Appendix C: Case studies - streetscape

Hivzi Sylejmani, Prishtina (Kosovo)



Participatory urbanism

In Pristhina a new methodology is being tested, focussed on participatory urbanism. The initial phase of this methodology took place from the start of March 2021, consisting of an extensive series of maps of Prishtina, primarily looking at the state of the city's public space. This helped to illuminate hidden spatial and social patterns as well as to distinguish key spots – squares and streets, parks and green areas – that are currently underused or misused.



Appendix D, E, F

These appendices can be found in the attached pdf files.
Titles as follows:

Appendix D: Project Plan

Appendix E: Risk Register

Appendix F: Liveable Neighbourhood Handbook

Appendix G: Letters of Support

Letters of support from MPs and Local Councillors

Thangam Debbonaire MP
Member of Parliament for Bristol West
Shadow Leader of the House of Commons
House of Commons, London SW1A 0AA

Department for Transport
Great Minster House
33 Horseferry Road
London SW1P 4DR

18.01.2022

Dear Secretary of State,

Re: Bristol City Council's funding bid under Mini Hollands programme

I am writing in support of Bristol City Council's funding bid for an expanded East Bristol Liveable Neighbourhood.

Bristol faces several challenges - from the climate emergency to a public health crisis and cost of living pressures. From a transport perspective to meet these challenges we need to encourage more people onto buses, trains, and bikes.

One of the key barriers that prevents people from using more active and sustainable modes is safety and convenience.

Work is already underway on the East Bristol pilot and this additional funding will allow Bristol City Council to expand the benefits of this scheme to a much larger audience.

Initial engagement work shows that my constituents in this area want to see these changes. The top three problems in the area are: poor air quality, streets too noisy with traffic, and people feel unsafe while walking and cycling.

The top five improvements suggested by residents were: to slow down traffic, improve road safety, reduce traffic, safer junctions for walking and cycling, and add crossing points.

Therefore, I fully endorse Bristol becoming one of twelve national pilot areas for the Mini Hollands programme and support the investment being made to make our communities more resilient.

Yours,

Thangam Debbonaire

Thangam Debbonaire, MP for Bristol West

Thangam.Debbonaire.MP@Parliament.uk
Website: www.Debbonaire.co.uk @ThangamMP

HOUSE OF COMMONS
LONDON SW1A 0AA

Rt Hon Mark Harper MP
Secretary of State for Transport

Sent via email

20th January 2023

Dear Secretary of State,

I would like to express my support for Bristol City Council in its bid for funding to expand the East Bristol Liveable Neighbourhood scheme.

I am excited by the progress of the East Bristol Liveable Neighbourhood pilot, and I believe this has laid important foundations, that will ease the implementation of a Mini-Holland scheme. Work is already underway on the pilot, and this additional funding will enable us to expand the benefits of the scheme to a much larger area, of approximately 4km^2.

From my experiences of talking to my constituents in Bristol East, I know that they are strongly in favour of the Liveable Neighbourhood scheme and will be strongly in favour of a Mini-Holland. Cleaner air, safer roads, and greener spaces are all foremost among the concerns of those living in Bristol East.

Bristol faces a number of challenges, from the climate crisis to public health and cost of living pressures. Encouraging public transport and active travel would go some way to addressing these problems. As the home of Sustrans, the active travel charity, Bristol can and should be leading the way. By making active travel safer and more convenient, we can remove the two biggest barriers to its widespread adoption.

I therefore fully endorse Bristol becoming one of twelve national pilot areas for the Mini-Hollands programme, and I support the investment being made to make our communities more resilient.

Yours sincerely,

Kerry McCarthy

Kerry McCarthy
Labour Member of Parliament for Bristol East

Appendix G: Letters of Support

Letters of support from MPs and Local Councillors

Cllr Don Alexander
Cabinet Member for Transport
Bristol City Council
City Hall
College Green
Bristol
BS1 5TR

Reply to Cllr Nicola Beech & Cllr Steve Pearce
Email Cllr.nicola.beech@bristol.gov.uk
cllr.steve.pearce@bristol.gov.uk

Date 11.01.22

Dear Don,

We're writing to express our support for the West of England Combined Authority to include our ward of St George Central as part of a new "mini-holland" project in Bristol.

The primary reason to support this proposal is the opportunity to create safer streets across the area of St George between Summerhill Road, the Kingsway and Bell Hill Road. This "triangle" of key roads running through St George often encourages drivers to use residential side streets as rat runs. There is a significant opportunity to eliminate this by taking a more strategic view of the road network in St George and, while keeping roads accessible for local access, stopping rat running. We recognise that for these projects to be successful they require a significant amount of consultation and welcome the devolved approach to community decision making. We've been really impressed at the approach taken at the current nearby "Livable Neighbourhood" and believe residents will feel respected and supported should Bristol be successful and this project progress.

St George is dominated by family housing, with typically terraced or semi-detached housing with few opportunities for cycling parking or shed space. If Bristol is successful for the mini-holland project I think local residents will increase in confidence to walk, scoot and cycle in the local area and this could be bolstered is we are able to make space for cycle hangers and other street furniture such as benches.

Finally, as I am sure you are aware, within this triangle of St George is also the second largest Primary School in Bristol, Air Balloon Hill Primary School. It would be fantastic to work with the school on this project supporting the first generation of St George children to feel safe on our local streets. A street tree planting programme could green key routes to and from the school. This is a great opportunity for East Bristol and St George and it has our full support.

Sincerely,

Cllr Steve Pearce

Councillor for St George Central

Cllr Nicola Beech

Councillor for St George Central

Reply to Councillor Barry Parsons
c/o Green Group Office
City Hall
Address PO Box 3399
Bristol
BS1 9NE
Telephone 07584 183 547
E-mail cllr.barry.parsons@bristol.gov.uk
Date 12 January 2023

Cllr Don Alexander
Cabinet Member for Transport
City Hall
PO Box 3399
Bristol
BS1 9NE

Dear Cllr Alexander,

Bristol's Mini Holland bid

As a councillor for Easton ward, within the East Bristol Liveable Neighbourhood area, I enthusiastically support the council's application for Mini Holland funding to expand beyond the pilot scheme.

Our city urgently needs to change in order to meet our goals of addressing the climate emergency while creating safer streets, cleaner air, and opportunities for cycling and walking for all our citizens. Extensive engagement on the East Bristol Liveable Neighbourhood project has identified a clear appetite for change. Residents identified poor air quality, traffic noise and safety as key issues. They want reduced traffic, better road safety, and improved access to green spaces. I want to do everything in my power to deliver on these priorities for our residents.

There is now a wealth of evidence that Mini Hollands address all these issues by creating streets that are welcoming places to walk, cycle and spend time. By introducing modal filters and bus gates, we can eliminate rat running traffic. Most homes in my ward lack space for cycle storage; this scheme offers the opportunity to install cycle hangars to remove this key barrier to increased cycling. And reallocating street space for pocket parks offers opportunities for connection with nature in a ward that has one of the lowest levels of tree canopy in Bristol.

Expanding the scheme area to include streets north of Church Road will enable walking and cycling links across this busy transport corridor to be improved, strengthening community cohesion in an area with significant deprivation. It will enable the creation of safe routes to City Academy secondary school, which will benefit the health and wellbeing of students. And it will connect the pilot area to the Bristol to Bath Railway Path, expanding opportunities for sustainable travel across the city and wider region.

The local authority is already making a significant investment in East Bristol, an area which has historically suffered from under-investment and unsympathetic transport projects. This application has the potential to unlock transformative change across a much wider area, and I offer my wholehearted support for its success.

Best wishes,

Cllr Barry Parsons

Appendix G: Letters of Support

Letters of support from MPs and Local Councillors

Dear Cllr Alexander,

Thank you for informing me of this bid. I am highly supportive of the idea and am very glad to see it building on the fine plans in the works for the EBLN.

As a local councillor for Easton, I am constantly speaking to people who want more zebra crossings, more extensive cycling routes, and better public transport routes. I also receive many requests for cycle hangars, on-street planters, parklets, and generally a more pleasant street environment which is built for people rather than cars.

The project which we are undertaking for the East Bristol Liveable Neighbourhood has been very popular locally; I think I have only had one complaint in total. Reducing car dependency is something that a huge number of my residents are yearning for, and as a Green councillor it's my duty and delight to support projects like this on their behalf.

The larger project will also include the Whitehall part of my ward which is often neglected and where residents frequently complain of speeding. I am very glad to see this area in the next phase, as it will mean that the improvements don't simply stop at Church Road high street.

Delivering as many liveable neighbourhoods as possible across the city is the best way to stop our city from being clogged with cars forever more, and will improve the daily lives of hundreds of thousands of people. As such I am very happy we are pursuing this bid and the ongoing work towards the vision of a Bristol with clean air and walkable streets.

Yours sincerely,

Cllr Bartle

Dear Cllr Alexander,

Thank you for advising me about this bid. I am highly supportive of this idea and I'm happy to see the improvement of the EBLN Plan in the Lawrence Hill Ward.

I am a Councillor for Lawrence Hill ward, which contains about half of the East Bristol Liveable Neighbourhood. Air quality here is the worst in the city, and breaches legal standards. About three eighths of Bristol's commuter traffic passes through the ward every morning. The Barton Hill area in particular is used as a 'Rat run' by traffic cutting through from Church Road to Bath Road.

Many residents have told me they find it very difficult to walk round the area because of traffic levels. There is a particular problem with children walking to and from school, which will become much worse when the Oasis Academy opens.

A Liveable Neighbourhood would help massively with these problems. The proposed local plan will mean great changes in the area, and we are keen to establish the progressive principles which will underlie the plan in its final form now, before it comes into effect.

The consultation document has shown many negative comments, but this is down to a vociferous minority who oppose all changes that affect private motoring, many of whom don't actually live in the area. Lawrence Hill is the only ward in the city where the majority of dwellings have no resident with a car.

I am very pleased to support this bid and the ongoing plan (EBLN) for the improvement of Bristol which will hopefully have clean air and less congested streets.

Cllr Yassin Mohamud

Lawrence Hill Ward

Bristol

Appendix G: Letters of Support

Letters of support from MPs and Local Councillors

As the Councillor for St George Troopers Hill a significant part of my ward is in the East Bristol Liveable Neighbourhood pilot area.

The engagement activity through the pilot area and beyond has shown a real appetite for change locally. In particular regarding the need for urgent improvements along Crews Hole Road, where residents have complained about the lack of safe pedestrian access, limited street lighting and a dangerous blind exit from a footpath between some new houses and an industrial site where pedestrians can walk directly into traffic.

As a local councillor I want to deliver on cleaner air, better travel choices and safer streets for my residents. Deterring people who don't live locally from using this road as a rat run, without cutting local resident off, is crucial and the Liveable Neighbourhoods scheme could deliver this.

I recognise that, building on the consultation work that has already gone ahead and by working with residents to deliver change where they live, this is a unique opportunity to bring significant investment into the area with the potential for transformative change.

Cllr Fabian Breckels

Labour/Co-operative Party

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