Technical Note

Project title A3100 Burpham to Boxgrove Roundabout Technical Review

Job number 293908-12

File reference 04-08

CC

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Date 7 June 2024

Subject Technical Review

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INTRODUCTION

Background

Surrey County Council (SCC) has undertaken non-statutory public engagement on the proposed A3100 active travel scheme, which would run from New Inn Lane to York Road along London Road, Guildford. The aim of the scheme is to ensure the road is safer and more accessible for children, pedestrians and cyclists travelling around Guildford, for now and in the future.

Section 1 of the scheme is subject to further design review informed by comments received through the engagement to ensure that the scheme for Section 1 considers the needs of all road users.

SCC advises that the scheme relies on the availability of land within the highway boundary.

Figure 1 at the rear of this note shows the scope of review, and Figure 2 gives a more detailed view of the scheme corridor including road names. Section 1 runs from New Inn Lane to Boxgrove Roundabout excluding the roundabout itself.

Concerns covered

This note presents the findings of a desktop review looking at the existing situation, proposed scheme and potential risks to the scheme's users. SCC's original instruction was to target two specific concerns, one of which was the proposed carriageway lane widths and the potential for the reduction to result in conflict between heavy goods vehicles (HGVs) and pedestrians/cyclists. However, SCC has reviewed the scheme and is now of the view that it

will be feasible to maintain the carriageway width at 6.5m, thus overcoming this concern. The second specific concern to be assessed in this review is:

i. The safety of the short length of the scheme where constraints mean that 1.8m width shared use paths are proposed.

The review team have worked independently of SCC officers to identify if there are any problems or issues with the proposed scheme in the context of the targeted concern listed above. Based on the information provided, this technical review considers whether the proposed active travel scheme would be better than the existing situation for pedestrians and cyclists.

Methodology

The first stage of the review looks at the existing road (section Error! Reference source not found.): function, traffic flows, traffic speeds and collisions. Section Error! Reference source not found. describes the proposed scheme.

To address the targeted concern, the review team has researched published documents to identify design criteria for shared use paths. Section 4 looks at shared use paths and section 5 at narrow shared use paths adjacent to a carriageway. Finally, section 6 presents the conclusions.

Precedent schemes/other examples are not included in this note due to the difficulties in comparing design approaches across different contexts and locations. For example, even if an existing road has the same physical characteristics, it may have different traffic flows and user numbers.

Figures, tables and references are either appended or listed at the rear of this note.

EXISTING CONDITIONS

The highway function

The scheme runs along an A-road and the Department for Transport refers to A-roads as major roads intended to provide large-scale transport links within or between areas. In practice, the A3100 functions as a distributor road between the A3, suburban areas and Guildford town centre. There are side road junctions, a few direct accesses, bus stops and no on-street parking. The road is suburban in character, with properties set back from the edge of the road and tree canopies overhanging the footways. At the northern end of the road, there is a supermarket and small parade of shops. A 30mph speed restriction is in place and on-carriageway cycle lanes run in both directions along Section 1, either advisory or mandatory.

Traffic flows

In May 2021, SCC commissioned several traffic counts along the A3100, comprising manual turning counts, automatic link counts and pedestrian crossings. The counts were during school term time. Travel restrictions due to the Covid pandemic had been lifted although people were still being encouraged to work from home. The 12-hour flow, 7am-7pm, along Section 1 is about 7,300 vehicles in each direction. HGVs/buses number up to 150 each way and cyclists up to 100, i.e. 2% HGVs and 1% cyclists. The peak cycle flow in one direction is 25 cyclists an hour in the morning rush period.

SCC provided May 2024 linear pedestrian and cyclist counts at four discrete locations (sites) along the A3100. Counts took place over a continuous 12-hour period (7am-7pm) on both a weekday and a Saturday. Tables 1-8 summarise the flows at four locations:

Site 1 at the road crossing just north of the Anchor & Horseshoes (Table 1 and Table 2)

Site 2 between Kingpost Parade and Aldi (Table 3 and Table 4)

Site 3 Abbotswood north junction (Table 5 and Table 6)

Site 4 Highclere junction (Table 7 and Table 8)

The strategic modellingⁱⁱ for the scheme highlights potential re-routeing of road traffic with the scheme in place with a reduction in trips on the A3100 forecast.

Traffic speeds

Traffic surveys on behalf of SCC recorded vehicle speeds on the A3100 between the junctions with Boxgrove Avenue and Ganghill, i.e. within Section 1, for two weeks in May 2021. The mean speed was 29mph and the 85th percentile speed was 33mph. A considerable proportion of drivers along the A3100 are exceeding the 30mph speed limit and 15% are driving at speeds in excess of 33mph.

Collisions

SCC's web page for the schemeⁱⁱⁱ shows how many collisions have taken placed along the entire stretch of road. The data refers to collisions where someone was injured and excludes damage-only incidents. A total of 111 casualties are recorded over ten years 2012-2022. This is all road user types: pedestrians, drivers, passengers, etc. Of these 111 casualties, 35 were cyclists, which is 32% (35/111). All the cyclists sustained slight injury, meaning medical treatment was required but no hospital stay.

Over the five years 2018-2022, nine cyclists on the A3100 were casualties out of a total of 30, i.e. 30% (%₃₀). For 2018-2022 on urban roads across Surrey, Department for Transport statistics^{iv} show that 15% of casualties are cyclists. Given that in May 2021 cyclists accounted for 1% of traffic along the A3100, cyclists currently using the A3100 carriageway have historically been disproportionately involved in collisions and vulnerable to sustaining injury.

SCHEME PROPOSALS

The proposed scheme for Section 1 is based on a 6.50m width carriageway with adjacent demarcated footway/cycle tracks. As noted in MfS2^v, "UK practice has generally adopted a standard lane width of 3.65m ... Narrower lanes will be appropriate in many circumstances, particularly in built-up areas, resulting in carriageways that are easier for pedestrians to cross and encouraging low traffic speeds without causing a significant loss of traffic capacity."

Section 1: Burpham to Boxgrove roundabout, but excluding the roundabout itself, involves:

Upgrade of the existing advisory cycle lanes to off-carriageway segregated one-directional cycle tracks, with shared use facilities being provided for pedestrians and cyclists in a few sections where the available width of highway land is inadequate.

Improvements to the existing footways including resurfacing.

Improvements to five bus stops along the route including the provision/replacement of bus shelters and the provision of a shared use space for pedestrians, bus passengers and cyclists. There would be signage and markings in place to route cyclists behind the bus shelter and pedestrians/bus users in front.

Upgrade of the existing uncontrolled crossing just south of Ganghill junction to a controlled toucan (pedestrian/cyclist) crossing.

Improvements to the junctions with Kingpost Parade, Highclere, Abbotswood (north and south) and Boxgrove Avenue to facilitate crossing by cyclists.

Upgrade of the existing crossing facilities for pedestrians and cyclists on all arms of New Inn Lane/Burpham Lane and Woodruff Avenue/Weylea Avenue to parallel (zebra and cyclist) crossings.

Figure 3Error! Reference source not found. shows a typical cross-section along the scheme.

SHARED USE PATHS

Proposed scheme

Principle of shared use paths

'Shared use paths' in the context of the scheme refers to the off-carriageway facilities that both pedestrians and cyclists would use without any separation or demarcation for different user types. Most of the scheme would provide separate spaces, either demarcated with kerbs or fully segregated with a grass verge. Arup's brief is to look at the shared use paths only and not demarcated or segregated paths.

LTN 1/20^{vi} advises that: "In urban areas, the conversion of a footway to shared use should be regarded as a last resort ... Actual conflict may be rare, but the interactions between people moving at different speeds can be perceived to be unsafe and inaccessible, particularly by vulnerable pedestrians. This adversely affects the comfort of both types of user, as well as directness for the cyclist ... Shared use may be appropriate in some situations, if well-designed and implemented. Some are listed below:

Alongside interurban and arterial roads where there are few pedestrians [A];

At and around junctions where cyclists are generally moving at a slow speed ... including in association with Toucan facilities [B];

In situations where a length of shared use may be acceptable to achieve continuity of a cycle route [C]; and

In situations where high cycle and high pedestrian flows occur at different times [D]."

Considering the points above in turn:

[A] LTN 1/20 considers 300 pedestrians per hour as a threshold above which greater widths should be used to reduce conflict. Pedestrian numbers along this section of the A3100 are fewer than 300 per hour. The highest number recorded in the May 2024 counts is an hourly peak of 147 pedestrians at the signalised crossing just south of the junctions with Weylea Ave and Woodruff Ave (Table 1 refers).

[B] On each approach to these shared use stretches, there is an uncontrolled junction within 100m of the shared use section beginning. Cyclists would have to move at slower speeds to navigate the interactions with other users including pedestrians and turning vehicles.

[C] Accepting the road corridor is constrained in places by property boundaries to the rear of the footways, considering these stretches as "shared" would provide a continuous off-carriageway cycling route, albeit not to the recommended minimum standard.

However, [D] LTN 1/20 considers 300 pedestrians and/or 300 cyclists per hour as a threshold for shared used paths above which recommendations involve either enhanced facilities and/or increased facility widths. Counts commissioned by SCC in May 2024 show a combined cyclist and pedestrian hourly peak of 173 (Table 1 and Table 2).

The principle of shared use paths for stretches of Section 1 is therefore acceptable based on LTN 1/20 criteria and the numbers of users.

Width of shared use paths

LTN 1/20 recommends a minimum width of 3.0m for a two-way shared use path carrying up to 300 pedestrians and up to 300 cyclists per hour.

As noted in section **Error! Reference source not found.**, the scheme relies on the availability of land within the highway boundary. Arup's brief is focused on locations where the path would be 2.0m width or less but excluding bus stops, in summary:

- i. Northbound for approximately 45m between ch 0+460 and 0+505; minimum width 1.8m
- ii. Southbound for approximately 39m between ch 0+505 and 0+466; minimum width 1.8m.

Concerns arising from the narrow shared use paths are:

what width do pedestrians need?

what width do cyclists need?

what about pedestrians and cyclists at the same time?

is there a risk of pedestrians being in a collision with cyclists?

What width do pedestrians need?

Footways need to be wide enough for pedestrians to pass one another and keep clear of edge boundaries. Figure 5 shows diverse types of users and the widths needed to comfortably navigate a pedestrian facility.

The Department for Transport's *Inclusive Mobility* guidance^{vii} advises that where it is not feasible to provide a 2m width of footway due to physical constraints that "a minimum width of 1500mm could be regarded as the minimum acceptable under most circumstances, as this should enable a wheelchair user and a walker to pass each other".

The proposed shared use path is a minimum of 1.8m and adequate for two adults walking side-by-side or for a double buggy including additional elbow room. It is also wide enough such that a wheelchair user and a pedestrian can pass one another. Therefore a 1.8m width is acceptable in principle to accommodate the needs of a diverse range of pedestrians.

What width do cyclists need?

Cycle facilities need to be wide enough for a variety of cycles including cargo cycles and tricycles. Figure 6 shows the different vehicle dimensions as set out in LTN 1/20. (Figure 7 from the Cycle Design Manual is also included for additional context.)

LTN 1/20 (5.2.1) advises that: "A typical cyclist is about 0.8m wide at the shoulder (or handlebar) and needs at least 0.2m for balance to keep a straight line when in motion at over 7mph. This gives a typical space profile of around 1.0m for a moving cyclist on a standard bicycle ... Cyclists travelling side by side (on a level surface) require a minimum space of 1.0m each plus 0.5m separation between them," (2.5m total).

The cycle facilities proposed along the A3100 are intended to be one-way, including the shared use paths, and would be signed accordingly. However, there may be occasions when a cyclist seeks to overtake another cyclist travelling in the same direction.

Applying the dimensions above indicates that the faster cyclist would have to wait for a safe opportunity beyond the narrow shared use path in which they could overtake. It should also be acknowledged that there may be occasions when a cyclist, intentionally or unintentionally, travels against the flow. This is a general risk regardless of the available infrastructure and, again, one of the cyclists would have to yield to the other.

However, the width of the proposed facilities should lead to lower cyclist speeds and the relatively straight alignment would afford ample visibility.

Cycle numbers would be low, even with significant future growth (the current peak is about 30 cyclists an hour), and a minimum space profile of 1.0m off-carriageway would be achieved throughout the scheme.

The scheme replaces advisory on-carriageway cycle lanes with off-carriageway cycle tracks and cyclists would be at footway level with kerb protection from road traffic. Research^{viii} shows that kerb-separated cycle infrastructure reduces injury odds substantially. Compared to no infrastructure, the study found that protected cycle infrastructure reduced odds of injury

by 40-65% in the morning commute, whereas advisory lanes increased injury odds by 34%. Even with a short section of narrow shared use path, the scheme should be safer for cyclists than the existing situation.

What about pedestrians and cyclists at the same time?

Conflict on shared use paths can arise between pedestrians and cyclists where there is:

a significant speed differential between users;

insufficient width for users to pass each other safely, there being too many users for the facility type provided;

or a combination of these factors.

It is for these reasons that LTN 1/20 (Table 6-3) recommends a minimum width of 3.0m for shared use paths carrying up to 300 pedestrians and 300 cyclists per hour for two-way traffic.

Research^{ix} shows that cyclists alter their behaviour according to the density of pedestrians: as pedestrian flows rise, cyclists tend to ride more slowly and where they become very high cyclists typically dismount. It should therefore rarely be necessary to provide physical calming features to slow cyclists down on shared use routes.

Figure 5**Error! Reference source not found.** sets a 0.6m width for a single pedestrian and 0.7m for a wheelchair user. An additional 0.2m to facilitate users passing each other gives the minimum 1.5m width stated in *Inclusive Mobility* Error! Bookmark not defined. (0.6m + 0.7m + 0.2m = 1.5m).

As noted above, a cyclist requires a typical space profile of around 1.0m, which includes 0.2m for balance. Although there are differential speeds between pedestrians and cyclists, a cyclist (1.0m) and a single pedestrian (0.6m) with considerate use by both parties would be able to pass each other without stopping on the narrow shared use paths (1.8m).

Similarly, if a wheelchair user (0.7m) and a cyclist (1.0m) seek to pass each other on a narrow shared use path, a 0.1m buffer would be available. While passing could physically be accommodated, it would not be comfortable and one party may decide to give way to the other. The May 2024 counts show up to three wheelchair users a day on each footway, and the instances when a wheelchair and cyclist are using the narrow shared used paths at the same time will be rare.

Is there a risk of pedestrian/cyclist collision?

Table 9Error! Reference source not found. shows the latest national road traffic collision statistics available from the Department for Transport. The reported data does not

distinguish between collisions on- or off-carriageway, but the majority $(\frac{2}{3})$ of collisions between a pedestrian and a cyclist result in minor injury.

Most pedestrians, over 97%, sustain injury in a collision with a motor vehicle. Whilst pedestrians can be intimidated by sharing space with cyclists, for example due to cycling speeds and close passing, the collision statistics show that actual risk of a collision is improbable.

This is reflected in national design guidance, with LTN1/20 acknowledging that actual conflict between pedestrians and cyclists on shared use paths is rare.

The narrow shared use paths apply to two lengths both of which are shorter than 50m. With up to 147 pedestrians and about 30 cyclists an hour, and even allowing for growth in numbers, usage of these two sections is relatively low and users should only experience occasional conflict.

NARROW SHARED USE PATHS ADJACENT TO THE CARRIAGEWAY

As noted above, the proposed trafficked lane widths adjacent to the sections of narrow shared used paths are each 3.25m.

Figure 4 shows typical vehicle dimensions. The maximum width of a vehicle in the UK is 2.55m, although there are exceptions such as refrigerated lorries. Cars are typically 1.8m width but new cars such as sports utility vehicles (SUVs) can be wider.

In the UK, design vehicles include cars, refuse vehicles, buses and articulated lorries. HGVs and buses are the widest with an assumed 2.55m width although this does not account for elements such as wing mirrors that extend out from the vehicle body (figure 4 refers). Including wing mirrors indicates an overall vehicle width of approximately 3.0m.

Based on the figures above, opposing HGVs/buses would be able to pass with 350mm clearance between each HGV and the nearside kerb if they are centred in their lane:

- 3.25m lane 2.55m HGV excluding wing mirrors = 0.70m clearance in total for each lane
- $0.70/2 \approx 0.35$ m on the nearside of each HGV (≈ 0.70 m between vehicles)

The clearance falls to 125mm considering wing mirrors:

- 3.25m lane 3.00m HGV including wing mirrors = 0.25m clearance in total for each lane
- $0.25/2 \approx 0.125$ m on the nearside of each HGV (≈ 0.25 m between vehicles)

Note: these clearance dimensions have been updated, however, this does not change the overall findings of this technical review.

This indicates that two HGVs can pass each other safely without their wing mirrors encroaching on the shared use path.

POTENTIAL CONTINGENCY MEASURES

The technical review finds that the principle of narrow shared use paths for short stretches of Section 1 is acceptable.

There may be an element of discomfort and giving way when users are passing one another, albeit an infrequent occurrence. The design of the narrow shared use paths need to recognise this discomfort and minimise the risk of conflict as much as possible. Suggested measures are:

- no street furniture within these sections to maximise the effective width
- advanced warning (road markings and signs)
- surface treatments that encourage considerate use whilst retaining the effective working width (examples in figure 8Error! Reference source not found.)
- use of attractive materials including natural stone setts and flags, block paving and clay pavers^x
- cycle symbols on the path surface to remind users that it is shared
- pedestrian symbols on the paths and 'share with care' if feasible (subject to traffic signs regulations and local policy)
- 'slow' markings on the path.

Ladder & tramline tactile paving would be required at the start and end of the shared use paths in accordance with published guidance^{xi}.

CONCLUSION

Provision of the active travel scheme from New Inn Lane to York Road along London Road, Guildford would result in road that is safer and more accessible for children, pedestrians and cyclists travelling around Guildford, for now and in the future.

Section 1 of the A3100 scheme is partially constrained by the non-availability of publicly-owned land. In response to SCC's public engagement, this technical note reviews the safety of the short length of the scheme where constraints mean that 1.8m width shared use paths are proposed.

The review notes that a considerable proportion of drivers along the A3100 are exceeding the 30mph speed limit and 15% are driving at speeds in excess of 33mph.

While cyclists account for 1% of traffic, they accounted for 30% of casualties between years 2018-2022. Cyclists on the A3100 have historically been disproportionately involved in collisions and vulnerable to sustaining injury, which indicates a need for improvements to the road environment.

The scheme proposes to repurpose the existing highway, to provide safer cyclist facilities and encourage a shift from car dependency to sustainable modes of travel.

The review finds that the principle of shared use paths for stretches of Section 1 is acceptable based on LTN 1/20 criteria. Short sections of the shared use paths, for about

50m each side, would be 1.8m width. Instances when users need pass each other on the narrow paths would be infrequent with up to 147 pedestrians and 28 cyclists an hour.

Passing could be physically accommodated within the available width although it may be briefly inconvenient. The actual risk of collision is improbable, as shown by national statistics.

The paths would be suitable for pedestrians to walk side-by-side and/or pass each other, for a wheelchair user and a pedestrian to pass one another and for a cyclist to pass a pedestrian without stopping.

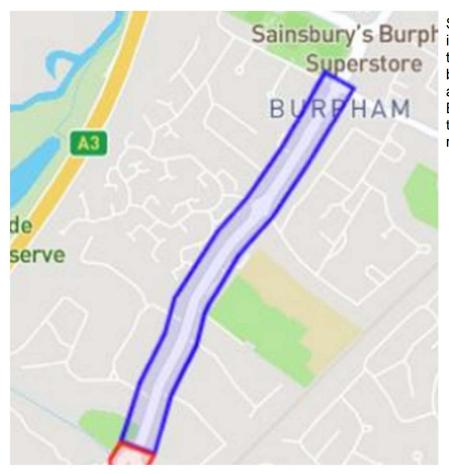
While a wheelchair user and a cyclist could physically pass each other, it may not be comfortable, but this would be a rare occurrence given that there are currently up to three wheelchair users a day on each footway. Similarly, for two cyclists to pass each other, one cyclist would be required to yield to the other, but this would also be infrequent with a current number of up to 30 cyclists an hour.

Assessment of the narrow shared use paths adjacent to the highway finds that the road space would be adequate for HGVs/buses to pass one another. Wing mirrors should not encroach on the shared use paths.

Usage numbers are low but the design of the narrow shared use paths needs to recognise the potential for inconvenience and minimise any perceived conflict as much as possible. Suggested measures subject to SCC's policies and preferences include signs, road markings and contrast pavement.

Research indicates that replacing advisory on-carriageway cycle lanes with a kerb-protected off-carriageway facility should reduce odds of injury for cyclists. The review concludes that, even with a short section of narrow shared use paths, the proposed scheme should be safer for cyclists than the existing situation.

Figures



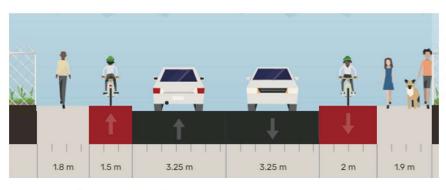
Section 1 (blue zone indicated) starts from the roundabout junction between New Inn Lane and London Road in Burpham, stretching to the Boxgrove roundabout.

Image and description © Engagement Activity Feedback Report Figure 1 Scope of review



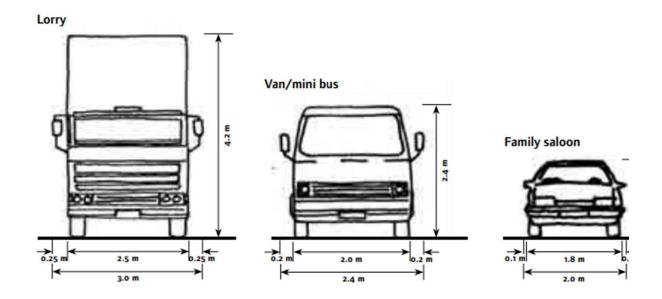
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Figure 2 Extent of narrow shared use path

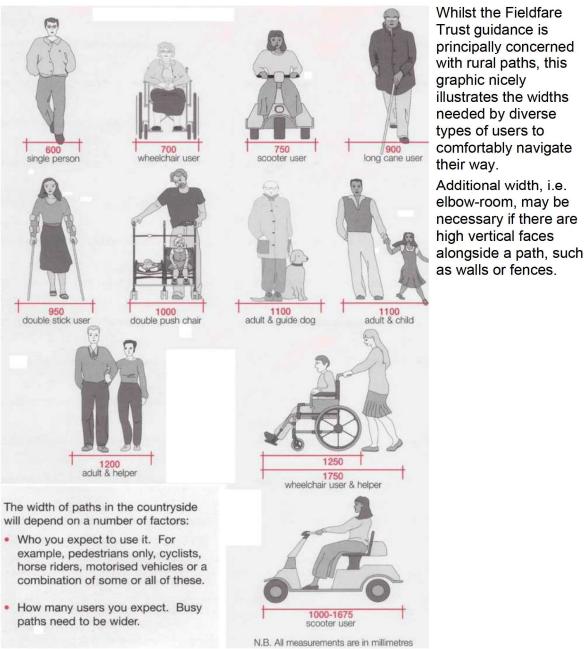


The off-carriageway facilities vary in width but these dimensions are typical for the scheme.

© sketched using Streetmix.net Figure 3 Typical cross-section

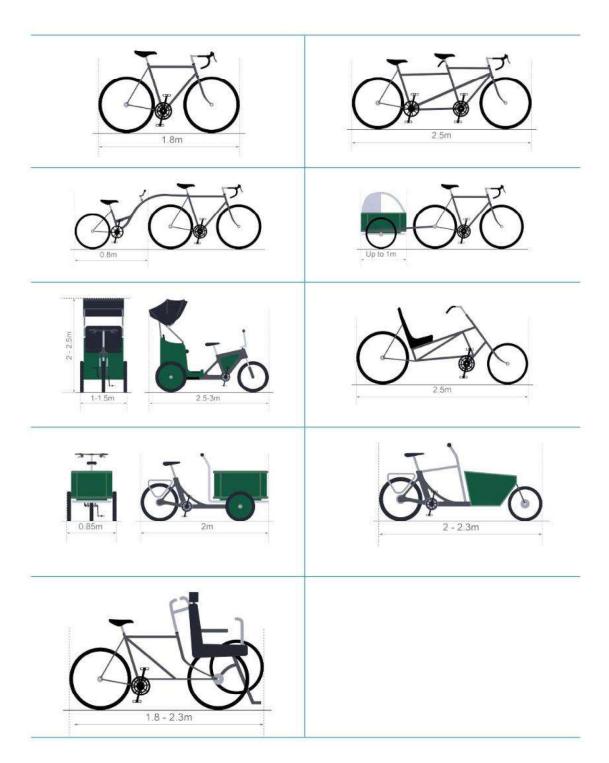


© MfS^{xii} Figure 4 Road users and widths

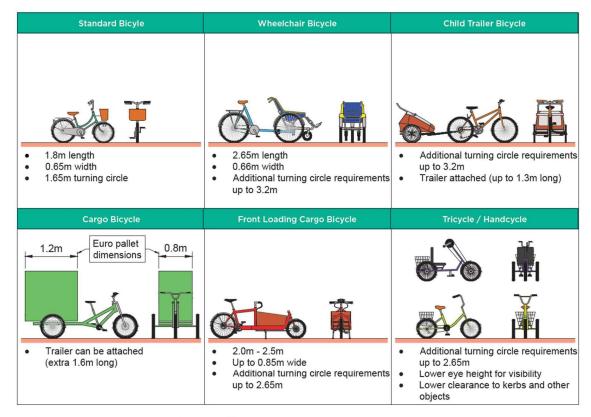


as walls or fences.

© The Fieldfare Trust :Ltd Figure 5 Pedestrian users and widths

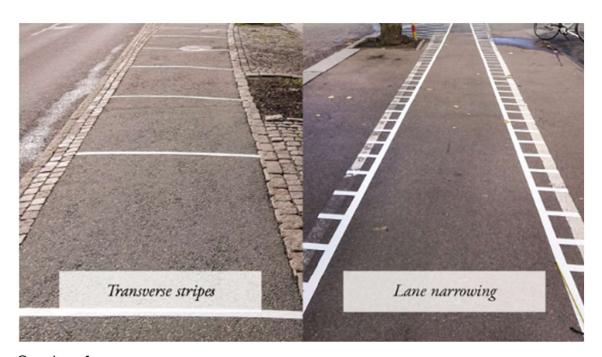


© LTN 1/20, Department for Transport Figure 6 Cycle users and widths



© Source: Cycle Design Manualxiii

Figure 7 Typical types and dimensions of cycle vehicles



© mebesafe.eu

Figure 8 Visual nudges to slow cycle speeds

Tables

Table 1 Site 1 - Pedestrian Count Summary

Site 1 (Pedestrians)							
	Location 1 (Move 1+2)		Location 2 (Move 3+4)		Location 3 (Move 5+6)		
	Tuesday	Saturday	Tuesday	Saturday	Tuesday	Saturday	
12 Hour Total	295	253	280	213	577	323	
Busiest Hour	15:00- 16:00	09:00- 10:00	08:00- 09:00	09:00- 10:00	15:00- 16:00	17:00- 18:00	
Busiest Hour Total	59	34	50	33	147	51	
Busiest 15 min Period	15:00- 16:00	09:15- 09:30	08:00- 08:15	09:30- 09:45	15:15- 15:30	17:00- 17:15 17:45- 18:00	
Busiest 15 min Period Total	33	15	19	12	110	15	

Table 2 Site 1 - Cyclist Count Summary

Site 1 (Cyclists)							
	Location 1 (Move 1+2)		Location 2 (Move 3+4)		Location 3 (Move 5+6)		
	Tuesday	Saturday	Tuesday	Saturday	Tuesday	Saturday	
12 Hour Total	53	37	23	45	101	73	
Busiest Hour	08:00- 09:00	09:00- 10:00; 10:00- 11:00; 15:00- 16:00	16:00- 17:00	10:00- 11:00	08:00- 09:00	10:00- 11:00	
Busiest Hour Total	15	6	7	9	28	11	
Busiest 15 min Period	5:15- 15:30	15:45- 16:00	16:30- 16:45	11:30- 11:45	08:15- 08:30	10:15- 10:30 13:00- 13:15	
Busiest 15 min Period Total	8	6	3	4	15	5	

Table 3 Site 2 - Pedestrian Count Summary

Site 2 (Pedestrians)							
	Location 1 (Move 1+2)		Location 2 (Move 3+4)		Location 3 (Move 5+6)		
	Thursda y	Saturda y	Thursda y	Saturda y	Thursda y	Saturda y	
12 Hour Total	330	165	712	336	959	807	
Busiest Hour	15:00- 16:00	11:00- 12:00	15:00- 16:00	10:00- 11:00	15:00- 16:00	10:00- 11:00	
Busiest Hour Total	71	27	141	52	127	104	
Busiest 15 min Period	15:15- 15:30	12:15- 12:30	15:15- 15:30	10:00- 10:15	15:30- 15:45	11:15- 11:30	
Busiest 15 min Period Total	34	9	77	18	48	34	

Table 4 Site 2 - Cyclist Count Summary

Site 2 (Cyclist)						
	Location 1 1+2)	1 (Move	Location 3+4)	2 (Move	Location 3 (Move 5+6)	
	Thursda y	Saturda y	Thursda y	Saturda y	Thursda y	Saturda y
12 Hour Total	67	51	35	43	69	75
Busiest Hour	08:00- 09:00	10:00- 11:00	08:00- 09:00	16:00- 17:00	08:00- 09:00 15:00- 16:00 18:00- 19:00	16:00- 17:00
Busiest Hour Total	17	8	9	10	12	16
Busiest 15 min Period	08:00- 09:00	11:15- 11:30	08:00- 08:15	07:30- 07:45 15:00- 15:15 16:00- 16:15 16:45- 17:00 18:15- 18:30	18:00- 18:15	18:15- 18:30
Busiest 15 min Period Total	11	4	5	4	8	6

Table 5 Site 3 - Pedestrian Count Summary

Site 3 (Pedestrian)							
	Location 1 1+2)	(Move	Location 2 (Move 3+4)				
	Thursday	Saturday	Thursday	Saturday			
12 Hour Total	361	235	243	138			
Busiest Hour	10:00- 11:00	11:00- 12:00	15:00- 16:00	15:00- 16:00			
Busiest Hour Total	90	27	52	19			
Busiest 15 min Period	10:15- 10:30	12:00- 12:15	15:15- 15:30	15:45- 16:00			
Busiest 15 min Period Total	81	10	31	8			

Table 6 Site 3 - Cyclist Count Summary

Site 3 (Cyclist)							
	Location (1+2)	I (Move	Location 2 (Move 3+4)				
	Thursda y	Saturda y	Thursda y	Saturda y			
12 Hour Total	60	59	36	24			
Busiest Hour	08:00- 09:00	18:00- 19:00	15:00- 16:00; 16:00- 17:00	12:00- 13:00; 13:00- 14:00			
Busiest Hour Total	13	10	7	4			
Busiest 15 min Period	08:15- 08:30	18:00- 18:15	18:00- 18:15	10:00- 10:15 11:15- 11:30 13:15- 13:30 14:00- 14:15 14:30- 14:45 17:00- 17:15			
Busiest 15 min Period Total	8	5	5	2			

Table 7 Site 4 - Pedestrian Count Summary

Site 4 (Pedestrians)							
	Location 1 (Move 1+2)		Location 2 (Move 3+4)		Location 3 (Move 5+6)		
	Tuesday	Saturday	Tuesday	Saturday	Tuesday	Saturday	
12 Hour Total	144	150	205	151	247	181	
Busiest Hour	15:00- 16:00	10:00- 11:00	08:00- 09:00	17:00- 18:00	15:00- 16:00	17:00- 18:00	
Busiest Hour Total	27	21	37	21	46	24	
Busiest 15 min Period	15:15- 15:30	09:30- 09:45	08:00- 08:15 15:15- 15:30	11:00- 11:15 13:45- 14:00 17:15- 17:30	15:15- 15:30	11:30- 11:45	
Busiest 15 min Period Total	16	11	20	9	27	11	

Table 8 Site 4 - Cyclist Count Summary

Site 4 (Cyclists)							
	Location 1 (Move 1+2)		Location 2 (Move 3+4)		Location 3 (Move 5+6)		
	Tuesday	Saturday	Tuesday	Saturday	Tuesday	Saturday	
12 Hour Total	25	31	12	18	11	16	
Busiest Hour	16:00- 17:00	09:00- 10:00	07:00- 07:15	14:00- 15:00	07:00- 08:00	13:00- 14:00	
Busiest Hour Total	5	7	4	4	4	4	
Busiest 15 min Period	15:15- 16:30 17:30- 17:45	09:45- 10:00	07:00- 07:15	13:30- 13:45 14:00- 14:15	07:00- 07:15	13:30- 13:45	
Busiest 15 min Period Total	3	4	2	2	2	2	

Table 9 Pedestrian casualties by vehicle type 2018-2022

Vehicle that hit the	Killed		KSI		All casualties	
pedestrian	Average number per year	%	Average number per year	%	Average number per year	%
Pedal cycles	2	0.6%	142	2.3%	419	2.8%
Motor cycles	11	2.8%	277	4.5%	849	78.9%

Vehicle that hit the	Killed		KSI		All casualties	
pedestrian	Average number per year	%	Average number per year	%	Average number per year	%
Cars	278	68.8%	4,699	77.4%	14,973	3.4%
Buses or coaches	19	4.7%	222	3.7%	643	7.1%
Light goods vehicles	34	8.5%	445	7.3%	1,350	3.0%
Heavy goods vehicles	47	11.6%	145	2.4%	273	1.4%
Other or unknown vehicles	12	3.0%	143	2.4%	478	2.5%
All vehicles	404	100.0 %	6,073	100.0 %	18,987	100.0 %

Source: RAS0601: Reported road casualties by road user type and vehicle involved, Great Britain, Department for Transport

References

DOCUMENT CHECKING

	Prepared by	Checked by	Approved by
Name			
Signature			

References

All guidance, technical standards and legislation referred to in this document are available on line.

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