

Cycle Infrastructure Database

Asset Information Guide

MAYOR OF LONDON



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Introduction

The document demonstrates the various types of cycle infrastructure that was collected as part of the Cycle Infrastructure Database.

Note this document is **not** a comprehensive list of cycle infrastructure and some terms differ from those in technical documents such as the LCDS. The photographs provided show typical layouts.

1.1. Features

Data was collected as either line features or point features..

<i>Line features include:</i>	<i>Point features include:</i>
<ul style="list-style-type: none">• Cycle lanes and tracks• Advance Stop Lines (ASLs)• Crossings• Restricted routes	<ul style="list-style-type: none">• Signs and symbols• Signals• Traffic calming• Cycle parking• Restricted routes (point locations)

1.2. Linear Data collection

Cycle infrastructure that was collected as line features is drawn aligned to the kerb line if they are on carriageway or in a position closely representing their real-world positioning if on the footway.

On carriageway line data collection

On carriageway line data were collected aligned to the kerb, drawn to match the start and end of the associated road markings. They break where the road markings break, e.g. capturing shared bus lanes the line should not continue through pedestrian crossings or over side roads unless the bus lane does. They start at the beginning of the taper and finish at the end of the solid white line.



Diagram 1 New Kent Road junction with Rodney Place showing shared part time bus lane on New Kent Road (indicated by sign)



Diagram 1 New Kent Road junction with Rodney Place showing advisory cycle lanes on Rodney Place

Diagram 3 below shows how the geometry is drawn to match the real-world locations. The geometry for the shared bus lane on New Kent Road is broken at the junction with Rodney Place and the pedestrian crossing. In addition, the geometry for the cycle lanes in Rodney Place is not continued across the side road entry treatment into Rodney Place.



Diagram 3 On-carriageway data collection.

Off carriageway line data collection

Off carriageway line data were collected in the centre of the footway or path.



Diagram 4 New Kent Road west of Rodney Place showing shared footway with a bi-directional cycle track on New Kent Road indicated by sign



Diagram 5 Off-carriageway data collection

There are instances where on-carriageway line features (that are not crossings) are drawn away from the kerb line, e.g. cycle lanes continuing through junctions. However, elephant prints markings across the carriageway as shown in the photo below are a crossing and are drawn as such. The short section of track in the photo was recorded as a fully segregated track.



Diagram 6 Elephant footprints at Bricklayers Arms Roundabout



Diagram 7 On-carriageway feature not aligned to kerb line

1.3. Point Data collection

One-point feature was created for each sign or symbol. If there are multiple signs on a single post relevant to cycling, then they were collected as separate points placed on top of each other. In this instance the sign data were recorded in order from top to bottom and left to right.

On carriageway point data collection

On carriageway point data were collected within the carriageway bounds, at the location of the feature. Diagram 9 shows an example output.



Diagram 8 Tabard Street junction with Silvester Street

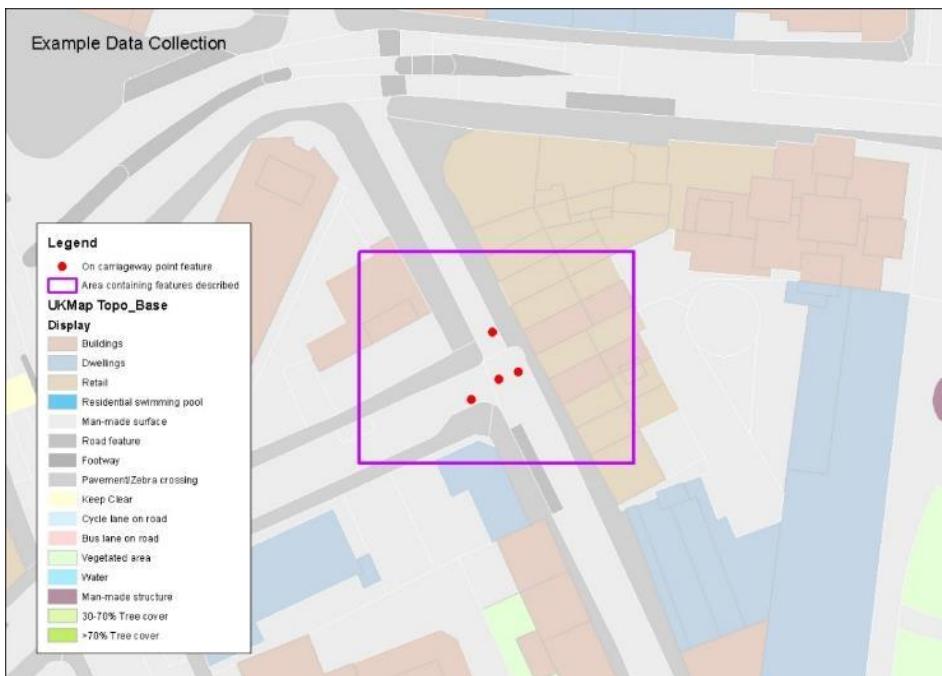


Diagram 9 Point placement for on carriageway cycle symbols

Off carriageway point data collection

Off carriageway point data were collected within the footway or path bounding lines, as close to the actual location of the feature as possible.

One point is placed per feature. Where point features are in the same location (e.g. several signs on the same post), multiple point features were created one on top of the other. For example, in Diagram 10 below the 'No motorised vehicles' sign and the rectangular cycle sign would be collected as two points, one on top of the other, with attributes set differently for each sign.

All cycle signs are recorded. Where the signs relate to the movement of vehicles on the road the signs on the offside were recorded as 'True' for offside.

Diagram 11 shows an example output.



Diagram 10 Tabard Street junction with Silvester Street

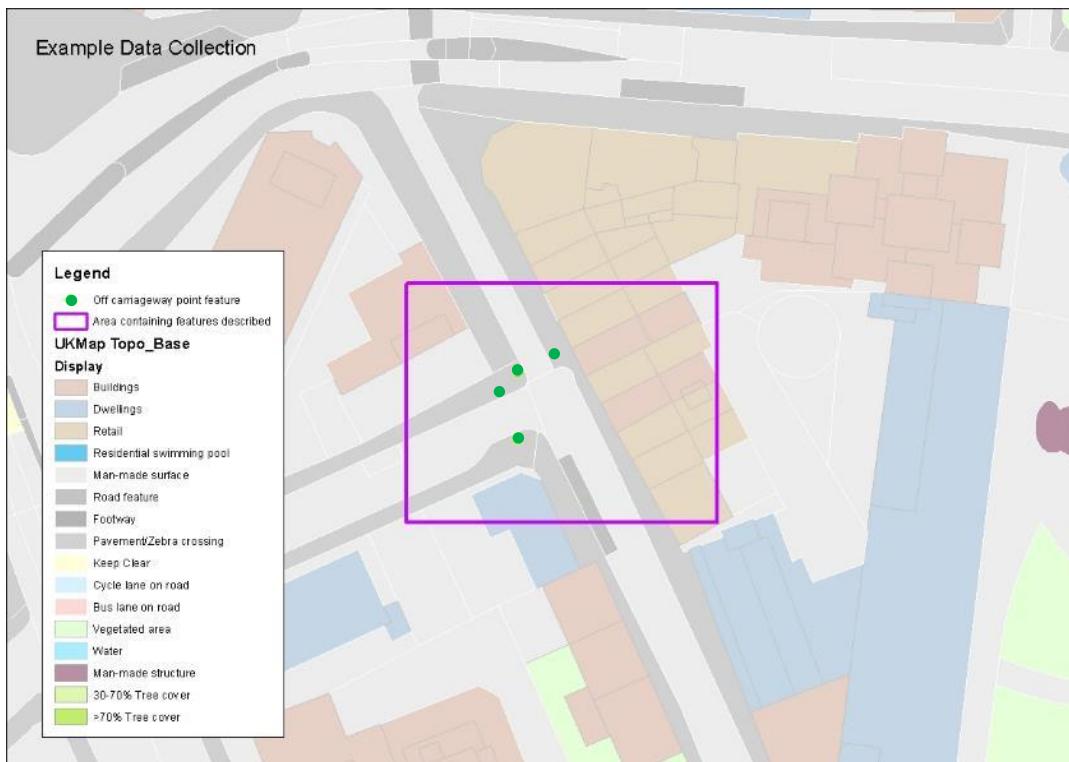


Diagram 11 Point placement for off carriageway cycle signs/symbols

Linear Infrastructure

This information was collected as lines drawn to represent their real world location either at the kerb side or on the footway.

2.1. Cycle Lanes and Tracks

These are formally designated facilities for cyclists, usually identified with a combination of signs and line markings, and very often marked with the cycle symbol.

Cycle lanes are parts of the road marked for use by cyclists. For the purposes of this project, a bus lane that cyclists may use is regarded as a type of cycle lane.

Cycle tracks are always off-carriageway, either next to it (associated with the footway) or completely away from the highway (e.g. canal towpaths, routes through parks). The ways that they are signed are more variable than cycle lanes.

2.1.1. On or off carriageway

Is the cycle lane/track on the carriageway? If so, set the attribute to ‘True’.

This includes instances where the cycle lane/track is physically separated from the lane or lanes used by other traffic but is either at the same level or at a level between the main carriageway and the footway.

See categories ‘segregated lane or track’ and ‘stepped track’ below.

Is the lane/track either on the footway (i.e. next to the road) or completely away from the highway (e.g. through a park or by a canal)? Then set the attribute to ‘False’.

On carriageway

Set the attribute to ‘True’ if any of the following features are present, indicating the existence of a cycle lane:

- solid or dashed white lines, with intermittent cycle symbols (noting that these markings may be quite faded in some cases) – these are usually, but not always, on the nearside of the carriageway and could form a contraflow cycle lane, where cyclists are allowed to use the street in the opposite direction from other traffic
- a coloured strip at the kerbside, with intermittent cycle symbols on the surface
- a bus lane that cyclists may use – this can be checked from the sign showing which vehicles can use the bus lane (note that while cyclists are allowed in almost all bus lanes in London this is not automatically the case)
- cycle provision physically separated from the lane or lanes used by other traffic, either at the same level or at a level between the main carriageway and the footway.



Solid and dashed line markings used for cycle lanes



Signs for with-flow cycle lane (left) and contraflow cycle lane (right)



Example of a cycle lane with line marking, cycle symbol, route number and sign.

Off carriageway

Set the attribute to ‘False’ if any of the following features are present – indicating the existence of an off carriageway cycle facility:

- a route adjacent to a road but clearly on a footway (pavement) whether shared with pedestrians or not
- a route completely away from a road

Cycle facilities off-carriageway come in many forms but are usually identifiable by their signs, which feature a cycle symbol in some form.

When on the footway, these are usually mounted on a pole but may also appear on bollards or painted or embedded into the footway surface. Away from the highways, they might appear in a wider variety of forms.



The ‘standard’ signs are as follows, showing (left to right) a dedicated cycle facility, a facility divided by a line or raised strip between cyclists and pedestrians, and a facility shared between cyclists and pedestrians.



These might appear in different colours and formats, particularly away from the highway – see, for example the Canal and River Trust signing below.



2.1.2. Mandatory or advisory cycle lanes (On-carriageway only)

If there is a line marking for a cycle lane on-carriageway, is it solid and is it accompanied by the ‘mandatory cycle lane’ sign on a post on the footway?

If either or both of the above are ‘True’, set the Mandatory cycle lane attribute to ‘True’.

If the line marking for a cycle lane on-carriageway is dashed or there is a coloured strip for use by cycles, then set the Advisory cycle lane attribute to ‘True’.

Note that cycle lanes/tracks on-carriageway must be Mandatory, Advisory or neither. Both attributes must not be set as ‘True’. If the type of lane changes then a new feature must be drawn.

Mandatory cycle lanes should have the sign below, but this may not be present in all cases. They will, however, always have the solid lane marking and intermittent cycle symbols within the lane. Usually the lane begins with the dashed diagonal marking from the kerbside shown below.



Cycle lanes may or may not be coloured. This has no bearing on whether they are mandatory or advisory.



Examples of mandatory cycle lanes

A mandatory cycle lane may appear to the left of (i.e. “within”) a bus lane, in which case only the ‘mandatory or advisory’ attribute should be set to ‘True’ (see ‘shared lane’ below for more detail and examples).

A mandatory cycle lane may be accompanied by light segregation, i.e. objects to protect the lane, in which case both the attributes ‘mandatory or advisory’ and ‘partially or light segregated lane or track’ should be set to ‘True’ (see ‘partially or light segregated lane or track’ below for more detail and examples).

Lanes that are not mandatory cycle lanes are either advisory cycle lanes or unbounded coloured strips.

An advisory cycle lane is identified by a dashed lane marking and by the intermittent use of cycle symbols in the lane. Typically, an advisory cycle lane does not have an accompanying sign, although occasionally the mandatory cycle lane sign or the blue rectangular cycle route sign may be used.

An ‘unbounded’ coloured strip by the kerbside (i.e. surface colour without any lane markings) is also a cycle facility and should be recorded as an advisory cycle lane. Note that occasionally the blue rectangular cycle route sign may be used.

Note that where lanes are marked outside of parking or loading bays, there are occasionally two sets of lane markings, marking the left- and right-hand extents of the lane. This is a single lane and should be recorded as such.



Examples of advisory cycle lanes (top) and unbounded coloured (strip below)

Mandatory and advisory cycle lanes may also appear with a hatched 'buffer' between them and the adjacent general traffic lanes. This does not affect their status and does not need to be recorded. It is the innermost line marking that is significant in this case, ie the one that delineates the cycle facility.



Mandatory cycle lane



Advisory cycle lane

2.1.3 Segregated lanes or tracks

Does the cycle lane/track physically separate cyclists from other users, using a continuous or near-continuous kerb, upstand or planted verge?

For on-carriageway features, set the attribute to ‘True’ if the cycle lane/track is physically separated from general traffic lanes – typically by a narrow island (e.g. CS6).

For off-carriageway features, set the attribute to ‘True’ if the cycle lane/track is separated from space for pedestrians by a continuous or near-continuous physical upstand or grassed or planted verge.

On-carriageway



Examples of segregated cycle lanes/tracks

Signing typically includes the cycle symbol marked intermittently in the lane/track. Two-way tracks can also have centre lines. The blue, circular cycle sign may occasionally feature, often on the bollards located at the beginning of cycle tracks. However, those bollards are often ‘blank-faced’ rather than featuring the cycle symbol.



Off-carriageway

In places without motor vehicle access, cyclists are sometimes separated from pedestrians either by being accommodated in a dedicated cycle track, or by clear physical separation between cycle and pedestrian paths, e.g. using a planted verge.

Both types can be identified using surface markings and, occasionally, surface colour, to show the areas for cyclists. Pedestrian areas are sometimes, but not always, marked with a pedestrian symbol. Signs showing the cycle symbol on posts or bollards may also be present to reinforce the message about where a particular user should go.



A cycle track bounded by kerbs and areas of planting, physically separating cyclists from pedestrians in a space not open to motor traffic



Away from the highway, separate paths for cyclists and pedestrians through a green space.

2.1.4. Stepped lane/track

(On-carriageway only)

Does the cycle lane/track separate cyclists from other users, by placing them at a level between the carriageway and footway? If so, set the attribute to ‘True’.

The typical layout for a stepped lane/track is to have a step up from the carriageway to the cycle track and a further step up from cycle lane/track to footway.

Signage will vary – it could be marked as a cycle track (with the blue circular sign) or as a mandatory cycle lane. It is likely to feature the cycle symbol on the surface.



The stepped track may exist only between junctions (reverting to a dashed lane marking at the junction) or, as in the photos below may continue through the junction without being delineated by a lane marking. If so, there is a small upstand at the entrance of the minor road across the mouth of the junction.



Examples of stepped cycle lanes/tracks

In some instances, there may be parking bays between general traffic lanes and the stepped cycle track (as in the photograph below).



The step may be a very subtle one. Look out for the use of a kerbstone between the cycle facility and the main carriageway, even if it does not protrude very far above the level of the carriageway (as in the photos below).



Detail of step

2.1.5. Partially or light segregated lane or track

Does the cycle lane or track have any additional forms of delineation, e.g. objects that reinforce the visual and/or physical separation between the cycle facility and the space used by others?

On-carriageway; set the attribute to ‘True’ if objects are used as a ‘light segregating’ feature in this way, either with or without an accompanying lane marking.

Off-carriageway; set the attribute to ‘True’ if the cycle facility is next to the footway or footpath, and at the same level as it, but is separated from space for pedestrians by any feature that visually separates the two sets of users.

On-carriageway

Objects likely to be used for light segregation on-carriageway include flexible wands, posts or bollards, planters and low pre-formed separators, very often coloured black with reflective white bands. A run of low objects may be preceded by a single higher object (i.e. a bollard or flexible post).

Light segregation of this kind is typically used next to a mandatory or advisory cycle lane marking (see below) – in which case set both this attribute and the attribute for mandatory or advisory cycle lane to ‘True’ (as appropriate).

However, it may occasionally appear without any lane marking, in which case set only the light segregation attribute to ‘True’.



Light segregation with lane marking (left) and without (right)



Light segregation using planters and low pre-formed objects, with no lane marking

Note that a single flexible post or bollard is often used at the beginning of a segregating island, to make the upstand more visible for all road users. Do not register instances such as these as very short sections of light segregation.



Blank-faced bollard used at the beginning of a segregating island. This does not constitute light segregation.

Signing for light segregated lanes may vary. If a mandatory cycle lane is present, it should have the standard sign below. Other facilities may have the blue rectangular cycle route sign. Cycle symbols are also likely to be present in the lane. The associated lane marking is also shown below.



Off-carriageway

Partial segregation off-carriageway means that there is a visual feature that separates space for cyclists from space for pedestrians. This is intended to show clearly which side is for cyclists and which is for pedestrians, using the cycle and pedestrian symbols (although the latter is often omitted).

The ‘separator’ is usually a white line or a low, raised delineator strip. Separation may also be achieved visually with a flush kerb, a row of setts (i.e. cobbles) or by having different surface treatments for the cycle and pedestrian sides.

Typically, these areas begin and end with some tactile paving called ‘ladder and tramline’, with the ‘tramline’ (i.e. in line with the direction of movement) signifying the side for cyclists and the ‘ladder’ (across the direction of movement) signifying the side for pedestrians.

Facilities of this kind could occur away from the highway (typically through parks and other open spaces) or next to the road, where the footway has been divided in two.



(Left) ‘White line’ separation. (Right) A flush kerb used instead of a white line. This example also features ‘ladder and tramline’ tactile paving.



Use of the raised delineator with ladder and tramline tactile paving. Photo on the left also shows the accompanying sign for a route separated between cyclists and pedestrians.

There may be instances along segregated cycle routes where there are raised pedestrian crossing points. These crossing points are usually isolated and characterised by blister tactile

paving (dots) along the full width of the crossing. If so, the small section of flush cycle track at the crossing point does not create a separate partially segregated asset; the cycle track continues across.



Note the segregated cycle track that ramps up right before the tactile and ramps down straight after; tactile paving is present for the whole width of the crossing point.

If instead the cycle track is flush with the footway and does not have tactile paving for the whole length of the flush section it will be recorded as a separate asset, partially segregated and off-carriageway.



Note the section of cycle track flush with the footway with tactile paving for a partial length only. The flush section is recorded as separate asset, off-carriageway and partially segregated.

2.1.6. Shared lane or footway

Do signs show that cyclists can share a facility that primarily exists for a different user?

For on-carriageway, set the attribute to ‘True’ if there is a bus lane that cyclists can use.

For off-carriageway, set the attribute to ‘True’ if there is a footway, footpath or other area of public space that is shared between pedestrians and cyclists (i.e. where the space is not divided between different users).

On-carriageway (bus lanes)

Bus lanes are marked with a solid, wide lane marking, are identified with the words ‘bus lane’ and have the accompanying sign showing which users are allowed in the lane and the times of operation of the lane. Shared bus lanes should have the mandatory and advisory attributes set to ‘False’.

Many, but not all bus lanes, are coloured red – this has no bearing on what type of facility it is. Bus lanes have no cycle symbols marked in them, apart from contraflow bus/cycle lanes (which have ‘bus and cycle only’ written in them).



Standard bus lane marked with 'Bus Lane' only plus signs



Contraflow bus lanes marked with 'Bus and Cycle only'

A cycle lane may occasionally appear within or adjacent to a bus lane (usually on the left of near side).

Where the cycle lane adjacent to a bus lane is mandatory it should be recorded as a mandatory lane. If it has light segregation this attribute also be entered as 'True'.

Where the cycle lane is advisory the attributes for advisory lane and shared lane should be set to 'True'.



Mandatory cycle lane on nearside of bus lane



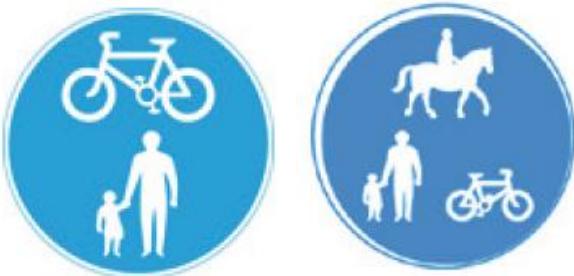
Advisory cycle lane within bus lane

The sign for 'route for use by buses and pedal cycles only', below, may appear at the entrance to a section of road that only buses and cycles can use (i.e. the whole road, not just a lane within it). Alternatively, this kind of facility may have a no entry sign, with a plate below, showing an exception for buses and cycles. Either way, such a facility should still be categorised as a shared lane.



Off-carriageway

Off-carriageway facilities shared between pedestrians and cyclists are marked with the blue 'shared use' sign, featuring the pedestrian and cycle symbols without a line. A variant, seen occasionally, is a shared use sign that includes horse-riders. For this project, both constitute a shared lane/track off-carriageway.



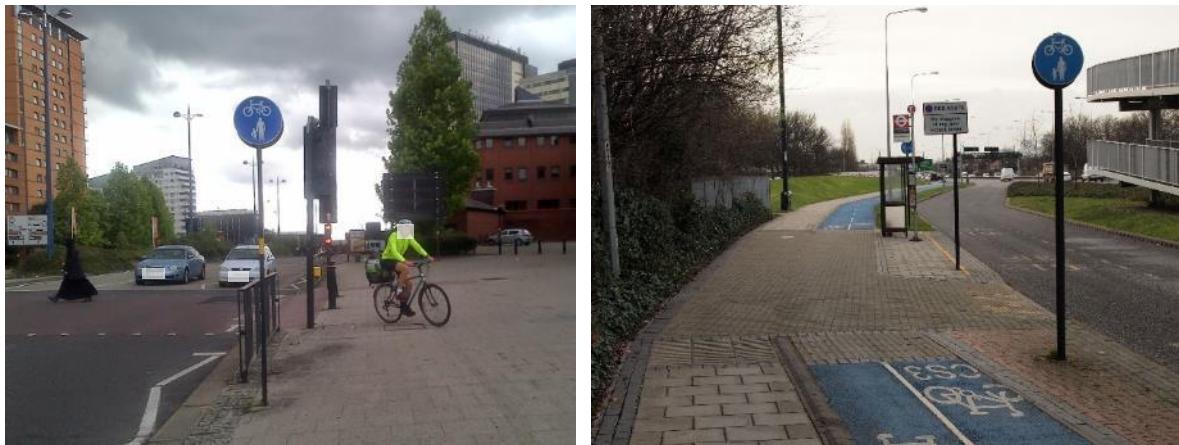
These signs should be accompanied by a linear off carriageway feature, with the 'shared' attribute set to 'True'. Where the end of the shared use area is clearly marked, the line should reflect this. Otherwise, at least a 10 metre line should be collected from the shared signage feature.

This sign is used for every shared use facility within the highway, i.e. next to the road. There may be some instances, however, where the sign is not mounted on a post, but on a bollard or other street furniture, or even embedded into the footway surface.



Signs on bollards showing that the bridge is shared use

Shared use areas are often found either side of a toucan crossing (left) or between areas separated between pedestrians and cyclists (right), often because there needs to be more complex movements in those areas.



Most canal towpaths are shared use unless otherwise stated. There may be long stretches without a sign or any other indication that cycling is permitted.



Shared use areas may occasionally not have the standard sign, particularly where they appear to be pedestrian-only areas. However, there may be a subtle indication that cycle access is allowed, in which case the cycle symbol alone or the shared use symbol may be used or, as in the examples below.



Away from the highway – e.g. in parks or by canals – there is more variation in signing and various alternatives to the standard sign may exist. In most if not all cases, these will feature both the pedestrian and the cycle symbol in some way.



Variant signs for shared use – away from the highway. Some may carry other information (e.g. codes of conduct), and others may incorporate wayfinding, via a route number.

2.1.7. Priority (On-carriageway only)

Does the cycle lane/track have priority over roads it meets or crosses? If so, set the attribute to 'True'.

Some cycle lanes (or bus lanes) on-carriageway stop at junctions, while others continue across them. In the former case, these were recorded as separate features stopping at either side of the junction.

However, where a lane continues across a side road with other vehicles expected to cross it, it was recorded only where the side road is actually a highway and not where it is a private access.

Examples of cycle lane/track with priority:



The cycle lane that crosses the road but gives priority to cyclists must have a dashed line on its right edge; therefore it was recorded as an advisory cycle lane with priority attribute set to true.

In instances as shown below where a cycle lane/track crosses a road and traffic on the road is expected to give way, this were drawn as a crossing (between the kerbs) and the priority attribute is not set.



Give way road markings on the carriageway either side of the bi-directional cycle lane shows that traffic should give way to cyclists using the facility

2.1.8. Contraflow lane/track

On-carriageway

Does the cycle facility run in the opposite direction to the adjacent general traffic lane? If so, set both this and the on-carriageway attributes to ‘True’.

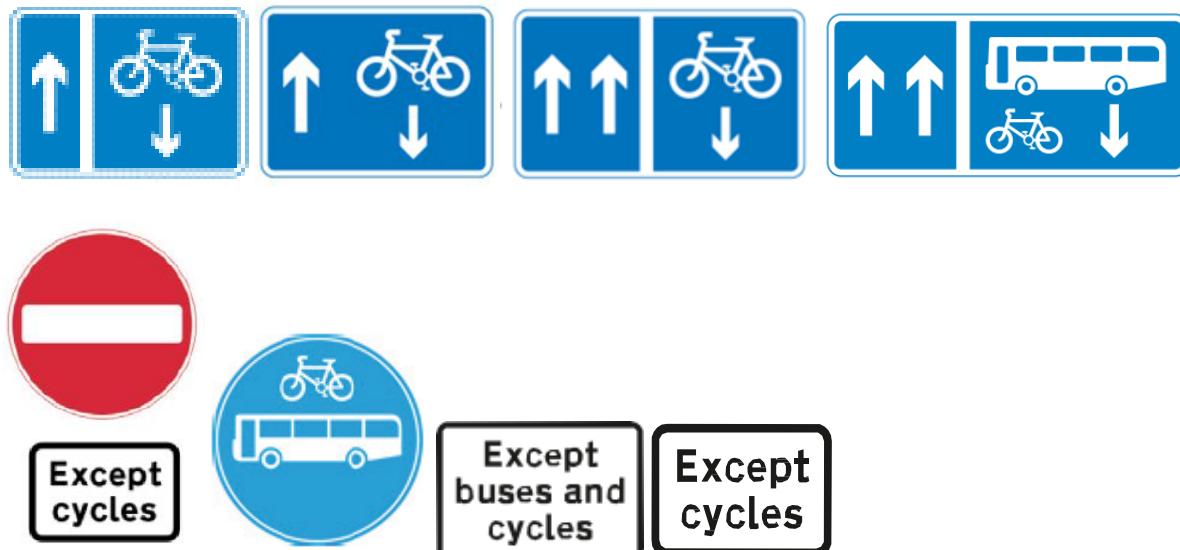
There is an exception for two-way cycle lanes on one side of a road. In that case, see ‘Bidirectional’ below - do not set the ‘Contraflow’ attribute to ‘True’.

‘Contraflow’ may apply to:

- mandatory or advisory cycle lanes
- shared lanes (i.e. bus lanes)
- use of cycle symbols on the carriageway without a lane marking

In all three cases, there may be various types of surface marking (e.g. cycle symbols with one or two ‘ahead’ arrows in the contraflow direction, or the ‘except buses and cycles’ marking).

However, it is the signs that should confirm the contraflow arrangement. These may take several different forms.



Example of the forms signs may take for contraflow cycle only or shared lanes.



Example of contraflow cycle lanes, marked along the length of the road

Where there is only a short entry lane (as shown above), or none at all, the feature should be drawn as a line over the length of the contraflow section and the attributes mandatory and advisory will both be entered as “False”.



Example of contraflow cycle lanes, marked only at entrance/exit with associated signage

Off-carriageway

Does the cycle facility run in one direction only in the opposite direction to the adjacent general traffic lane? If so, set only the attribute to ‘True’. Also set the off-carriageway attribute to ‘True’.

There is an exception for two-way cycle tracks on one side of a road. In that case, see ‘Bidirectional’ below and do not set the ‘Contraflow’ attribute to ‘True’.

In a small number of locations where road space is limited a contraflow facility has been provided off-carriageway.

In these cases, it is generally the surface marking (e.g. cycle symbols with one or two ‘ahead’ arrows in the contraflow direction) that should confirm the contraflow arrangement. There are often fewer signs than for on carriageway contraflows. However, there may also be signs at entry and exit points.



Example of off-carriageway contraflow cycle tracks

2.1.9. Bi-directional

Is the cycle lane/track or shared path bi-directional? If so, set the attribute to ‘True’.

Set the bi-directional attribute for all shared footpaths to ‘True’.

A bidirectional cycle lane or track is designed for cycles to move in both directions on the same lane or track.

Examples of bi-directional cycle lanes, tracks and share paths



Dashed centreline markings and the cycle symbols show this is a bi-directional cycle lane



Give way markings and a cycle symbol at the end of this cycle track show it is bi-directional

2.1.10. Cycle bypass

Is there a lane or track that enables cyclist to bypass traffic signals used by general traffic? If so, set attribute to 'True'.

Cycle bypasses allow cyclists to bypass signals for general traffic. Give way road markings at the end of the bypass may indicate a bypass. Also, there will not be a traffic signal for the cyclists (this is a cycle gate).

These were collected as separate lines to an ASL reservoirs, ASL feeder lanes or cycle lane further along the road or across junctions. They should be lines of just a few meters in length.

Examples of a cycle bypass:



1.1.11. Continuous cycle facility through a bus stop

Does the cycle lane or track continue through the bus stop area? If so, set attribute to 'True'.

At most bus stops, cycle lanes or tracks end before the bus stop and starts again after. However, at some, the cycle track carries on through the bus stop area – in which case the infrastructure was recorded as a ‘continuous cycle facility through a bus stop’.

The main distinction between types is whether the cycle tracks runs behind or in front of the bus stop:

Bus stop bypass (sometimes also known as a ‘floating bus stop’)

This is where a segregated track runs behind the bus stop, and passengers board from and alight onto an island between the cycle track and the main carriageway. If a bus shelter is present, it is located on the island. There is typically one or more designated crossing points for pedestrians to access the island over the cycle track.

Some bus stop bypasses have the cycle track at the same level as the footway throughout (but distinguished in some other way, e.g. different surface material or raised delineator) while in others the cycle track is lower than the footway and island and ramps up only at the crossing point(s).



Bus stop bypass on one-way cycle track



Bus stop bypass on two-way cycle track



Bus stop bypass with track at footway level



Bus stop bypass with no footway to the rear

At most bus stop bypasses, the footway continues between the highway boundary and the cycle track. However, there are examples of bus stop bypasses where there is no such section of footway – pedestrians passing through have to cross over the cycle track to the island, walk through the bus stop area and then cross back onto the main footway after the bus stop.

Cycle track bus boarder

This is where a cycle lane or track continues between the bus stop cage and the waiting area on the footway for passengers. To board or alight from the bus, people have to step over the cycle track, which is raised to the same level as the footway through the bus stop area. In some examples, bus passengers step directly into the cycle track; in others, they step onto a buffer zone between the bus stop cage and the cycle track.

(Note that these are distinct from ‘bus boarders’, which are build-outs from the kerb-line at the bus stop, often where the existence of parking bays would make it difficult for the bus to pull in to the kerbside. The term ‘cycle track bus boarder’ or ‘shared bus boarder’ is used because the cycle track running through the bus stop effectively acts like a bus boarder when the bus is at the stop.)



Cycle track bus boarder on a one-way track



Cycle track bus boarder on a two-way track



Cycle track bus boarder with a buffer zone

2.1.12. Park route

Does the cycle lane/track pass through a park? If so, set attribute to ‘True’.

A park route may be on or off carriageway, a cycle track, shared path, or a road closed to general traffic. This attribute were used wherever these apply to indicate that the route is within the park grounds.



Examples of park routes

2.1.13. Waterside route

Is the cycle lane/track by the waterside? If so, set attribute to 'True'.

A waterside route is generally a shared path, adjacent to the waterside, away or separated from the carriageway.

Waterside routes might run beside canals, rivers (including the Thames), as well as other watercourses.

Waterside routes are sometimes signed with specific information such as the sign shown below.



Examples of waterside routes:



2.1.14. Is the cycle lane/track part-time?

Does the cycle lane/track have any time restrictions on it?

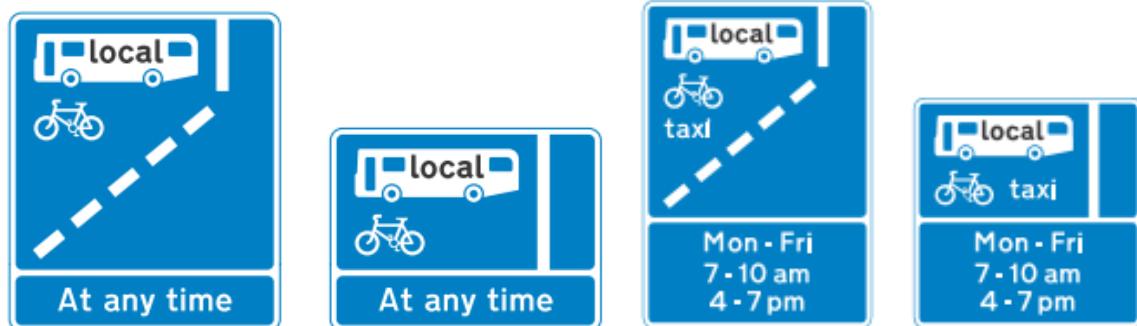
The default is that a facility is available at all times. Set the attribute to ‘True’ only if there are restrictions (i.e. it is part-time).

For on-carriageway, this relates to shared lanes (i.e. bus lanes) and mandatory cycle lanes.

For off-carriageway, this is a question of whether access is restricted to certain times, e.g. if a route through a park is closed at night.

On-carriageway

For bus lanes, the accompanying sign shows the times of operation. Typically, bus lanes operate either at all times or during the day only (i.e. no restrictions in the evening). Some operate during every day except Sunday.



Mandatory cycle lanes can also have time restrictions, although this is a lot less common. Again, the times of operation of the lane are shown under the sign. The default for mandatory cycle lanes is that they are available at all times and so the ‘standard’ sign does not display ‘at any time’.



Off-carriageway

Some parks, canal towpaths and other green spaces may be gated and closed at night, in which case entrances may display a sign showing the times of operation. These may not always be immediately apparent and investigation of signs may be necessary to confirm if access is full- or part-time.



Examples of park sign indicating part-time access

2.1.15. Access times

Is the cycle facility closed at certain times or only available part time? If so, record details of availability in this attribute, in text form.

The example below is a part time shared bus lane sign. The times would be recorded as “Mon - Fri, 7-10am & 4-7pm”



For some routes and sites access times may vary at different times of the year. Surveyors should only enter the start and finish times displayed when visited.

The example below is a park sign observed at different times of year. The closing time of the park would be recorded either as “Park closes at 6.30pm” or “Park closes at 9.15pm”. However, as no opening time is given the data entered should be “Park opening time unknown”.



2.1.16. Colour

(Do not collect for shared footways)

What is the colour of the cycle lane or track surface? Enter the colour as text.



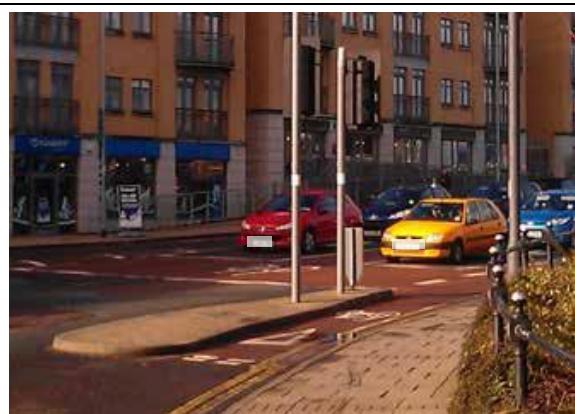
None (*i.e. uncoloured surface*)



Green



Blue



Red



Buff

2.2. Advance stop line (ASL)

Advance stop lines are located at traffic signals and provide an area for cyclists to wait for the traffic signals to change ahead of general traffic.

The ASL reservoir is the area between the solid stop line level with the lights and the stop line further back for general traffic. The reservoir may have a coloured surface and have a cycle symbol in the centre.



The diagram 1057 cycle symbols in ASLs were not recorded as signs as these are a required feature of any ASL.

Where the carriageway splits at a junction and an ASL reservoir is visually or physically separated into two parts by a refuge island, carriageway hatching or similar, two-line assets should be recorded.

A feeder or lead-in lane is a short length of cycle lane connected to an ASL. Some ASLs have multiple feeder lanes. In some cases longer cycle lanes/tracks act as feeder lanes.

ASLs were recorded as a linear feature from back to front of the reservoir aligned to the kerb at approximately 1m from the kerb line.

Feeder lanes or longer approach cycle lanes were drawn separately as a cycle lanes/tracks feature.



ASL with feeder lane

2.2.1. Feeder lane left

Is there a feeder lane on the nearside/left of the ASL? If so, set attribute to 'True'.

Attribute is set to 'True' if there is a near-side feeder lane, closest to the footway.

Some ASLs will have more than one feeder lane in which case the attribute for each type present were set at 'True'.

Short dashed lines called 'gates' are not a feeder



Left side lead-in lane



Short dashed 'gate' is not a feeder

2.2.2. Centre feeder lane

Is there a feeder lane in the centre of the ASL? If so, set attribute to 'True'.

Attribute is set to 'True' if there is a central feeder lane, with general traffic lanes either side. There may also be a near-side feeder lane (see above).



Central lead-in lane

2.2.3. Feeder lane right

Is there a feeder lane on the far-side/right of the ASL? If so, set attribute to ‘True’.

Attribute is set to ‘True’ if the lane goes into the ASL on the far side of the road, adjacent to the traffic lane for vehicles going in the opposite direction.



Right side lead-in lane

2.2.4. Shared nearside lane (SNSL)

Is it a shared nearside lane? If so, set attribute to ‘True’.

A shared nearside lane is where a cycle lane or shared bus lane becomes a lane for general traffic turning at a junction. These were collected as an advisory lane that is shared and drawn as a cycle lane/track feature. The definition of a shared nearside lane is dependent on a colour being applied to the whole of a traffic lane before an ASL. In addition, a shared nearside lane will always be a left only or left and ahead lane

ASLs with shared nearside lane have the feeder attribute set to false.



Example of shared near-side lane; note the colour applied to the whole width of the lane and simple ‘gate’ instead of feeder as entrance to the ASL.

2.3. Crossing

Data were collected for crossings that are intended to be used by cyclists. Crossings may be located at road junctions or in the middle of road links, between junctions.

This feature may include pedestrian-only crossings but only where they provide a link intended for cyclists to use between signed cycle routes, e.g. shared footways on both sides of the road or crossings over multi-lane, major or busy roads. These are generally indicated by cycle directions signs plus “Cyclists Dismount” signing.

All crossing geometry was drawn from the edge of the kerb on one side to the edge of the kerb on the other side of the road. If there is an island in the middle, e.g. a refuge island or a staggered crossing, the line were drawn as one line following the route the cycle (or dismounted cyclist) would take.

Only at-grade crossings were collected in this category of features. Subways, tunnels and footbridges were collected in the restricted routes category.

2.3.1. Signal controlled crossing

Is the crossing signal controlled? If so, set attribute to ‘True’.

Set this attribute to ‘False’ if it is a non-signal controlled crossing.

Both types of crossings can be at junctions or in the middle of road links.

Examples of the different types of crossings:





Signal controlled crossings



Non-signal controlled crossings

2.3.2. Segregated cycles and pedestrians

Are cyclists and pedestrians kept separate on the crossing, or is the crossing for cyclists only? If so, set attribute to ‘True’.

If cyclists and pedestrians share the crossing set attribute to ‘False’.

At segregated crossings cyclists and pedestrians are kept separate at the kerb and across the road. These can be distinguished by different sets of push buttons (with cycle symbols only) and/or ‘elephant foot print’ markings across the road parallel to the pedestrian crossing.

At unsegregated crossings cyclists and pedestrians share the crossing. These include both crossings where cyclists can ride and those where they must dismount (see below).

Examples of segregated and unsegregated cycle and pedestrian crossings:



Segregated signalised crossings



Segregated uncontrolled crossing



Unseggregated signalised crossing



Unseggregated uncontrolled crossing (pedestrian only)

2.3.3. Cycle gap

Does the crossing include a cycle gap? If so, set attribute to 'True'.

Cycle gaps are gaps in central reservations or kerb lines allowing cyclists to take routes not accessible to general traffic.

Note that two parallel crossings (as shown in the top photo below) should be recorded as two crossings.

Cycle gaps do not include small refuge islands.

Examples of cycle gaps:



2.3.4. Pedestrian only crossing

Is the crossing for pedestrians only, with cyclists required to dismount? If so, set attribute to ‘True’.

Pedestrian only crossings were collected where they provide a link between cycle routes, e.g. shared footways on both sides of the road or crossings over multi-lane, major or busy roads.

These crossings are often accompanied by “Cyclists Dismount” signing.

Example of pedestrian only crossings:



Zebra crossing – pedestrian only



Pelican crossing & pedestrian phase crossing at signal junctions – pedestrian only

2.3.5. Level crossing

Is the crossing a level crossing between two sections of cycle lane/track? If so, set attribute to ‘True’.

Example of level crossing as part of a cycle route:



2.4. Restricted routes

Data were collected for this category about short linking routes that cyclists may use if they dismount.

However, this feature were collected where it applies to links that form part of signed or otherwise designated cycle routes

2.4.1. Pedestrian only route

Is there a pedestrian only link that connects two other cyclable links (e.g. a set of stairs that connects a road and a canal route)? If so, set this attribute to 'True'.

Narrow footpaths, pedestrian tunnels or subways, bridges or pedestrian only areas may not allow cycling. These were not collected as cycle lanes or tracks, or shared footways. This category is used to indicate the geometry for these routes only where they link between two sections of a specific cycle feature. It does NOT apply where only one end connects to a cycle feature.

However, if the no-cycling restriction applies to a specific direction of a path (e.g. at the entrances of a park) and there is no clear indication of where the restriction ends, a 10m line were created to cross reference the sign.



Signs indicating a pedestrian only route



A pedestrian only section of a route where cyclists are expected to dismount and walk to access the continuation of a signed cycle route.

2.4.2. Pedestrian bridge

Is the pedestrian only route a bridge? If so, set attribute to 'True'.

Some pedestrian bridges are signed as cycle routes but cycling is not permitted or possible.

Examples of pedestrian bridges on a signed cycle route where cycling is not permitted:



2.4.3. Pedestrian tunnel

Is the pedestrian-only route a tunnel or subway? If so, set attribute to 'True'.

This was collected where the tunnel links two sections of a cycleable route.

Examples of pedestrian tunnel or subway on a signed cycle route where cycling is not permitted:



2.4.4. Steps

Does the pedestrian only route include steps? If so, set attribute to ‘True’.

Where there is an existing cycle route which includes steps these were recorded as a separate attribute, whether or not they form part of a longer restricted route such as a bridge (as shown below).

Example of steps as part of a ‘cyclable route’ and could link a cycle route to the road network.

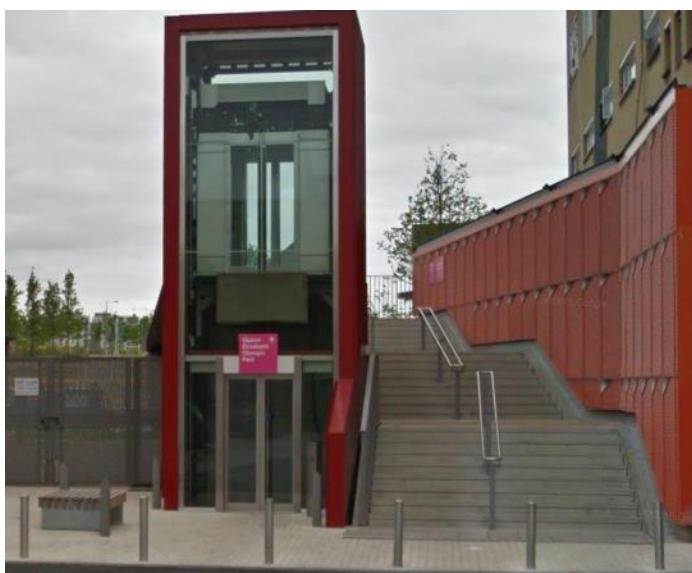


2.4.5. Lift

Does the pedestrian only route include a lift? If so, set attribute to ‘True’.

Where there is an existing cycle route which includes a lift this were recorded as a separate attribute, whether or not they form part of a longer restricted route such as a bridge.

Example of lift as part of a cycle route:



Point infrastructure

Signs and road markings provide safety information for cyclists. They also guide cyclists along routes, to routes where space has been designated for them (e.g. tracks inaccessible to other vehicles), or to infrastructure that can support their journey (e.g. secure cycle parking).

Cycle parking provides a crucial service for cyclists at their start or destination.

Traffic calming can make cyclists' trips better through reducing traffic speeds but can also affect their ride quality.

This information is key to the wayfinding objective of the database – enabling us to identify cycling routes across London.

3.1. Signs and markings

Signs and markings are a priority attribute and key to the successful understanding of cycle infrastructure across London. They provide information to cyclists about where they are going, where they can/cannot cycle, and what space has been designated for their specific use adding to the sense of safety and accessibility.

Only those signs relevant to cycling were collected as part of this project. In particular, these will include signs and markings showing cycle symbols on.

There are also a number of exceptions (i.e. "Except Cyclists" signs). These are shown below where appropriate.

3.1.1. Road/footway markings or signs

Is the feature a marking, symbol or plaque on the road or footway? If so, set the attribute to 'True'.

If the feature is a sign or other item on a vertical backing, set the attribute to 'False'.

Details were recorded about both cycle markings and signs. Markings include symbols, plaques and other features on a surface road, including those on lanes, tracks or the footway.

All signage features with this attribute marked 'False' will be signs on posts, bollards or other mountings. These can be symbols or wording.

Examples of cycle symbols:



3.1.2. Coloured patch

Is the cycle symbol on a coloured patch? If so, set attribute to 'True'.

This applies where cycle symbols or routes numbers are applied on a coloured background. Record the colour in the colour attribute.



Example of coloured patches on CS3 (left) and CS7 (right)

3.1.3. Facing off-side

**Is the cycle sign on the off-side (i.e. right-hand) side of the road, facing on-coming traffic?
If so, set attribute to 'True'.**

In many cases identical signs are repeated on opposite sides of the street. While only one of these pairs of signs is needed to advise cyclists, both signs were recorded to avoid confusion.

However, our system is aware that the sign on the right-hand side of the carriageway is facing traffic to its left (see below) and the attribute for this one is set to 'True'.

Facing off-side attribute is applicable to upright signs only, where a clear direction of travel is indicated (i.e. for roads and cycle tracks). Instead, signs at the back of the footway and parallel to the direction of the road are not to be recorded as facing off-side,

Facing off-side attribute is not applicable for road markings.



Example of pairs of signs with one on the off-side of road (circled in yellow)



Example of sign at the back of the footway where facing off-side is not applicable.

3.1.4. Sign/symbol diagram number

Is the marking one that is shown on the following list? If so, select the appropriate marking or enter the marking number manually.

			
Diagram 1057	Diagram 1057.1	Diagram 955 (plaque on surface)	Diagram 956 (plaque on surface)

Is the sign one that is shown on the following list? If so, select the appropriate sign or enter the sign number manually.

			
Diagram 617	Diagram 619	Diagram 951	Diagram 866
			
Diagram 953	Diagram 953A	Diagram 953B	Diagram 953.1A
			
Diagram 955	Diagram 956	Diagram 956.1	Diagram 957
			
Diagram 958	Diagram 959	Diagram 960	Diagram 961

<i>Diagram 958</i>	<i>Diagram 958.1</i>	<i>Diagram 959</i>	<i>Diagram 959.1</i>
<i>Diagram 960</i>	<i>Diagram 960.1</i>	<i>Diagram 960.2</i>	
<i>Diagram 965</i>	<i>Diagram 966</i>	<i>Diagram 967</i>	
<i>Diagram 2601.2</i>	<i>Diagram 2602.2</i>	<i>Diagram 2602.3</i>	

The following signs have been superseded in TSRGD (2016) by the sign design system described in Schedule 12. These signs should all be recorded as Diagram 2000.

<i>Former Diagram 2601.1</i>	<i>Former Diagram 2602.1 (may omit route number)</i>	<i>Former Diagram 2606</i>	
<i>Diagram 2005.1 (may omit route number)</i>	<i>Diagram 2105.1 (may omit route number)</i>	<i>Diagram 2106.1 (may omit route number)</i>	

Typical elements for cycle direction signs in the system set out in TSRGD (2016), Schedule 12 are shown below. All combinations of these should be recorded at Diagram 2000.

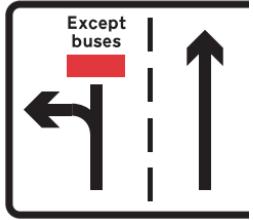
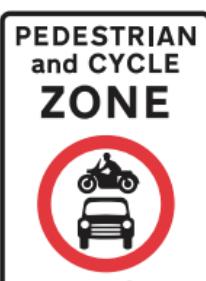
 A	 B	  or 
<i>Part 2, item 8, 'Sign placed on a road, other than a motorway, showing routes for cyclists'</i>	<i>Part 9, item 7, 'Route recommended for pedal cyclists, together with a national cycle route number'</i>	<i>Part 11, item 3, 'Route for pedal cycles with an indication of national cycle route number'</i>

Does one of the signs shown below have a plate beneath (or next to) it with “Except cycles” or a combination of “Except” and “cycles”? If so, select the appropriate sign or enter the sign number manually.

The plate below may take one of the following forms. The rightmost three are found at traffic signals only.



 	 		
<i>Diagram 606/609 (right)</i>	<i>Diagram 606/609 (left)</i>	<i>Diagram 612</i>	<i>Diagram 613</i>

			
Diagram 810	Diagram 652	Diagram 877	
			
Diagram 616	Diagram 816	Diagram 618.3B	Diagram 618.3C

3.1.5. Signing attributes

The following sections 3.1.5. - 3.1.24. are for information only to inform surveyors of the principles behind the attributes used in the signing features.

They are to be used only when a marking or sign does NOT match one of the TSRGD marking or signs set out above.

3.1.6. Prohibition

Does the sign feature a red circle and a bicycle? If so, attribute should be set to 'True'.

Only signs prohibiting cycling were recorded (i.e. not any prohibiting other modes). Note some "No Cycling" signs also have a red diagonal line across them (see sign to right below). These were also recorded.

Example of prohibition signs:



The "Flying Motorbike" sign shown below does NOT prohibit cycling and hence the prohibition attribute should NOT be set to 'True'.



“No motor vehicles” sign – cycling is permitted



Example of signs prohibiting cycling

3.1.7. No vehicles

Is the sign a No vehicles sign? If so, attribute should be set to ‘True’.

This attribute applies where the sign face is a red circle with no symbols within it. It is sometimes accompanied by the text sign No Vehicles. This includes pedal cycles.

If this route provides access to an area inaccessible by other routes or would provide a link to other routes nearby then it was recorded as a restricted route (i.e. a pedestrian only link).

Note this may be operational part time, for example when part of a pedestrian zone. In this case the access times were recorded in the Access Time attribute as described below.

Example of a No vehicles sign:





Example of part-time “No vehicles” signs allowing cycling at certain times (note right hand sign would also have “Facing off-side” attribute set as ‘True’)

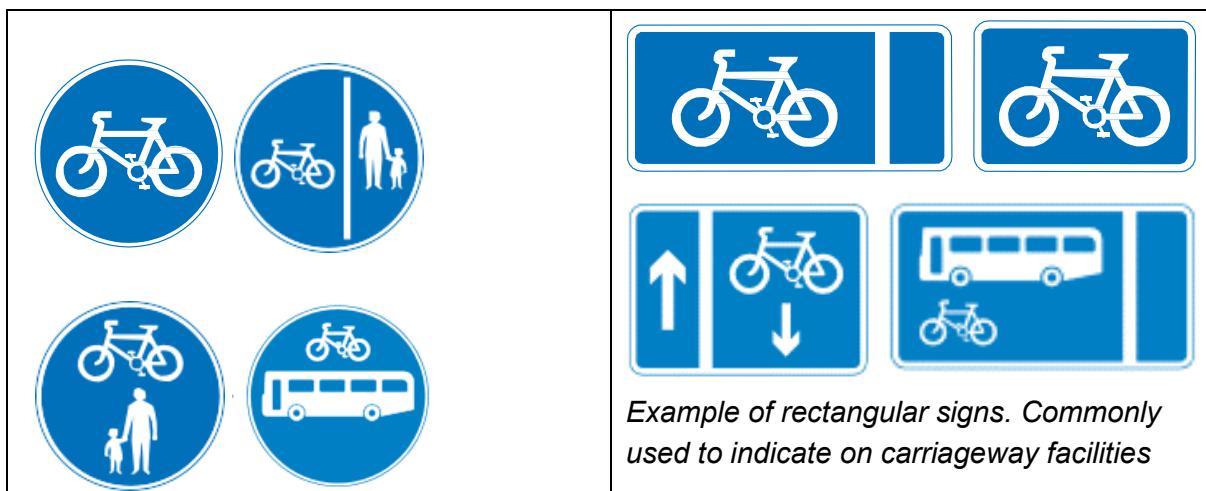
3.1.8. Circular or rectangular

Is the sign circular? If so, attribute should be set to ‘True’.

Is the sign is square or rectangular? If so, attribute should be set to ‘False’.

If the sign is neither of the above (e.g. triangular signs) do not collect details for it, even if it shows a cycle. These signs provide advice for drivers not cyclists and are therefore not of interest to this survey. For further examples see the document “*Know your signs*”, image of “Pedal cycle route crossing or joining road ahead”, page 36.

Examples of the circular and rectangular signs that were collected are shown below (NB this is not a comprehensive list).



*Example of circular cycling signs.
Commonly used to indicate off carriageway facilities (apart from bottom right used to indicate street used by buses & cycles only)*



Example of rectangular cycle direction signs

3.1.9. Exemption sign

Is there a sign with a plate below stating “Except cycles” or “Except buses and cycles”? If so, attribute should be set to ‘True’.

The attribute relating to the specific exemption should also be recorded.

This attribute is used when there is an exemption sign, permitting cycle movements that general traffic cannot make. This will be under (or rarely next to) other regulatory signs.

Where there are exceptions for cyclists the exception plate will always accompany another sign with a restriction. The attribute set out by the sign which the exemption sign relates to should also be recorded (e.g. “Banned Ahead” where a “No Entry” sign has “Except cycles” beneath).

Except cycles

**Except
buses and
cycles**



Examples of “Except cycles” signs

3.1.10. Turning exceptions

Turning exceptions are where turning movements for vehicles are restricted, with accompanying signs. We are interested in banned turns where cycles are exempt from the banned movement as this can improve safety (e.g. by stopping cars turning in front of cycles) or allow cycles to access roads where other vehicles cannot do so.

Attribute information were collected about banned turns with cycle exceptions (as set out in 3.1.11. – 3.1.15.) The location of the point must be where the sign is placed.

3.1.11. Banned left turn

Is there a no left turn sign with an “Except cycles” sign below? If so, attribute should be set to ‘True’.

This attribute shall be marked ‘True’ if there is a no left turn sign present. Note the sign may be a post, a bollard, a traffic signal or wall.



3.1.12. Banned right turn

Is there a no right turn sign with an “Except cycles” sign below? If so, attribute should be set to ‘True’.

This attribute shall be marked ‘True’ if there is a no right turn sign present. Note the sign may be a post, a bollard, a traffic signal or wall.



Examples of “Banned right turn” signs with cycle exemption

3.1.13. Compulsory left turn

Is there an arrow pointing left sign with an “Except cycles” sign below? If so, attribute should be set to ‘True’.

This attribute shall be marked ‘True’ if there is a compulsory left turn sign present. Note the sign may be a post, a bollard, a traffic signal or wall.



Examples of “Compulsory left turn” sign with cycle exemption

3.1.14. Compulsory right turn

Is there an arrow pointing right sign with an “Except cycles” sign below? If so, attribute should be set to ‘True’.

This attribute shall be marked ‘True’ if there is a compulsory right turn sign present. Note the sign may be a post, a bollard, a traffic signal or wall.



3.1.15. Banned ahead

Is access to the road ahead banned, except for cycles? If so, attribute should be set to 'True'.

There are a variety of circumstances where general traffic is restricted from travelling ahead in some way, while cycles are allowed.

These can include "No entry" or "No through road" signs with cycle exemptions. They can also include a Pedestrian zone sign or "No motor vehicle" sign indicating that motor traffic is not permitted to enter an area.

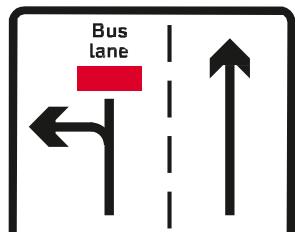
Banned ahead signing is generally found at signalised and un-signalised junctions and at cross roads. It can also be found at road closures where cycles are allowed to pass through.



No entry



No through road



Lane ahead closed to general traffic



Pedestrian zone sign



No motor vehicles

Examples of the information we are looking to capture with this attribute:



3.1.16. Cyclists dismount

Is the sign a “Cyclists dismount” sign? If so, attribute should be set to ‘True’.



3.1.17. End of Route

Is the sign an “End of route” sign? If so, attribute should be set to ‘True’.



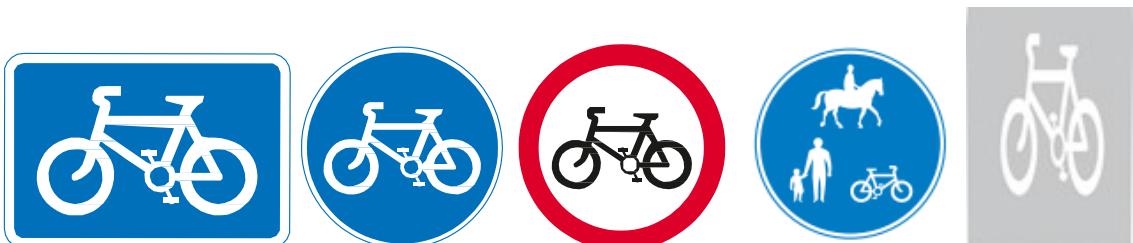
Signs stating “End of bus lane” should not be recorded.

3.1.18. Cycle symbol

Does the sign have a cycle symbol or the word cycle/cyclist/cycling' etc. on it, or is the road marking a cycle symbol? If so, attribute should be set to 'True'.

Where the sign face features a cycle symbol or if there is a cycle symbol marked on the ground i.e. path, footway or road. Only pedal cycle symbols were collected.

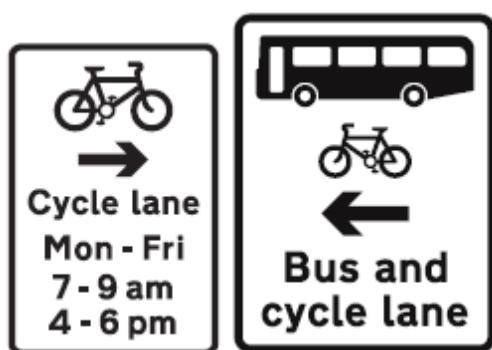
The words cycle/cycles etc. on a sign, marking or exception plate will result in the cycle symbol attribute being set to true.



Cycle sign and symbol

Note some signs with cycle symbols are excluded, such as cycle parking signs.

Also signs informing of the presence of a cycle lane ahead (diag. 962.1 and 962.2) are NOT to be recorded.



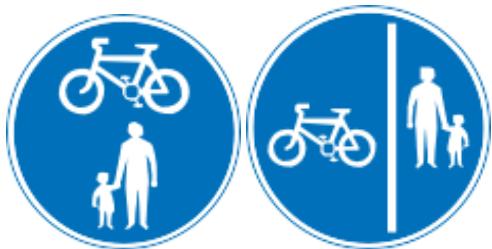
These signs (diag. 962.1 and 962.2) are NOT to be recorded

3.1.19. Pedestrian symbol

Does the sign have a pedestrian symbol on it, in addition to a cycle symbol? If so, attribute should be set to 'True'.

The pedestrian symbol may appear on signs or on the footway as a road marking. It may appear below a cycle symbol or to the sign of it.

This attribute were only collected where used in conjunction with pedal cycle symbols or text.



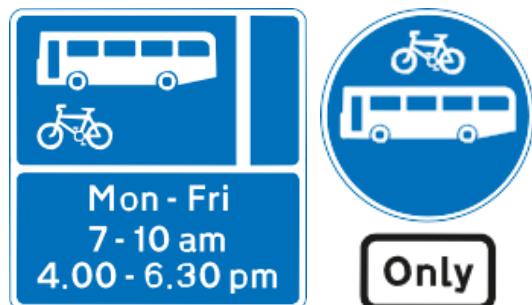
3.1.20. Bus symbol

Does the sign have a bus symbol or the word 'bus/buses' etc. on it, as well as a cycle symbol? If so, set attribute to 'True'.

Where the sign face features a bus symbol or the word bus, if there is a bus symbol or the word bus marked on the ground.

This attribute were only collected where used in conjunction with pedal cycle symbols or text.

The words bus/buses etc. in the sign or in the exemption plate will result in the bus symbol attribute being set to true.



3.1.21. Other vehicle symbol

Does the sign have another vehicle symbol or named vehicle on it, or a symbol of a horse, as well as a cycle symbol? If so, set attribute to 'True'.

This attribute shall be set to 'True' if the sign face features another vehicle for example a motorcycle or the word taxi, if there is another vehicle symbol or the word describing another vehicle marked on the ground e.g. taxi.

This attribute were only collected where used in conjunction with pedal cycle symbols or text.

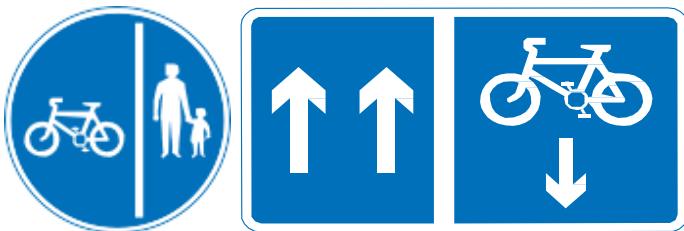


3.1.22. Delineator Line on sign

Does the sign feature a line separating the cycle symbol from other symbols? If so, set attribute to 'True'.

This indicates where there is a delineator marking the cycle infrastructure.

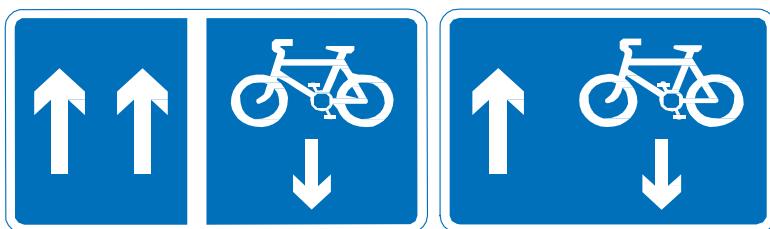
This is not used for the mandatory cycle lane sign or shared bus lane signs.



3.1.23. Direction arrow

Does the sign feature both a cycle and an arrow or arrows? If so, set attribute to 'True'.

This is to capture movements for cycles (e.g. contraflow signage). It should not be used for cycle direction signs (including those with a chevron) or one-way or two-way general traffic signs.



3.1.24. Destination

Is the sign a direction sign or does it state a destination? If so, set attribute to 'True'.

Examples of cycle direction signs:



This includes 'map' style signs as shown below.



Note that "stack" type signs should be recorded as a single sign, unless different route numbers are present – the example below would be recorded as 1 feature.



Signed cycle routes stated as 'alternative routes' are also to be recorded



Example of alternative route sign

3.1.25. Number in box

Does the road marking or sign feature a number in a box? If so, set the attribute to 'True'.

The boxed number on a cycle road marking or sign indicates a cycle route number.



Examples of different types of cycle route number:



3.1.26. National Cycle Network

Does the sign feature a red box with a number in it and/or the words National Cycle Network? If so, set attribute to 'True'.

National Cycle Network use red boxes with a number in to indicate the route. These may feature on signs, fingerposts or destination signs, or stickers (commonly on lampposts). On signs occasionally the word 'Cycle' is substituted for a cycle symbol.



National cycle network signs, route 11



National cycle network sticker, route 1

3.1.27. London Cycle Network

Does the sign feature a blue or clear box with a number in it and/or the words London Cycle Network? Or is there a road marking with a boxed number? If so, set attribute to 'True'.

London Cycle Network use blue or clear (no colour) boxes with a number in to indicate the route. These may feature on signs, fingerposts or destination signs, or stickers (commonly on lampposts). They may also be road markings. On signs occasionally the word 'Cycle' is substituted for a cycle symbol.



London Cycle Network sign, route numbers 5 & 38



London Cycle Network road marking, route 4

3.1.28. Cycle Superhighway

Does the sign feature a pink box with a number in it and/or the words Cycle Superhighway, or is there a road marking with the text CS and a number? If so, set attribute to 'True'.

Cycle Superhighways use pink boxes with a number in to indicate the route. These may feature on signs, fingerposts or destination signs. They may also be road markings.



Signs in the form of “totems” bearing the Cycle Superhighway logo shown above should NOT be collected.



These types of signs were not collected.

3.1.29. Quietway

Does the sign say Quietway or is there a road marking with a Q and a number? If so, set attribute to 'True'.

Examples of Quietway signs and road markings



In the case of the photo on the left above, this were collected as two signs recording separately the details of the two numbered route signs in the middle as one is a Cycle Superhighway and the other a Quietway.



3.1.30. Greenway

Does the sign say Greenway? If so, set attribute to 'True'.

Example of a Greenway sign or marker. These may be signs on posts or footway markers.

Note that Greenway signs are relatively rare.



3.1.31. Route number

What is the route number or numbers? Enter the route numbers as text.

Record the route number(s), including any preceding letters e.g. CS3 or Q1.

Where multiple routes are on a single sign face separate the values with a full stop and no spaces (e.g. CS7.Q29).



3.1.32. Access times

Does the sign state times of operation? If so, enter the details here as they appear on the sign.



Sign showing part-time access (record as Mon-Sat, 7am-7pm)

3.2. Signals

Details of signals were collected where there are specific benefits for cyclists; only those that have been designed or reprogrammed so that the phasing gives advantage to cyclists and improves their safety moving through the junction.

Note that signals can be found both at signalled junctions and certain crossings such as Toucans. However, signals at Toucan crossings or cycle only crossings were not recorded as a point asset; the linear asset (crossing) will already identify the presence of a signal when the relative attribute is set to true (signal-controlled crossing).

The location of the point should be in the footway, on the side of the road for which the flow of traffic the sign applies.

3.2.1. Cycle on signal head

Is there an additional signal aspect (light), full set of cycle aspect signals or a low level signal head for cycles? If so, set attribute to 'True'.

Note that the signal head were only be recorded once (i.e. do not record the red, amber and green symbols separately).



Example of an additional signal aspect

At some signals there is a second set of smaller signal lights at a low level ('low level cycle signals'). The lower level set of cycle aspect signals may be on its own post or combined on the same column as a standard traffic signal at a higher level.

Where they are combined, low level cycle signals were not recorded as an additional feature to the main (high level) signals as they convey the same information.



(left) Full set of lower level cycle only signals (right) Separate low level cycle signals

3.2.2. Separate stage for cycles

Does the signal provide a separate stage for cycles? If so, set attribute to 'True'.

At these locations' cyclists will have a distinct time when they can move separate from general traffic. This can be either at a junction where cyclists are sharing with general traffic, or where cyclists have a separate lane/track on the approach.

Note this does not include 'Early release' (see below).

3.2.3. Early release

Does the signal allow cyclists to get ahead or make movements through the junction before other vehicles? If so, set attribute to 'True'.

At these locations signal aspects for cyclists turn green a few seconds before the signals for general traffic. This allows cyclists to move off earlier than other traffic and is therefore called "Early release" or "Advance green".

These signals are not a separate stage as there is a period where cyclists move with general traffic.



3.2.4. Two stage turn

Is there a sign on or near the signal saying cyclists should do a two stage turn?

This attribute applies where there is a sign telling cyclists to make do a two stage turn (usually to the right) at the junction. Either the blue sign below or the exception sign will be present.

The two-stage turn should be recorded at the point where it starts.



3.2.5. Cycle Gate/Bus Gate

Does the layout approaching the traffic lights hold general traffic whilst allowing cycles (or cycles and other specified vehicles) to proceed to a forward stop line?

If so, set attribute to 'True'.

For Cycle gates only, also set the Separate Cycle Stage attribute to 'True'.

At these locations general traffic is held or released at a different stop line to cycles (and other specified vehicles). Cycles (and in some cases other vehicles such as buses) have a separate approach from other vehicles.

Note that that the gate traffic light was recorded separately from the main traffic light. The latter were only recorded where it has a cycle aspect or stage.

Examples of a cycle/bus gate:



3.3. Traffic calming

Traffic calming is infrastructure that is intended to reduce the speed of motor vehicles. It generally comprises vertical and horizontal deflections. Traffic calming assets were only recorded for on-carriageway features. For example, speed humps on fully segregated cycle lanes should not be captured.

One geometry feature was created for each type of traffic calming infrastructure found. For example, if there are three speed cushions across the carriageway, one-point feature were created in the centre of the carriageway and 'True' recorded against the speed cushion attribute.

'Optical' traffic calming features (i.e. Made only through pavement change or paving) do not constitute the remit of the survey as they are not vertical deflection. Optical traffic calming features should not be recorded.

3.3.1. Raised table

Is there a raised table at a junction? If so, set attribute to 'True'.

Raised tables are normally found at road junctions. These can be at the intersection of three, four or more arms.

A single point is placed at the centre of the junction between the roads affected.

Example of a raised table:



3.3.2. Raised side road entry treatment

Is there a raised side road entry treatment? If so, set attribute to 'True'.

Side road entry treatments are generally found where a side road or street meets a larger road. At these locations the carriageway is raised to footway level. There are a number of different types of treatment.

Note that treatments where the carriageway is NOT raised were not recorded.

A single point is placed in the middle of the carriageway, at the centre of where the side entry treatment is located.

Examples of side road entry treatments:





3.3.3. Speed cushion

Is there a set of speed cushions across the road? If so, set attribute to 'True'.

Speed cushions are vertical deflections in the carriageway that are in the centre of the lane. They are usually placed either in pairs (one in each lane of the carriageway) or threes (with the third in the centre of the road).

One geometry point was created in the centre of the road for each set of speed cushions.

Examples of a speed cushion:



3.3.4. Speed hump

Is there a speed hump? If so, set attribute to 'True'.

Speed humps are vertical deflections in the carriageway that extend across all lanes of the carriageway. One geometry point was created in the centre of the road for each speed hump.

Examples of a speed hump:



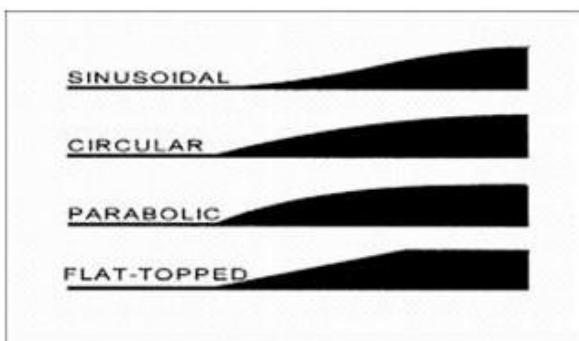
3.3.5. Sinusoidal

Is it a sinusoidal speed hump or speed cushion? If so, set attribute to 'True'.

Note: this attribute should only be used if the speed cushion or speed hump attribute is also set to 'True'.

Sinusoidal related to the shape of the speed hump or speed hump. The sinusoidal shape is more comfortable for cyclists than flat-topped ones.

Diagram of speed cushion or hump profiles:



Example of a sinusoidal speed hump:



3.3.6. Narrowings (including pinch points and chicanes)

Are there build outs in the road to reduce vehicle speeds? If so, set attribute to 'True'.

For example, this may be two build outs opposite each other to create a pinch point or a chicane with changes to the priority of traffic flow. Build outs before or after parking spaces or for footway widening should not be collected. One geometry point should be created in the centre of the narrowing.

Examples of road narrowing:



Build outs for pinch point



(left) Pinch point with cycle lane (also record cycle lane)

(right) Chicane with signage showing the priority flow of traffic (record both cycle lanes)

3.3.7. Barrier

Is there a barrier that cyclists can pass? If so, set attribute to 'True'.

This attribute records locations where motor vehicles cannot pass but cyclists can; the carriageway will continue but through traffic is blocked. It was only recorded for on carriageway routes.

Example of a barrier that cyclists can pass:





3.3.8. Other traffic calming

Is there another type of traffic calming infrastructure? If so, set attribute to 'True'.

Where there is a type of traffic calming infrastructure found that does not meet the descriptions above. It should be in the road and for the purpose of reducing vehicle speeds.

3.4. Miscellaneous point features

3.4.1. Steps

Are there steps linking two cyclable routes (i.e. a cycle route and a road, two cycle routes or any combination)? If so, set attribute to 'True'.

This feature is only relevant where steps link routes where cycling is permitted. These steps will be recorded as a point feature.

3.4.2. Lift

Is there a lift linking two cycle routes? If so, set attribute to 'True'.

An example of this is on the Olympic Park where a lift provides access to a cycle bridge over the River Lea where cycling is permitted. These lifts will be recorded as a point feature.

3.5. Cycle Parking

In the majority of cases cycle parking takes the form of a cycle stand or rack to which cycles can be locked, in a variety of designs. In some locations cycle parking consists of lockers or a secure compound.

There may also be signage pointing to where cycle parking is or at the location indicating what the area is for (NB this signage data should NOT be captured).



Information was only collected about cycle parking that is accessible to the public. Cycle parking in non-public areas such as retail sites, stations, hospitals, libraries, leisure centres or private car parks is not included.

Parking on private land were only recorded where it is clearly accessible next to the public highway (a step or two away), or clearly intended for public use. This includes cycle parking in areas such as parks.

Where different types of cycle stand are used all the types present should be recorded (as attributes of the same feature). The level of provision and capacity should be for all the cycle parking at that location.



(left) Single feature with 10 stands and 20 capacity all of same type

(right) Single feature with 4 stands and 8 capacity with 2 types recorded

3.5.1. On-carriageway

Is the cycle parking on the carriageway? If so, set attribute to 'True'.

If not, set attribute to 'False'.

Where cycle parking is located on the carriageway (i.e. on the highway) this attribute is set to 'True'. It is set to 'False' if it is on the footway (pavement) or away from the road e.g. in a park, on private land accessible to the public.



On carriageway cycle parking



Off carriageway cycle parking

3.5.2. Covered

Is the cycle parking under cover? If so, set attribute to 'True'.

This attribute applies where the cycle parking is in a purpose-built facility i.e., under a shelter, under a bridge or building overhang.

It does not apply to cycle parking on-street without shelter. In particular, cycle parking under trees is not recorded as covered.

Where the cover is only partial, e.g. partly under a bridge, this is recorded as covered.

Examples of cycle parking that is covered / not covered:



Single / two tier cycle stands with cover



Sheffield stands in uncovered location

3.5.3. Secure

Is the cycle parking in a secure compound? If so, set attribute to 'True'.

If the cycle parking is in a locked purpose-built facility or in a gated area this attribute is set to 'True'.

If access is not possible to a gated compound the level of provision is estimated.

Examples of secure cycle parking:



Gated, monitored, lockable cycle parking area



Gated cycle parking compound

3.5.4. Locker

Is the cycle parking in individual lockers? If so, set attribute to ‘True’.

If the cycle parking comprises one or more individual lockers this attribute is set to ‘True’.



Cycle lockers

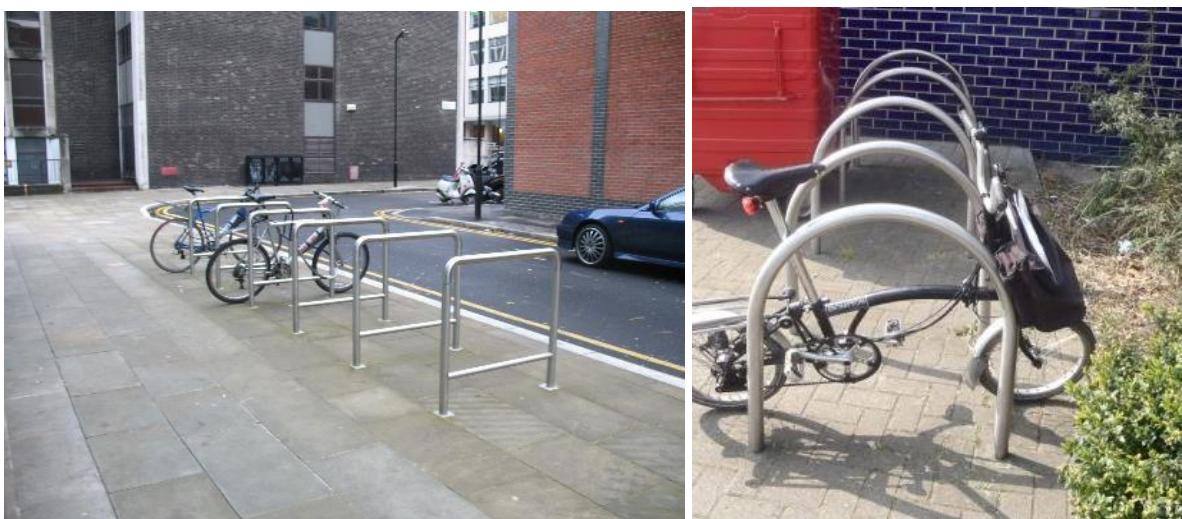
3.5.5. Sheffield stand

Does the cycle parking include Sheffield stands? If so, set attribute to 'True'.

A Sheffield stand is the basic cycle parking stand. For the purposes of this project it is defined as any symmetrical hoop or "upturned U" stand.

Colour, additional markings and a bar or rail across the middle are variations that is collected as a Sheffield stand.

Example of a stands recorded as Sheffield stand:



3.5.6. M stand

Does the cycle parking include M stands? If so, set attribute to 'True'.

An 'M stand' is a variety of stand that resembles a letter M.

Example of a stands recorded as M stand:



3.5.7. P stand

Does the cycle parking include P stands? If so, set attribute to 'True'.

A 'P stand' is a variety of stand that resembles a letter P. This includes stands that look like flags or pennants.

Example of a stands recorded as P stand:

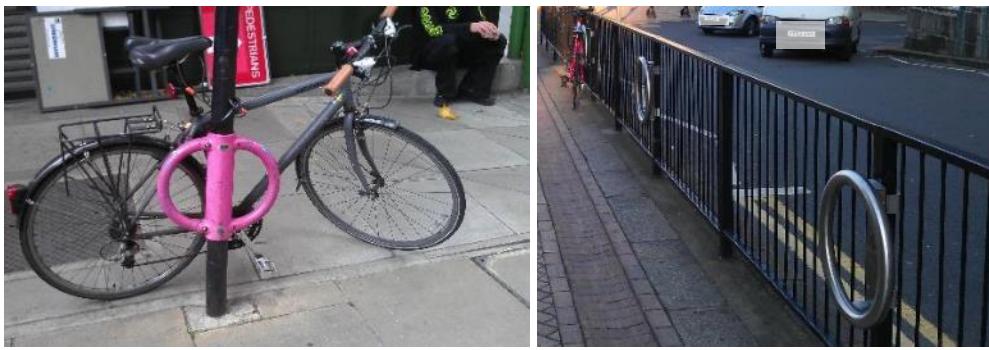


3.5.8. Cyclehoop stand

Does the cycle parking include cyclehoop stands? If so, set attribute to 'True'.

A cyclehoop is a circular hoop most commonly attached to a sign post or railing. However, a cycle hoop can be attached to any piece of street furniture.

Example of parking recorded as cyclehoop:



3.5.9. Post stand

Does the cycle parking include post stands? If so, set attribute to ‘True’.

Only posts clearly indicated for cycle use is recorded.

Example of stands recorded as post stand:

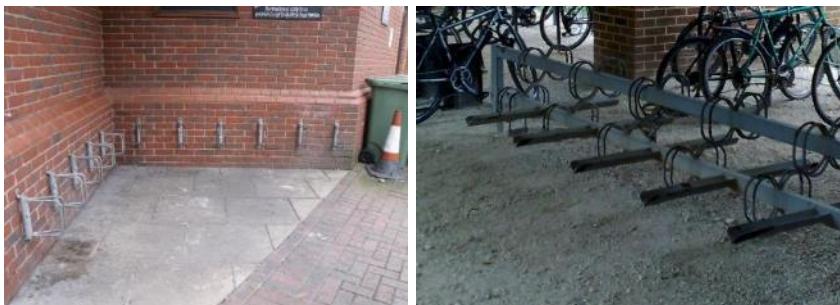


3.5.10. Butterfly stand

Does the cycle parking include butterfly stands? If so, set attribute to ‘True’.

Butterfly stands (also known as “wheel benders”) hold the front wheel only.

Example of stands recorded as butterfly stand:



3.5.11. Wheel rack

Does the cycle parking include wheel rack stands? If so, set attribute to ‘True’.

Wheel racks consist of a channel to hold the two wheels of a bicycle. They are often found combined with shelters.

Example of stands recorded as wheel racks.



3.5.12. Bike hangar

Is the cycle parking a bike hangar? If so, set attribute to 'True'.

If the bike hangar is on the road also set on-carriageway attribute to 'True'.

Bike hangars are units which include both stands and a locked hinged cover. They are often sited on the carriageway.

Example of stands recorded as bike hangars.



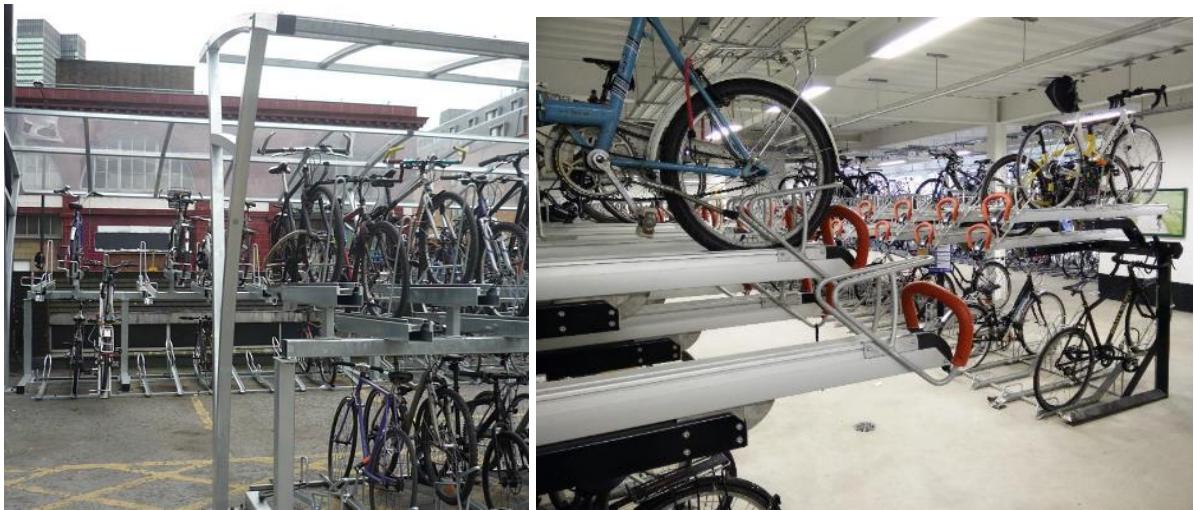
3.5.13. Two Tier

Is the cycle parking two-tier stands? If so, set attribute to 'True'.

Two tier parking has an upper level rack which slides out and down. They are generally found at stations but a limited number are on or near roads.

Some two tier stands use a wheel rack system for cycle storage. In this instance, only the two-tier attribute should be set to 'True'.

Example of parking recorded as two-tier.



3.5.14. Other or unknown

Is the cycle parking of other or unknown type? This attribute should be set to ‘True’ if the cycle parking found does not match any of the types above.



3.5.15. Provision number

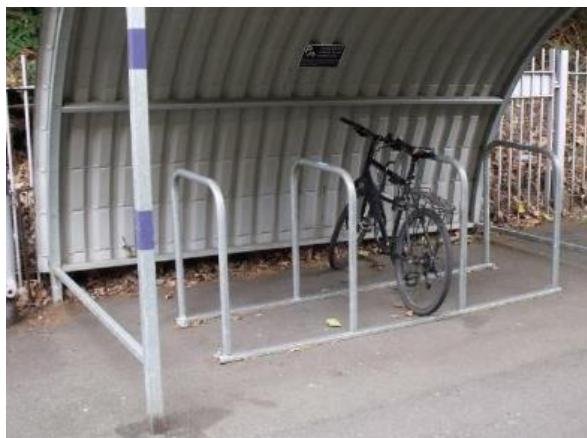
How many cycle stands, frames or racks are there? Record the number of individual stands or units.

The number of stands, frames or racks is recorded in this attribute.

For example, in the images below the provision number would both be recorded as 5 (Sheffield or lockers).



In contrast, in the image below the provision number would be recorded as 1 (Sheffield toast rack or bike hangar)



3.5.16. Capacity number

How many cycles could be parked at the feature? The number of cycles that could easily be parked at the cycle parking location is recorded in this attribute.

A decision will be needed on whether a cycle can be parked on one or both sides of the frame/stand/rack when calculating capacity.

The number of bikes that can easily be parked is recorded in this attribute.

Where there is a tubular stand (e.g. Sheffield, M, P or hoop) these are recorded as having provision for 2 cycles unless too close to the carriageway or a wall or other vertical feature. This also applies if stands are too close together (this will generally be 600mm or closer, although spacing should not be measured).

For example, in the images below the capacity number would be recorded as 10 (2 at each Sheffield stand) or 5 (one bike in each locker).



In contrast, in the image below the provision number would be recorded as 8 (Sheffield toast rack) or 1 (Sheffield stand too close to cabinet).

