

Hello!





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30 years' experience in the public and private sectors, mainly in highways and now as an independent sustainable mobility design specialist.

Founded City Infinity in 2017 and full time since May 2024.

Member of Beyond the Bicycle Coalition.

Blogger and writer under the pen name "The Ranty Highwayman".

(with apologies to John Donne)

Not Invented Here





- Space
- Weather
- Topography
- Legislation
- Culture
- Presumed liability
- Excuses



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Designing for sustainable mobility

Guidance

Where the cycling and motoring networks coincide, motor traffic volume, composition and speed will guide our solutions.

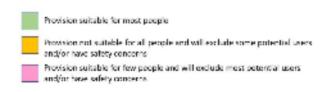
We know that people don't want to mix with lots of fast-moving motor traffic.

Most solutions are motoring infrastructure!

Figure 4.1 – LTN 1/20

Appropriate protection from motor traffic on highways.





Notes:

- If the 85° percentile speed is more than 10% above the speed limit the next highest speed limit should be applied.
- The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 20 hour flow
- In rural areas achieving speeds of 20mph may be difficult, and so shared
 routes with speeds of up to 30mph will be generally acceptable with motor
 vehicle flows of up to 1,000 ggu per day

Guidance

	Speed Limit ¹	Motor Traffic Flow (pcu/24 hour) ²	Protected Space for Cycling			Cycle Lane	Mixed Traffic
			Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation	[mandatory/ advisory]	
	30 mohž	0 2000					

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- In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

and/or have safety concerns

Appropriate protection from motor traffic on highways.

which flows of up to 1,000 pay per day.

Guidance





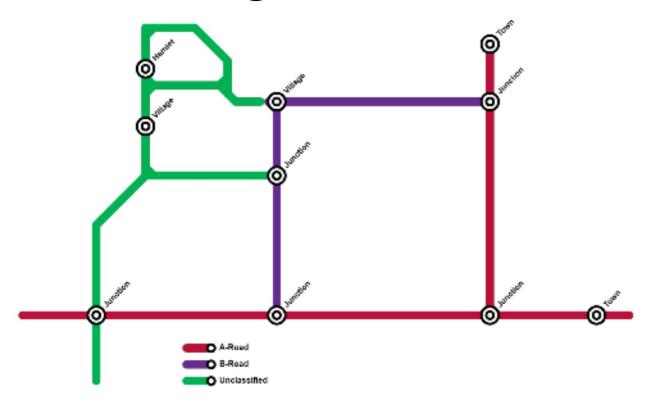
For rural situations, people walking and wheeling are often faced with using the carriageway,

The emerging thinking is heading towards conditions of no greater than 1,000 pcu/day at 20mph (10% at peak).

Of course, shared-use cycle tracks are often fine in the rural context.

Unravelling the network

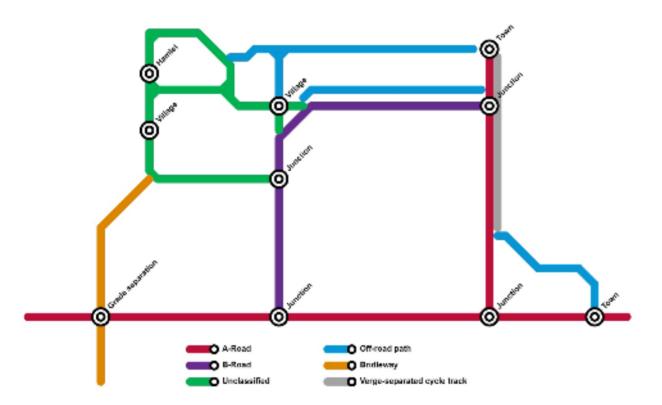




- Decide: flow roads, distributor roads and access roads.
- Can we repurpose any roads?
- Do we need land?
- Are there interim solutions?
- Can we redesign the cross section?
- Can we filter?
- Crossings of main roads.
- Do we need new roads?

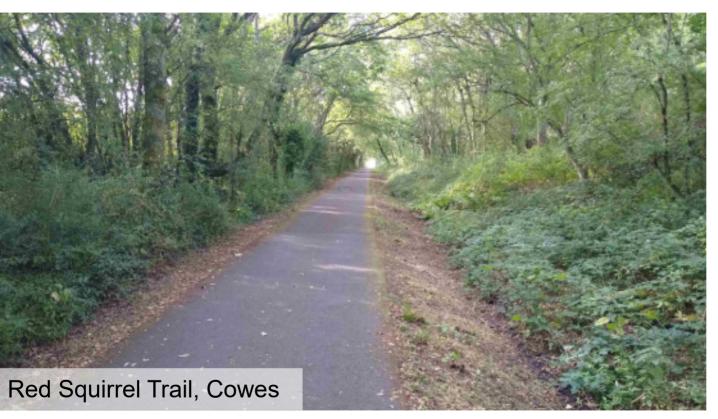
Unravelling the network





- Develop a network plan with initial feasibility.
- The motoring network is important and not even considered in national guidance.
- Adopt as policy.
- Develop a delivery plan.
- Early interventions to build momentum.
- Regular review.
- Go back and improve.





Greenways providing direct inter-urban links.

Need to be wide enough, with a machine-laid surface and with a decent managed verge.





We are going to have to build some bridges!





Verge-separated shared-use cycle tracks.





Redesign the cross-section.





Rural filtering.





Controlled crossings.





Safer roundabouts.







Main roads need cycle tracks where the motoring and cycling networks meet.





Large junctions need to provide safety and continuity for cycle traffic and can help with crossings between quieter streets.





Simplify larger junctions where the motoring and cycling networks coincide.





Sometimes pinch points need to be addressed.

As Networks Unravel





With care, cycle streets can support the main cycle network on quiet residential and sometimes town centre streets.

Motor traffic needs to be very low and cycle traffic at least 3 to 4 times that.

Supporting Residential Streets





The use of modal filtering is absolutely key to unravelling the motoring and cycling networks.

Quieter streets are also safer and more comfortable for walking and wheeling.

Supporting Residential Streets





Working with narrower historic streets using one-way motor traffic loops, but with two-way cycling throughout.





Consider how through cycletraffic gets past the centre, but enable cycling in the centre for shoppers, visitors and workers.





Plan for seasonal visitors with priority given to people walking, wheeling and cycling, with support for deliveries.





High quality places which respect the street patterns, with cycling enabled.





Reimagine space in the centre for people.

Don't Forget Buses





Although buses use the motoring network, the bus network is important in its own right.

How it interacts with the cycling network also informs design.

Here, on a main road, a floating bus stop.

Don't Forget Buses





Here on a residential connector street, a bus gate to allow buses to serve the heart of a residential area, but which keeps through traffic out.

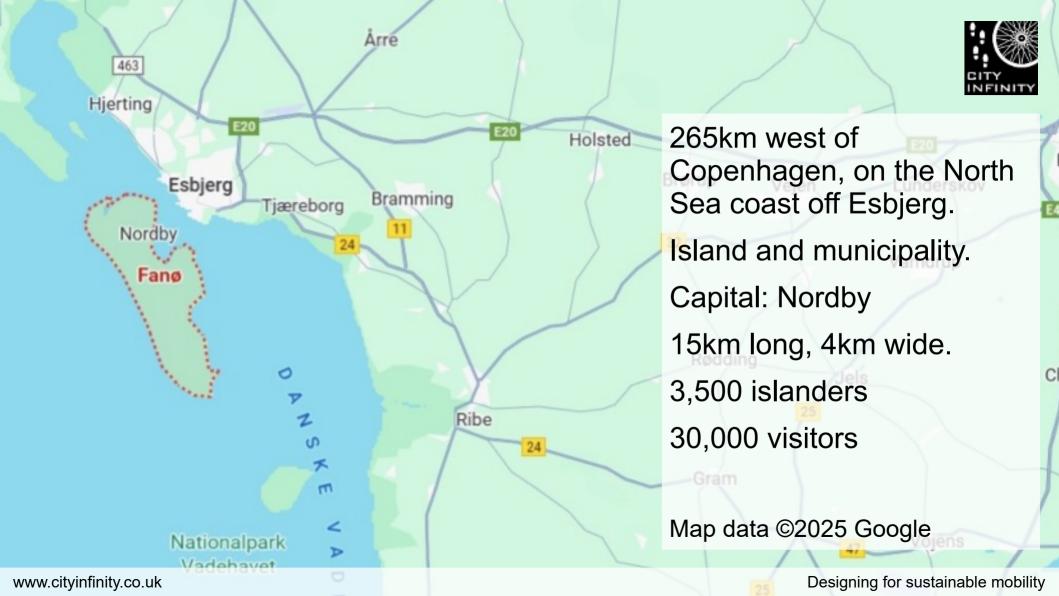
Don't Forget Buses





For some people, a safe cycling route from a village to a main road bus route extends their range.





Rindby Beach to Nordby Ferry





On the west coast.

Literally at Rindby Beach!

Rindby Beach to Nordby Ferry





A shared-use cycle track on one side of the street with a footway on the other outside the cafe and shops where there is more pedestrian activity.

Traffic flow can get busy, but the cycle track also gives very clear wayfinding.

Rindby Beach to Nordby Ferry





A bus stop with extra "pedenger" space.





A minor access serving a few houses requires traffic to give way to the cycle track.





Separation from motor traffic achieved with a verge with a drainage ditch.

People can still walk here, but must cycle and the centre line reminds us of two-way cycling.





A campsite access with a verge opening to allow access to and from the cycle track.





The route from Rindby joins the island's north – south spine road with a separate shared cycle track.





Drivers giving way to an approaching cyclist where the design requires it.





A couple of seconds later.





The spine road heads towards the ferry port and the cycle route diverges approaching the edge of Nordby.





Looking back as the cycle track transitions to the carriageway.





A transition from carriageway to a short section of cycle track to cross a busier road via a shared zebra crossing.





Very clear route signage.

The Panoramarutes are national circular leisure routes.

404 is a circular route around Fanø.





On the village outskirts, cycling is with traffic on quiet residential streets and separate footways return.





The village centre is a pedestrian zone during the day...





... and cycling is welcomed with smoother surfaces within the heritage materials.





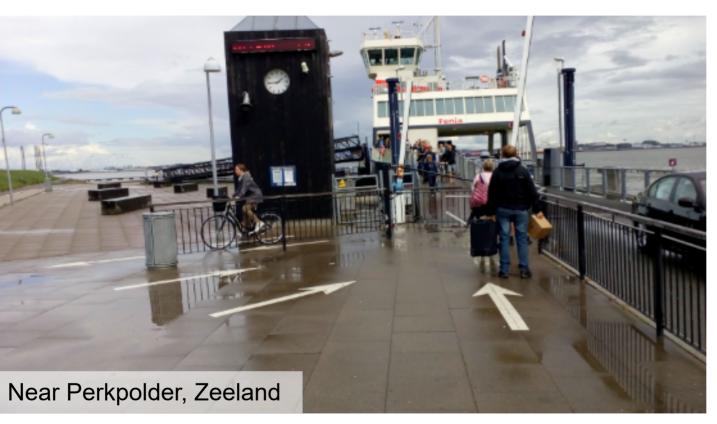
Leaving the village, the route rejoins the main road to the port with a cycle track.





At the port, cycle parking is given priority with a car park beyond.





People can cycle right up to the ferry to Esbjerg.







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