

4.0 Cycle Lanes

4.1 With Flow Cycle Lanes - Benefits

- Raises drivers' awareness to the presence of cyclists (particularly at side roads)
- Cyclists' generally feel safer when using cycle lanes
- They enable cyclists to bypass queuing traffic
- Shows a clear commitment to improving conditions for cyclists

4.1.1 Cycle Lanes - General design

- Preferred width 1.5m, min. width 1.2m, (absolute min width for short sections 1.0m)
- If cycle lane is on an uphill gradient, provide as wide a cycle lane as possible to account for 'uphill wobble'
- The adjacent traffic lane should ideally 3.0m or more, however, narrower widths (for advisory cycle lanes only) can be provided on quieter roads - for an example see photo 4.3
- Take care when providing cycle lanes in situations where there are parking bays. Do not place cyclists in a situation where they are disadvantaged by using the lane (see 4.3)
- Wide nearside lanes can be considered as an alternative to cycle lanes
- Before creating lanes, inspect the road surface and improve covers/ gullies as required
- If traffic lanes widths are narrow and footways wide, consider widening the carriageway or (as a last resort) providing a shared use facility on one of the footways
- For details on how to join to/from a cycle track on a converted footway see 5.6

4.2 Mandatory With-Flow Cycle Lanes (see Fig4. A)

Application

- Motor vehicles are prohibited from entering the cycle lane during its hours of operation by a Traffic Regulation Order
- Mandatory lanes can be operational at all times, or could even operate for a limited time, eg. peak periods
- Cyclists are permitted to deviate from the lane

Photo 4.1 Mandatory cycle lane. Courtesy CTC



Lining:

- Use *diagram 1009* at start of the lane
- Then provide 150mm solid white line to *diagram 1049*. This line must be stopped at all side road junctions, but not cross-overs to private residences. They must also be stopped at zebra, puffin/pelican, toucan and signal controlled crossings
- Advisory cycle lane markings to *diagram 1004* can be used across side roads to maintain continuity
- Provide red surfacing as required in line with County Policy
- *Cycle logo 1057* to be used at the start and at frequent intervals along the lane (50-200m). They should also be used across side roads

Signing:

- **958.1** to be used prior to the start of the lane
- **959.1** to be placed at regular intervals along the route
- **962.1** to be used on side roads to alert drivers to the presence of a cycle lane on the main road.

4.3 Advisory With-Flow Cycle Lanes (see Fig 4. A)

Application:

- No statutory procedures are required for the implementation of an advisory cycle lane.
- Motor vehicles are allowed to enter the cycle lane marking
- Advisory cycle lanes can suffer from on-street parking, although peak hour waiting and loading restrictions could be considered as part of a scheme.
- Take care when providing cycle lanes where there is a central refuge
- Consider the provision of cycle lanes when roads are re-surfaced.

Lining:

- Use *diagram 1009* at start of the lane.
- Use broken white line to *diagram 1004* for the cycle lane. These markings must be stopped at zig-zag marking for zebra and puffin/pelican, crossings and at yellow bus stop cage markings, but can be taken across side roads.
- Ideally red surfacing should be provided in line with County policy - especially crossing side roads.
- Cycle logo to *diagram 1057* to be used at the start and at frequent intervals (50-200m). They should also be used across side roads (at the mid point of the minor road junction). Use in combination with *sign 967*.

Signing:

- **967** to be used to emphasise the lane (provide at start and repeat as required, in combination with marking 1057)
- **962.1** can be used on side roads to alert drivers to the presence of a cycle lane on the main road

Parking bays

- Cycle lanes can be continued around the outside of parking/loading bays
- The cycle lane should be 1.5m wide and ideally be red surfaced
- Use *diagram. 1004*
- A buffer zone of 1.0m should be provided between the edge of the parking bay and the cycle lane, to allow for car doors opening (0.5m min.)



Photo 4.3 Courtesy CTC

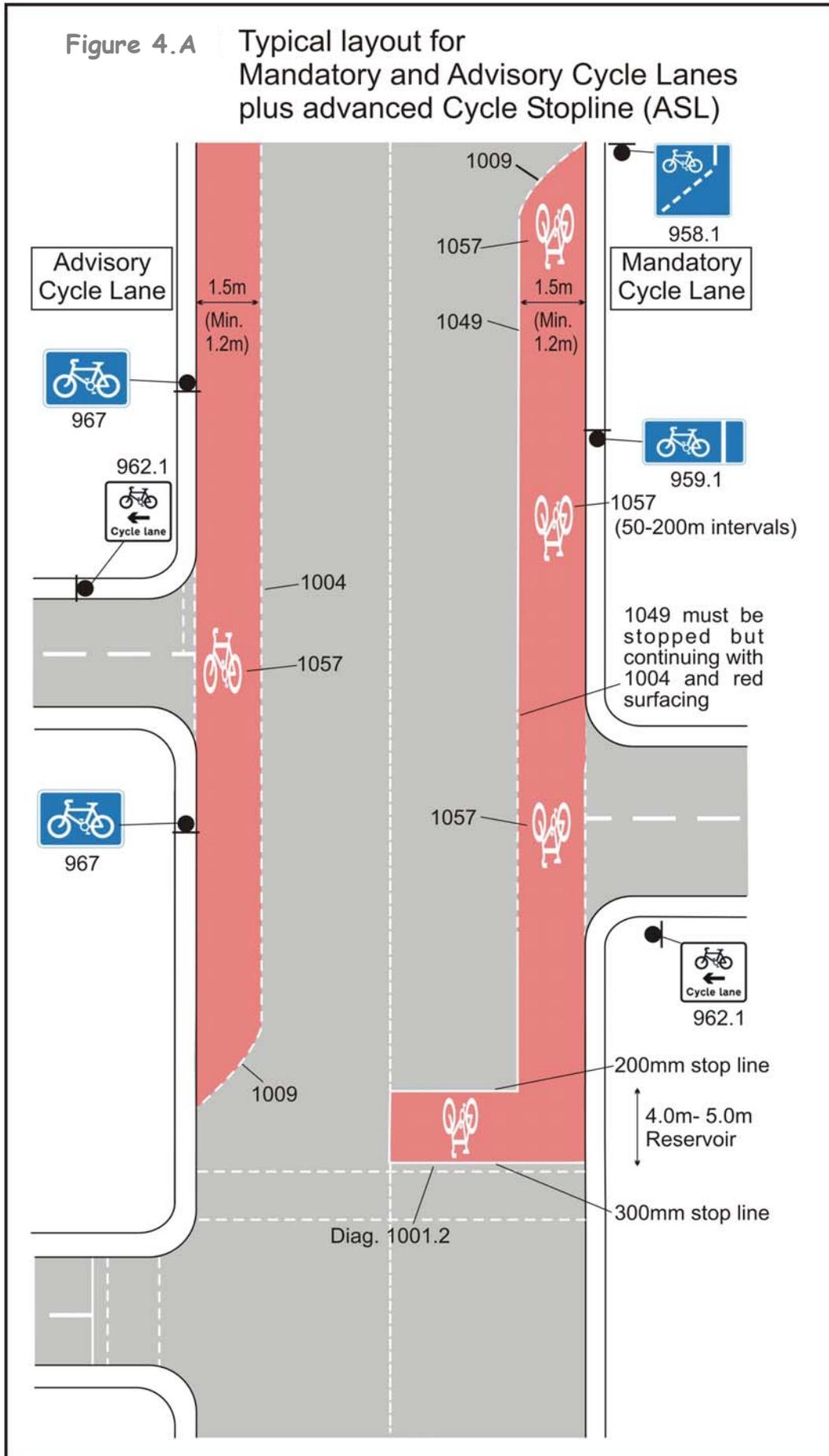


Photo 4.2

Photo 4.2: Example of an advisory cycle lane

Photo 4.3: Shows cycle lanes and narrow traffic lanes. Traffic has to yield when cyclists are present. However, when cyclists are not around, the traffic can enter the advisory lane.

Figure 4.A Typical layout for Mandatory and Advisory Cycle Lanes plus advanced Cycle Stopline (ASL)



4.4

Innovative Two-Way Segregated Cycle Lanes



Photo 4.4 Courtesy Alex Sully

Photos 4.4 and 4.5 show innovative arrangements for providing cycle lanes.

In this example from London (hence the green surfacing) two-way cycle lanes physically segregated from general traffic have been provided.

At such arrangements, particular care needs to be taken:

- at side roads
- at pedestrian crossing points and
- at the beginning/end points of the lanes in order to ensure that cyclists can join and leave the facility in safety and with ease.



Photo 4.5 Courtesy Alex Sully

4.5 Contra-Flow Cycle Lanes and Cycle Exemptions

Application:

- Contra-flow cycling enables cyclists to travel both directions on a one-way street, and thus avoid lengthy and sometimes hazardous detours
 - They should be considered during the implementation of all one-way layouts
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- Signing and infrastructure is important as it not only informs cyclists where they are permitted to cycle, it also highlights to drivers the presence of cyclists travelling in an opposing direction
 - Where traffic flows and speeds are low, there is less need for physical infrastructure, although signing remains important

- There are 4 basic types of contra-flow:
 - 1) kerbside contra-flow cycle lanes
 - 2) contra-flow with a physical separation ie a narrow 1.2m wide island which runs adjacent to the cycle lane and protects cyclists from car doors opening (see photos 4.4 and 4.5)
 - 3) contra-flow cycle lane provided outside parked vehicles. These are usually advisory, but can be mandatory
 - 4) a contra-flow combined bus and cycle lane

With a carriageway width of 4.5m or more consider a contra-flow cycle lane

Where the carriageway width is less than 4.5m, and traffic volumes are low instead of a contra-flow lane, consider a 'point no entry' (see 4.6)

Cycle Exemptions should also be considered when roads are intended to be closed or 'stopped up'. (see photo 4.7)

- Simple cycle gaps should be provided with a minimum width of 1.5m wide
- The exemption must be included in the TRO that bans other vehicles
- Try to ensure that parked vehicles will not obstruct the gaps

See also Traffic Advisory Leaflet 6/98 and TRL Report 358

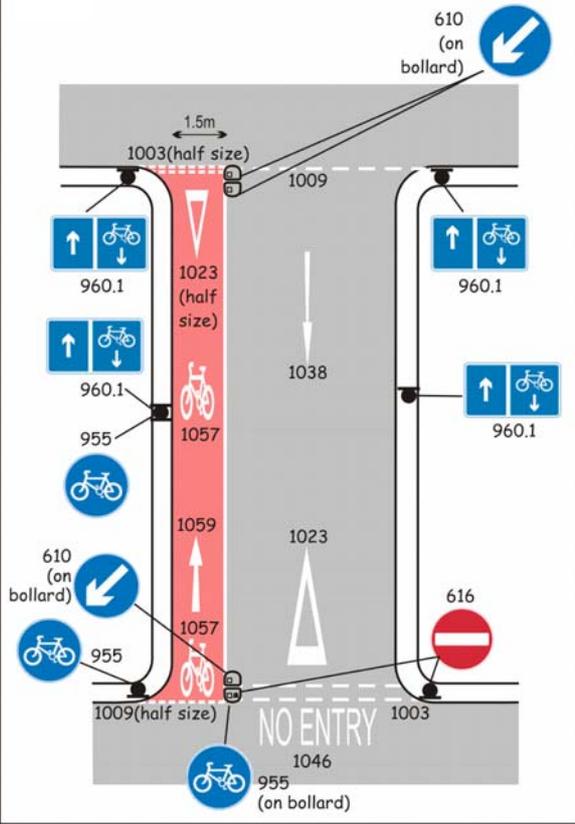
Photo 4.6: Mandatory contra-flow cycle lane



Photo 4.7 Cycle access maintained

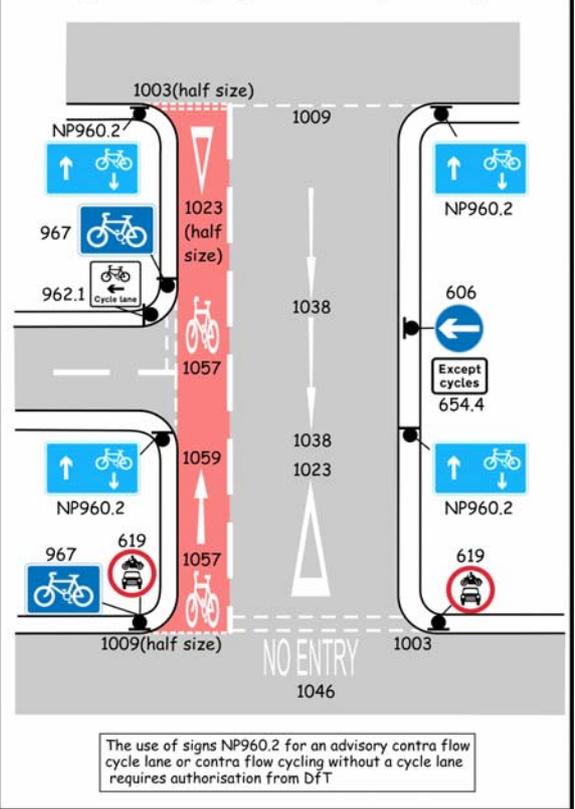


Fig 4.B Mandatory Contraflow Cycle Lane (with segregation at entry and exit)



Figures 4.B to 4.D based on TAL 6/98

Fig 4C Advisory Contraflow Cycle Lane without segregation at entry and exit



4.6 Contra-Flow Cycle Lanes - General Design

- Preferred width of lane 2.0m, minimum width 1.5m. Adjacent (opposing) traffic lane should be of sufficient width to allow vehicles to proceed without needing to enter the cycle lane (ie 3.0m). See photo 4.6

Lining:

- A TRO defining a mandatory (contra-flow) cycle lane prohibits waiting and loading during the operational hours of the lane. Where this lane crosses a side road, the mandatory 1049 line should be ceased and an advisory lane run across the junction (to 1004)
- Advisory contra-flow lanes can be used although they may be of limited benefit due to parking (diagram 1004)

Signing:

- A No-entry sign (diagram 616) restricts vehicular access. A refuge known as a cycle 'gap' or 'plug' is required at the entrance, to allow cyclists to bypass the no-entry (Fig 4.B)
- Cyclists must be exempted from the TRO that bans vehicle entry at this point.
- At the cycle gap use 'cycle route only sign' to diag. 955 mounted either on a post or preferably an illuminated bollard with diag610. Do not use 'except cyclists' plate in conjunction with a 'No-entry' sign.
- The gap should be 1.2m wide (min 1.0m). A similar one could be provided at the exit to protect exiting cyclists from entering vehicles, although this is not a requirement.
- For the mandatory contra-flow cycle lane use signs to diag 960.1, placed at regular intervals along the route.

- A less favoured alternative to the 'no entry' is to use a 'no motor vehicles' restriction (diag 619) with clear markings for cyclists
- The cycle lane can either be mandatory or advisory Fig 4.C shows an advisory lane

Signing:

- Provide cycle route sign to 967 in conjunction with sign 619
- When providing an advisory cycle lane, sign NP960.2 can be used but it requires authorisation from DfT

4.7 A Cycle 'Gap' or 'Point No Entry'

This creates a 'False one-way street'

- These are useful if the street is narrow and parking needs to be maintained.
- A cycle lane is not necessarily required in this instance.
- These can be provided where the carriageway width is down to 3.0m
- Vehicles flows should be <1000 per day, and 85th percentile speed < 25mph
- See Figures 4.D and 4.E
- See Photo 4.8

Photo 4.8
A 'false one-way street'



Fig 4.D No Cycle Lane (with segregation at entry and exit)

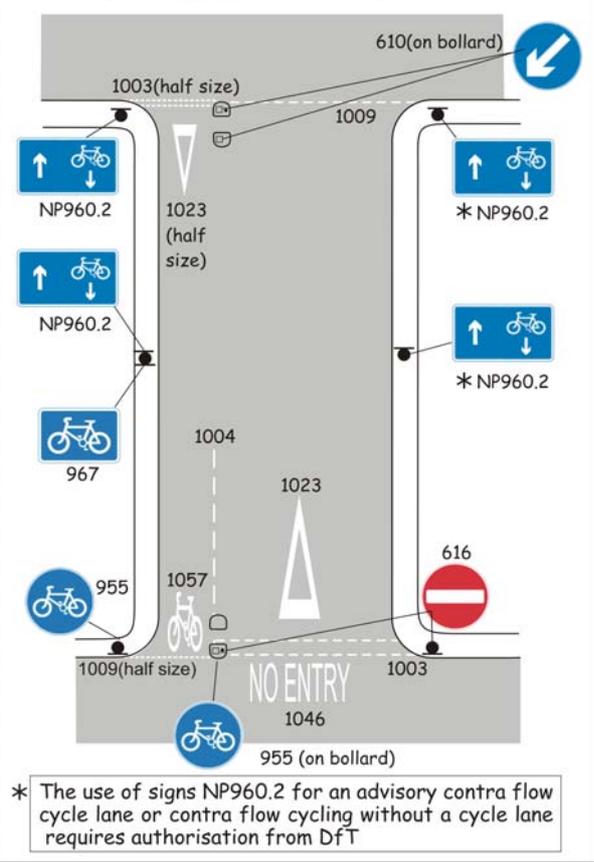


Fig 4.E False One-way Street (with segregation at entry)

