

# Fleet Street Traffic Study

August 2024 V1

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## Background

- The image displays two book covers side-by-side. Both covers feature the NRP logo at the top, which consists of the letters 'NRP' in a bold, sans-serif font, with 'NORTH RIVERSIDE PARTNERS' in smaller text underneath. The left cover is titled 'FLEET STREET TRAFFIC MODELLING' in large, bold, black capital letters, with 'FLEET STREET TRAFFIC STUDY' in smaller capital letters below it. The cover also features a photograph of a street scene with a person on a bicycle. The right cover is titled 'HEALTHY STREETS FEASIBILITY STUDY' in large, bold, black capital letters, with 'CITY OF LONDON HEALTHY STREETS SCHEMES' and 'CITY OF LONDON' in smaller capital letters below it. This cover features a photograph of a modern building with a glass facade. Both covers have a white background and a black border.



## Policy overview

### Mayor's Transport Strategy, March 2018 (updated November 2022)

- Healthy Streets and healthy people:
  - Creating streets and street networks that encourage walking, cycling and public transport use will reduce car dependency and the health problems it creates.
- A good public transport experience:
  - Public transport is the most efficient way for people to travel over distances that are too long to walk or cycle, and a shift from private car to public transport could dramatically reduce the number of vehicles on London's streets.
- New homes and jobs:
  - More people than ever want to live and work in London. Planning the city around walking, cycling and public transport use will unlock growth in new areas and ensure that London grows in a way that benefits everyone.



### City Plan 2040 (Revised Proposed Submission Draft April 2024)

- Strategic Policy S10: Active Travel and Healthy Streets
  - Healthy Streets Plan for Fleet Street Area.
- Strategic Policy S22: Fleet Street and Ludgate.
  - The character and function of the Fleet Street and Ludgate Key Area of Change as a centre for judicial and related business, a royal and state processional route and a Principal Shopping Centre (PSC) will be promoted. This includes improving and increasing the capacity and accessibility of pavements along Fleet Street and Ludgate Hill, and delivering additional greening on streets.

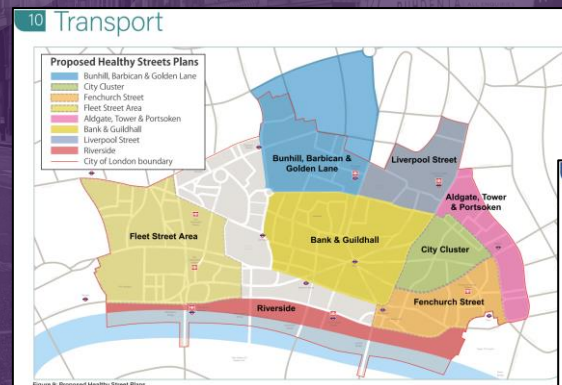


Figure 9: Proposed Healthy Streets Plans

### 14 The Temple, the Thames Policy Area & the Key Areas of Change

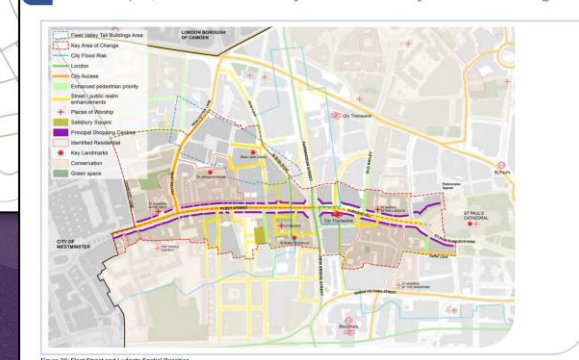


Figure 10: Fleet Street and Ludgate Spatial Priorities

## Policy overview

### City of London Transport Strategy (draft changes for consultation in conjunction with City Plan 2040)

- **Proposal 2.** Put the needs of people walking and wheeling first when designing and managing [CoL] streets.
- **Proposal 11.** Accepting that delivering priority for people walking and wheeling may result in delays or reduced capacity for other street users, while seeking to minimise the impact on essential traffic through general traffic reduction.
- **Pedestrian Comfort Levels (PCL).** TfL's PCL Guidance recommends a 'minimum comfort level of B+ for all areas', which provides enough space for people to feel comfortable when walking at a typical pace and for them to be able to choose where to walk. A comfort level of B might be classed as 'acceptable' for High Street/Office & Retail environment.
- **Key walking and wheeling routes.** We will prioritise improvements to junctions and routes that are busiest with people walking and where pavement width and pedestrian crossings are inadequate for current or forecast demand. A series of north-south and east-west routes will provide improved walking, wheeling, and cycling connections to key attractions, destinations and public spaces. These include Fleet Street to Aldgate via Bank and the City Cluster, including Ludgate Circus (in partnership with TfL).
- **Proposal 7.** Provide more public space and deliver world-class public realm. Identifying opportunities to create new public spaces by reallocating carriageway.
- **Proposal 8.** Incorporate more greenery into the City's streets and public spaces.
- **Proposal 11.** Take a proactive approach to reducing motor traffic. In addition to reducing traffic by 25% by 2030 we will aim for a reduction in motor traffic volumes of at least 50% by 2044.
- **Fleet Street Area Healthy Streets Plan,** covers the area to Chancery Lane, north and south of Fleet Street including the Temples, and extends to St Paul's. Delivery of the recommendations will be over the period to 2033, including improvements associated with new development.
- **Proposal 20.** Apply the safe system approach and the principles of road danger reduction to deliver Vision Zero. The current priority locations for investment include Fleet Street / Bouverie Street.
- **Proposal 49.** Review bus provision across the City. Introducing targeted junction improvements to enhance bus priority where possible, recognising that bus priority in the Square Mile is most effectively delivered by reducing general traffic.

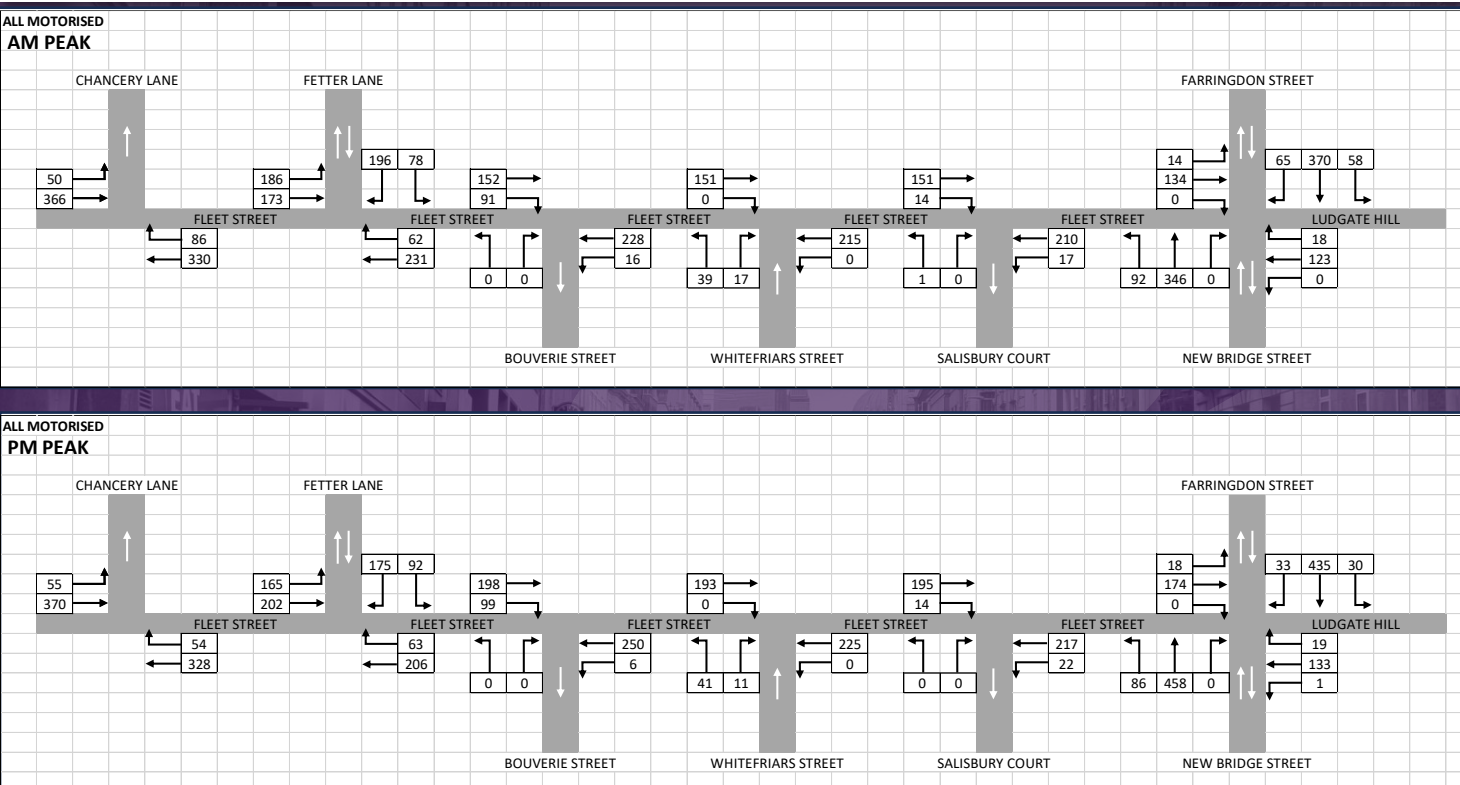
## Existing situation – layout



### Summary

- 3m wide footways on either side of Fleet Street. Effective footway width often less than 3m due to street furniture, static activity at eateries and bus stops, etc.
- Fleet Street has 12m wide carriageway (2 traffic lanes in each direction).
- Post-Covid, all the Fleet Street approaches to Chancery Lane and New Fetter Lane junctions typically operate as single lanes. New Fetter Lane has a 2-lane approach.
- Chancery Lane now taxi and access only north of Carey Street (7am-7pm).
- No protected cycle lanes, although there are some cycle lane road markings, while the eastbound bus lane assists cyclists.
- Eastbound bus lane between Fetter Lane and Ludgate Circus.
- 2 bus stops on Fleet Street eastbound (at Fetter Lane and Ludgate Circus).
- 2 bus stops on Fleet Street westbound (at Salisbury Court and Bouverie Street). It is understood stop H can be removed (it does not currently serve any TfL routes due to the Justice Quarter development works).
- Pedestrian crossing on Fleet Street east of Bouverie Street.
- Police checkpoint island and bay with associated infrastructure (including CCTV) on Fleet Street.
- Ludgate Hill has footway of 3m width on southern side, with localised narrowing to the east.
- Bus stop F and City Thameslink access on south side of Ludgate Hill.
- Ludgate Hill has 11m wide carriageway with single lane and marked cycle lanes in both directions.
- Police checkpoint island (flush) and bay on Ludgate Hill.

## Existing situation – traffic flows



### Summary

- Fleet Street and Ludgate Hill part of the Strategic Road Network (SRN).
- All flows shown are vehicles per hour (excluding cyclists). AM peak is 0815-0915hrs, PM peak is 1800-1900hrs.
- 2-way motorised vehicle flow on Fleet Street between Bouverie Street and Ludgate Circus of ~400 vehicles in the AM peak hour, and ~450 in the PM peak hour.
- 2-way cycle flow on Fleet Street between Bouverie Street and Ludgate Circus of ~380 cycles in the AM peak hour, and ~390 in the PM peak hour.
- Highest motor vehicle flows between Chancery Lane and Fetter Lane are ~800 motor vehicles 2-way in the AM peak and ~750 in the PM peak).
- 2-way motorised vehicle flow on Ludgate Hill is ~350 vehicles in the AM peak hour, and ~400 in the PM peak hour.
- 2-way cycle flow on Ludgate Hill of ~460 cycles in the AM peak hour, and ~500 in the PM peak hour.

## Existing situation – bus lane



### Summary

- Use of the bus lane on Fleet Street has been reviewed. The bus lane permits buses and cyclists Monday-Friday 7am-7pm. Within the bus lane there is 'No loading Monday-Friday 1pm-7pm'. This allows loading during the morning peak hour period.
- In the AM peak hour (0815-0915hrs) the bus lane was not observed to be well used by buses. This was because there was no congestion on Fleet Street eastbound, meaning buses did not benefit from using the bus lane.
- In the PM peak hour (1715-1815hrs) the bus lane was also not typically well used, but there were instances where the eastbound queue on Fleet Street on the approach to Ludgate Circus queued back beyond the end of the bus lane, which is when buses used the bus lane.
- Observations found that highest delay to eastbound buses tends to occur west of Fetter Lane and Chancery Lane, where there is no bus lane.
- Currently the bus lane is suspended with a single lane in each direction on Fleet Street outside the Justice Quarter development. iBus data has been provided by TfL to assess the impact of this on bus journey times.

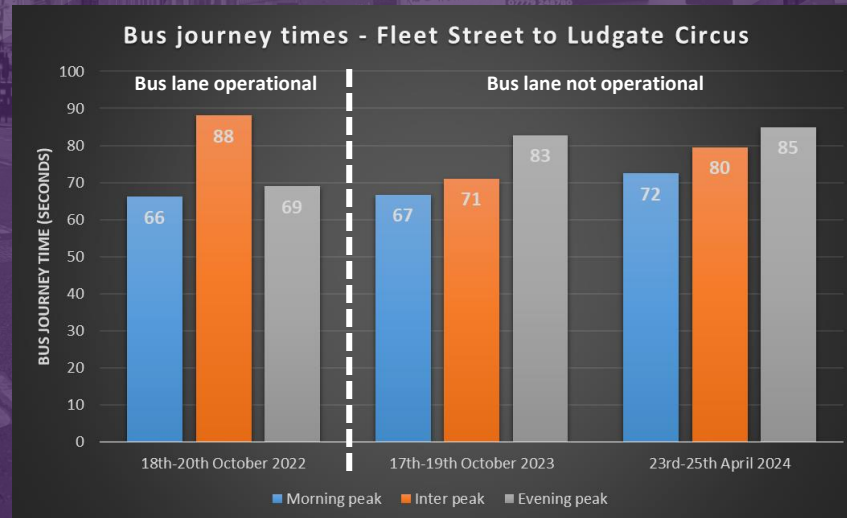
Screenshots from 18<sup>th</sup> October survey video every 15 minutes from 1715hrs to 1800hrs. Taken from *Fleet Street Traffic Modelling (NRP for CoL, January 2023)*.

## Existing situation – bus lane

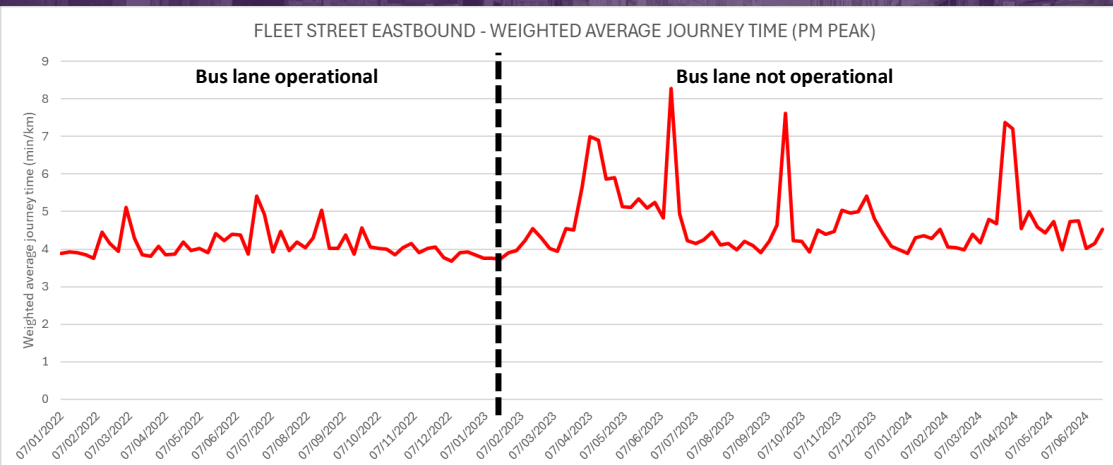
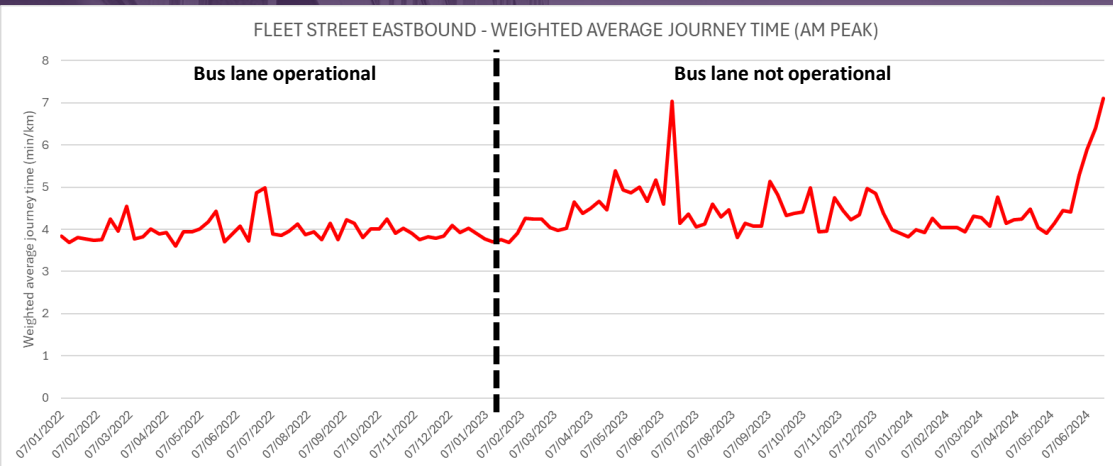


### Summary

- iBus data has been analysed for Fleet Street eastbound between stop E at Fetter Lane and stop E at Ludgate Circus.
- The following data was obtained:
  - 18<sup>th</sup>-20<sup>th</sup> October 2022 (3 weekdays). Same dates as traffic survey data. Bus lane operational.
  - 17<sup>th</sup>-19<sup>th</sup> October 2023 (3 weekdays). Bus lane **not** operational.
  - 23<sup>rd</sup>-25<sup>th</sup> April 2024 (3 weekdays). Bus lane **not** operational.
- iBus data shows average bus journey time for all routes on Fleet Street eastbound changed from October 2022 as follows:
  - October 2023. Morning peak = +1 second. Inter peak = -17 seconds. Evening peak = +14 seconds.
  - April 2024. Morning peak = +6 seconds. Inter peak = -9 seconds. Evening peak = +16 seconds.



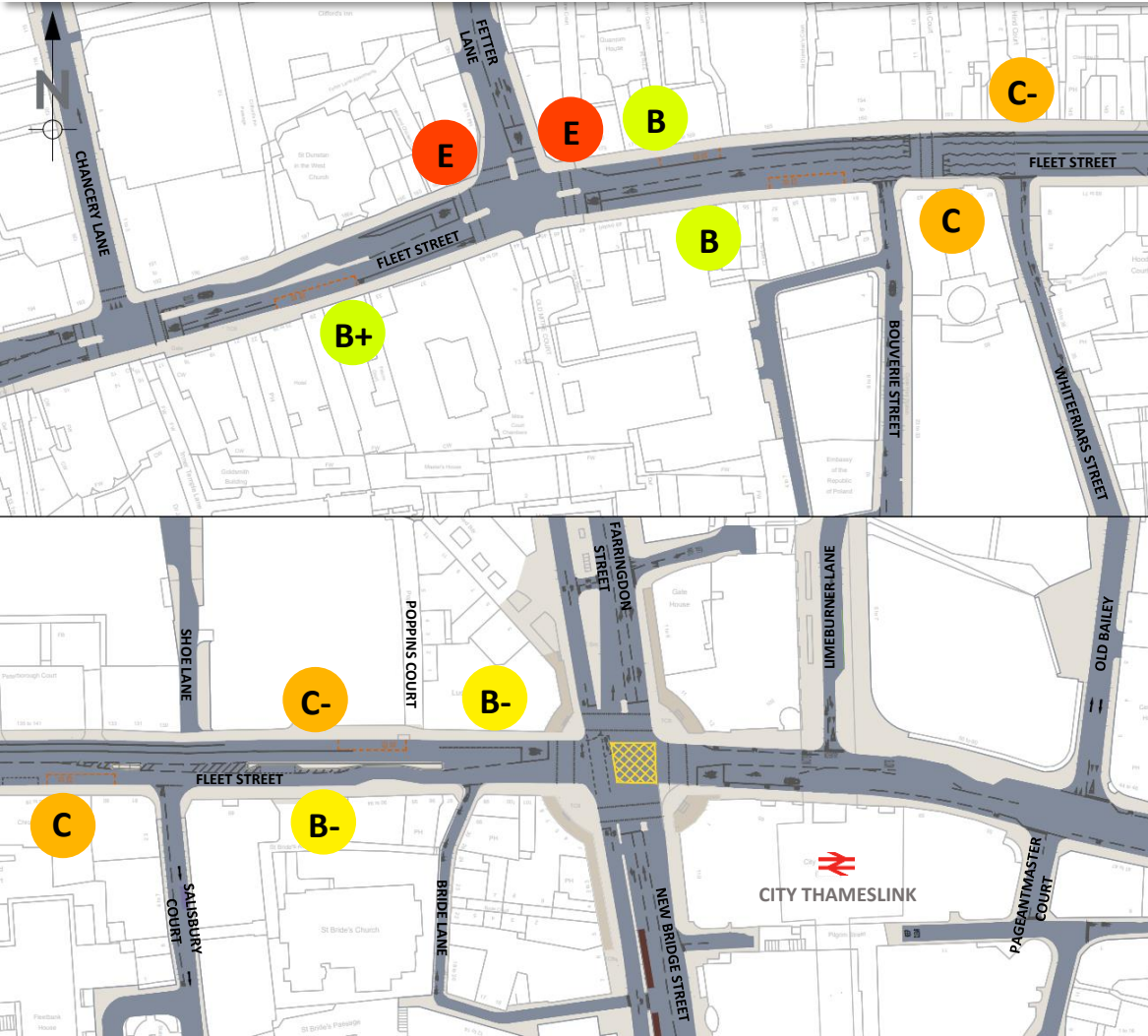
## Existing situation – bus lane



### Summary

- Bus speed data for Fleet Street eastbound has been provided by TfL between stop E at Fetter Lane and stop E at Ludgate Circus.
- Average weighted journey time (AWJT) from January 2022 to June 2024 has been derived from the bus speed data.
- AM peak AWJT for Fleet Street eastbound as follows:
  - 2022: 3.98 minutes.
  - 2023: 4.43 minutes.
  - 2024: 4.49 minutes
- PM peak AWJT for Fleet Street eastbound as follows:
  - 2022: 4.13 minutes.
  - 2023: 4.74 minutes.
  - 2024: 4.62 minutes
- For both peak hour periods (and the 12-hour day period) AWJT for eastbound buses has increased by around 30 seconds.
- It is unclear if the spikes in AWJT are specifically due to the suspension of the bus lane, or other construction works or wider highways issues.

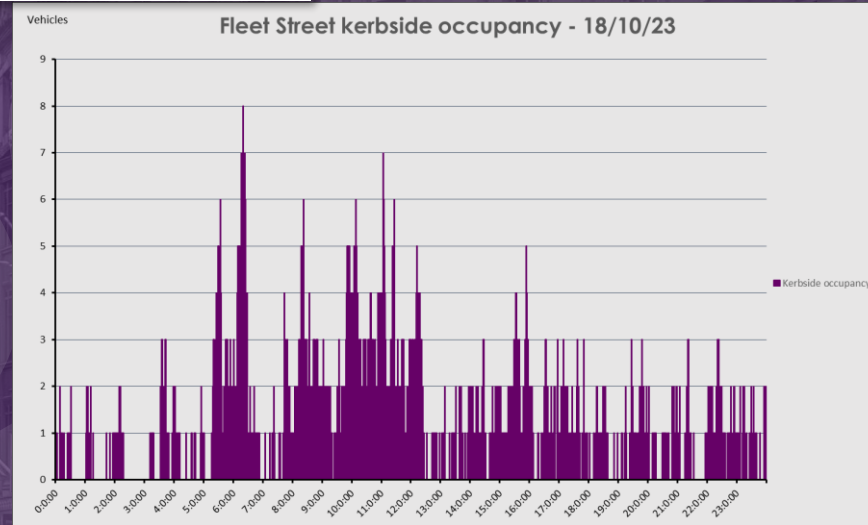
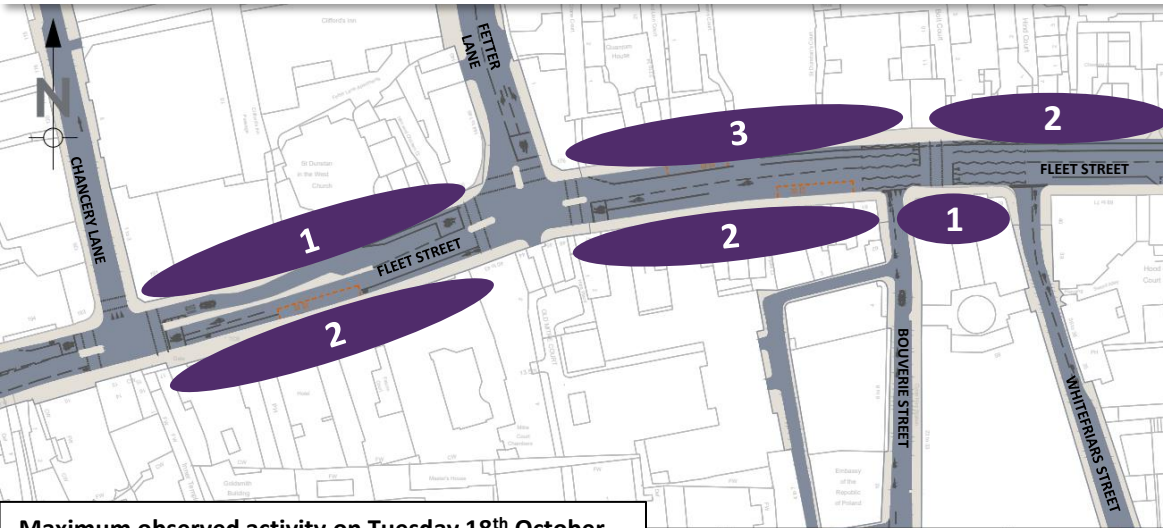
## Existing situation – pedestrian comfort



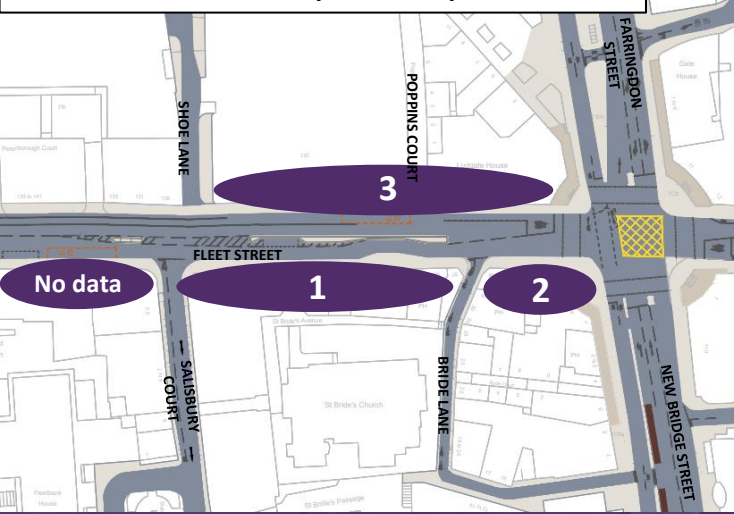
### Summary

- Pedestrian Comfort Level (PCL) analysis is used to, "...classify the level of comfort based on the level of crowding a pedestrian experiences on the street."
- A minimum comfort level of B+, which provides enough space for people to feel comfortable when walking at a typical pace and for them to be able to choose where to walk, is CoL policy recommendation. The range is A (the pedestrian environment is very comfortable with plenty of space for people to walk at the speed and the route that they choose) to D or E (walking speeds are severely restricted and reduced and there are difficulties bypassing slower pedestrians or reverse flows).
- The maximum average peak hour PCLs are shown on the image. These are an average along each stretch of footway. Wherever there is street furniture (including bus stop flags, traffic signals, lamp columns) the PCL value reduces because the effective footway width reduces.
- It is anticipated that there will be 25,000 new jobs created over the next 5 years in the Fleet Street area. Desktop analysis undertaken for the Fleet Street Placemaking and Public Realm Vision (Gensler/ NRP for FSQ BID, November 2023) forecast pedestrian flow increases of 40% east and west of Ludgate Circus, and 10-20% further west on Fleet Street.
- The current PCL levels show footway widening is required now, as well as in the future, to cater for projected demand. Additional footway space would be able to accommodate greening and public realm enhancement, whilst maintaining appropriate pedestrian comfort levels.

## Existing situation – kerbside activity



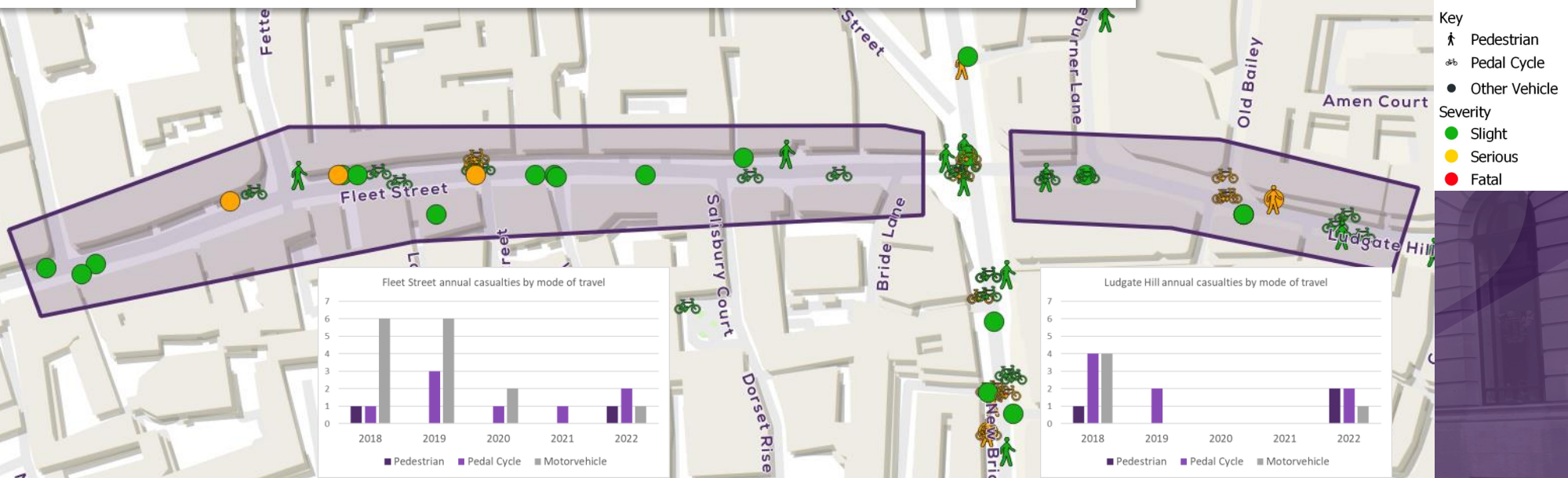
Maximum observed activity on Tuesday 18<sup>th</sup> October



### Summary

- Kerbside activity for Fleet Street was observed for 24 hours on Tuesday 18<sup>th</sup> October 2022.
- Activity occurred throughout the day, with 561 observations of kerbside activity.
- A maximum of 8 vehicles were observed to be active along the kerbside at any one time (6am).
- Fleet Street has one loading bay and double yellow lines. Peak kerbside activity occurred between 6am-midday.
- 68% of activity observed lasted for less than 2 minutes, with a further 11% lasting for just 2-4 minutes. The remaining 21% was over 4 minutes.
- 19% of kerbside activity was undertaken by cars (which includes PHVs). 17% was LGVs (i.e. white vans), with 14% by medium good vehicles. 46% was undertaken by taxis.
- 35% of activity was observed to be pick up, with 22% to be drop off. This is line with the high percentages of kerbside activity associated with taxis and being less than 2 minutes. The rest of the kerbside activity related to loading and parcel delivery.

## Existing situation – collision analysis



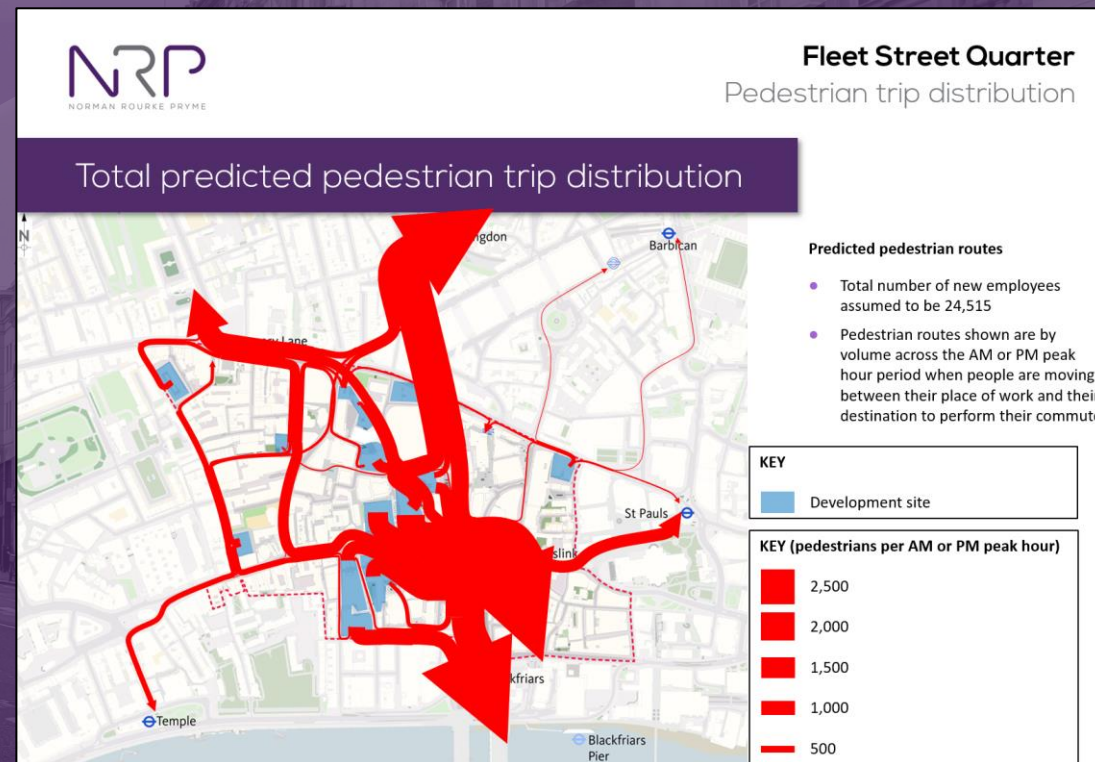
### Summary

- Collision data analysed from 2018-2022 (inclusive).
- Fleet Street.** 25 casualties over 5 years (5 per year). 8% were pedestrians, 32% were cyclists and 60% in motor vehicles. 80% had a severity of "Slight", with 20% being "Serious". There were no fatalities.
- Ludgate Hill.** 16 casualties over 5 years (3.2 per year). 19% were pedestrians, 50% were cyclists and 31% in motor vehicles. 69% had a severity of "Slight", with 31% being "Serious". There were no fatalities.
- Both Fleet Street and Ludgate Hill saw significant reductions in casualties during Covid (2020-21). Casualties in 2022 remained lower than pre-Covid.
- Data from January-September 2023 shows there was 1 collision on Fleet Street, which was at Bride Lane. This resulted in a Serious pedestrian casualty. There was also 1 collision on Ludgate Hill, which resulted in a Slight pedestrian casualty.

## Option assessment

### Methodology

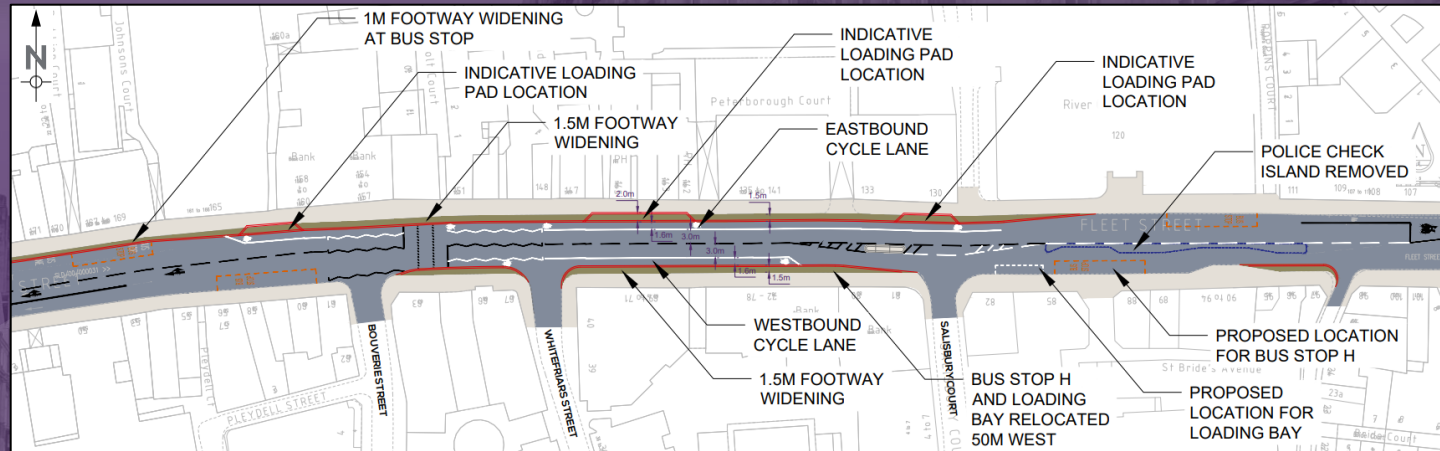
- 4 options were developed for Fleet Street with the objective to maximise the opportunity for public realm improvements by providing footway widening on both sides of Fleet Street.
- The need for wider footways and improved public realm was set out in the Placemaking and Public Realm Vision Report, with an estimated 25,000 new workers in the FSQ BID area as a result of multiple developments due to be completed in the next 2-5 years. This includes the Justice Quarter development on the south side of Fleet Street.
- A desktop analysis was undertaken to predict the routes the new workers would use to travel between their place of work and their mode of travel to commute. This demonstrated the additional impact of new pedestrians on the streets and why delivering healthy streets improvements through new footway space and improved public realm is necessary.
- Traffic modelling was not undertaken for the options set out in the Fleet Street Placemaking and Public Realm Vision document. However, the initial option test suggests that the removal of the eastbound bus lane would not have a significant impact on bus journey times.



## Option assessment

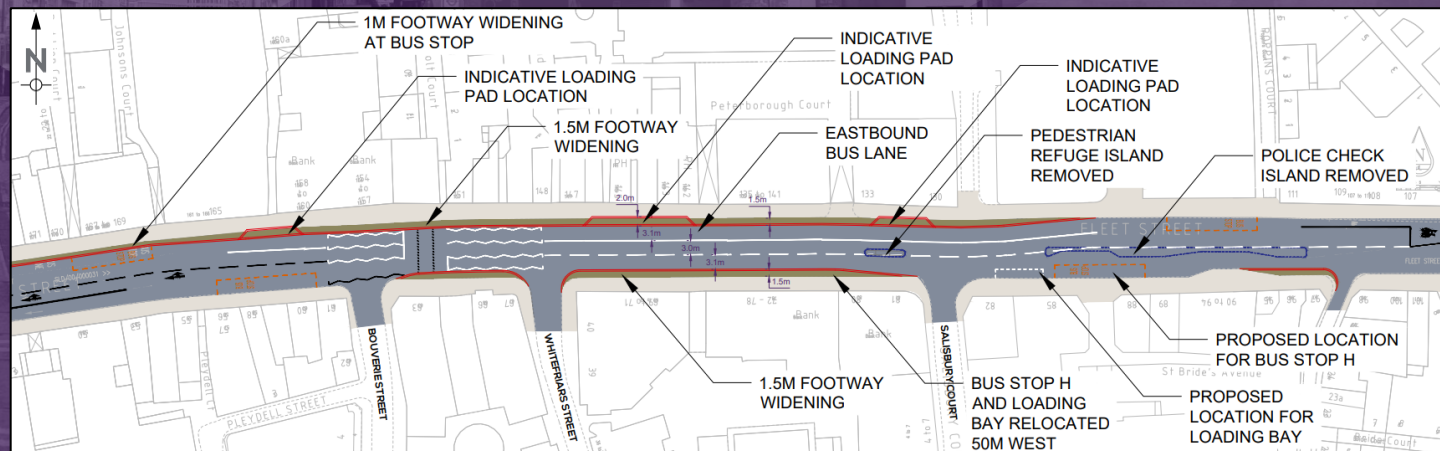
### Option 1

- Localised footway widening on both sides of Fleet Street of maximum 1.5m.
- Cycle lane provided in each direction between existing bus stop locations.
- Existing eastbound bus lane reallocated.
- Assume police check island is removed (including relocating ANPR/CCTV).
- On-footway loading pads provided.
- Westbound bus stop H and loading bay moved east to provide space for footway widening.



### Option 2

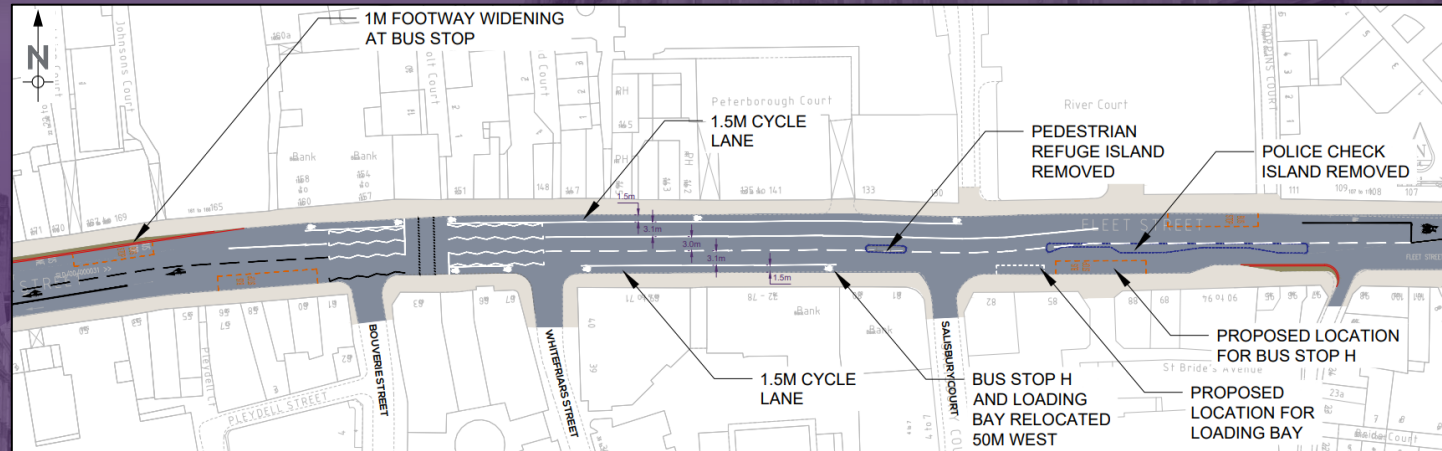
- Localised footway widening on both sides of Fleet Street of maximum 1.5m.
- Existing eastbound bus lane retained, cyclists continue to use bus lane.
- Assume police check island is removed (including relocating ANPR/CCTV).
- On-footway loading pads provided.
- Westbound bus stop H and loading bay moved east to provide space for footway widening.



## Option assessment

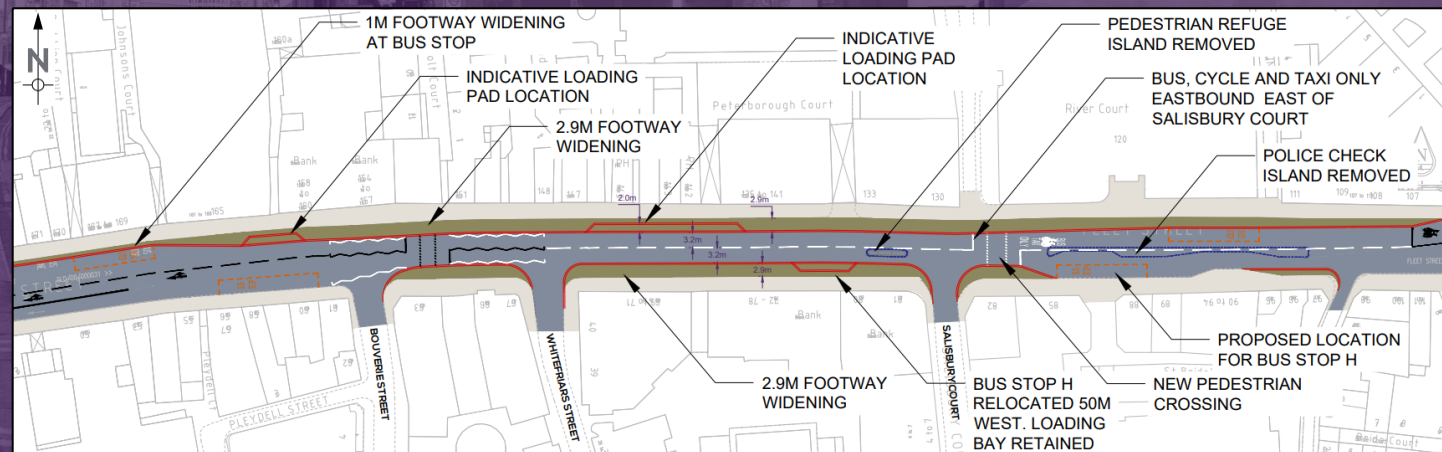
### Option 3

- No footway widening except at eastbound bus stop (maximum 1m).
- Cycle lane provided in each direction between existing bus stop locations.
- Existing eastbound bus lane retained.
- Assume police check island is removed (including relocating ANPR/CCTV).
- Loading would be within cycle lanes.
- Westbound bus stop H and loading bay moved east to provide space for cycle lane.



### Option 4

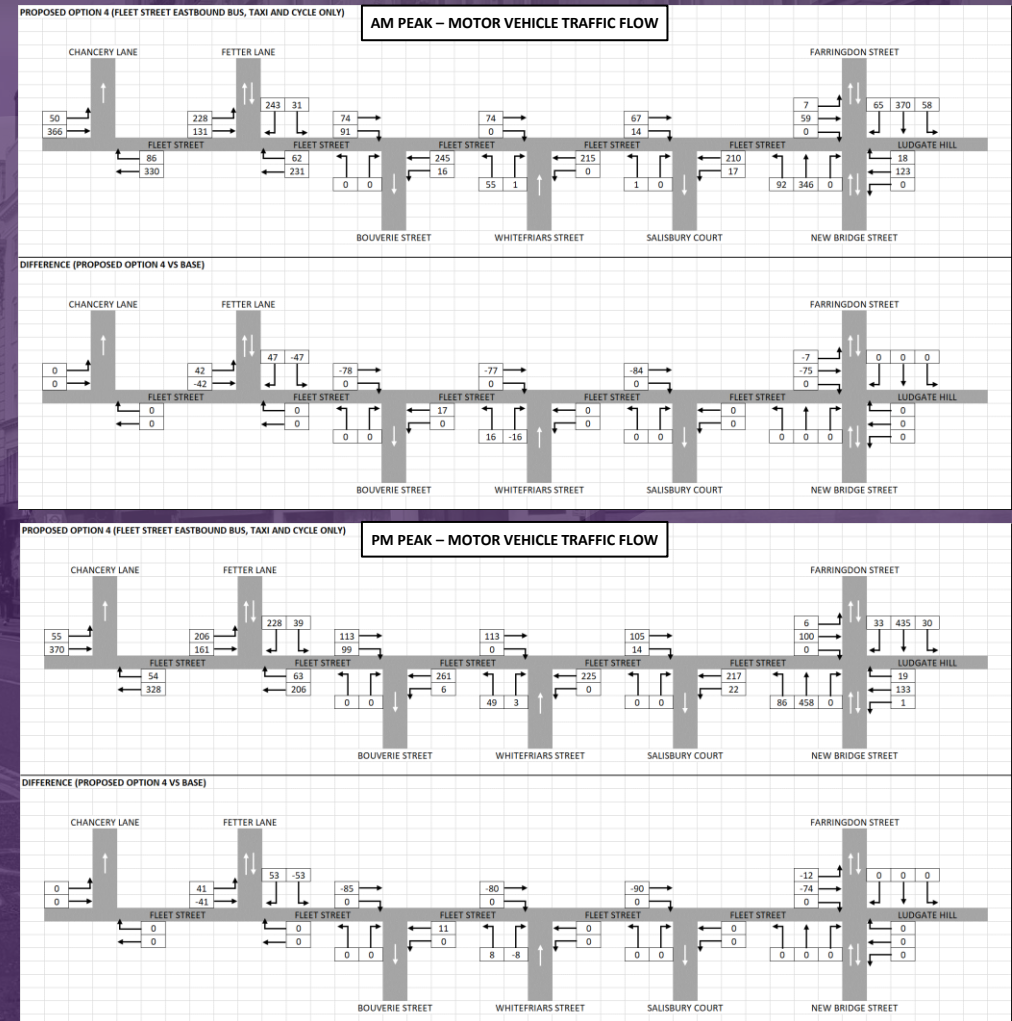
- Footway widening on both sides of Fleet Street of maximum 2.9m.
- Eastbound bus lane reallocated. Fleet Street eastbound (east of junction with Fetter Lane) to be bus, taxi, cycle and access only (including to Whitefriars area). East of Salisbury Court bus, taxi and cycle only. Loading and servicing requirements on Fleet Street to be reviewed to ensure appropriate arrangements are provided.
- Assume police check island is removed (including relocating ANPR/CCTV).
- On-footway loading pads provided.
- Westbound bus stop H and loading bay moved east to provide space for footway widening.



## Option assessment

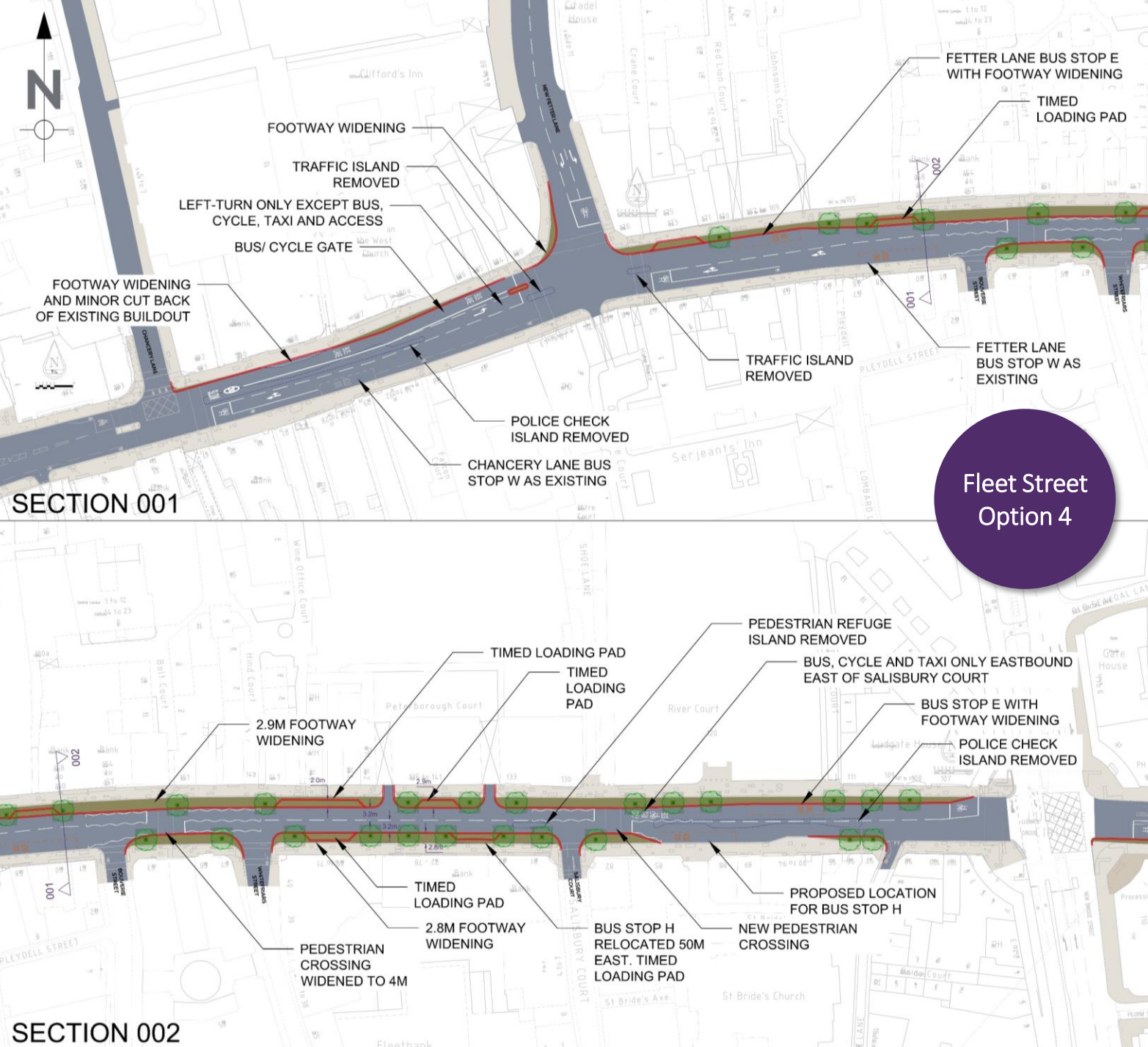
### Proposed Option 4 – traffic reassignment

- Option 4 proposes a vehicle restriction on Fleet Street eastbound to allow bus, taxi, cycle and access only (east of junction with Fetter Lane), with east of Salisbury Court bus, taxi and cycle only.
- A desktop analysis was undertaken to assess the estimated change in traffic flows based on the March 2022 traffic count data.
- It was forecast that the traffic flow on Fleet Street eastbound at the junction with Ludgate Circus would reduce by ~80 motor vehicles/hour in the AM peak and ~90 motor vehicles/hour in the PM peak. These values account for approximately 50% of the existing motorised vehicle volume on Fleet Street eastbound.
- In both the AM and PM peak hours, approximately half of this reduction was from traffic originating from Fetter Lane southbound (turning left onto Fleet Street) and half was from traffic already travelling eastbound on Fleet Street at the junction with Fetter Lane.
- It is assumed that local traffic remains on the corridor and that eastbound traffic on Fleet Street that would be prohibited from continuing to travel east beyond the junction with Fetter Lane would turn left onto Fetter Lane.
- It is also assumed that southbound traffic on Fetter Lane that would be prohibited from turning left onto Fleet Street eastbound would turn right onto Fleet Street westbound.
- Northbound traffic turning right out of Whitefriars Street was assumed to turn left onto Fleet Street westbound.
- The impact of this traffic reassignment has not been tested for the wider area.



#### Option 4

- The Option 4 highway layout has been developed to include changes at the junctions with Chancery Lane and Fetter Lane.
- Provides significant opportunity for public realm improvement, greening, timed loading pads, cycle/scooter hire parking bays, and bus shelters along the length of Fleet Street.
- Bus gate provided on Fleet Street eastbound on approach to junction with Fetter Lane. This provides bus and cycle priority and removes the left-hook for cyclists.
- Between junctions with Bouverie Street and Ludgate Circus, motorised vehicle flow (2-way) predicted to be less than 350 vehicles/hour. This is in line with LTN 1/20 and TfL New Cycle Route Quality Criteria guidelines where cyclists could mix with motor vehicles without the need for cycle lanes (protected or otherwise).



## Option 4 – Initial traffic modelling

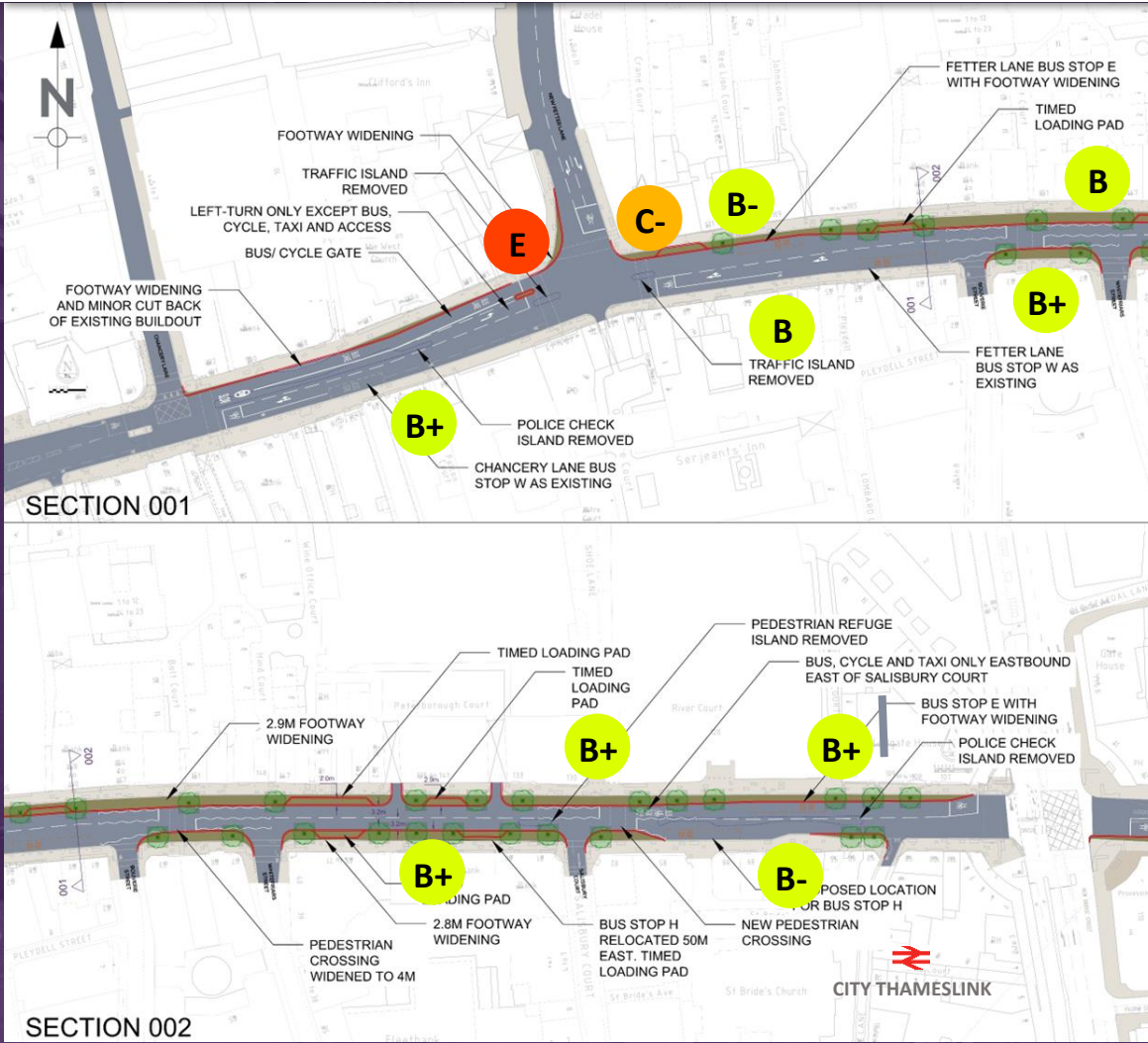
### Summary

- Traffic models were developed using traffic survey data and junction signal timings from 18th October 2022 (eastbound bus lane was operational).

| Vehicle type    | Direction | Average journey time difference (seconds) |             |
|-----------------|-----------|-------------------------------------------|-------------|
|                 |           | AM peak                                   | PM peak     |
| General traffic | Eastbound | -10-20 secs                               | -0-20 secs  |
|                 | Westbound | +0-10 secs                                | +0-10 secs  |
| TfL Buses       | Eastbound | +0-10 secs                                | -20-30 secs |
|                 | Westbound | +0-10 secs                                | +10-20 secs |

- For Option 4 it was required to increase the signal cycle time at the junctions of Fleet Street with Chancery Lane and Fetter Lane from 88 seconds (existing) to 96 seconds. This provides increased traffic capacity at each of these junctions to minimise the impact on bus journey times. The disbenefit is that the wait time for pedestrians (and cyclists) increases by up to 8 seconds.
- The traffic modelling demonstrates that although the bus lane and bus gate allowed buses to bypass queueing traffic, this only works for the extent of the bus lane. And due to the highway layout constraints, it is not possible to extend the bus lane further west beyond the junction with Chancery Lane. Therefore, buses still get delayed, as existing, when they are part of the eastbound traffic queue west of Chancery Lane.
- Furthermore, there are instances where 2 buses do not get through the bus gate signal stopline. This is due to the number of cyclists and the limited green time for the bus gate (to minimise eastbound and westbound queueing on Fleet Street).

## Pedestrian comfort – Option 4

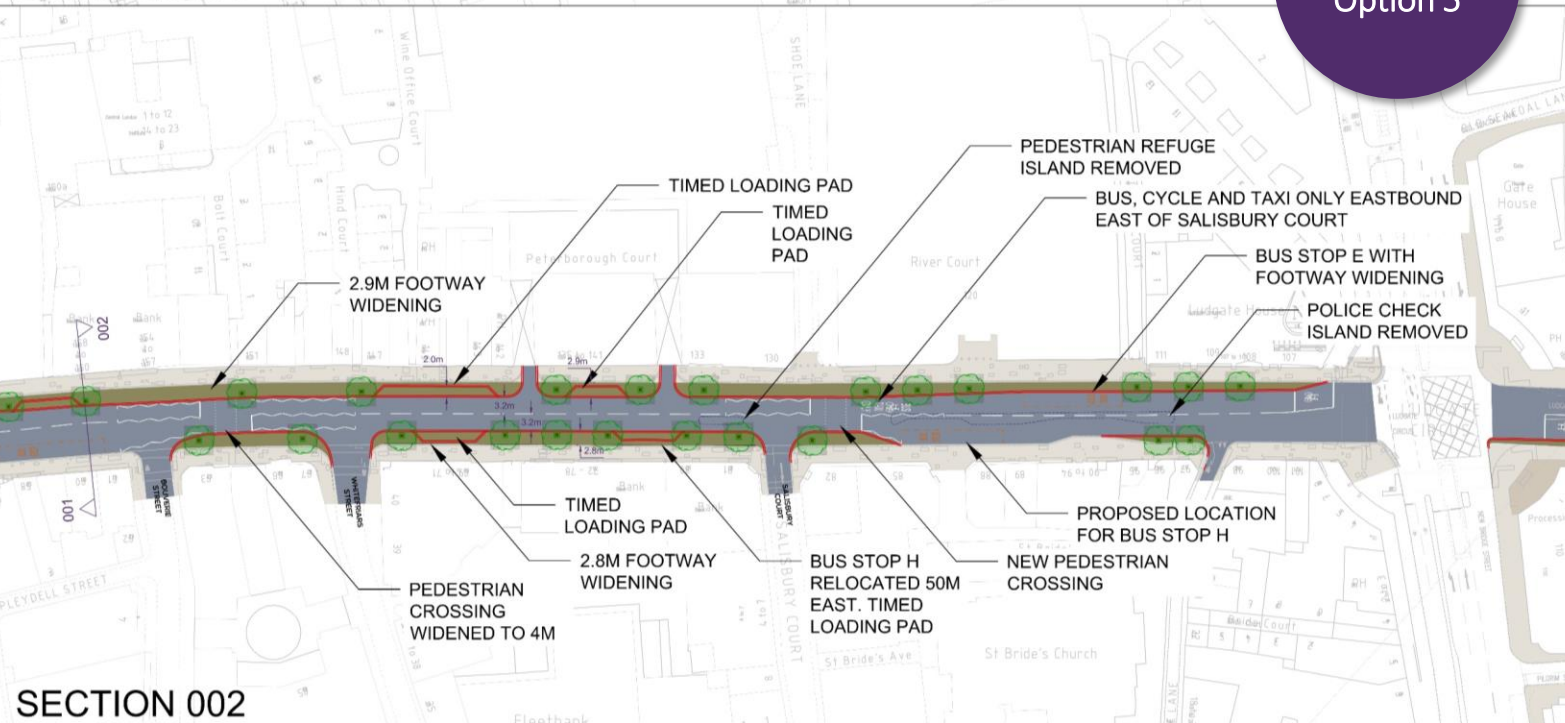
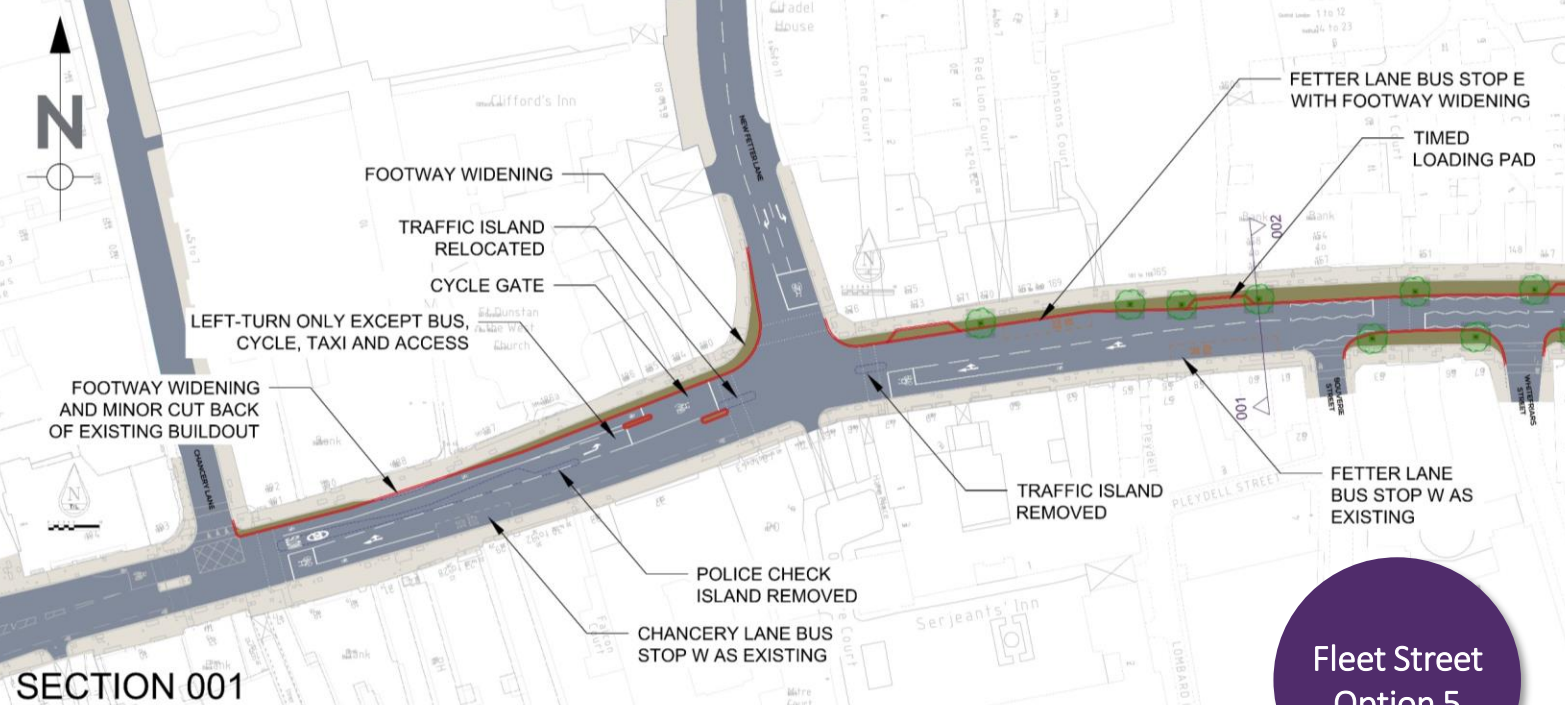


### Summary

- The maximum average peak hour PCLs with the proposed Option 4 layout and a 15% uplift in pedestrian flows are shown on the image.
- The proposed PCL values are predicted to be B- to B+. The exception is the northern corners of the junction of Fleet Street and Fetter Lane, where the PCLs are E and C-.
- The PCL between Ludgate Circus and St Bride's Avenue (Fleet Street south side) would be an A- if bus stop H is not reinstated post-construction works for the Justice Quarter development.

## Option 5

- The Option 5 layout is the same as Option 4 with the exception of the Fleet Street eastbound approach to Fetter Lane.
- The alternative to the bus/ cycle lane and gate is to have a cycle lane and gate, with additional footway widening.
- This provides cycle priority and removes the left-hook for cyclists.
- The footway widening on the north side of Fleet Street (west of Fetter Lane) addresses the key location with low PCL on the corner of the junction where pedestrians wait at the crossings.



## Option 5 – Initial traffic modelling

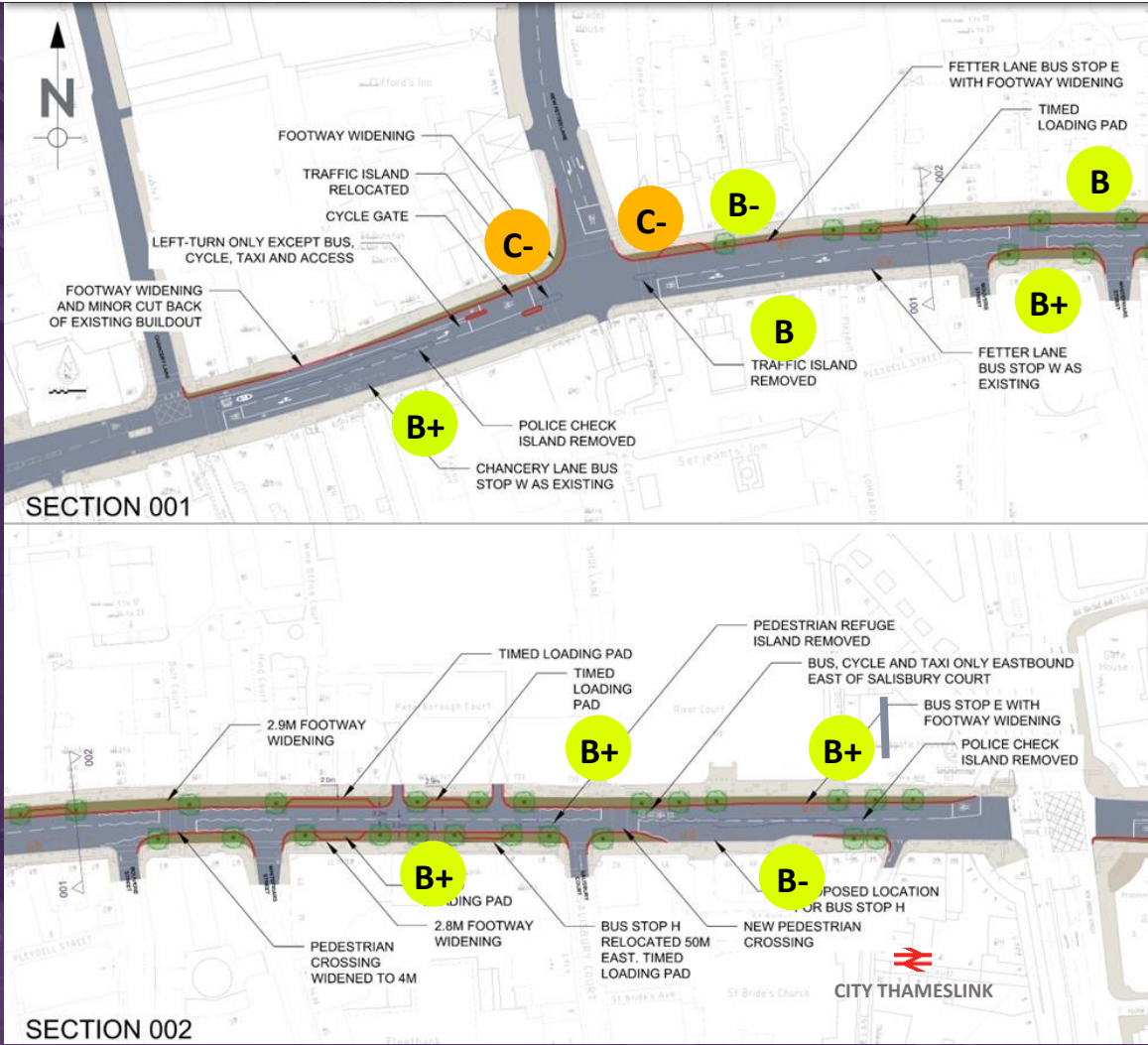
### Summary

- Traffic models were developed using traffic survey data and junction signal timings from 18th October 2022.

| Vehicle type    | Direction | Average journey time difference (seconds) |             |
|-----------------|-----------|-------------------------------------------|-------------|
|                 |           | AM peak                                   | PM peak     |
| General traffic | Eastbound | -40-50 secs                               | -40-50 secs |
|                 | Westbound | +20-30 secs                               | +50-60 secs |
| TfL Buses       | Eastbound | -20-30 secs                               | -20-30 secs |
|                 | Westbound | +0-10 secs                                | +20-30 secs |

- For Option 5 it was not necessary to increase the signal cycle time at the junctions of Fleet Street with Chancery Lane and Fetter Lane from 88 seconds (existing) to 96 seconds. However, if this was done, bus journey time impacts would be further reduced. In addition, the longer wait times for pedestrian could be better accommodated with the wider footways on the north side of Fleet Street.
- The traffic modelling for Option 5 has demonstrated that the bus lane and gate on Fleet Street eastbound on the approach to Fetter Lane (proposed under Option 4) does not provide a significant benefit to bus journey times. Reducing the volume of traffic on Fleet Street eastbound provides bus journey time benefits and reliability.

## Pedestrian comfort – Option 5



### Summary

- The maximum average peak hour PCLs with the proposed Option 5 layout and a 15% uplift in pedestrian flows are shown on the image.
- The proposed PCL values are predicted to be B- to B+. The exception is the northern corners of the junction of Fleet Street and Fetter Lane, where the PCL is C-.
- The PCL between Ludgate Circus and St Bride's Avenue (Fleet Street south side) would be an A- if bus stop H is not reinstated post-construction works for the Justice Quarter development.

## Proposed option – Fleet Street (west)

### Healthy Streets Score

Name of street

**Fleet Street**

Name of street at start junction

**Chancery Lane**

Name of street at end junction

**New Fetter Lane**



### Summary

- Healthy Streets assessment undertaken for Fleet Street (west), which is between the junctions with Chancery Lane and Fetter Lane.
- Existing overall score of 35, with proposed score of 36 for Option 4.
- No significant improvements for Healthy Streets.
- Option 5 would increase the Healthy Streets score due to the additional footway widening on the north side of Fleet Street to the west of Fetter Lane.



|                                 | Existing Layout Score | Proposed Layout Score |
|---------------------------------|-----------------------|-----------------------|
| Healthy Streets Score           | 35                    | 36                    |
| Everyone feels welcome          | 40                    | 42                    |
| Easy to cross                   | 54                    | 54                    |
| Shade and shelter               | 0                     | 0                     |
| Places to stop and rest         | 13                    | 20                    |
| Not too noisy                   | 53                    | 53                    |
| People choose to walk and cycle | 40                    | 42                    |
| People feel safe                | 51                    | 54                    |
| Things to see and do            | 11                    | 11                    |
| People feel relaxed             | 40                    | 42                    |
| Clean air                       | 42                    | 42                    |

## Proposed option – Fleet Street (east)

### Healthy Streets Score

Name of street

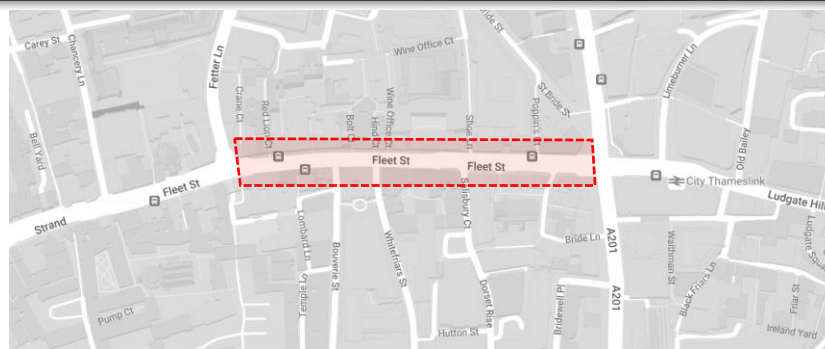
Fleet Street

Name of street at start junction

New Fetter Lane

Name of street at end junction

Ludgate Circus



### Summary

- Healthy Streets assessment undertaken for Fleet Street (east), which is between the junctions with Fetter Lane and Ludgate Circus.
- Existing overall score of 34, with proposed score of 60.
- Significant improvements for Healthy Streets delivered primarily from footway widening and consequent opportunity for seating, trees, green infrastructure, cycle parking and provision of bus shelters.



|                                 | Existing Layout Score | Proposed Layout Score |
|---------------------------------|-----------------------|-----------------------|
| Healthy Streets Score           | 34                    | 60                    |
| Everyone feels welcome          | 40                    | 61                    |
| Easy to cross                   | 63                    | 71                    |
| Shade and shelter               | 0                     | 50                    |
| Places to stop and rest         | 7                     | 47                    |
| Not too noisy                   | 47                    | 67                    |
| People choose to walk and cycle | 40                    | 61                    |
| People feel safe                | 51                    | 67                    |
| Things to see and do            | 11                    | 56                    |
| People feel relaxed             | 40                    | 61                    |
| Clean air                       | 42                    | 58                    |

## RAG assessment – Fleet Street

| Option | Proposal                                                                                | Pedestrian amenity                                                                                                       | Cycle amenity                                                                                                                        | Public transport                                                                                                                            | Public realm                                      | Road safety                                                                                                                                                                                                             | Kerbside provision                                                                      | General traffic                                                                             |
|--------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 1      | Remove bus lane; footway widening; cycle lanes.                                         | 1.5m footway widening at localised sections with some widening by Dilieto.                                               | Cycle lanes provided. Opportunity new for cycle parking.                                                                             | No significant change to bus journey times, but bus lane removed.                                                                           | Some opportunity for greening and seating.        | No significant change from existing.                                                                                                                                                                                    | Opportunity for loading pads within cycle lanes; encroaching on existing footway space. | No significant impact to general traffic.                                                   |
| 2      | Retain bus lane; footway widening; no cycle lanes.                                      | 1.5m footway widening at localised sections with some widening by Dilieto.                                               | No cycle lanes provided but eastbound bus lane could be used. Opportunity for new cycle parking.                                     | No significant change to bus journey times, and retention of bus lane.                                                                      | Some opportunity for greening and seating.        | No significant change from existing.                                                                                                                                                                                    | Opportunity for loading pads within cycle lanes; encroaching on existing footway space. | No significant impact to general traffic.                                                   |
| 3      | Retain bus lane; minimal footway widening; cycle lanes.                                 | No footway widening. Future PCLs likely to be poor in some locations due to new developments.                            | Cycle lanes provided.                                                                                                                | No significant change to bus journey times, and retention of bus lane.                                                                      | No opportunity for greening and seating.          | No significant change from existing.                                                                                                                                                                                    | No significant change from existing layout.                                             | No significant impact to general traffic.                                                   |
| 4      | Relocate bus lane; maximum footway widening; no cycle lanes; motor vehicle restriction. | 3m of footway widening for majority of Fleet Street.                                                                     | No cycle lanes provided but eastbound motor vehicle restriction. Bus gate on eastbound approach to Fetter Lane can be use by cycles. | No significant change to bus journey times, but bus lane removed with eastbound motor vehicle restriction. Bus shelters on widened footway. | Significant opportunity for greening and seating. | Left-hook removed on eastbound approach to Fetter Lane. Increased pedestrian wait time. Single lane on Fleet Street eastbound at Bouverie Street removes opportunity for lateral vehicle movement into path of cyclist. | Opportunity for loading pads that would not encroach on existing footway space.         | Restriction for general traffic eastbound on Fleet Street with reassignment to Fetter Lane. |
| 5      | Remove bus lane; maximum footway widening; no cycle lanes; motor vehicle restriction.   | 3m of footway widening for majority of Fleet Street. Footway widening on north side of Fleet Street west of Fetter Lane. | No cycle lanes provided but eastbound motor vehicle restriction. Cycle gate on eastbound approach to Fetter Lane.                    | No significant change to bus journey times, but bus lane removed with eastbound motor vehicle restriction. Bus shelters on widened footway. | Significant opportunity for greening and seating. | Left-hook removed on eastbound approach to Fetter Lane. Street eastbound at Bouverie Street removes opportunity for lateral vehicle movement into path of cyclist.                                                      | Opportunity for loading pads that would not encroach on existing footway space.         | Restriction for general traffic eastbound on Fleet Street with reassignment to Fetter Lane. |

## Cycle provision

**Figure 4.1:** Appropriate protection from motor traffic on highways

| Speed Limit <sup>1</sup> | Motor Traffic Flow (pcu/24 hour) <sup>2</sup> | Protected Space for Cycling |                     |                   | Cycle Lane (mandatory/ advisory) | Mixed Traffic |
|--------------------------|-----------------------------------------------|-----------------------------|---------------------|-------------------|----------------------------------|---------------|
|                          |                                               | Fully Kerbed Cycle Track    | Stepped Cycle Track | Light Segregation |                                  |               |
| 20 mph <sup>3</sup>      | 0                                             |                             |                     |                   |                                  |               |
|                          | 2000                                          |                             |                     |                   |                                  |               |
|                          | 4000                                          |                             |                     |                   |                                  |               |
|                          | 6000+                                         |                             |                     |                   |                                  |               |
| 30 mph                   | 0                                             |                             |                     |                   |                                  |               |
|                          | 2000                                          |                             |                     |                   |                                  |               |
|                          | 4000                                          |                             |                     |                   |                                  |               |
|                          | 6000+                                         |                             |                     |                   |                                  |               |
| 40 mph                   | Any                                           |                             |                     |                   |                                  |               |
| 50+ mph                  | Any                                           |                             |                     |                   |                                  |               |

- Provision suitable for most people
- Provision not suitable for all people and will exclude some potential users and/or have safety concerns
- Provision suitable for few people and will exclude most potential users and/or have safety concerns

**Notes:**

- If the 85<sup>th</sup> percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
- The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
- In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

### LTN 1/20 (DfT, 2020)

- Figure 4.1. Appropriate protection from motor traffic on highways.
- 20mph speed limit on Fleet Street.
- Existing Fleet Street AADT ~4,500 motor vehicles.
- Proposed (Option 4 or 5) Fleet Street AADT ~3,500 motor vehicles.
- Access to bus stops and loading pads required along length of Fleet Street.

## Cycle provision

### LTN 1/20 (DfT, 2020)

- Cycling Level of Service Tool (Appendix A).
- 20mph speed limit on Fleet Street.
- Existing Fleet Street AADT ~4,500 motor vehicles.
- Proposed (Option 4 or 5) Fleet Street AADT ~3,500 motor vehicles.
- Existing proportion of HGVs 14% (AM peak), 12% (Inter peak) and 6% (PM peak).
- Proposed (Option 4 or 5) proportion of HGVs 12% (AM peak), 9% (Inter peak) and 1% (PM peak).
- Access to bus stops and loading pads required along length of Fleet Street.
- Minimum of 7m carriageway width requested by CoL Highways.

| Key requirement | Factor                                                                      | Design principle                                                                                                                                                                                                                                                                                                                                 | Indicators                                                                                                               | Critical                                                                                                                                                                                | 0 (Red)                                                                                                             | 1 (Amber)                                                                                                 | 2 (Green)                                                                                                                                                                                   |
|-----------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety          | Reduce/remove speed differences where cyclists are sharing the carriageway  | Where cyclists and motor vehicles are sharing the carriageway, the key to reducing severity of collisions is reducing the speeds of motor vehicles so that they more closely match that of cyclists. This is particularly important at points where risk of collision is greater, such as at junctions.                                          | 9. Motor traffic speed on approach and through junctions where cyclists are sharing the carriageway through the junction | 85th percentile > 37mph (60kph)                                                                                                                                                         | 85th percentile > 30mph                                                                                             | 85th percentile 20mph-30mph                                                                               | 85th percentile < 20mph                                                                                                                                                                     |
|                 |                                                                             |                                                                                                                                                                                                                                                                                                                                                  | 10. Motor traffic speed on sections of shared carriageway                                                                | 85th percentile > 37mph (60kph)                                                                                                                                                         | 85th percentile > 30mph                                                                                             | 85th percentile 20mph-30mph                                                                               | 85th percentile < 20mph                                                                                                                                                                     |
|                 | Avoid high motor traffic volumes where cyclists are sharing the carriageway | Cyclists should not be required to share the carriageway with high volumes of motor vehicles. This is particularly important at points where risk of collision is greater, such as at junctions.                                                                                                                                                 | 11. Motor traffic volume on sections of shared carriageway, expressed as vehicles per peak hour                          | >10000 AADT, or >5% HGV                                                                                                                                                                 | 5000-10000 AADT and 2-5% HGV                                                                                        | 2500-5000 and <2% HGV                                                                                     | 0-2500 AADT                                                                                                                                                                                 |
|                 | Risk of collision                                                           | Where speed differences and high motor vehicle flows cannot be reduced cyclists should be separated from traffic – see Figure 4.1. This separation can be achieved at varying degrees through on-road cycle lanes, hybrid tracks and off-road provision. Such segregation should reduce the risk of collision from beside or behind the cyclist. | 12. Segregation to reduce risk of collision alongside or from behind                                                     | Cyclists sharing carriageway – nearside lane in critical range between 3.2m and 3.9m wide and traffic volumes prevent motor vehicles moving easily into opposite lane to pass cyclists. | Cyclists in unrestricted traffic lanes outside critical range (3.2m to 3.9m) or in cycle lanes less than 1.8m wide. | Cyclists in cycle lanes at least 1.8m wide on-carriageway; 85th percentile motor traffic speed max 30mph. | Cyclists on route away from motor traffic (off road provision) or in off-carriageway cycle track. Cyclists in hybrid/light segregated track; 85th percentile motor traffic speed max 30mph. |

## Cycle provision

### New cycle route Quality Criteria (TfL, 2019)



**Criteria 1: The degree of separation for people cycling is appropriate for the total volume of two-way motorised traffic**

✓✓ The design of new cycle routes should only mix people cycling with motorised traffic where there are fewer than 500 motor vehicles per hour (vph – two-way) at peak times, and preferably fewer than 200vph.



**Criteria 4: Collision risk between people cycling and turning motor vehicles is minimised**

✓✓ At all priority junctions where motor vehicle flows are greater than 200vph on the side road itself, infrastructure measures should be provided to reduce the volume and/or speed of turning movements by motor vehicles where it is appropriate to do so.

At signal-controlled junctions where there is full separation on the cycle route approach arms, conflicting movements between cycle traffic and motor traffic should be separated with dedicated signals for cycles.



**Criteria 2: The speed of motorised traffic is appropriate for people cycling**

✓✓ The design of new routes should only mix people cycling with motorised traffic where the existing 85th percentile speed is less than 25mph or measures should be put in place to reduce speeds where the existing 85th percentile speed is more than or equal to 25mph.



**Criteria 5: Kerbside activity has a minimal impact on people cycling**

✓✓ Where there is kerbside parking or loading and people cycling are mixed with motor traffic, 85th percentile speeds should be less than 25mph *and* the remaining lane width should be at least 2.0m to the nearside lane marking / carriageway centre point or where the lane width is less than 2.0m wide, two-way vehicle flows should be lower than 200vph, 85th percentile speeds less than 25mph and the proportion of HGVs\* lower than 5%\*\*.

\* Heavy Goods Vehicle (HGV) – defined as lorries and trucks over 3.5 tonnes

\*\* Based on the peak hour HGV % as a proportion of the corresponding motor vehicle traffic flow, 7am to 7pm



**Criteria 3: An appropriate width for cycling is provided to suit the local context**



Where new routes are designed for people cycling to mix with motorised traffic, nearside lane widths should be 3.2m or less where two-way motor vehicle flows are lower than 500vph, 85th percentile speeds less than 25mph and the proportion of HGVs\* is lower than 5%\*\* or the width of the nearside general traffic lane (and cycle lane where present), should be 4.5m or more where vehicle flows are higher.

Where new routes are designed for people cycling to be separated from other traffic, the width of the lane or track should be provided to a preferred minimum of 2.2m for one-way cycle lanes or tracks, and 3.0m for two-way cycle lanes or tracks.



**Criteria 6: Interaction between HGVs and people cycling in mixed traffic is minimised along a link**



✓✓ Where people cycling are to be mixed with two-way motorised traffic flows of 200-500vph, the proportion of HGVs\* should be less than 5%\*\*.

Where people cycling are to be mixed with two-way motorised traffic flows of less than 200vph, the proportion of HGVs\* should be less than 10%\*\*.

\* Heavy Goods Vehicle (HGV) – defined as lorries and trucks over 3.5 tonnes

\*\* Based on the peak hour HGV % as a proportion of the corresponding motor vehicle traffic flow, 7am to 7pm

## Feedback to proposals

### City of London

- Meeting with CoL Network Performance on 6<sup>th</sup> August 2024.
- Cycle facilities need to be reviewed, and further options considered.
- Motor vehicle flows meet TfL and DfT guidance for cycles to mix with traffic. However, proportion of HGVs is higher than recommended in morning peak hours.
- Recommendation for westbound cycle lane due to no restriction in motor vehicle in this direction.
- Width of carriageway dependent on Processional route requirements. A width of 6.5m-7.8m is not compliant with cycle design guidance. Therefore, carriageway needs to be 6.4m wide (cannot be narrower due to bus requirements) or 8m wide (which allows for 2 3.2m wide lanes and a 1.6m wide westbound cycle lane).
- Further evidence of degree of impact of the traffic reassignment due to proposed vehicle restrictions on Fleet Street.

### TfL

- Meeting with TfL Network Performance, Bus Client Team and Principal Sponsor on 1<sup>st</sup> August 2024.
- Clear pedestrian benefits to the proposal.
- Future growth in pedestrians from developments would also imply future growth in bus passenger numbers.
- Withdrawing the bus lane would affect resilience of the bus network. However, modelling has shown minimal change to bus journey times under normal traffic conditions.
- It is recognised that limiting general traffic and the bus gate may remove the need for the bus lane and can support bus journey time reliability.
- There is a need to understand whether any traffic reallocation impacts will adversely affect the network (though discussions indicated this was not expected to be a concern).
- Review of long-term iBus data shows some impact from single lane in both directions on Fleet Street but not considered significant. Proposed scheme has measures (vehicle restriction) to mitigate bus journey time and network resilience impact.
- Overall: as a general rule bus priority should not be removed. However, we can see this will have significant pedestrian benefits (and benefits to bus passengers boarding and alighting here) and be potentially bus journey time neutral with the mitigations in place.

## Scheme dependencies and assumptions

### Scheme dependencies

- The following schemes may have an impact on the delivery of changes to Fleet Street and Ludgate Hill, or may be affected by changes to Fleet Street and Ludgate Hill:
  - Holborn Liveable Neighbourhood (London Borough of Camden). This scheme may result in forecast traffic reassignment to Holborn Viaduct and Fleet Street/ Ludgate Hill.
  - Whitefriars Neighbourhood proposals (part of Fleet Street Area Healthy Streets Plan). This may put more motor vehicles onto Fleet Street.
  - Tudor Street vehicle access restrictions scheme. This may put more motor vehicles onto Fleet Street. Enforcement of this may need to be linked with enforcement of any proposed vehicle restrictions on Fleet Street.
  - Monitoring of any proposed scheme that restricts traffic on Fleet Street would need to ensure traffic is not reassigning on to streets adjacent to Fetter Lane or within the Whitefriars area.
  - Ludgate Hill/ Old Bailey junction (part of City of London Healthy Streets Improvements). Proposals for Ludgate Hill need to tie in with changes at this junction.
  - Ceremonial and Processional Routes. This needs to be accommodated under any proposed scheme.

### Scheme assumptions

- The following assumptions have been made for some or all of the options for Fleet Street:
  - The police check island can be removed at the eastern and western ends of Fleet Street. ANPR/CCTV would need to be relocated to footway.
  - Appropriate loading provision can be accommodated along the length of Fleet Street and Ludgate Hill.
  - No changes are required at Ludgate Circus to deliver scheme on Fleet Street.

## Next steps

### City of London

- City of London Gateway submissions in November to release funding (circa. £9mil).
- Cycle facilities to be reviewed, with further options considered, to ensure CoL requirements (as set out by CoL Network Performance) are met.
- Agreement on minimum required carriageway width and associated footway widening, including further assessment to ensure appropriate existing and proposed Pedestrian Comfort Levels are achieved.

### TfL

- Agreement of layout on eastbound approach on Fleet Street to junction with Fetter Lane.
- Modelling Expectations Document drafted to set out traffic modelling requirements.
- Agree suitable date for new traffic surveys.