

# COLNEY HEATH PARISH COUNCIL

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Land to the Rear of 42-100 Tollgate Road & 42 Tollgate Road, Colney Heath

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## Cycling Routes Assessments

For Colney Heath Parish Council Rule 6 Party

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Planning Inquiry

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## **Index of Documents**

1. Introduction
2. Key Points from LTN 1/20
3. Traffic Separation
4. Summary of results
5. Conclusion

## **APPENDICES**

- A. Department of Transport LTN 1/20 July 2020 Appendix A Cycling Level Service Tool
- B. Route 1. Assessment Welham Green via Tollgate Road
- C. Route 2. Assessment Welham Green via Travellers Lane
- D. Route 3. Colney Fields Shops via Coursers Road
- E. Route 4 Colney Heath Lane via Colney Heath High Street
- F. Route 4.1 Smallford Lane Alban Way
- G. Route 5 Hatfield Hilltop via Roestock Lane
- H. Route 6 Hatfield Town Centre via Roestock Lane

## **1. INTRODUCTION**

### **ASSESSMENT OF CYCLING ROUTES TO FACILITIES**

1.1 The Appellant contends in the Transport Assessment (TA) that local facilities are accessible by cycle. To test this Cycling Assessments were completed comparing the routes available to the factors and standards in the Cycle Infrastructure Design published by the Department of Transport LTN 1/20 July 2020 CD 16.4 (as quoted in the TA). A two-mile each way journey was used as a maximum.

1.2 In the Foreword to the Cycle Infrastructure Design the Minister of State with responsibility for cycling and walking state,

*“Some (Infrastructure Design) is actually worse than nothing, because it entices novice cyclists with the promise of protection and then abandons them at the most important places”.*

1.3 We contend that this proposal entices cyclists with no pretence of protection.

## **2. KEY POINTS FROM LTN 1/20**

2.1 The appellant’s Transport Assessment (TA) quotes the Dept of Transport LTN 1/20 CD 16.4 document that sets down standards for cycle ways:

2.2 All cycle routes from Colney Heath use roads to connect with the St Albans DC (SADC) Local Walking and Cycling Plan (LWCP), stations or shops; therefore, they are classed as connector roads. See below LTN 1/20 mandatory cycle separations: n.b. Colney Heath does not feature and is outside of SADC’s 10-year LWCP.

Figure 1.4 Indicative range of cycling interventions by RTF street type

| Degree of separation<br>(between cyclists and motorised vehicles)                    | Low place function |           |              | Medium place function |             |             | High place function |             |            |
|--|--------------------|-----------|--------------|-----------------------|-------------|-------------|---------------------|-------------|------------|
|  | Arterial road      | Connector | Local street | High road             | High street | Town square | City hub            | City street | City place |
| <b>A. Full separation on links</b><br>(eg cycle track, segregated lane)              | High               | Medium    | None         | High                  | None        | None        | None                | None        | None       |
| <b>B. Dedicated on-carriageway lanes</b><br>(eg mandatory or light segregated lanes) | None               | High      | None         | High                  | Medium      | None        | Medium              | None        | None       |
| <b>C. Shared on-carriageway lanes</b><br>(eg advisory lanes, bus/cycle lanes)        | None               | None      | Low          | None                  | Low         | Low         | Low                 | Low         | None       |
| <b>D. Integration with other vehicles</b>  | None               | None      | None         | None                  | None        | None        | None                | None        | None       |

- 2.3 No such recommended widths of cycle lanes or separation exist on roads in and around Colney Heath.
- 2.4 CDS 1.6.1, 2) Cycles must be treated as vehicles and not as pedestrians. On urban streets, cyclists must be physically separated from pedestrians and should not share space with pedestrians. Where cycle routes cross pavements, a physically segregated track should always be provided. At crossings and junctions, cyclists should not share the space used by pedestrians but should be provided with a separate parallel route.
- 2.5 The majority of cycle lanes in and around Colney Heath have shared carriageways with pedestrians.
- 2.6 From TfL LCDS 18. All designers of cycle schemes must experience the roads on a cycle. Ideally, all schemes would be designed by people who cycle regularly. But at a minimum, anyone who designs a scheme must travel through the area on a cycle to see how it feels.
- 2.7 In the Transport Assessment paragraph 3.33 the consultants quote the Inspector’s Bullens Green decision *“I saw evidence on my site visits of both Bullens Green Lane and Fellowes Lane being well used for recreational purposes, including walkers and cyclists. Taking into account the average cycle times and distances to facilities outside of Colney Heath as set out within the facilities plan, I concur with HCC that cycling provides a reasonable alternative in this location to the private car.*
- 2.8 We have asked HCC to disclose how they assessed Colney Heath for cycling safety and have had no response. We deem that any approval of cycling as an alternative to the car must mean that **the routes must be cycled** before they can lightly be passed off as acceptable.

2.9 They TA end their cycle map of Tollgate Road at Bullens Green Lane thus avoiding the dangerous, 60MPH and steep section of two miles of unseparated carriageway to Welham Green station.

### 3. TRAFFIC SEPARATION

3.1 LTN 1/20 gives guidance on traffic separation by speed limit. The following extract applies:

**4.2** Figure 4.1 summarises the traffic conditions when protected space for cycling (fully kerbed cycle tracks, stepped cycle tracks and light segregation), marked cycle lanes without physical features and cycling in mixed traffic are appropriate.

**4.4.3** More detail on the design of these types of cycle infrastructure is given in Chapters 6 and 7.

**4.4.4** Figure 4.1 shows that:

Protected space for cycling will enable most people to cycle, regardless of the volume of motor traffic, although stepped cycle tracks and light segregation are not generally considered suitable for roads with speed limits above 40mph in urban areas. Stepped cycle tracks and light segregation may be appropriate on some suburban and interurban roads with 40mph speed limits where HGV traffic is limited, and traffic flows are less than 6,000 PCU per day.

**Although there may be fewer cyclists and pedestrians in rural areas, the same requirement for separation from fast moving motor vehicles applies.** A well-constructed shared use facility designed to meet the needs of cycle traffic – including its width, alignment and treatment at side roads and other junctions – may be adequate where pedestrian numbers are very low.”

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  | Green                       | Green               | Green             | Green                            | Green         |
|                          | 4000  | Green                       | Green               | Green             | Green                            | Yellow        |
|                          | 6000+   | Green                       | Green               | Green             | Green                            | Pink          |
| 30 mph                   | 0   |                             |                     |                   |                                  |               |
|                          | 2000  | Green                       | Green               | Green             | Yellow                           | Yellow        |
|                          | 4000  | Green                       | Green               | Green             | Yellow                           | Pink          |
|                          | 6000+   | Green                       | Green               | Green             | Yellow                           | Pink          |
| 40 mph                   | Any   | Green                       | Yellow              | Yellow            | Pink                             | Pink          |
| 50+ mph                  | Any   | Green                       | Pink                | Pink              | Pink                             | Pink          |

- 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:
1. If the 85<sup>th</sup> percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
  2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
  3. 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

3.2 The following are examples of roads fall within the red zone of the mixed traffic column on the above chart:

| <b>Location</b>   | <b>30 mph</b> | <b>40 mph</b> | <b>60 mph</b> |
|---|---------------|---------------|---------------|
| Tollgate Road 30 limit (See note 1 re 85 percentile greater than 10% above limit) |               | Y             | Y             |
| Dixons Hill Road  | Y             | Y             | Y             |
| Roestock Lane   | Y             |               |               |
| Bullens Green Lane  | Y             |               |               |
| High Street   | Y             |               |               |
| Colney Heath Lane   | Y             | Y             |               |
| Smallford Lane  |               | Y             |               |
| Station Road  |               | Y             |               |
| Coursers Road   | Y             |               | Y             |
| Roehyde Way   |               |               | Y             |
| Southway  |               |               | Y             |

3.3 It can be seen that, using the LTN 1/20 standard, there is virtually no safe cycle route to local facilities.

#### 4. SUMMARY OF RESULTS:

For routes to meet the LTN 1/20 standard they must achieve a 70% pass rate

| No | Route                                      | Assessment   | %   | LTN 120 Standard | Critical factors failed |
|----|--|--|-----|------------------|-------------------------|
| 1  | Welham Green via Tollgate Road (2.2 miles) | <p><b>Dangerous and strenuous</b></p> <ul style="list-style-type: none"> <li>• Differential in speed of vehicle and cycles</li> <li>• Shared carriageway</li> <li>• Gradient 2.1% for a distance of 750m</li> <li>• Restricted vision corners</li> <li>• Standing water</li> <li>• High collision rate junction</li> <li>• Unlit</li> <li>• Parked cars</li> <li>• No room for evasion</li> <li>• Alternate line of traffic leaving cyclist facing oncoming traffic</li> <li>• Isolated without natural surveillance.</li> <li>• Over desired maximum</li> </ul> | 26% | Failed           | 9, 10, 12, 15           |



| No | Route   | Assessment   | %   | LTN 120 Standard | Critical factors failed |
|----|---|--|-----|------------------|-------------------------|
| 2  | Welham Green via Southway and Travellers Lane (3.2 miles) | <p><b>High Risk</b></p> <ul style="list-style-type: none"> <li>• Differential in speed of vehicle and cycles 60 mph roads</li> <li>• Shared carriageway</li> <li>• Steep gradient to Roestock roundabout</li> <li>• Poor lighting</li> <li>• Fear of crime</li> <li>• Alternate line of traffic leaving cyclist facing oncoming traffic</li> <li>• Isolated without natural surveillance.</li> <li>• Over desired maximum distance</li> </ul>  | 26% | Failed           | 9, 10, 12               |
| 3  | Colney Fields via Coursers Road (2.1 miles)               | <p><b>Dangerous</b></p> <ul style="list-style-type: none"> <li>• Differential in speed of vehicle and cycles</li> <li>• Shared carriageway</li> <li>• Restricted vision corner</li> <li>• High usage by HGV</li> <li>• Turning HGV</li> <li>• Standing water and mud on road</li> <li>• High risk roundabout</li> <li>• Unlit</li> <li>• Poor road surface</li> <li>• No room for evasion</li> <li>• Isolated without natural surveillance.</li> <li>• Over desired maximum</li> </ul> | 14% | Failed           | 9, 10, 11, 12, 15       |

| No  | Route   | Assessment   | %                                       | LTN 120 Standard | Critical factors failed |
|-----|---|--|---|------------------|-------------------------|
| 4   | Colney Heath Lane via High Street (1.9 miles) | <b>High Risk</b> <ul style="list-style-type: none"> <li>Differential in speed of vehicle and cycles</li> <li>Shared carriageway</li> <li>Overhanging trees reduce to poor illumination.</li> <li>Alternate line of traffic leaving cyclist facing oncoming traffic</li> <li>Isolated without natural surveillance.</li> </ul>  | 26%                                     | Failed           | 15                      |
| 4.1 | Smallford Lane via High Street (1.9 miles)    | <b>High Risk</b> <ul style="list-style-type: none"> <li>Differential in speed of vehicle and cycles</li> <li>Shared carriageway</li> <li>Unlit</li> <li>Alternate line of traffic leaving cyclist facing oncoming traffic</li> <li>Isolated without natural surveillance.</li> <li>There are no facilities listed in Smallford Lane</li> <li>Need to dismount and cross carriageway to access the Alban Way</li> </ul> | 27%                                     | Failed           | 9, 10, 12, 15           |
| 5   | South Hatfield (Hilltop) (1.4 miles)          | <b>Strenuous and prohibited</b> <ul style="list-style-type: none"> <li>Gradient 4.83% for a distance of 475m</li> <li>Fear of crime</li> <li>“cycling prohibited” on Lane End</li> <li>Isolated</li> </ul>   | Not scored too strenuous and prohibited | Failed           |                         |

| No | Route                            | Assessment  | %   | LTN 120 Standard | Critical factors failed |
|----|----------------------------------|---|-----|------------------|-------------------------|
| 6  | Hatfield Town Centre (2.5 miles) | <p><b>High Risk</b></p> <ul style="list-style-type: none"> <li>• Over desired maximum distance</li> <li>• Standing water Roestock Lane</li> <li>• Multiple alternate long lines of parked vehicles leaving cyclist facing oncoming traffic.</li> <li>• High (recorded incidents) collision risk in underpass</li> <li>• Fear of crime from underpass</li> <li>• Poor quality of carriageway surface</li> <li>• Route is badly overgrown and poorly maintained.</li> <li>• Pedestrians and cyclists are not physically separated.</li> <li>• Blind junctions on route</li> <li>• Crossing 30 mph dual carriageway</li> <li>• Low tree branches across route</li> </ul> | 24% | Failed           | 9, 10, 12, 15           |

## **5. Conclusion**

- 5.1 The journeys by cycle to the facilities specified in both the Transport Assessment and the Transport Framework Travel Plan are either too high risk, too far or both for all ages and abilities. Each journey assessed failed against the Infrastructure Design LTN 1/20 standards by failing to achieve the required 70% score and also failed on one or more critical factors. Therefore, the contention that day to day activities can be achieved by cycle is challenged.

## Appendix A: Cycling Level of Service Tool

| Key requirement | Factor                    | Design principle   | Indicators   | Critical | 0 (Red)   | 1 (Amber)   | 2 (Green)   | Score | Comments |
|-----------------|---------------------------|--|--|----------|---|---|---|-------|----------|
| Cohesion        | Connections               | Cyclists should be able to easily and safely join and navigate along different sections of the same route and between different routes in the network.   | 1. Ability to join/leave route safely and easily; consider left and right turns  |          | Cyclists cannot connect to other routes without dismounting   | Cyclists can connect to other routes with minimal disruption to their journey   | Cyclists have dedicated connections to other routes provided, with no interruption to their journey |       |          |
|                 | Continuity and Wayfinding | Routes should be complete with no gaps in provision. 'End of route' signs should not be installed – cyclists should be shown how the route continues. Cyclists should not be 'abandoned', particularly at junctions where provision may be required to ensure safe crossing movements. | 2. Provision for cyclists throughout the whole length of the route   |          | Cyclists are 'abandoned' at points along the route with no clear indication of how to continue their journey. | The route is made up of discrete sections, but cyclists can clearly understand how to navigate between them, including through junctions. | Cyclists are provided with a continuous route, including through junctions                          |       |          |
|                 | Density of network        | Cycle networks should provide a mesh (or grid) of routes across the town or city. The density of the network is the distance between the routes which make up the grid pattern. The ultimate aim should be a network with a mesh width of 250m.  | 3. Density of routes based on mesh width ie distances between primary and secondary routes within the network  |          | Route contributes to a network density mesh width >1000   | Route contributes to a network density mesh width 250 – 1000m   | Route contributes to a network density mesh width <250m   |       |          |
| Directness      | Distance                  | Routes should follow the shortest option available and be as near to the 'as-the-crow-flies' distance as possible.   | 4. Deviation of route Deviation Factor is calculated by dividing the actual distance along the route by the straight line (crow-fly) distance, or shortest road alternative. |          | Deviation factor against straight line or shortest road alternative >1.4                                      | Deviation factor against straight line or shortest road alternative 1.2 – 1.4   | Deviation factor against straight line or shortest road alternative <1.2                            |       |          |

| Key requirement | Factor   | Design principle  | Indicators                                | Critical | 0 (Red)   | 1 (Amber)  | 2 (Green)   | Score | Comments |
|-----------------|--|---|---|----------|---|--|---|-------|----------|
| Directness      | Time: Frequency of required stops or give ways | The number of times a cyclist has to stop or loses right of way on a route should be minimised. This includes stopping and give ways at junctions or crossings, motorcycle barriers, pedestrian-only zones etc.   | 5. Stopping and give way frequency        |          | The number of stops or give ways on the route is more than 4 per km         | The number of stops or give ways on the route is between 2 and 4 per km            | The number of stops or give ways on the route is less than 2 per km   |       |          |
|                 | Time: Delay at junctions                       | The length of delay caused by junctions should be minimised. This includes assessing impact of multiple or single stage crossings, signal timings, toucan crossings etc.  | 6. Delay at junctions                     |          | Delay for cyclists at junctions is greater than for motor vehicles          | Delay for cyclists at junctions is similar to delay for motor vehicles             | Delay is shorter than for motor vehicles or cyclists are not required to stop at junctions (eg bypass at signals) |       |          |
|                 | Time: Delay on links                           | The length of delay caused by not being able to bypass slow moving traffic.   | 7. Ability to maintain own speed on links |          | Cyclists travel at speed of slowest vehicle (including a cycle) ahead       | Cyclists can usually pass slow traffic and other cyclists                          | Cyclists can always choose an appropriate speed.  |       |          |
|                 | Gradients                                      | Routes should avoid steep gradients where possible. Uphill sections increase time, effort and discomfort. Where these are encountered, routes should be planned to minimise climbing gradient and allow users to retain momentum gained on the descent. | 8. Gradient                               |          | Route includes sections steeper than the gradients recommended in Chapter 5 | There are no sections of route steeper than the gradients recommended in Chapter 5 | There are no sections of route which steeper than 2%  |       |          |

| Key requirement | Factor   | Design principle   | Indicators   | Critical  | 0 (Red)   | 1 (Amber)   | 2 (Green)   | Score | Comments |
|-----------------|--|--|--|---|---|---|---|-------|----------|
| Safety          | Reduce/<br>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. |       |          |

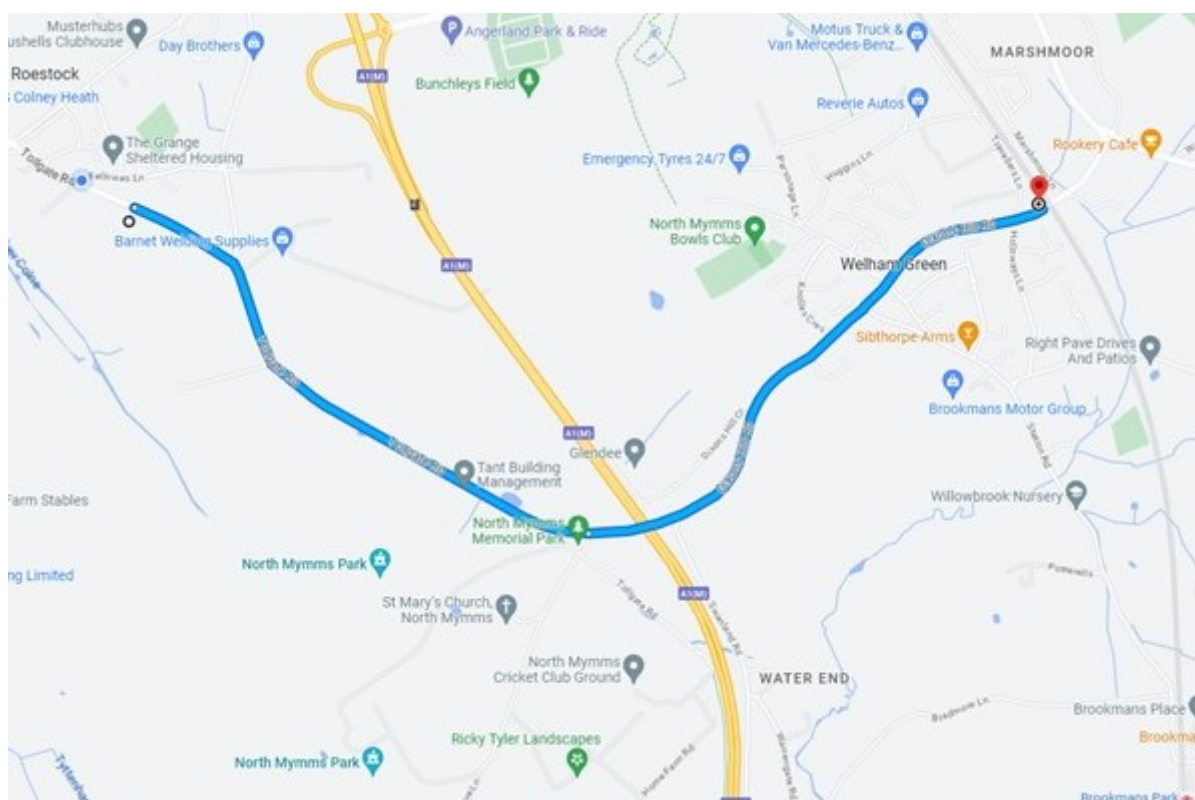
| Key requirement | Factor  | Design principle   | Indicators                                | Critical  | 0 (Red)  | 1 (Amber)  | 2 (Green)  | Score | Comments |
|-----------------|---|--|---|---|--|--|--|-------|----------|
| Safety          |   | A high proportion of collisions involving cyclists occur at junctions. Junctions therefore need particular attention to reduce the risk of collision. Junction treatments include: Minor/side roads – cyclist priority and/or speed reduction across side roads Major roads – separation of cyclists from motor traffic through junctions. | 13. Conflicting movements at junctions    |   | Side road junctions frequent and/ or untreated. Major junctions, conflicting cycle/ motor traffic movements not separated    | Side road junctions infrequent and with effective entry treatments. Major junctions, principal conflicting cycle/ motor traffic movements separated. | Side roads closed or treated to blend in with footway. Major junctions, all conflicting cycle/motor traffic streams separated. |       |          |
|                 | Avoid complex design                              | Avoid complex designs which require users to process large amounts of information. Good network design should be self-explanatory and self-evident to all road users. All users should understand where they and other road users should be and what movements they might make.  | 14. Legible road markings and road layout |   | Faded, old, unclear, complex road markings/ unclear or unfamiliar road layout  | Generally legible road markings and road layout but some elements could be improved  | Clear, understandable, simple road markings and road layout  |       |          |
|                 | Consider and reduce risk from kerbside activity   | Routes should be assessed in terms of all multi-functional uses of a street including car parking, bus stops, parking, including collision with opened door.   | 15. Conflict with kerbside activity       | Narrow cycle lanes <1.5m or less (including any buffer) alongside parking/loading | Significant conflict with kerbside activity (eg nearside cycle lane < 2m (including buffer) wide alongside kerbside parking) | Some conflict with kerbside activity – eg less frequent activity on nearside of cyclists, min 2m cycle lanes including buffer.                       | No/very limited conflict with kerbside activity or width of cycle lane including buffer exceeds 3m.                            |       |          |
|                 | Reduce severity of collisions where they do occur | Wherever possible routes should include "evasion room" (such as grass verges) and avoid any unnecessary physical hazards such as guardrail, build outs, etc. to reduce the severity of a collision should it occur.  | 16. Evasion room and unnecessary hazards  |   | Cyclists at risk of being trapped by physical hazards along more than half of the route.                                     | The number of physical hazards could be further reduced  | The route includes evasion room and avoids any physical hazards.   |       |          |



| Key requirement | Factor                           | Design principle   | Indicators  | Critical | 0 (Red)  | 1 (Amber)   | 2 (Green)   | Score | Comments |
|-----------------|----------------------------------|--|---|----------|--|---|---|-------|----------|
| Comfort         | Surface quality                  | Density of defects including non cycle friendly ironworks, raised/sunken covers/ gullies, potholes, poor quality carriageway paint (eg from previous cycle lane) | 17. Major and minor defects   |          | Numerous minor defects or any number of major defects  | Minor and occasional defects  | Smooth high grip surface  |       |          |
|                 |                                  | Pavement or carriageway construction providing smooth and level surface  | 18. Surface type  |          | Any bumpy, unbound, slippery, and potentially hazardous surface.   | Hand-laid materials, concrete pavements with frequent joints.   | Machine laid smooth and non-slip surface – eg Thin Surfacing, or firm and closely jointed blocks undisturbed by turning heavy vehicles. |       |          |
|                 | Effective width without conflict | Cyclists should be able to comfortably cycle without risk of conflict with other users both on and off road.   | 19. Desirable minimum widths according to volume of cyclists and route type (where cyclists are separated from motor vehicles). |          | More than 25% of the route includes cycle provision with widths which are no more than 25% below desirable minimum values. | No more than 25% of the route includes cycle provision with widths which are no more than 25% below desirable minimum | Recommended widths are maintained throughout whole route  |       |          |
|                 | Wayfinding                       | Non-local cyclists should be able to navigate the routes without the need to refer to maps.  | 20. Signing   |          | Route signing is poor with signs missing at key decision points.   | Gaps identified in route signing which could be improved  | Route is well signed with signs located at all decision points and junctions  |       |          |

| Key requirement          | Factor  | Design principle  | Indicators   | Critical | 0 (Red)  | 1 (Amber)  | 2 (Green)  | Score    | Comments |
|--------------------------|---|---|--|----------|--|--|--|----------|----------|
| Attractiveness           | Social safety and perceived vulnerability of user         | Routes should be appealing and be perceived as safe and usable. Well used, well maintained, lit, overlooked routes are more attractive and therefore more likely to be used.  | 21. Lighting   |          | Most or all of route is unlit  | Short and infrequent unlit/poorly lit sections                                       | Route is lit to highway standards throughout   |          |          |
|                          |   |   | 22. Isolation  |          | Route is generally away from activity  | Route is mainly overlooked and is not far from activity throughout its length        | Route is overlooked throughout its length  |          |          |
|                          | Impact on pedestrians, including people with disabilities | Introduction of dedicated on-road cycle provision can enable people to cycle on-road rather than using footways which are not suitable for shared use. Introducing cycling onto well used footpaths may reduce the quality of provision for both users, particularly if the shared use path does not meet recommended widths. | 23. Impact on pedestrians, Pedestrian Comfort Level based on Pedestrian Comfort guide for London (Section 6.1) |          | Route impacts negatively on pedestrian provision, Pedestrian Comfort is at Level C or below. | No impact on pedestrian provision or Pedestrian Comfort Level remains at B or above. | Pedestrian provision enhanced by cycling provision, or Pedestrian Comfort Level remains at A |          |          |
|                          | Minimise street clutter                                   | Signing required to support scheme layout   | 24. Signs informative and consistent but not overbearing or of inappropriate size                              |          | Large number of signs needed, difficult to follow and/ or leading to clutter                 | Moderate amount of signing particularly around junctions.                            | Signing for wayfinding purposes only and not causing additional obstruction.                 |          |          |
|                          | Secure cycle parking                                      | Ease of access to secure cycle parking within businesses and on-street  | 25. Evidence of bicycles parked to street furniture or cycle stands  |          | No additional cycle parking provided or inadequate provision in insecure nonoverlooked areas | Some secure cycle parking provided but not enough to meet demand                     | Secure cycle parking provided, sufficient to meet demand                                     |          |          |
| <b>Audit Score Total</b> |   |   |  |          |  |  |  | <b>0</b> | <b>0</b> |

## APPENDIX B Route 1 Tollgate Road to Welham Green Station



These points relate to: Cycle Infrastructure Design, Department of Transport LTN 1/20.

| Factor                         | Ind | Comment  | Score |
|--------------------------------|-----|--|-------|
| Connections                    | 1   | No indications that it is a cycle route  | 0     |
| Continuity and way finding     | 2   | Cyclist are abandoned with no clear indication of the route.   | 0     |
| Density of Network             | 3   | No mesh or grid connection with the SADC LWCP (outside of the planned area)  | 0     |
| Distance                       | 4   | Shortest Route and most Direct   | 2     |
| Frequency of stops to give way | 5   | No give way signs on this route  | 2     |
| Time delay at junctions        | 6   | Delay same as for motor vehicles   | 1     |
| Time delay on links            | 7   | There is one link, Dixons Hill Road from Knolles Crescent to Swanland Road is a part of NCR12. The north pavement of | 2     |

| Factor  | Ind | Comment  | Score |                 |
|---|-----|--|-------|-----------------|
|   |     | DHR is signed as a hybrid cycle/foot path.<br>No delay   |       |                 |
| Gradients   | 8   | Gradient from North Mymms Manor to High Point in Tollgate Road is 4% for 600m.<br>A strenuous hill for other than the fittest cyclist.<br>There are examples of cyclist dismounting to walk up the hill.   | 0     |                 |
| Reduce remove difference where cyclists are sharing the carriageway (through junctions) | 9   | Speed 85% traffic = 37.2 MPH (ref: TPS 5.11) from High Street to Bullens Green Lane<br>Speed limit on shared carriageway from Bullens Green Lane to Dixon Hill Close 60 MPH includes the junction with Swanland Road that has a high RTC rate'<br>Speed Limit Dixon Hill Road from Dixon Hill Close to Welham Manor 40MPG (note cycle/foot path)<br>Welham Manor to rail station 30 mph                              | 0     | <b>CRITICAL</b> |
| Reduce remove difference where cyclists are sharing the carriageway                     | 10  | Speed 85% traffic = 37.2 MPH (ref: TPS 5.11) from High Street to Bullens Green Lane<br>Speed limit on shared carriageway from Bullens Green Lane to Dixon Hill Close 60 MPH includes the junction with Swanland Road that has a high RTC rate'<br>Speed Limit Dixon Hill Road from Dixon Hill Close to Welham Manor 40MPG (note cycle/foot path Swanland to Knolles Crescent)<br>Welham Manor to rail station 30 mph | 0     | <b>CRITICAL</b> |
| Avoid High Volume Traffic   | 11  | AADT rate is 2500 to 5000  | 1     |                 |
| Risk of Collision   | 12  | No cycle lane on shared carriageway<br>No cycle preference at junctions<br>Not segregated , at risk of collision from behind or alongside.   | 0     | <b>CRITICAL</b> |

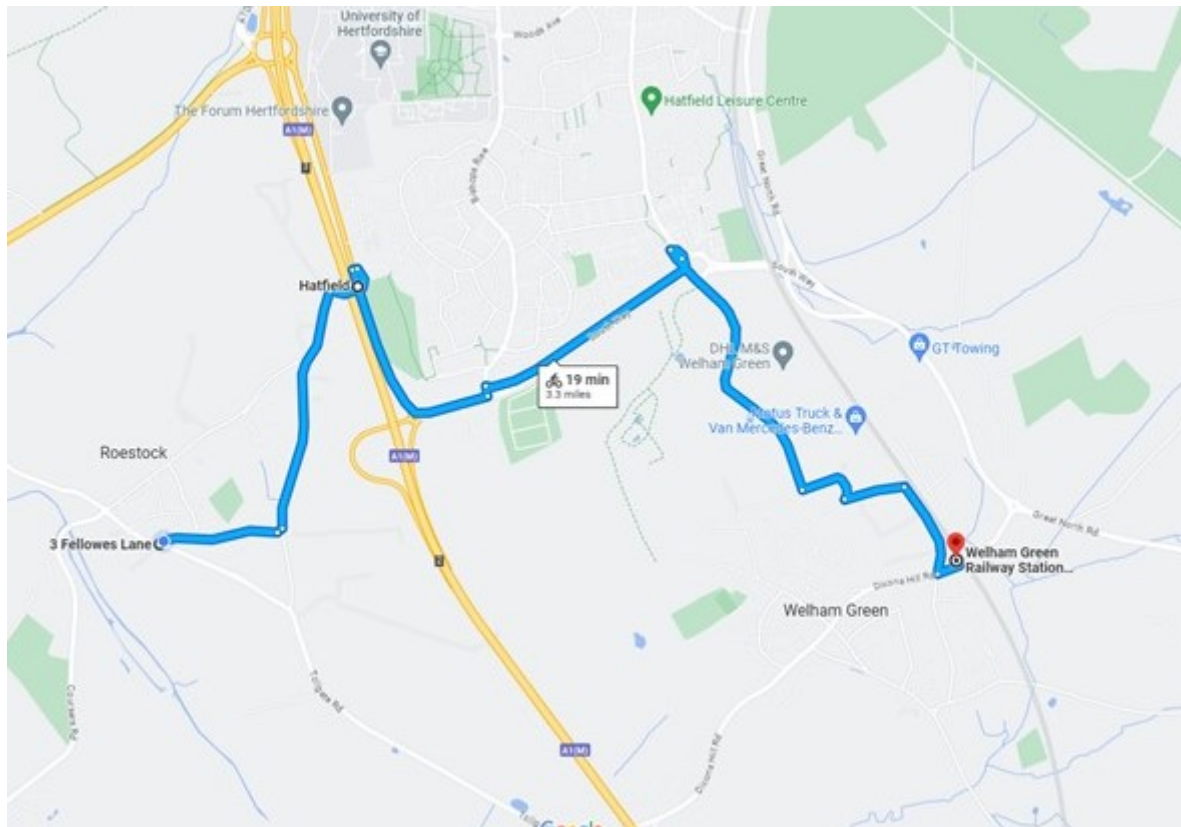
| Factor  | Ind | Comment   | Score |                 |
|---|-----|---|-------|-----------------|
| Avoid complex design  | 14  | There is no cycle lane design   | 0     |                 |
| Consider and reduce risk from kerbside  | 15  | Parked cars cause risk from opening doors and avoidance into centre of carriageway and into oncoming traffic. No buffer between parked cars and cyclists  | 0     | <b>CRITICAL</b> |
| Reduce severity of collisions   | 16  | In Tollgate Road (rural) there is no evasion area as high verge and hedges close to carriageway.  | 2     |                 |
| Surface quality   | 17  | Numerous minor defects in road surface<br>Standing water on and across the carriageway by the Sinclair Farm 30MPH signs and at the bottom of the gradient by North Mymms Manor memorial                                       | 0     |                 |
| Surface Type<br>Cycle routes should be surfaced in smooth bound materials that are unaffected by weather and are well-maintained at all times of year | 18  | No special surface for cyclists exists.   | 0     |                 |
| Effect width without conflict   | 19  | Therefore, no minimum separation for cyclist exists on the whole route with exception of cycle pedestrian path from junction Swanland Road to Knolles Crescent (NCR12. This is without a verge separating it from carriageway | 0     |                 |
| Way finding   | 20  | No signs for cyclists along this route  | 0     |                 |
| Social safety and   | 21  | Tollgate Road (rural) is unlit from Bullens Green Lane to Swanland Road   | 0     |                 |

| Factor                           | Ind | Comment  | Score |  |
|----------------------------------|-----|--|-------|--|
| perceived vulnerability for user |     |  |       |  |
| Isolation                        | 22  | Activity is away from public surveillance particularly between Bullens Green Lane and Welham Manor | 0     |  |
| Disabilities                     | 23  | No footpath for a significant part of the route  | N/A   |  |
| Minimise street clutter          | 24  | There are no signs   | N/A   |  |
| Secure cycle parking             | 25  | Cycle storage only available at Welham Green Station   | 2     |  |

| <b>Critical Junctions or other significant hazards</b>                        |  |
|---|--|
| Tollgate Road   | Parked traffic creates single alternate lane that can leave cyclist facing oncoming traffic, including large goods vehicles, travelling at speed.<br>Also, door opening is a hazard  |
| Junction of Bullens Green Lane blind right hand turn for north bound traffic) | Bullens Green Lane enters Tollgate Road on a bend with restricted vision because of buildings. As a result, traffic turning right into BGL have little or no vision of cyclists and visa versa.  |
| Tollgate Road Section 2<br>Bullens Green Lane Junction to Swanland Road       | This is a narrow, single carriageway two-way road.<br>National speed limit of 60mph<br>Tall grass verges and hedges limiting vision near entrance to Bluebell Cottage.<br>Significant Gradient 2.1% for 600m. Examples of cyclists walking up the hill.<br>No cycle lane<br>No footpath<br>No illumination |
| Junction with Swanland Road   | High personal injury rate traffic collisions   |
| Junctions Station Road Dellsome Road  | Four-way crossroad junction with turning traffic into and out of Dellsome Lane.<br>High risk environment.  |

**APPENDIX C - Route 2: Tollgate Road (A1(M) Tunnel) to Welham Green Station via Southway and Travellers Lane (NCR 12), Pooleys Lane, Parsonage Lane and Dellsome Lane (3.2 miles, 5.12 km) Gradient**

These points relate to: Cycle Infrastructure Design, Department of Transport LTN 1/20.



| Factor                         | Ind | Comment  | Score |  |
|--------------------------------|-----|--|-------|--|
| Connections                    | 1   | The route connects with National Cycle Route (NCR) 12 for part of the route.   | 1     |  |
| Continuity and way finding     | 2   | The route itself is not signed; NCR 12 is signed but the major part is unsigned. There is no clear indication of the route unless aware of NCR12 | 0     |  |
| Density of Network             | 3   | Apart from NCR12 the route is not connected to any other mesh of cycle paths   | NA    |  |
| Distance                       | 4   | The route is not the shortest route. Shorter routes are hazardous.   | 0     |  |
| Frequency of stops to give way | 5   | The number of stops is kept to a minimum   | 2     |  |



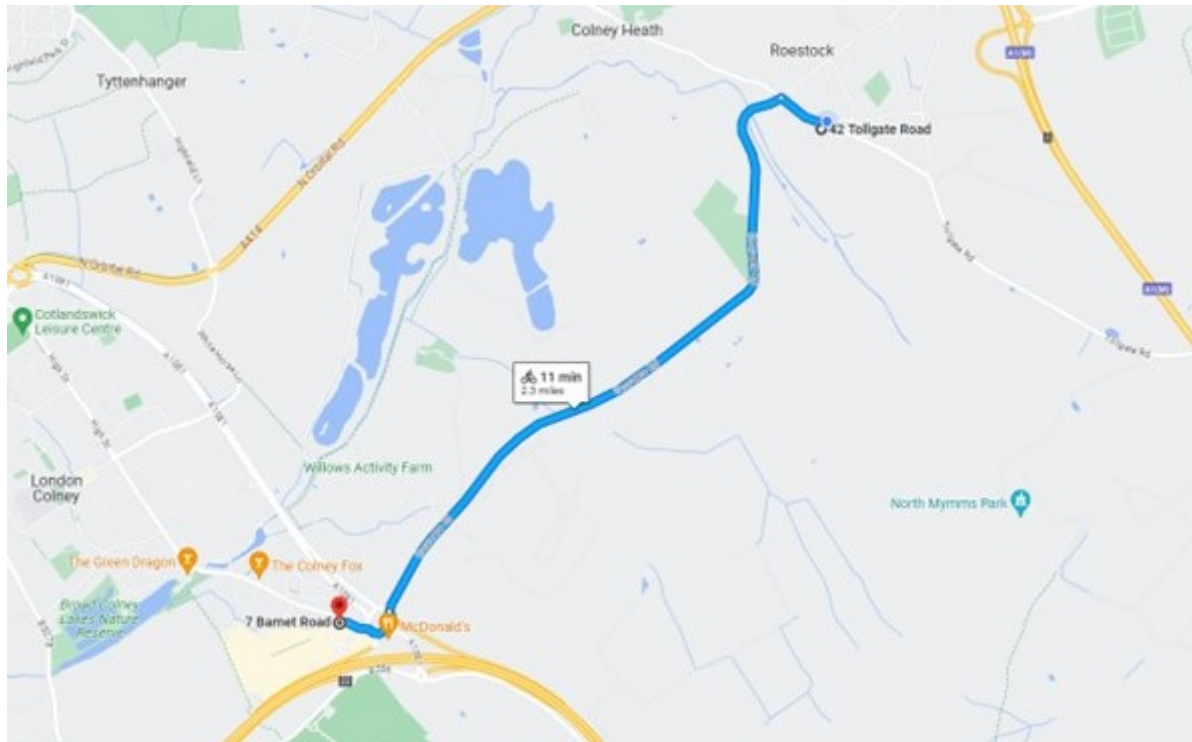
| Factor   | Ind | Comment  | Score |                 |
|--|-----|--|-------|-----------------|
| Time delay at junctions  | 6   | Time delay at junctions is like that of motor vehicles   | 1     |                 |
| Time delay on links  | 7   | Links NCR 12 at Southway j/w Travellers Lane   | 1     |                 |
| Gradients  | 8   | There is a significant gradient of 19m in 475m = 2.1% in Roehyde Way from the exit of A1(M) Tunnel to Roestock Roundabout  | 1     |                 |
| Reduce remove difference where cyclists are sharing the carriageway (at junctions) | 9   | Roehyde Way and Southway national speed limit roads (60 mph). Remainder, Pooleys La, Parsonage La and Dellsome La are 30 mph or less. The Travellers La cycle/footpath has no limit. | 0     | <b>CRITICAL</b> |
| Reduce remove difference where cyclists are sharing the carriageway (carriageway)  | 10  | Roehyde Way and Southway are wide national speed limit roads (60 mph) with fast moving traffic. Remaining roads: Pooleys La, Parsonage La and Dellsome La 30 mph or less             | 0     | <b>CRITICAL</b> |
| Avoid High Volume Traffic  | 11  | Roehyde Way and Southway have high volume traffic.   | 1     | <b>CRITICAL</b> |
| Risk of Collision  | 12  | Cyclists on the carriageway, not segregated, at risk of collision from behind or alongside.  | 0     | <b>CRITICAL</b> |
| Risk of collision  | 13  | There is a risk of collision at both Roestock Roundabout and Travellers Lane Roundabout  | 0     |                 |
| Avoid complex design   | 14  | .  | NA    |                 |
| Consider and reduce risk from kerbside   | 15  | Pooleys Lane, Parsonage Lane and Dellsome Lane have a risk of parked cars causing single alternate line of traffic and opening of car doors  | 1     | <b>CRITICAL</b> |
| Reduce severity of collisions  | 16  | Travellers La cycle/footpath enclosed by high fences   | 1     |                 |

| Factor   | Ind | Comment   | Score |  |
|--|-----|---|-------|--|
| Surface quality                                    | 17  | Minor and occasional defects  | 1     |  |
| Smooth level surface                               | 18  | There a some bumpy surfaces   | 0     |  |
| Effective width without conflict                   | 19  | Travellers La cycle/footpath is narrow for over half length   | 1     |  |
| Way finding  | 20  | No route-finding signs other that on NCR12 that are waymarking only for a small portion of route  | 0     |  |
| Social safety and perceived vulnerability for user | 21  | The route is illuminated. However, the Travellers La cycle/footpath is overgrown, and the level of illumination is poor. The A1(M) Tunnel is explained elsewhere, The Travellers La footpath is isolated and lacks natural surveillance | 0     |  |
| Isolation  | 22  | Roehyde Way, Southway are only observed by passing traffic. Travellers Lane has no natural surveillance and is the most isolated.   | 0     |  |
| Disabilities                                       | 23  |   | N/A   |  |
| Minimise street clutter                            | 24  |   | N/A   |  |
| Secure cycle parking                               | 25  | No cycle parking  | 0     |  |

| <b>CRITICAL JUNCTIONS AND OTHER SIGNIFICANT HAZARDS</b> |   |
|---|---|
| A1(M) Tunnel  | The Tunnel is assessed on another route but generally: Isolated, fear of crime, vandalism, flooding and poor or poorly maintained lighting, broken road surface.  |
| A1(M) Tunnel to Southway                                | Significant gradient from tunnel to Roestock roundabout.  |
| Roestock Roundabout                                     | Three exits and three entries to roundabout including motorway slip roads. Fast traffic from all directions   |
| Travellers Lane Roundabout                              | A five-arm roundabout with fast traffic approaching on A1000. On route to Welham Green risk can be mitigated by using cycle/footpath bridge with ramp. On return normal entry into roundabout from Travellers La. |



## APPENDIX D - Route 3.0 Tollgate Road to Colney Fields, London Colney via Coursers Road



These points relate to: Cycle Infrastructure Design, Department of Transport LTN 1/20.

| Factor                         | Ind | Comment  | Score |  |
|--------------------------------|-----|--|-------|--|
| Connections                    | 1   | No indications that it is a cycle route  | 0     |  |
| Continuity and way finding     | 2   | There is not a continuous route or discrete sections. Cyclists are abandoned with no clear indication of route.  | 0     |  |
| Density of Network             | 3   | No mesh or grid connection with the SADC LWCP (outside of the plan's area)   | 0     |  |
| Distance                       | 4   | Shortest and most direct Route   | 2     |  |
| Frequency of stops to give way | 5   | Three give way signs on this route. Roundabout at junction High Street, roundabout at A1081 Bell Roundabout (Hazardous) and Barnet Road junction with entrance to Colney Fields. | 2     |  |

| Factor  | Ind | Comment  | Score |                 |
|---|-----|--|-------|-----------------|
| Time delay at junctions   | 6   | Delay same as for motor vehicles except for increased risk for cyclists at Bell roundabout where negotiating two traffic lanes and five entries/exits is dangerous.  | 0     |                 |
| Time delay on links   | 7   | There are no links to other cycle paths  | N/A   |                 |
| Gradients   | 8   | The route is generally flat.   | 2     |                 |
| Reduce remove difference where cyclists are sharing the carriageway | 9   | Tollgate Road: Speed of 85% traffic = 37.2 MPH (ref: TPS 5.11). Coursers Road from High Street to Mill House.<br>Speed limit on shared carriageway<br>Coursers Road to Barnet Road including Bell roundabout National Speed Limit 60 mph<br>Speed Limit Barnet Road – 30 mph | 0     | <b>CRITICAL</b> |
|   | 10  | Tollgate Road: Speed of 85% traffic = 37.2 MPH (ref: TPS 5.11).<br>Coursers Road from High Street to Mill House 30 mph on open road.<br>Speed limit on shared carriageway<br>Coursers Road to Barnet Road National Speed Limit 60 mph<br>Speed Limit Barnet Road – 30 mph    | 0     | <b>CRITICAL</b> |
| Avoid High Volume Traffic   | 11  | Bell roundabout where risk of collisions is greatest has very high volumes of traffic.   | 0     | <b>CRITICAL</b> |
| Risk of Collision   | 12  | High speed differential between cyclists and vehicles<br>No segregation<br>No cycle lane on shared carriageway<br>High risk of collisions from behind or alongside.<br>No cycle preference at junctions  | 0     | <b>CRITICAL</b> |
| Risk of collision   | 13  | Conflicting cycle and motor traffic not separated at Bell roundabout a major junction.<br>No separation of cyclists and mv   | 0     |                 |

| Factor                                 | Ind | Comment   | Score |                 |
|--|-----|---|-------|-----------------|
| Avoid complex design                   | 14  | There is no cycle lane design   | NA    |                 |
| Consider and reduce risk from kerbside | 15  | Kerbside risk primarily is poorly defined and broken edges of road surface in Coursers Road.<br>Cyclists at risk of being “pushed “into kerb by passing vehicles particularly HGV<br>No buffer zone around parked cars  | 0     | <b>CRITICAL</b> |
| Reduce severity of collisions          | 16  | In Coursers Road there are places where hedges and ditches are close to the road that either reduce evasion area or increase risk.  | 0     |                 |
| Surface quality                        | 17  | The surface of Coursers Road has longitudinal ruts and broken surface in vicinity of Fredericks Wood.<br>For the remainder of Coursers Road, the tarmacadam surface is broken on both sides with deep drain gullies.<br>Verge is being cut back away from road surface by passing vehicles leaving a loose surface.<br>Uneven surface where utility trench resurfaced.<br>Standing water frequently across road between entrances to Willows Farm and landfill site.<br>Numerous minor defects some major.<br>Vehicles leaving landfill site deposit mud on the road that in wet weather is a slip hazard and muddy spray affects vision. | 0     |                 |
| Smooth level surface                   | 18  | No special surface for cyclists exists.<br>The road surface is bumpy with a loose surface in places.  | 0     |                 |

| Factor   | Ind | Comment   | Score |  |
|--|-----|---|-------|--|
| Effective width without conflict                   | 19  | No cycle lane. Therefore, no minimum separation for cyclist exists on the whole route<br>Single carriageway Road just sufficient for two HGV to pass with care.<br>Cyclists reliant on the skill, patience, and visibility available for passing motorists. | 0     |  |
| Way finding  | 20  | No signs to assist cyclists along this route.   | 0     |  |
| Social safety and perceived vulnerability for user | 21  | Most of the route is unlit.<br>Significant areas under trees reducing light.  | 0     |  |
| Isolation  | 22  | Major part of route is isolated.<br>Activity is away from public surveillance.  | 0     |  |
| Disabilities                                       | 23  | No footpath on this route<br>Too dangerous for pedestrians  | 0     |  |
| Minimise street clutter                            | 24  | There are no signs  | N/A   |  |
| Secure cycle parking                               | 25  | No cycle storage  | 0     |  |
|  |     |   |       |  |

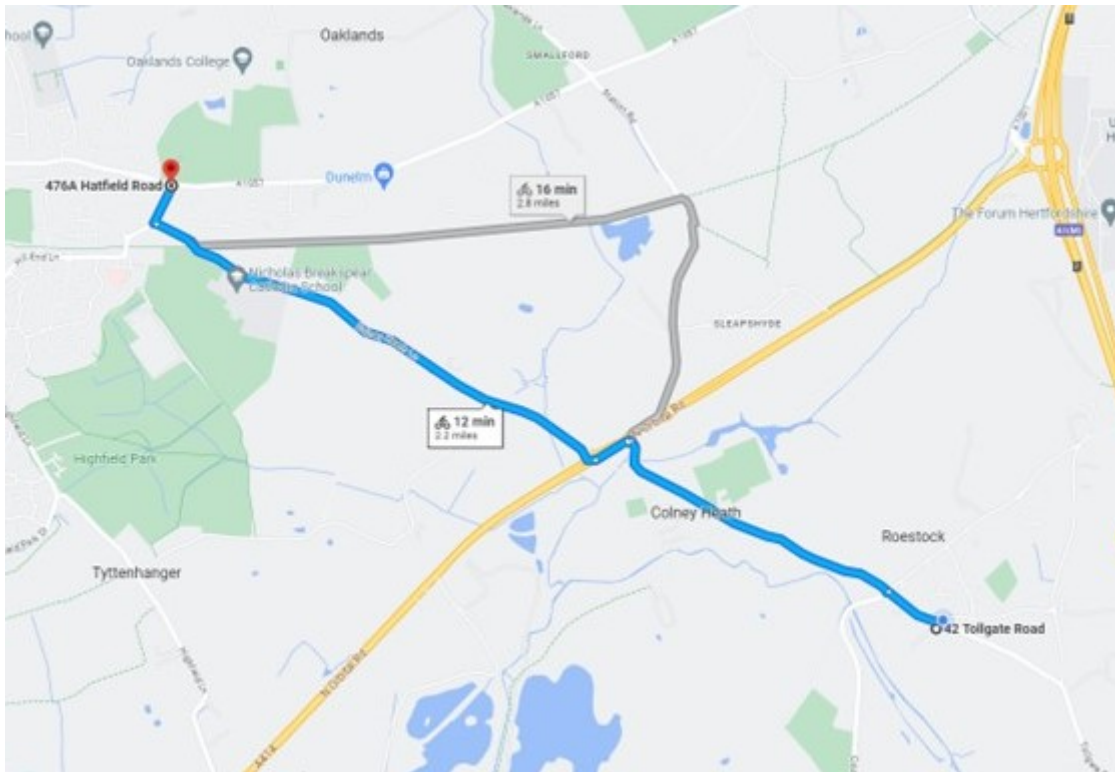
#### CRITICAL JUNCTIONS AND OTHER SIGNIFICANT HAZARDS

|          |   |
|----------|---|
| Bell RAB | <p>Two Lane National speed limit six- arm RAB with 5 entries and six exits including a A1081 major dual carriageway, M25 on and off slip roads, a single carriageway road and a dual-carriageway Barnet Road</p> <p>Generally continuous flow of fast traffic with intermittent short breaks to allow safe access into RAB.</p> <p>Requires crossing of both high-speed entries to and exits from RAB and changing lanes.</p> |
|----------|---|

|                                     |  |
|-------------------------------------|--|
| Landfill entrance/exit              | T junction with side road.<br>Right turning HGV across traffic lane or beside cyclists into site<br>HGV exiting site<br>Mud on road in wet weather |
| Willows Farm entrance/exit          | T junction with side road.<br>Right turning vehicles across traffic lane or beside cyclists.<br>Left turning vehicles into farm.                   |
| Lawsons entrance/exit               | T junction with side road.<br>Right turning HGV across traffic lane or beside cyclists.  |
| Bio-digester entrance/exit          | T junction with side road.<br>Right turning HGV across traffic lane or beside cyclists into site<br>HGV exit site                                  |
| Bend in vicinity of 3 Coursers Road | Limited visibility (blind) bend<br>Partially under trees   |



## APPENDIX E - Route 4 Tollgate Road to Colney Heath Lane via High Street



These points relate to: Cycle Infrastructure Design, Department of Transport LTN 1/20.

| Factor                         | Ind | Comment   | Score |
|--------------------------------|-----|---|-------|
| Connections                    | 1   | No indications that it is a cycle route   | 0     |
| Continuity and way finding     | 2   | There is not a continuous route or discrete sections. Cyclists are abandoned with no clear indication of route.   | 0     |
| Density of Network             | 3   | No mesh or grid connection with the SADC LWCP (outside of the plan's area)  | 0     |
| Distance                       | 4   | Shortest and most direct Route  | 2     |
| Frequency of stops to give way | 5   | Three give way signs on this route. Roundabout at junction High Street, 'Longabout' at High Street junction A414 and crossing Colney Heath Lane at A414. The latter has poor sightlines until in carriageway. | 1     |

| Factor  | Ind | Comment   | Score |                 |
|---|-----|---|-------|-----------------|
| Time delay at junctions   | 6   | Delay same as for motor vehicles but increased risk for cyclists  | 1     |                 |
| Time delay on links   | 7   | There are no links to other cycle paths. There is an unsigned link with National Cycle Route (NCR) 61 the Alban Way that crosses this route   | N/A   |                 |
| Gradients   | 8   | The route is generally flat. High Street has an upward gradient from Church La to Cutmore Drive. Colney Heath Lane has a long 1.35% gradient of 21m over 1.35 km 1.35% that is challenging.                                       | 1     |                 |
| Reduce remove difference where cyclists are sharing the carriageway | 9   | Tollgate Road: Speed of 85% traffic = 37.2 MPH (ref: TPS 5.11). High Street 30 mph limit with similar conditions to Tollgate Road. A414 50 mph limit CHL 40 and 30 mph limit  | 1     | <b>CRITICAL</b> |
|   | 10  | Tollgate Road: Speed of 85% traffic = 37.2 MPH (ref: TPS 5.11). High Street 30 mph limit with similar conditions to Tollgate Road. A414 50 mph limit CHL 40 and 30 mph limit  | 1     | <b>CRITICAL</b> |
| Avoid High Volume Traffic   | 11  | High volume traffic on A414 is avoided by use of a bridge or a signalised crossing and a hybrid cycleway alongside but separated from A414.   | 1     | <b>CRITICAL</b> |
| Risk of Collision   | 12  | High speed differential between cyclists and vehicles<br>There is no cycle lane on shared carriageway apart from 0.1 mile on A414<br>Substantial risk of collisions from behind or alongside.<br>No cycle preference at junctions | 0     | <b>CRITICAL</b> |

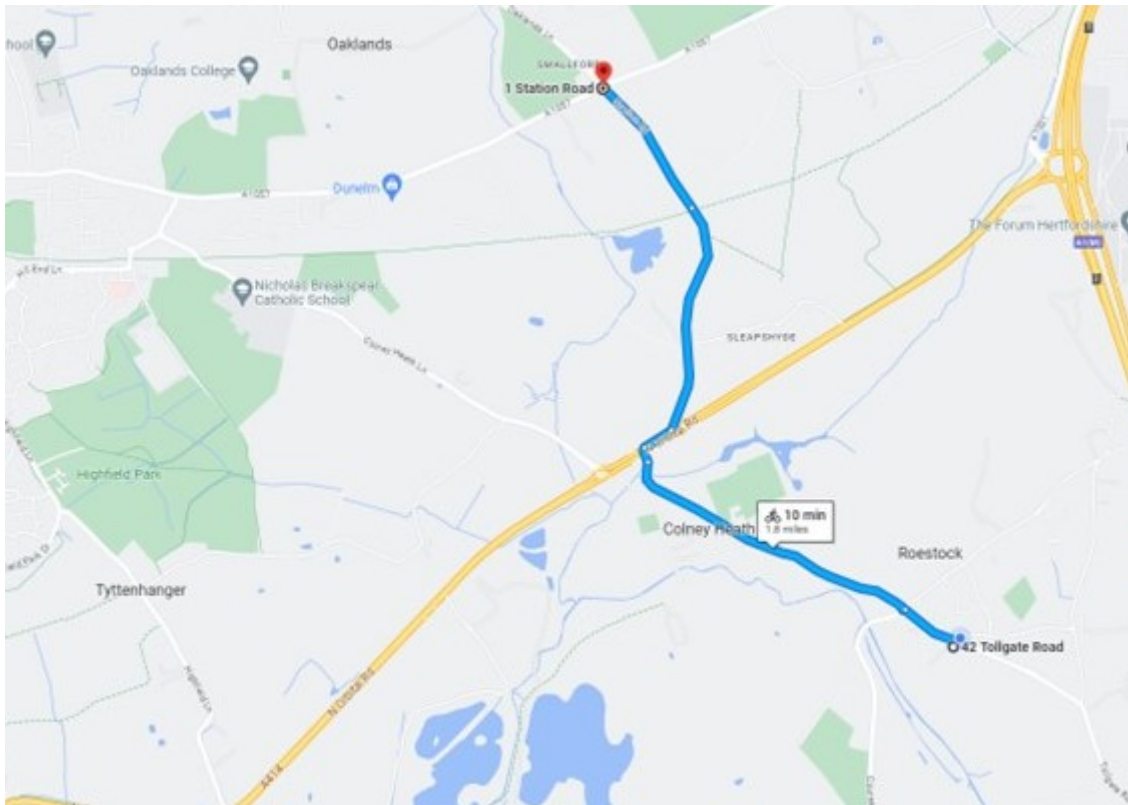
| Factor                                 | Ind | Comment   | Score |                 |
|--|-----|---|-------|-----------------|
|  |     | CHL in 40 mph limit there is a section of narrow road that causes vehicles to slow when passing in opposite directions. Substantial risk of collision with cyclists.  |       |                 |
| Risk of collision (Junctions)          | 13  | Conflicting cycle and motor traffic separated at A414 longabout a major junction by signal-controlled crossing and a pedestrian bridge.<br>No separation at Tollgate Road and High Street roundabout,   | 0     |                 |
| Avoid complex design                   | 14  | There is no cycle lane design   | NA    |                 |
| Consider and reduce risk from kerbside | 15  | High Street has parked cars on southside reducing road width to single alternate lane creating risk from pedestrians entering road and opening doors particularly in vicinity of shop.<br>Recessed parked cars on north kerb of High Street by Wistlea Crescent.  | 0     | <b>CRITICAL</b> |
| Reduce severity of collisions          | 16  | Hedges and trees close to east side of carriageway in CHL between Barleymow La and 30 limit leave no room for evasion with risk of cyclist being "trapped",   | 0     |                 |
| Surface quality                        | 17  | There are potholes and subsidence in the High Street and poorly resurfaced utility trenches,  | 1     |                 |
| Smooth level surface                   | 18  | No special surface for cyclists exists.<br>The road surface is bumpy.   | 0     |                 |
| Effective width without conflict       | 19  | With the exception of 0.2 mile section on A414 there is no minimum separation for cyclist exists on the route.<br>Single carriageway road in places reduced by parked cars to single alternate line of traffic,<br>Cyclists reliant on the skill, patience, and visibility available for passing motorists. | 0     |                 |

| Factor   | Ind | Comment   | Score |  |
|--|-----|---|-------|--|
| Way finding  | 20  | No signs to assist cyclists along this route.   | 0     |  |
| Social safety and perceived vulnerability for user | 21  | High Street is illuminated. CHL is lit. Significant areas under trees reducing illumination.                                      | 1     |  |
| Isolation  | 22  | The section of CHL between A414 and the 30-mph limit is not under natural surveillance.<br>Church Lane to A414 is not overlooked. | 1     |  |
| Disabilities                                       | 23  | There are footpaths on this route.<br>In parts of CHL it is narrow and overgrown,   | N/A   |  |
| Minimise street clutter                            | 24  | There are “mixed use pedestrian/cyclist” signs on A414 hybrid cycleway that do not interfere with movement.                       | N/A   |  |
| Secure cycle parking                               | 25  | No cycle storage  | 0     |  |
|  |     |   |       |  |

#### CRITICAL JUNCTIONS AND OTHER SIGNIFICANT HAZARDS

|   |   |
|---|---|
| Colney Heath Lane – 40 speed limit area | The section of 40 mph road between Barleymow Lane and the 30 limit signs narrows to such an extent that traffic slows to pass notably buses to and from school.<br>This put cyclists at risk of collision from behind or alongside. |
|---|---|

## APPENDIX F - Route 4.1 Tollgate Road to Smallford Lane via High Street



These points relate to: Cycle Infrastructure Design, Department of Transport LTN 1/20.

| Factor                         | Ind | Comment  | Score |  |
|--------------------------------|-----|--|-------|--|
| Connections                    | 1   | No indications that it is a cycle route  | 0     |  |
| Continuity and way finding     | 2   | There is not a continuous route or discrete sections. Cyclists are abandoned with no clear indication of route.                                  | 0     |  |
| Density of Network             | 3   | No mesh or grid connection with the SADC LWCP (outside of the plan's area)   | 0     |  |
| Distance                       | 4   | Shortest and most direct Route   | 2     |  |
| Frequency of stops to give way | 5   | Three give way signs on this route. Roundabout at junction High Street, and 'Longabout' at High Street junction A414 and entry into Smallford La | 1     |  |
| Time delay at junctions        | 6   | Delay same as for motor vehicles but increased risk for cyclists   | 1     |  |

| Factor  | Ind | Comment  | Score |                 |
|---|-----|--|-------|-----------------|
| Time delay on links   | 7   | Links with Alban Way (NCP 61) that crosses route.<br>Signs concealed by overgrown trees<br>Time delay as cyclist in carriageway have to stop on a bend on 40 mph road and cross the road to cycle way (Peggy's Path) entry | 0     |                 |
| Gradients   | 8   | The route is generally flat.<br>High Street gradient from Church La to Cutmore Drive.<br>Smallford Lane Lane has a short gradient at old rail bridge but alternate route available.  | 2     |                 |
| Reduce remove difference where cyclists are sharing the carriageway | 9   | Tollgate Road: Speed of 85% traffic = 37.2 MPH (ref: TPS 5.11).<br>High Street 30 mph limit with similar conditions to Tollgate Road.<br>A414 50 mph limit<br>Smallford Lane 40 mph limit                                  | 0     | <b>CRITICAL</b> |
|   | 10  | Tollgate Road: Speed of 85% traffic = 37.2 MPH (ref: TPS 5.11).<br>High Street 30 mph limit with similar conditions to Tollgate Road.<br>A414 50 mph limit<br>Smallford Lane 40 mph limit                                  | 0     | <b>CRITICAL</b> |
| Avoid High Volume Traffic   | 11  | High volume traffic on A414 is avoided by use of a bridge or a signalised crossing and a hybrid cycleway alongside but separated on northside of A414.   | 2     | <b>CRITICAL</b> |
| Risk of Collision   | 12  | High speed differential between cyclists and vehicles<br>There is no cycle lane on shared carriageway.<br>High risk of collisions from behind or alongside.<br>No cycle preference at junctions                            | 0     | <b>CRITICAL</b> |

| Factor                                 | Ind | Comment   | Score |                 |
|--|-----|---|-------|-----------------|
|  |     | High risk if cycling across Smallford La bridge as dog leg reduces vision and effective use of the road.<br>Alternate route "bridge bypass" not clearly signed, is overgrown, is liable to flooding, and requires cyclists to cross 40 mph road twice.  |       |                 |
| Risk of collision                      | 13  | Conflicting cycle and motor traffic separated at A414 longabout a major junction.<br>No separation at Tollgate Road and High Street roundabout,   | 0     |                 |
| Avoid complex design                   | 14  | There is no cycle lane design   | NA    |                 |
| Consider and reduce risk from kerbside | 15  | High Street has parked cars on southside reducing road width to single alternate lane creating risk from oncoming vehicles, pedestrians entering the road and opening doors particularly in vicinity of shop.<br>Parked cars on northside in vicinity of Wistlea Crescent.<br>HGV car carrier vehicle unloading in High Street. | 0     | <b>CRITICAL</b> |
| Reduce severity of collisions          | 16  | The walls of Smallford La bridge are the edge of the carriageway. Potential for cyclists to be trapped against wall.  | 0     |                 |
| Surface quality                        | 17  | There are potholes and subsidence in the High Street and poorly resurfaced utility trenches,  | 1     |                 |
| Smooth level surface                   | 18  | No special surface for cyclists exists.<br>The road surface is bumpy.   | 0     |                 |
| Effective width without conflict       | 19  | A414 0.2 miles of cycle/pedestrian path.<br>Otherwise, no minimum separation for cyclist exists on the whole route.   | 0     |                 |

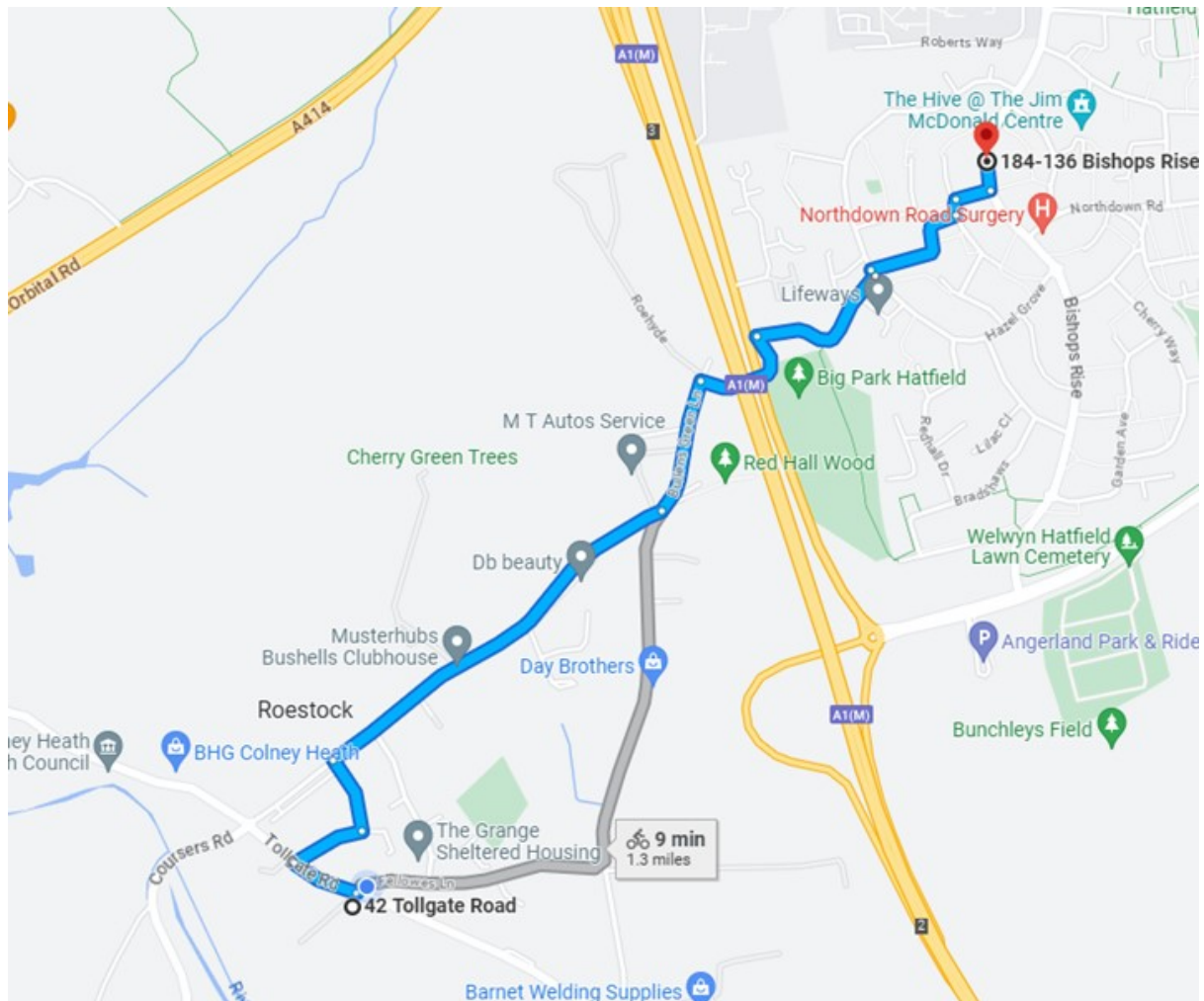
| Factor   | Ind | Comment   | Score |  |
|--|-----|---|-------|--|
|  |     | Single carriageway road in places reduced by parked cars to single alternate line of traffic,<br>Cyclists reliant on the skill, patience, and visibility available for passing motorists. |       |  |
| Way finding  | 20  | No signs to assist cyclists along this route.<br>The lack of signage and an overgrown path to Alban Way makes connecting difficult.   | 0     |  |
| Social safety and perceived vulnerability for user | 21  | The route is illuminated.   | 2     |  |
| Isolation  | 22  | The section from Church Lane to Smallford La is not under surveillance.<br>Smallford La from the vicinity of Sleafshyde La to Smallford Bridge is not under surveillance                  | 1     |  |
| Disabilities                                       | 23  | There are footpaths on this route, in parts of Smallford Lane footpaths are narrow and overgrown,   | N/A   |  |
| Minimise street clutter                            | 24  | The route has natural surveillance  | N/A   |  |
| Secure cycle parking                               | 25  | No cycle storage  | 0     |  |

| <b>CRITICAL JUNCTIONS AND OTHER SIGNIFICANT HAZARDS</b> |  |
|---|--|
| Smallford Lane 40 speed limit area                      | The speed differential put cyclists at risk of collision from behind or alongside. |
| Smallford Lane Bridge                                   | Narrow Road<br>Poor visibility<br>Car to car conflict                              |



|   |  |
|---|--|
|   | Bypass not signed or visible<br>Alban Way crossing under bridge floods |
| Smallford Works –<br>Old entrance.                        | Poor sight lines for drivers   |
| Smallford Lane -<br>Northbound entry to<br>“Peggy’s Path~ | Crossing 40 mph road on blind bend in both directions.                 |

## APPENDIX G Route 5 Tollgate Road to Hatfield Hilltop Shops via Roestock Lane

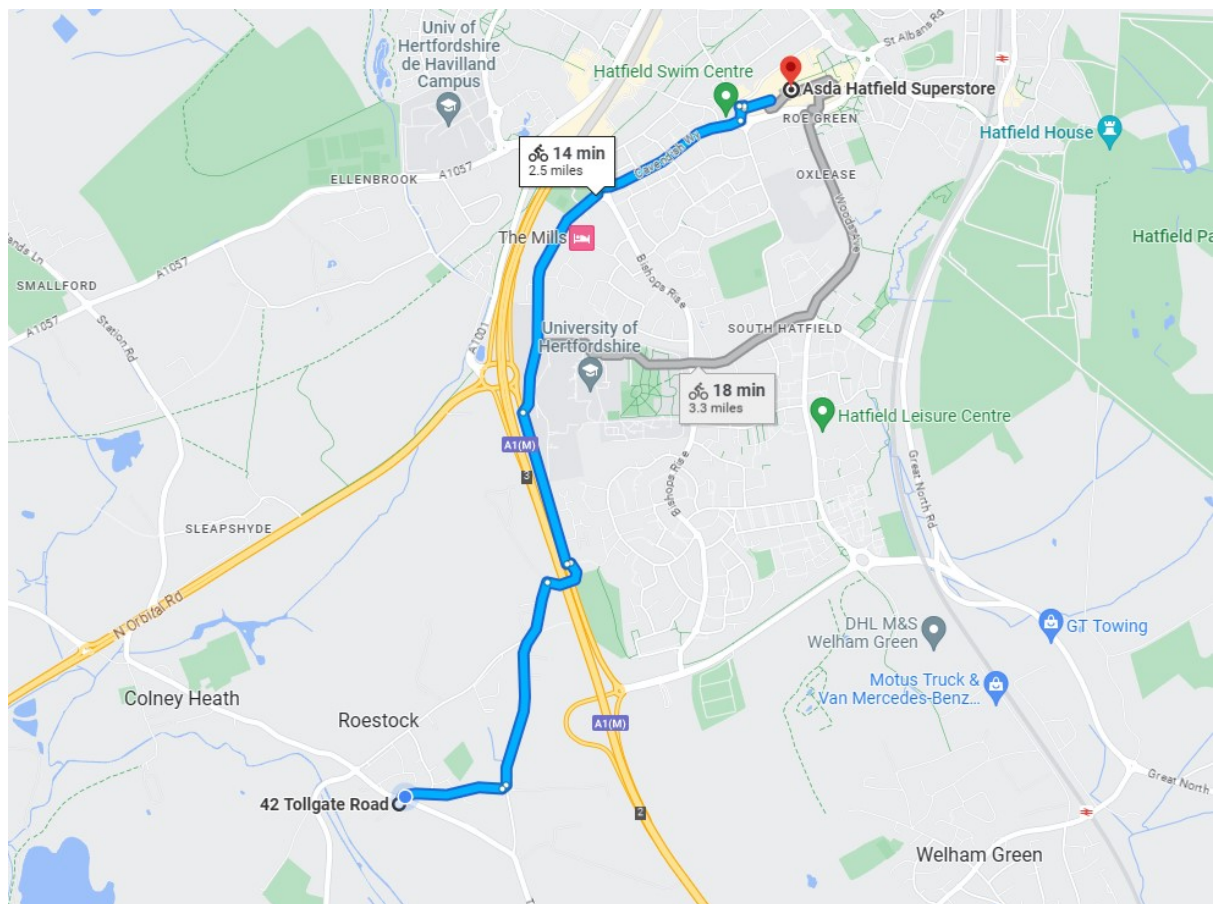


The RPS document states that there are shops and a chemist located at Hatfield Hilltop. This statement presumably indicates that these are easily accessible for both cyclist and pedestrian. To reach them is along Roestock Lane under the underpass and up Lane End, (where our Parish Councillor was violently mugged). From the underpass exit to Hilltop shops is a distance of 600m. The rise in elevation is from 71m at the tunnel exit rising to 110m at the shops. This is a gradient of 4.83%. It is no wonder that there is a 'no cycling' sign at the entrance to Lane End. .

There is no point in adding any more detail to condemn this route as unviable

## APPENDIX H Hatfield Town Centre via Roestock Lane

### Route 6 Tollgate Road to Hatfield Town Centre via Roestock Lane



These points directly relate to: Cycle Infrastructure Design Dept of Transport LTN 1/20 July 2020 Appendix A Cycling Level Service Tool document as quoted by the RPS submission.

| Factor                     | I* | Comment   | Score | Critical |
|----------------------------|----|---|-------|----------|
| Connections                | 1  | No indications that it is a cycle route   | 0     |          |
| Continuity and way finding | 2  | There is not a continuous route. There are discrete sections. Cyclists are abandoned with no clear indication of route. | 0     |          |
| Density of Network         | 3  | No mesh or grid connection with the SADC LWCP (outside of the plan's area)  | 0     |          |
| Distance                   | 4  | Shortest and most direct Route  | 2     |          |

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|---|----|---|-----|-----------------|
| Frequency of stops to give way                                      | 5  | <ul style="list-style-type: none"> <li>• Roundabout at junction High Street.</li> <li>• Tudor Close see photo of risk</li> <li>• Broadway bus route (twice)</li> <li>• University car park exits</li> <li>• Gated bus only lane (college lane) see photo</li> <li>• Watery lane (see photo)</li> <li>• Tomsfield</li> <li>• Bowls Club</li> <li>• St Albans Road West</li> <li>• Lemsford Road (see photo)</li> </ul> | 0   |                 |
| Time delay at junctions   | 6  | Delays due to slowing down and checking for motor vehicles (see above e.g. Tudor Close, Watery Lane etc) as cyclists have no priority.  | 1   |                 |
| Time delay on links   | 7  | There are no links to other cycle paths   | N/A |                 |
| Gradients   | 8  | Short steep gradients on four parts of the cycle route 061 at underpasses and Lemsford Road.  | 1   |                 |
| Reduce remove difference where cyclists are sharing the carriageway | 9  | Tollgate Road: Speed of 85% traffic = 37.2 MPH (ref: TPS 5.11).<br>Roestock Lane 30MPH (no actual speed known)  | 0   | <b>CRITICAL</b> |
| Junctions   | 10 | Tollgate Road: Speed of 85% traffic = 37.2 MPH (ref: RPS 5.11). Roestock Lane 30 mph  | 0   | <b>CRITICAL</b> |
| Avoid High Volume Traffic   | 11 | Tollgate Road peak traffic 500 VPH  | 1   | <b>CRITICAL</b> |
| Risk of Collision   | 12 | Known collisions with other cyclists in underpasses due to misplaced bollards and poor lighting due to lights being painted with graffiti* (see photo) and angled approach into the underpass. Blind spots from underpasses at Roestock Lane and beside the Galleria (see photos) Risk of collision with pedestrians on cycle lane.   | 0   | <b>CRITICAL</b> |

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|--|----|--|---|-----------------|
| Risk of collision                      | 13 | Bikes and pedestrians share parts of the route. Delineated cycle and pedestrian parts of the route overgrown and not fit for purpose (see photos).   | 0 |                 |
| Avoid complex design                   | 14 | No cycle route indicated from High Street roundabout. The part of the route where there is a cycle lane is out of date with current design standards and confusing in places and is piecemeal. See Photo   | 1 |                 |
| Consider and reduce risk from kerbside | 15 | Parked 'chicanes of cars' provide kerbside risks. Turning onto the bottom of Roestock Lane from the roundabout the cyclist is immediately met with the situation at the Service Road junction. See also Meadway and Roestock Lane chicane photos. (see photo)<br>Roestock Lane suffers from poorly defined and overgrown verge reducing the road to one and a half lanes near the Chalkdrawers Arms.<br>Pedestrian exit from a gate at the University building causes people to step directly onto the funnelled cycleway at the bus gate in College Lane. (see photo) | 0 | <b>CRITICAL</b> |
| Reduce severity of collisions          | 16 | Underpass at Roestock Lane has caused collisions between cyclists due to sloping, gradient 4% and the angled approach to it from the access roads (see photo).<br>Bollards at the immediate entrances reduce width   | 0 |                 |
| Surface quality                        | 17 | Underpass at Roestock Lane is full of rubbish (incl. car tyres) and broken bottles which are often the cause of punctures.   | 0 |                 |
| Smooth level surface                   | 18 | Surface for cyclists is old and has been made worse by utility workings.<br>The road surface is bumpy with a loose surface in places. Potholes across junctions  | 1 |                 |
| Effective width without conflict       | 19 | Surface has well established vegetation growing through the surface. Brambles and trees reduce and obstruct cycle lane. (see photos) Therefore separation for  | 0 |                 |

|  |    |   |   |  |
|--|----|---|---|--|
|  |    | cyclist only exists for a small part of the whole route   |   |  |
| Way finding  | 20 | Confusing signs along this route. End route signage causes a disjointed feel.   | 1 |  |
| Social safety and perceived vulnerability for user | 21 | <p>The route has to pass through the underpass at Roestock Lane. It is isolated and has poorly lit approaches. It is covered in graffiti, including the roof lighting boxes. Remnants of burnt out motor scooter are still visible. It has had the lighting vandalised and car tyres spread across the dark cycle path causing an accident where the cyclist was badly hurt. A hundred metres from the underpass in Lane End, Tony Burns a Parish Councillor was violently mugged (police investigated).</p> <p>Drug and nitrous oxide use. As a result parents are frightened to let their children use the tunnel.</p> <p>It is subject to heavy flooding, making it impassable to both pedestrians and cyclists. It was flooded in early December 2022 for six weeks. It was eventually cleared by a water tanker only to be flooded again for another period shortly afterwards with the returning tanker breaking the saturated approach road surface (see photos). This was finally resurfaced on August 3<sup>rd</sup> 2023.</p> | 0 |  |
| Isolation  | 22 | <p>Part of route is isolated with extreme anxiety at the underpass.</p> <p>Activity is away from public surveillance. N.B. This now recognised by Herts Police as a known safety concern and they have recently installed CCTV there.</p>   | 0 |  |
| Disabilities                                       | 23 | Short steep gradients on four parts of the National 61 cycle route at underpasses and Lemsford Road.  | 1 |  |
| Minimise street clutter                            | 24 | Bus shelter opposite Galleria causes narrowing and pedestrians to stand in cycle lane.  | 1 |  |

|                      |    |  |   |  |
|----------------------|----|--|---|--|
| Secure cycle parking | 25 | Cycle storage at Hatfield Town centre. | 2 |  |
|----------------------|----|--|---|--|

| <b>CRITICAL JUNCTIONS AND OTHER SIGNIFICANT HAZARDS</b> |   |
|---|---|
| A1(M) Pedestrian underpass                              | <b>The underpass on this route is for many parents a no go area for their children</b>  |
| Roestock Lane   | The long chicanes of parked cars are dangerous as they squeeze the road width and cause blind spots   |
| Tudor Close   | Tudor Close junction is overgrown and is high risk as vehicles turning left approach from behind the trees at high speed some 40cm from the junction (cycle path crossing). Cyclists have to stop and peer carefully around the trees to see if anything is coming. |
| Tomsfield   | Vehicles from Tomsfield exits from below the cycle path behind trees. Cyclists have to stop and check to ensure they can safely cross.  |
| Hatfield University                                     | During the semester periods the cycle path is busy with students and other pedestrians, meaning slower cycling, potential collisions (people on their phones) and conflicts between pedestrians and cyclist.  |