

## Appendix C - PT & AT Workshop Slides

# A720 Sheriffhall Roundabout

**Public Transport & Active Travel  
Technical Workshop**

**06 August 2020**

# Safety Moment

## Follow our five rules for safer travel



Don't travel if you feel unwell



Avoid these main commuting times



Don't board if you think it's not safe



Cover your face and maintain physical distancing



Be patient, most seats need to be empty



# Welcome

# Workshop Agenda

- Introduction
  - o Scheme Background
  - o The Sheriffhall Roundabout Scheme
- Part 1 – Public Transport Review
  - o Existing Public Transport Provision
  - o Bus Prioritisation Review
  - o Tram Feasibility Review
- \*\*\*\* Break \*\*\*\*
- Part 2 – Active Travel Review
  - o Existing Active Travel Provision
  - o Proposed Active Travel Provision
  - o Active Travel Provision Review
- Public Transport & Active Travel Review Summary
- Next Steps

## Introductions

- Transport Scotland
- AECOM
- City of Edinburgh Council
- East Lothian Council
- Fife Council
- Midlothian Council
- Scottish Borders Council
- SEStran
- West Lothian Council

## Housekeeping

To ensure the Workshop runs as smoothly as possible, please:

- Turn your camera off
- Keep your line on mute
- Raise your hand if you have a question
- Opportunities for discussion will be given throughout the Workshop





# Introduction

## Scheme Background

- The A720 Sheriffhall Roundabout scheme aims to alleviate the significant delays that currently occur at the at-grade Sheriffhall Roundabout on the A720, particularly during peak hours.
- The proposed scheme will upgrade the Sheriffhall Roundabout to a grade separated junction. This will include enlarging the roundabout to include eight arms, the realignment of the A720 dual carriageway and of the four side roads, and the provision of grade separated routes for Non-Motorised Users (NMU).
- DMRB Scheme Assessment Stages 1, 2 and 3 complete.
- Draft (Road and Compulsory Purchase) Orders and Environmental Statement (ES) published in December 2019.
- Statutory process ongoing.

# The Proposed Scheme Layout



The proposed scheme will upgrade the Sheriffhall Roundabout to a grade separated junction:

- A720 City of Edinburgh Bypass to be realigned over a length of 1.6km.
- Sheriffhall Roundabout to be enlarged to become a 8-arm roundabout.
- All side roads to be realigned to tie into the enlarged roundabout.
- Grade separated routes for Non-Motorised Users (NMU) to be provided to allow safe crossing of the junction.

# The Proposed Scheme Layout



*Visualisation of the Proposed Scheme  
looking east along the A720*

## Purpose of Workshop

Following the representations (including objections) received, and the Edinburgh and South-East Scotland City Region Deal (ESESCRD) meeting attended by Transport Scotland in February 2020, it was agreed:

- The Proposed Scheme would be reviewed to see whether further improvements to active travel and public transport facilities would be feasible, whilst not creating additional impacts for local landowners, residents and businesses.
- A technical stakeholder workshop would be held to discuss the findings of the review, with technical officers from all local authority City Region Deal partners in attendance.

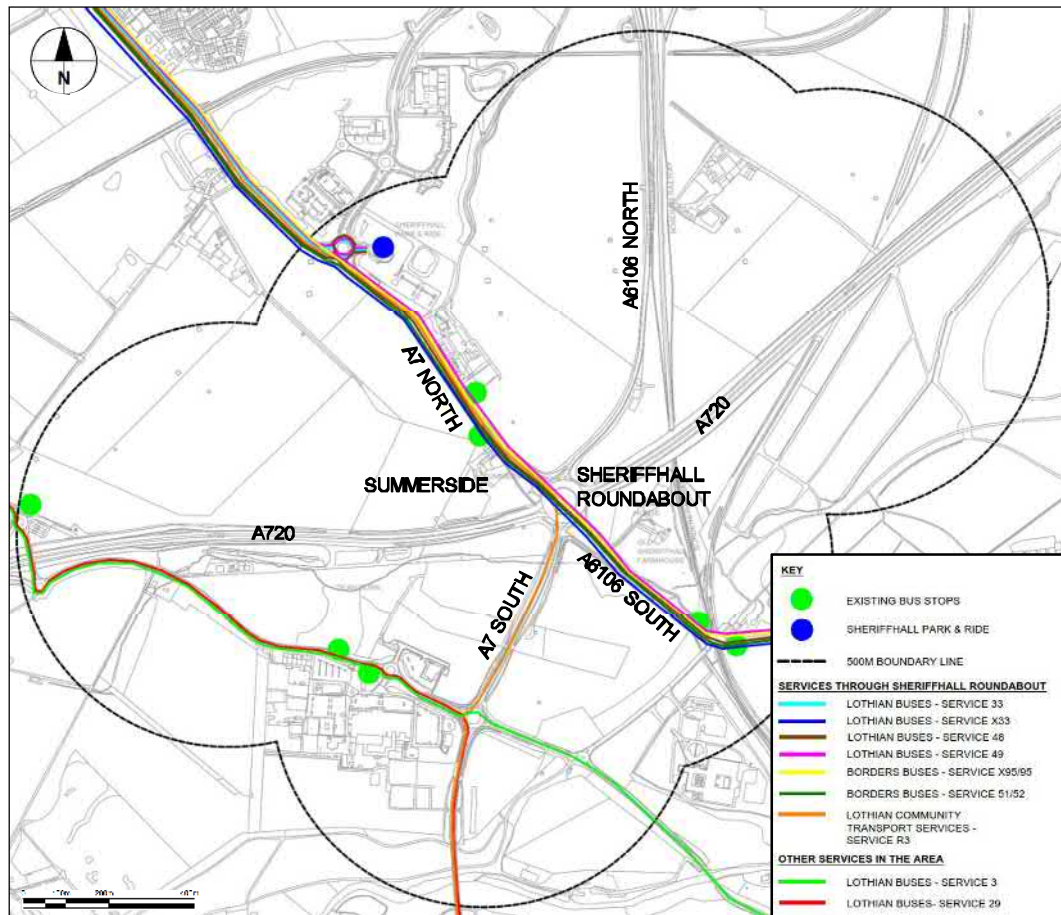
**Any questions?**

# Part 1 – Public Transport Review

# Existing Public Transport Provision



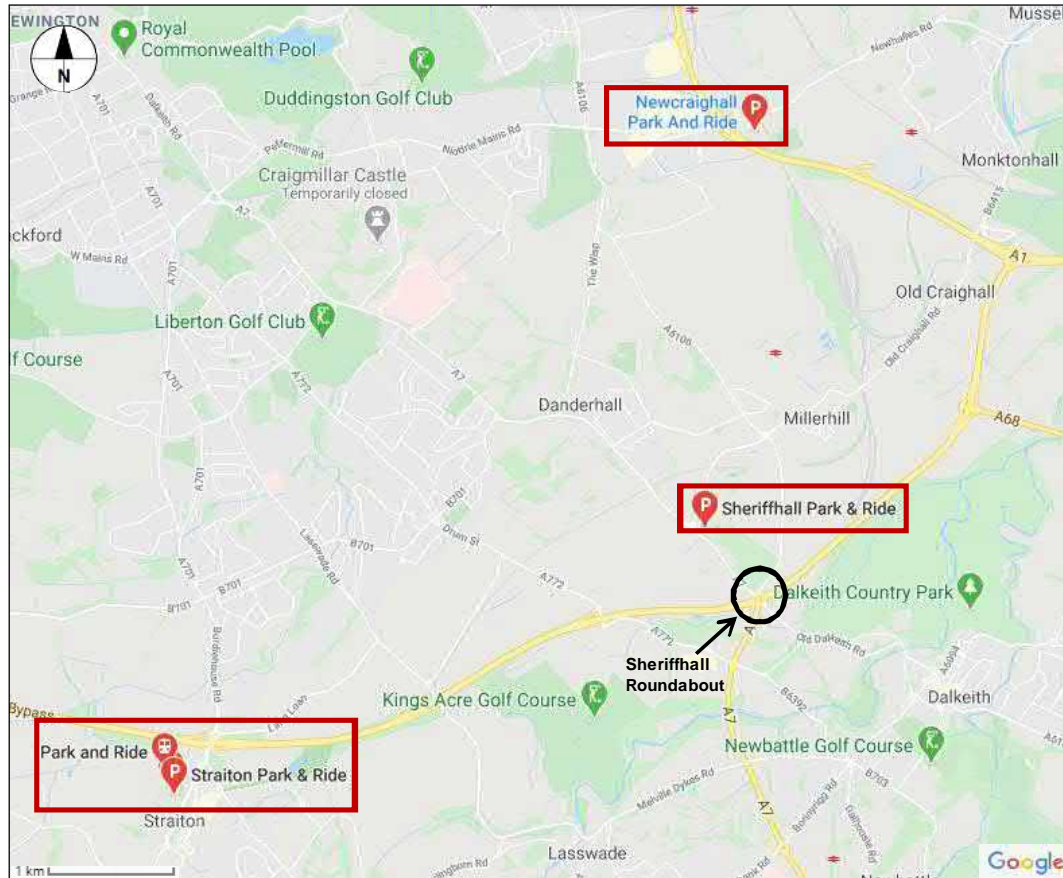
# Existing Public Transport Provision



## Existing Bus Services

Operator	Service	Route
Lothian Buses	3	Clovenstone - Mayfield
	29	Silverknowes - Gorebridge
	33 X33	Wester Hailes – Sheriffhall Park & Ride Edinburgh – Newtongrange
	48	Gorebridge – Royal Infirmary
	49	Rosewell – Fort Kinnaird
Borders Buses	51/52	Jedburgh to Edinburgh via St Boswells, Earlston, Lauder, Oxton, Pathhead
	95A, X95	Edinburgh to Carlisle via Newtongrange, Galashiels, Selkirk, Hawick, Langholm
Lothian Community Transport Services	R3	Dalkeith, Danderhall, Newton Village, Millerhill, ASDA (The Jewel)

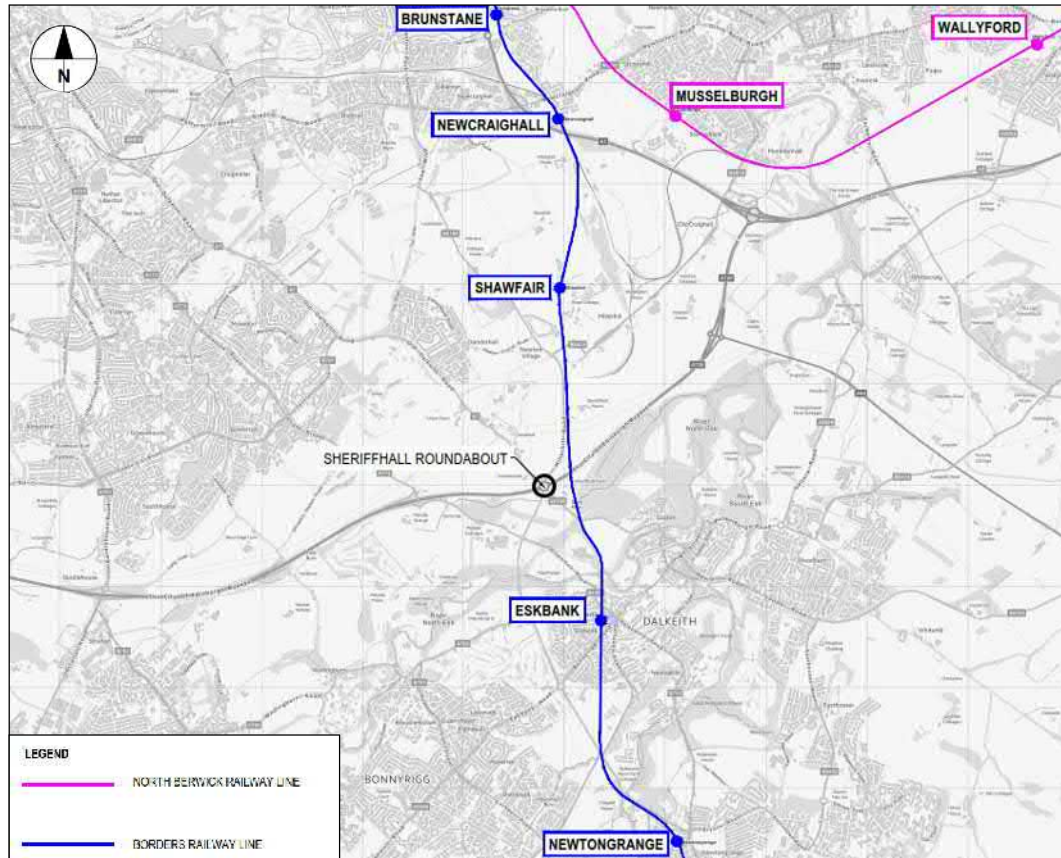
# Existing Public Transport Provision



Park & Ride facilities within 5km of the scheme:

- Sheriffhall Park & Ride
- Newcraighall Park & Ride (3.7km north of Sheriffhall Roundabout)
- Straiton Park & Ride (4.9km west of Sheriffhall)

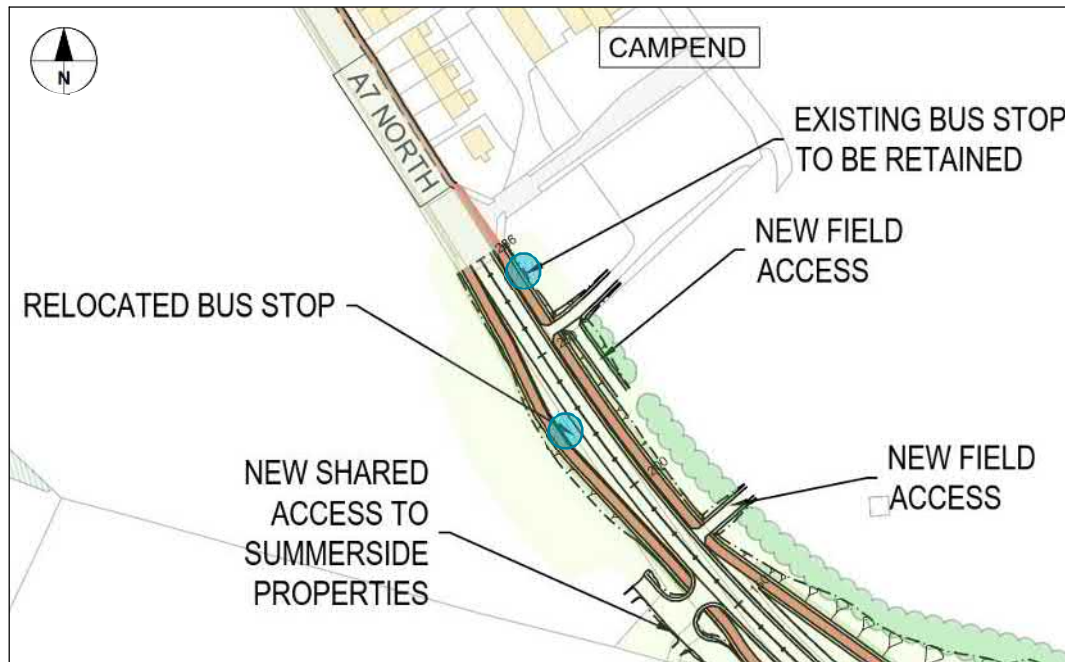
# Existing Public Transport Provision



Rail Services within 5km of Sheriffhall:

- Borders Railway line between Edinburgh (Waverley) and Tweedbank
- North Berwick Railway line between Edinburgh (Waverly) and North Berwick

# Effect of the Proposed Scheme on Public Transport



- Like-for-like provision: no dedicated bus lanes or additional bus stops in current design.
- Existing bus stop on A7 North northbound relocated approximately 110m north of its current location.
- Existing bus stop on A7 North southbound to be retained at its current location
- No direct impact on Rail or Park & Ride facilities.
- Local traffic (including bus services) will benefit from improved traffic conditions on local roads due to separation between strategic and local traffic.

# Operational Effects of the Proposed Scheme



## A720 Corridor

### Key Junctions and Primary Traffic Survey Locations

- May 2017
- 14-Hour Survey Period (06:00 - 20:00 hours)

# Operational Effects of the Proposed Scheme

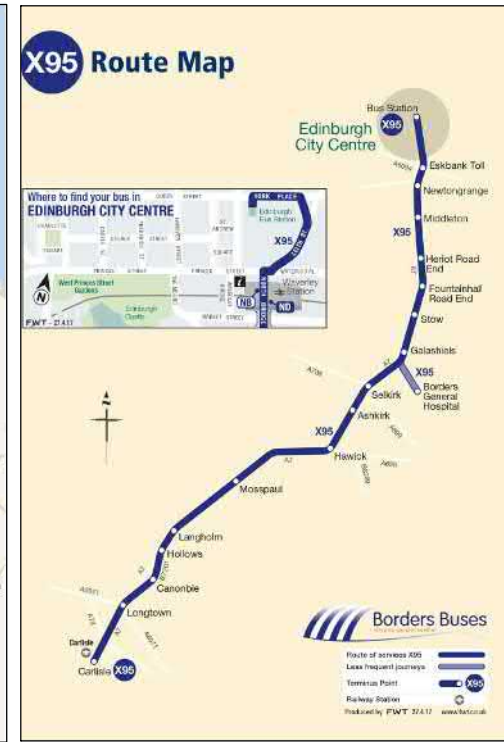
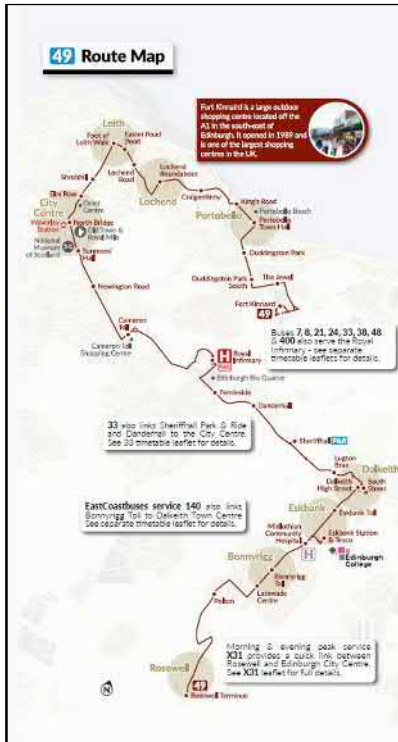
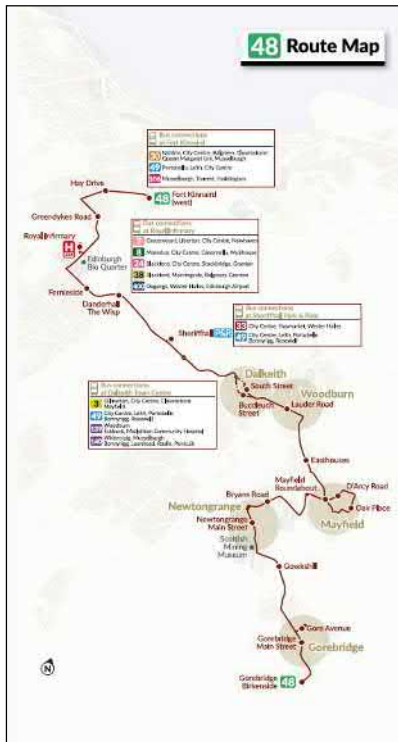


## Manual Classified Counts

- May 2017
- 14-Hour Observed All-Vehicle Traffic Flows
- A720 44,100 to 73,200 vpd
- Increasing demand through Sheriffhall Roundabout.
- **A720 Through Traffic accounts for 33,500 (48%) of All Traffic at Sheriffhall Roundabout.**

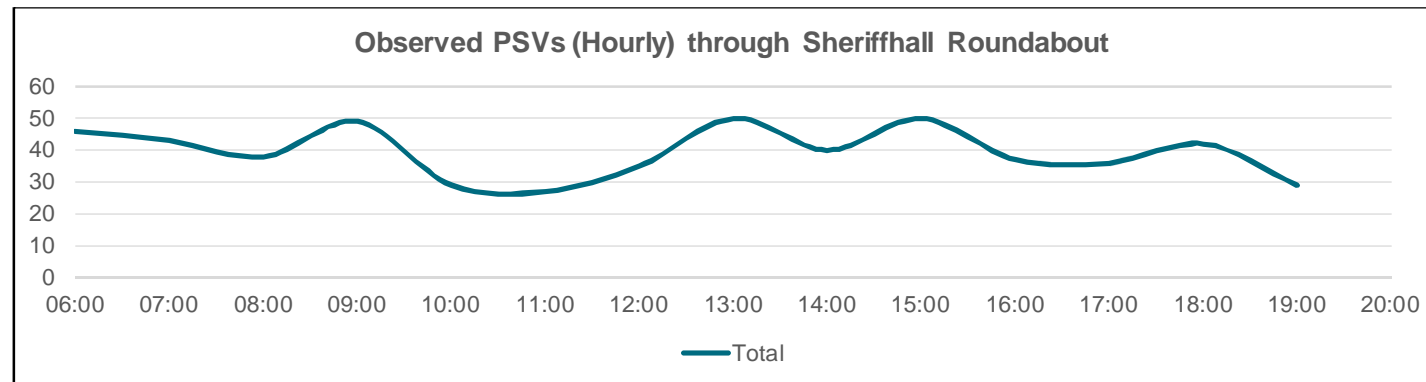
# Operational Effects of the Proposed Scheme

## Bus Services through Sheriffhall Rbt



# Operational Effects of the Proposed Scheme

Approach Road	A7 (N)	A6106 (N)	A720 (E)	A6106 (S)	A7 (S)	A720 (W)	Total
A7 (N)	0	0	12	124	15	3	154
A6106 (N)	0	0	0	4	2	2	8
A720 (E)	6	0	0	3	13	77	99
A6106 (S)	120	0	5	0	0	17	142
A7 (S)	14	2	15	1	0	2	34
A720 (W)	6	1	89	17	1	0	114
<b>Total</b>	<b>146</b>	<b>3</b>	<b>121</b>	<b>149</b>	<b>31</b>	<b>101</b>	<b>551</b>

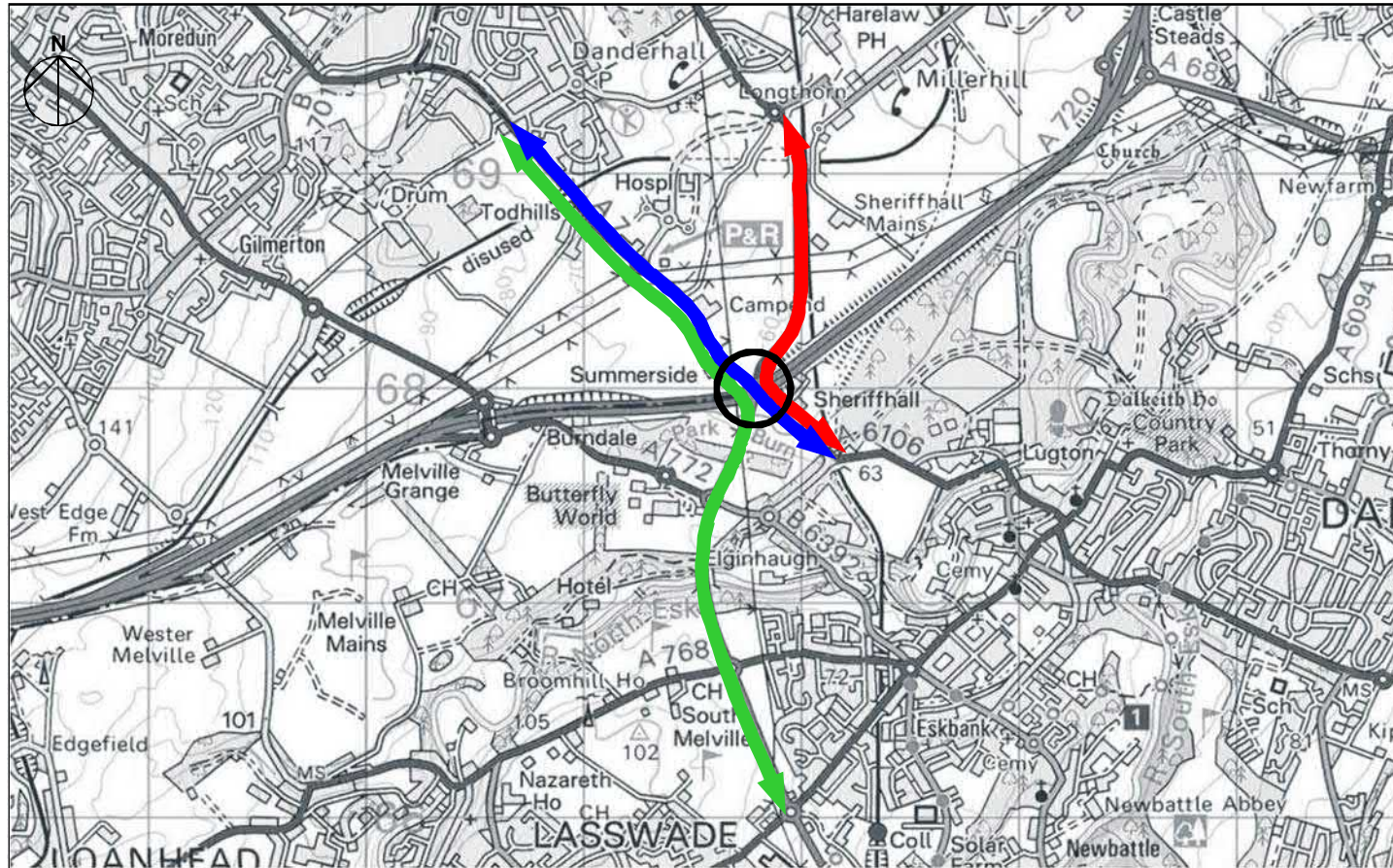


## PSV Turning Movements at Sheriffhall Roundabout

- May 2017
- 14-Hour PSV Flows
- 551 PSVs through Rbt
- **A720 PSVs = 166 (30%)**
- **A7(N) / A6106(S) PSVs = 244 (44%)**
- Ave PSVs (total) = 40/hr two-way
- Generally Uniform Profile
- Ave PSVs (A7/A6106) = 17/hr two-way



# Operational Effects of the Proposed Scheme

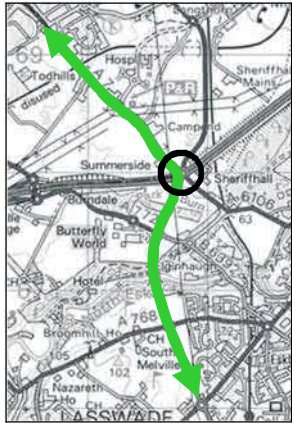


## Routes and Journey Times Through Sheriffhall Roundabout

- A7 Route (4km)
- A6106 Route (2km)
- A7 / A6106 Route (2km)

# Operational Effects of the Proposed Scheme

## A7 Route - Journey Times Savings due to Proposed Scheme

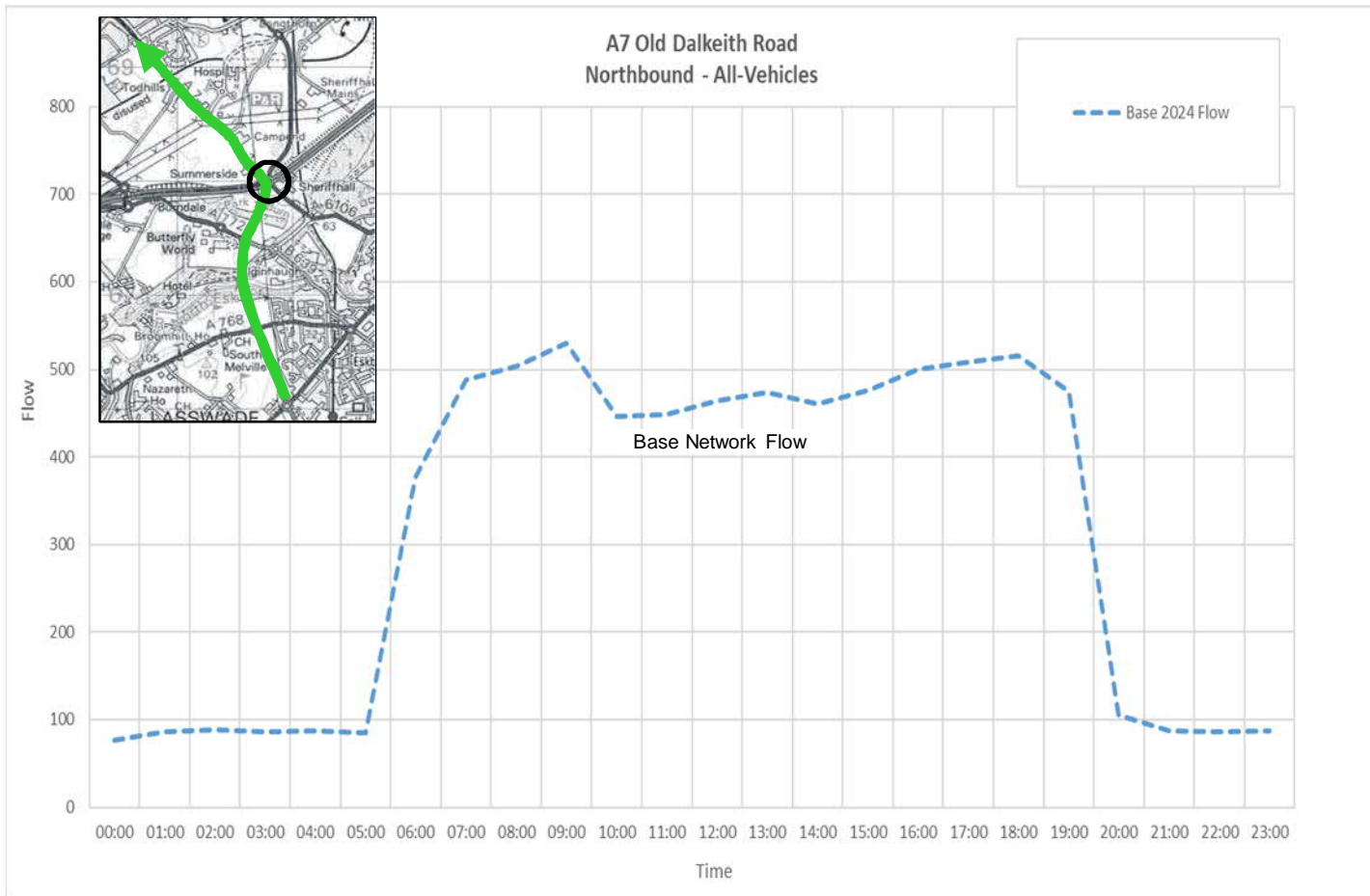


Time Period	Direction	Base 2024 Speed (mph)	Design 2024GS Speed (mph)	Speed Diff. (mph)	Base 2024 Time (mins)	Design 2024GS Time (mins)	Time Diff. (mins)	Time Diff. (%)
<b>Total (14-Hour)</b>	N/b	16	23	+7	8.8	6.2	-2.7	-30%
<b>Total (14-Hour)</b>	S/b	20	26	+6	7.3	5.6	-1.7	-23%

Note: The above results are based on the averages of 15 simulation runs over a 4km section of the A7.

- Comparison of Journey Speeds and Times on the A7 Old Dalkeith Road
- 2024 Year of Opening
- 14-Hour Time Savings: 23% - 30%

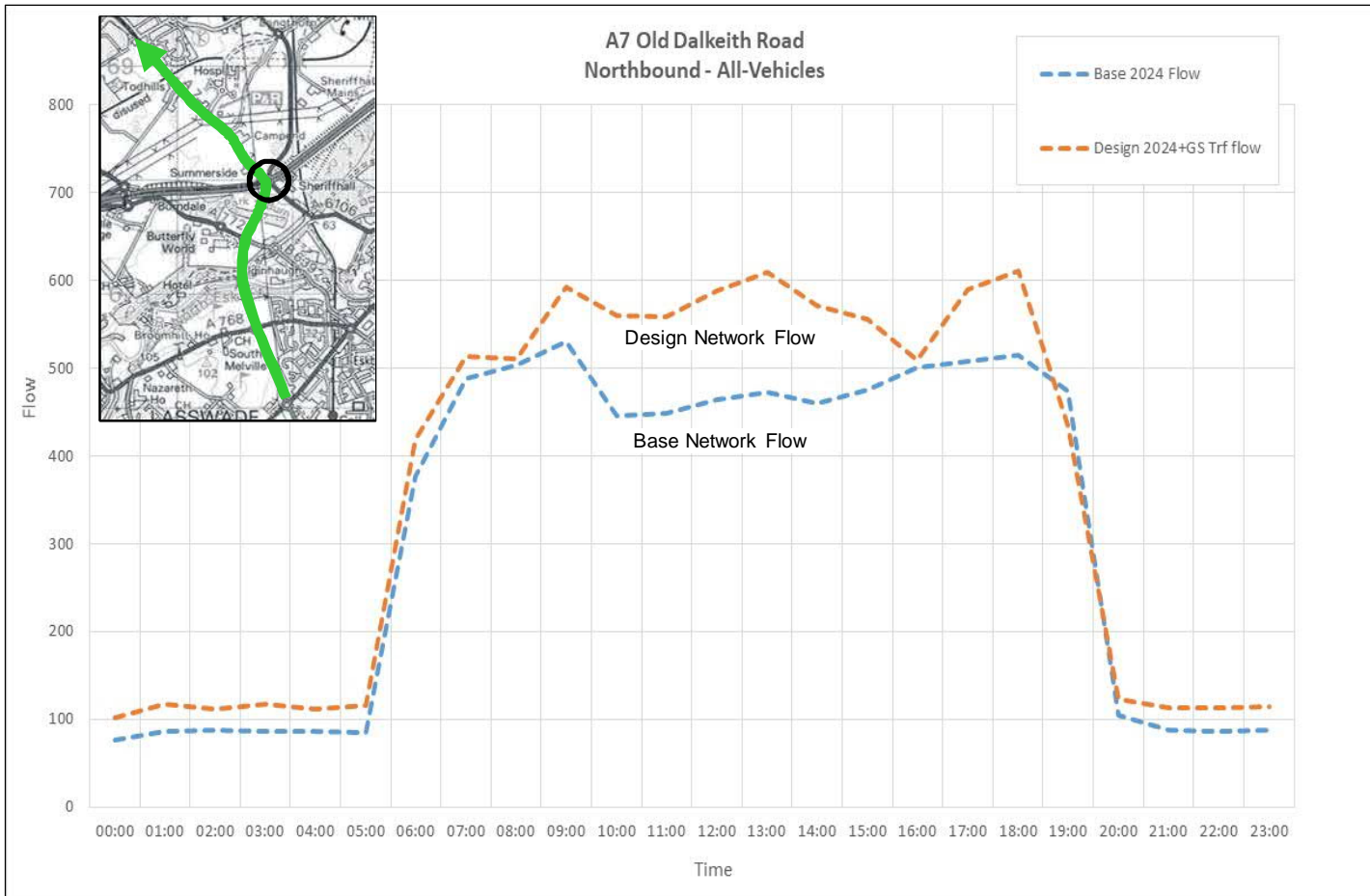
# Operational Effects of the Proposed Scheme



## A7 Route - Northbound All-Vehicle Journey Times & Flows

- A7 Old Dalkeith Road
- 2024 Year of Opening

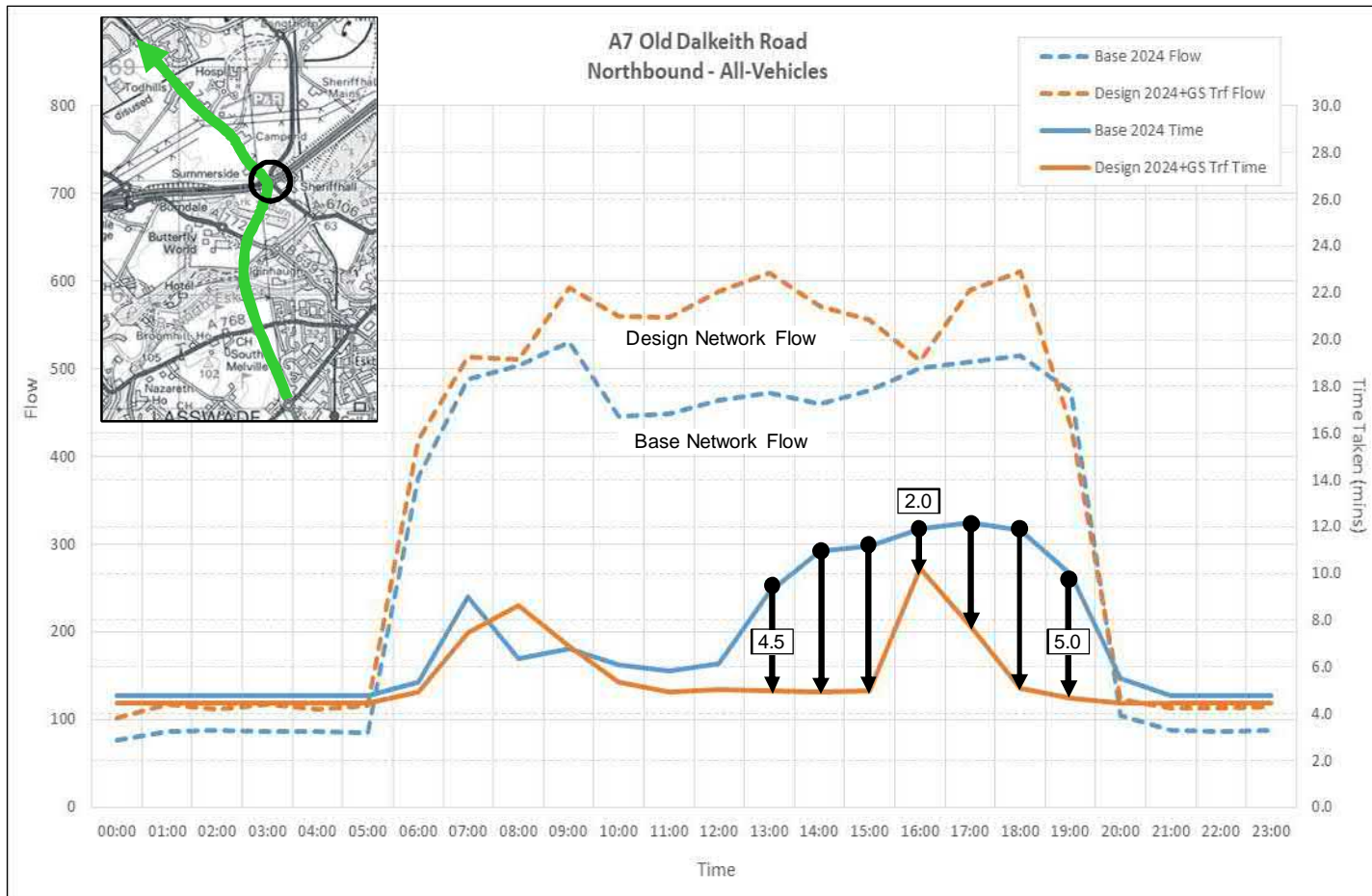
# Operational Effects of the Proposed Scheme



## A7 Route - Northbound All-Vehicle Journey Times & Flows

- A7 Old Dalkeith Road
- 2024 Year of Opening

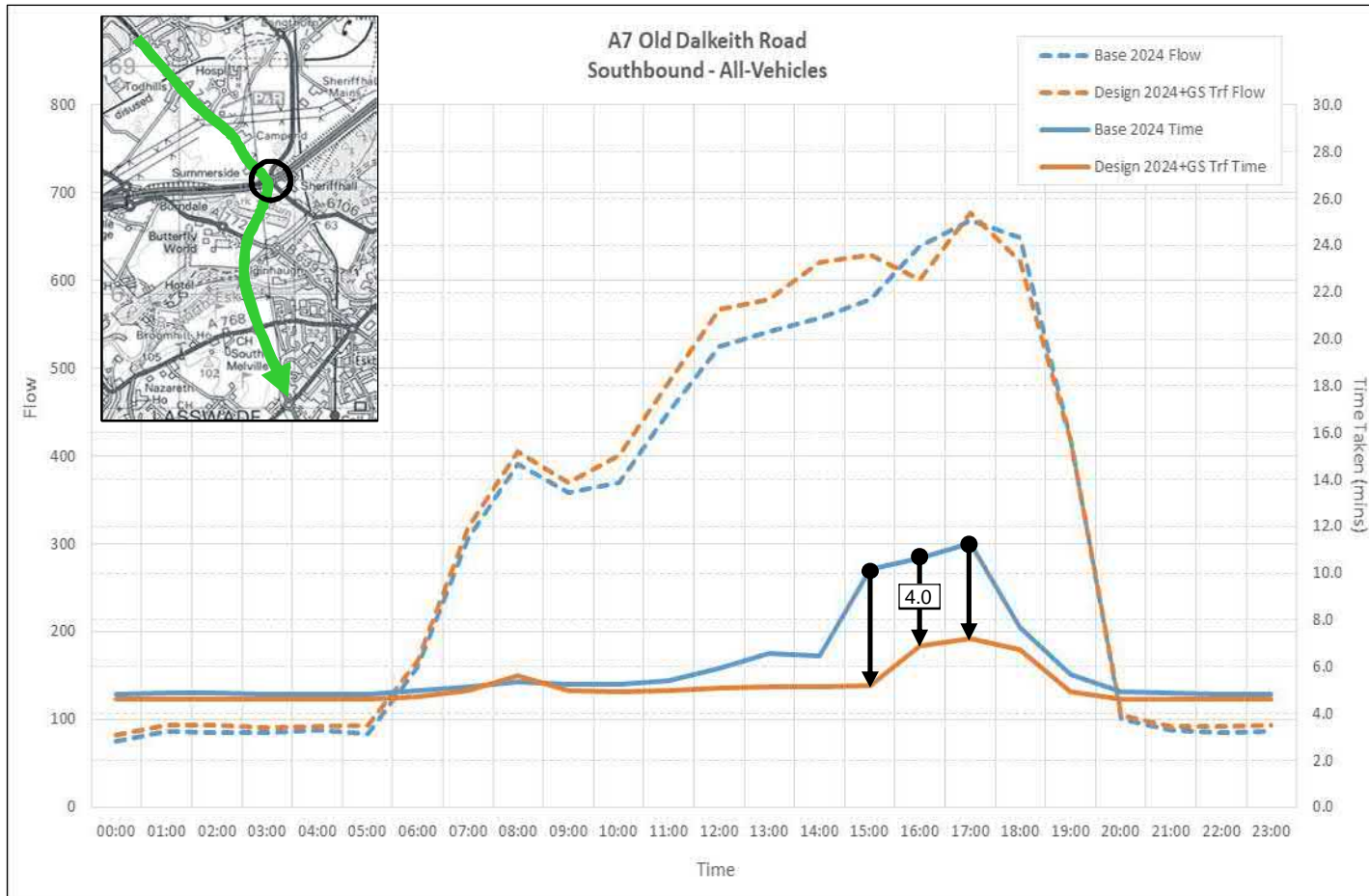
# Operational Effects of the Proposed Scheme



## A7 Route - Northbound All-Vehicle Journey Times & Flows

- A7 Old Dalkeith Road
- 2024 Year of Opening
- Proposed scheme will deliver saving in journey times even with predicted future traffic demand and improved reliability.

# Operational Effects of the Proposed Scheme



## A7 Route - Southbound All-Vehicle Journey Times & Flows

- A7 Old Dalkeith Road
- 2024 Year of Opening
- Proposed scheme will deliver saving in journey times even with predicted future traffic demand and improved reliability.

# Operational Effects of the Proposed Scheme

## A6106 Route - Journey Times Savings due to Proposed Scheme

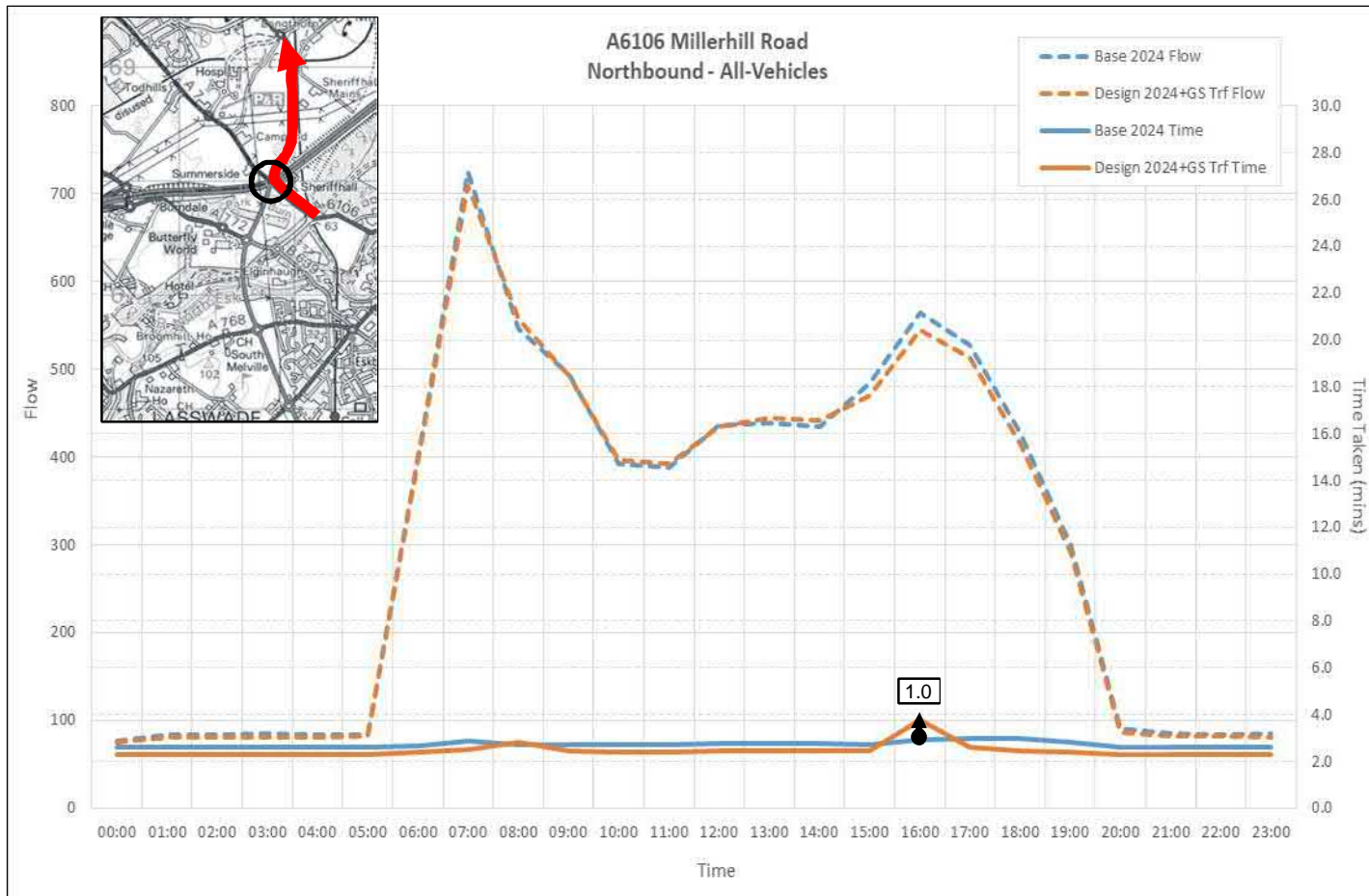


Time Period	Direction	Base 2024 Speed (mph)	Design 2024GS Speed (mph)	Speed Diff. (mph)	Base 2024 Time (mins)	Design 2024GS Time (mins)	Time Diff. (mins)	Time Diff. (%)
<b>Total (14-Hour)</b>	N/b	26	28	+2	2.8	2.6	-0.2	-8%
<b>Total (14-Hour)</b>	S/b	7	26	+19	9.7	2.7	-7.0	-72%

Note: The above results are based on the averages of 15 simulation runs over a 2km section of the A6106.

- Comparison of Journey Speeds and Times on the A6106 Millerhill Road
- 2024 Year of Opening
- 14-Hour Time Savings: 8% - 72%

# Operational Effects of the Proposed Scheme



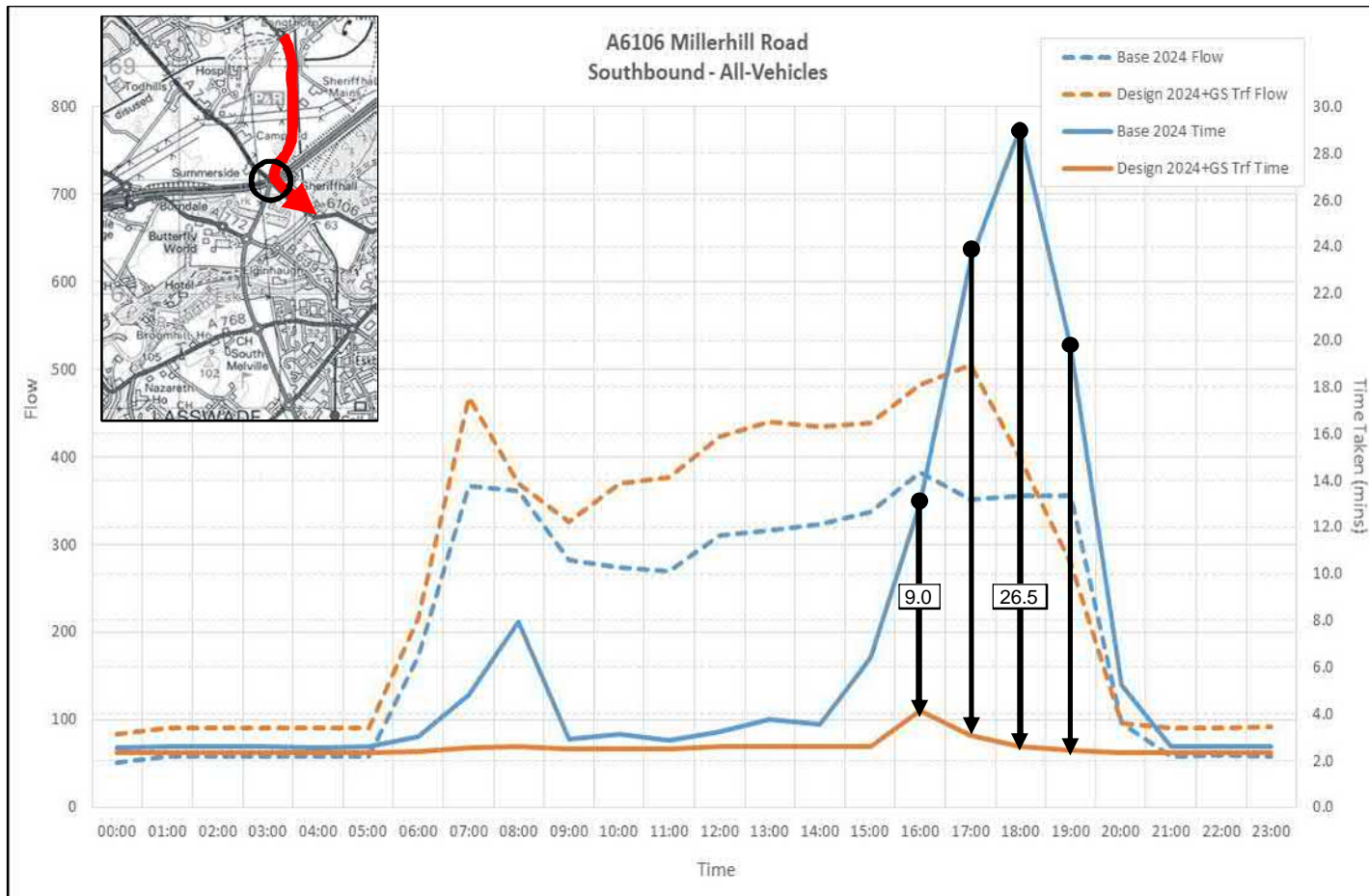
## A6106 - Northbound

### All-Vehicle Journey Times & Flows

- A6106 Millerhill Road
- 2024 Year of Opening
- As journey times are already low, the predicted changes in journey times are not significant.



# Operational Effects of the Proposed Scheme

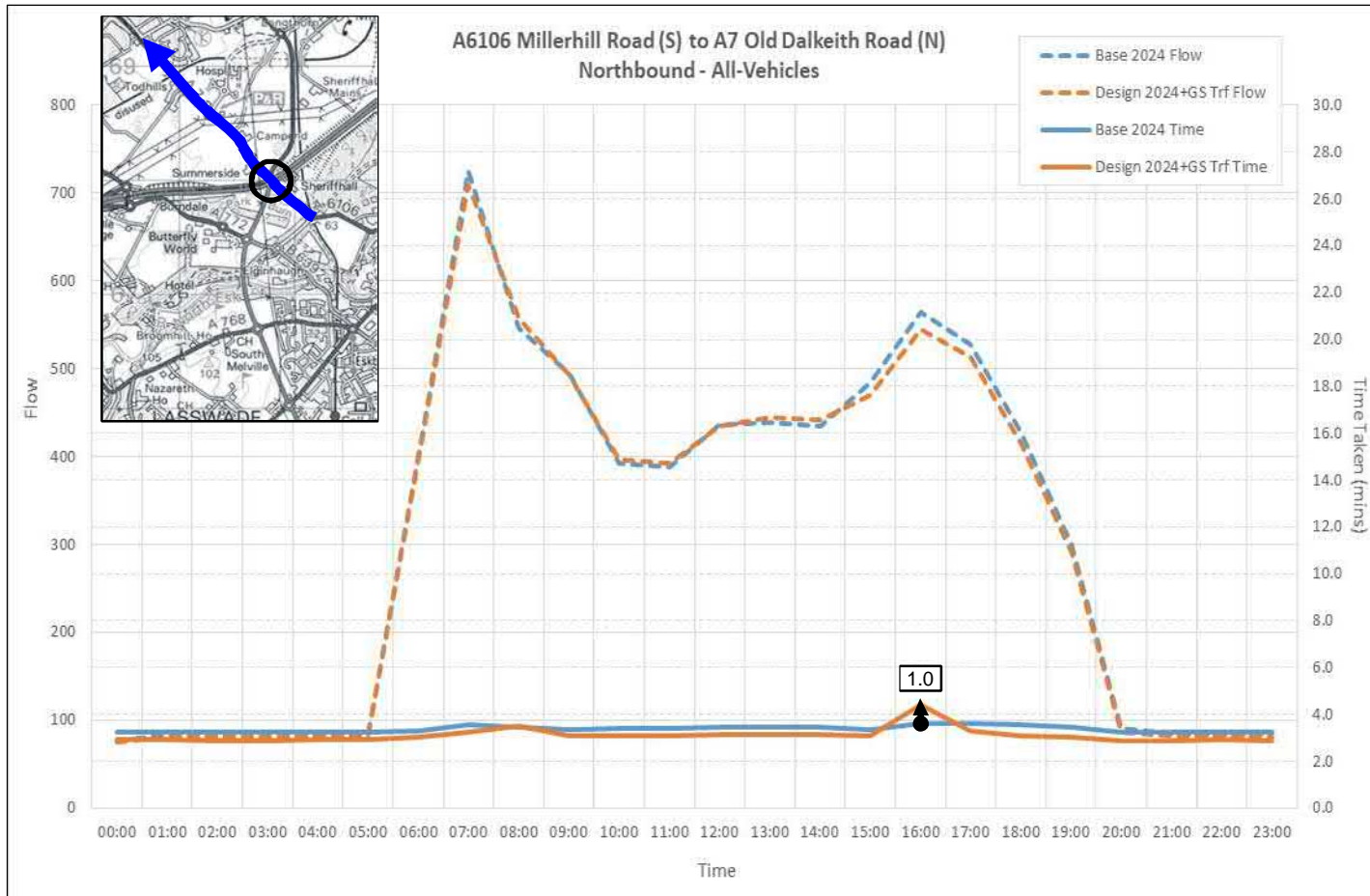


## A6106 - Southbound

### All-Vehicle Journey Times & Flows

- A6106 Millerhill Road
- 2024 Year of Opening
- Proposed scheme will deliver saving in journey times even with predicted future traffic demand and improved reliability.

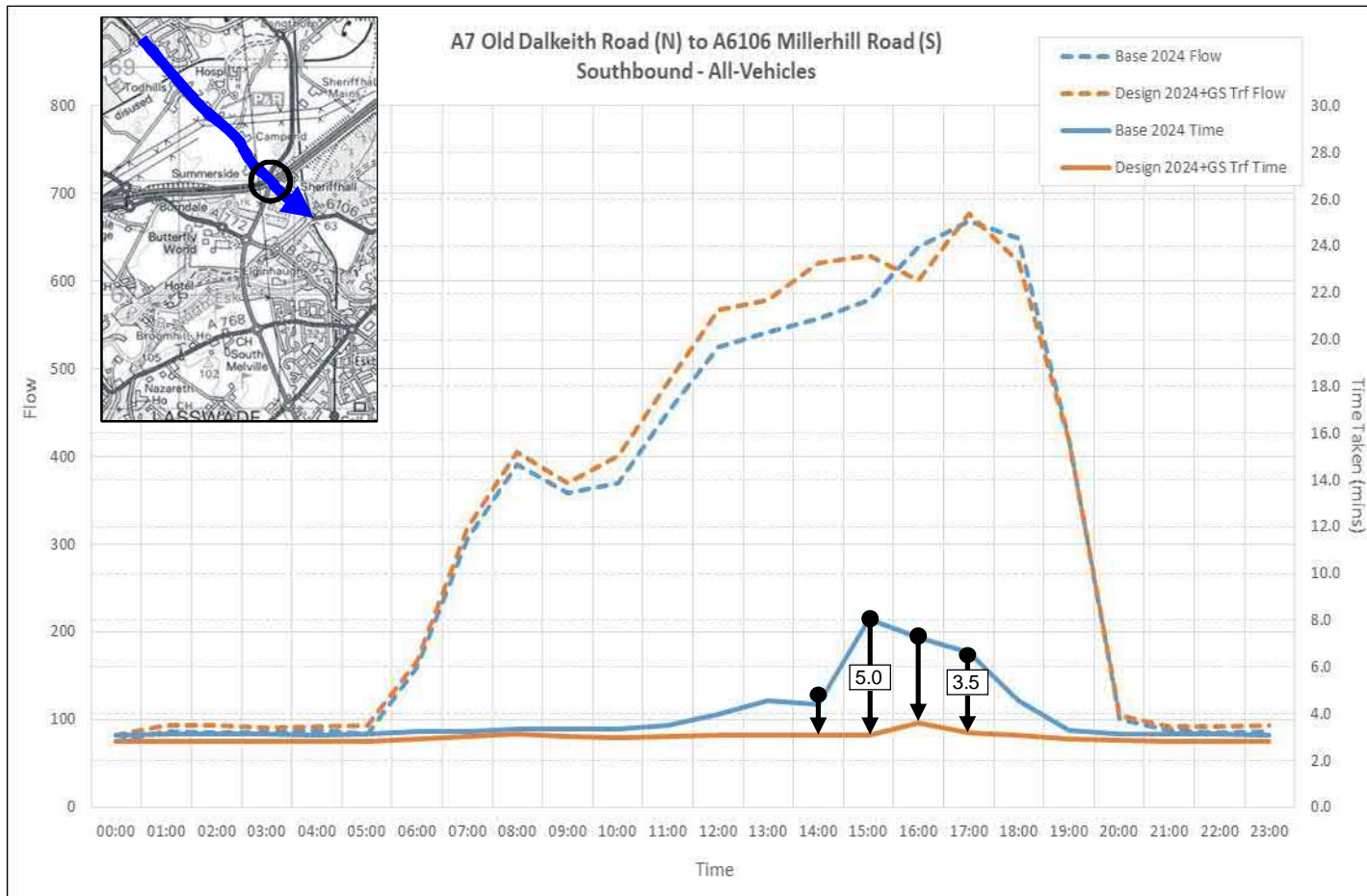
# Operational Effects of the Proposed Scheme



## A7 / A6106 - Northbound All-Vehicle Journey Times & Flows on

- Bus Route:  
A6106(S) to A7(N)
- 2024 Year of Opening
- As journey times are already low, the predicted changes in journey times are not significant.

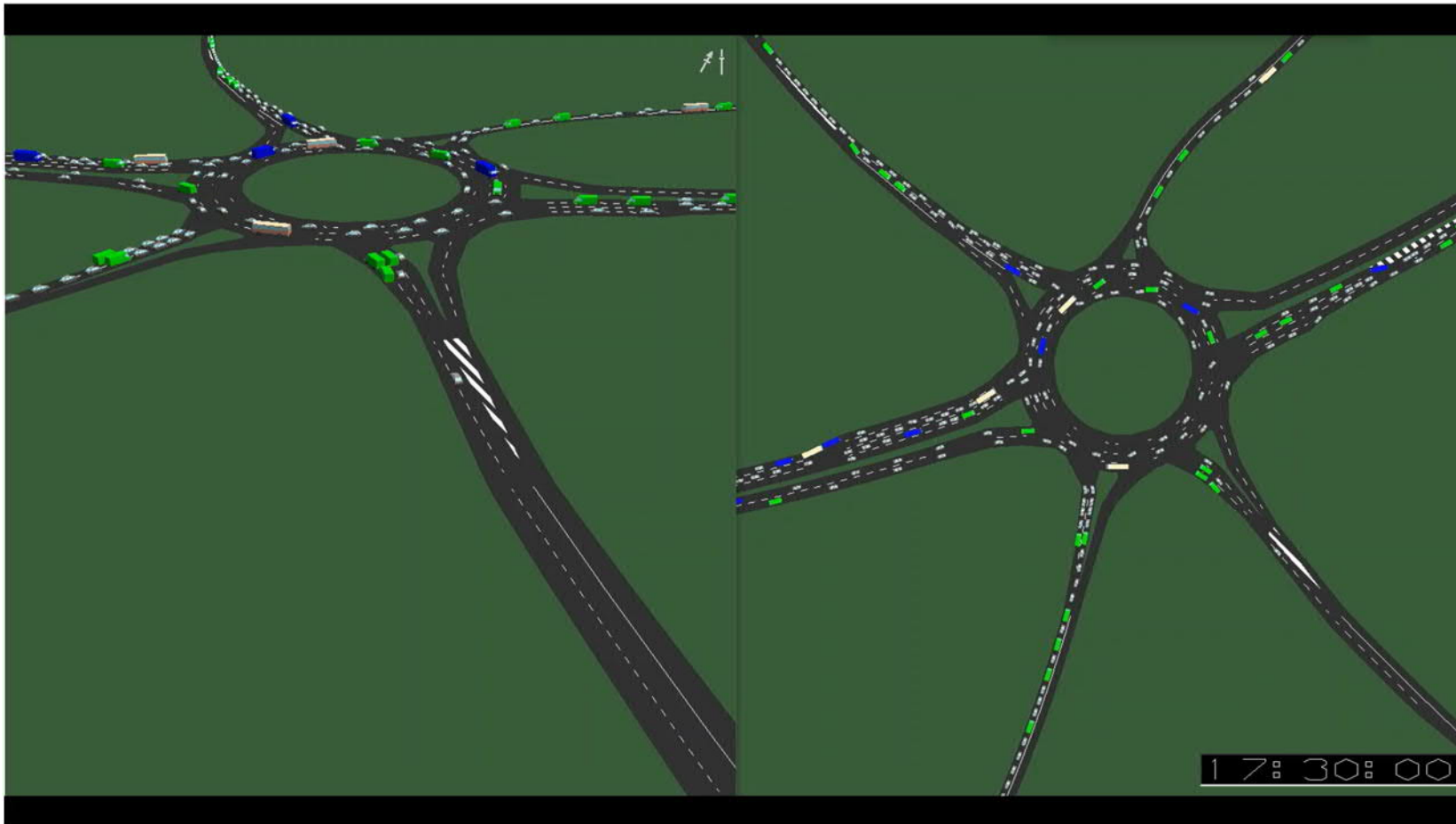
# Operational Effects of the Proposed Scheme



## A7 / A6106 - Southbound All-Vehicle Journey Times & Flows

- Bus Route: A7(N) to A6106(S)
- 2024 Year of Opening
- Proposed scheme will deliver saving in journey times even with predicted future traffic demand and improved reliability.

# Operational Effects of the Proposed Scheme



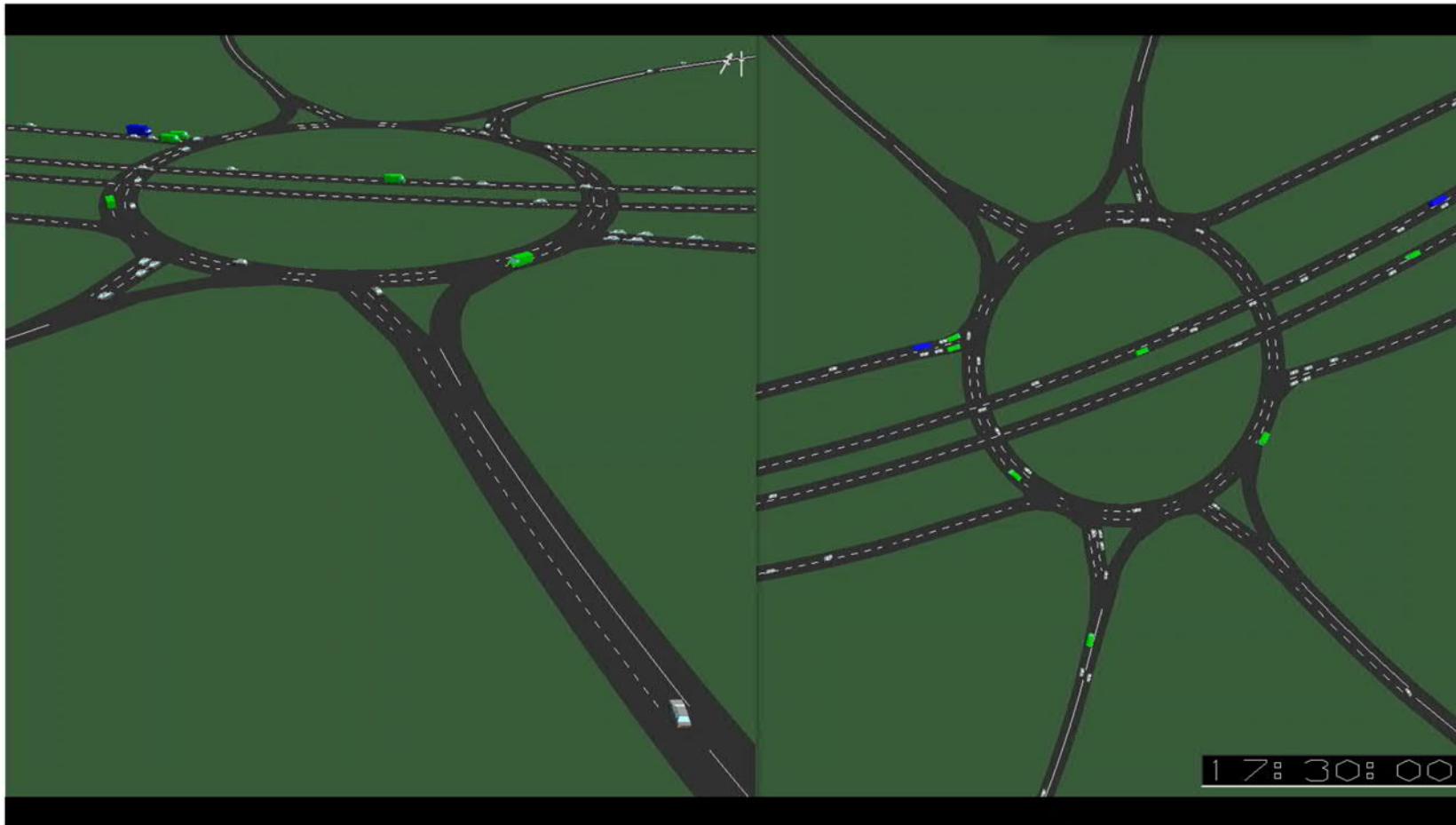
**Paramics Simulation  
PM Peak Period**

Scenario: Base

Year: 2024

Time: 17:30 to 17.35

# Operational Effects of the Proposed Scheme



**Paramics Simulation  
PM Peak Period**

Scenario: Design

Year: 2024

Time: 17:30 to 17.35

**Any questions?**

# Bus Prioritisation Review

## Scheme Objectives

- A. Improve the movement of traffic on the A720 between Gilmerton and Old Craighall by providing grade-separation of the A720 at the existing Sheriffhall Roundabout;
- B. Reduce the conflict between strategic and local traffic;
- C. Minimise traffic impact of local proposed developments in Midlothian, East Lothian and City of Edinburgh on the A720 between Gilmerton Junction and Old Craighall Junction and approach roads;
- D. Improve road safety for all users on the A720 and approach roads between Gilmerton Junction and Dalkeith Northern Bypass;
- E. Minimise intrusion of the new works on the natural environment, cultural heritage and people whilst enhancing the local environment where opportunities arise;
- F. Facilitate integration for different modes of transport along and across the A720 corridor between Gilmerton Junction and the Dalkeith Northern Bypass; and
- G. Reduce severance by improving accessibility across the A720 for all users.



# National Transport Strategy 2 – Priorities & Vision



## Reduces inequalities

- Will provide fair access to services we need
- Will be easy to use for all
- Will be affordable for all



## Takes climate action

- Will help deliver our net-zero target
- Will adapt to the effects of climate change
- Will promote greener, cleaner choices



## Helps deliver inclusive economic growth

- Will get people and goods where they need to get to
- Will be reliable, efficient and high quality
- Will use beneficial innovation



## Improves our health and wellbeing

- Will be safe and secure for all
- Will enable us to make healthy travel choices
- Will help make our communities great places to live

## NTS2 Vision

*“We will have a sustainable, inclusive, safe and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors”*

# Bus Prioritisation Design Opportunities



## Reduces inequalities

- Will provide fair access to services we need
- Will be easy to use for all
- Will be affordable for all



## Takes climate action

- Will help deliver our net-zero target
- Will adapt to the effects of climate change
- Will promote greener, cleaner choices



## Helps deliver inclusive economic growth

- Will get people and goods where they need to get to
- Will be reliable, efficient and high quality
- Will use beneficial innovation



## Improves our health and wellbeing

- Will be safe and secure for all
- Will enable us to make healthy travel choices
- Will help make our communities great places to live

1. Provide fair access to services
2. Promote cleaner, greener choices
3. Provide more reliable services
4. Provide safe and secure travel options for all

## Bus Priority Design Standards & Guidelines

The bus priority options considered for the Sheriffhall Scheme have been developed in accordance with the following standards and guidelines:

- Network Management Notes – Bus Priority (The Chartered Institution of Highways & Transportation – CIHT)
- Edinburgh Street Design Guidance, Part C – Detailed Design Manual – PT3 (City of Edinburgh Council – CEC)
- National Roads Development Guide (Society of Chief Officers of Transportation in Scotland – SCOTS)
- Local Transport Note 1-97 (Department for Transport – DfT)
- Midlothian Council (MLC) have advised there are no local standards on bus priority and that national guidelines would apply. The standards listed above have therefore been considered relevant to the Sheriffhall scheme.

# Bus Priority Standards & Guidelines

The standards and guidelines considered identify the following categories of bus priority measures:

## – Bus lanes

Used to bypass traffic congestion. They can be permanent or part-time. Enforcement would be required to ensure appropriate usage.

- Conventional. With-flow lanes of 3m minimum width allowed with no on-road cycling and no buses travelling in the opposite direction.
- ~~○ Contra flow. Provided on one way streets in the opposite direction of traffic. 4.5m minimum width~~

## – ~~Bus-only streets and bus-ways~~

~~Physical segregation of bus routes to limit or eliminate interference with other vehicular traffic by~~

- ~~○ segregation (bus way), or~~
- ~~○ allocation of an entire street to buses (bus only street)~~

## – Signal priority and Traffic management/calming

- ~~○ Passive Priority (including fixed timing priority, queue holding, gap generation and virtual bus lanes)~~
- Selected Vehicle Detection (SVD)/Active priority

# Sheriffhall Bus Priority Design Options

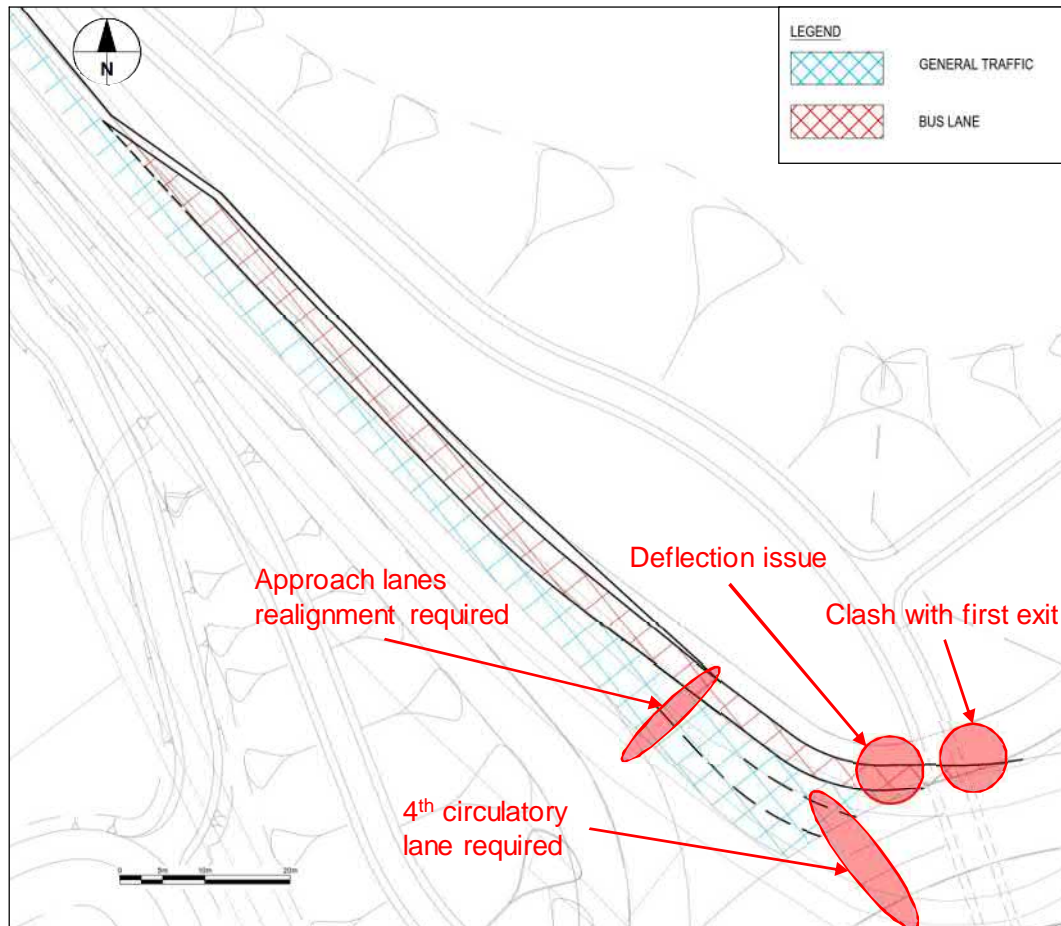
## – Bus Lane Options

- Option 1 – Additional approach lane and entry
- Option 2 – Reallocation of carriageway space
- Option 3 – Extension of flares
- Option 4 – Extension of Lane 1

## – Signal Priority Options

- Option 5 – Full Signalisation with Passive Priority
- Option 6 – Full Signalisation with Active Priority

# Bus Priority Option 1 – Additional approach lane and entry



## Description

Provision of an additional approach lane and (4<sup>th</sup>) entry for exclusive use of buses

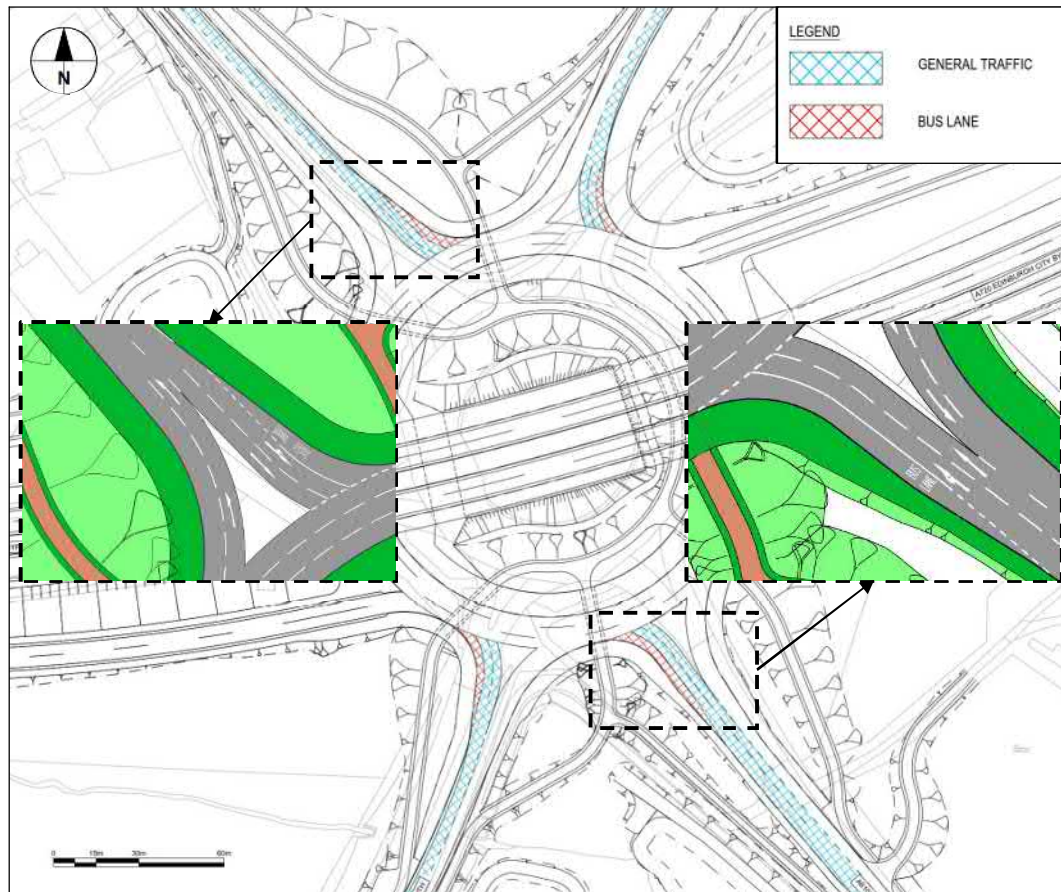
## Pros

- Long, dedicated lane for buses
- No impact on capacity for general traffic, compared to Proposed Scheme

## Cons

- Requires a full redesign and reassessment of the junction
- Increases environmental impact of the scheme
- Increases scheme footprint and cost
- Requires republication of Environmental Statement, CPO and Road Orders

# Bus Priority Option 2 – Reallocation of carriageway space



## Description

Reallocation of Lane 1 to buses, with no changes to the Proposed Scheme geometry

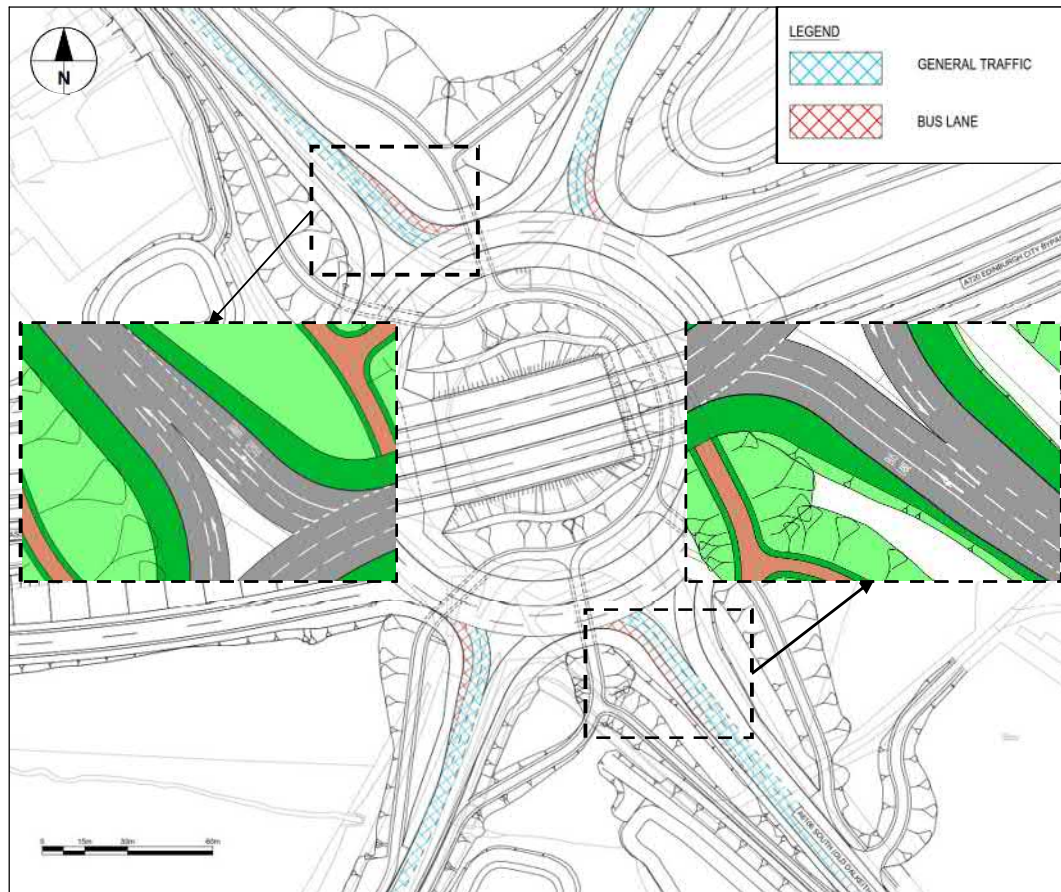
## Pros

- Reallocation of carriageway space may help increase public transport attractiveness
- Higher deliverability, compared to other options, due to no changes to the Proposed Scheme

## Cons

- Reduces junction capacity for general traffic
- Negligible benefits or even negative impact on bus journey times due to reduced capacity and short length of bus lane
- Conflicting movements between buses and general traffic

# Bus Priority Option 3 – Extension of flares



## Description

Extension of flares to provide longer entry lanes, and reallocation of Lane 1 to buses

## Pros

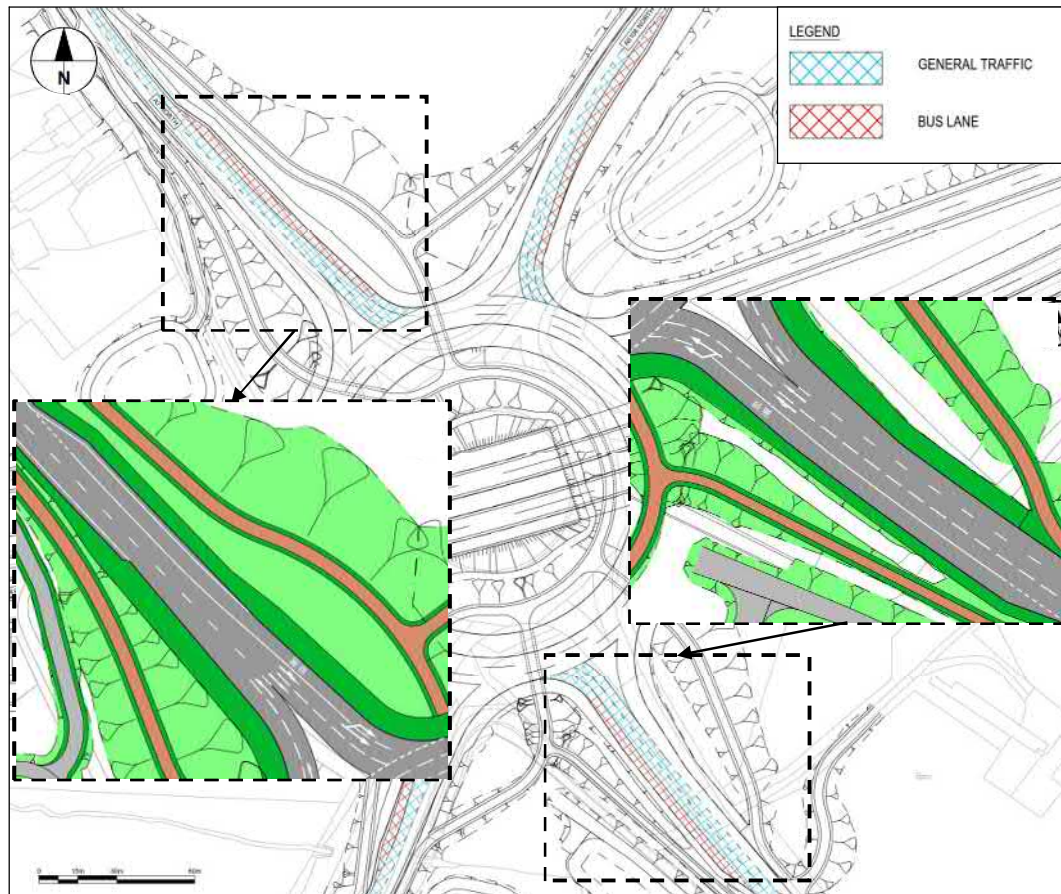
- Reallocation of carriageway space may help increase public transport attractiveness
- Potentially more effective for bus priority than Option 2, due to the longer bus lane

## Cons

- Reduces junction capacity for general traffic
- Benefits on bus journey times likely to be negligible due to reduced capacity and short length of bus lane
- Potential minor impact on landscape, noise and air quality.
- Conflicting movements between buses and general traffic



# Bus Priority Option 4 – Extension of Lane 1



## Description

Long extension of Lane 1 to be used as bus lane

## Pros

- Provision of dedicated infrastructure may help increase public transport attractiveness
- A long bus lane helps buses overcome queues
- The final section of bus lane can be reallocated to all traffic to minimise impact on junction capacity

## Cons

- Potential minor impact on landscape, noise and air quality.
- Conflicting movements between buses and general traffic likely to still occur if no signalisation or bus advance area is provided

# Bus Priority Option 5 – Full signalisation with passive priority



## Description

Full signalisation of Sheriffhall Roundabout with fixed signal phasing based on bus route/services

## Pros

- Helps improve bus journey times
- High deliverability due to no changes to the Proposed Scheme geometry

## Cons

- Does not provide dynamic/flexible solutions for delayed services
- Requires redesign of signal phasing if services are amended/cancelled/added
- Needs to be part of a wider bus priority strategy to ensure efficiency

# Bus Priority Option 6 – Full signalisation with active priority



## Description

Full signalisation of Sheriffhall Roundabout with dynamic signal phasing to prioritise delayed bus services

## Pros

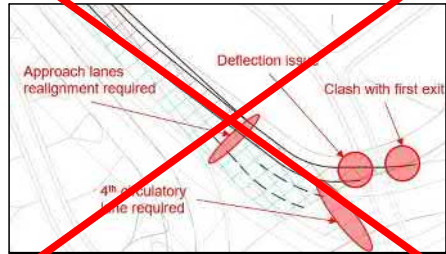
- More effective for bus priority than Option 5, due to dynamic and targeted adjustments to signal phases
- High deliverability due to no changes to the Proposed Scheme geometry

## Cons

- Requires installation of specific equipment on buses
- Needs to be part of a wider bus priority strategy to ensure efficiency

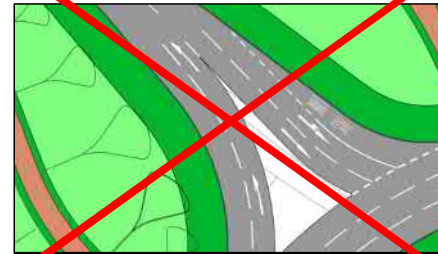
# Bus Priority Options – Assessment Summary

~~Option 1 – Additional approach lane and entry~~



Discounted due to severe impact on the scheme and deliverability

~~Option 2 – Reallocation of carriageway space~~



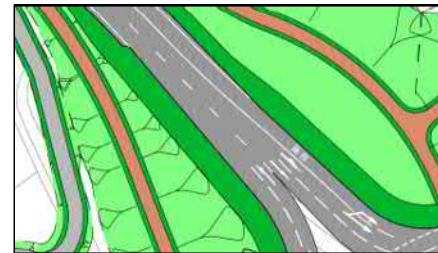
Discounted due to negative impact on general traffic and, potentially, on bus journey times

~~Option 3 – Extension of flares~~

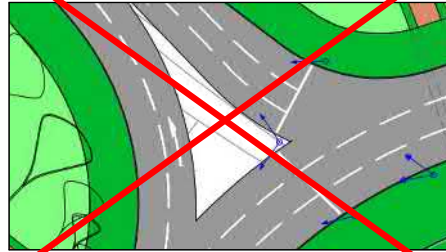


Discounted due to negative impact on general traffic and negligible benefits to bus journey times

Option 4 – Extension of Lane 1

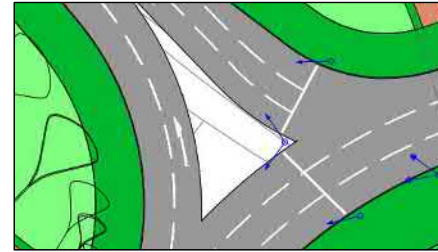


~~Option 5 – Full signalisation with passive priority~~

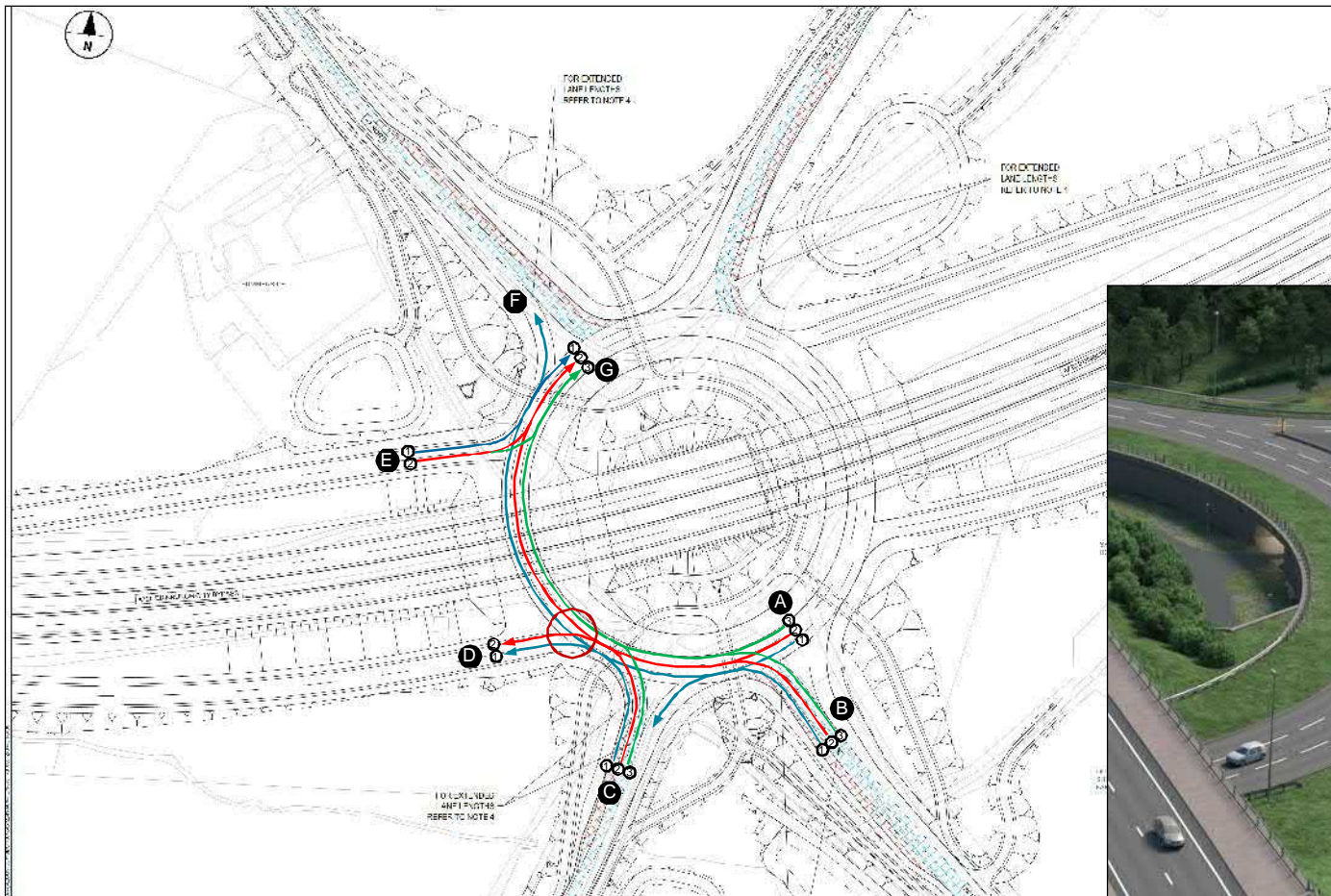


Discounted due to limited benefits to bus journey times and lack of flexibility, when compared to Option 6

Option 6 – Full signalisation with active priority



# Bus Priority Option 4 – Initial Operational Considerations

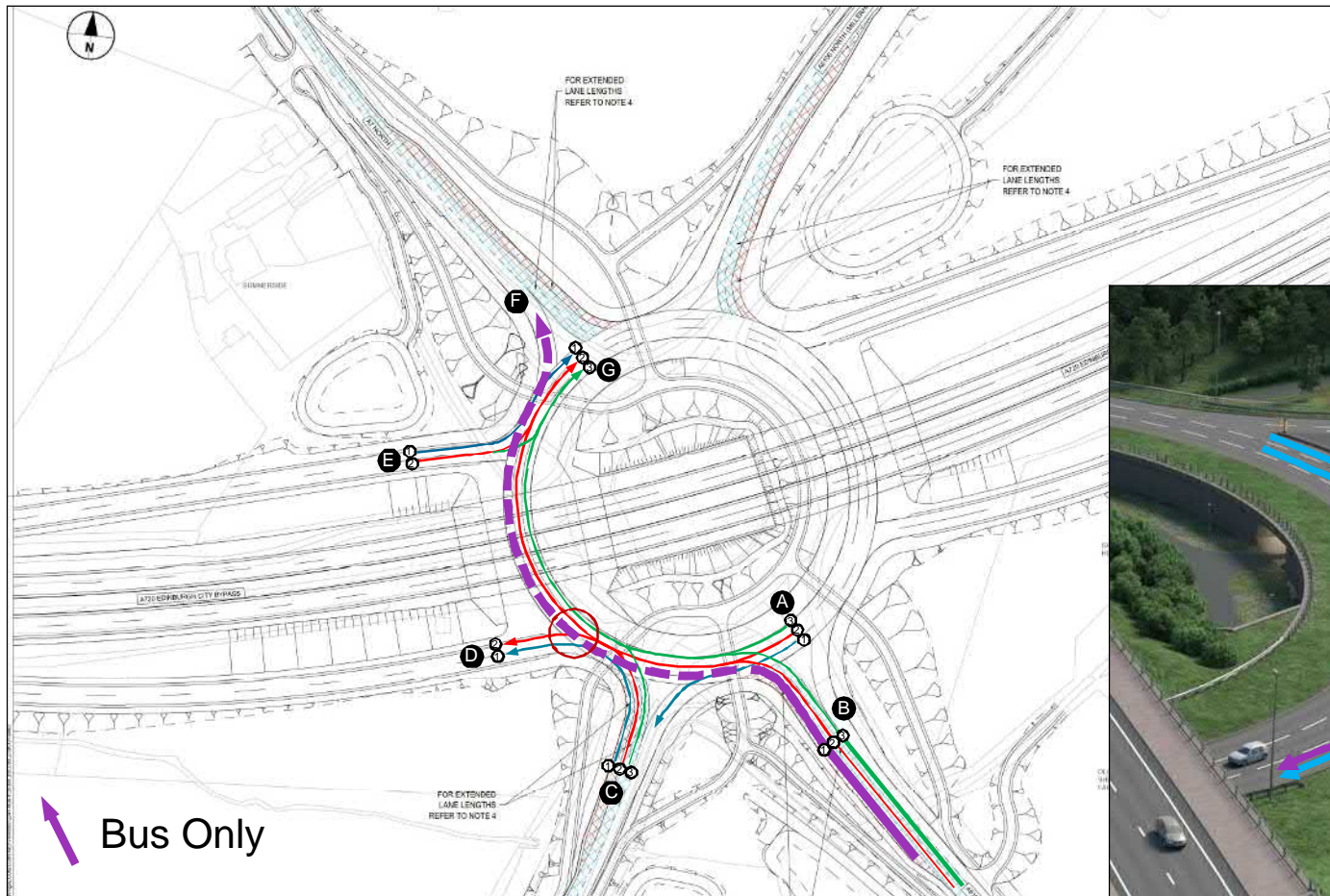


## Proposed Scheme Conflicting Movements

- Conflicting approach, circulatory and exit lanes

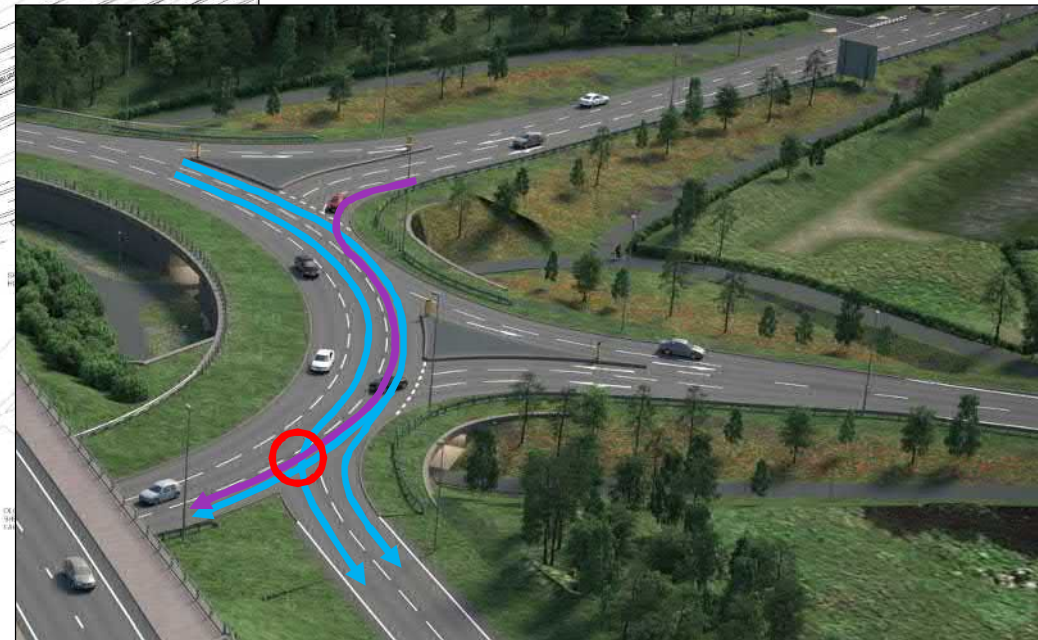


# Bus Priority Option 4 – Initial Operational Considerations

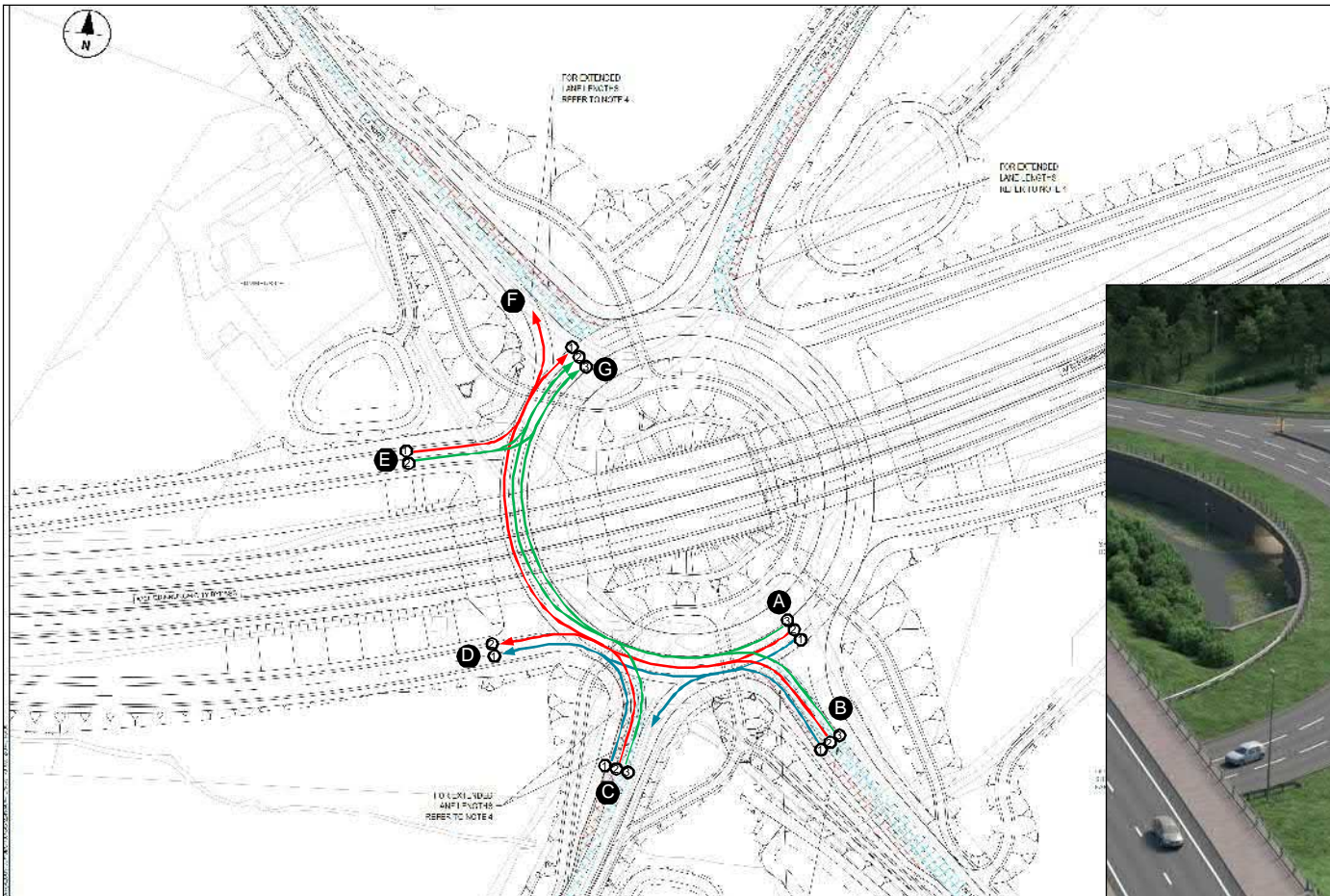


## Proposed Scheme Conflicting Movements

- Conflicts Movements with Bus Only Lane 1 Approach



# Bus Priority Option 4 – Initial Operational Considerations

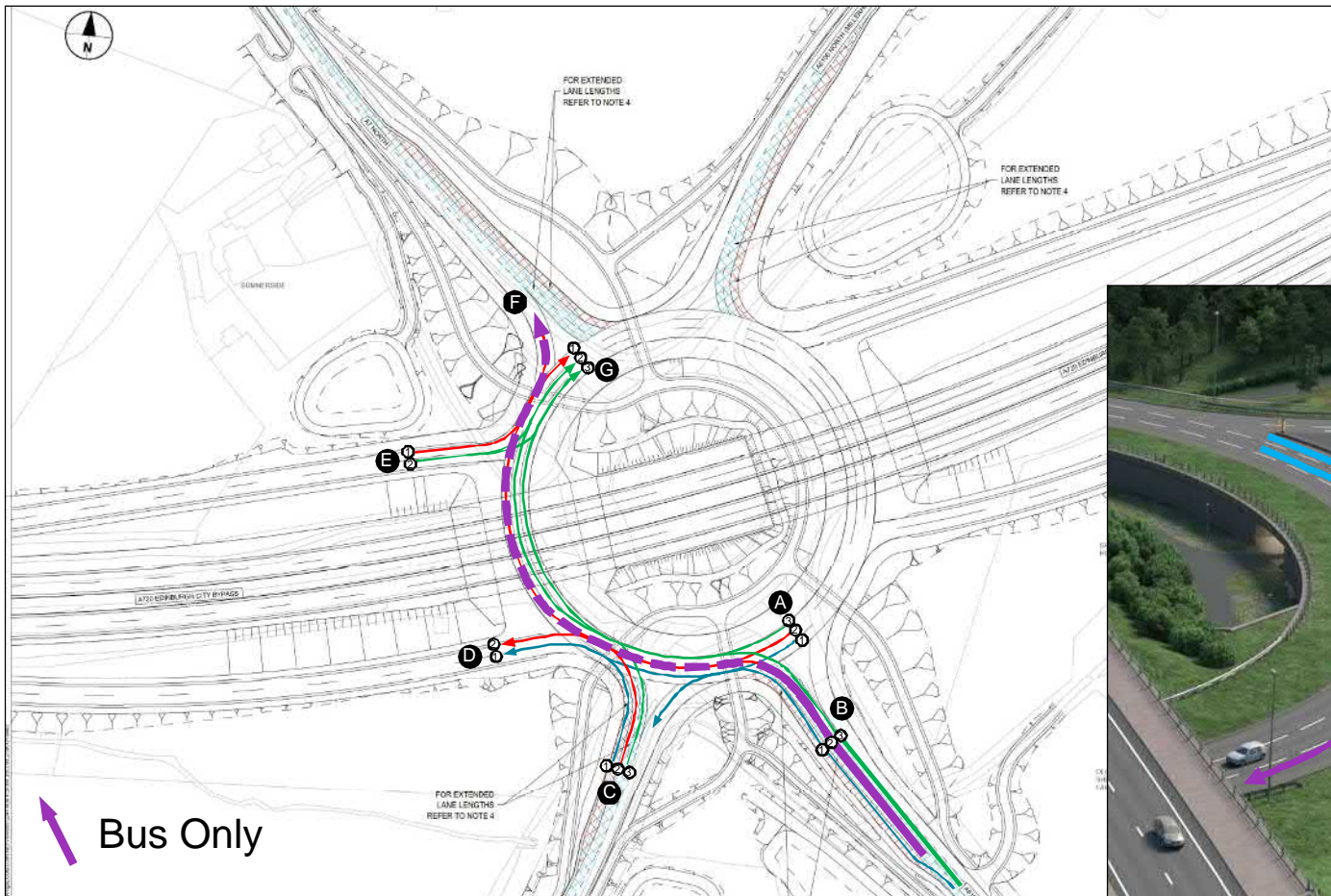


## Proposed Scheme Spiral Lane Markings

- No conflicting movements

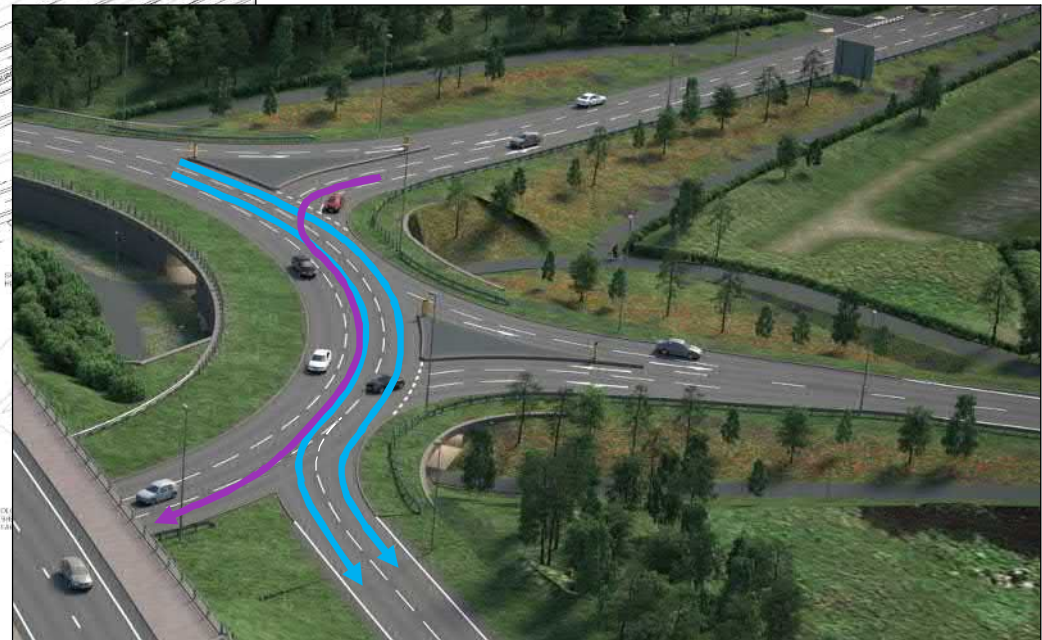


# Bus Priority Option 4 – Initial Operational Considerations



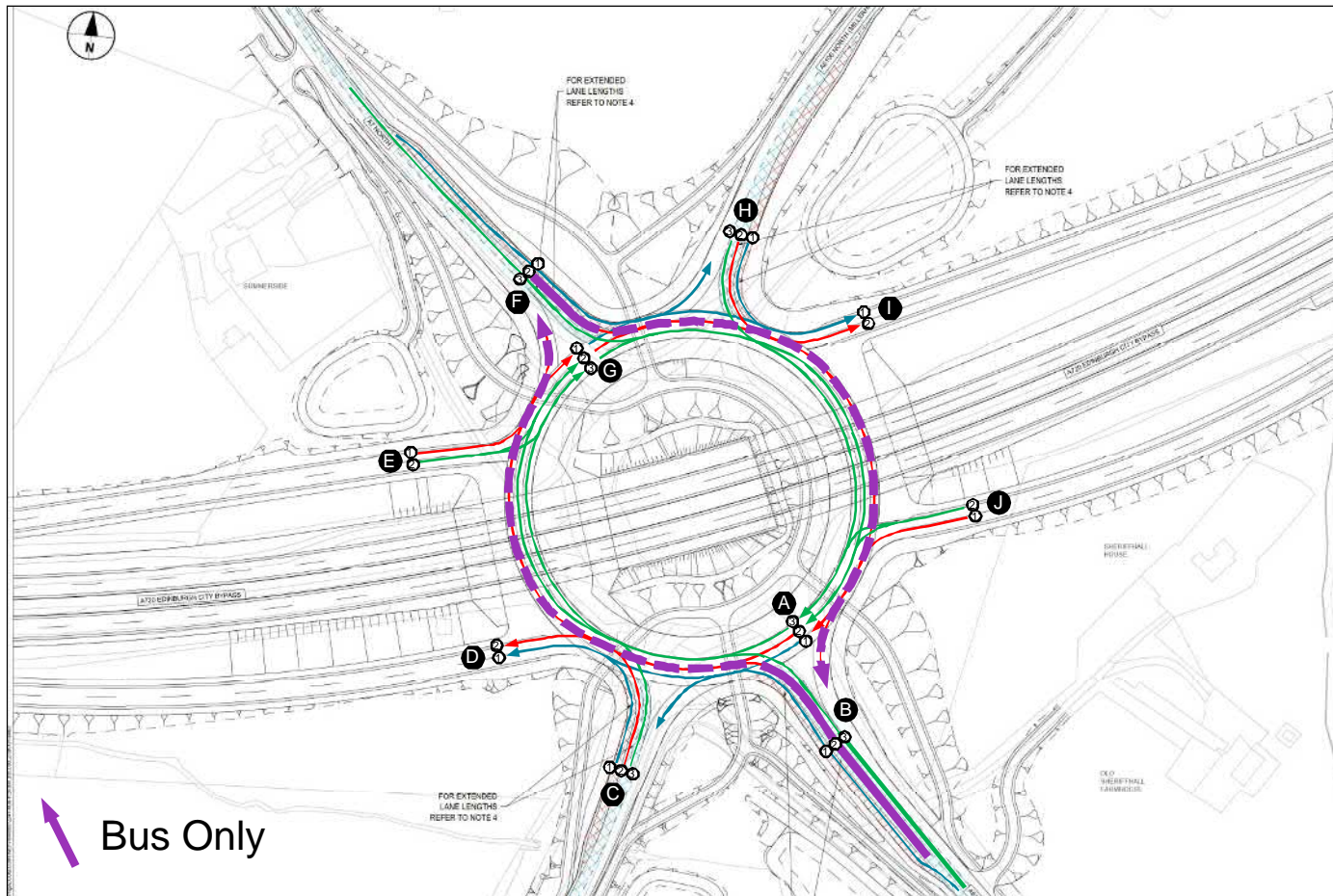
## Proposed Scheme Spiral Lane Markings

- Bus Only Lane 2 Approach
- No Conflicts





# Bus Priority Option 4 – Initial Operational Considerations



## Proposed Scheme Spiral Lane Markings

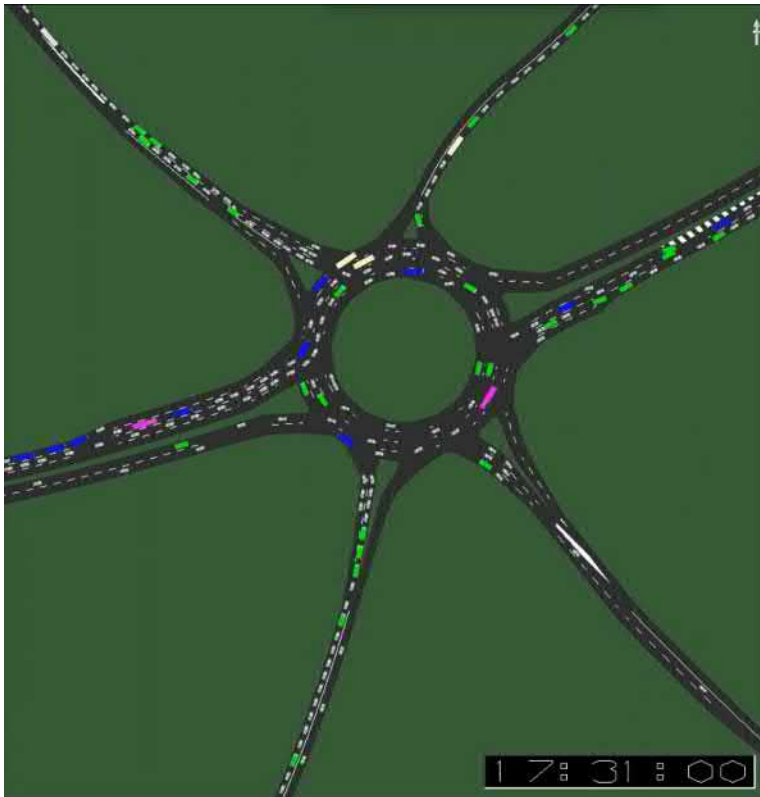
- Bus Only Lane 2 Approach
- No Conflicts
- A7(N) Bus Lane 2 Reduced Approach Length

## Bus Priority Option 6 – Initial Operational Considerations



- The traffic assessment undertaken for the Proposed Scheme indicates that traffic signals are not required on the local road approaches to the roundabout based on predicted levels of demand.
- The provision of traffic signals where they are not needed, and/or the dynamic alteration of signal phasing to prioritise delayed bus services, might worsen the operational conditions of the roundabout.
- To maximise its effectiveness and efficiency, Option 6 would need to be part of a wider bus priority strategy.
- The Proposed Scheme has been futureproofed with the provision of ducting throughout the junction. This would facilitate the implementation of Option 6 at a later date if deemed necessary and beneficial in the future.

## Bus Priority Option Review – Summary



The Proposed Scheme is expected to deliver significant benefits to local traffic (including bus services) due to the improved traffic conditions on local roads resulting from the separation between strategic and local traffic.

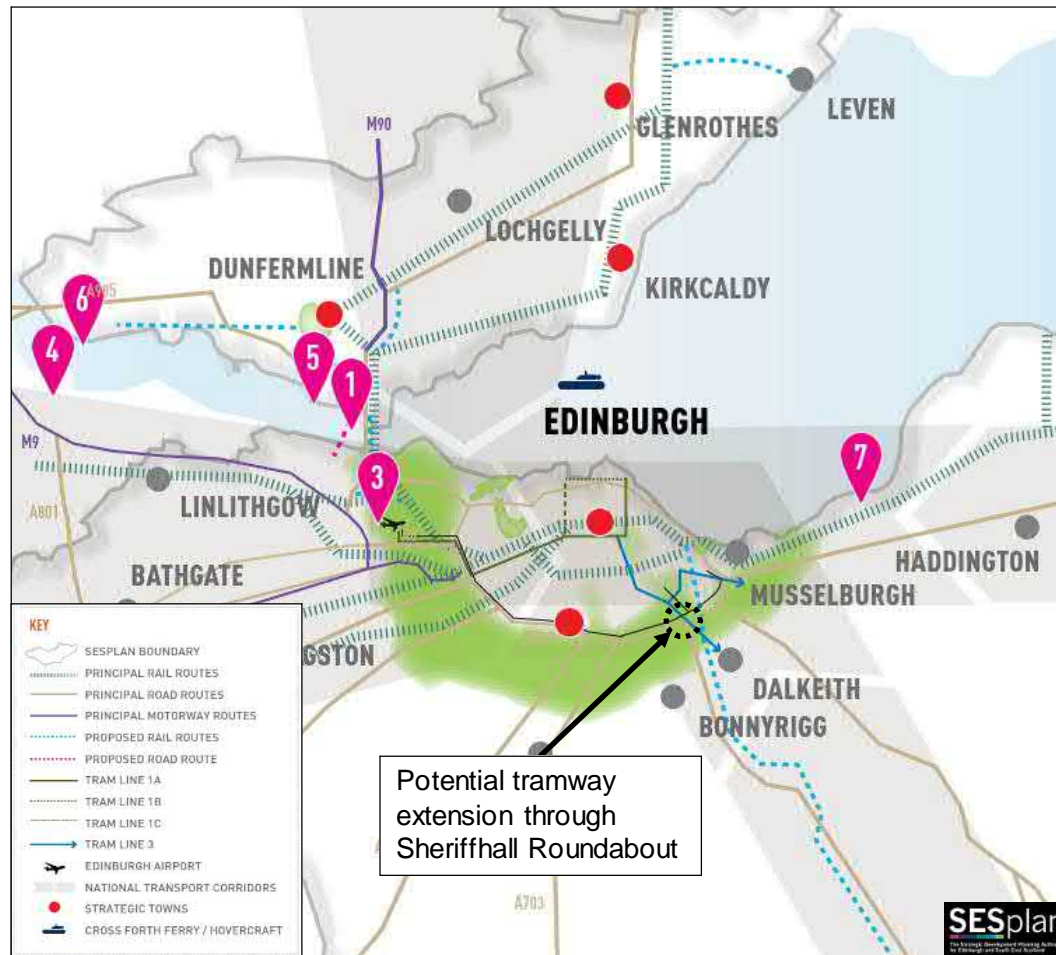
## Bus Priority Option Review – Summary

- Several bus priority options (1, 2, 3 and 5) have been discounted due to negligible benefits to buses, impacts on general traffic and/or deliverability issues.
- Options 4 and 6 are potentially beneficial to bus journey times and reliability, but benefits are considered to be marginal when compared to the benefits the Proposed Scheme already offers. These bus priority measures, especially if considered in isolation, also introduce operational challenges or conflicts for general traffic.
- The Proposed Scheme has been futureproofed with the provision of ducting throughout the junction. This would facilitate the implementation of Option 6 at a later date if deemed necessary and beneficial in future, and as part of a longer term and wider strategy.

**Any questions?**

# Tram Feasibility Review

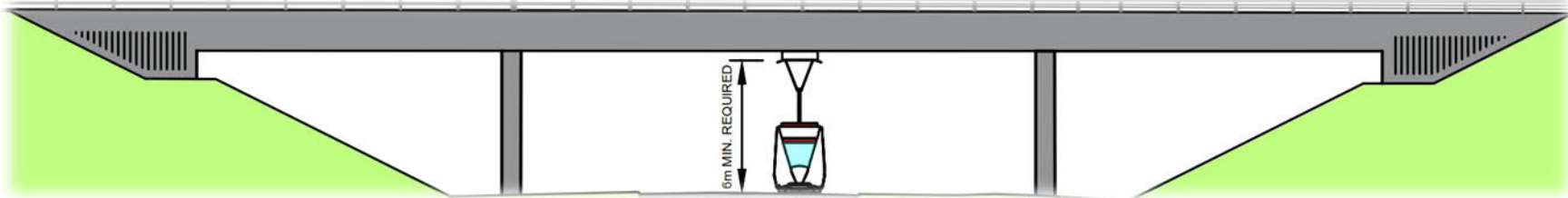
# Tram Extension Aspirations



- The City of Edinburgh Council (CEC) have advised that their future public transport plans might include the extension of the tram line to Dalkeith, potentially through Sheriffhall Roundabout.
- CEC response to the publication of draft Orders for the Proposed Scheme enquired whether the current design for the grade separation of Sheriffhall Roundabout would be able to accommodate this extension in future.

# Tram Feasibility Review

- The required headroom under structures normally depends on the specific tramway systems, but based on experience on similar schemes in the UK and Ireland, and on industry guidelines and best practice, a vertical clearance of approximately 6m to the overhead cables is generally advised.



- Sheriffhall Roundabout scheme is a high load route, therefore the main structures have been designed to provide a minimum 6.45m clearance over the roundabout. Based on guidelines mentioned above, the current design should therefore provide sufficient headroom for any future tramline extensions using the roundabout.
- Further consultation with CEC and a full assessment will need to be undertaken once design plans for the proposed tramway extension are developed and made available, but an initial assessment of the available headroom at structures shows the current scheme would not be a barrier to the tramway extension aspirations. Notwithstanding the headroom requirements, it is acknowledged that technology advancements may allow for alternative power sources to be utilised.

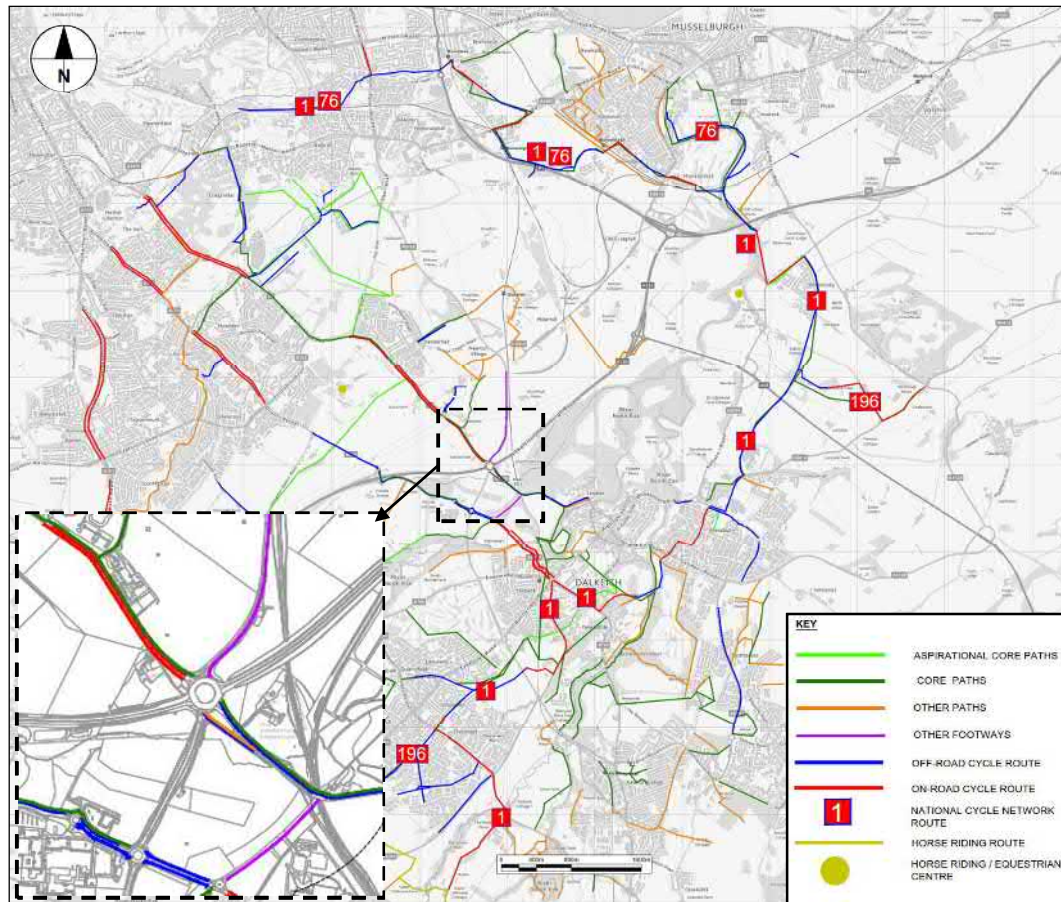


**Any questions?**

# Part 2 – Active Travel Review

# Existing Active Travel Provision

# Existing Active Travel Facilities



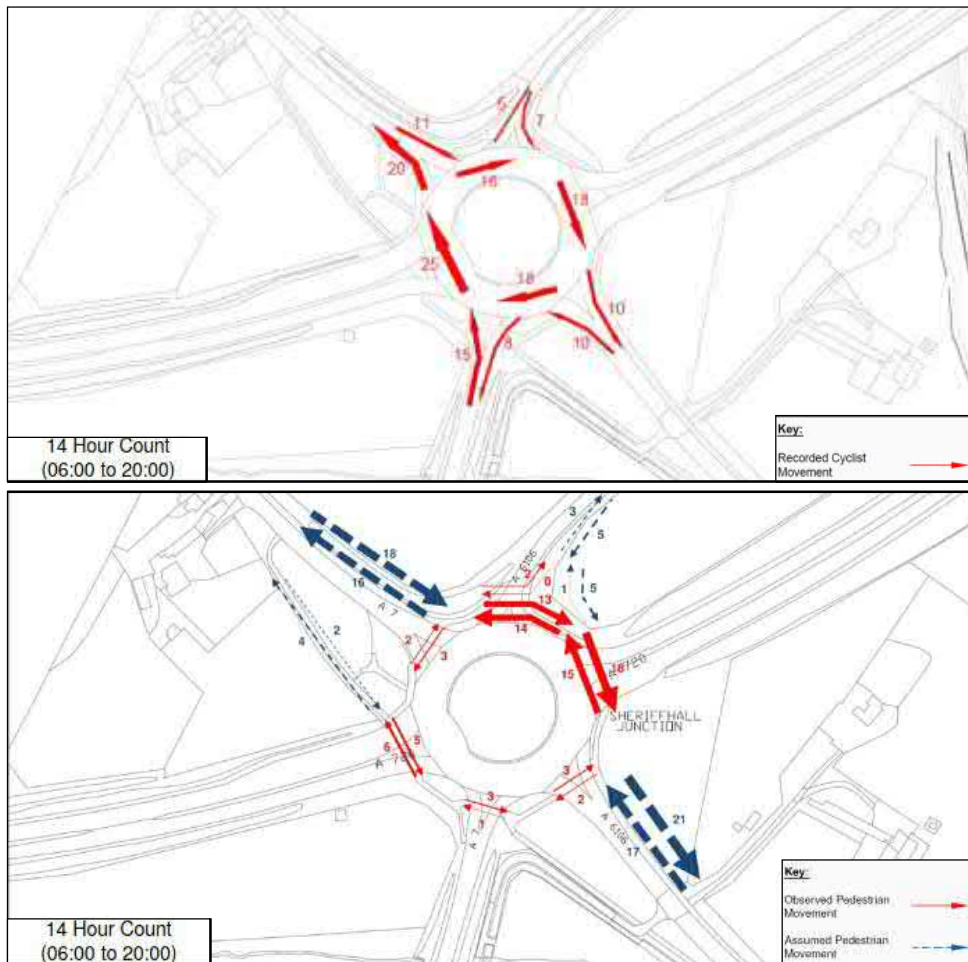
- Footway provision along the A7 North, the A6106 Millerhill Road and the A6106 Old Dalkeith Road
- Cycling provision
  - o on-road cycle lanes on A7 North
  - o shared cycleway/footway on east side of the A6106 Old Dalkeith Road and short section on the west side linking to the south side of Sheriffhall Roundabout
  - o shared cycleway/footway on north side of the A772
  - o National Cycle Network (NCN) routes 1, 76 and 196 located within the 5km study area
- Tyne Esk Equestrian Trails and several riding centres located within 5km of the scheme
- Several designated Core Paths located within the scheme area

## Existing NMU flows

Cyclist and pedestrian counts were undertaken during survey programmes in 2013, 2014 and 2017

- October 2013 cyclist survey (12-hour period 7am – 7pm)
  - 14 cyclists recorded at Sheriffhall Roundabout, the majority travelling from A7 South to A7 North.
  - Highest single junction count recorded at Gilmerton Junction (86).
- October 2014 cyclist survey (12-hour period 7am – 7pm)
  - 16 cyclists recorded at Sheriffhall Roundabout, the majority travelling from the A6106 Old Dalkeith Road to the A7 North.
  - Highest single junction count recorded at Gilmerton Junction (87).

# Existing NMU flows



- May 2017 cyclist surveys (14-hour period 6am – 8pm)
  - o 43 cyclists recorded at Sheriffhall Roundabout, with the A7 North observed as the most used cycling route north of the A720. The A7 South and A6106 Old Dalkeith Road recorded similar counts.
  - o Highest single junction count recorded at Straiton Junction (188) and Gilmerton Junction (148).
- May 2017 pedestrian surveys (14-hour period 6am – 8pm)
  - o 47 pedestrians recorded crossing the junction at Sheriffhall, with the majority moving between the A6106 Old Dalkeith Road and A7 North and crossing on the eastern side of the roundabout.

**Any questions?**

# Proposed Active Travel Provision



## Active Travel Facilities – Design Assessment Background

The development and assessment of NMU routes was undertaken in accordance with the relevant DMRB standards, and in line with requirements of HD 42/17 ‘Walking, Cycling & Horse-Riding Assessment and Review’ – WCHAR (now superseded by GG 142).

- An assessment was undertaken to gain a wider understanding of all relevant existing facilities within a 5km study area; to collect user information to inform the design development; and to identify opportunities for improvement for users.
- A three-part Wider Stakeholder Workshop was held in August 2017, October 2017 and August 2018 to discuss stakeholders’ aspirations and concerns for the NMU facilities proposed as part of the scheme. Design objectives, opportunities and methodology were discussed and agreed at the workshops, and several NMU options were assessed accordingly.
- The proposed network of NMU facilities included in the Proposed Scheme is a result of the design, assessment and consultation process summarised above.

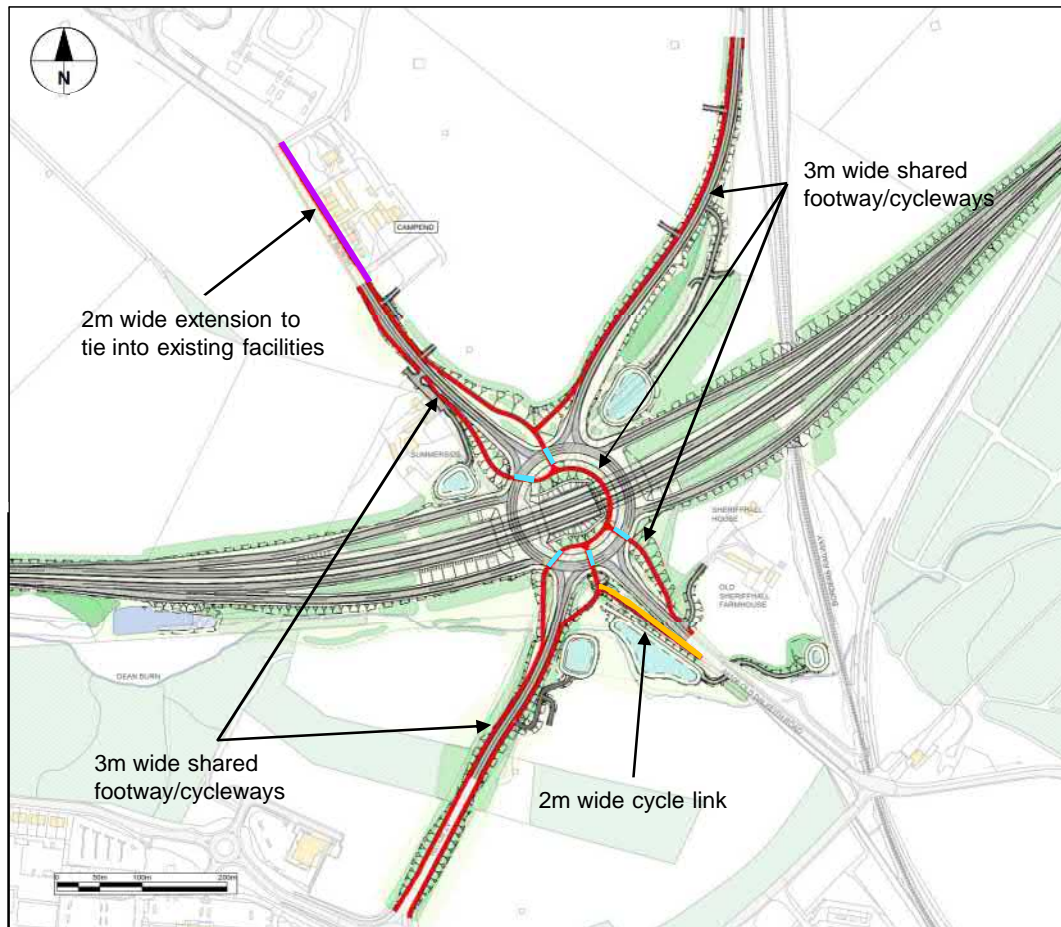
## Active Travel Facilities – Design Standards

- The NMU routes were developed in line with the process described in DMRB HD 42/17 ‘Walking, Cycling & Horse-Riding Assessment and Review’. Their geometry has been developed in cognisance of ‘Design Opportunities’ and in accordance with current design standards and industry best practice as follows:
  - Transport Scotland Design Guidance;
    - Roads for All – Good Practice Guide for Roads (2013); and
    - Cycling by Design (2010)
  - Design Manual for Roads and Bridges (DMRB);
    - TD27 ‘Cross Sections and Headrooms’ (recently superseded by CD 127);
    - TD36 ‘Subways for Pedestrians and Pedal Cyclists Layout and Dimensions’ (recently superseded by CD 143 ‘Designing for walking, cycling and horse-riding’); and
    - TA90 ‘The Geometric Design of Pedestrian, Cycle and Equestrian Routes’ (recently superseded by CD 143 ‘Designing for walking, cycling and horse-riding’)

## Active Travel Facilities – WCHAR Opportunities

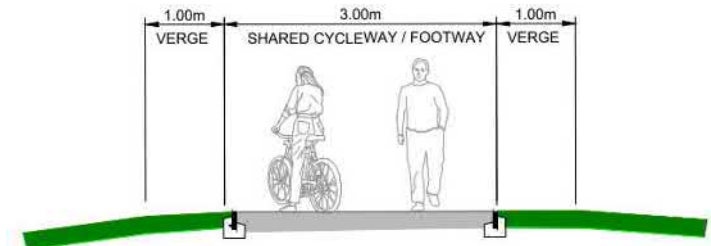
- **Opportunity 1:** Provide facilities which are attractive to users to encourage wider active travel and support modal shift.
- **Opportunity 2:** Act as exemplar for integration of all modes in holistic solution developed in collaboration with stakeholders.
- **Opportunity 3:** Ensure proposals take account of future developments and other active travel initiatives in the study area such as Edinburgh Orbital and A7 Urbanisation.
- **Opportunity 4:** Segregate non-motorised users from motorised users to limit interaction with live traffic.
- **Opportunity 5:** Improve user facilities at Sheriffhall Roundabout to provide safe passage across the trunk road. Direct /dedicated connections on the desire line which are conducive to personal safety and well integrated with the wider network should be targeted.
- **Opportunity 6:** Improve user facilities along the A7 North to better facilitate integration with Sheriffhall Park & Ride.
- **Opportunity 7:** Improve user facilities along the A6106 Old Dalkeith Road to provide better linkage to Dalkeith.
- **Opportunity 8:** Provide user facilities along the A7 South to improve access to local amenities / A772 Gilmerton road corridor.
- **Opportunity 9:** Provide user facilities north of Sheriffhall Roundabout to enable connection with the proposed development areas.
- **Opportunity 10:** Provide controlled crossings, where appropriate, to integrate walking, cycling and horse-riding routes and local amenities.
- **Opportunity 11:** Explore opportunities for future integration and developing links with horse-riding facilities in the study area

# Proposed Active Travel Facilities



The proposed A720 Sheriffhall scheme includes a full grade-separated NMU network at low level throughout the scheme, including:

- 3m wide shared surface routes with 1m wide verges.



This cross section generally applies to all proposed facilities (*shown in red*), with the only exceptions shown purple and yellow.

- Dedicated NMU links provided on the A7 North, A7 South, A6106 Millerhill Road, A6106 Old Dalkeith Road, which link into the existing adjacent NMU pedestrian/cycle facilities
- Five open aspect NMU Subways (*shown in blue*) providing NMU route under the new Sheriffhall Roundabout.

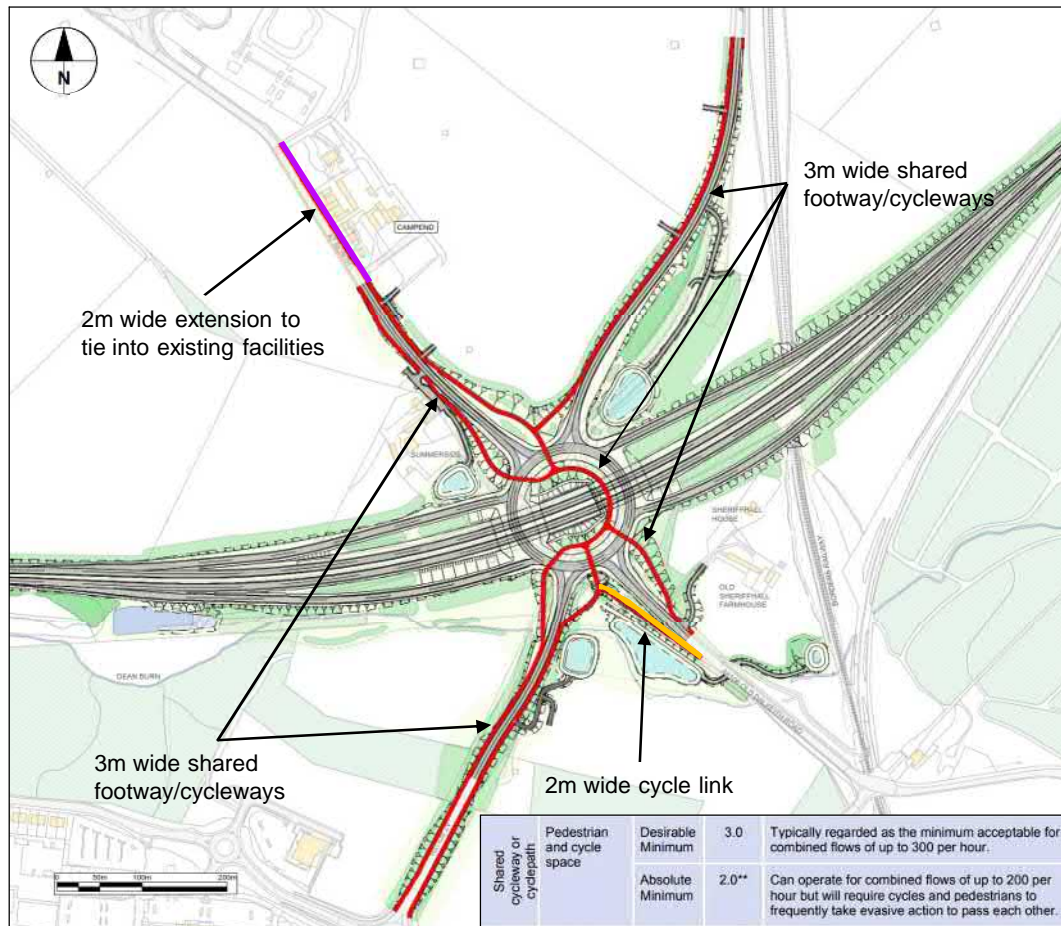
**Any questions?**

# Active Travel Provision Review

## Active Travel Facilities – Potential Enhancements

- The active travel facilities currently included in the Proposed Scheme have been reassessed against the Design Standards and Opportunities identified during the WCHAR assessment process.
- The following potential further enhancements have been identified and assessed:
  1. Widening of shared footway/cycleway routes
  2. Provision of additional NMU routes/subway
  3. Extending NMU provision
  4. Signing and Lighting

# 1. Widening of shared footway/cycleway routes



- The proposed cross section for shared NMU facilities (3m wide) complies with Cycling by Design requirements for routes with expected flows of up to 300 users per hour, therefore catering for a potential significant increase in demand
- A 2m wide cycle link west of the A6106 South was introduced at the request of the City of Edinburgh Council, to provide a link from the existing on-road cycle facilities to the new NMU facilities through Sheriffhall Junction (*shown in yellow*)
- A 2m wide footway/cycleway on the east side of the A7 North was introduced to connect to existing facilities whilst minimising impact on land (*shown in purple*)
- Widening the proposed facilities would require redesign of some elements of the Proposed Scheme and have an impact on adjacent land/properties in places (therefore requiring republication of CPO and Road Orders)

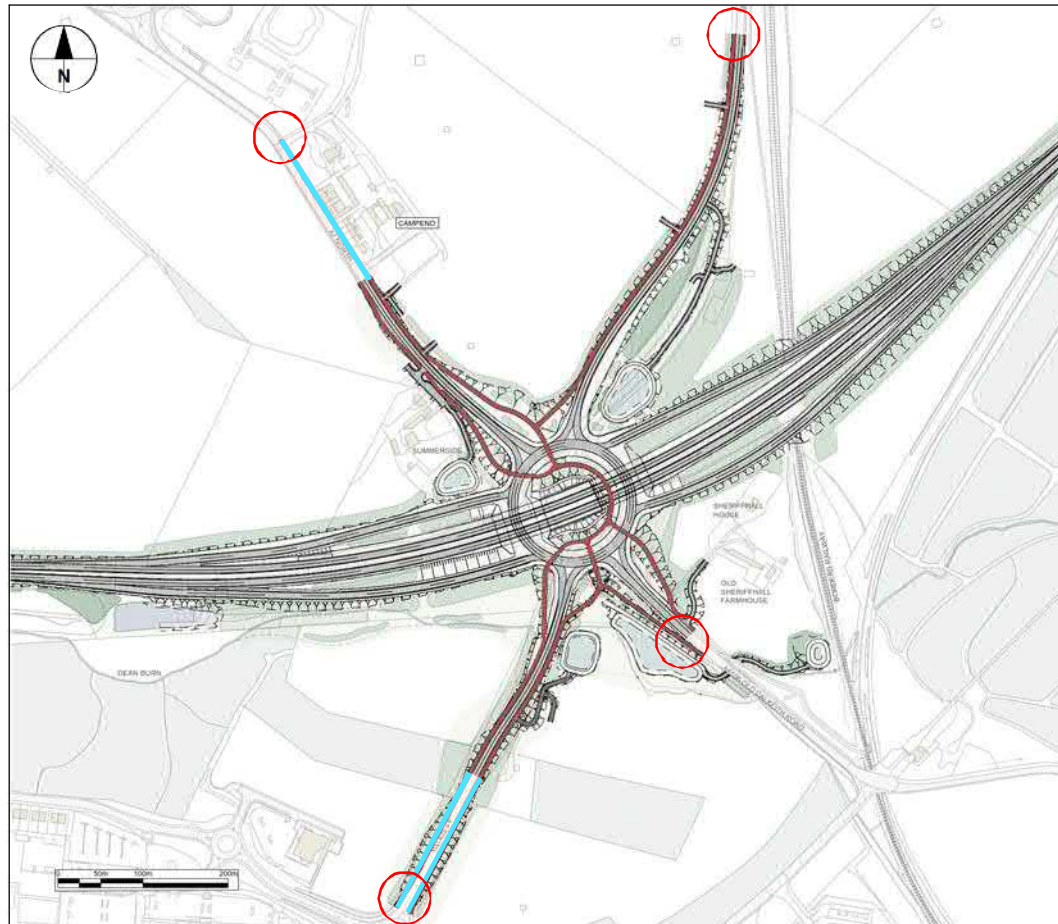


## 2. Provision of additional NMU routes/subway



- Provision of a NMU subway east of the A6106 Millerhill Road was considered during design development and assessment of NMU options, but it was discounted as an additional subway would present drainage issues and require a pumped solution.
- Discounted due to the reason above and considered poor value for money
- This NMU route is not included in the draft Road Orders published in December 2019. Its introduction would therefore require their re-publication.

### 3. Extending NMU provision



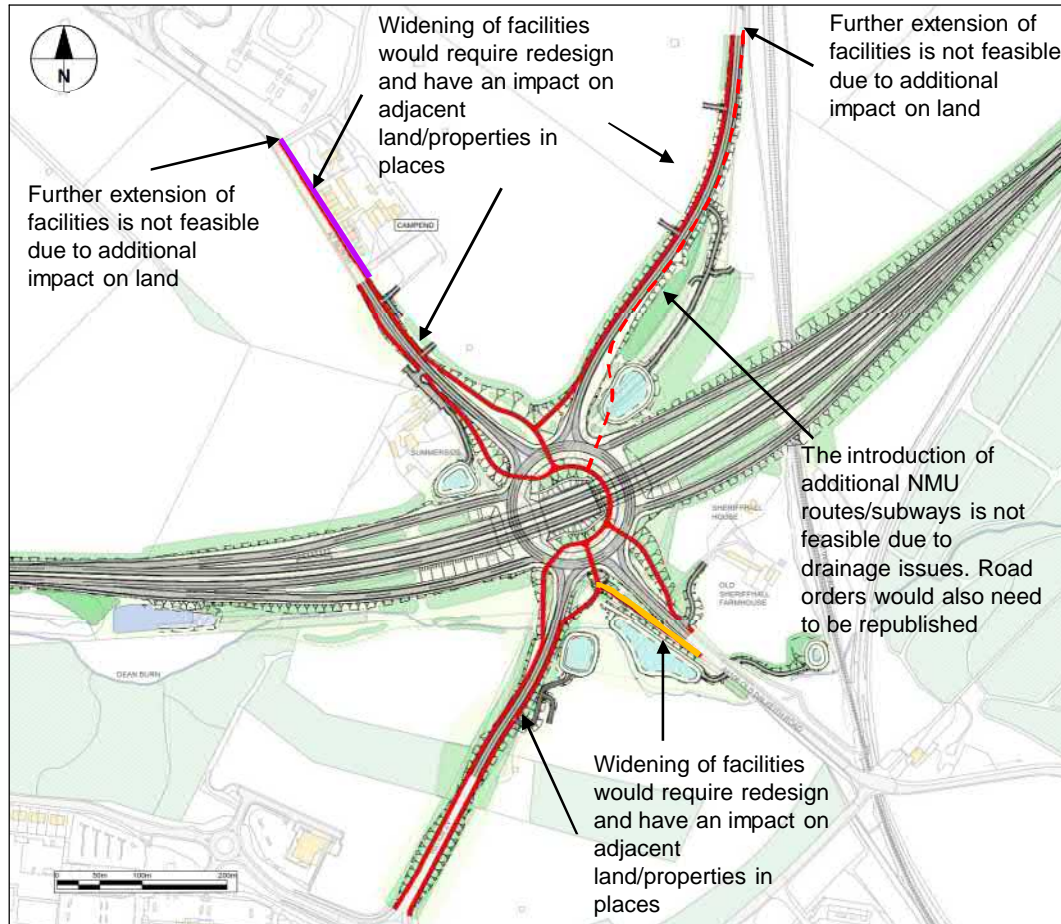
- The NMU routes included in the proposed Sheriffhall Roundabout scheme connect to existing facilities on all side roads
- The current proposals provide significantly improved facilities for NMUs compared to existing facilities.
- Extended NMU provision is already provided (*shown in blue*), beyond the extents of the realigned road, on the A7 North and A7 South to connect the new NMU routes to existing facilities
- Any further extension for NMU routes would increase impact on land and therefore require republication of the ES, CPO and Road Orders

## 4. Signing and Lighting



- The Proposed Scheme includes the provision of lighting throughout the dedicated NMU route network, and will extend to sections adjacent to lit carriageways.
- The proposed lighting on NMU routes will extend through all the subways within the scheme extents.
- Directional, regulatory and warning signs will be provided as appropriate throughout the NMU network.

# Active Travel Facilities Review – Summary



- The proposed NMU facilities are compliant with the relevant standards and were developed in line with the WCHAR process, in consultation with all stakeholders
- The proposed cross section for shared NMU facilities (3m wide) is suitable for expected flows of up to 300 users per hour, therefore catering for a potential significant increase in demand in future
- Widening the proposed facilities would require redesign of some elements of the Proposed Scheme and/or have an impact on adjacent land/properties in places (therefore requiring republication of ES, CPO and Road Orders)
- The introduction of additional NMU routes/subways and the provision of other extended/widened facilities is not deemed feasible due to deliverability issues (drainage issues, land constraints and republication of Road Orders)

**Any questions?**

# Public Transport & Active Travel Review Summary

# Public Transport & Active Travel Review Summary

## – Public Transport - Bus Prioritisation

- The Proposed Scheme is expected to deliver significant benefits to local traffic (including bus services) due to the improved traffic conditions on local roads resulting from the separation between strategic and local traffic.
- Several bus priority options (1, 2, 3 and 5) have been discounted due to negligible benefits to buses, impacts on general traffic and/or deliverability issues.
- Options 4 and 6 are potentially beneficial to bus journey times and reliability, but benefits are considered to be marginal when compared to the benefits the Proposed Scheme already offers. These bus priority measures, especially if considered in isolation, also introduce operational challenges or conflicts for general traffic.
- The Proposed Scheme has been futureproofed with the provision of ducting throughout the junction. This would facilitate the implementation of Option 6 at a later date if deemed necessary and beneficial in future, and as part of a longer term and wider strategy.

## – Public Transport - Tram Feasibility

- The available headroom at structures shows the Proposed Scheme would not be a constraint to the tramway extension aspirations.
- Full assessment and further consultation with CEC and MLC needed once tram extension plans are available.

# Public Transport & Active Travel Review Summary

## – Active Travel

- The proposed NMU facilities are compliant with the relevant standards and were developed in line with the WCHAR process, in consultation with all stakeholders.
- 43 cyclists and 47 pedestrians were recorded using the junction in the 14-hour period surveyed in May 2017. The proposed cross section for shared NMU facilities (3m wide) is suitable for expected flows of up to 300 users per hour, therefore catering for a potential significant increase in demand in future.
- Widening the proposed NMU facilities would require redesign of some elements of the Proposed Scheme and/or have an impact on adjacent land/properties in places (therefore requiring republication of ES, CPO and Road Orders).
- The introduction of additional NMU routes/subways and the provision of other extended/widened facilities is not deemed feasible due to deliverability issues (drainage issues, land constraints and republication of ES, CPO and Road Orders).
- The Proposed Scheme includes the provision of signage and lighting throughout the dedicated NMU route network, including subways.



**Any questions?**

# Next Steps

## Next Steps – A720 Sheriffhall Scheme

- Statutory process ongoing
- Public Local Inquiry

## Next Steps – Technical Workshop Outcome

- Please provide feedback by 21<sup>st</sup> August 2020

**Any questions?**

**Thank you**

**AECOM** Imagine it.  
Delivered.