

Providing for cycling and the public realm

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Overarching design considerations

- A cycle is a ‘vehicle’
- On-road design speed 15mph, off-road 10mph
- Ideally, there should be no need for ‘special’ facilities for cyclists
- A people-orientated environment will be a cycle-friendly one



- In many respects bicycles have more in common with (slower moving) motor vehicles than pedestrians in terms of issues like stopping distances and turning radii.
- However, many cyclists are capable of much higher speeds. But there will also be locations, particularly in well-used pedestrian priority areas, where lower cycling speeds (<10mph) are desirable.
- Minimising the volume and speed of traffic will facilitate this.
- An environment in which the needs of non-motorised users are generally prioritised.

The hierarchy of provision for cycling

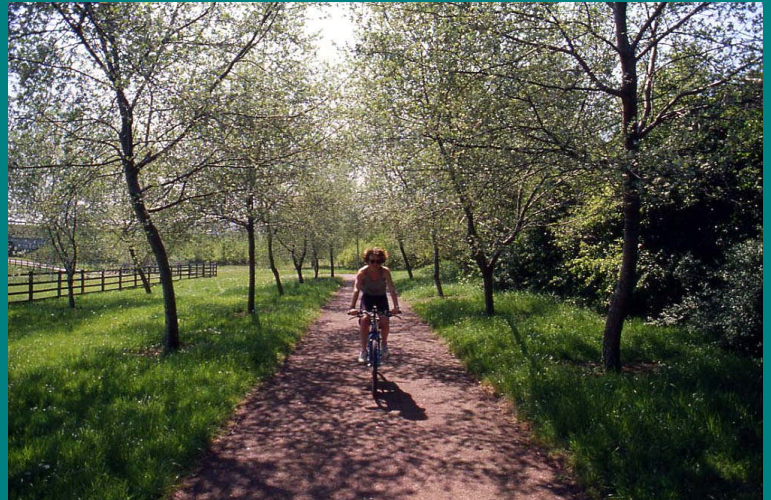
- Traffic reduction
- Speed reduction
- Junction treatment, traffic management
- Cycle lanes, cycle tracks created by reallocation of carriageway space
- Conversion of footways/footpaths to unsegregated shared-use



Picture of an on-road cycle lane with a bold white line, illustrating that special provision for cyclists invariably requires the introduction of additional visually intrusive measures / clutter.

The five core design principles

- Convenient
- Accessible
- Safe
- Comfortable
- Attractive



- Provision should allow cyclists to go where they want, and offer an advantage in terms of directness and / or reduced delay compared with existing provision.
- Cycle routes should form a network linking trip origins and key destinations including public transport access points.
- Safe, in both real and perceived terms, from the threat of motor traffic and personal attack.
- Cyclists benefit from even, well-maintained and regularly swept surfaces with gentle gradients.
- Aesthetics, noise reduction and integration with surrounding areas are important. The cycling environment should be attractive, interesting and free from litter, dog mess and broken glass.

The design principles outlined above could also be applied to provision for pedestrians, and apply to off-road and on road facilities. Indeed, most networks will be a mixture.

Invisible infrastructure

- Road pricing / congestion charging
- Car park management
- Traffic calming
- Redistribution of the carriageway
- Land-use policies
- Travel plans (including PTP)
- Innovations like ‘Shared Space’



Cycle-specific infrastructure should not be introduced without first establishing whether cyclists' needs would be better met through demand management or traffic management measures that reduce both the volume and speed of motor traffic. A broad range of invisible infrastructure approaches is available to local authorities. These include:-

- Road pricing/congestion charging to discourage traffic from using roads within the central core area of towns and cities,
- The management of car parking through cost and availability, workplace parking charges and the creation of residents' parking areas,
- Traffic management and calming measures including vehicle exclusion, homes zones, area wide 20 mph zones etc,
- Redistribution of the carriageway such as the introduction of bus lanes or widened nearside lanes,
- Land-use and development policies that reduce the need to travel and encourage reduced reliance on private car use,
- Public transport policies, infrastructure and services that create a viable alternative to car use and facilitate multi-modal journeys such as bike and rail,
- The encouragement of workplace and school travel plans, including individualised travel marketing
- The introduction of innovative treatments such as 'Shared Space' urban areas.