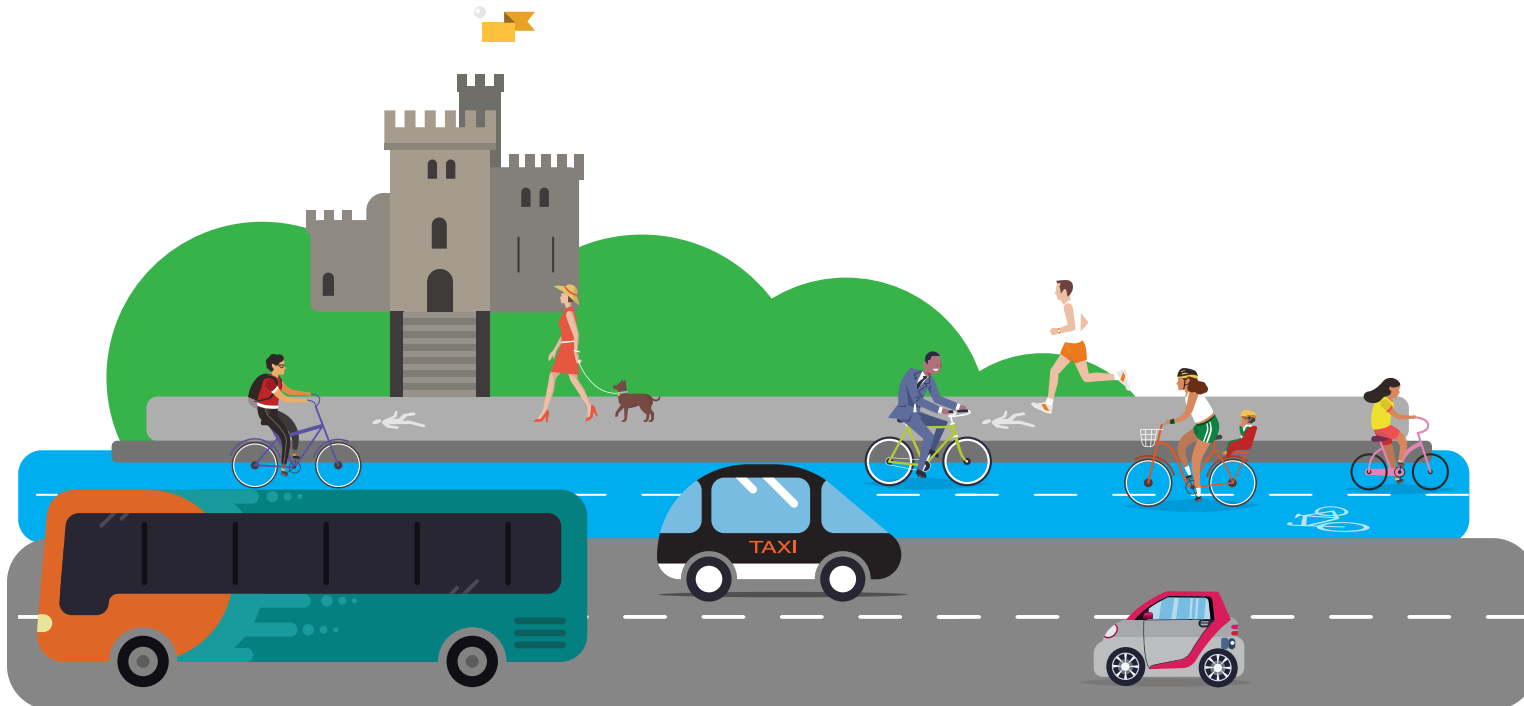


# Castle Street

## Consultation Pack on Long Term Scheme

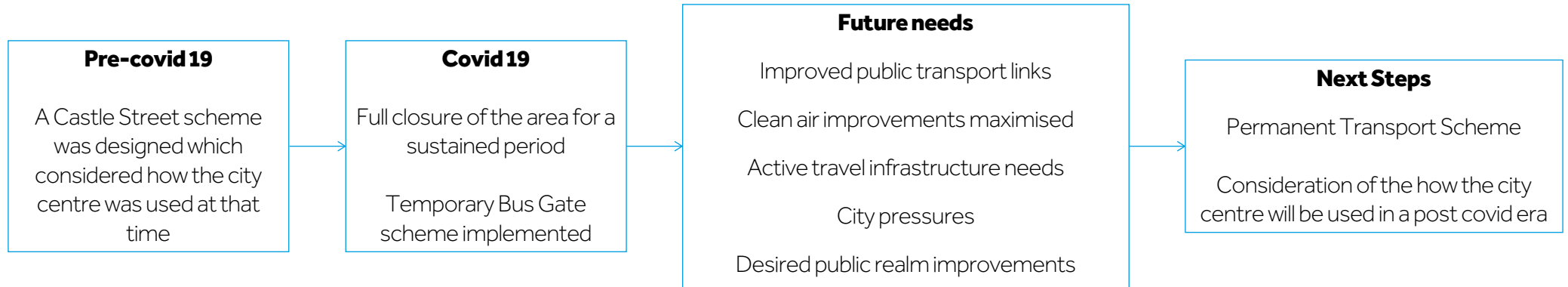


# Castle Street: Permanent Scheme

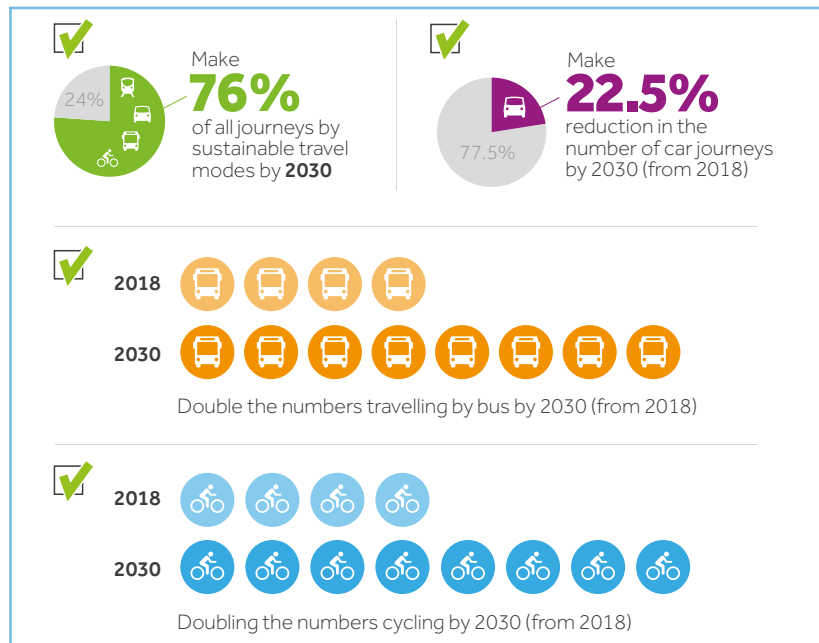
## Background

### The story so far

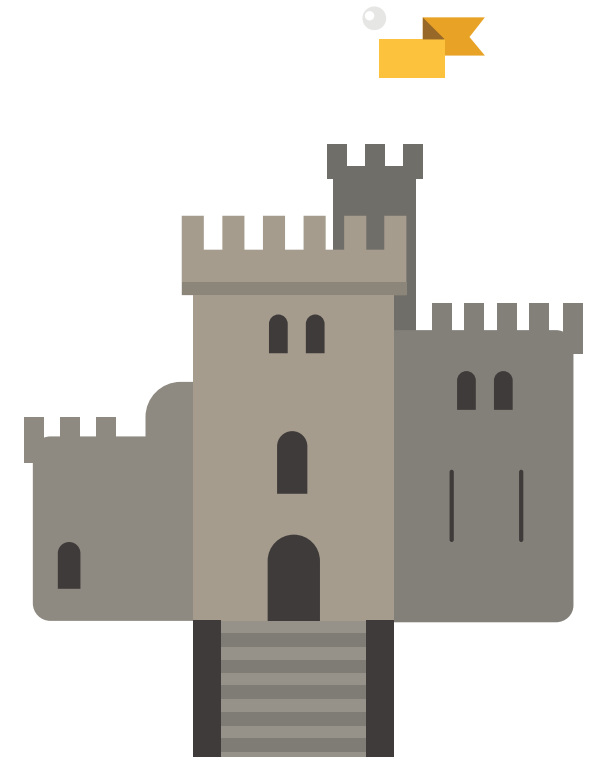
A transport improvement scheme for Castle Street called the "Castle Street Clean Air Scheme" (Option 1) has already been considered and consulted on by Cardiff Council. The council are now reconsulting on this scheme and an additional scheme to gauge public opinion.



### Future



The White Paper 2019



## Consultation Options

### **Option 1: All Traffic - 3 lanes. Private cars permitted.**

Key features: a remodelling of the lane allocations, with one lane in each direction for general traffic, a westbound bus lane, wider footways and a bi-directional cycleway.



**Pedestrians**



**Cyclists**



**Loading  
Access**



**Bus Lane**



**Taxi**



**General  
Traffic**

### **Option 2: Bus & taxi only - 2 lanes. No private cars permitted.**

Key features: a remodelling of the lane allocations, with buses, taxis and deliveries only permitted in the section of carriageway outside the Castle (loading and access details on supplementary information page 5), considerably wider footways on both sides and a bi-directional cycleway.



**Pedestrians**



**Cyclists**



**Time Limited  
Loading  
Access**



**2 Bus Lanes**



**Taxi**

## Rationale

### The White Paper

All transport projects with the city of Cardiff are aligned with the fundamental principles set out in the multi-modal White Paper (published in 2019). The White Paper considers carefully the demands of the city as a capital city, as a destination and as a city of culture with a vibrant and diverse population, the White Paper highlights the targets for the transport network within Cardiff and it's links to the surrounding areas. The White Paper addresses environmental concerns and air quality considerations, it also highlights the city aspirations for active and sustainable travel.

### Cardiff Castle

The historical importance of the Castle and Castle Street to the city have been considered at length in both these designs. Fundamental to the schemes has been ensuring the Castle and the surrounding area are given an appropriate setting, an improved public realm and space for people to enjoy the area.

## Benefits

### Sustainability and Biodiversity

The scheme will incorporate the latest technology for drainage systems that are sustainable and encourage and support biodiversity. Specialist planters, planting area and biodiverse bus stops are fundamental to this.

**32% OF CAR JOURNEYS  
ARE UNDER 3KM<sup>1</sup>**

**IN CARDIFF THE PHYSICAL ACTIVITY BENEFITS OF CYCLING PREVENT 13  
EARLY DEATHS ANNUALLY WHICH IS VALUED AT £46 MILLION<sup>2</sup>**

### Clean Air

We have a legal duty to address NO<sub>2</sub> levels on Castle Street as soon as possible and the actions to do this are as set out in our Clean Air Plan. We now want to improve the air we breathe in the city further and ensure the air we breathe in the city is as clean as it can be.

### Active Travel and Health

We have ambitious targets for active travel in the city. The percentage of journeys made by active modes will continue to increase significantly, with cycling continuing to grow in popularity. The safe segregated cycleway contributes to this active travel ambition.

### Public Realm

The scheme provides public realm improvements outside the Castle and on both sides of the carriageway. Wider pavements, increased greenery, seating and dining areas will improve the public realm for all users.

### Through Traffic

The scheme will help limit the unnecessary through traffic movement, providing cleaner air and a much improved city centre environment.

### Car Parking Improvements

The main routes into the city centre car parks will function more efficiently, with improvements at junctions and increased signage.

### Bus Priority Measures

To facilitate better cross city movements, buses will be given priority at several junctions across the scheme. Option 1 will improve bus efficiency. Option 2 will provide extensive bus operation improvements. Improved routes to the Central Transport Interchange in Central Square will be created.

### Sustainable and Active Travel

The scheme is fundamental to improving the city's networks for both sustainable travel and active travel.

### Pedestrian Safety

Throughout the entirety of the scheme, pedestrian crossings are being upgraded and improved. Not only will safety be improved but crossing times have been recalculated and improved.

## Impacts

### Traffic Displacement

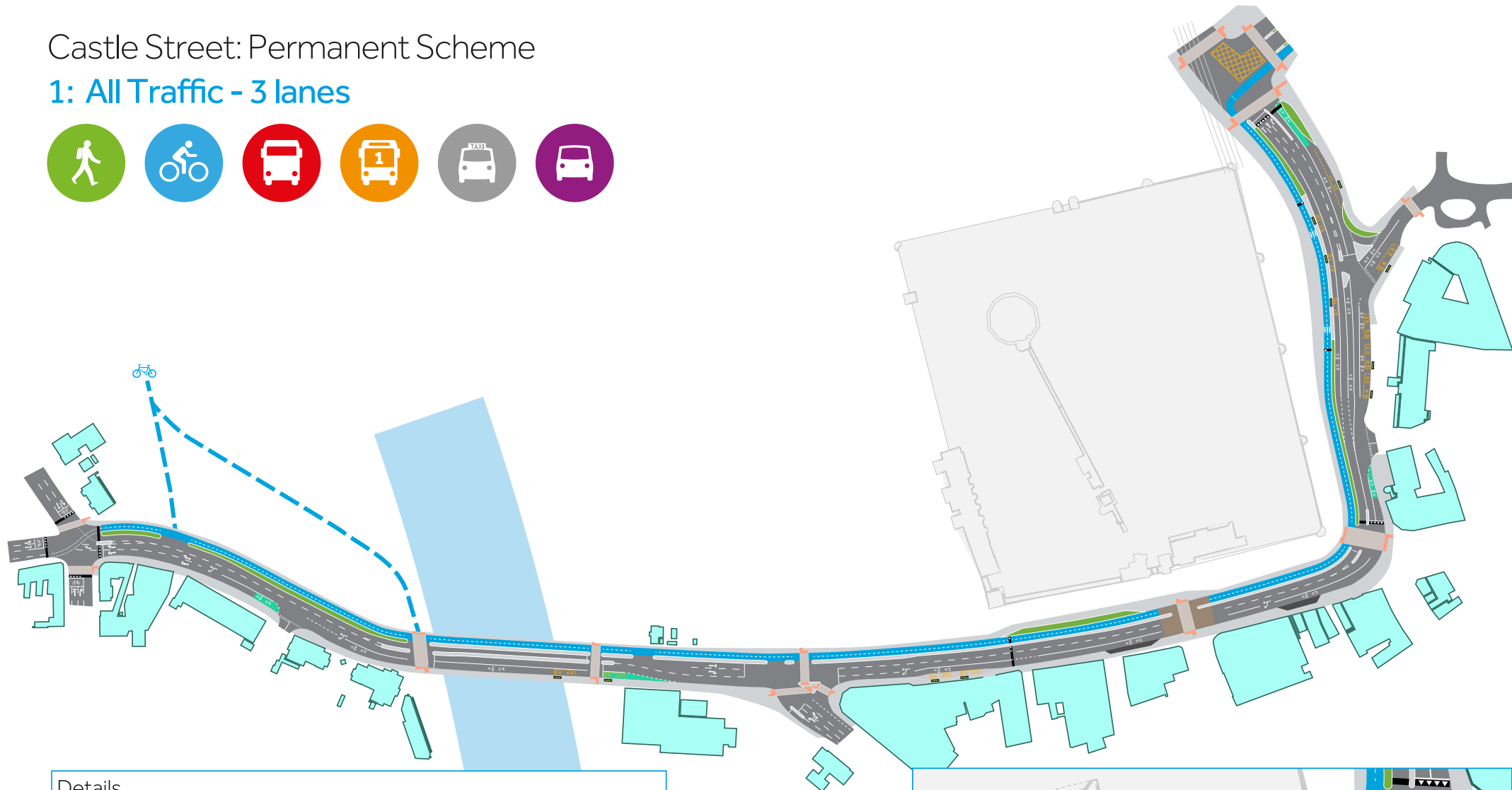
With reductions in traffic lanes and lane capacity both options will impede the volume of traffic on Castle Street. The reduction of traffic being much greater with Option 2. New monitoring and clean air zones are being established, feeding back live data on the traffic impacts.

### Modal Shift

Significant recent changes seen in commuter trends and patterns are expected to remain.

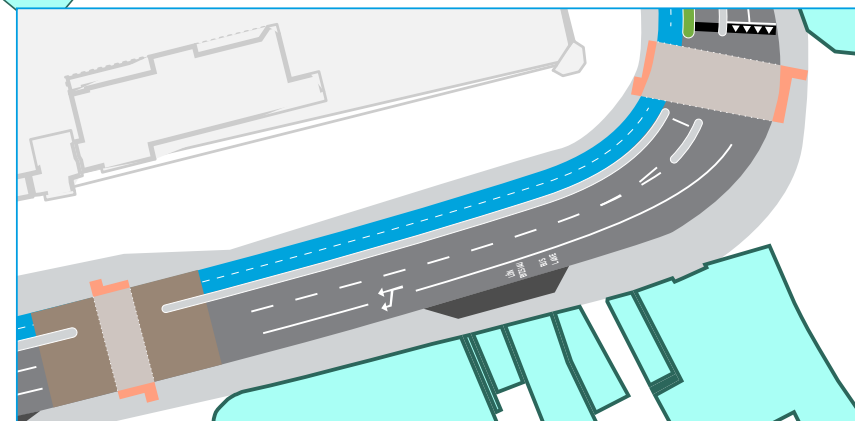
# Castle Street: Permanent Scheme

## 1: All Traffic - 3 lanes



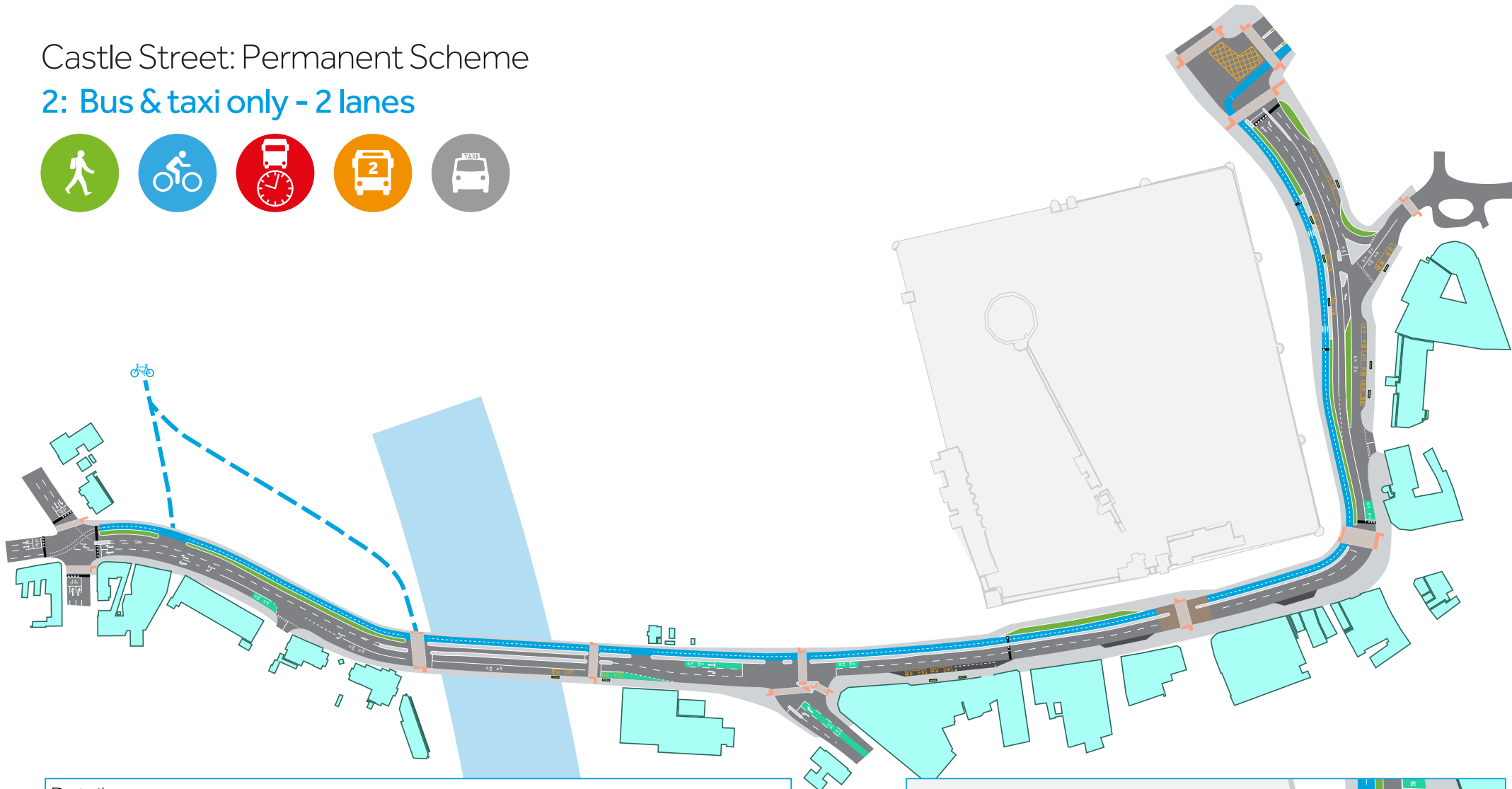
### Details

- Increased footway area on southern side.
- Bi-directional segregated cycleway.
- Links to cycleway the expanding cycleway network.
- Westbound bus lane.
- Improved bus facilities.
- New crossing facilities.
- Sustainable drainage schemes.



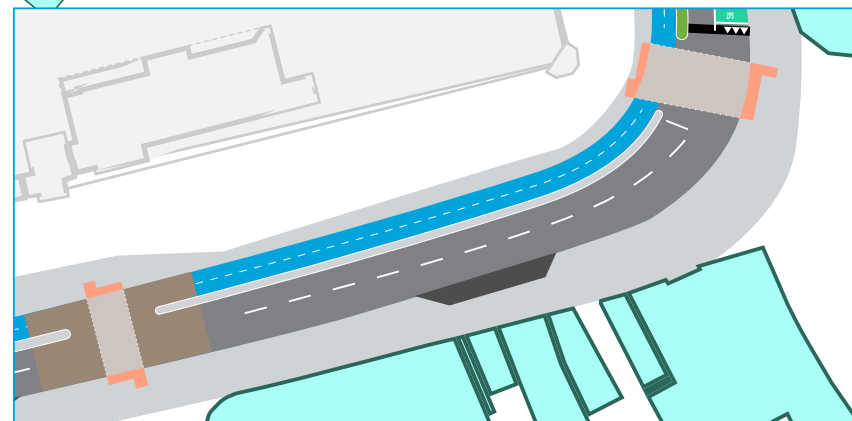
# Castle Street: Permanent Scheme

## 2: Bus & taxi only - 2 lanes



### Details

- Extensively increased footway area on both north and south side.
- Bi-directional segregated cycleway.
- Links to cycleway the expanding cycleway network.
- Bus and Taxis only on the Duke Street section to Westgate Street junction.
- Loading times between midnight and 10am.
- Access on Kingsway from East maintained at all times.
- Improved bus facilities.
- New crossing facilities.
- Sustainable drainage schemes.



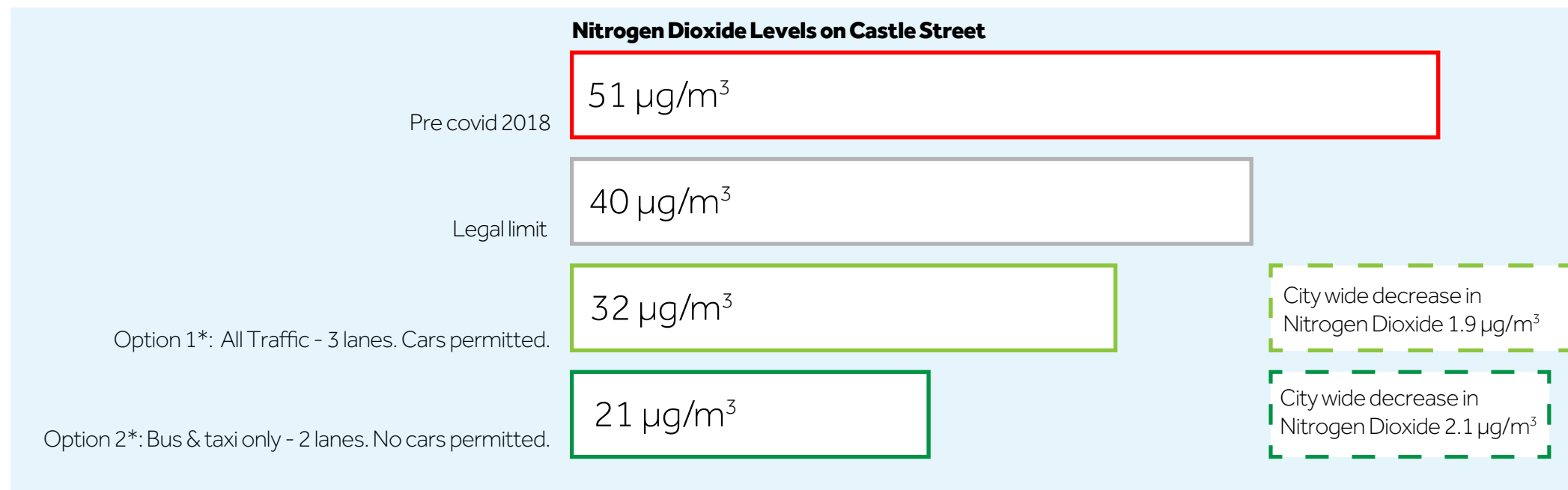
# Castle Street: Permanent Scheme

## Clean Air Implications

**51  $\mu\text{g}/\text{m}^3$  means 51 micrograms  
per metre cubed of Nitrogen Dioxide**

Both schemes have been modelled to examine the effects of the schemes on Nitrogen Dioxide levels both on Castle Street and in the wider city.

Detailed modelling of over 9,000 sections of the Cardiff road network has looked into the effect on air quality of both schemes on Castle Street and the wider city. This has examined the effects of traffic displacement from Castle Street alterations. Whilst the schemes are currently modelled to cause some traffic displacement the impacts of the schemes do not cause any significant air quality impacts, with both schemes providing overall improved air quality levels across the city. The modelling results do not consider future modal shifts or commuter changes resulting from long term working arrangement shifts.



\*Results are annual averages and applicable to Castle Street only

Castle Street: Permanent Scheme

Impacts of the schemes

1: All Traffic - 3 lanes



2: Bus & taxi only - 2 lanes



Clean Air Compliance on Castle Street



Active Travel Promotion



Pedestrian Realm Improvements



Sustainable Drainage & Increased  
Greening Opportunities



Central Transport Interchange Benefit



Bus Network Improvements



Private car use



n/a

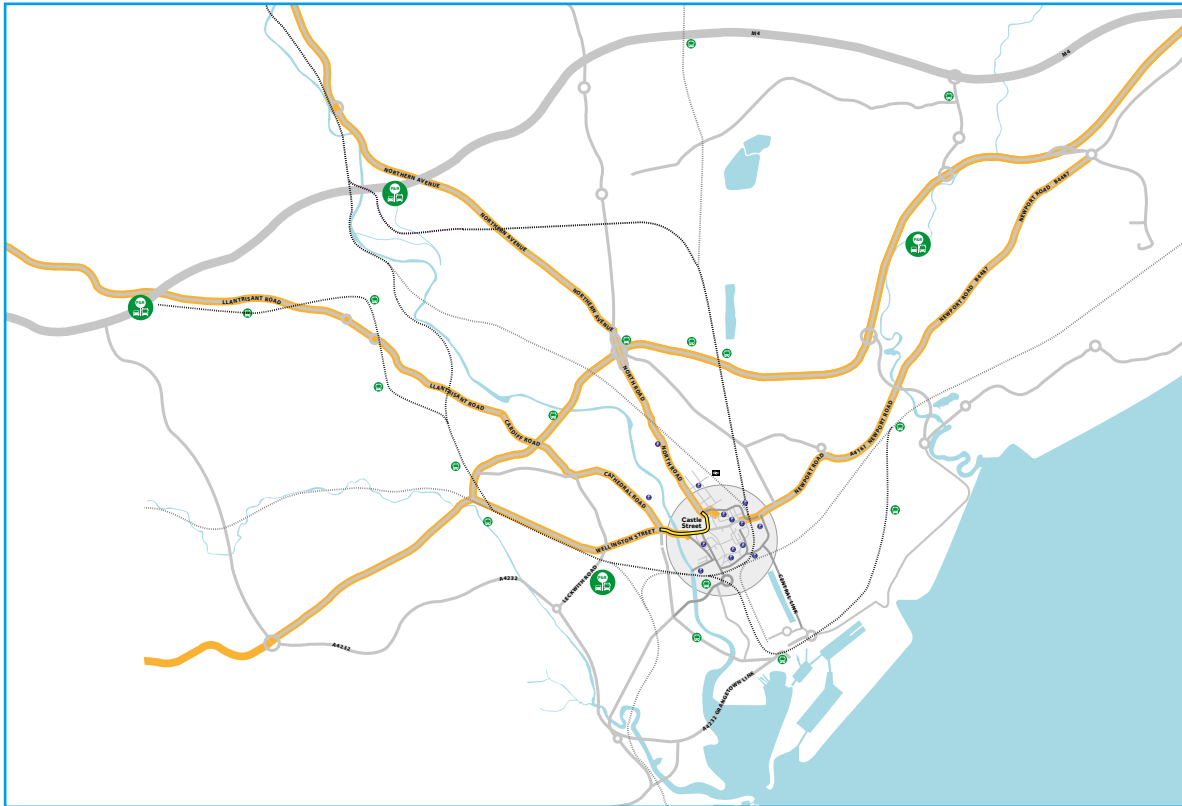


# Castle Street: Permanent Scheme

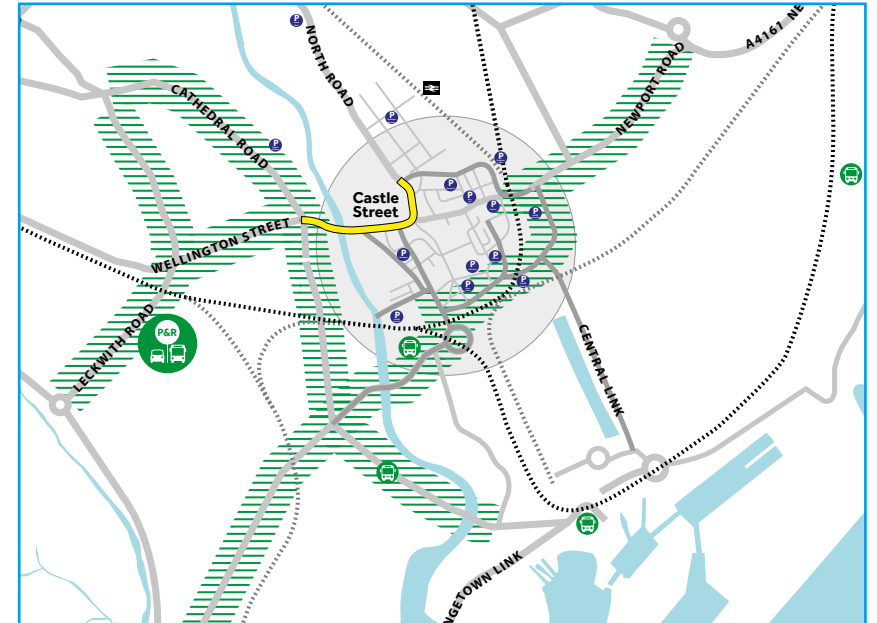
## Impact Monitoring and Mitigation

### SMART Corridor & Monitoring Zones

To support both potential schemes and all future transport projects in Cardiff, network of smart corridors are being established. A smart corridor is a key route along which additional traffic data is collected, this live data is fed back to the junctions and the network management systems. This in turn allows the network to manage traffic flow and adjust the signal stages as needed. Buses and their journeys are also monitored throughout a smart corridor and given priority to help improved journey times and efficiency.



**Potential Smart Corridor Routes**



**Traffic and Air Quality Monitoring Zone**

A traffic and air monitoring zone will be established to allow continual accurate monitoring of traffic levels and air quality in the areas surrounding the city centre. Increased frequency of data and improved accuracy will inform the council and allow further interventions to be put in place where needed to ensure we are continuing to work towards our clean air targets.

This has been programmed to be operational before any construction work begins on Castle Street.

## Castle Street: Permanent Scheme

### How to respond to the scheme proposals...



Please respond to this consultation using this survey form.

This will allow you to rate each scheme and make formal comments in response to the consultation.

The responses will be used to help write the consultation report and are one of the tools used to inform the decision making process for the scheme.

**The consultation will remain open until 10/05/2021.**

**<https://wh1.snapsurveys.com/s.asp?k=161450917089>**  
**[www.keepingcardiffmoving.co.uk/castlestreet](http://www.keepingcardiffmoving.co.uk/castlestreet)**



If you need additional information not answered in this pack please email:

**[citycentrenorth@cardiff.gov.uk](mailto:citycentrenorth@cardiff.gov.uk)**

