



Best practice bicycle safety – improvement fact sheet

# Separated cycling paths

## Overview

Research on land use and network effects on cycling accidents [1] reports that cycling facilities where cyclists are separated from motorists create **safer conditions** as well as better **safety perception** among cyclists. When using infrastructure which is separated from other traffic modes, the number of **road user conflicts** and **stress levels** are significantly **diminished**.

Separated cycle paths are the **most common type** of separated bicycle facilities and are defined by [2] as: **exclusive facility for bicyclists** that is located within or directly adjacent to the roadway which is **physically separated from motor vehicle traffic** with a vertical element. Separated cycle paths are also called “**cycle tracks**” or “**protected bike lanes**” [2].

Separated cycle paths can be **one-way or two-way facilities**. Their designs can integrate with turning motorised traffic at intersections or can be fully separated. They can be designed at roadway grade or at sidewalk grade. They can also be separated from the adjacent roadway or sidewalk with a variety of treatments, including, but not limited to: on-street parking, raised curbs or medians, bollards, landscaping, or vegetation [2].

Separated cycle paths have the potential to **improve traffic safety** for all road users, especially when implemented as part of other traffic calming designs. Separated cycle paths have the potential to **attract more cyclists and increase their share in modal split**, since the design can be **attractive to less skilled cyclists** which might ultimately lead to more diversity in cyclist representation across age, gender, and ability. Shifting a greater share of commute, errand, or social trips to the bicycle also offers one potential solution for relieving traffic congestion and contributing to other public policy goals [2].

## Types of problems that the solution can solve

Separated cycle paths are physically divided from vehicle traffic and most cyclists **feel safer**, which can help **attract new cyclists** [3].

Separated cycling facilities are known to have **multiple benefits**. This type of facilities **dedicates and protects space** for cyclists and **improve perceived comfort and safety**. Regarding safety effects, separated cycle paths or lanes can provide a **28% lower injury rate** [4].

Distance and physical barriers eliminate the risk and fear of collisions with vehicles. **Reduced risk of 'dooring'** is also obvious for this type of facilities when compared




to unseparated bike facilities. The construction of raised cycle tracks has caused a slight drop in the total number of cycling accidents and injuries on the road sections between junctions of **4% and 10%** respectively [5].

Separated cycle paths are particularly recommended along roads where **traffic volume** and **speed of motor vehicles** make it unsafe to carry cyclists on the carriageway and one-way facilities should have a minimum width of two meters [6].





## Characteristics

Measure	Costs	Treatment life	Effectiveness
Separated cycle path [7, 8]	€€€	⌚⌚⌚	🚲🚲🚲

## Implementation benefits

	Improved <b>safety</b> for cyclists
	<b>Lower risk of injury</b> if accidents occur
	<b>More potential users</b> because of higher safety and comfort levels

Implementation issues

	<p>High implementation <b>costs</b> in some cases</p>
	<p><b>Lack of space</b> in urban areas</p>
	<p><b>Reduction of on-street parking spaces</b></p>
	<p><b>Maintenance planning</b> (sweeping and ploughing)</p>

Examples:



*Separated cycling path in Vienna, Austria [9]*



*Separated cycling path on EuroVelo 6 route, Croatia, near Vukovar [10]*

## Related fact sheets

### RISKS

- » Narrow infrastructure
- » Speed differences in mixed spaces with pedestrians, E-Scooters etc.
- » Speed differences in mixed spaces with motorised traffic

## References and links

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10. *Vukovar municipality (photograph available upon request)*

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