

Cherryfield Drive, Kirkby

Active Travel Route Audit

Client: Barratt & David Wilson Homes North West
Date: 20 April 2026 Job No: 326949
Prepared by: RW Approved by: LJ

1. Introduction

1.1.1 Mode Transport Planning ('Mode') has been appointed by Barratt and David Wilson Homes North West (the 'Applicant') to provide transport planning and highways advice in relation to an approved planning application (App Ref 24/00068/FUL) for a residential development on Cherryfield Drive in Kirkby, Knowsley.

1.1.2 The consented development comprises 800no. residential dwellings, with vehicular access proposed via 4no. new access junctions on the local highway network. The application was approved by Knowsley Metropolitan Borough Council (KMBC) on 11th April 2025.

1.1.3 Condition 23 attached to the planning approval states:

'Prior to the first occupation of the development hereby permitted an Active Travel Route Audit shall be submitted to and approved in writing from the Local Planning Authority. The recommendations of the Active Travel Audit shall be implemented in accordance with the timescales contained therein.'

Reason : To promote and enhance sustainable travel and to ensure compliance with Policy CS7 in the Knowsley Local Plan Core Strategy.'

1.1.4 This Technical Note (TN05) presents an Active Travel Route Audit on the local highway network, considering both walking and cycling.

1.1.5 A site visit was undertaken on Wednesday 18th February 2026.

2. Walking Route Assessment

2.1 Walking Route Audit Tool (WRAT)

2.1.1 The vision of the scheme is to deliver safe and suitable access for all users while supporting sustainable patterns of movement.

2.1.2 To assess the walking routes between the development site and existing amenities and public transport connections, the Department for Transport's (DfT's) Walking Route Audit Tool (WRAT) has been utilised.

2.1.3 WRAT was originally developed for use by local authorities to support the evaluation of pedestrian routes and inform walking and cycling strategies. The tool operates through a spreadsheet-based scoring system that uses a traffic light approach, where green scores 2 points, amber scores 1 point and red scores 0 points.

2.1.4 Routes are assessed against five key criteria:

- Attractiveness
- Comfort
- Directness
- Safety
- Coherence

2.1.5 Scores are assigned based on the auditor's professional judgement of the conditions experienced during the site visit. Each route can achieve a maximum of 40 points, with a score of 28 points (equivalent to 70%) generally regarded as the minimum acceptable standard. Routes falling below this benchmark may indicate a need for improvement measures.

2.2 WRAT Assessment

2.2.1 [Figure 2.1](#) shows the walking routes in the vicinity of the development site that are subject to the WRAT assessment.

2.2.2 Images from the site visit are attached in [Appendix A](#).

2.2.3 The WRAT assessment scores for the walking routes identified are summarised in [Table 5.1](#) to [Table 5.5](#), with the full assessment attached in [Appendix B](#).

Figure 2.1 : Walking Routes – WRAT Assessment



Table 2.1 : Route A. Valley Road (between Cherryfield Drive & Bewley Drive)

Criterion	Performance Scores
Attractiveness	7 / 8
Comfort	12 / 12
Directness	10 / 12
Safety	4 / 6
Coherence	2 / 2
Total	35 / 40 (88%)

Table 2.2 : Route B. Bewley Drive (between Valley Road & Cherryfield Drive)

Criterion	Performance Scores
Attractiveness	7 / 8
Comfort	11 / 12
Directness	7 / 12
Safety	6 / 6
Coherence	2 / 2
Total	33 / 40 (83%)

Table 2.3 : Route C. Bracknell Avenue (between Bewley Drive & Kirkby High School)

Criterion	Performance Scores
Attractiveness	8 / 8
Comfort	9 / 12
Directness	5 / 12
Safety	6 / 6
Coherence	2 / 2
Total	30 / 40 (76%)

Table 2.4 : Route D. Cherryfield Drive (between Bewley Drive & Webster Drive)

Criterion	Performance Scores
Attractiveness	6 / 8
Comfort	9 / 12
Directness	11 / 12
Safety	5 / 6
Coherence	2 / 2
Total	33 / 40 (83%)

Table 2.5 : Route E. Cherryfield Drive (between Valley Road & Webster Drive)

Criterion	Performance Scores
Attractiveness	4 / 8
Comfort	8 / 12
Directness	11 / 12
Safety	5 / 6
Coherence	1 / 2
Total	29 / 40 (73%)

2.2.4 As summarised in Table 2.1 to Table 2.5, the WRAT assessment shows that the walking routes in the vicinity of the development site score at least the 70% minimum level specified by the DfT.

3. Cycling Route Assessment

3.1 Cycling Level of Service (CLoS)

3.1.1 Alongside the pedestrian assessment, a Cycling Level of Service (CLoS) appraisal has been undertaken for those routes that are relevant to cycle access (in this case, all routes have been considered). The CLoS framework, set out in LTN 1/20 Cycle Infrastructure Design, provides a structured approach to evaluating how well a cycle route performs against modern design expectations.

3.1.2 Although CLoS is primarily intended to support the design and funding appraisal of new cycling infrastructure, it also offers a useful tool for reviewing existing routes and identifying how effectively they meet current user needs.

3.1.3 Similar to WRAT, the CLoS assessment uses a traffic light scoring system to evaluate routes against four principal criteria:

- Cohesion
- Directness
- Safety
- Comfort
- Attractiveness

3.1.4 LTN 1/20 indicates that a score of 70% (out of a possible 50 points) represents a suitable benchmark for meeting minimum standards, and this has been adopted as a general guide to acceptable cycling provision.

3.2 CLoS Assessment

3.2.1 This CLoS assessment considers the same routes as shown within [Figure 2.1](#), as shown in the images in [Appendix A](#).

3.2.2 The CLoS assessment scores for the cycling routes identified are summarised in [Table 3.1](#) to [Table 3.5](#), with the full assessment attached in [Appendix C](#).

Table 3.1 : Route A. Valley Road (between Cherryfield Drive & Bewley Drive)

Criterion	Performance Scores
Cohesion	5 / 6
Directness	9 / 10
Safety	10 / 16
Comfort	5 / 8
Attractiveness	7 / 20
Total	36 / 50 (72%)

Table 3.2 : Route B. Bewley Drive (between Valley Road & Cherryfield Drive)

Criterion	Performance Scores
Cohesion	2 / 6
Directness	7 / 10
Safety	8 / 16
Comfort	4 / 8
Attractiveness	4 / 20
Total	25 / 50 (50%)

Table 3.3 : Route C. Bracknell Avenue (between Bewley Drive & Kirkby High School)

Criterion	Performance Scores
Cohesion	5 / 6
Directness	9 / 10
Safety	12 / 16
Comfort	7 / 8
Attractiveness	6 / 20
Total	39 / 50 (78%)

Table 3.4 : Route D. Cherryfield Drive (between Bewley Drive & Webster Drive)

Criterion	Performance Scores
Cohesion	1 / 6
Directness	8 / 10
Safety	3 / 16
Comfort	2 / 8
Attractiveness	4 / 20
Total	18 / 50 (36%)

Table 3.5 : Route E. Cherryfield Drive (between Valley Road & Webster Drive)

Criterion	Performance Scores
Cohesion	2 / 6
Directness	8 / 10
Safety	3 / 16
Comfort	2 / 8
Attractiveness	4 / 20
Total	19 / 50 (38%)

3.2.3 As summarised in Table 3.1 to Table 3.5, the CLoS assessment shows that 2no. cycling routes in the vicinity of the development site which were identified (A. Valley Road and C. Bracknell Avenue) scored above 70%; these routes featured cycle routes. The remaining routes scored under the 70% threshold as they didn't provide cycle routes.

4. Proposed Active Travel Improvements

- 4.1.1 The applicant has submitted detailed drawings as part of the proposed Section 278 highway works to Knowsley Metropolitan Borough Council for technical approval (Drawing Nos. **[CFD-LE-GEN-XX-DR-CE-100-S4-P7 - S278 General Arrangement]**, **[CFD-LE-GEN-XX-DR-CE-101-S4-P8 - S278 General Arrangement]**, **[CFD-LE-GEN-XX-DR-CE-10100-S0-P0 - Cycle Path General Arrangement]**, **[CFD-LE-GEN-XX-DR-CE-10101-S0-P0 - Cycle Path General Arrangement]**). The proposals incorporate measures that address the deficiencies identified within the active travel network through the WRAT and CLoS assessments. All drawings are attached in **Appendix C**.
- 4.1.2 On this basis, the submitted scheme is considered sufficient to mitigate the issues identified through the audit process and, as such, no additional measures are proposed as part of this Walking and Cycling Route Assessment.

APPENDIX A

Route Site Photographs





Route A - Valley Road (between Cherryfield Drive and Bewley Drive)



Route B - Bewley Drive (between Valley Road and Cherryfield Drive)



Route C - Bracknell Avenue (between Bewley Drive and Kirkby High School)



Route D - Cherryfield Drive (between Bewley Drive and Webster Drive)



Route E - Cherryfield Drive (between Valley Road and Webster Drive)

APPENDIX B WRAT (Walking) Assessment Tables

Local Cycling and Walking Infrastructure Plans

Walking Route Audit Tool

Overview

The primary function of the Walking Route Audit Tool (WRAT) is to assess the current condition and suitability of a walking route. The WRAT is intended to be used during or following a site visit and provides a means of ensuring that all of the factors are considered.

Walking Route Audit Tool Criteria

The WRAT uses a range of criteria to assess how well a route meets the core design outcomes, with scoring ranging from 2, being the highest, to 0, being the lowest.

The criteria are:

- attractiveness
- comfort
- directness
- safety
- coherence

How to use the RST

The WRAT requires the auditor to score the route against the following criteria:

0 for poor provision (RED)
1 for provision which is adequate but should be improved if possible (AMBER)
2 for good quality provision (GREEN)

A score of 70% (i.e. a score of 28 out of a potential 40 points) should normally be regarded as a minimum level of provision overall. Routes which score less than this, and factors which are scored as zero should be used to identify where improvements are required. As the scoring is sometimes qualitative the tool also allows the auditor to add comments explaining their score allocation. The actions column allows auditors to record solutions to any of the issues identified on the route e.g. removing redundant street clutter to improve its attractiveness.

Summary

General information regarding the route can be entered at the bottom of the tool.

Further Information

LCWIP Guidance (Annex C) provides further information about the WRAT.

Acknowledgement

The WRAT was developed by Local Transport Projects Ltd. as part of the Active Travel Wales Guidance.

Local Cycling and Walking Infrastructure Plan: Walking Route Selection Tool
Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	2	Shared surface and verges are well maintained.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	2	No apparent vandalism and route is open and overlooked by carriageway.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	1	Moderate traffic volumes on Valley Road.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			2	No other attractiveness issues noted.	
ATTRACTIVENESS				7		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	2	Shared surface in good condition, providing an even surface.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Shared surface is c.3m wide.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	c.3.5-4.0m wide signal crossings adjacent to Bewley Drive and Cherryfield Drive roundabout.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	2	No evidence of footway parking.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	2	The route is generally flat.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			2	No other comfort issues noted.	
COMFORT				12		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	2	Footway seperated from carriageway to south via verge towards Bewley Drive.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	2	Signal crossings provided at junctions.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	1	Moderate vehicle movements mean delay occurs when crossing not at signal crossings.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	1	Signal crossings are staggered as Valley Road is a dual-carriageway seperated by a verge.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	2	Green man time is sufficient.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			2	No other directness issues noted.	
DIRECTNESS				10		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	1	Moderate traffic volumes, with footway seperated by a verge for approximatley half of the route.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	1	Moderate traffic speeds, with footway seperated by a verge for approximatley half of the route.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	2	Good visibility.	
SAFETY				4		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	2	Dropped kerbs and tactile paving at crossing points.	
COHERENCE				2		
Total Score				35		

ROUTE SUMMARY

Route Name	Route A. Valley Road (between Cherryfield Drive & Bewley Drive)
Length	c.600m
Name of Assessor(s)	
Date of Assessment	Wednesday, 18 February 2026

Criterion	Performance Scores
Attractiveness	7
Comfort	12
Directness	10
Safety	4
Coherence	2
Total	35

Comments	
Actions	

Local Cycling and Walking Infrastructure Plan: Walking Route Selection Tool
Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	1	Footways are relatively well maintained. Some verges not as well maintained.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	2	No apparent vandalism and route is overlooked by dwellings.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	2	Low traffic volumes.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			2	No other attractiveness issues noted.	
ATTRACTIVENESS				7		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	1	Footways in good condition, providing an even surface, to the south. Paved footway to the north has evidence of cracking and lifting.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Footway width at c.2m or above.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Pedestrian crossing points of an adequate width.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	2	No evidence of footway parking.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	2	The route is generally flat.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			2	No other comfort issues noted.	
COMFORT				11		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	2	Footways available on both sides of the carriageway.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	2	Several crossings provided, including adjacent to school.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	1	Low vehicle movements and multiple crossings points makes crossing easy without delay.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	0	N/A	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	0	N/A	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			2	No other directness issues noted.	
DIRECTNESS				7		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	2	Low traffic flows.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	2	Low traffic speeds.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	2	Good visibility.	
SAFETY				6		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	2	Dropped kerbs and tactile paving at crossing points and across junctions.	
COHERENCE				2		
Total Score				33		

ROUTE SUMMARY

Route Name	Route B. Bewley Drive (between Valley Road & Cherryfield Drive)
Length	c.650m
Name of Assessor(s)	
Date of Assessment	Wednesday, 18 February 2026

Criterion	Performance Scores
Attractiveness	7
Comfort	11
Directness	7
Safety	6
Coherence	2
Total	33

Comments	
Actions	

Local Cycling and Walking Infrastructure Plan: Walking Route Selection Tool
Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	2	Footways are well maintained, particularly to the west of the carriageway where Kirkby High School is.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	2	No apparent vandalism and route is overlooked by dwellings.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	2	Low traffic volumes.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			2	No other attractiveness issues noted.	
ATTRACTIVENESS				8		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	1	Footways in good condition, particularly to the west where Kirkby High School is located. Paved footway to the east not as smooth.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Footway width at c.2m or above.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	0	N/A	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	2	No evidence of footway parking due to verges.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	2	The route is generally flat.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			2	No other comfort issues noted.	
COMFORT				9		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	2	Footways available on both sides of the carriageway.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	0	N/A	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	1	Low vehicle movements makes crossing easy without delay.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	0	N/A	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	0	N/A	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			2	No other directness issues noted.	
DIRECTNESS				5		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	2	Low traffic flows.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	2	Low traffic speeds.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	2	Good visibility.	
SAFETY				6		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	2	Dropped kerbs and tactile paving at crossing points across junctions, including at Kirkby High School Access.	
COHERENCE				2		
Total Score				30		

ROUTE SUMMARY

Route Name	Route C. Bracknell Av (between Bewley Dr & Kirkby High School)
Length	c.300m
Name of Assessor(s)	
Date of Assessment	Wednesday, 18 February 2026

Criterion	Performance Scores
Attractiveness	8
Comfort	9
Directness	5
Safety	6
Coherence	2
Total	30

Comments	
Actions	

Local Cycling and Walking Infrastructure Plan: Walking Route Selection Tool

Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	1	Some evidence of littering. Verges not fully maintained.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	2	No apparent vandalism and route is overlooked by dwellings and Kirkby Leisure Centre.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	1	Moderate traffic volumes.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			2	No other attractiveness issues noted.	
ATTRACTIVENESS				6		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	1	Footways in relatively good condition overall, but some unevenness on paving (not considered as a trip hazard).	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Footway width at c.2m or above.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	0	N/A	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	2	Very little evidence of footway parking due to verges. One vehicle observed to be parked on vehicle cross over in line with verge, not blocking footway.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	2	The route is generally flat.	
10. COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			2	No other comfort issues noted.	
COMFORT				9		
11. DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	2	Footways available on both sides of the carriageway.	
12. DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	2	Crossings provided adjacent to Bewley Drive, across leisure centre access and adjacent to leisure centre (signalised).	
13. DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	1	Moderate vehicle movements means crossing has some delay.	
14. DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	2	Signalised pedestrian crossing adjacent to leisure centre, and signalised junction at Webster Drive.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	2	Green man time is sufficient.	
16. DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			2	No other directness issues noted.	
DIRECTNESS				11		
17. SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	2	Moderate traffic flows, but footway separated from carriageway by verges.	
18. SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	2	Moderate traffic speeds, but footway separated from carriageway by verges.	
19. SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	1	Adequate visibility but this section of carriageway is on a bend so is reduced in some areas.	
SAFETY				5		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	2	Dropped kerbs and tactile paving provided at crossing points.	
COHERENCE				2		
Total Score				33		

ROUTE SUMMARY

Route Name	Route D. Cherryfield Drive (between Bewley Dr & Webster Dr)
Length	c.550m
Name of Assessor(s)	
Date of Assessment	Wednesday, 18 February 2026

Criterion	Performance Scores
Attractiveness	6
Comfort	9
Directness	11
Safety	5
Coherence	2
Total	33

Comments	
Actions	

Local Cycling and Walking Infrastructure Plan: Walking Route Selection Tool
Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	1	Some evidence of littering. Not clean.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	1	Some vandalism (graffiti). Route is overlooked by some shop frontages.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	1	Moderate traffic volumes.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			1	Guard railings and bollards present.	
ATTRACTIVENESS				4		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	0	Paved footway had multiple areas with lifting / cracking particularly around trees on the southern side.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Footway width at c.2m or above.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	0	N/A	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	2	No evidence of footway parking. Barriers and Traffic Regulation Orders in place.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	2	The route is generally flat.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			2	No other comfort issues noted.	
COMFORT				8		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	2	Footways available on both sides of the carriageway.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	2	Multiple signalised crossings provided to access town centre amenities, including at either side of the bus station.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	1	Moderate vehicle movements means crossing has some delay.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	2	Multiple signalised crossings provided to access town centre amenities, including at either side of the bus station.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	2	Green man time is sufficient.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			2	No other directness issues noted.	
DIRECTNESS				11		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	2	Moderate traffic flows.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	1	Moderate traffic speeds.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	2	Good visibility.	
SAFETY				5		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	1	Tacile paving not provided across all junctions.	
COHERENCE				1		
Total Score				29		

ROUTE SUMMARY

Route Name	Route E. Cherryfield Drive (between Valley Road & Webster Drive)
Length	c.500m
Name of Assessor(s)	
Date of Assessment	Wednesday, 18 February 2026

Criterion	Performance Scores
Attractiveness	4
Comfort	8
Directness	11
Safety	5
Coherence	1
Total	29

Comments	
Actions	

APPENDIX C CLoS (Cycling) Assessment Tables

LTN 1/20 Appendix A: Cycling Level of Service Tool

Route Name: Route A, Valley Road (between Cherryfield Drive & Bewley Drive)
 Name of Assessor: Rebecca Woollin
 Date of Assessment: 18/02/2026

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	2	Cycle connections to Cherryfield Drive and Bewley Drive, as well as the opposite side of Valley Road via Toucan crossings.
	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	2	Continuous shared pedestrian / cycle route. Cycle connections to Cherryfield Drive and Bewley Drive, as well as the opposite side of Valley Road via Toucan crossings.
	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 i.e. distances between primary and secondary routes within the network.		Route contributes to a network density mesh width >1000m	Route contributes to a network density mesh width 250–1000m	Route contributes to a network density mesh width <250m	1	
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 straightline (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	2	
	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	2	
	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 (e.g. bypass at signals)	1	Toucan crossing has 2 stages across dual carriageway.
	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	2	
	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 steeper which than 2%	2	
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	0	
	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.	10. Motor traffic speed on sections of shared carriageway	85th percentile >37mph (60kph)	85th percentile >30mph	85th percentile 20mph–30mph	85th percentile <20mph	0	
	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	1	
	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 unresurfaced 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.	2	Shared pedestrian / cycle route off carriageway.
		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.	2	Toucan crossings provided.
	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	1	Some markings could be made clearer / redone.
	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.	2	
	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.	2	
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	2	
		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.	1	Paved surface.
	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	2	
	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	0	Route signing not provided.
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	2	
			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	2	Adjacent to dual carriageway.
	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 only 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	2	
	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.	1	
	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	0	No cycle parking provided.
							Audit Score Total	36	

LTN 1/20 Appendix A: Cycling Level of Service Tool

Route Name: Route B, Bewley Drive (between Valley Road & Cherryfield Drive)
 Name of Assessor: Rebecca Woollin
 Date of Assessment: 18/02/206

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	1	Cycle connections onto Valley Road from junction with Bracknell Avenue.
	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	0	Cycle routes signed from Valley Road to Bracknell Avenue. Not clear to the east of Bracknell Avenue where cyclists should continue.
	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 i.e. distances between primary and secondary routes within the network.		Route contributes to a network density mesh width >1000m	Route contributes to a network density mesh width 250–1000m	Route contributes to a network density mesh width <250m	1	
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	2	
	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	1	
	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 (e.g. bypass at signals)	1	Refuge islands provided, as well as dropped kerbs and tactile paving.
	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	1	
	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 steeper which than 2%	2	
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	1	85th percentile speeds not known, but traffic calming is provided to encourage 20mph speeds.
	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.	10. Motor traffic speed on sections of shared carriageway	85th percentile >37mph (60kph)	85th percentile >30mph	85th percentile 20mph–30mph	85th percentile <20mph	1	85th percentile speeds not known, but traffic calming is provided to encourage 20mph speeds.
	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	1	Estimated.
	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.	0	Whilst cycle routes are signposted between Valley Road and Bracknell Avenue, footways are only c.2-2.5m wide, and cycling may be encouraged on the carriagway (traffic calming is provided).
		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.	1	
	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	0	No road markings provided. Unclear where cyclists are expected to travel.
	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.	2	
Comfort	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.	2	Verges provided along most of the carriageway.
	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	2	
		Pavement or carriageway construction providing smooth and level surface	18. Surface type		Any bumpy, unbound, slippery, and potentially hazardous surface.	Hand-laid materials, concrete pavours with frequent joints.	Machine laid smooth and non-slip surface – eg Thin Surfacing, or firm and closely jointed blocks undisturbed by turning heavy vehicles.	1	Paved surface.
	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	0	Limited width in some areas.
	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	1	Some cycle route signing provided. Not clear where cycle routes start/end and where cyclists should travel.
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 22. Isolation		Most or all of route is unlit Route is generally away from activity	Short and infrequent unlit/poorly lit sections Route is mainly overlooked and is not far from activity throughout its length	Route is lit to highway standards throughout Route is overlooked throughout its length	2 2	Streetlighting present. Overlooked by residential dwellings.
	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	0	Not clear whether cyclists are expected to cycle on footway or carriageway for majority of route.
	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.	0	
	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	0	No cycle parking provided.
							Audit Score Total	25	

LTN 1/20 Appendix A: Cycling Level of Service Tool

Route Name: Route C - Bracknell Avenue (between Bewley Drive and Kirkby High School)
 Name of Assessor: Rebecca Woollin
 Date of Assessment: 18/02/206

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	2	Direct access from Bewley Drive onto cycle route to the west of Bracknell Avenue.
	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	2	Continuous route from Bewley Drive to Kirby High School.
	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 i.e. distances between primary and secondary routes within the network.		Route contributes to a network density mesh width >1000m	Route contributes to a network density mesh width 250–1000m	Route contributes to a network density mesh width <250m	1	
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	2	
	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	2	
	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 (e.g. bypass at signals)	2	All junctions are minor residential roads.
	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	1	
	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 steeper which than 2%	2	
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	1	85th percentile speeds not known, but traffic calming is provided to encourage 20mph speeds on a route to / from a school.
	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.	10. Motor traffic speed on sections of shared carriageway	85th percentile >37mph (60kph)	85th percentile >30mph	85th percentile 20mph–30mph	85th percentile <20mph	1	85th percentile speeds not known, but traffic calming is provided to encourage 20mph speeds.
	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	1	Estimated.
	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.	2	Off-road provision provided.
		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.	1	
	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		2	No road markings provided. Unclear where cyclists are expected to travel.
	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.	2	
Comfort	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.	2	Verges provided along carriageway between driveways.
	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		2	
		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.		2	High quality, smooth surface.
	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		2	
Attractiveness	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		1	
	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 22. Isolation	Most or all of route is unlit Route is generally away from activity	Short and infrequent unlit/poorly lit sections Route is mainly overlooked and is not far from activity throughout its length	Route is lit to highway standards throughout Route is overlooked throughout its length		2	Streetlighting present. Overlooked by residential dwellings and school.
	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		0	Cycle route appears to use all of footway to the west of the carriageway.
	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.		2	
	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		0	No cycle parking provided.
						Audit Score Total	39		

LTN 1/20 Appendix A: Cycling Level of Service Tool

Route Name: Route D - Cherryfield Drive (between Bewley Drive and Webster Drive)
 Name of Assessor: Rebecca Woollin
 Date of Assessment: 18/02/206

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	0	No dedicated cycle routes or crossings. Marked as a suggested cycle route by Merseytravel.
	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	0	No dedicated cycle routes or crossings. Marked as a suggested cycle route by Merseytravel.
	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 i.e. distances between primary and secondary routes within the network.		Route contributes to a network density mesh width >1000m	Route contributes to a network density mesh width 250–1000m	Route contributes to a network density mesh width <250m	1	
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	2	
	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	2	
	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 (e.g. bypass at signals)	1	
	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	1	
	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 steeper which than 2%	2	
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	0	Estimate.
	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.	10. Motor traffic speed on sections of shared carriageway	85th percentile >37mph (60kph)	85th percentile >30mph	85th percentile 20mph–30mph	85th percentile <20mph	0	Estimate.
	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	0	Estimated.
	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.	0	No dedicated cycle routes or crossings. Marked as a suggested cycle route by Merseytravel.
		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.	1	
	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	0	No dedicated cycle routes or crossings. Marked as a suggested cycle route by Merseytravel.
	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.	0	
Comfort	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.	2	Verges provided along carriageway between driveways.
	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	1	Paving uneven in some areas.
		Pavement or carriageway construction providing smooth and level surface	18. Surface type		Any bumpy, unbound, slippery, and potentially hazardous surface.	Hand-laid materials, concrete pavours with frequent joints.	Machine laid smooth and non-slip surface – eg Thin Surfacing, or firm and closely jointed blocks undisturbed by turning heavy vehicles.	1	Paving provided.
	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	0	No dedicated cycle routes or crossings. Marked as a suggested cycle route by Merseytravel.
Attractiveness	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	0	No dedicated cycle routes or crossings. Marked as a suggested cycle route by Merseytravel.
	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	2	Streetlighting present.
			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	2	Overlooked by residential dwellings.
	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	0	No dedicated cycle routes or crossings. Marked as a suggested cycle route by Merseytravel. Not clear whether cyclists are expected on the footway or on the carriageway.
	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.	0	No dedicated cycle routes or crossings. Marked as a suggested cycle route by Merseytravel.
	Secure cycle parking	Ease of access to secure cycle parking within businesses and on-street	25. Evidence of bicycles parked in 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	0	No cycle parking provided.
							Audit Score Total	18	

LTN 1/20 Appendix A: Cycling Level of Service Tool

Route Name: Route E - Cherryfield Drive (between Valley Road and Webster Drive)
 Name of Assessor: Rebecca Woollin
 Date of Assessment: 18/02/206

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	1	
	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	0	Unclear as to where cycle routes start/end end, despite some signing.
	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 i.e. distances between primary and secondary routes within the network.		Route contributes to a network density mesh width >1000m	Route contributes to a network density mesh width 250–1000m	Route contributes to a network density mesh width <250m	1	
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	2	
	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	2	
	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 (e.g. bypass at signals)	1	
	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	1	
	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 steeper which than 2%	2	
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	1	Estimate.
	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.	10. Motor traffic speed on sections of shared carriageway	85th percentile >37mph (60kph)	85th percentile >30mph	85th percentile 20mph–30mph	85th percentile <20mph	1	Estimate.
	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	1	Estimated.
	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.	0	Understood that cyclsits are expected to cycle on the carriageway, with no marked cycle lanes.
		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.	0	
	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	0	Understood that cyclsits are expected to cycle on the carriageway, with no marked cycle lanes. Not clear where suggested routes start/end.
	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.	0	Bus stops and on-street parking (even where TROs are in place to restrict).
	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.	0	Guardrails present.
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	1	
		Pavement or carriageway construction providing smooth and level surface	18. Surface type		Any bumpy, unbound, slippery, and potentially hazardous surface.	Hand-laid materials, concrete pavours with frequent joints.	Machine laid smooth and non-slip surface – eg Thin Surfacing, or firm and closely/jointed blocks undisturbed by turning heavy vehicles.	1	
	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	0	No dedicated cycle routes or crossings.
	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	0	Signing makes it unclear where cyclists are expected to cycle.
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 22. Isolation		Most or all of route is unlit Route is generally away from activity	Short and infrequent unlit/poorly lit sections Route is mainly overlooked and is not far from activity throughout its length	Route is lit to highway standards throughout Route is overlooked throughout its length	2 2	Streetlighting present. Overlooked by commercial properties and bus station.
	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	0	No dedicated cycle routes or crossings. Cyclists may cycle on the footway, where there are several barriers (trees etc).
	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.	0	Signing makes it unclear where cyclists are expected to cycle.
	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	0	No cycle parking provided.
							Audit Score Total	19	

APPENDIX D S278 Drawings

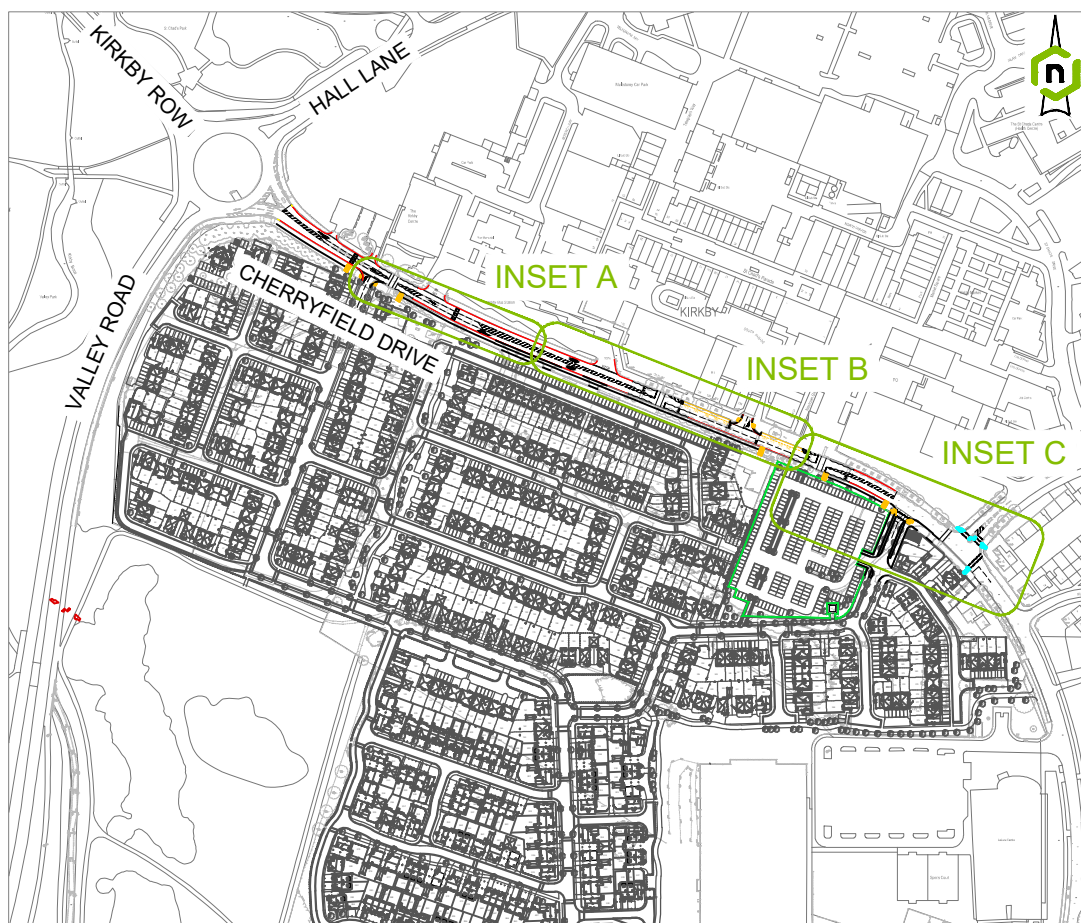
FOR CONTINUATION SEE SHEET 10F2



INSET C

GENERAL NOTES

1. THIS DRAWING SHOULD NOT BE PRODUCED IN WHOLE OR PART WITHOUT THE WRITTEN CONSENT OF LINK ENGINEERING.
2. DO NOT SCALE FROM THIS DRAWING. UNITS ARE IN METRES UNLESS NOTED OTHERWISE.
3. THE CONTRACTOR IS TO CHECK ALL INFORMATION PROVIDED PRIOR TO COMMENCING WORKS AND SEEK CLARIFICATION FROM THE ENGINEER IN RESPECT TO ANY AMBIGUITIES FOUND.
4. ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
5. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER SCHEME SPECIFIC DRAWINGS & SPECIFICATIONS.
6. BACKGROUND PLAN BASED ON TOPOGRAPHIC SURVEY DATA CREATED BY OTHERS AND SUPPLIED FOR THE PURPOSE OF CARRYING OUR ENGINEERING WORKS. WE CANNOT BE HELD RESPONSIBLE FOR THE CONTENT, COMPLETENESS AND ACCURACY PROVIDED TO US BY OTHERS. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.
7. ALL ADOPTABLE HIGHWAY WORKS SHALL BE ADOPTED VIA HIGHWAYS ACT 1980.
8. ADOPTED HIGHWAYS SHALL BE DESIGNED IN ACCORDANCE WITH THE DEPARTMENT FOR TRANSPORT'S DESIGN MANUAL FOR ROADS AND BRIDGES AND/OR SHALL COMPLY WITH THE ADOPTING LOCAL HIGHWAY AUTHORITY'S DESIGN GUIDANCE WHERE APPLICABLE.
9. WORKS WITHIN THE HIGHWAY ARE SUBJECT TO SECTION 38/278 AGREEMENT WITH THE LOCAL HIGHWAY AUTHORITY.
10. NON ADOPTED HIGHWAYS SHALL BE DESIGNED TO THE LOCAL HIGHWAY AUTHORITY'S HIGHWAY DESIGN STANDARDS BUT SHALL REMAIN PRIVATE AND THE RESPONSIBILITY OF THE DEVELOPER/SITE OWNER.
11. ALL TRAFFIC SIGNS AND ROAD MARKINGS SHALL BE PROVIDED IN ACCORDANCE WITH TSGD 2016.
12. LIGHTING SHALL BE DESIGNED TO BS 5489 (2020) AND BS EN 13201 FOR THE APPROPRIATE ROUTE CLASSIFICATION.
13. NO PLANTING IN VISIBILITY SPLAYS SHALL BE ABOVE 600mm IN HEIGHT ABOVE THE CARRIAGEWAY. ADDITIONALLY, NO OBSTRUCTIONS (REF CD109 cl 3.4) ARE PERMITTED WITHIN THE VISIBILITY SPLAY.



KEY PLAN
1:5,000

KEY

- ASPHALT CARRIAGEWAY
- 2.0m FOOTWAY - BLOCK PAVING
- VERGE
- 3.0m CYCLEWAY
- SHARED FOOTWAY AND CYCLEWAY
- EXISTING TACTILE TO BE REPLACED AT SIGNALS
- EXISTING TACTILE TO BE REPLACED AT CROSSINGS
- CORDUROY CYCLE TACTILE PAVING
- PROPOSED TACTILE PAVING
- PROPOSED RED ROUTE
- PROPOSED ROAD SIGN

P8	REINSTATED EXISTING ROAD MARKING	08.09.25	MM
P7	UPDATED TO SUIT LATEST SITE PLAN	14.04.25	DF
P6	UPDATED AS PER CLIENT COMMENTS	13.03.25	MM
P5	UPDATED TO SUIT CLIENTS COMMENTS	01.08.23	TJA
P4	FULL DRAWING PACK ISSUE	13.07.23	TJA
P3	UPDATED FOR HIGHWAY COMMENTS	22.05.23	TJA
P2	UPDATED FOR HIGHWAY COMMENTS	23.03.23	JKP
P1	INITIAL ISSUE	17.01.23	JSJ
Rev.	Amendments	Date	By

Revisions

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Project
LM3061 - CHERRYFIELD DRIVE, KIRKBY

Drawing
GENERAL ARRANGEMENT (SHEET 2 OF 2)

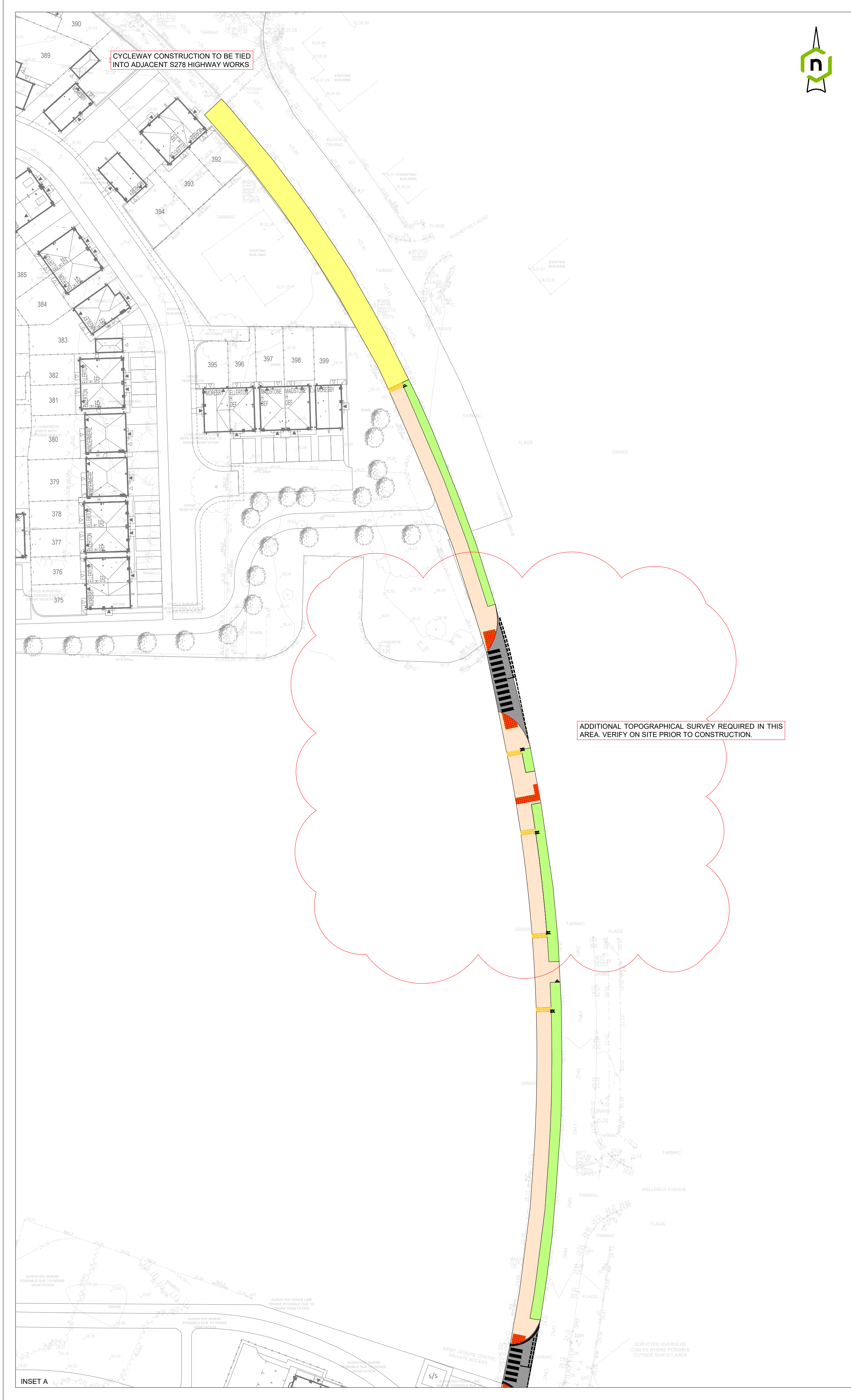
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Drawn
JSJ

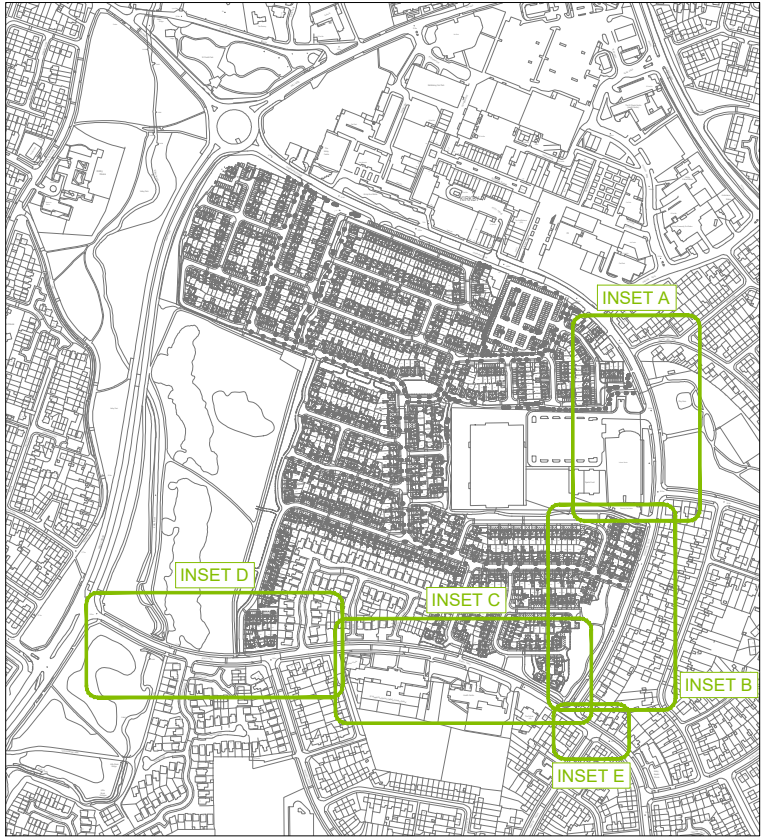
Checked
CH

Rev
P8

APPROVAL (S4)
STATUS



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 4. ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
 5. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER SCHEME SPECIFIC DRAWINGS & SPECIFICATIONS.
 6. BACKGROUND PLAN BASED ON TOPOGRAPHIC SURVEY DATA CREATED BY OTHERS AND SUPPLIED FOR THE PURPOSE OF CARRYING OUR ENGINEERING WORKS. WE CANNOT BE HELD RESPONSIBLE FOR THE CONTENT, COMPLETENESS AND ACCURACY PROVIDED TO US BY OTHERS. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.
 7. DRAWING ISSUED FOR PRELIMINARY DISCUSSIONS ONLY, SUBJECT TO FURTHER APPROVAL FROM LOCAL PLANNING AUTHORITY, LOCAL HIGHWAY AUTHORITY, SEWERAGE UNDERTAKER, ENVIRONMENT AGENCY AND ANY OTHER GOVERNING PARTIES. FOLLOWING RECEIPT OF FURTHER INFORMATION AND COMMENTS THE SCHEME MAY BE REVISED.
 8. ALL SETTING OUT IS TO BE BASED ON ARCHITECTS INFORMATION UNLESS NOTED OTHERWISE.



KEY PLAN 1:10,000

- KEY
- ASPHALT CARRIAGEWAY
 - VERGE
 - FOOTWAY
 - SHARED FOOTWAY AND CYCLEWAY
 - 400x400x66 BUFF CORDUROY CYCLE TACTILE PAVING
 - 400x400x66 BUFF TACTILE PAVING FOR CROSSING POINTS
 - PROPOSED ROAD SIGN

P0	INITIAL ISSUE:	31.10.25	DK
Rev.	Amendments	Date	By

Revisions

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DAVID WILSON HOMES
MARKFIELD QUALITY LEADS

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Project
LE25181
CHERRYFIELD DRIVE

Drawing
CYCLE PATH
GENERAL ARRANGEMENT
SHEET 1 OF 2

Scale @ A1
1:500

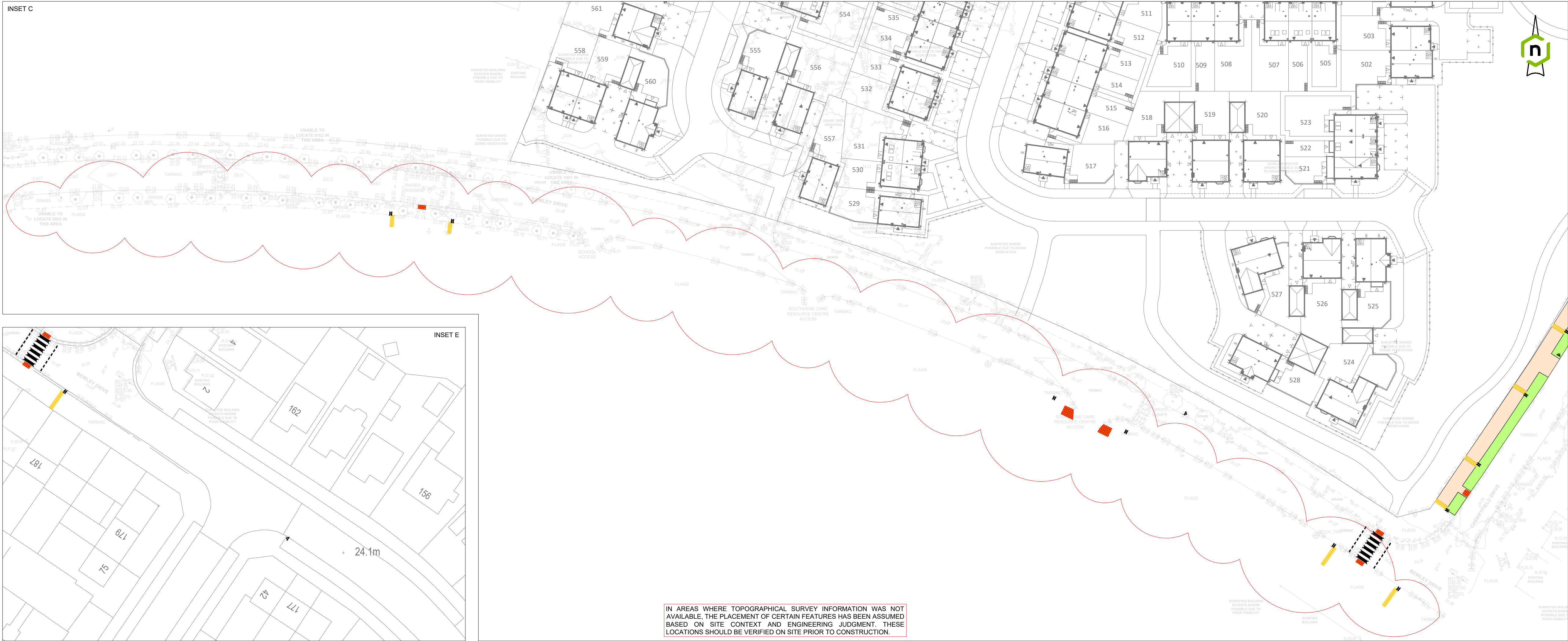
Drawn
DK

Checked
TA

Rev
P0

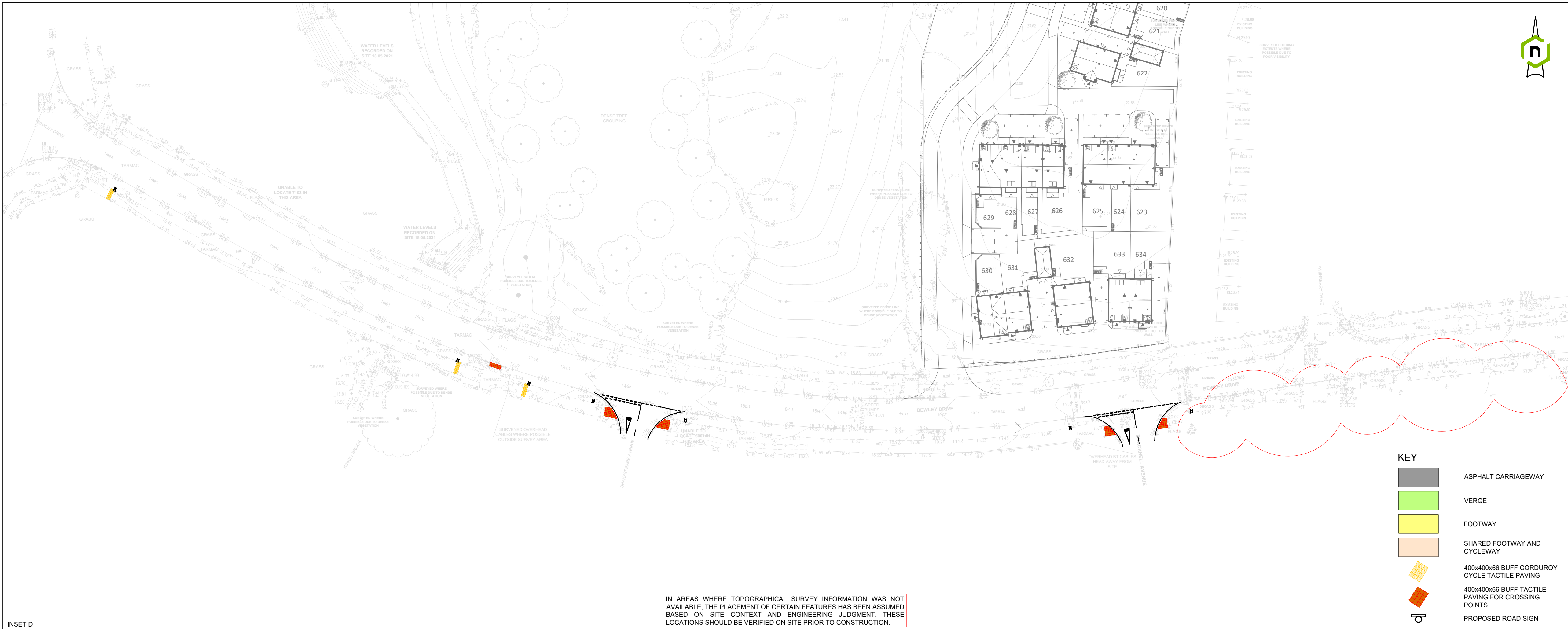
PROJECT NO: CPD-LE-GEN-XX-DR-CE-101000 DRAFT (S0)

INSET C



IN AREAS WHERE TOPOGRAPHICAL SURVEY INFORMATION WAS NOT AVAILABLE, THE PLACEMENT OF CERTAIN FEATURES HAS BEEN ASSUMED BASED ON SITE CONTEXT AND ENGINEERING JUDGMENT. THESE LOCATIONS SHOULD BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.

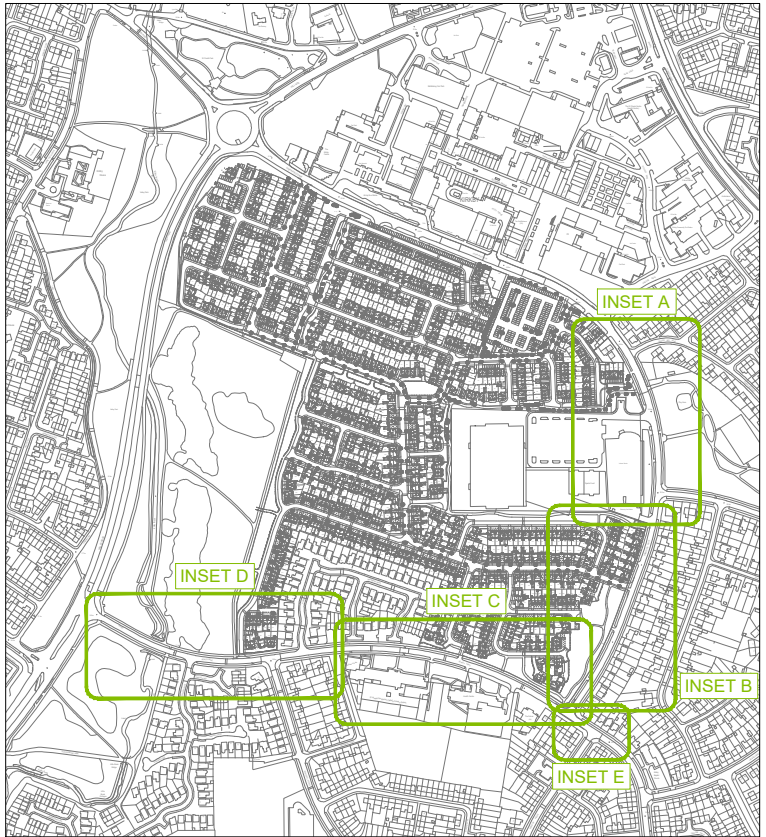
INSET D



IN AREAS WHERE TOPOGRAPHICAL SURVEY INFORMATION WAS NOT AVAILABLE, THE PLACEMENT OF CERTAIN FEATURES HAS BEEN ASSUMED BASED ON SITE CONTEXT AND ENGINEERING JUDGMENT. THESE LOCATIONS SHOULD BE VERIFIED ON SITE PRIOR TO CONSTRUCTION.

GENERAL NOTES

1. THIS DRAWING SHOULD NOT BE PRODUCED IN WHOLE OR PART WITHOUT
2. THE WRITTEN CONSENT OF LINK ENGINEERING.
3. 2. THE SCALE OF ALL DIMENSIONS FROM THIS DRAWING, UNLESS OTHERWISE
4. NOTED OTHERWISE.
5. THE CONTRACTOR IS TO CHECK ALL INFORMATION PROVIDED PRIOR TO
6. COMMENCING WORKS AND SEEK CLARIFICATION FROM THE ENGINEER IN
7. WRITING PRIOR TO THE COMMENCEMENT OF WORKS.
8. 4. ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE
9. ENGINEER IMMEDIATELY.
10. 5. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER
11. SCHEME SPECIFIC DRAWINGS & SPECIFICATIONS.
12. 6. BACKGROUND PLAN BASED ON TOPOGRAPHIC SURVEY DATA CREATED
13. BY OTHERS AND SUPPLIED FOR THE PURPOSE OF CARRYING OUR
14. ENGINEERING WORKS. WE CANNOT BE HELD RESPONSIBLE FOR THE
15. ACCURACY OR COMPLETENESS OF THE DATA PROVIDED BY OTHERS.
16. 7. OTHERS. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS
17. ON SITE.
18. 8. DRAWING ISSUED FOR PRELIMINARY DISCUSSIONS ONLY, SUBJECT TO
19. FURTHER APPROVAL FROM LOCAL PLANNING AUTHORITY, LOCAL
20. HIGHWAY AUTHORITY, SEWERAGE UNDERTAKER, ENVIRONMENT AGENCY
21. AND ANY OTHER GOVERNING PARTIES. FOLLOWING RECEIPT OF
22. FURTHER INFORMATION AND COMMENTS THE SCHEME MAY BE REVISED.
23. 9. OUR DRAWINGS MUST BE BASED ON ARCHITECTS INFORMATION
24. UNLESS NOTED OTHERWISE.



KEY PLAN 1: 10,000

PO	INITIAL ISSUE	31.10.25	DI
Rev	Amendments	Date	By
Revisions			
Client  BARRATT HOMES Barratt Chapel Manor Homes North West 2nd Floor Warrington WA1 4BB TEL: 01925 620000  DAVID WILSON HOMES HIGGINS QUALITY GROUP			
 Link ENGINEERING Find us @ www.linkeng.co.uk			
Project LE25181 CHERRYFIELD DRIVE			
Drawing CYCLE PATH GENERAL ARRANGEMENT SHEET 2 OF 2			
Scale @ A1	Drawn	Checked	Rev
1:500	DK	TA	P0