

# Oxford City Centre Movement and Public Realm Strategy

## ODRP Presentation - 7th December 2017

Oxford City Council and Oxfordshire County Council



PHIL JONES ASSOCIATES



## Introduction

# Oxford Movement and Public Realm Strategy

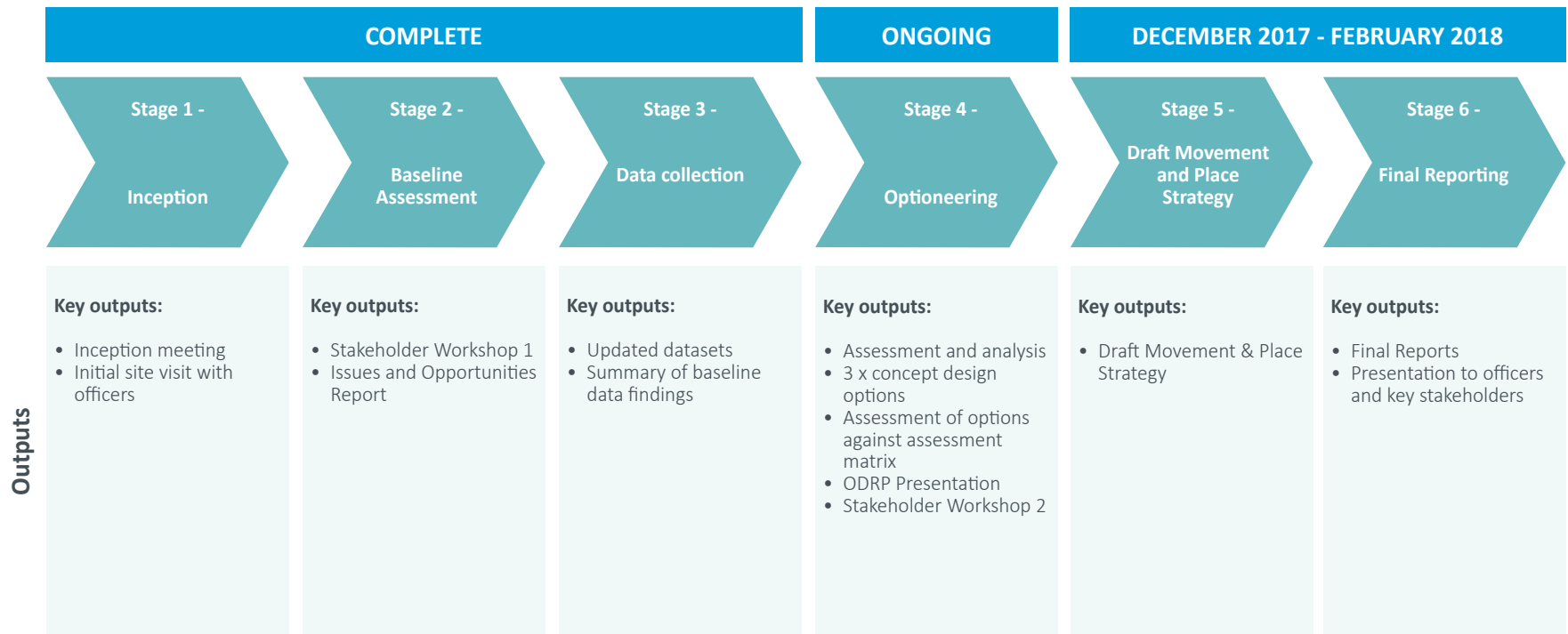
## Purpose

- PJA and ITP commissioned by Oxford City Council and Oxfordshire County Council to develop a transport and public realm strategy for Oxford city centre.
- The study will inform the new Oxford City Council Local Plan, which will contain a strategy for development of the city up to 2036, and help inform a future update of Oxfordshire County Council's Oxford Transport Strategy.



## Introduction

# Oxford Movement and Public Realm Strategy - Process



**What has our analysis work told us about the existing situation in Oxford city centre?**



## Analysis

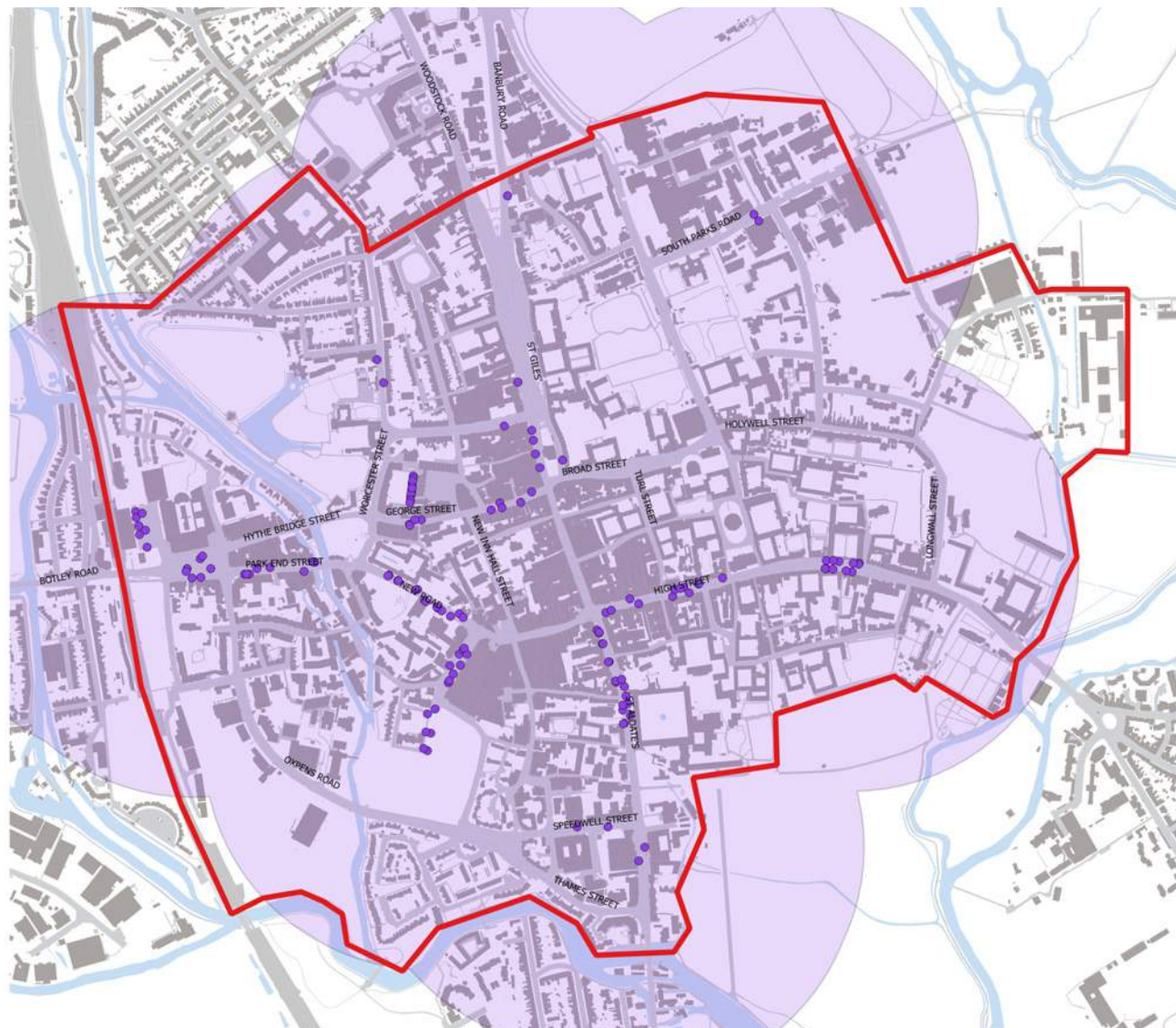
### Key Themes

These appraisal themes were put to the stakeholders in October and were supported:

- Inclusivity
- Movement
- Public Realm
- Safety and Public Health
- Economy

## Analysis

### Inclusivity - 400m walking distance of a bus stop



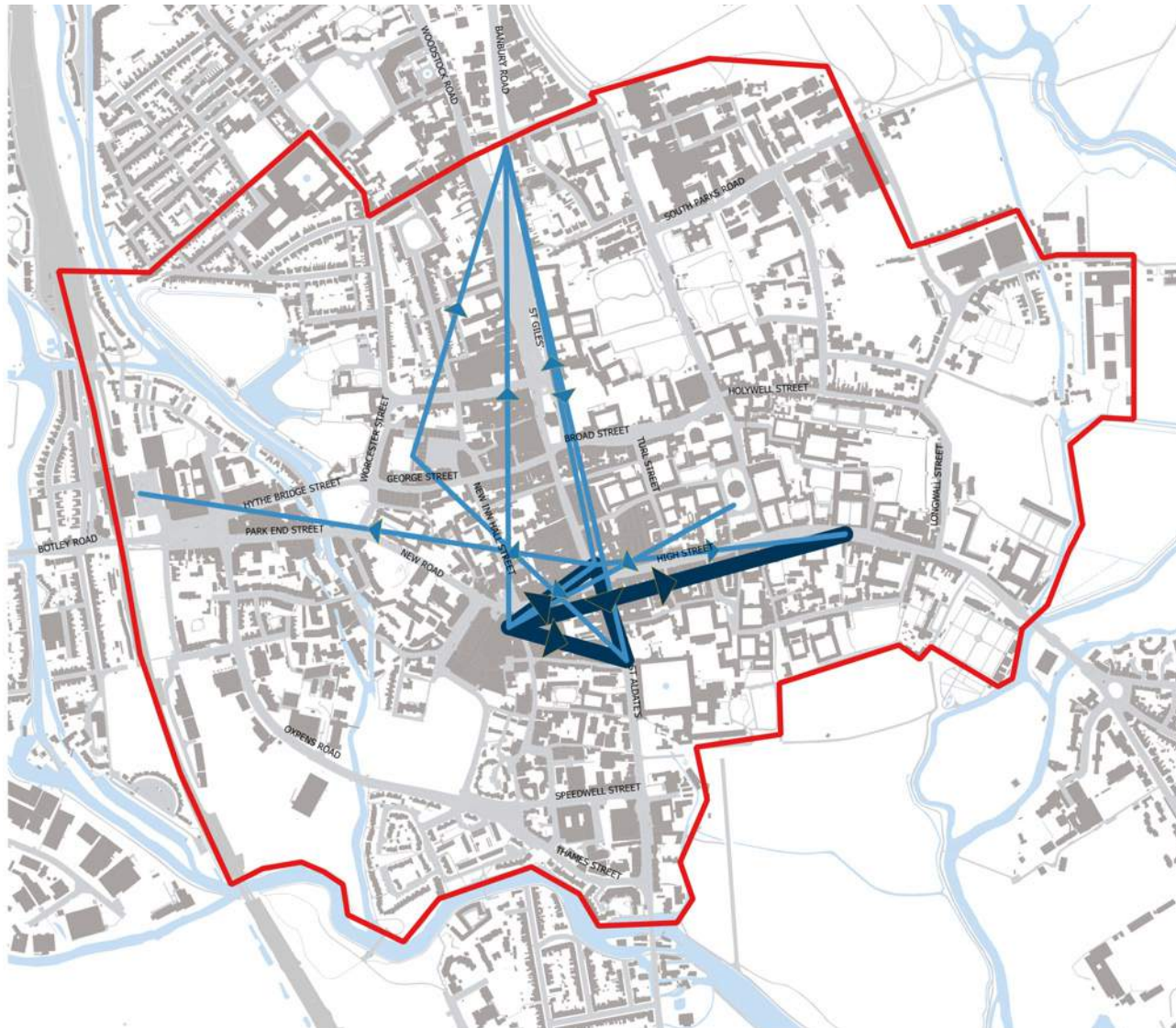
- Bus stop
- Bus stop 400m buffer

#### SUMMARY

- Currently accessibility to the whole of the city centre is very good

## Analysis

### Movement - Most popular walking trips (survey analysis)



Main movements

— 2nd decile

— 1st decile

#### SUMMARY

- Key movements focussed around central core.
- Next most popular routes from St Giles and the train station.



## Analysis

### Movement - Bus trip origins (potential for cycling)



Survey - mode of travel

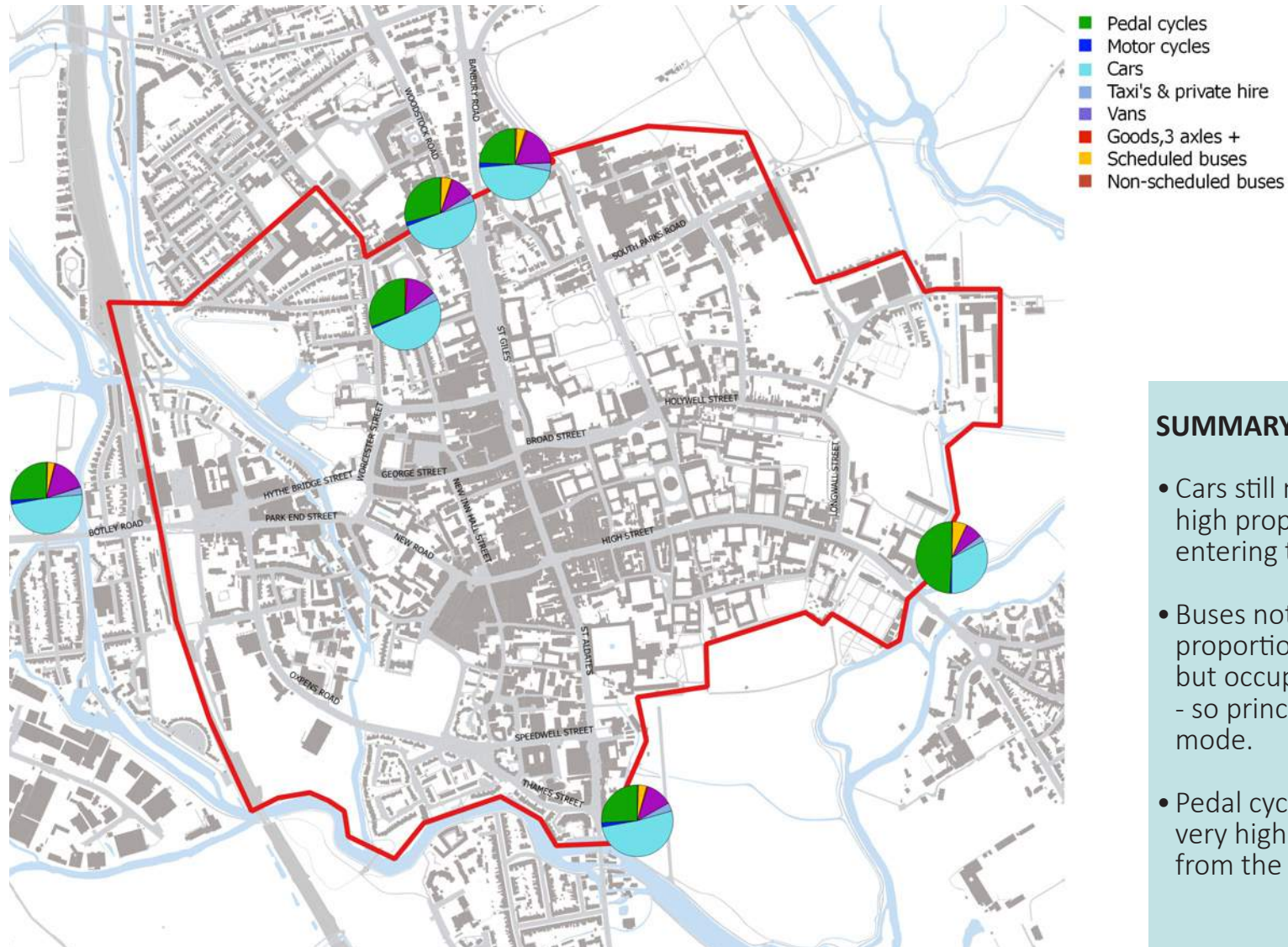
- Public bus
- City Centre
- City Centre +1km
- City Centre +5km

#### SUMMARY

- High proportion of bus journeys in to the city centre are within easy cycling distance.
- Significant potential for modal shift from bus to cycle if conditions are improved.

## Analysis

### Movement - Traffic composition at surveyed sites (Oxford City MCC – single day)



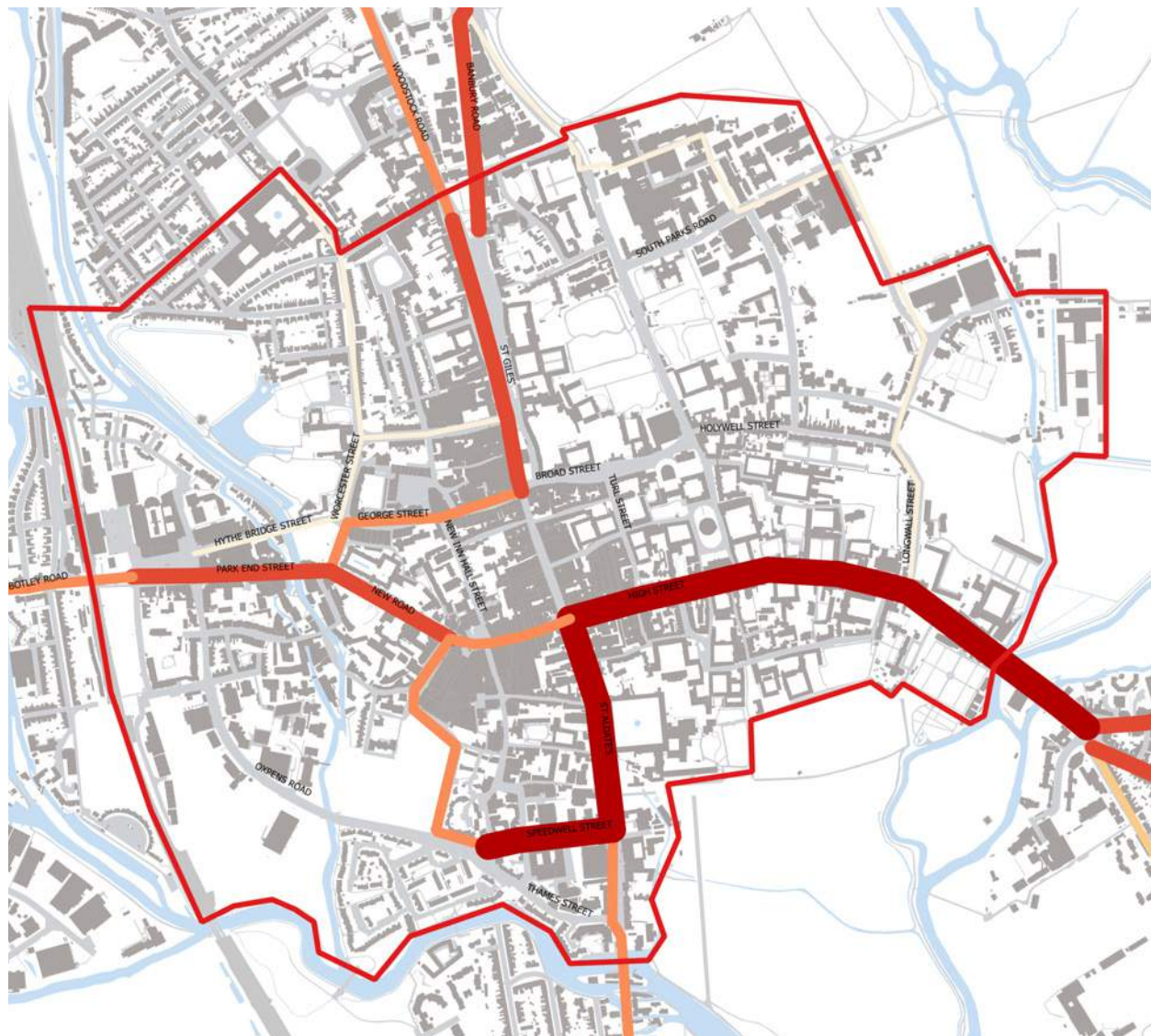
#### SUMMARY

- Cars still make up fairly high proportion of traffic entering the city centre.
- Buses not high proportion of vehicles, but occupancies are high - so principal motorised mode.
- Pedal cycle flows are also very high- particularly from the east.

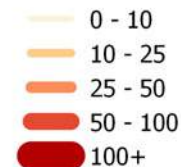


## Analysis

### Movement - Hourly bus frequency, AM peak



Bus frequencies by link

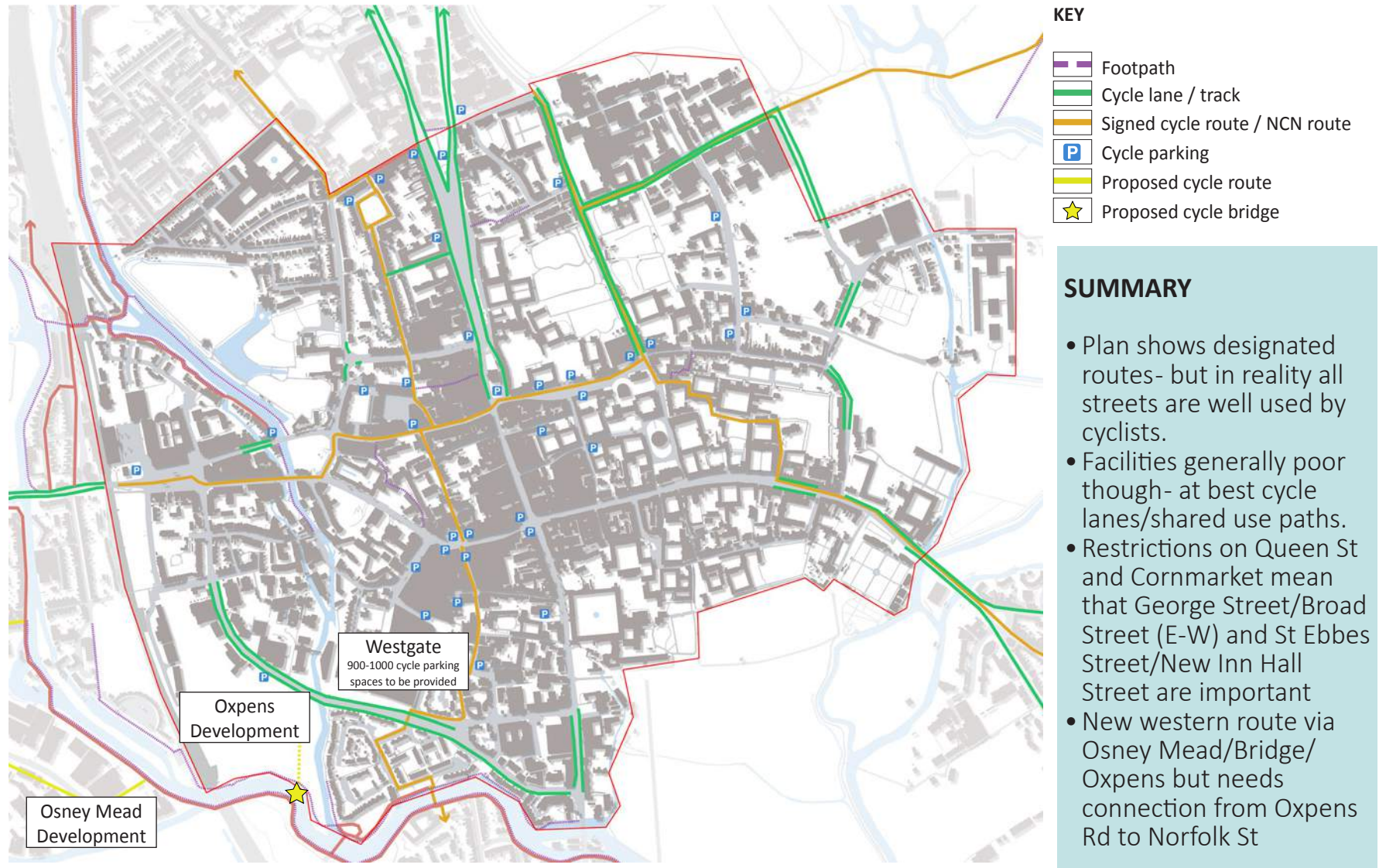


#### SUMMARY

- Very high bus flows on High Street and St Aldates- leading to congestion, collisions.
- Lots of buses turn around at Speedwell Street and Magdalen Street

# Analysis

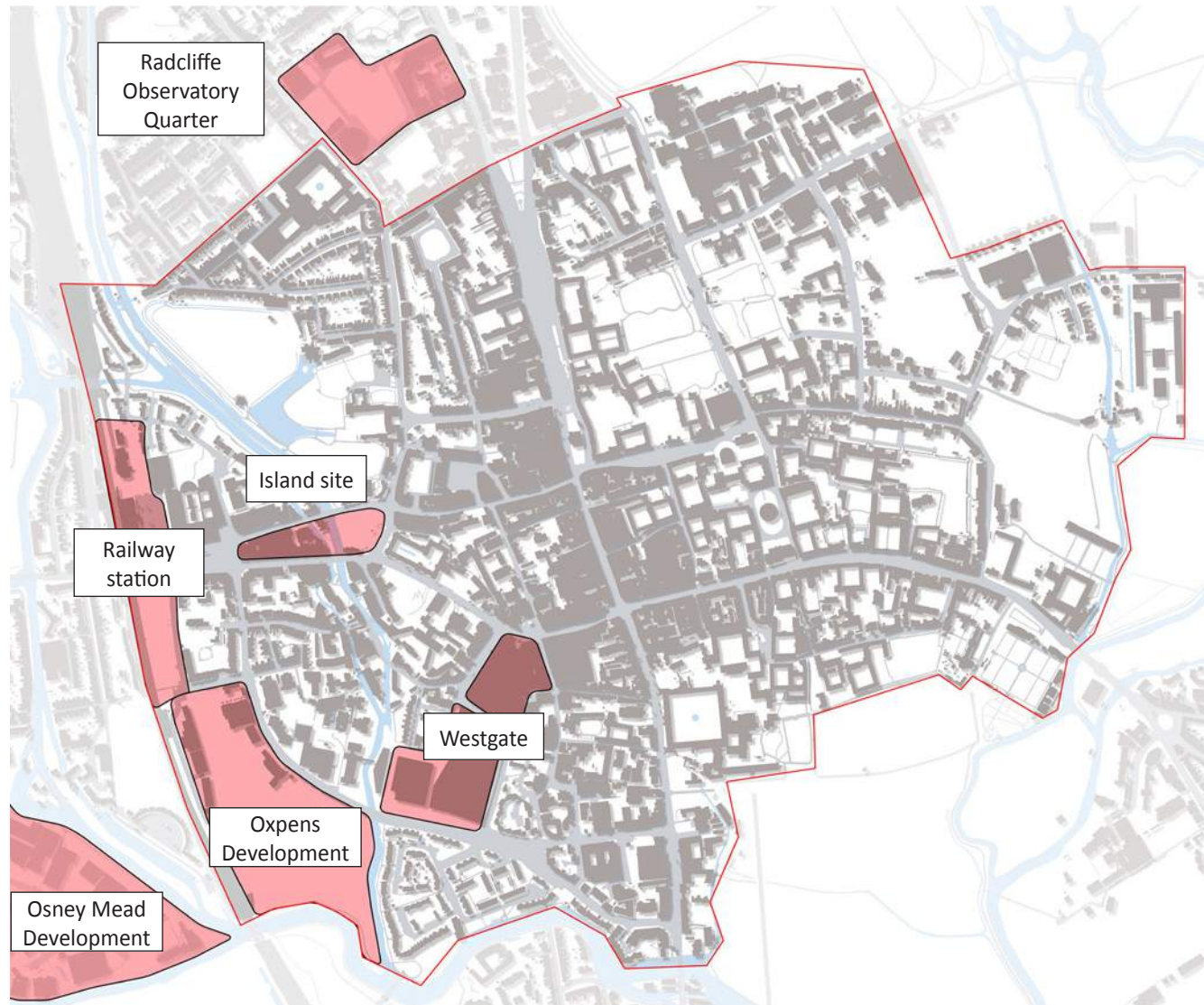
## Movement - Cycling





## Analysis

### Public Realm - Significant Development Sites

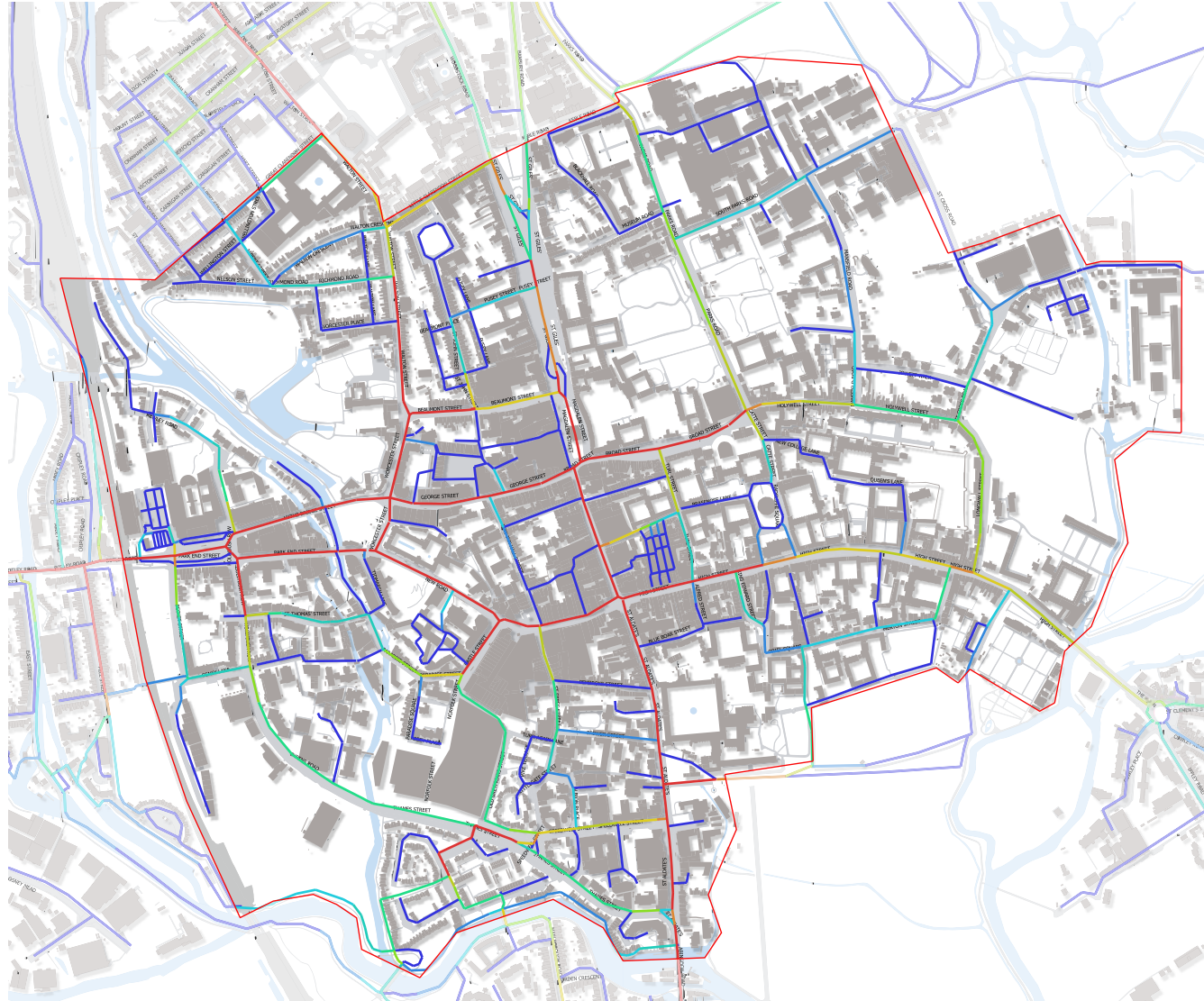


#### SUMMARY

- Westgate (open)
- Osney Mead
- Oxpens
- Railway station
- Island site
- Radcliffe Observatory Quarter
- Most development on west, but bulk of Greater Oxford is to the east- development will add to cross city-centre movements.

## Analysis

### Public Realm - Space syntax (NACH\_2500)



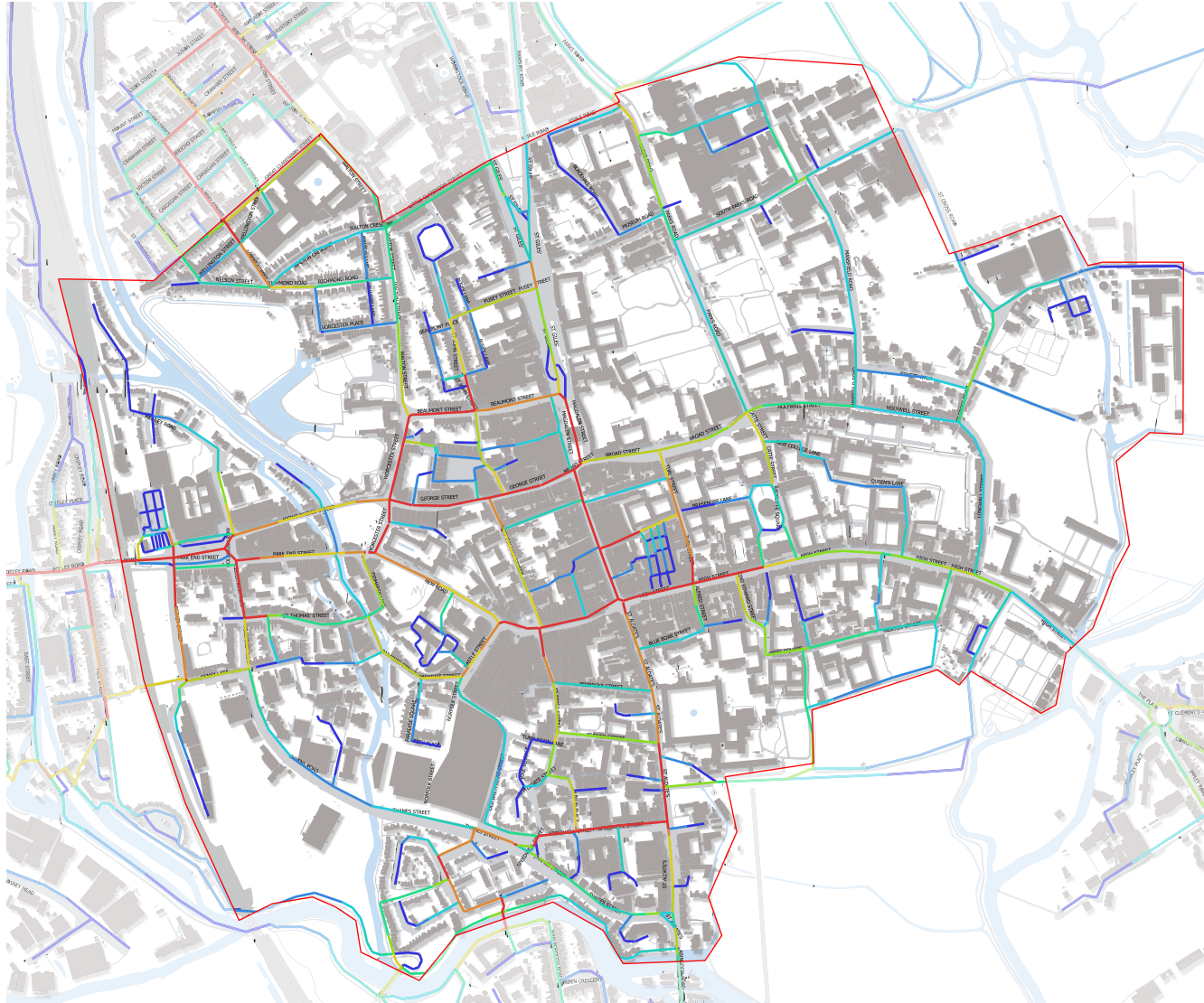
#### SUMMARY

- Routes more likely to be chosen for 2.5km trips
- Structure of the city is 'radial', with routes converging in the centre then fanning out towards other settlements.
- The analysis shows that the structure of the city struggles to diffuse movement due to the lack of links between the radial routes, so people have to travel into the city centre before going elsewhere.
- This pattern means the city centre has a key through-movement function to accommodate to allow people to access other districts across the wider city.



# Analysis

## Public Realm - Space syntax (NACH\_400)



### SUMMARY

- Short (5 min, 400m) trips
- Spatial 'hot spots' around the station, Carfax, and around George Street.
- The Castle remains isolated, but Queens Street and Cornmarket Street remain accessible.

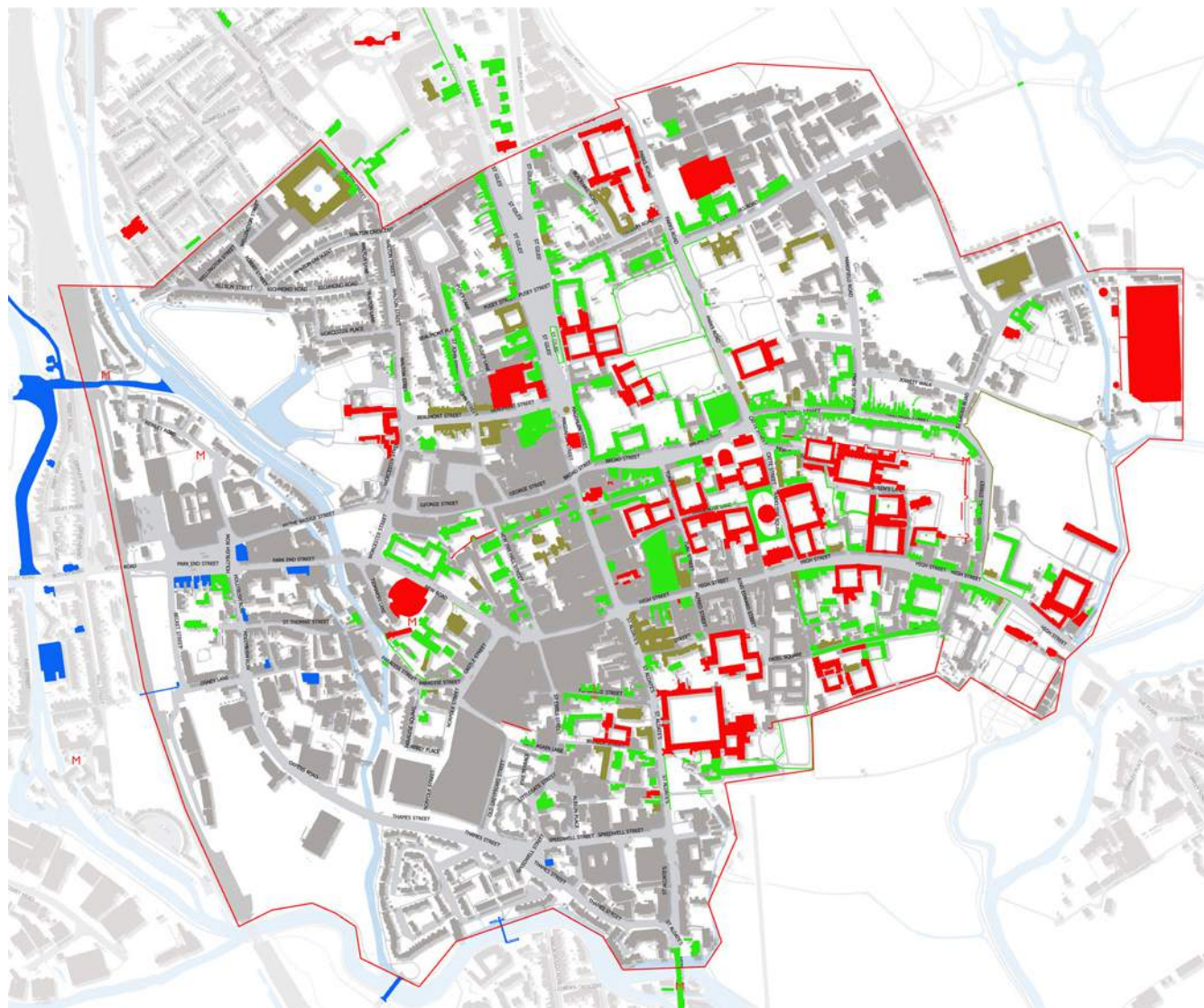
### OVERALL CONCLUSION

- Key east-west and north south routes are the most accessible routes at both 400m and 2.5km.
- Accessibility falls off quickly beyond these routes.
- Helps to explain large differences in pedestrian flows between primary routes and the rest of the network.








# Analysis

## Public Realm - Heritage Assets



### KEY

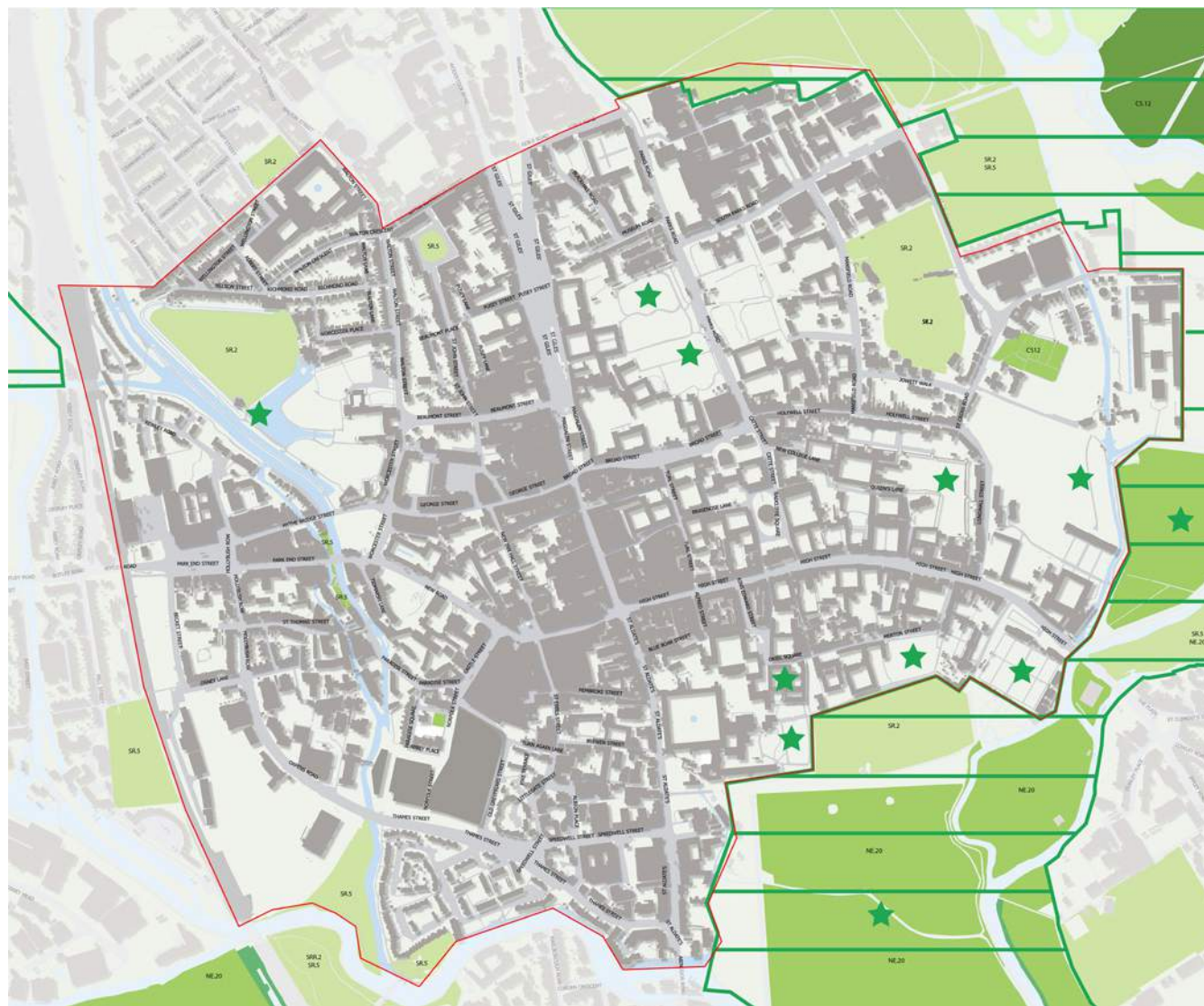
-  Scheduled ancient monument
-  Grade I
-  Grade II
-  Grade II\*
-  Oxford Heritage Asset Register

### SUMMARY

- Pretty much the whole of the city centre is extremely sensitive in heritage terms.
- Poor conditions (excessive movement impacting on place) concentrated on just a few routes though.

# Analysis

## Public Realm - Green Spaces



### KEY

- Special Areas of Conservation & SSSI
- Other nature conservation areas
- Green belt
- Protected open space
- Historic park or garden

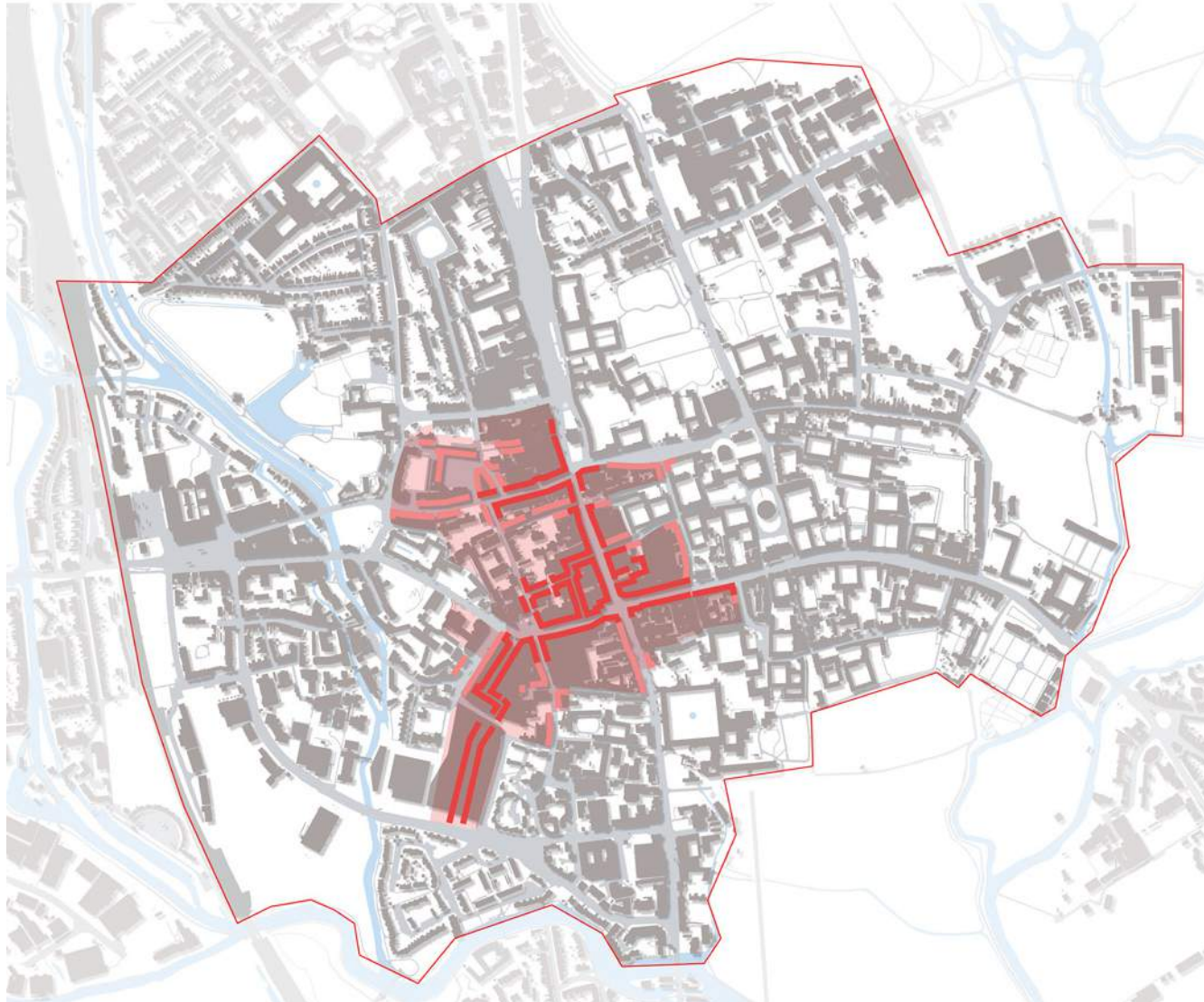
### SUMMARY

- Little green space within city centre public realm - most green spaces are private within colleges.
- Open spaces to the SE and NE are relatively close, but not easily found.



# Analysis

## Public Realm - Retail Areas



### KEY

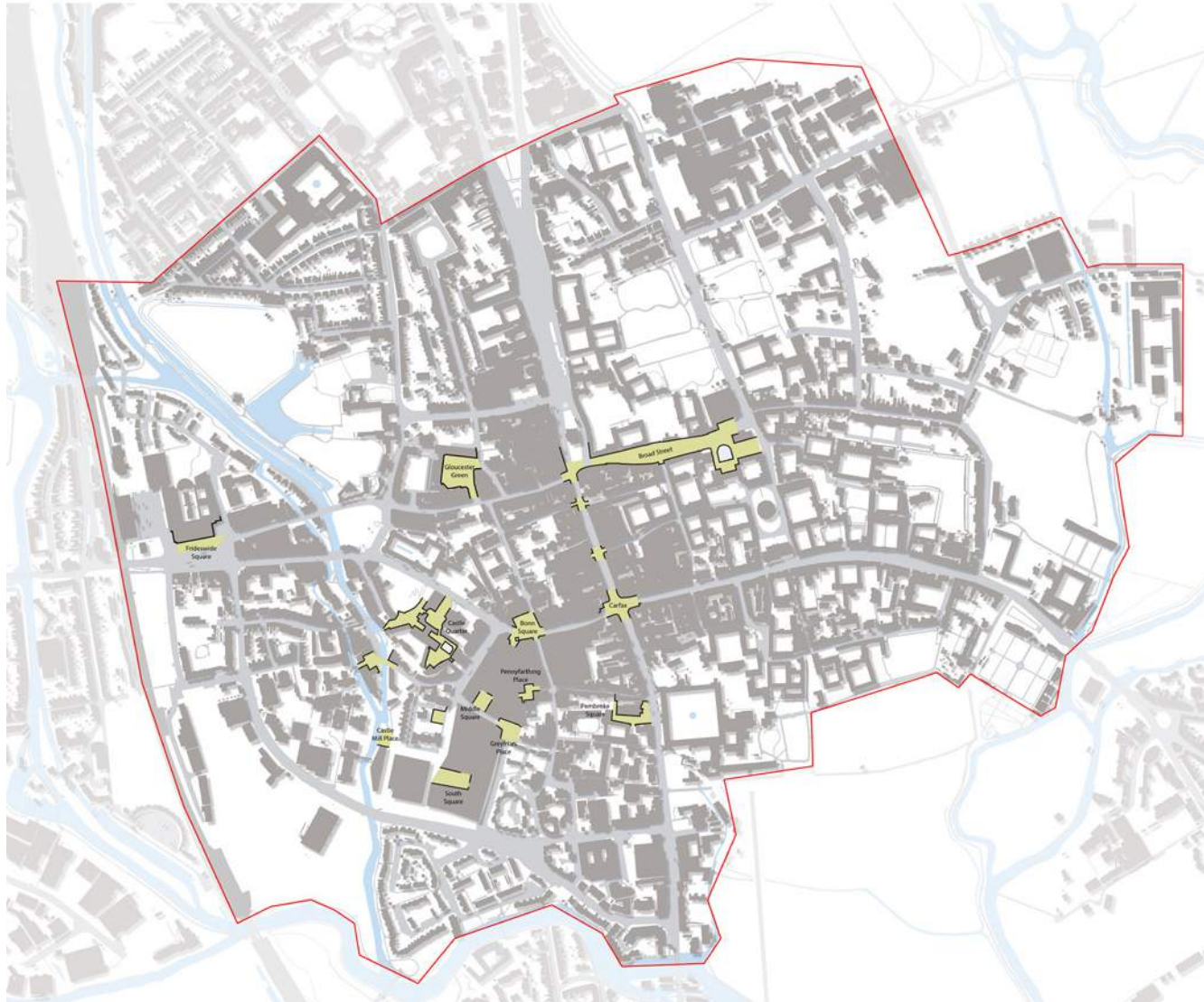
- Primary shopping area
- Primary shopping frontage
- Secondary shopping frontage

### SUMMARY

- Westgate has shifted retail core to west and south- bus/cycle connectivity needs to be good- again NB most of Greater Oxford is to the east.

# Analysis

## Public Realm - Key public spaces



### KEY

 Key public spaces

### SUMMARY

- Significant lack of public space within the city centre for non movement related functions.
- Opportunity for significant improvement on Broad Street.
- Excellent asset, under-realised.



# Analysis

## Public Realm - Activity



### KEY

#### Frontages

- Active
- Passive
- Inactive

#### Other activity

- Formal seating
- Secondary seating
- Outdoor cafe / bar
- Street vendor
- Busker / street performer
- Homeless

### SUMMARY

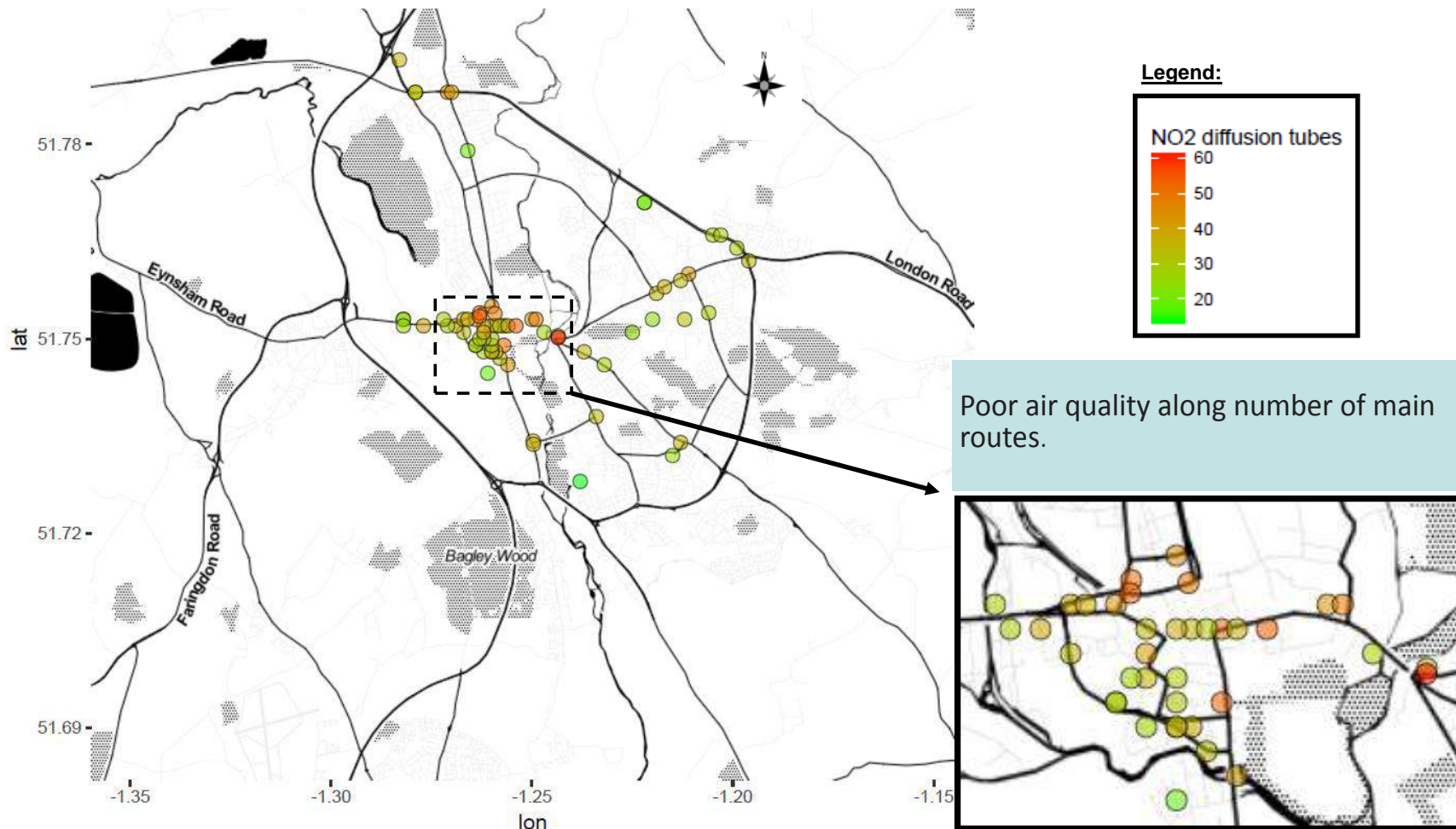
- Un-met demand for seating particularly on Broad Street and Magdalen Street / St Giles'
- 'Hot spots' at the eastern end of Broad Street and around Martyrs Memorial and Ashmolean Gallery.



## Analysis

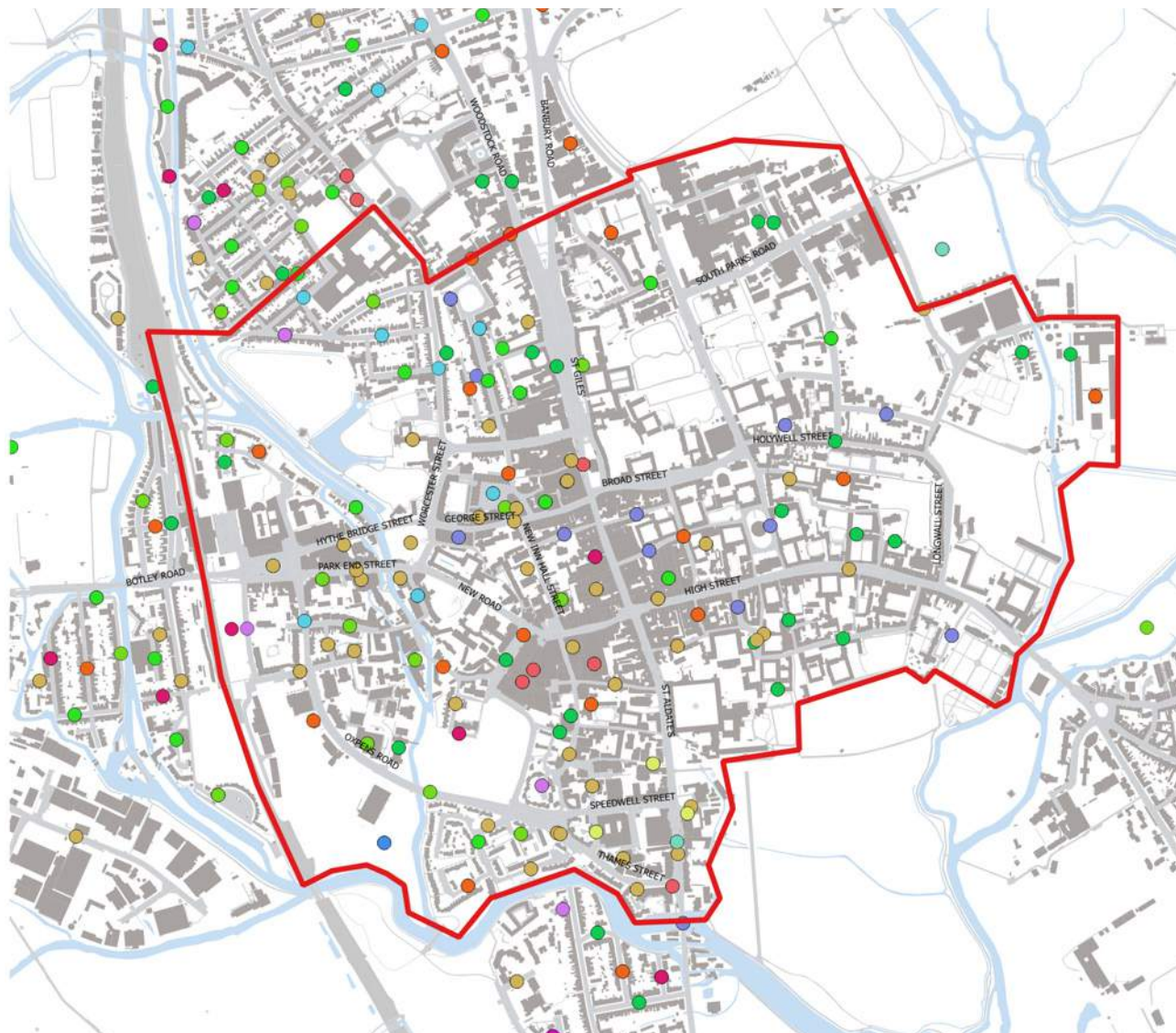
### Safety and Public Health - Air Quality (from 2016 Annual Status Report)

Table D.2 – Oxford's diffusion tube locations by level of NO<sub>2</sub>, 2016.



## Analysis

### Safety and Public Health - Reported crime



#### Crime

- Anti-social behaviour
- Bicycle theft
- Burglary
- Criminal damage and arson
- Drugs
- Other crime
- Other theft
- Possession of weapons
- Public order
- Robbery
- Shoplifting
- Theft from the person
- Vehicle crime
- Violence and sexual offences

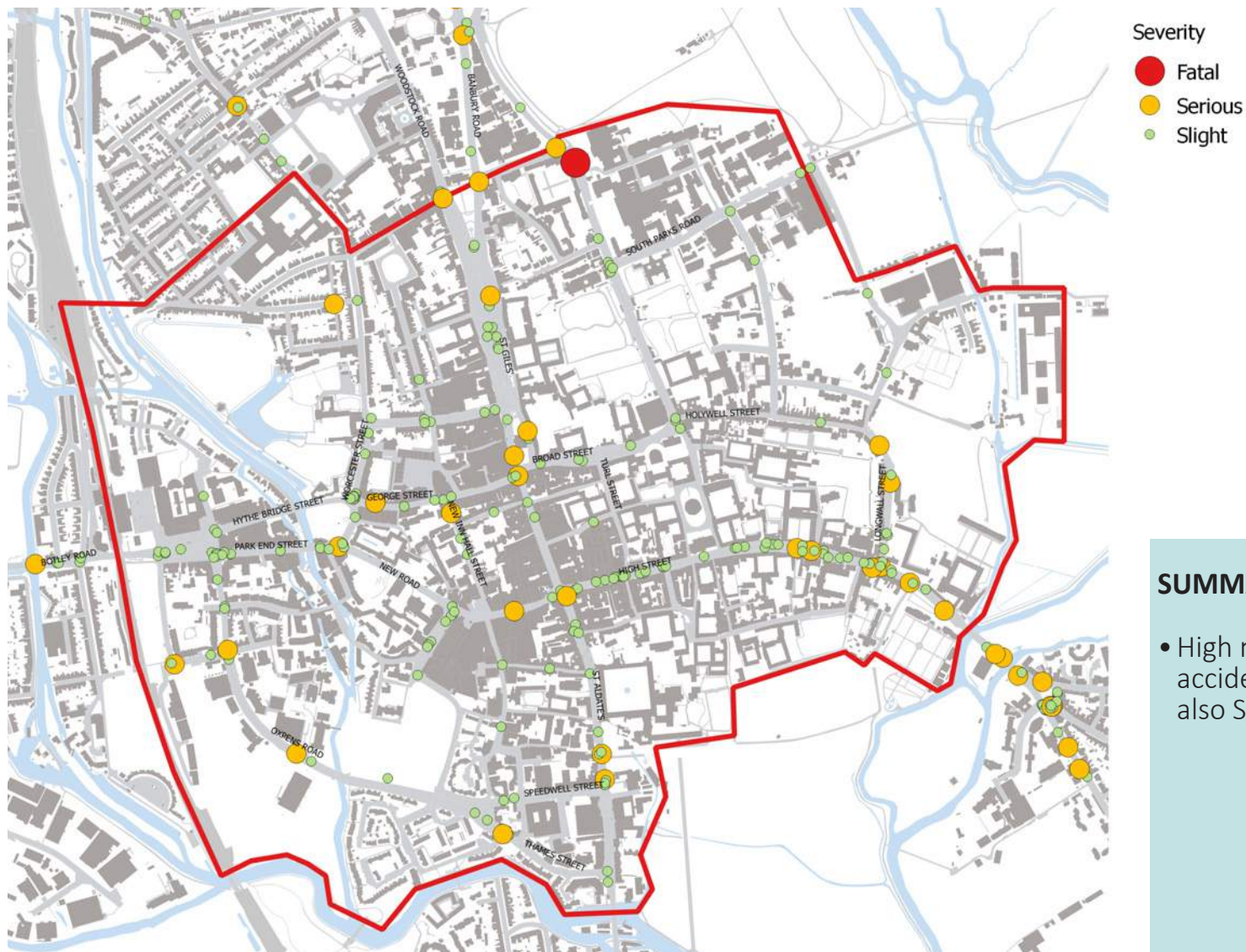
#### SUMMARY

- No obvious crime hotspots



## Analysis

### Safety and Public Health - Accidents (2014 - 2016)

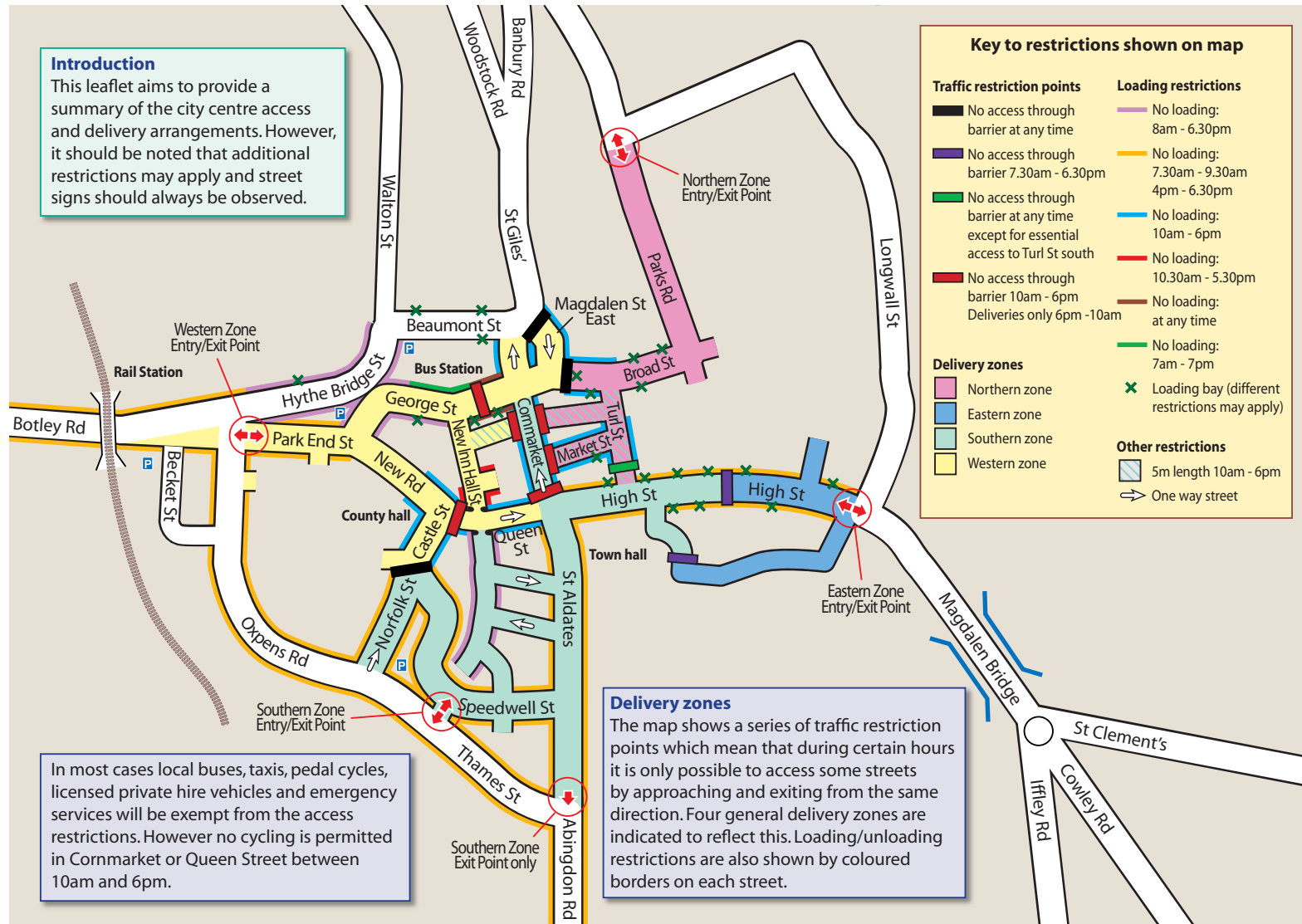


#### SUMMARY

- High number of recorded accidents on High Street, also St Aldates.

# Analysis

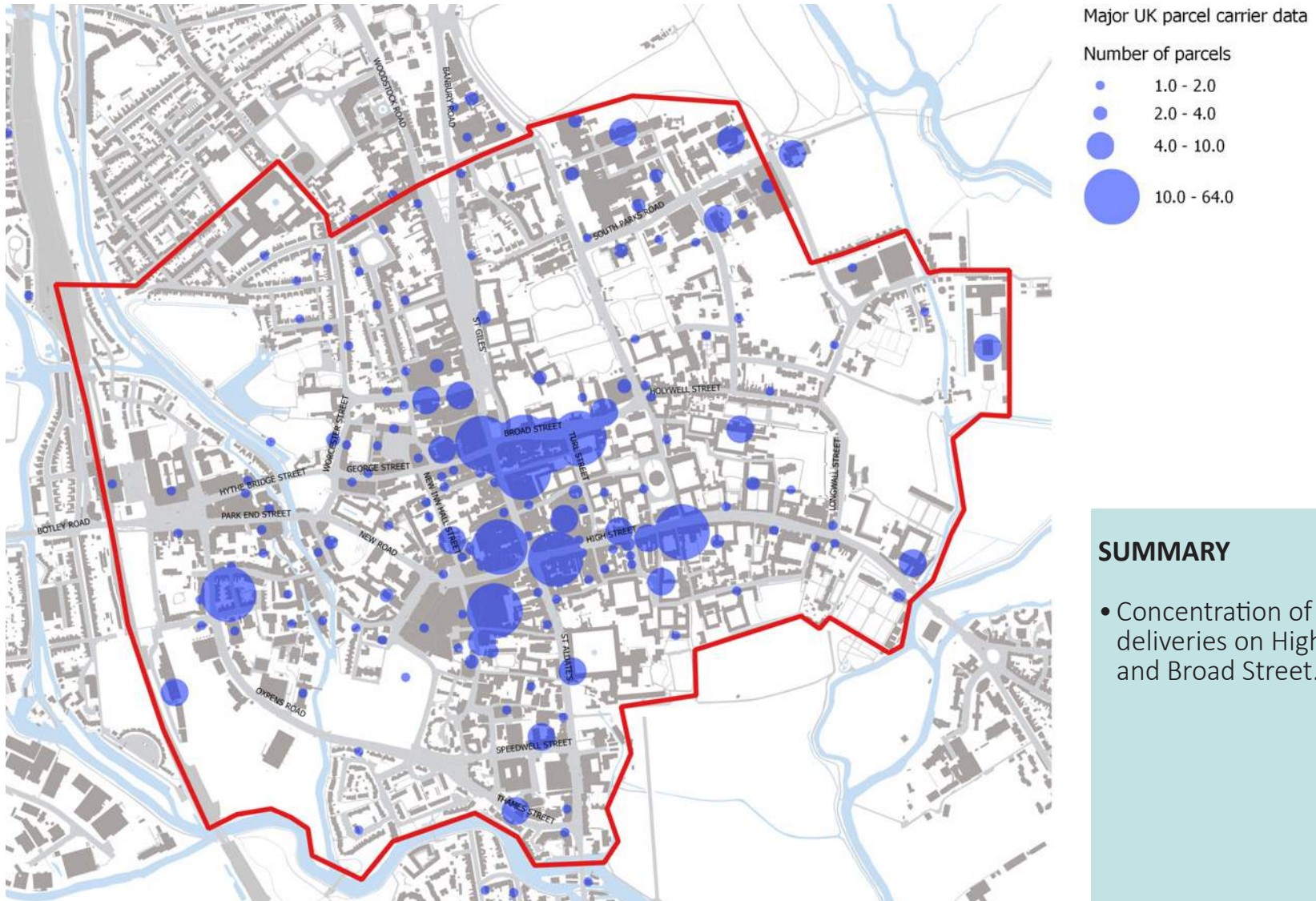
## Economy - Servicing / Deliveries





## Analysis

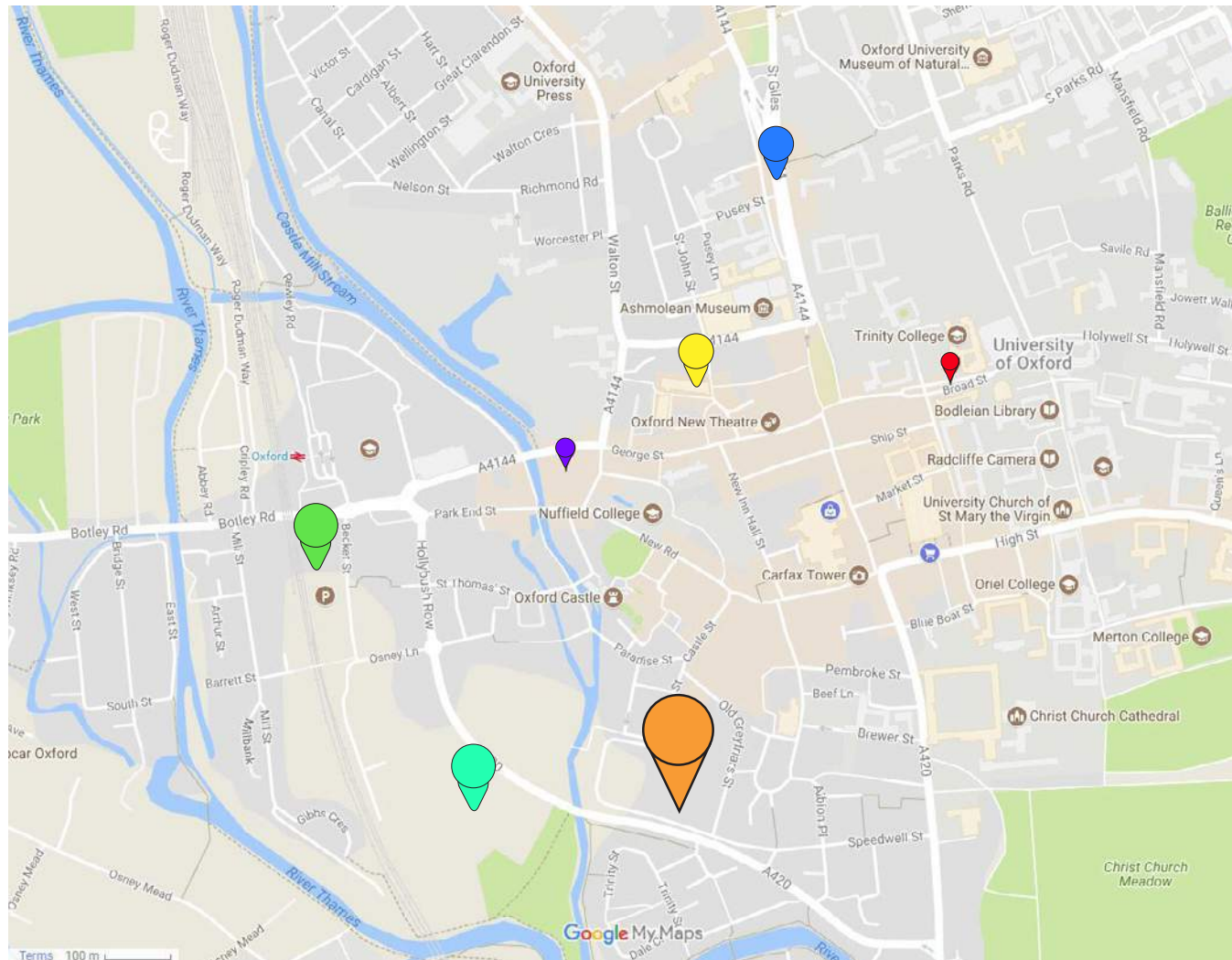
### Economy - Major UK parcel carrier data (busiest day of the year)












# Analysis

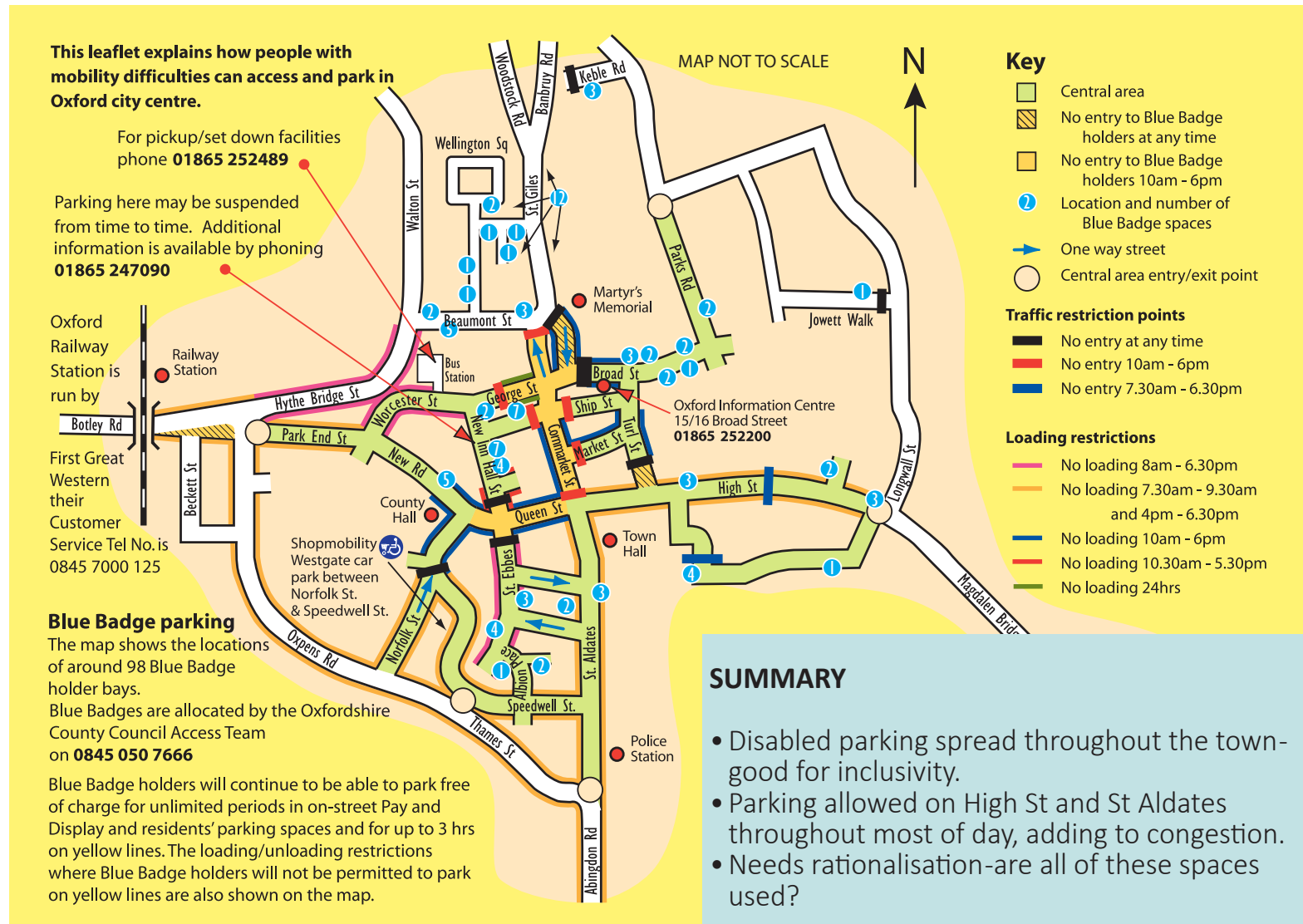
## Economy - Car Parking



-  **Broad Street** - 25 spaces (on street)
-  **Gloucester Green** - 104 spaces
-  **Beckett Street** - 556 spaces (railway station only)
-  **Oxpens** - 420 spaces
-  **St Giles** - on street
-  **Worcester Street** - 180 spaces
-  **Westgate Shopping Centre** - 1,000 spaces

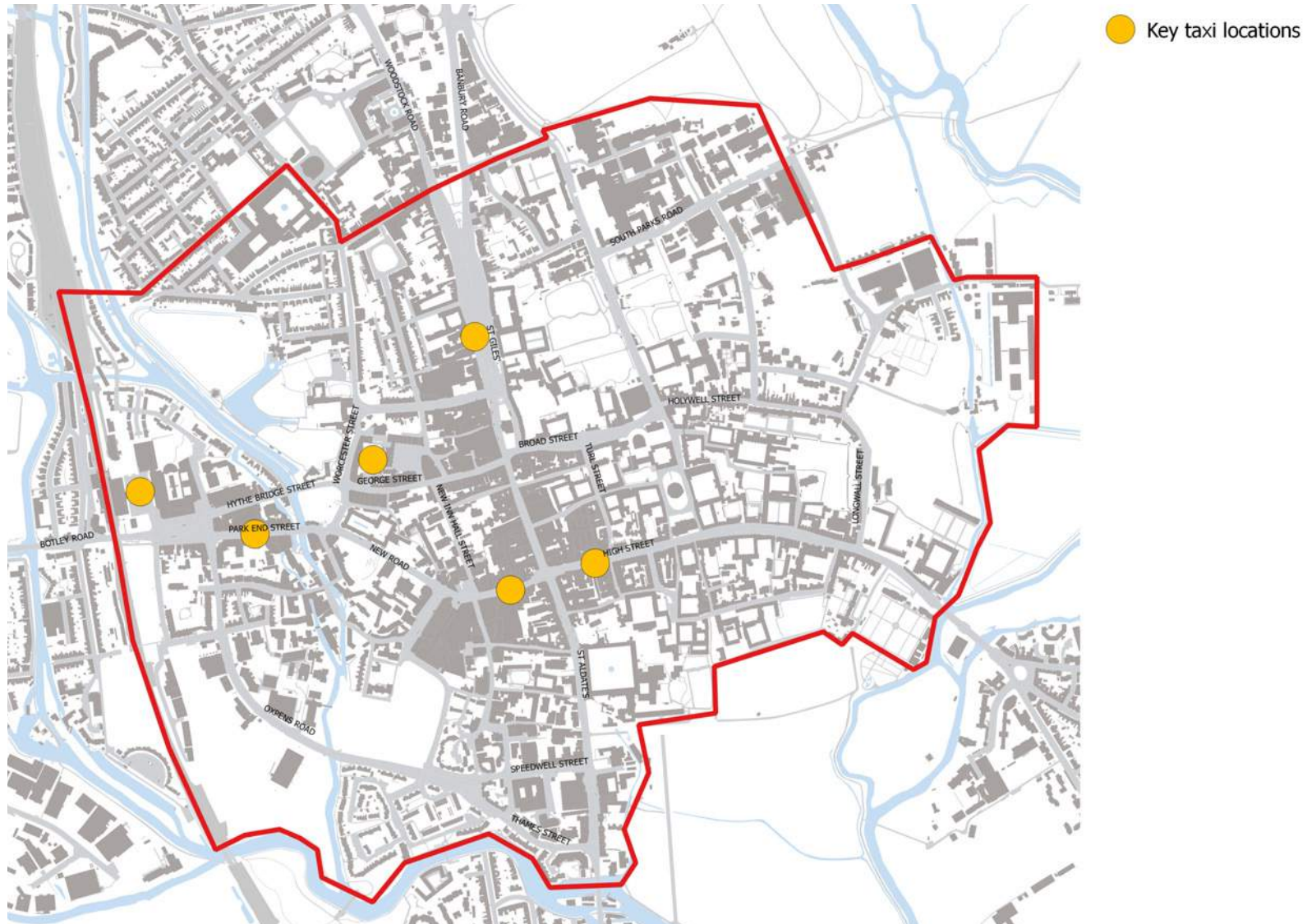
# Analysis

## Economy - Disabled Car Parking (some additional changes post Westgate opening)



## Analysis

### Economy - Taxi rank locations





# Stakeholder Input

## Key Outcomes of Stakeholder Workshop I

Common themes that emerged:

- **Cycling** – Need to enable growth in cycling by providing more traffic free and segregated cycle routes
- **Public transport** – problems with bus congestion
- **Walking** - general pedestrian congestion along main routes / too narrow footways
- **Public realm** – poor quality materials in places, not enough places to dwell



**What do we need to plan for to accommodate future growth?**

# Planning for Growth

## Key Issues

### Population Growth

- 2016 population is approx. 160,000.
- By 2036 the population is likely to have grown to at least 185,000.
- Urban extensions to Oxford may add a further 37,000 to the population

### Oxford Local Plan and OTS

- The necessary growth that will be proposed in the Oxford Local Plan 2036 must be supported by a transport strategy.
- The Oxford Transport Strategy (OTS) will require some review in order to support the Local Plan. The functioning of the city centre requires particular attention.





# Planning for Growth

## Key Issues

### Traffic Pressures and Impacts

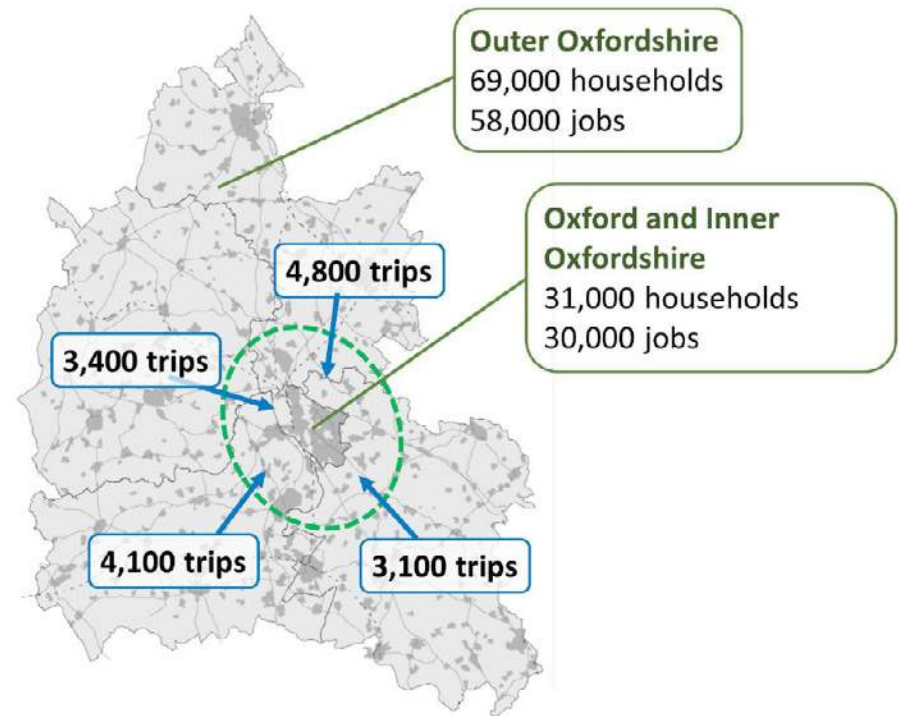
- Private and public transport
- Congestion, air quality, liveability
- 25% growth in city journeys by 2031

### The Need for Change

- County and City agreed on the principles
- But what is the nature of that change?
- Incremental, Bold, Radical?

### Deliverability

- Space
- Design
- Politics
- Funding

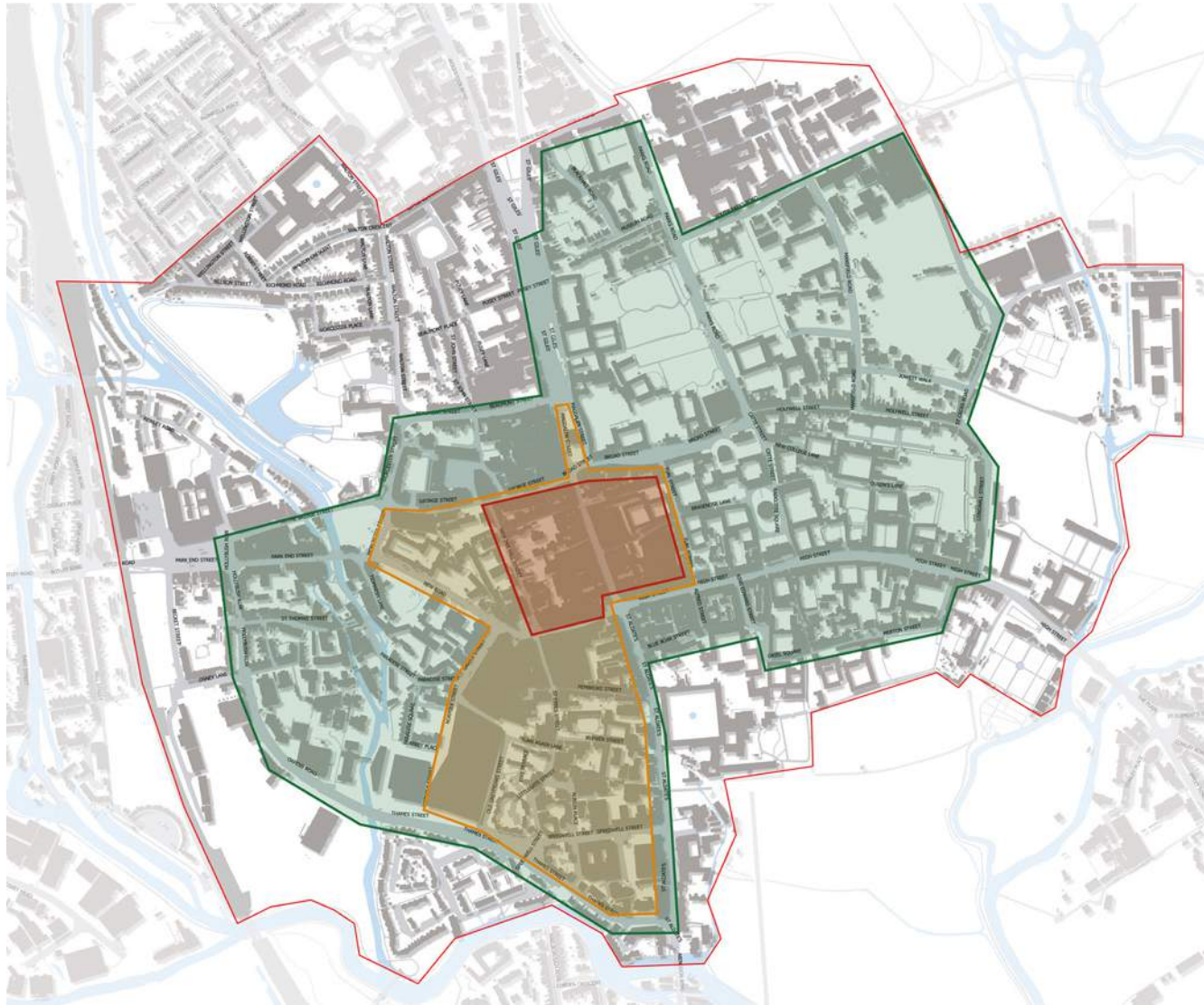


#### Source:

Strategic housing and employment allocations in Oxfordshire in 2031 (SHMA housing growth & Cambridge Econometrics jobs forecast)

# Planning for Growth

## Zero Emissions Zone - Boundary options



### KEY

- Red boundary (by 2020)
- Orange boundary (by 2025)
- Green boundary (by 2035)

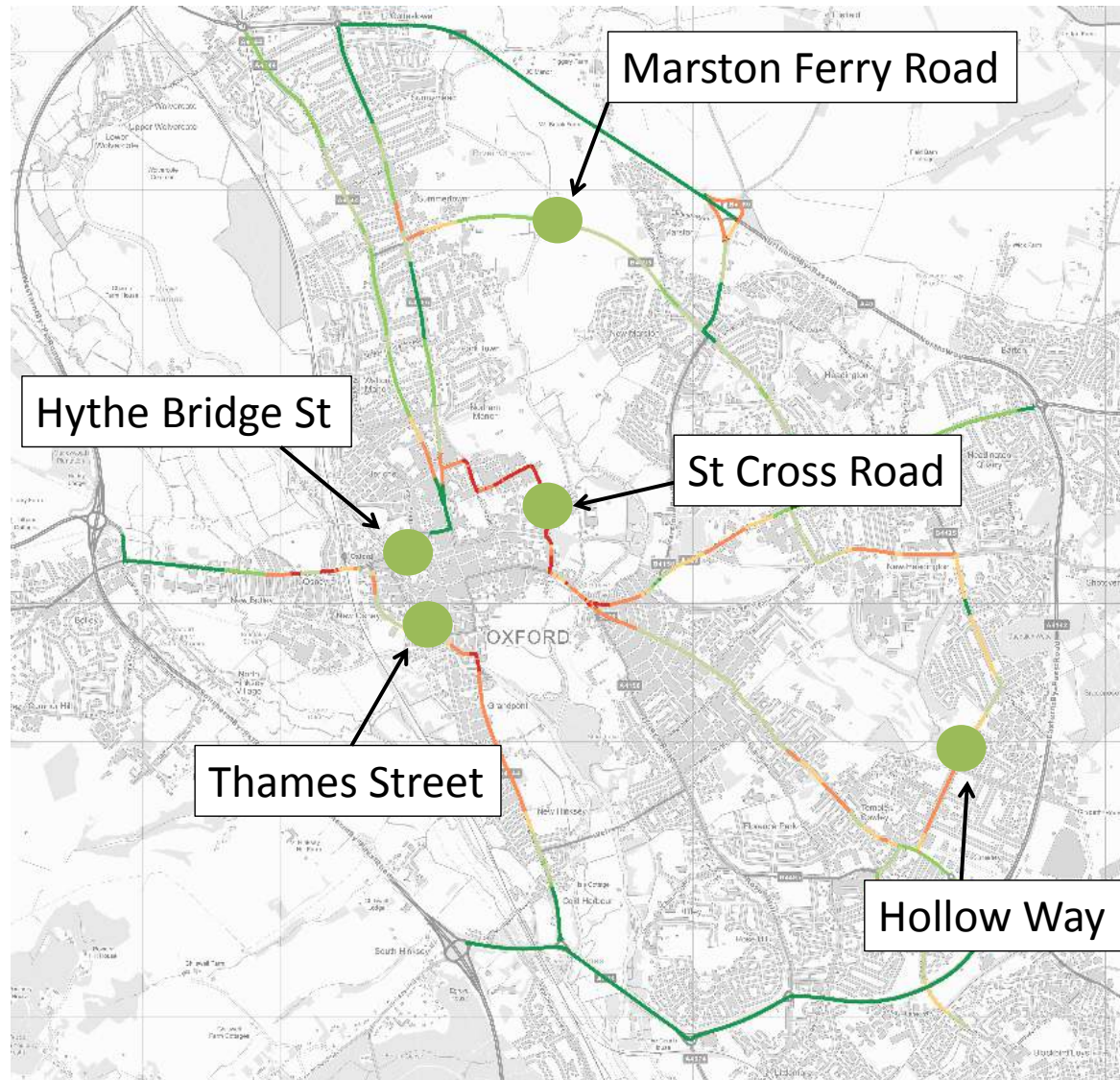
### SUMMARY

- Details of classes of vehicle to be allowed within the proposed zone are to be determined.
- But ambition is zero emission vehicles across whole of the green zone by 2035.



# Planning for Growth

## Access Measures / Congestion Charging / Workplace Parking Levy - OTS Proposals



### ACCESS MEASURES

- In addition to existing 'bus gates' further controls could be introduced (as shown on the plan opposite) which place restrictions on through traffic within the city centre and inner ring road, whilst allowing unimpeded bus, cycle and pedestrian movements.

### CONGESTION CHARGING

- Road user charging could be an alternative option for reducing traffic levels on certain links but unlike access measures would not result in 'complete' road closures.
- If city-wide it could reduce traffic levels over a wider area and has the potential to raise money that would be ring-fenced to improve the local transport network.

### WORK PLACE PARKING LEVY

- A fee charged to employers for spaces used for employee commuter car parking. Its aim is to reduce traffic levels by discouraging commuting by private car. It also provides an incentive for employers to reduce their car parking stock. A WPL would raise money that would be ring-fenced to improve the local transport network, however, on its own it is unlikely to reduce traffic levels significantly and so is being considered alongside access measures.

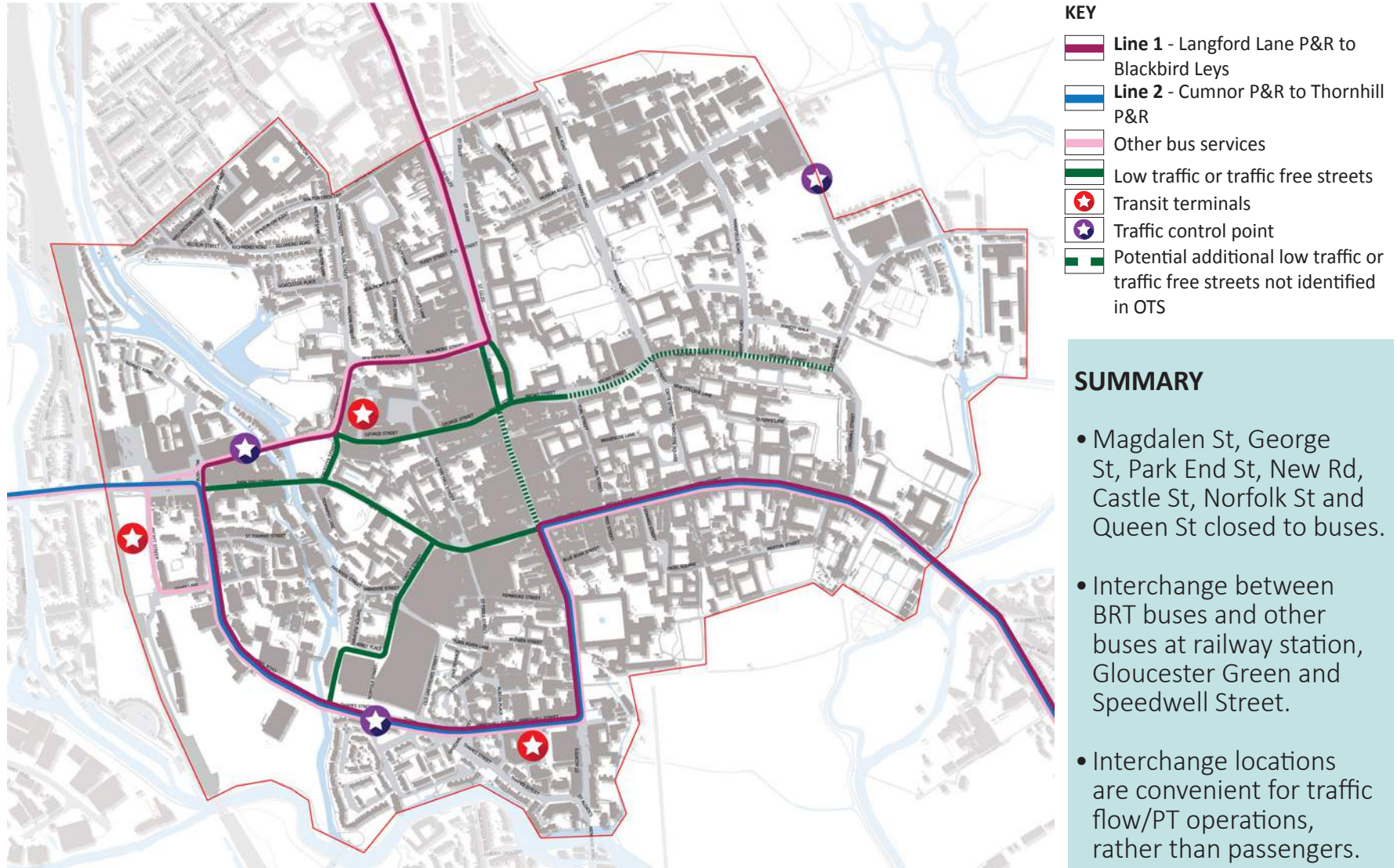


# Evaluation of the Existing Options

Option		Advantages	Disadvantages
Option 1	Option 1 Description	Advantage 1 Advantage 2	Disadvantage 1 Disadvantage 2
Option 2	Option 2 Description	Advantage 3 Advantage 4	Disadvantage 3 Disadvantage 4
Option 3	Option 3 Description	Advantage 5 Advantage 6	Disadvantage 5 Disadvantage 6
Option 4	Option 4 Description	Advantage 7 Advantage 8	Disadvantage 7 Disadvantage 8
Option 5	Option 5 Description	Advantage 9 Advantage 10	Disadvantage 9 Disadvantage 10
Option 6	Option 6 Description	Advantage 11 Advantage 12	Disadvantage 11 Disadvantage 12
Option 7	Option 7 Description	Advantage 13 Advantage 14	Disadvantage 13 Disadvantage 14
Option 8	Option 8 Description	Advantage 15 Advantage 16	Disadvantage 15 Disadvantage 16
Option 9	Option 9 Description	Advantage 17 Advantage 18	Disadvantage 17 Disadvantage 18
Option 10	Option 10 Description	Advantage 19 Advantage 20	Disadvantage 19 Disadvantage 20

# Evaluation

## Oxford Transport Strategy - 2025 Vision



# Evaluation

## Oxford Transport Strategy - 2025 Vision

### Positives

INCLUSIVITY	MOVEMENT	PUBLIC REALM	SAFETY & PUBLIC HEALTH	ECONOMY
<ul style="list-style-type: none"> <li>• Good level of bus penetration into the city.</li> <li>• Small or zero walk distance for bus interchange.</li> <li>• Cornmarket remains pedestrianised.</li> <li>• Queen Street pedestrianised.</li> </ul>	<ul style="list-style-type: none"> <li>• Walk: Improved walking conditions across much of city core on low traffic streets.</li> <li>• Cycling: Improved cycling conditions on low traffic streets.</li> <li>• Long distance coaches still have access to Gloucester Green.</li> <li>• Taxi penetration can remain (depends on traffic control points).</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities for improved public realm across much of the city core on low traffic streets.</li> <li>• Removal of buses from George Street, Magdalen St and Magdalen St East offers opportunity for enhancement.</li> <li>• Opportunity for removal / rationalisation of some bus stops on High Street and St Aldate's around Carfax.</li> </ul>	<ul style="list-style-type: none"> <li>• Queen Street pedestrianised removing conflict with buses</li> </ul>	<ul style="list-style-type: none"> <li>• Servicing can remain (depends on traffic control points) but limited additional servicing facilities.</li> <li>• On-street car parking can remain.</li> </ul>

### Negatives

<ul style="list-style-type: none"> <li>• No bus services in NE of the city centre.</li> <li>• Limited potential to address high levels of pedestrian congestion which would negatively impact on disabled people.</li> <li>• Reduced level of bus penetration compared to existing.</li> <li>• No bus access to Westgate</li> </ul>	<ul style="list-style-type: none"> <li>• Bus: Large volume of buses remain on High St and St Aldates, high congestion and slow travel times will likely remain an issue.</li> <li>• Walk: Key sections of High Street and St Aldate's will still have narrow pavements.</li> <li>• Cycle: no opportunity to improve conditions on High St and St Aldate's</li> </ul>	<ul style="list-style-type: none"> <li>• Limited opportunity to improve overcrowded pavements on High Street and St Aldate's.</li> </ul>	<ul style="list-style-type: none"> <li>• Present level of conflict between buses and cyclist on High Street and St Aldate's remains.</li> <li>• Air quality: Bus layover still in city.</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing pedestrian activity and limited potential for place improvements on main streets impacts attractiveness as a retail and leisure destination.</li> <li>• Limited potential to improve servicing regimen on High Street and St Aldate's.</li> <li>• Retaining car parking limits opportunities for increased cycle parking.</li> </ul>
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# Evaluation

## Alan Baxter Associates - 2025 Vision



### KEY

-  City Centre shuttle
-  Inner Orbital Route
-  BRT - Langford Lane to Cumnor
-  BRT - Thornhill to Blackbird Leys
-  Transit terminal
-  Potential additional low traffic or traffic free streets not identified by Alan Baxter Associates.

### SUMMARY

- BRT routes 'kiss' city centre, at The Plain in the east. Access to core is via walk or interchange to two-way inner orbital route.
- City centre shuttle via Queen Street

# Evaluation

## Alan Baxter Associates - 2025 Vision

### Positives

INCLUSIVITY	MOVEMENT	PUBLIC REALM	SAFETY & PUBLIC HEALTH	ECONOMY
<ul style="list-style-type: none"> <li>• Good level of bus penetration into the city.</li> <li>• Small or zero walk distance for bus interchange.</li> <li>• Shuttle service through along Queen Street.</li> <li>• Cornmarket remains pedestrianised.</li> </ul>	<ul style="list-style-type: none"> <li>• Bus: improved speed and reliability in city.</li> <li>• Walk: Improved walking conditions across much of city core on low traffic streets.</li> <li>• Cycle: quieter city roads, including High Street and St Aldate's</li> <li>• Long distance coaches still have access to Gloucester Green.</li> <li>• Taxi penetration can remain (depends on traffic control points).</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities for improved public realm across much of the city core on low traffic streets.</li> <li>• Opportunity for removal / rationalisation of some bus stops on High Street and St Aldate's around Carfax-&gt; limited opportunity for placed based improvements.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased walk distances by those not wanting to interchange.</li> <li>• Reduced conflict with bus and cycling.</li> </ul>	<ul style="list-style-type: none"> <li>• Servicing can remain (depends on traffic control points) but limited additional servicing facilities.</li> <li>• On-street car parking can remain.</li> <li>• Some opportunity to improve servicing regimen on High Street and St Aldate's.</li> </ul>

### Negatives

<ul style="list-style-type: none"> <li>• Requires interchange to access most of city centre core.</li> <li>• Slight reduction in level of bus penetration compared to existing (assuming interchange)</li> <li>• Limited bus access to Westgate</li> <li>• Limited potential to address high levels of ped congestion which would negatively impact on disabled people.</li> </ul>	<ul style="list-style-type: none"> <li>• Bus interchange required on most journeys to access city.</li> <li>• Not enough space for significant interchange location at Plain roundabout.</li> <li>• Two-way buses on route to NE of city centre difficult to accommodate.</li> <li>• Walk: Key sections of High Street and St Aldate's will still have narrow pavements</li> </ul>	<ul style="list-style-type: none"> <li>• Limited opportunity to improve overcrowded pavements on High Street and St Aldate's.</li> <li>• Limited opportunity for placed based improvements on High Street and St Aldate's.</li> </ul>	<ul style="list-style-type: none"> <li>• Some public transport vehicles remain on Queen Street.</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing pedestrian activity and limited potential for place improvements on main streets impacts attractiveness as a retail and leisure destination.</li> <li>• Retaining car parking limits opportunities for increased cycle parking.</li> </ul>
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**What opportunities have we identified for Oxford?**



# Emerging Options

## Key Design Principles for 2025

INCLUSIVITY	MOVEMENT	PUBLIC REALM	SAFETY & PUBLIC HEALTH	ECONOMY
<ul style="list-style-type: none"><li>• Improving wayfinding through design</li><li>• More places to sit / rest</li><li>• Greater extent of level surfaces</li></ul>	<ul style="list-style-type: none"><li>• Maximising space for pedestrian movement</li><li>• Encouraging movement by the most appropriate mode for the journey and the place.</li><li>• Providing direct transit journeys (bus/ RT) to destinations.</li><li>• Creating efficient reliable journey times to / through Oxford.</li><li>• Realise potential for significant increase in cycling.</li><li>• Improvements needed in advance of potential radical change to public transport vehicles.</li></ul>	<ul style="list-style-type: none"><li>• Rationalising the use of highway space</li><li>• Creating more spaces and places for dwelling and activity</li><li>• Minimising street clutter</li><li>• Removal of traffic signals where possible.</li></ul>	<ul style="list-style-type: none"><li>• Increasing safety for all modes.</li><li>• Simplifying junction and link conflicts and operations</li></ul>	<ul style="list-style-type: none"><li>• Introduction of a Controlled Parking Zone – extent for discussion.</li><li>• Reduction in car parking</li><li>• Significant increase in cycle parking</li><li>• Maintain servicing to retail and business premises</li><li>• Encourage more sustainable servicing arrangements including cycle freight</li></ul>

## Emerging Options

### Potential Street Typologies

#### **PUBLIC TRANSPORT STREETS (TWO WAY)**

- Limited potential for placed based improvements (due to street width constraints).
- Rationalising bus stops will maximise space reallocation.
- Limited space for cycle and servicing infrastructure

#### **PUBLIC TRANSPORT STREETS (ONE WAY)**

- Introduce new one-way routeing for BRT and other bus services.
- Road space reallocation.
- Introduce new two-way cycle track
- Introduce new central loading pads / taxi waiting / cycle parking
- Use one-way routeing wherever possible.

#### **ACCESS STREETS**

- Simple streets with footway and carriageway
- Minimise carriageway width
- High quality materials at least on the footways

#### **PEDESTRIAN PRIORITY STREETS**

- Introduction of new pedestrian priority streets based on Zones de Recontre.
- High quality materials across the full width

# Street Typologies

## Precedent images - Public Transport Streets (two way)

Metz



Strasbourg



### KEY PRINCIPLES

- Limited potential for placed based improvements (due to street width constraints).
- Rationalising bus stops will maximise space reallocation.
- Limited space for cycle infrastructure



# Street Typologies

## Precedent images - Public Transport Streets (one way)

Bilbao



Peckam



Preston



Gloucester



### KEY PRINCIPLES

- Introduce new one-way routing for BRT and other bus services.
- Road space reallocation:
  - Introduce new two-way cycle track
  - Introduce new central loading pads / taxi waiting / cycle parking
- Use one-way routing wherever possible.

# Street Typologies

## Precedent images - Access Streets

Gloucester



Poynton



### KEY PRINCIPLES

- Simple streets with footway and carriageway
- Minimise carriageway width
- High quality materials at least on the footways

Tower Hamlets



Vienna





# Street Typologies

## Precedent images - Pedestrian Priority Streets

Freistadt



Chester



Linz



Caernarfon



### KEY PRINCIPLES

- Introduction of new pedestrian priority streets based on Zones de Rencontre.
- High quality materials across the full width



# Street Typologies

## Broad Street

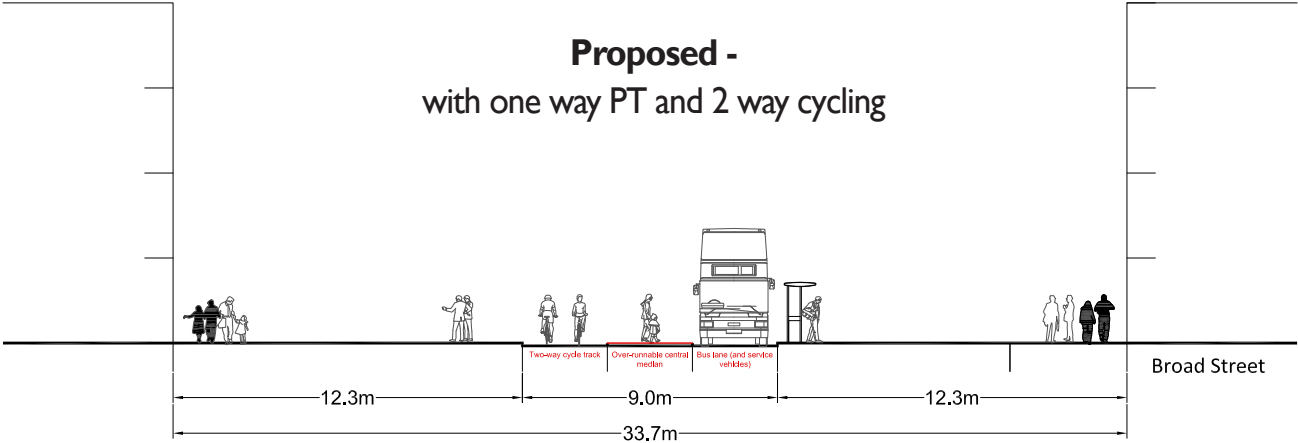
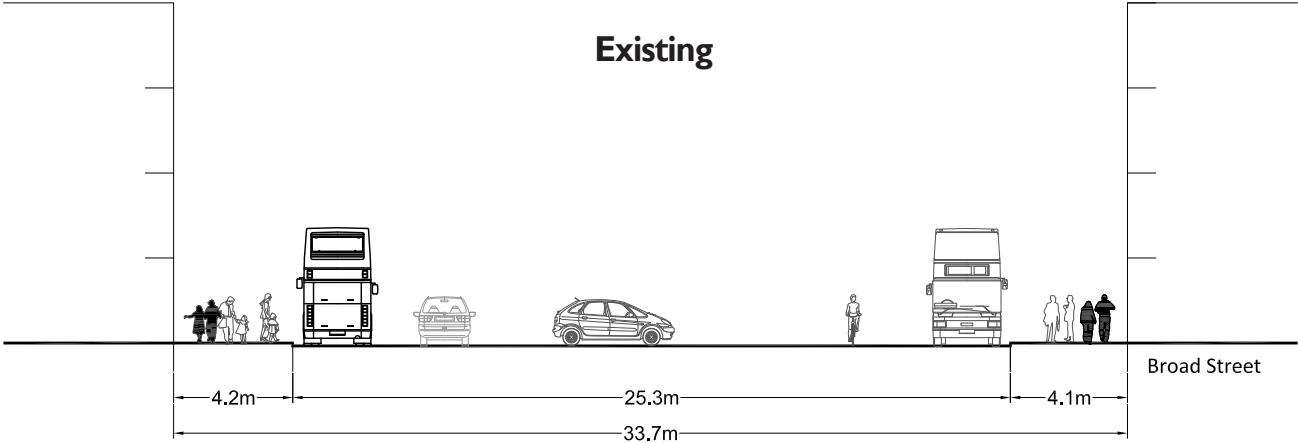


### SUMMARY

- Remove on street car parking
- Introduce new one way PT corridor
- Introduce two way cycle route
- Potential for significant public realm enhancement
- Significant demand for cycle parking.
- Key heritage constraints.

# Street Typologies

## Broad Street



# Street Typologies

## High Street



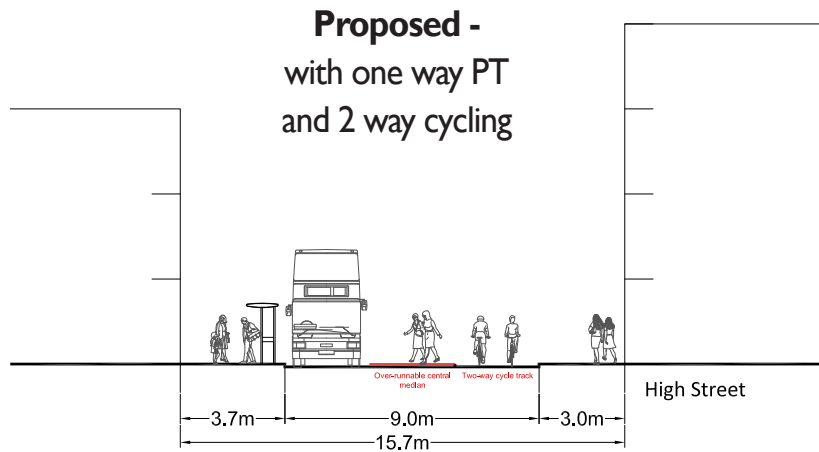
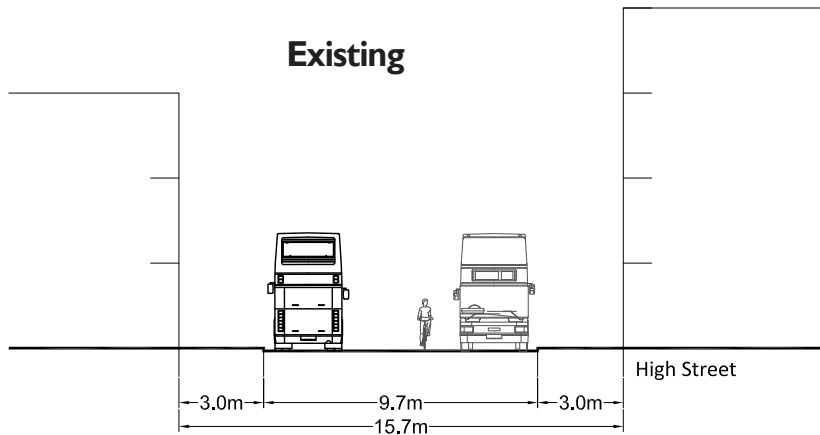
### SUMMARY

- Introduce new one way PT corridor
- Introduce two way cycle route
- Potential for significant public realm enhancement



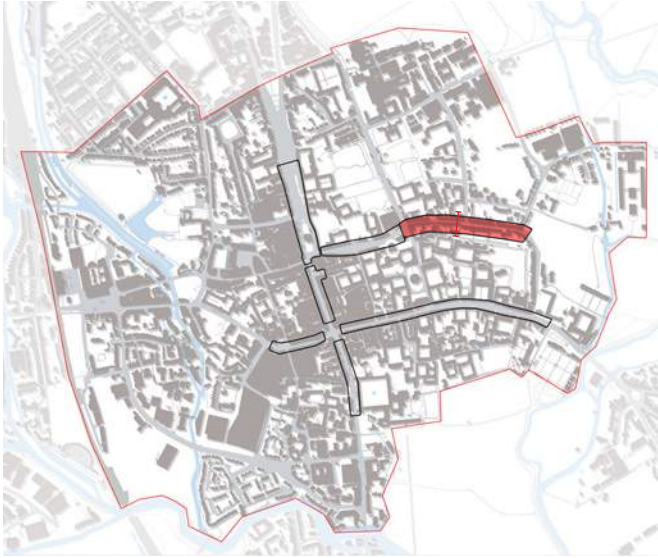
# Street Typologies

## High Street



# Street Typologies

## Holywell Street

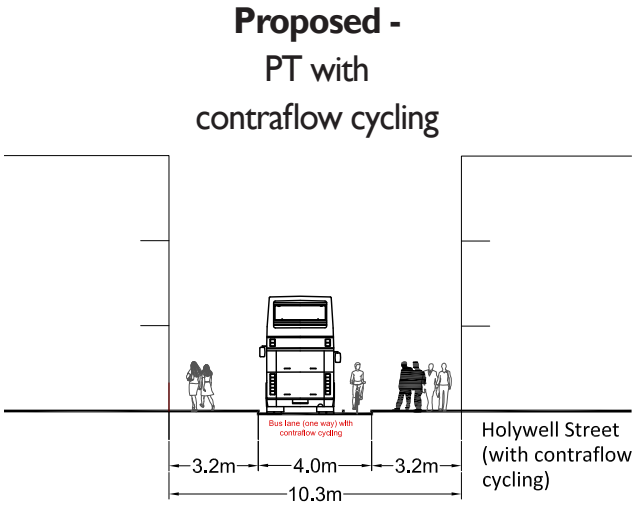
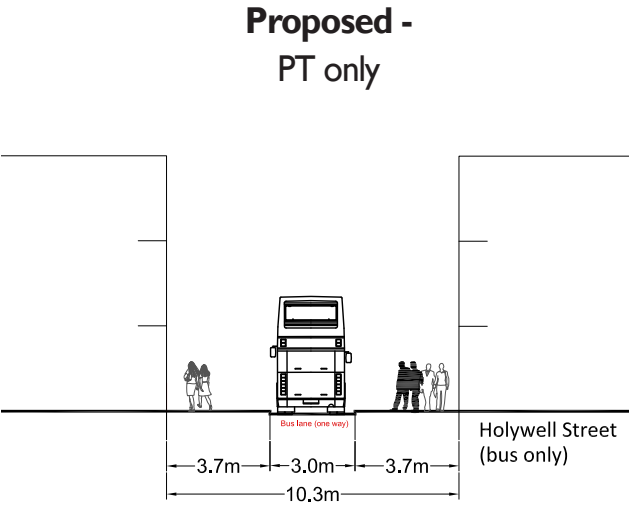
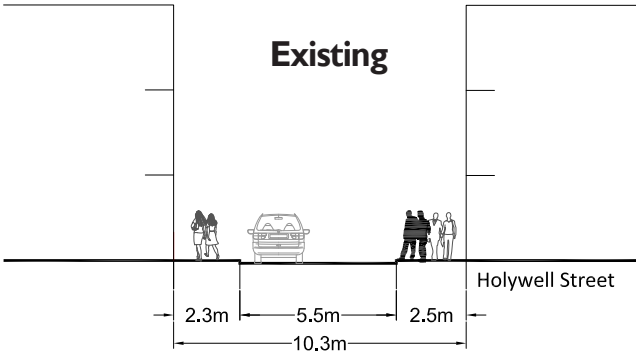


### SUMMARY

- Introduce new one way PT corridor
- Introduce contraflow cycle route
- Generally traffic already removed with current restrictions but will need to consider / relocate deliveries / servicing.
- Potential for significant public realm enhancement
- Significant demand for cycling to colleges / university.
- Key heritage constraints.

# Street Typologies

## Holywell Street





# Street Typologies

## Magdalen Street

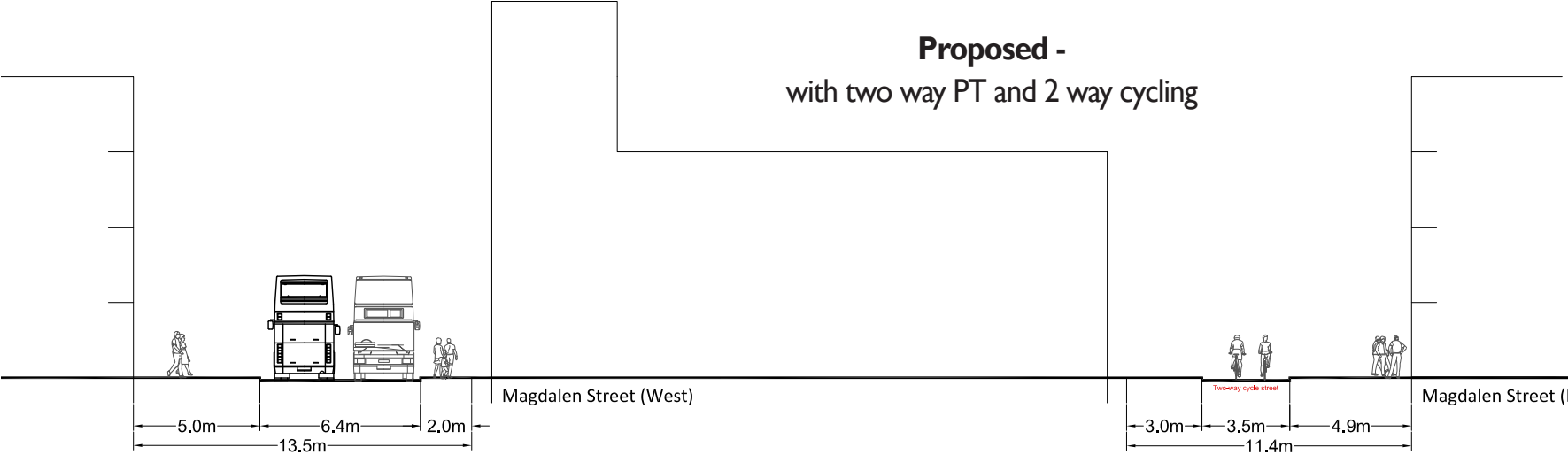
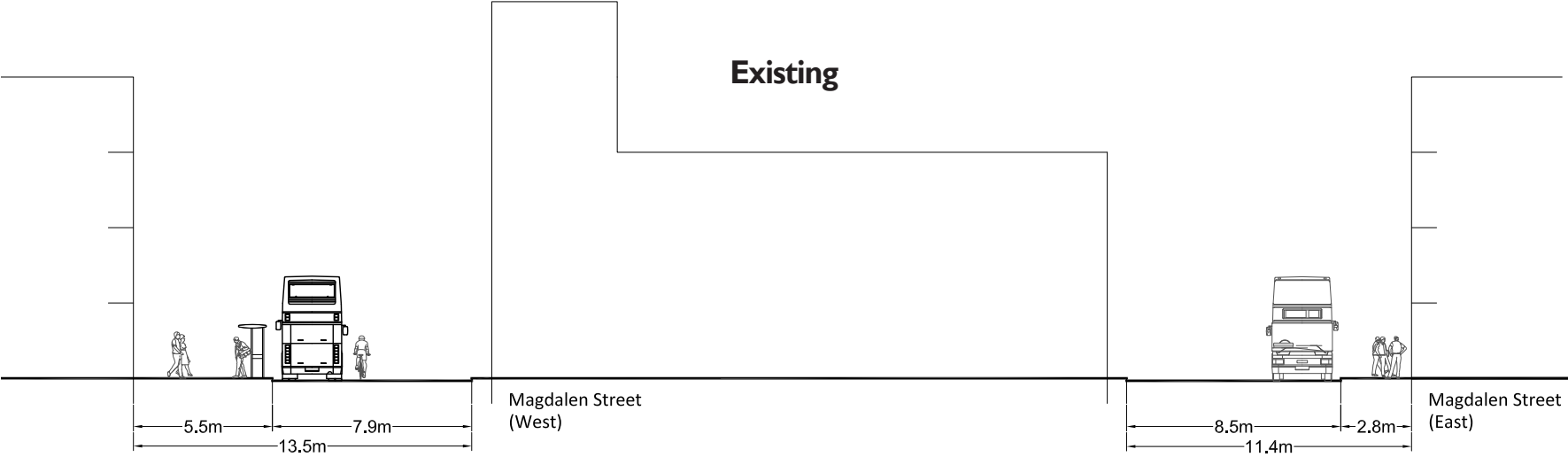


### SUMMARY

- Removal of general traffic- zero emission zone / traffic control points.
- Pedestrianise Magdalen Street East adjacent to St Mary Magdalen Church
- Introduce new one way PT corridor
- Introduce contraflow cycle route
- Generally traffic already removed with current restrictions but will need to consider / relocate deliveries / servicing.
- Potential for significant public realm enhancement

# Street Typologies

## Magdalen Street





# Street Typologies

## St Aldate's



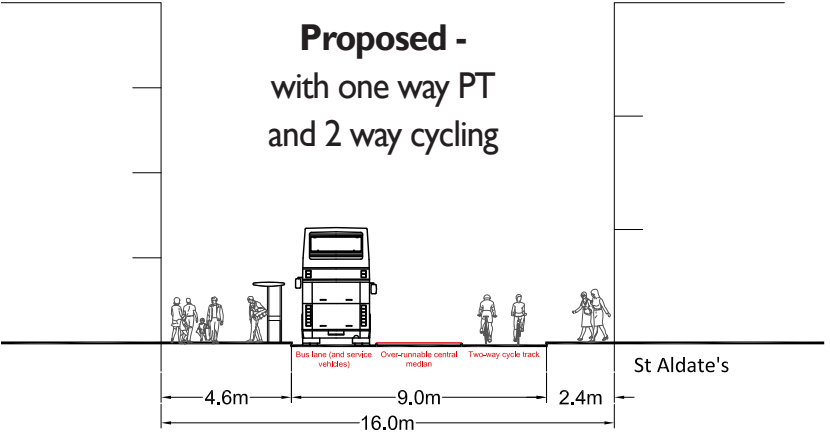
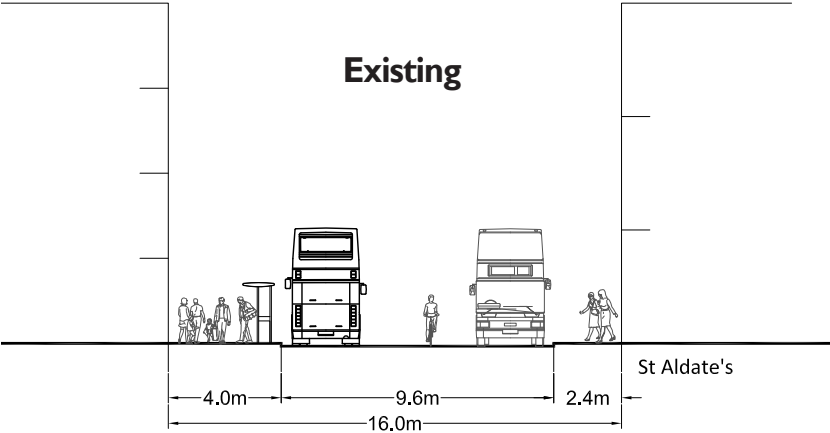
### SUMMARY

- Removal of general traffic- zero emission zone / traffic control points.
- Introduce new one way PT corridor
- Introduce contraflow cycle route
- Generally traffic already removed with current restrictions but will need to consider / relocate deliveries / servicing.
- Potential for significant public realm enhancement



# Street Typologies

## St Aldate's



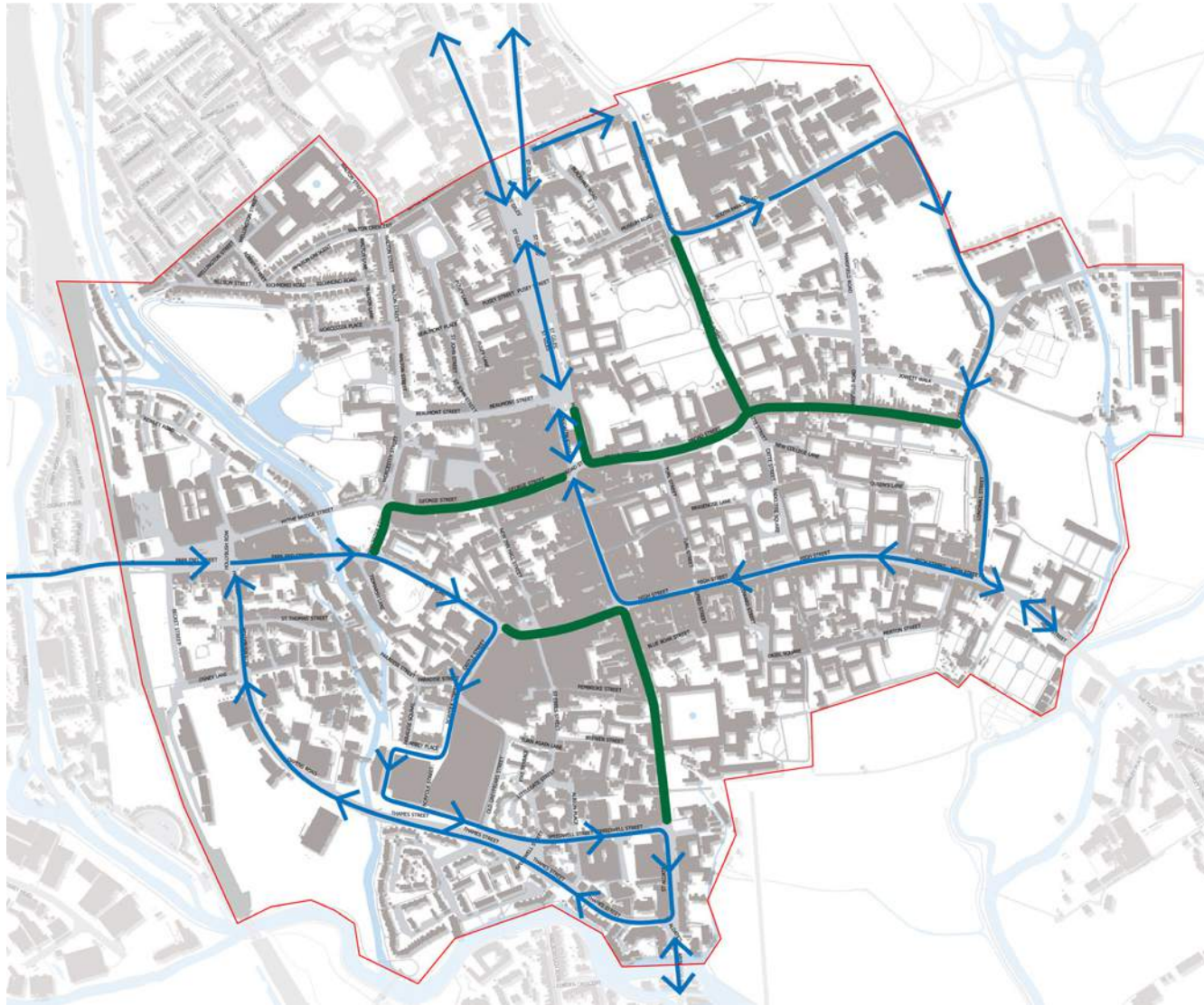
## Emerging Options

### Potential Movement Strategies

- **Option 1** - Two loop system (outer)
- **Option 2** - Two loop system (inner)
- **Option 3** - One way system (around the city)

# Emerging Options

## Option I - Two loop system (outer)



### KEY

- Bus movements
- Pedestrian priority

### ASSUMPTIONS

- Zero emissions zone
- Traffic control points

### SUMMARY

- Two one-way bus loops including section serving north east city centre.
- Maintains two-way cycling on one-way streets.
- Magdalen Street East, George Street, Worcester Street, Queen Street and St Aldate's closed to buses. Pedestrian priority on Broad Street.



# Evaluation

## Option I - Two loop system (outer)

### Positives

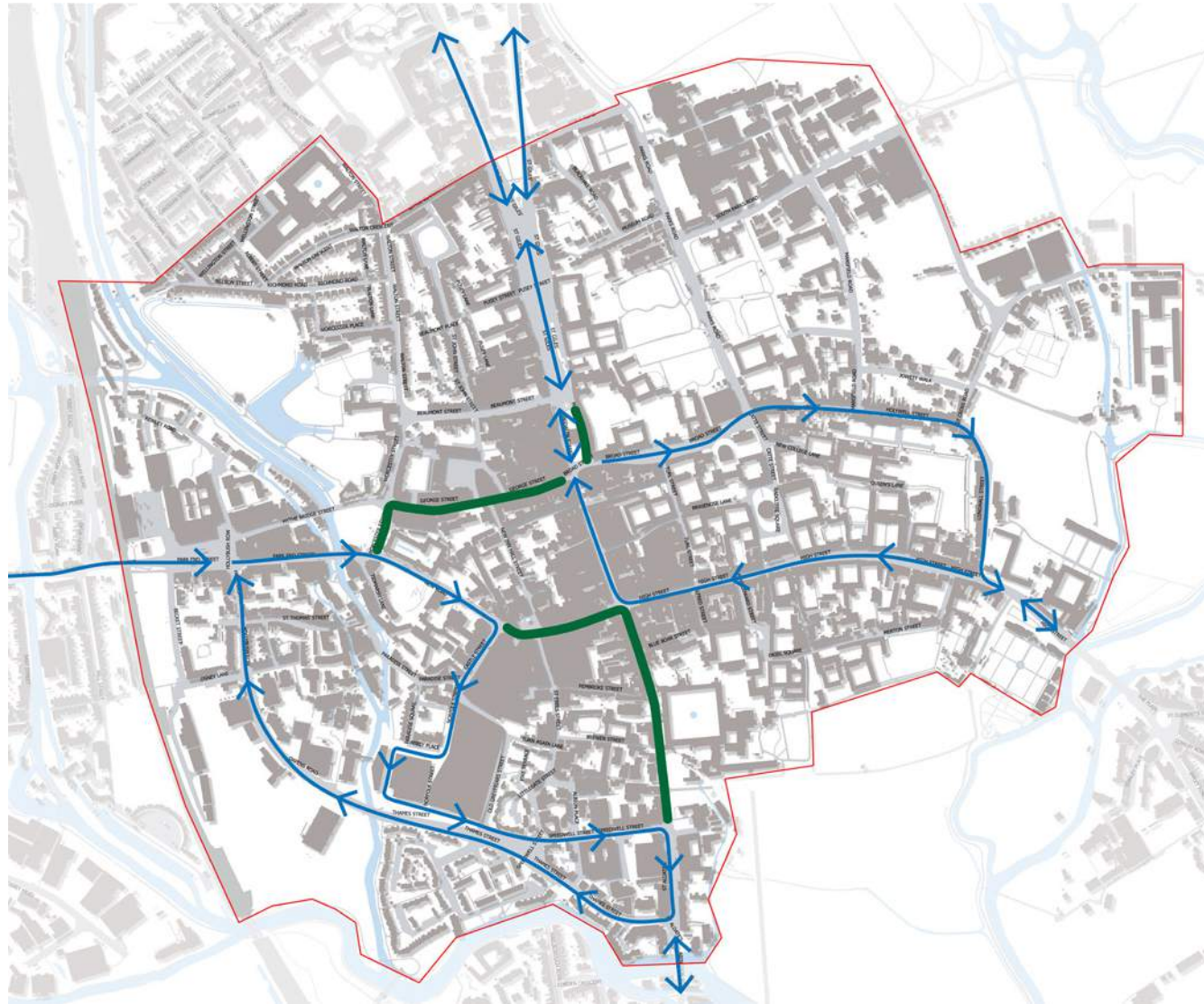
INCLUSIVITY	MOVEMENT	PUBLIC REALM	SAFETY & PUBLIC HEALTH	ECONOMY
<ul style="list-style-type: none"> <li>• High level of bus penetration into the city.</li> <li>• Small walk distance for bus interchange.</li> <li>• Greater pavement width on a number of streets allows for improved space for walking and more potential for rest areas (seating).</li> <li>• Queen Street and northern end of St Aldate's pedestrian priority.</li> </ul>	<ul style="list-style-type: none"> <li>• Bus: improved speed and reliability. Improved bus access to NE city centre and N-E and S-W cross city movement now possible.</li> <li>• Cycling: two way cycling on all one way routes.</li> <li>• Walk: higher volume of walking space with wider pavements.</li> <li>• Walk: reduced number of blocked pavements through crowding from bus stops.</li> <li>• Walk: Queens street / outside Westgate entrance now pedestrian priority.</li> <li>• General traffic: all movements still available.</li> </ul>	<ul style="list-style-type: none"> <li>• Queen Street and northern end of St Aldate's pedestrian priority.</li> <li>• Greater pavement width on a number of streets allows for improved space for walking and more potential for rest areas (seating).</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced conflict between cycles and buses</li> <li>• Queen Street / Westgate main entrance now pedestrian priority.</li> <li>• Reduced conflict with buses on High Street and St Aldate's.</li> </ul>	<ul style="list-style-type: none"> <li>• Long distance coaches can still access city.</li> <li>• Tourist coaches to be allowed to circulate on bus routes with dedicated drop off areas.</li> <li>• Servicing should remain as is, with parking pads in key locations to keep them from blocking one way bus routes.</li> <li>• Significant increase in cycle parking due to narrowed carriageways and some car parking removal.</li> </ul>

### Negatives



<ul style="list-style-type: none"> <li>• Some movements still not easily catered for by bus.</li> <li>• Cornmarket opened up for buses.</li> <li>• Reduced accessibility to centre compared to inner loop.</li> </ul>	<ul style="list-style-type: none"> <li>• Bus: Reduced space for layover, this will need to take place outside city (other end of route).</li> <li>• Walk: Cornmarket now has buses running along it reducing capacity.</li> <li>• No interchange between buses serving east Oxford and rail / coach stations.</li> </ul>	<ul style="list-style-type: none"> <li>• Cornmarket opened up for buses.</li> </ul>		<ul style="list-style-type: none"> <li>• Tourist coach dwell areas will need investigating.</li> <li>• Bus layover moved out of city.</li> <li>• Removal of some city centre on-street car parking.</li> </ul>
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# Emerging Options

## Option 2 - Two loop system (inner)



### KEY

-  Bus movements
-  Pedestrian priority

### ASSUMPTIONS

- Zero emissions zone
- Traffic control points

### SUMMARY

- Two one-way bus loops, eastern loop closer into city centre along Broad Street and Holywell Street.
- Maintains two-way cycling on one-way streets.
- Magdalen Street East, George Street, Worcester Street, Queen Street and St Aldate's closed to buses.

# Evaluation

## Option 2 - Two loop system (inner)

### Positives

INCLUSIVITY	MOVEMENT	PUBLIC REALM	SAFETY & PUBLIC HEALTH	ECONOMY
<ul style="list-style-type: none"> <li>• High level of bus penetration into the city.</li> <li>• Small walk distance for bus interchange.</li> <li>• Greater pavement width on a number of streets allows for improved space for walking and more potential for rest areas (seating).</li> <li>• Queen Street and northern end of St Aldate's pedestrian priority.</li> </ul>	<ul style="list-style-type: none"> <li>• Bus: improved speed and reliability. Improved bus access to NE city centre and N-E and S-W cross city movement now possible.</li> <li>• Cycling: two way cycling on all one way routes.</li> <li>• Walk: higher volume of walking space with wider pavements.</li> <li>• Walk: reduced number of blocked pavements through crowding from bus stops.</li> <li>• Walk: Queens street / outside Westgate entrance now pedestrian priority.</li> <li>• General traffic: all movements should still be available.</li> </ul>	<ul style="list-style-type: none"> <li>• Queen Street and northern end of St Aldate's pedestrian priority.</li> <li>• Greater pavement width on a number of streets allows for improved space for walking and more potential for rest areas (seating).</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced conflict between cycles and buses</li> <li>• Queen Street / Westgate main entrance now pedestrian priority.</li> <li>• Reduced conflict with buses on High Street and St Aldate's.</li> </ul>	<ul style="list-style-type: none"> <li>• Tourist coaches to be allowed to circulate on bus routes with dedicated drop off areas.</li> <li>• Servicing should remain as is, with parking pads in key locations to keep them from blocking one way bus routes.</li> <li>• Significant increase in cycle parking due to narrowed carriageways and some car parking removal.</li> </ul>

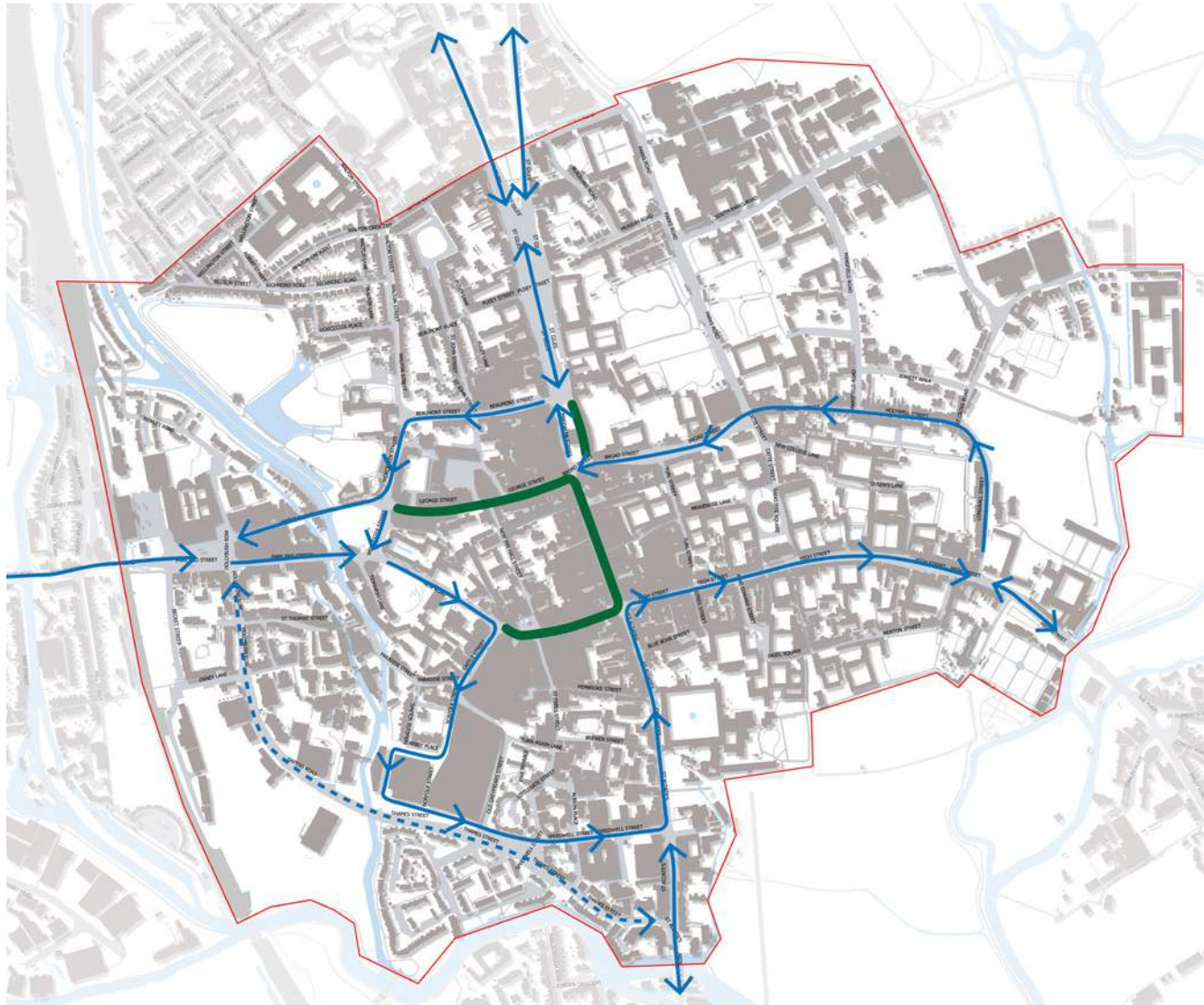
### Negatives

<ul style="list-style-type: none"> <li>• Some movements still not easily catered for by bus.</li> <li>• Cornmarket opened up for buses.</li> </ul>	<ul style="list-style-type: none"> <li>• Bus: Reduced space for layover, this will need to take place outside city (other end of route).</li> <li>• Walk: Cornmarket now has buses running along it reducing capacity.</li> <li>• No interchange between buses serving east Oxford and rail / coach stations.</li> </ul>	<ul style="list-style-type: none"> <li>• Cornmarket opened up for buses.</li> <li>• Broad Street and Holywell Street used by one-way buses (but large areas of pedestrian space created).</li> </ul>		<ul style="list-style-type: none"> <li>• Tourist coach dwell areas will need investigating.</li> <li>• Bus layover moved out of city.</li> <li>• Removal of some city centre on-street car parking.</li> </ul>
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## Emerging Options

### Option 3 - One way system (around the city)



#### KEY

-  Bus movements
-  Pedestrian priority

#### ASSUMPTIONS

- Zero emissions zone
- Traffic control points

#### SUMMARY

- One-way bus loop around the whole city centre.
- Maintains two-way cycling on one-way streets.
- Magdalen Street East, George Street and Queen Street closed to buses.

# Evaluation

## Option 3 - One way system (around the city)

### Positives

INCLUSIVITY	MOVEMENT	PUBLIC REALM	SAFETY & PUBLIC HEALTH	ECONOMY
<ul style="list-style-type: none"> <li>• High level of bus penetration into the city.</li> <li>• Higher chance of getting closer to your destination by bus than existing.</li> <li>• Small walk distance for bus interchange.</li> <li>• Greater pavement width on a number of streets allows for improved space for walking and more potential for rest areas (seating).</li> <li>• Queen Street and Cornmarket Street pedestrian priority.</li> </ul>	<ul style="list-style-type: none"> <li>• Bus: improved speed and reliability.</li> <li>• Bus: cross city movement now possible.</li> <li>• Cycling: two way cycling on all one way routes.</li> <li>• Walk: higher volume of walking space with wider pavements.</li> <li>• Walk: reduced number of blocked pavements through crowding from bus stops.</li> <li>• Walk: Queens street / outside Westgate entrance now pedestrian priority.</li> <li>• General traffic: all movements should still be available.</li> <li>• Survey results: Works with analysis of key movements</li> </ul>	<ul style="list-style-type: none"> <li>• Queen Street and northern end of St Aldate's pedestrian priority.</li> <li>• Greater pavement width on a number of streets allows for improved space for walking and more potential for rest areas (seating).</li> <li>• Creates legible network of pedestrian priority street across the entire city centre core.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced conflict between cycles and buses.</li> <li>• Queen Street / Westgate main entrance now pedestrian priority.</li> <li>• Reduced conflict with buses on High Street and St Aldate's.</li> </ul>	<ul style="list-style-type: none"> <li>• Tourist coaches to be allowed to circulate on bus routes with dedicated drop off areas.</li> <li>• Servicing should remain as is, with parking pads in key locations to keep them from blocking one way bus routes.</li> <li>• Significant increase in cycle parking due to narrowed carriageways and some car parking removal.</li> </ul>

### Negatives

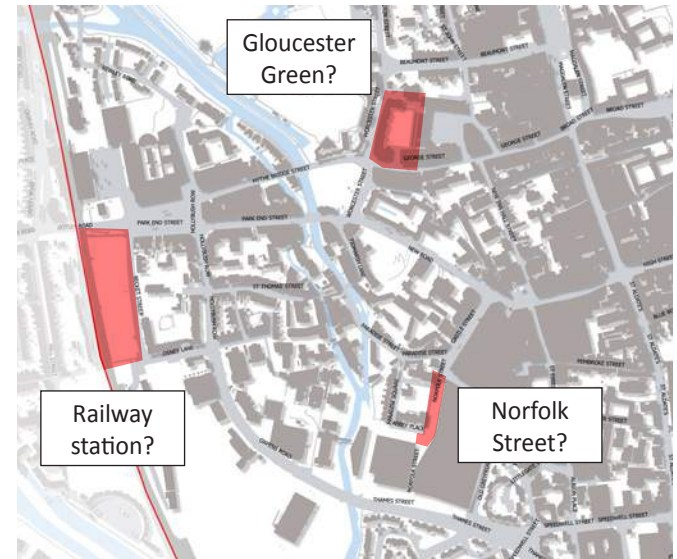
	<ul style="list-style-type: none"> <li>• Bus: Reduced space for layover, this will need to take place outside city (other end of route)</li> <li>• Some bus movements may be longer and appear circuitous, putting people off.</li> </ul>	<ul style="list-style-type: none"> <li>• Broad Street and Holywell Street used by one-way buses (but large areas of pedestrian space created).</li> </ul>		<ul style="list-style-type: none"> <li>• Tourist coach dwell areas will need investigating.</li> <li>• Bus layover moved out of city.</li> <li>• Removal of some city centre on-street car parking.</li> </ul>
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## Site Specific Issues

### For consideration

#### Long distance coaches

- Gloucester Green is undesirable for high numbers of large vehicles to penetrate the city core (i.e. Oxford Tube / airport buses).
- Relocating scheduled long distance coaches provides a major opportunity for improvement
- Potential relocation options:
  - Railway station?
  - Norfolk Street?
  - Park and ride site(s)?





## Emerging Options

### Key questions for ODRP

- Do you agree with our conclusions on the existing options (i.e. OTS / Alan Baxter)
- Are our design principles and street typologies appropriate for Oxford?
- Are there any other traffic management options that you think need to be considered?
- What are your views on the options we have assessed?
- Do the 4 questions above represent a good way to engage with stakeholders on the 12th December?

