

# Cardiff Bus Priority Plan

2024 - 2030

Cardiff Council

February 2024

## Quality information

<u>Prepared by</u>	<u>Checked by</u>	<u>Verified by</u>	<u>Approved by</u>
Ben Green	Khomal Aruje	Christian Bodé	James Gait
Graduate Consultant	Senior Consultant	Director	Regional Director
Aiden Cowell	Philip Jones		
Graduate Consultant	Senior Consultant		

## Revision History

<u>Revision</u>	<u>Revision date</u>	<u>Details</u>	<u>Authorized</u>	<u>Name</u>	<u>Position</u>
First Draft	17 July 2023				
Second Draft	8 August 2023				
Third Draft	15 September 2023				
Fourth Draft	18 October 2023				
Fifth Draft	13 February 2024				
Final	27 February 2024	Final	JG	James Gait	Regional Director

### Prepared for:

Cardiff Council

### Prepared by:

Lydia Barnstable  
AECOM Ltd  
Colmore Building  
Colmore Circus Queensway  
Birmingham  
B4 6AT  
Tel: +44(0) 121 7101100

© 2024 AECOM. All Rights Reserved.

This document has been prepared by AECOM UK&I Ltd ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

## Table of Contents

1.	Our Ambition for Bus Travel.....	1
2.	Current Situation.....	4
3.	Our Plan.....	5
4.	User focused approach to investment in bus infrastructure.....	11
5.	Delivering our Ambition.....	14
6.	Objectives.....	17
7.	Summary and Conclusions.....	17

## Tables

Table 1 – Bus Improvements in the Local Development Plan.....	1
Table 2 – Scheduled Coach Services to / from Cardiff operated by National Express & Megabus.....	10
Table 3 – Bus Stops and their Distance from Cardiff Coach Station.....	10
Table 4 – Gold standard bus service characteristics.....	11
Table 5 – Bus Priority Interventions Playbook.....	13
Table 6 – Strategic Bus Corridors.....	14
Table 7 – Key Bus Priority Junctions.....	15
Table 8 – Bus Priority Plan Objectives.....	17

# 1. Our Ambition for Bus Travel

Bus is a vital component of the wider sustainable travel offer and Cardiff Council commits to implementing priority measures to make bus more attractive and the travel mode of choice. This plan sets out the immediate infrastructure priorities needed to support our ambition for fast, reliable and attractive bus services aligned with the bus vision in the Council's Transport White Paper and, in partnership with the bus companies and other stakeholders, to build bus patronage back to pre-pandemic levels and to increase bus's mode share. It also considers facilities for scheduled coach services that provide people with direct, express services to and from the city. The plan focuses on user experience and provides a framework to guide resource allocation and funding applications. The Bus Priority Plan closely aligns with our Transport White Paper and seeks to address the bus infrastructure elements of the nine-point Draft Bus Strategy consulted on in 2021. Llwybr Newydd, the Transport Strategy for Wales and the more detailed bus vision set out in Bws Cymru, as well as Cardiff Council's One Planet Cardiff, and the Local Development Plan are other key strategic documents informing this plan.

Cardiff's Transport White Paper:  
Transport Vision to 2030

Changing how  
we move around  
a growing city



This document is available in Welsh /  
Mae'r ddogfen hon ar gael yn Gymraeg

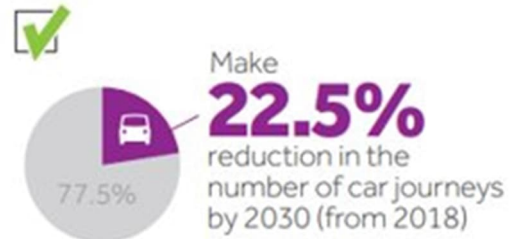


Our **Transport White Paper**: Transport Vision to 2030 outlines the need for change in the way people move around Cardiff and responds to the climate emergency, improve air quality, support healthy and safer communities. It identifies funding to invest in public transport initiatives.

The Vision identifies the following key actions for bus services to “*Connect Cardiff with the region with frequent, affordable, modern buses and quick and easy interchange to other transport modes*”:

- Create **seamless connections** between buses, trains, trams, and other travel modes.
- Introduce **bus priority** measures, such as bus priority corridors and dedicated bus lanes.
- **Improve reliability** of bus services.
- Provide **real time information**, accessible for everyone.
- Introduce **SMART and contactless ticketing** systems
- Ensure **fairer fares**.
- Move to a **low-emission** public transport network.
- Promote **sustainable** travel options.

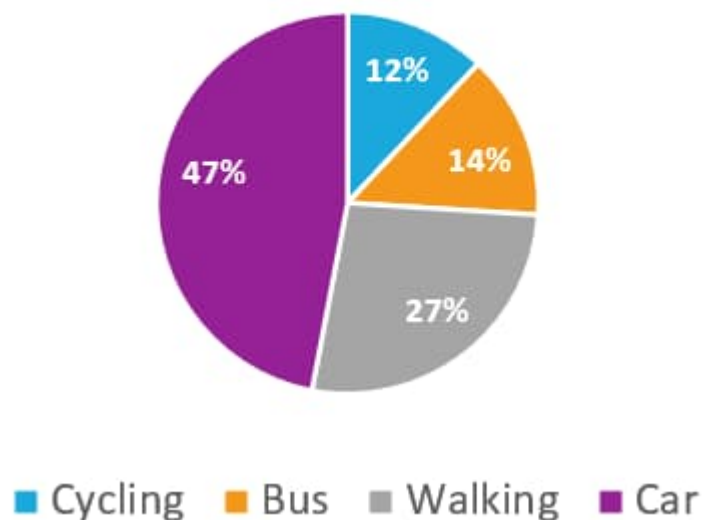




The White Paper sets out our ambition for sustainable travel and what that means for bus travel:

These ambitions remain valid however, the Covid 19 pandemic changed people’s travel habits and bus travel was particularly hard hit with the numbers of people travelling by bus still being 10-20% below the pre-pandemic levels. Bus patronage performance levels will be monitored regularly throughout the period to 2030. Current mode share estimates for Cardiff are shown below:

### 2022 % Mode Share



**Nine Point Draft Bus Strategy 2021.** Cardiff Council consulted on a draft bus strategy in October 2021. This set out a nine-point strategy to improve bus services for residents and commuters. The nine-point draft strategy included:

1. *Completion of Planned Major Capital Infrastructure:* This involves the completion of the Central Bus Interchange and building three Transport Interchanges at Waungron Road in Fairwater, Parkway Station in St Mellons, and at the University Hospital of Wales in Heath. A new park and ride facility will also be built off the M4 at junction 33 and options will be explored for another interchange facility at Junction 32 to displace traffic off the A470.
2. *New Bus priority 'smart' corridors:* Several 'smart' bus corridors have been identified, including a cross-city route and a possible orbital route to a wider range of destinations without needing to travel into the city centre to go from one side of the city to the other. Services would be more frequent, using electric-powered buses in inner city areas or in areas where there are existing air-quality issues, with quality facilities available on-board for customers to use, and improved information available at bus stops.
3. *City centre package:* As well as the completion of the Central Interchange, further plans involve the creation of a number of transport hubs around the city, so that customers can interchange between train, bus, cycling and walking. There will be a clear prioritised 'city centre loop' for buses, well-located bus stops and facilities for customers to use.
4. *Integrating with the Metro, integrated ticketing and clear information for customers:* These plans include delivering a single, integrated ticket that can be used on trains and with different bus companies. This will make it easier for people to interchange between train, bus and active travel. The council will continue to develop segregated cycleways and deliver improvements to footways. Signage and on-street information will also be improved so that people can understand how they can move around the city by interchanging between different modes of travel.
5. *Integrated affordable fares:* To ensure travel by bus is appealing, the price structure has to be correct and may require prices to be capped. A review will be carried out to establish a single fare structure, including looking at £1 fares and off-peak reductions. It is important that tickets can be transferred so they can be used on services, regardless of the company that operates the bus route.
6. *Review on the governance and funding for the bus network:* This involves the long-term options of integrating bus networks, including looking at franchising and partnerships that could arise in the future through Welsh Government legislation.
7. *Creating a better customer service:* Ensuring that buses deliver a high level of comfort and are digitally connected for customers to make bus travel a more enjoyable experience.
8. *Low emission/zero carbon fleet:* Increasing the number of zero carbon buses into the bus fleet at a faster rate. Further analysis will also take place on the

whole system costs and benefits of electric buses compared with diesel-powered buses which can be used for funding bids.

9. *Integration of school transport:* The plans include making school transport cheaper and easier to use for all school children, while meeting all statutory requirements for children entitled to free bus travel. This will also involve closer integration between travel by bus and active travel plans that have or are being developed in each school.

Consultation responses indicated that the main barriers to using buses in Cardiff are ‘unpredictable journey times’; buses not available at the times people need them; and the journey taking too long. All agreed that each of the nine-points highlighted in the draft strategy was important. Respondents indicated that integrated and attractive fares was an important factor. Correspondingly, more reliable services were seen as the most likely reason to encourage bus use, followed by more frequent services, cheaper fares, and integrated ticketing. Improved infrastructure, including electric buses, dedicated bus lanes, passenger information and measures to prevent buses being stuck in traffic congestion were measures supported by three-quarters of respondents.

Considering these comments, the slow recovery to pre-covid levels of bus patronage, and the need to ensure bus provides an attractive and sustainable travel choice, Cardiff Council have prepared a medium-term bus infrastructure plan to inform investment over the next 5-7 years (2024 – 2030). This will focus on highway infrastructure priority measures on the core bus network to facilitate fast, reliable and more attractive bus services.

## Llywbr Newydd



The key aim of the strategy is to achieve a clear shift away from the private car use to more sustainable modes for most journeys. The Welsh Government will do this by making sustainable transport more attractive, affordable, and easier to use. The new approach seeks to upgrade and maintain current infrastructure, with the Sustainable Transport Hierarchy informing decision making process around new transport infrastructure.

By 2040 the vision is for:

- Faster, more reliable network of bus routes
- Bus services and facilities are accessible, attractive and safe for everyone.
- More people replace car journeys with buses.
- All buses are zero tailpipe emissions
- High quality, flexible and reliable bus services get people to where they want to go, when they want to get there and integrate with other services.
- Wales is a centre for innovative technology that helped reduce emissions from buses.
- Better strategic decision-making at national and regional level
- Better real time information and integrated, smart ticketing helps people travel confidently across different modes of transport.



The **Bws Cymru** vision is for “A stable and coherent network of bus services that are fully integrated with other modes of public transport, that are reliable, affordable, flexible, easy to use, low-carbon and that encourage more people to use the bus, rather than their cars.” The desire of the strategy is to create a bus system that has passengers as its focus. An approach summarised as **‘One Network, One Timetable, One Ticket’**.



The challenges identified, include:

- Public opinion of buses (too expensive, too unreliable, and too infrequent).
- Current fares and ticketing system – considered confusing and complex, especially if changing to other bus services or mode.
- Lack of coordination between bus timetables and other transport modes.
- On-street parking and footway parking, restricting access to bus stops.

The vision identifies four delivery themes:

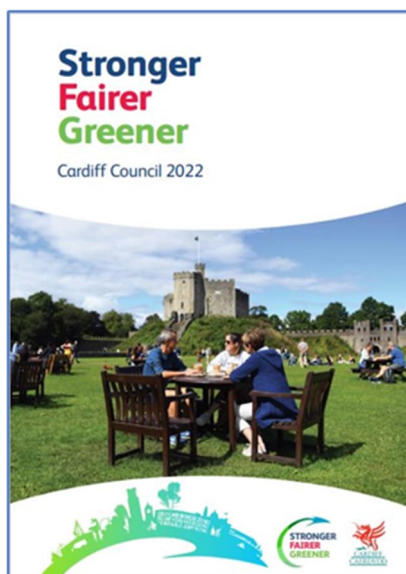
- Delivering Together
- Better Integrated
- Buses for Everyone
- Long-Term Planning



Bus Cymru will contribute to the following outcomes:

- There will be increases in the coverage, frequency, and reliability of bus services with improved passenger satisfaction.
- Bus services will be accessible, available, and affordable to all members of society, regardless of their background.
- The quality of the bus fleet will continue to be improved with modern, sustainable, low carbon / zero emission vehicles.
- Services will operate more efficiently, with improvements to bus-related infrastructure and integration, new developments, and other transport modes to create an improved passenger experience.
- Bus services will be simple to use, easier to understand, safe and integrated with other forms of transport, particularly rail and active travel.
- Bus service information will be accurate, consistent and up to date across all channels to enable intelligent journey planning.
- Bus-related professions will be more attractive to applicant with customer focus at their heart.
- Local transport authorities, CJsCs and Transport for Wales are given support to enable them to make long-lasting improvements to local bus services.

Bws Cymru sets an overall target of 45% of journeys to be taken by sustainable modes by 2040. It requires each local Authority to produce a bus action plan. This Medium-Term Plan for bus infrastructure is intended to form part of Cardiff Council's Bus Action Plan.



**Stronger Fairer Greener** are the themes that have defined the work of the Council over the past decade, and they will be at the heart of everything we do over the next five years.

**A stronger city**, with an economy creating and sustaining well-paid jobs, with an education system that helps our young people reach their potential, with good, affordable housing in safe, confident and empowered communities, all supported by well resourced, efficient public services.

**A fairer city**, where the opportunities of living in Cardiff can be enjoyed by everyone, whatever their background, where those suffering the effects of poverty are protected and supported, where a fair day's work receives a fair day's pay, and where every citizen is valued and feels valued.



**A greener city** which, through our ‘**One Planet Cardiff**’ programme, takes a lead on responding to the climate emergency, which celebrates and nurtures biodiversity, with high-quality open spaces within easy reach for rest and play which are connected by convenient, accessible, safe sustainable transport options.

Our ambition for transport is to fundamentally transform the way people move around the city, reducing the dependency on private cars whilst making it easier, safer and cheaper for people to walk, cycle or use public transport. This will mean more bike lanes, bus lanes, and 20mph roads, new metro stations and routes, and a commitment to new low-cost bus fares. This will all make a decisive contribution to tackling the climate emergency, addressing inequality and promoting inclusive economic growth.

The roll-out of 20mph zones and related activities has delivered new cycleways, new electric buses and created a safer environment for pedestrians and cyclists across the city.

Our transformative transport agenda will change how people move around the city, by making it easier, safer, healthier, and cheaper to use active travel and public transport.

---

## Cardiff Local Development Plan 2006 - 2026

Cardiff Council are currently replacing the 2006 – 2026 Local Development Plan (LDP) to extend to 2036. The LDP recognises that buses form the central element of the city’s strategic public transport network. However, 80% of daily inbound commuter journeys to Cardiff are by car, creating congestion, making bus journeys longer and less reliable. The LDP seeks to address these issues through bus corridor enhancements and integration with the wider transport network, including local walking and cycling routes.

The extant plan identifies measures to improve bus services, as shown in Table 1.

**Table 1 – Bus Improvements in the Local Development Plan**

Location	Improvements
<b>Cardiff Central Enterprise Zone</b>	<ul style="list-style-type: none"> <li>Improvements to walking and cycling and “improving existing bus routes and services including bus priority measures between the site, Cardiff Bay and other parts of the city”</li> </ul>
<b>North-West Cardiff</b>	<ul style="list-style-type: none"> <li>Off-site infrastructure including bus priority measures to develop bus-based Rapid Transit Corridors integrating with the site, the Western Bus Corridor and other routes within the North-West Rapid Transit Corridor.</li> <li>Off-site infrastructure including bus priority enhancements on the Western Bus Corridor and measures to improve linkages into Rhondda Cynon Taf.</li> <li>Extend bus networks and increase the frequency and reliability of services to serve the site with public transport options for a wide range of journeys including a combination of limited stop and local bus services.</li> </ul>
<b>North of Junction 33 on M4</b>	<ul style="list-style-type: none"> <li>Provision of new bus-based Rapid Transit Corridors through the site North of Junction 33 linking directly to the Western Bus Corridor.</li> <li>Off-site infrastructure including bus priority measures to develop bus-based Rapid Transit Corridors integrating with the site, the Western Bus Corridor and other routes within the North-West Rapid Transit Corridor.</li> <li>“Off-site infrastructure including bus priority enhancements on the Western Bus Corridor and measures to improve linkages into Rhondda Cynon Taf”</li> <li>“Extend bus networks and increase the frequency and reliability of services to serve the site with public transport options for a wide range of journeys including a combination of limited stop and local bus services”.</li> <li>“Strategic Park and Ride facility North of Junction 33 linked to the Rapid Transit Corridor and public transport node including Bus Gate to provide priority for public transport and limit unauthorised access by car to Junction 33”</li> <li>Rapid transit corridors within the site will be bus based.</li> <li>Provide bus priority measures at appropriate locations to avoid buses queuing.</li> </ul>
<b>North-East Cardiff</b>	<ul style="list-style-type: none"> <li>“Off-site infrastructure including bus priority measures to develop bus-based Rapid Transit Corridors integrating with the site, the Eastern/Northern Bus Corridors and other routes within the North-Eastern Rapid Transit Corridor”.</li> <li>“Off-site enhancements including bus priority measures to the Eastern/Northern Bus Corridor”.</li> <li>“Extend bus networks and increase the frequency and reliability of services”.</li> <li>Provide bus priority measures at appropriate locations to avoid buses queuing</li> </ul>
<b>East of Pontprennau Link Road</b>	<ul style="list-style-type: none"> <li>“Provision of new bus-based Rapid Transit Corridors through the site including links to the Local Centre and provision of Bus Gates at St Mellons Road at the north-western edge of the site and Bridge Road to the south-east of the site”</li> <li>“Off-site infrastructure including bus priority measures to develop bus-based Rapid Transit Corridors”.</li> <li>“Extend bus networks and increase the frequency and reliability of services”.</li> <li>“Provide a bus-only route along Bridge Road”</li> </ul>

Source: <https://www.cardiffldp.co.uk/wp-content/uploads/Final-Adopted-Local-Development-Plan-English.pdf>

The Plan additionally identifies improvements to the following city centre bus routes:

- Eastern Bus Corridor (A48, A4232 from the A48 to Junction 30 of the M4 Motorway, A48M Trunk Road, Southern Way and A4161 Newport Road)
- Northern Bus Corridor (A470 North Road/ Manor Way and A469 Caerphilly Road/A470 Trunk Road to the County Boundary)
- Western Bus Corridor (Cowbridge Road, A48, A4055 Cardiff Road; A4119 Llantrisant Road from the County Boundary to Cowbridge Road and A4232 Trunk Road from Culverhouse Cross to Junction 33 of the M4 Motorway)
- Southern Bus Corridor (Lloyd George Avenue, Lloyd George Avenue to the County Boundary via A4232 and Cogan Spur and via the Cardiff Barrage).

The LDP highlights car park pricing, traffic and parking enforcement, expansion of local bus networks, and improving interchange between bus services and other modes as key infrastructure measures to support increased bus use. It also recognises the role of behaviour change and complementary measures to make sustainable travel, including bus travel, a more attractive choice.

**Metro** is a proposed new transport system to provide joined-up services using trains, buses and light rail to transform the way we travel around Cardiff Capital region. The network will grow through new services, routes and stations to provide high frequency, ‘turn up and go’ services with seamless integration between bus, rail and light rail and good cycle and walking connections. Achievement of a doubling in the numbers travelling by bus by 2030 will, in part, be through the **Cardiff Metro Vision and investment programme**.

### Cardiff's Transport Vision



This medium-term infrastructure plan will complement the Metro programme, targeting the highest bus patronage routes for bus priority measures.

## 20-minute neighbourhoods and 20 mph streets.



The approach to 20-minute neighbourhoods and 20mph streets has also been considered here.

These seek to deliver compact, well-connected places with access to schools, shops, and leisure facilities, so reducing the need to travel and promoting improved physical and mental health and well-being.

The 20 mph streets legislation for residential streets applies across Wales to ‘restricted’ or residential roads to improve health and well-being, improve the local and global environmental, reduce the number of serious road traffic accidents and provide people with more opportunities to walk and cycle to local destinations. Cardiff Council has worked closely with the bus operators to define the 20mph network and identify those key corridors to remain as 30mph.



## Park and Ride and Mobility Hubs

Currently, Cardiff has a free park and ride service to take people to and from the University of Wales Hospital. A shopper’s park and ride is available at the County Hall at weekends and bank holidays. Other Park and Ride services are made available for major events held at the Principality Stadium and elsewhere in the city. Cardiff Council will continue to review the requirement for Park and Ride, in collaboration with rail and bus operators and Transport for Wales.

Mobility Hubs are locations offering opportunities for interchange between travel modes within the city. The offer will differ in different locations in terms of the mix of services offered but could include bus, rail, cycle and scooter hire, as well as electric vehicle charging facilities and car share. Their role is to provide convenient and flexible opportunities to change between mode and provide opportunities to use hire scooters and bikes for short journeys. Cardiff Council will continue to explore the opportunities for mobility hubs to support our sustainable transport objectives and maximise the value of bus services.

## Good Practice

In developing our overall approach in the bus infrastructure plan, we have considered evidence of good practice from elsewhere in the UK. For example, Brighton and Hove, who have identified key bus corridors for priority investment and defined five critical factors for success – prioritising road space for buses; improved waiting areas for passengers; real time information; Intelligent Transport Systems; and bus lane and traffic regulation enforcement. Corridors for bus priority and camera enforcement of bus lanes.

Nottingham has a Council-owned bus company alongside private operators and, through a bus partnership, has a long-standing park and ride offer, supported by extensive bus priority interventions on the key radial routes. This, together with city centre parking management, pro-active marketing and signage effectively managed

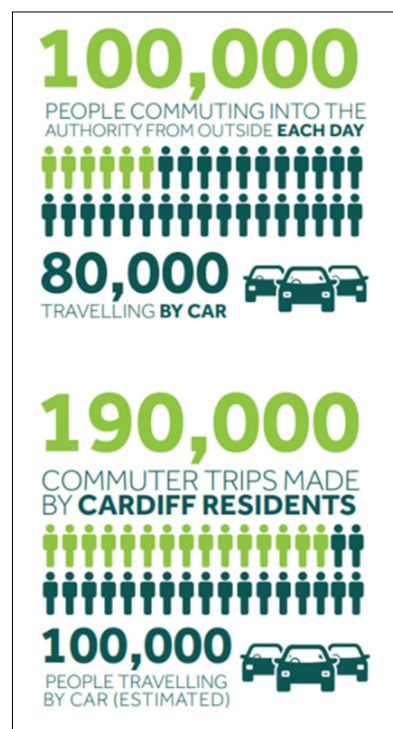
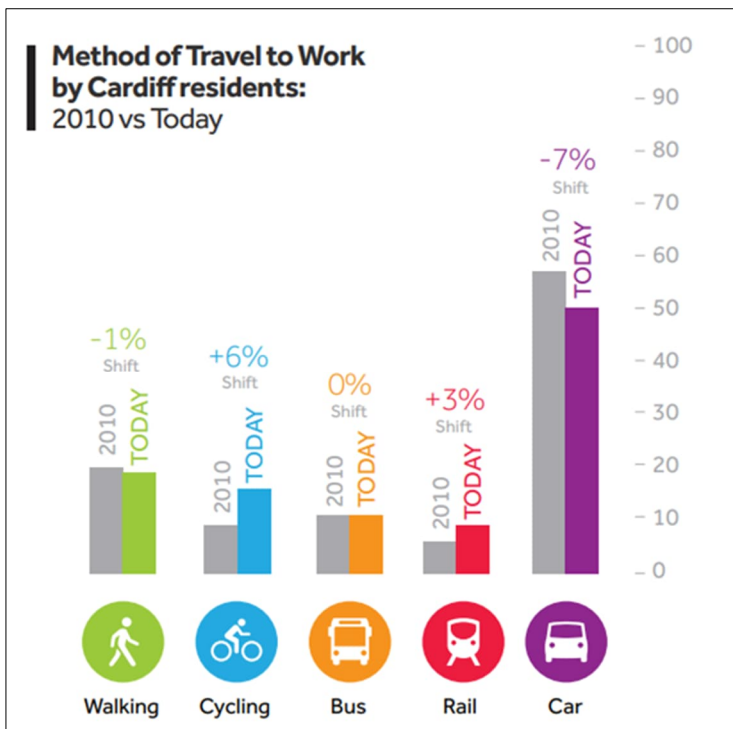
city centre access by general traffic whilst making the central area of the city a bus and tram-friendly area. Pre-Covid, more than 40% of all journeys into the city centre were by public transport.

## 2. Current Situation

Cardiff has a population of over 350,000 and has a population of 1.5 million living within a 45-minute drive time of the city. The city is expected to be one of the fastest growing cities in the UK and provides jobs and services for the wider south-east Wales. This growth needs to be underpinned by environmentally sustainable, modern rapid transit networks that provide fast and reliable connectivity within the city and between the city and the wider south-east Wales.

More people travel by bus in Cardiff than any other form of public transport. However, most commuters currently travel into and around the city by car. Bus patronage levels have declined across Wales since 2008 and has not recovered as well as other modes post-pandemic. This has reduced the commercial viability of some services and increased fares, which has meant a less attractive offer overall. (Source: Cardiff City Council Bus Strategy Technical Report: June 2021, Sterling Transport Consultancy)

To manage the travel demand in line with our climate emergency, low carbon and equality objectives and maintain a viable transportation network, we need to invest in more sustainable modes of travel.



## 3. Our Plan

We propose to grow bus patronage and increased mode share through a multi-modal approach that positively manages the highway network to provide bus priority and reduce congestion and that is aligned with the active travel measures, metro proposals and supports general traffic access.

Our objectives for the medium-term plan are:

1. Faster and more reliable bus services
2. Attract more funding for bus priority measures
3. More accessible services that are easier to use
4. Better integration between bus services and with rail, light rail and bus.
5. Bus routes and stops designed to complement walking and cycling facilities
6. More accessible and real time information to make journey planning easier

We recognise that there is limited highway space, and all modes cannot be prioritised on all routes. Therefore, the approach we are taking is to identify the **Core Bus Network** that carries 80% of all bus passengers and **congestion hot spots** where the impact on bus reliability is significant. Bus will take priority over other modes at these locations to maintain a fast, safe, and reliable service.

### Core Bus Network

Our medium-term bus infrastructure plan focuses investment on the most congested sections of those routes that collectively carry approximately 80% of all bus passengers in the city. These will form **the Core Bus Network**. Beyond these, several **Key Junctions** have been identified as locations where bus services experience significant delay and will be a focus for bus priority intervention. The type of measures to be considered along the Core Bus Network and Key Junctions will include dedicated bus lanes, bus gates and traffic signal priority to ensure service punctuality and reliability.

There is also an extensive **city centre programme** of bus priority measures and transport interchange investments underway that complement the bus network measures contained within this medium-term plan.

### Secondary Bus Network

Other routes that carry significant passengers and which connect key destinations are identified as a **secondary bus network**. These will be considered for more modest priority interventions, including signal priority at junctions, passenger information and improved waiting facilities and passenger information. Many of these services start or end in the city centre and would also benefit from many of the priority measures implemented on the core bus network.

The Core and Secondary routes, together with **key junctions**, are identified in **Figure 1 and Figure 2** shows numbered core bus routes and key junctions.

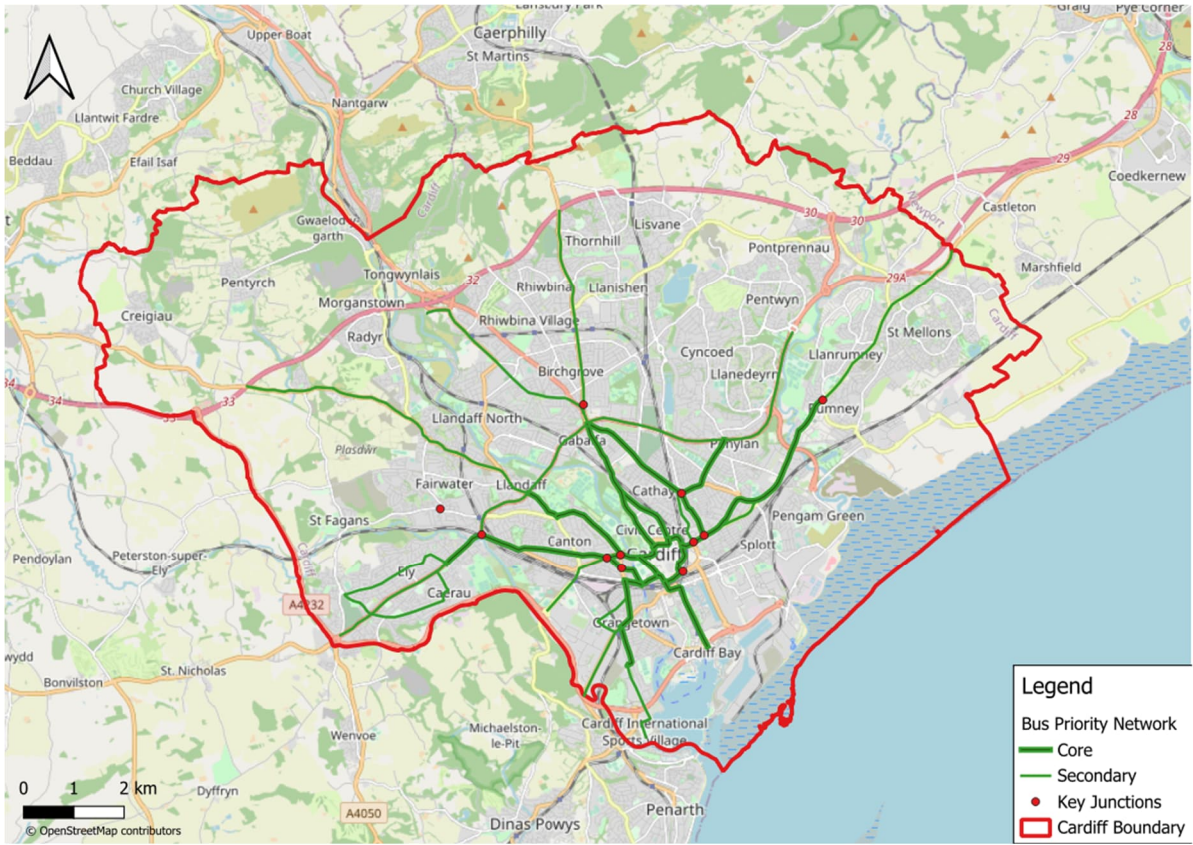


Figure 1 – Bus Network, showing Core & Secondary Network with Key Junctions

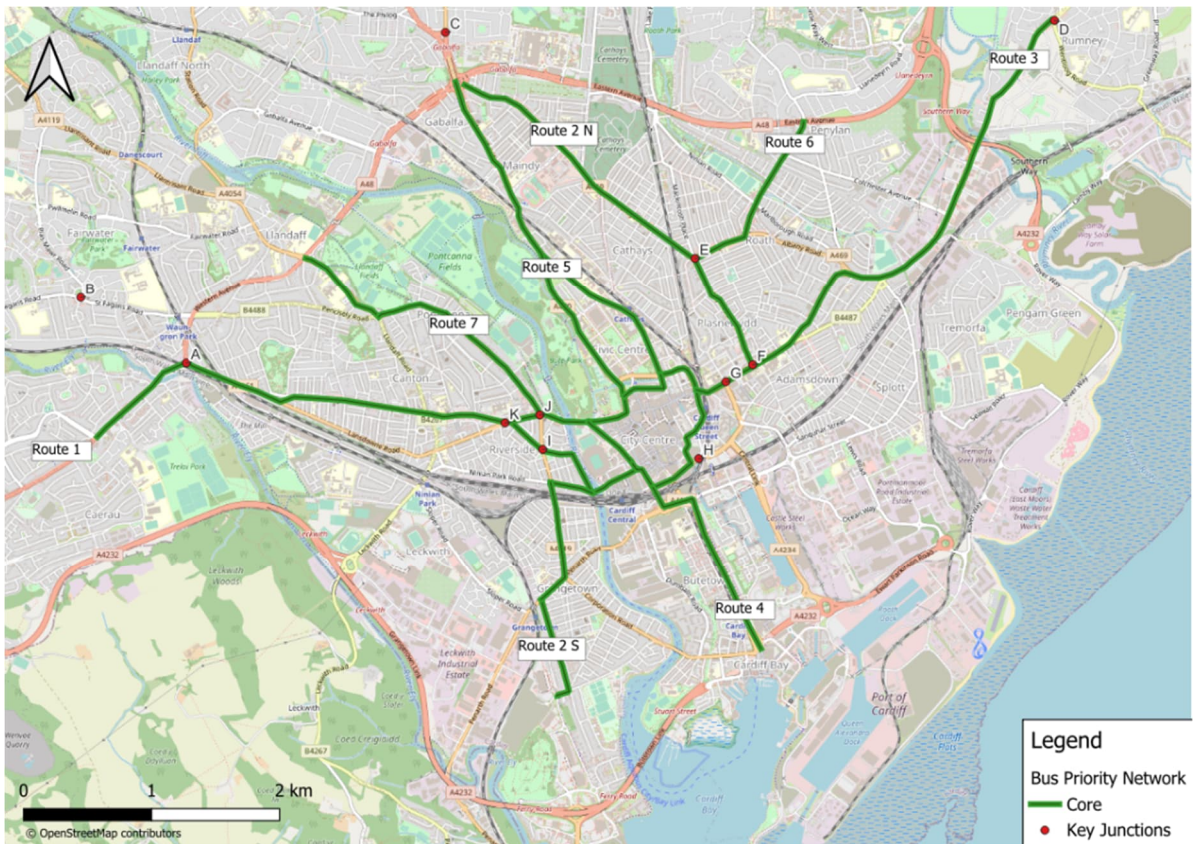


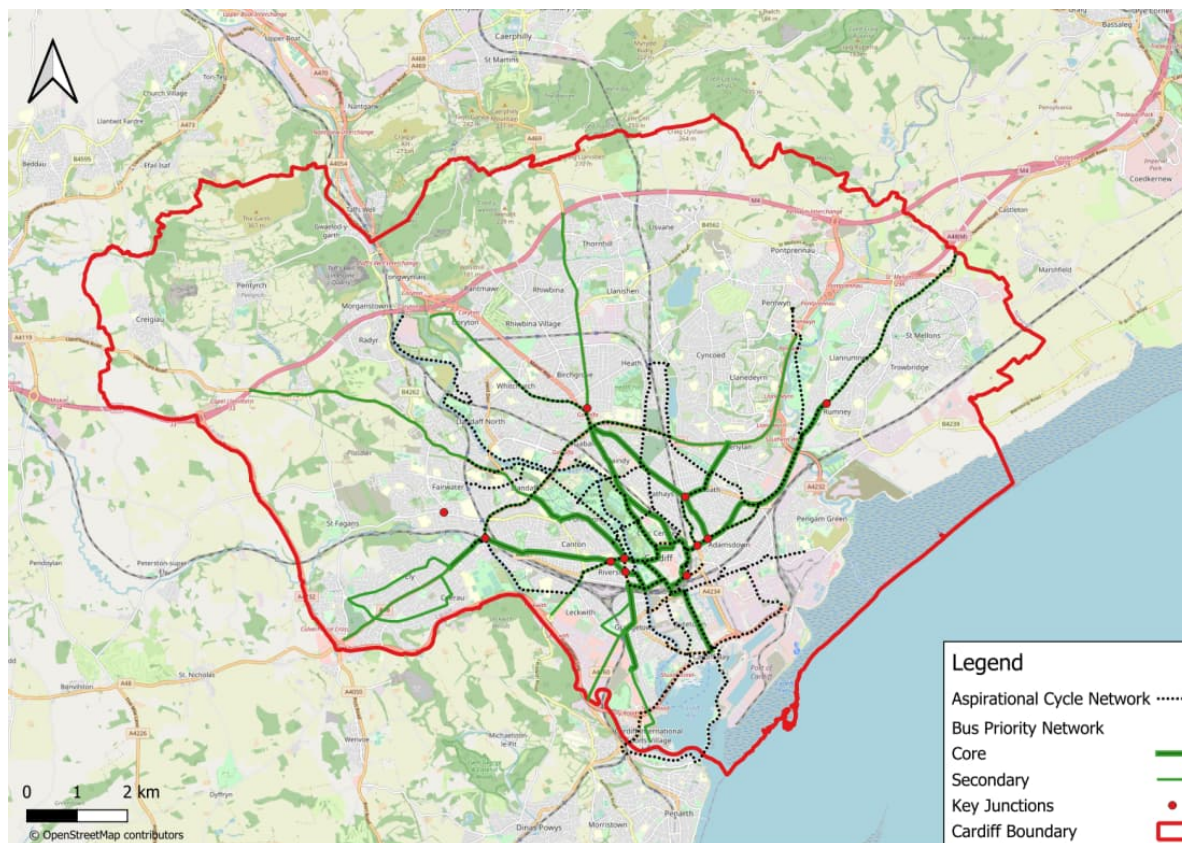
Figure 2– Core Bus Routes and Key Junctions



## Local Bus Network

Beyond the core and secondary bus network, investment on the remaining, **local bus network**, would focus on waiting facilities, passenger information and treatment of the environs to support pedestrian and cycle access to bus stops and shelters.

Those routes where we have aspirations for cycle priority measures are set out in **Figure 3**. Here bus priority infrastructure would be considered secondary to cycle measures.



**Figure 3 – Cycle Network and Bus Priority Network**

A new wayfinding strategy is being prepared that identifies those routes that will prioritise general traffic. This includes routes to car parks and key destinations, and routes for freight and servicing required by the retail, commercial and employment businesses. These are shown in **Figure 4**.

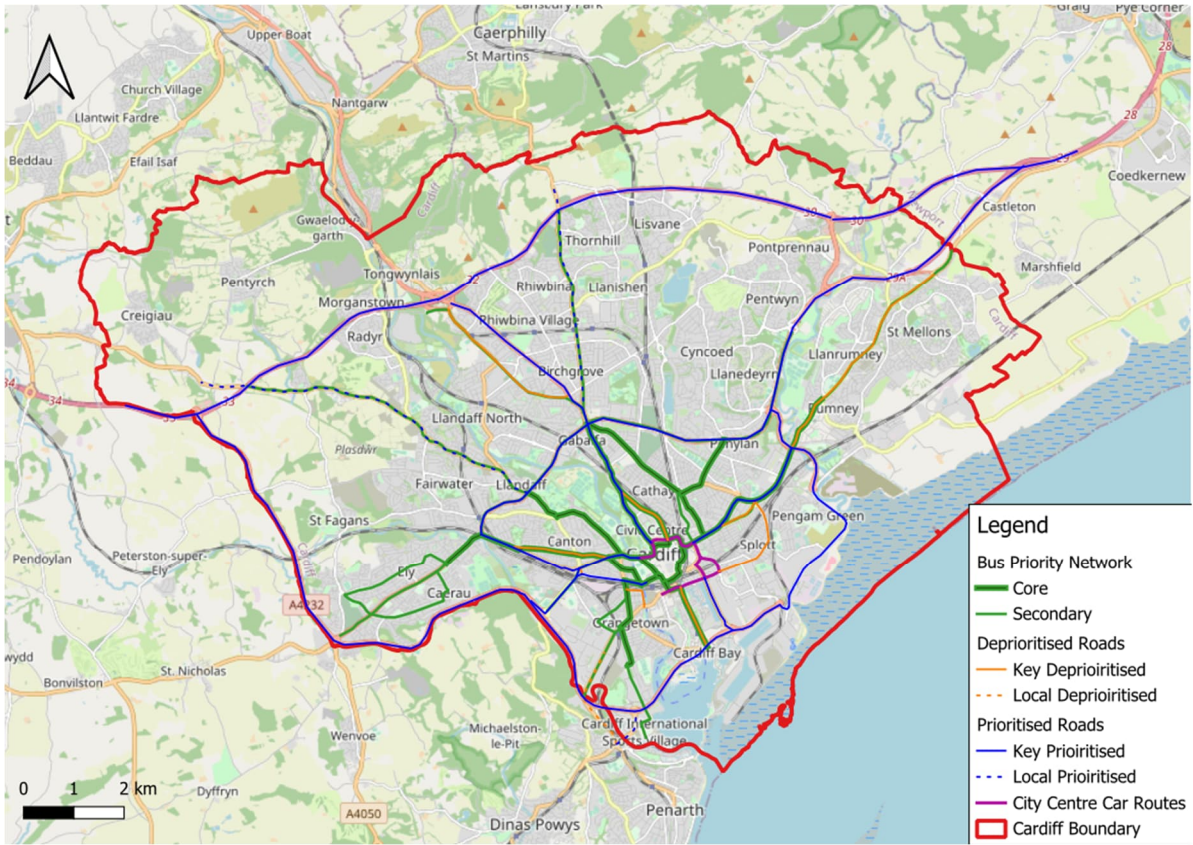


Figure 4 – Prioritised Routes for General Traffic and Bus Priority Network

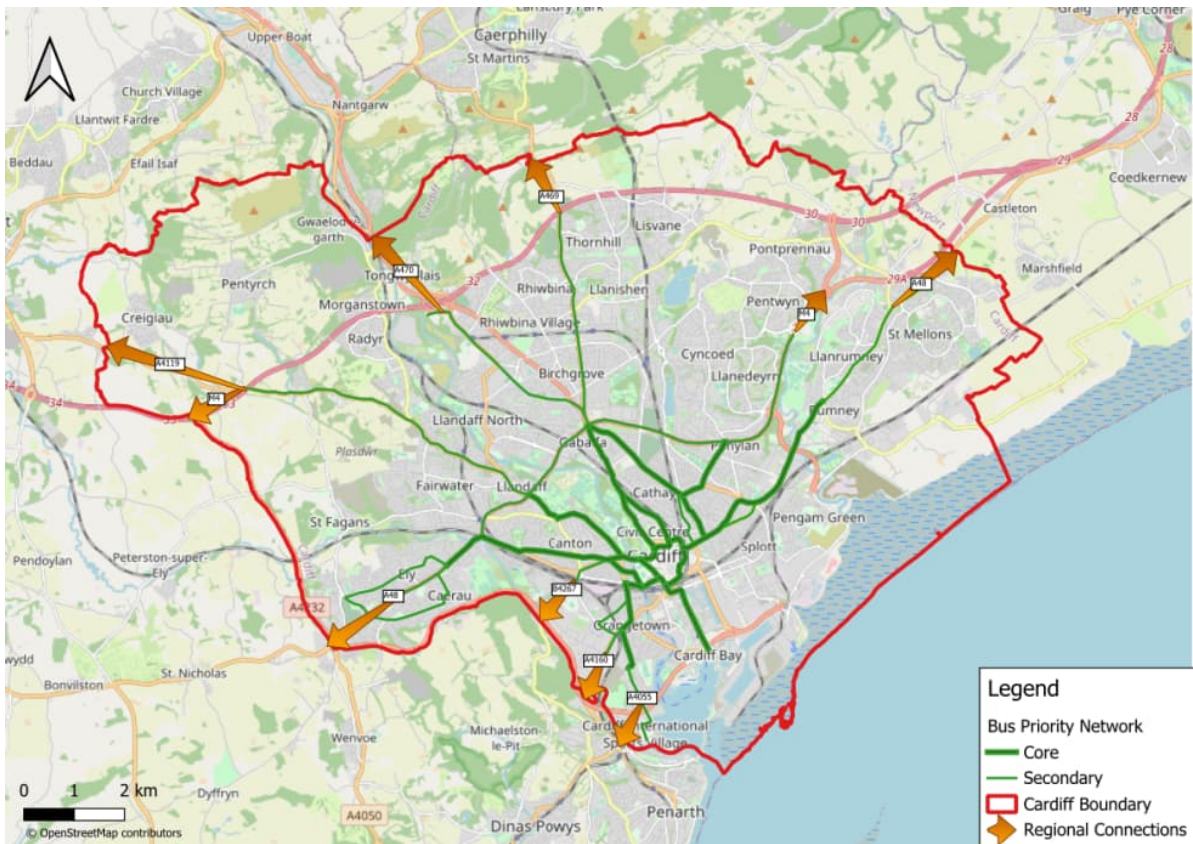


Figure 5 – Wider Cardiff City Region context

## Rail Connectivity and Bus Interchange

The interchange and connectivity between local bus and rail is a focus for the transformative Cardiff Capital Region Metro investment in regional rail-based rapid transit. Building on the investment into the city centre bus station and redevelopment around Cardiff Central Station to create a regional transport hub, we will identify opportunities to enhance Bus Infrastructure along the Core and Secondary Bus Corridors in the vicinity of Cardiff’s suburban rail stations to enhance interchange. Consideration will also be given to the routing of buses in relation to the rail services to minimise duplication of services along some corridors and to ensure good quality links between railway stations and key destinations are provided.

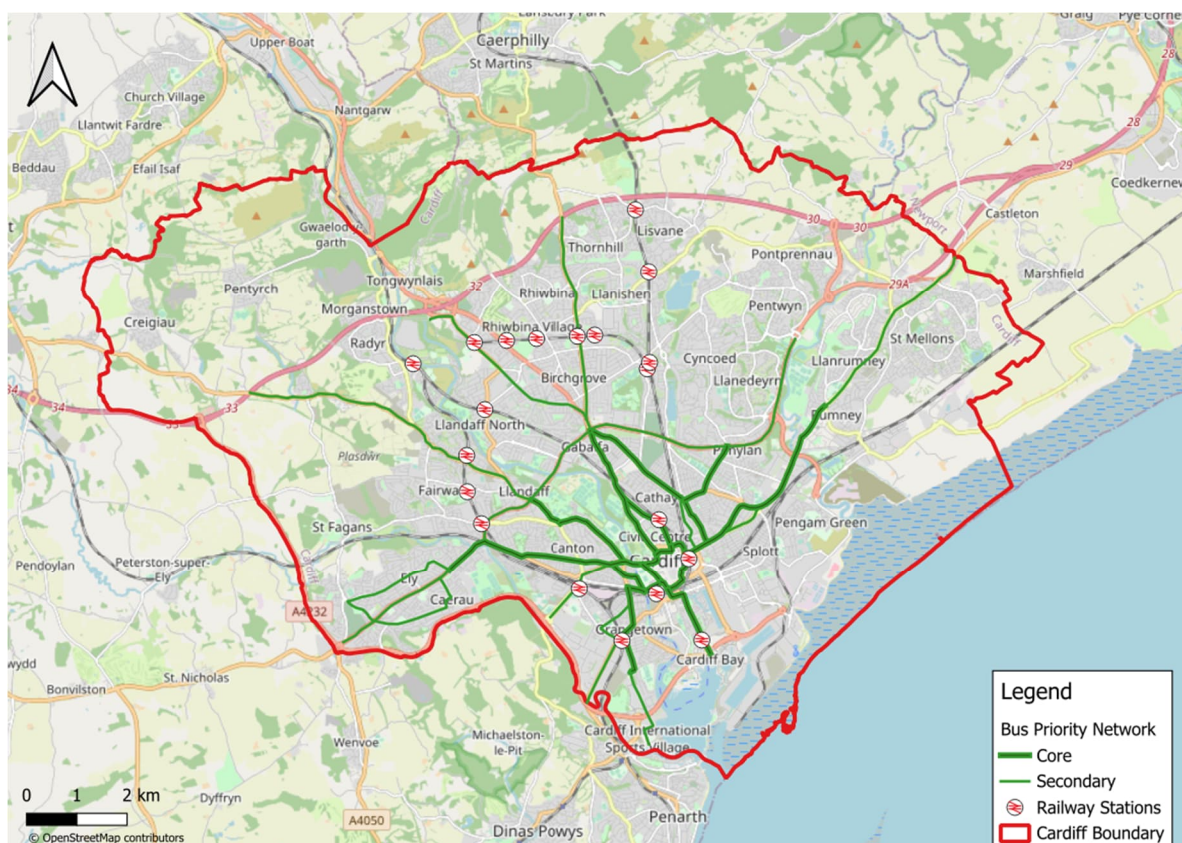


Figure 6 – Railway Stations and Bus Priority Network

### Scheduled Coach Services

We recognise the importance of scheduled coach services to provide long-distance, cost-effective, and sustainable services and the need for Cardiff City to provide appropriate infrastructure to support passengers and interchange with other modes. Cardiff Coach Station is located in Sophia Gardens and, together with the coach stops at Cardiff Castle and Cardiff University, provide the main locations for pick up and drop of for scheduled coach services. The bus priority facilities can be used by coaches providing benefits around reliability and speed to those services also. The two main companies who operate scheduled services are the National Express and Megabus. **Table 2** identifies the cities served.

**Table 2 – Scheduled Coach Services to / from Cardiff operated by National Express & Megabus**

National Express	Megabus
Gatwick	London
Heathrow	Heathrow
London	Birmingham
Birmingham	Bristol
Bristol	Glasgow
Swansea	Manchester
	Leeds

Source: <https://www.nationalexpress.com/en/destinations/cardiff>

Source: <https://uk.megabus.com/city-guides/cardiff>

The current facilities at Cardiff Coach Station include:

- Waiting facilities.
- Toilet facilities.
- Automated ticket machines.
- Pay and display car park.

**Figure 7 – Cardiff Coach Station**

There are a number of bus stops located near the Coach Station, shown in Table 3. The first bus that stops near the coach station arrives at 05:14am and the last arrives at 00:19am, providing access to the coach station via bus for around 19 hours per day. Cardiff Central Train Station is located a 15-minute walk away. The Metro investment programme includes consideration of a direct bus service from the Coach Station to Cardiff Central Railway Station.

**Table 3 – Bus Stops and their Distance from Cardiff Coach Station**

Bus Stop	Walking Distance
Talbot Street, Pontcanna	5 minutes
Sophia Gardens, Pontcanna	5 minutes
St Davids Hospital, Riverside	7 minutes
Neville Street, Riverside	9 minutes
Corbett Road, Cathays Park	9 minutes
Dispenser Gardens, Riverside	9 minutes
College Road, Cathays Park	10 minutes

## Bus Services for new development and growing communities

Experience has shown that the introduction of new bus services does not generate significant new patronage, despite considerable investment and effort. What has been more successful is to extend and improve existing bus routes to serve new communities and destinations. Consideration will also be given to improving access to those existing services with better pedestrian and active travel routes. We will work with bus operators and developers to secure investment to the optimum solution in each case and ensure new development is well-served by public transport and active travel.

# 4. User focused approach to investment in bus infrastructure

We are taking a **user-focused approach** to our investment in bus infrastructure and priority measures that will focus on the journey quality. All aspects of the bus journey will be considered for improvement, but passengers need to be at the heart of bus services and “priority” needs to consider their end-to-end trip not just the time on the bus. Hence investment is needed on cycling and walking routes to the stops; accurate and accessible bus service information; affordable and easily understood fares; and high quality, safe and comfortable waiting facilities, as well as investment in the vehicles and bus priority infrastructure. This approach is about more than just bus lanes as a range of measures and changes can improve that overall user journey.

The objective of providing **bus priority infrastructure** is to enable the bus to operate in a quick, reliable and safe way, with minimum delay. Key characteristics of a ‘gold standard’ bus service are outlined in **Table 4**.

**Table 4 – Gold standard bus service characteristics**

‘Gold Standard’ Bus Service Characteristics	
<p><b>Safe, Accessible and Attractive</b></p> <ul style="list-style-type: none"> <li>• Passenger focused rather than vehicle focused.</li> <li>• Customers feel safe.</li> <li>• Services accessible to all</li> <li>• Affordable.</li> <li>• Integrated with other modes.</li> <li>• Connections between Active Travel and Bus</li> <li>• Wifi / Digital Service for passengers.</li> <li>• Key destinations well-served by bus.</li> </ul>	<p><b>Passenger Confidence</b></p> <ul style="list-style-type: none"> <li>• Stable and Coherent Services.</li> <li>• Reliable and efficient services.</li> <li>• Easy to use.</li> <li>• Well-Maintained infrastructure.</li> <li>• Real Time Information.</li> </ul>
<p><b>Strategic Ambition</b></p> <ul style="list-style-type: none"> <li>• Strong Political Support.</li> <li>• Mode share target for Public Transport to 33% by 2030.</li> <li>• Balanced multi-modal approach.</li> <li>• Ensuring future growth in bus services.</li> <li>• Commercially viable bus services.</li> </ul>	<p><b>Low Carbon and Sustainable</b></p> <ul style="list-style-type: none"> <li>• Supports Clean Air – Electric and Low Emission Vehicles.</li> <li>• Technology used effectively on highway to prioritise bus.</li> <li>• A focus on Place-Making.</li> </ul>

We have developed an **interventions toolkit** that will guide the type of bus priority measure to be considered. A summary of these is set out in **Table 5**. The toolkit is set out in full in a separate Technical Report.

This package of interventions seeks to improve passenger access to, and from bus stops, provide a quality stop or interchange with the bus, and then support a faster more reliable service.

Getting passengers to bus stops safely with improved pavements, or cycle facilities, and enabling crossing of roads close to stops is an important part of the trip. Bus stops themselves may need relocating to support better access and locating near key destinations. The bus stop itself needs to consider user needs with shelter, seating and information and provision of an accessible design that supports personal safety and security.

Bus stop location and spacing can also negatively impact bus journey time. This means ensuring stops are not too close leading to excessive bus stop/starting. Bus stop design and location should also minimise boarding and alighting times making it easy for passengers to get on and off, and for the bus to exit and re-enter the traffic stream.

In terms of the on-bus aspect of the journey securing quicker and more reliable services is not just about bus lanes. Different things that occur on the road can negatively impact the bus journey, and bus lanes cannot, either physically, or due to other constraints, be implemented everywhere. Thus, a tailored response dealing with different aspects of likely delay are included. For example, changes to parking and waiting restrictions to minimise stopped vehicles blocking the bus or causing congestion, improvements to traffic signal operation to ensure they are working correctly and adjusted to different traffic and other flow patterns are required.

Combining this package of measures and interventions outlined in the playbook will support bus improvements.

**Table 5 – Bus Priority Interventions Playbook**

Intervention	Types of Measures
<b>Priority Lanes</b>	<ul style="list-style-type: none"> <li>• With-flow bus lanes operating different times/days</li> <li>• Contra-flow lanes</li> <li>• Managed / priority vehicle lanes allowing access by other vehicles e.g. freight</li> <li>• Segregated busways</li> </ul>
<b>Bus Restrictions</b>	<ul style="list-style-type: none"> <li>• Bus Gate</li> <li>• Bus only street</li> </ul>
<b>Kerbside Controls</b>	<ul style="list-style-type: none"> <li>• No waiting</li> <li>• No loading</li> <li>• Loading bays</li> <li>• Parking Restrictions – full-time and part-time restrictions</li> <li>• Inset parking/loading bays</li> <li>• Red Routes (linked to wayfinding and signing strategy)</li> </ul>
<b>Priority at Junctions</b>	<ul style="list-style-type: none"> <li>• Side road closures</li> <li>• Vehicle pathway turn bans</li> <li>• Turn ban exemptions for buses</li> <li>• Left turn except buses</li> <li>• Changing junction priority</li> </ul>
<b>Technology</b>	<ul style="list-style-type: none"> <li>• Traffic signal health checks and optimisation</li> <li>• Traffic signal priority – real time SVD/Bus detection</li> <li>• Pre-signals</li> <li>• UTMC Measures</li> <li>• ‘Virtual bus lanes’ and queue control</li> <li>• Payment Systems and SMART Ticketing</li> <li>• Real time service information</li> </ul>
<b>Bus Stops</b>	<ul style="list-style-type: none"> <li>• Redesign</li> <li>• Relocate</li> <li>• Remove and rationalise</li> <li>• Mobility Hubs / Interchange</li> <li>• Electrification</li> </ul>
<b>Passenger Safety and Access</b>	<ul style="list-style-type: none"> <li>• Access improvements and inclusive mobility measures – crossing facilities, pavement treatment</li> <li>• Personal security (CPTED/CCTV)</li> </ul>
<b>Wheeling and Buses</b>	<ul style="list-style-type: none"> <li>• Bus lanes and cycles</li> <li>• Bus stops and cycles</li> <li>• Complementary measures</li> <li>• Mobility Hubs</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>• Enforcement of bus lanes and Traffic Regulation Orders (TRO)</li> <li>• Information – Real Time Passenger Behaviour Change Activities</li> <li>• Network Management including roadwork management and co-ordination</li> <li>• Ride Quality &amp; Maintenance Regimes</li> <li>• Cashless &amp; Integrated Ticketing</li> <li>• Demand Responsive Transport and bus priority</li> </ul>

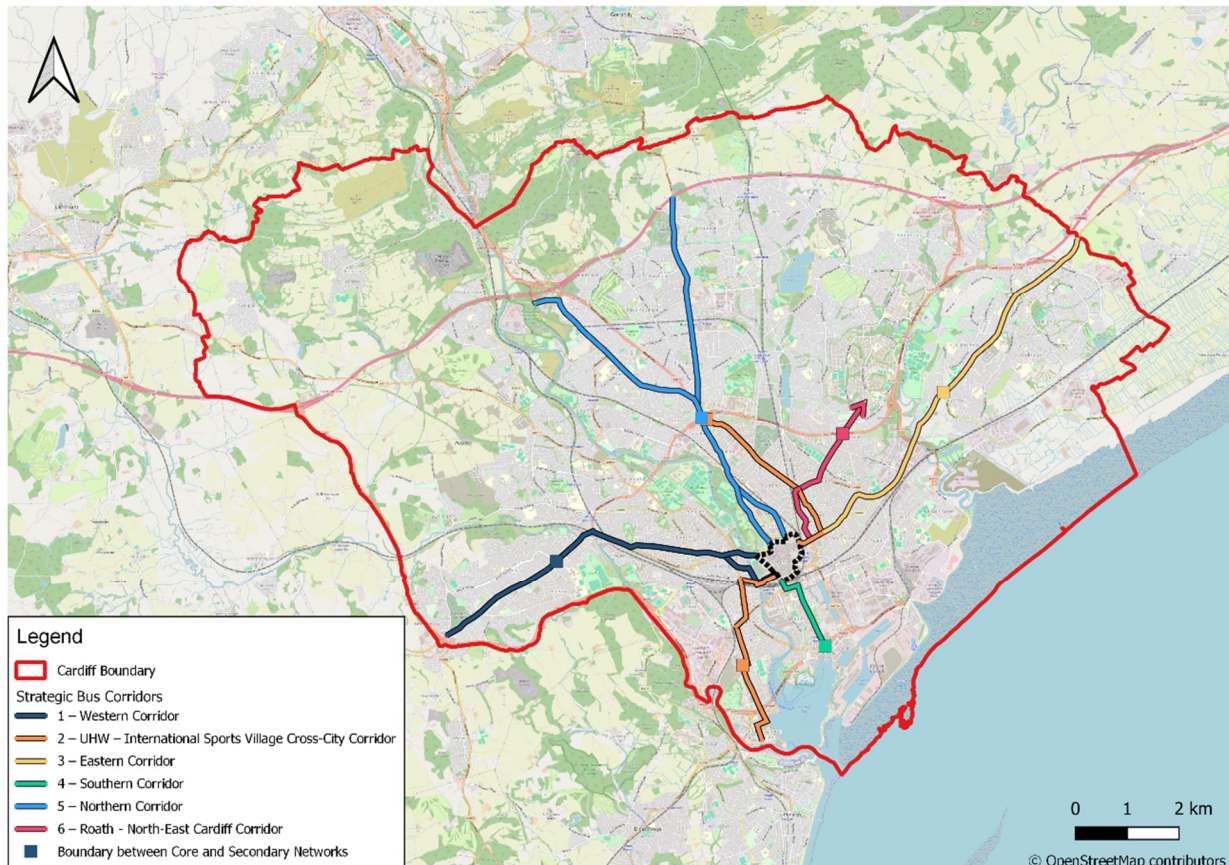
## 5. Delivering our Ambition

In order to deliver our ambitions for the bus network, a priority list of Strategic Bus Corridors and key junctions have been developed, following key stakeholder engagement. The Strategic Bus Corridors, made up of Core and Secondary routes are shown in **Figure 7** and their names are listed in **Table 6**. Improvements to these 6 routes will be targeted within the 2024 to 2030 timeframe.

Three concepts designs for Route 1 (Western Corridor), Route 2 North (University Hospital Wales to City Centre) and Route 2 South (International Sports Village to the City Centre) are included within the appendices to this plan. This illustrates the ambition and scale of the improvements which are sought, subject to funding and detailed design.

**Table 6 – Strategic Bus Corridors**

Strategic Bus Corridors	
<b>Corridor 1</b>	Western Bus Corridor
<b>Corridor 2</b>	UHW – International Sports Village Cross-City Bus Corridor
<b>Corridor 3</b>	Eastern Bus Corridor
<b>Corridor 4</b>	Southern Bus Corridor
<b>Corridor 5</b>	Northern Bus Corridor
<b>Corridor 6</b>	Roath – North-East Cardiff Bus Corridor



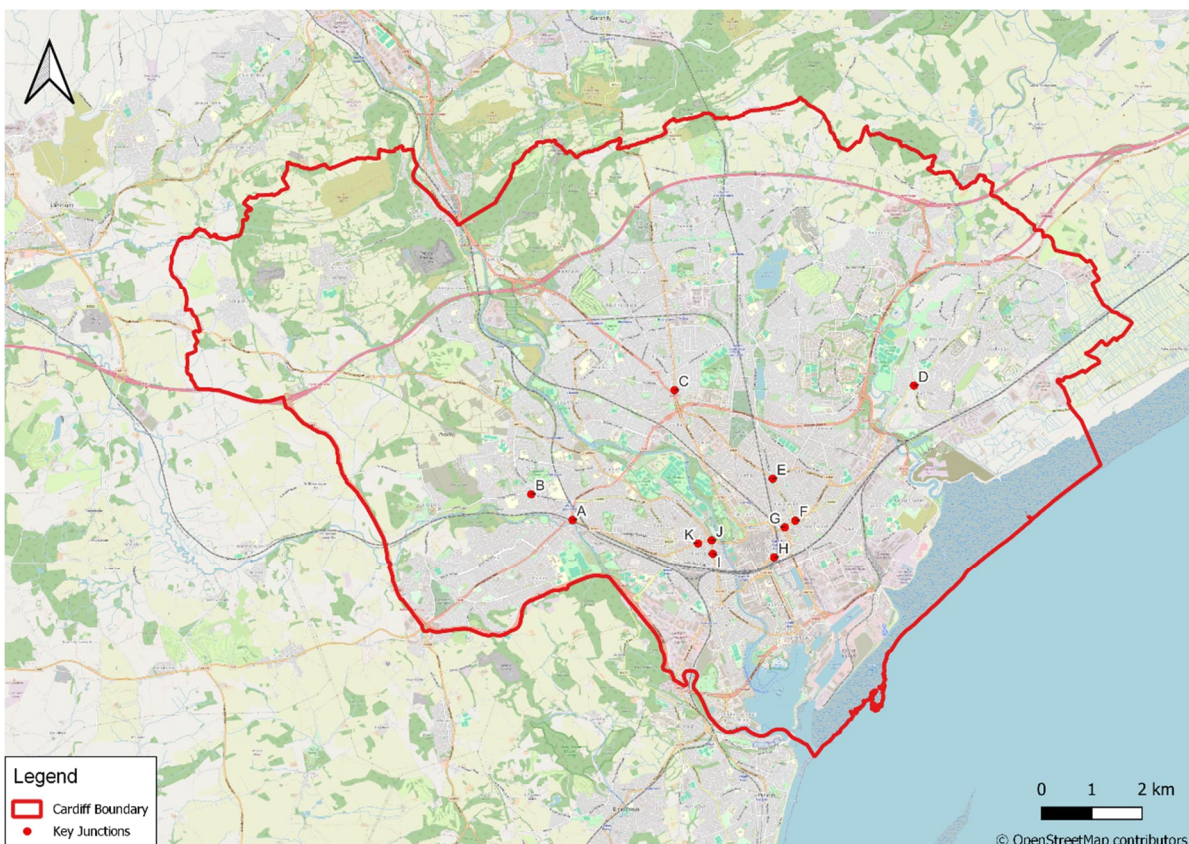
**Figure 8 – Strategic Bus Corridors**



Key bus priority junctions are identified in **Table 7**. The implementation programme will be subject to funding being secured. These have been developed by Cardiff Council in collaboration with key partners and stakeholders to deliver on our ambitions for bus travel and passenger growth. Each junction improvements are subject to further investigation and business case development.

**Table 7 – Key Bus Priority Junctions**

Key Junctions – Proposed Interventions	
<b>A</b>	A48 Cowbridge Road W / A4161 Cowbridge Road E / A48 Western Avenue
<b>B</b>	Saint Fagans Road / Fairwater Road
<b>C</b>	Merthyr Road / Caerphilly Road
<b>D</b>	B4487 Newport Road / Wentloog Road
<b>E</b>	Albany Road / City Road / Richmond Road / Crwys Road
<b>F</b>	Newport Road / City Road
<b>G</b>	Newport Road / West Grove
<b>H</b>	Bute Terrace/ Churchill Way / Adam St
<b>I</b>	Lower Cathedral Road / Neville St / Clare St
<b>J</b>	Cathedral Rd / Cowbridge Road E / Lower Cathedral
<b>K</b>	Cowbridge Road East / Wellington Street / Neville St



**Figure 9 – Key Bus Priority Junctions**

We will monitor the delivery of the plan, reporting annually to Cabinet and refine our approach to take on board updated objectives, lessons learnt from each scheme, best practice, and technology and design innovations.

## **Future Growth and Economic Development**

Supporting the Bws Cymru Vision for long-term planning and the Cardiff Local Development Plan, a high quality, efficient and affordable bus network is seen as key to future economic growth.

The plan will be delivered in partnership with the South Wales Metro and ambitions for Active Travel to provide an integrated transport network, helping to unlock housing and employment opportunities across the Cardiff area. Providing an integrated plan with Active Travel supporting and enabling access to public transport will provide increased accessibility to a range of travel options for all users unlocking a key inhibitor to growth.

Our Bus Priority Plan is not a static vision and will evolve as opportunities present themselves. This may include further Strategic Bus Corridors and cross-city routes. There is also potential for new routes to provide better coverage and connectivity in the future. We will monitor future land use and employment proposals and consider changes as required to support good access for all to public transport.

## **Funding and Delivery Mechanisms**

Cardiff Council will work closely and collaboratively with the Welsh Government, Transport for Wales and adjoining local authorities to maximise funding availability to support our bus priority and improvement programme. We will also work closely with bus operators and other key stakeholders to ensure the bus investment programme continues to develop and evolve to best meet our ambitions for bus travel and passenger growth.

## 6. Objectives

Objectives for the plan include:

**Table 8 – Bus Priority Plan Objectives**

Objective	Baseline Data	Measure
<b>Faster and more reliable bus services</b>	<ul style="list-style-type: none"> <li>• Average Bus Speed on Core Bus Routes</li> <li>• Reliability measured as variation around mean</li> </ul>	<ul style="list-style-type: none"> <li>• Speed after intervention</li> <li>• Variability in journey time</li> </ul>
<b>Attract more funding for bus priority measures</b>		<ul style="list-style-type: none"> <li>• Funding secured</li> </ul>
<b>More accessible services that are easier to use</b>	<ul style="list-style-type: none"> <li>• Number of fully accessible stops and shelters</li> <li>• Proximity of crossings and quality footways</li> </ul>	<ul style="list-style-type: none"> <li>• Increase of accessible stops and shelters</li> <li>• Proximity of crossings</li> </ul>
<b>Better integration between bus services and with rail, light rail and bus.</b>		<ul style="list-style-type: none"> <li>• Investment at locations to facilitate integration with other modes and between bus services</li> </ul>
<b>Bus routes and stops designed to complement walking and cycling facilities</b>		<ul style="list-style-type: none"> <li>• All intervention designs audited to ensure compatibility with walking and cyclist measures (to comply with Active Travel Act Guidance (Wales) and Manual for Streets)</li> </ul>
<b>More accessible and real time information to make journey planning easier</b>	<ul style="list-style-type: none"> <li>• Number of stops and shelters with real time information</li> </ul>	<ul style="list-style-type: none"> <li>• Increase of stops and shelters providing real time information</li> </ul>

## 7. Summary and Conclusions

The travelling public in Cardiff have access to a good quality and comprehensive bus service. Covid has changed travel habits for most people and this, together with the impact of traffic congestion, means maintaining and improving the bus service quality to meet our ambitions is challenging. We aim to meet our target of doubling bus passenger numbers by 2030 through investment in bus priority infrastructure measures and focus on passenger experience. Progress will be measured throughout this period to assess effectiveness of investment and outcomes in terms of bus patronage and mode share.

Ongoing work with partners including the local community, bus operators, TfW and the Welsh Government will seek to identify and target further bus investment and combine efforts to deliver our shared aims and objectives for bus, public transport and active travel.