

INFRASTRUCTURE/ **NETWORK LINKS**

## CYCLE STREETS

### Overview

A cycle street is a road so designed that cyclists dominate visually and motorized traffic is tolerated as a guest. They look like street-wide cycle tracks on which motorized traffic is allowed. Legally, a cycle street is a mixed traffic road. A cycle street can be considered on main cycling routes on local estate access roads.

### Background and Objectives

#### Function

A cycle street is a high-quality cycle connection also used by low-intensity motorized traffic. It can be considered for a major route running through a residential area on estate access roads.

#### Scope

Within built-up areas, cycle streets should only be considered for main cycling routes (more than 2000 cyclists/day) and with low traffic speeds (less than 30 km/h). Outside the built-up area, they can be considered with speeds up to 60 km/h, but at very low traffic intensities (below 500 pcu/day).

In a cycling street, cyclists should perceptibly dominate the streetscape and traffic. A rule of thumb is that there should be at least twice as many cyclists as cars on the road.

### Implementation

#### Definition

A cycle street is legally a public road with mixed traffic. However, its design favors cyclists so that it becomes attractive as a main functional cycling route. Motorized traffic still has access, but the design makes it clear that they are considered guests on what is mainly a cycling route. To raise the cycle street's attractiveness, it should have right of way (this is, however, normally not possible on local access roads).

In Germany cycling streets were introduced as a category in the traffic code in 1997 (Fahrradstrasse): motorized traffic must be below 3000 pcu/day, right of way is made possible, and space for motorized traffic at entry and exit points must be kept to a minimum<sup>1</sup>.



Cycle street signage as used in the Netherlands (image source: P. Kroeze)

<sup>1</sup> Forschungsgesellschaft für strassen- und verkehrswesen – 1995: *Empfehlungen für Radverkehrsanlagen* ERA 95

### Basic design recommendations

Cycling streets should, by definition, create a visual impression of being mainly dedicated to cyclists. They either **resemble a cycle track**, without actually being one, or advisory lanes are **allocated a generous part of the road surface**. These are some generally recommended principles.

- Impose a speed limit of 30 km/h – this is an essential condition.
- Provide right-of-way for cycle streets at intersections
- Use closed surface paving, preferably asphalt, for comfort
- Preferably use colored paving in the usual color of cycle tracks
- Create smooth transitions between cycle lanes and other parts of the carriageway
- Provide a form of physical guidance where choices have to be made, for comprehensibility and comfort.
- Minimize nuisance caused by parked vehicles, for comfort and safety
- Do not allow parking on the carriageway

### Road lay-out options

Three basic road lay-out solutions can be distinguished<sup>2</sup>. They can generally be applied on an existing two-way narrow road, by replacing the two traffic lanes by one of the following lay-outs. Dimensions need to be generous to allow a good flow for large numbers of cyclists.

Each type can be adapted for **one-way or two-way motorized traffic**. Combining cyclists at the side with one-way traffic increases the capacity for motorized traffic: two-way traffic is possible up to 500 pcu/day, one-way traffic up to 2000 pcu/day.

Cycle streets can be combined with parking lanes and bays.

	Cycle street with mixed traffic	Cycle street with cyclists at the sides	Cycle street with cyclists in the middle
<b>Principle</b>	The entire carriageway is colored to look like a cycle track	Cyclists drive on two advisory cycle lanes, leaving one central traffic path	Cyclists drive on a central colored advisory cycle lane and two extra border strips allow cars to cross
<b>Recommended dimensions</b>	4.5 m for the entire traffic path (room for 2x2 approaching cyclists)	2 m for each cycle lane Max. 3.5 m for central traffic path	4.5 for carriageway 3 m for central traffic path 0.75 m for each border strip
<b>Paving</b>	Colored 'cycle' paving across the carriageway	Colored paving for advisory cycle lanes	Colored paving for advisory cycle lane  Border strip in black/grey element paving

<sup>2</sup> CROW – 2006: *Design manual for bicycle traffic in The Netherlands*. CROW-record 25



Cycle Street, various lay-outs (image source: P. Kroeze)

## Considerations

### Strengths

- For the cyclist, cycle streets are almost as **safe, attractive, comfortable and direct** as a cycle track. The only difference is that small numbers of cars use the cycle street at low speeds for access to estates, while the design favors cyclists. Since it runs through residential neighborhoods, it also offers excellent personal security.
- Cycle streets are **highly visible** main routes, which makes them very comprehensible to motorists and increases safety. In addition, cycling becomes very present in urban design.
- A bicycle street is **less space-consuming** than a cycle track (separated from the carriageway). For this reason, it can be more widely applied on more locations, and more cost-effectively.
- A cycle street has the advantage of keeping the street **accessible to local motorized traffic**, including parking space. A cycle track is inaccessible to motorized traffic, or can entail reduction of parking space.

### Weaknesses

Cycle streets can create attractive routes for motorists, if continued over long stretches with right of way. Additional measures may be needed: alternating one-way traffic, speed reduction etc.

### Alternative options

- With lower numbers of cyclists, a simple mixed traffic solution will suffice, with possible TRAFFIC CALMING measures.
- For a main cycling route on a road with more intense and faster traffic, cyclists should be separated from traffic on CYCLE TRACKS.