About Sustrans

Sustrans makes smarter travel choices possible, desirable and inevitable. We’re a leading UK charity enabling people to travel by foot, bike or public transport for more of the journeys we make every day. We work with families, communities, policy-makers and partner organisations so that people are able to choose healthier, cleaner and cheaper journeys, with better places and spaces to move through and live in.

It’s time we all began making smarter travel choices. Make your move and support Sustrans today. www.sustrans.org.uk

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Contents

This chapter of the Sustrans Design Manual should be read in conjunction with Chapter 1 “Principles and processes for cycle friendly design.” That chapter includes key guidance on core design principles, whether to integrate with or segregate from motor traffic, the space required by cyclists and other road users as well as geometrical considerations. Readers are also directed towards the “Handbook for cycle-friendly design” which contains a concise illustrated compendium of the technical guidance contained in the Design Manual. This chapter has initially been issued as a draft and it is intended that it be reviewed during 2015; feedback on the content is invited and should be made by 31 May 2015 to designandconstruction@sustrans.org.uk

1. Key principles

2. Introduction

3. Travelling to the station

4. Routes into and within the station

5. Cycle parking

6. Signage and information

7. References

8. Notes
1. Key principles

- Integration of cycle and rail travel should address travelling to the station, routes into and within the station, signage and information and cycle parking
- Safe, convenient and direct routes are essential when it comes to accessing stations by bike, extending 3 to 5 miles from the station
- Particular consideration should be given to the last half mile which is often the most difficult part of any journey to a station by bike or on foot
- Station forecourts, drop off areas, taxi-ranks, car parks and approach roads should not form a barrier for non-motorised users
- Where stations have more than one entrance all of these should be easily accessible, particularly by bike and mobility scooters/wheelchairs
- Small obstacles – kerbs, entrance barriers, doors, steps, bridges etc – that can form significant inconvenient obstacles to people trying to access stations by bike should be addressed
- Giving people information about how they can access a station by sustainable means is vital
- The amount and quality of cycle parking at stations needs to keep pace with the rapid growth in cycling, ensuring cycle parking is secure and well-sited

2. Introduction

2.1 With peak-time traffic congestion seriously affecting the time-reliability of road journeys¹ there is a growing recognition of the vital role that rail plays in boosting economic growth and in solving local transport problems.

2.2 However with the popularity of rail travel hitting post-war records², stations can often become sources, and causes, of serious traffic congestion with forecourts, car parks and approach roads becoming badly congested, dangerous and unpleasant for commuters, local residents, pedestrians and cyclists. Traffic congestion, overflowing car parks and difficulties accessing stations can all suppress demand for rail travel, deterring people from using trains for journeys to work and affecting their satisfaction with rail as a transport choice³.

2.3 A key aspect of increasing the use of trains for daily journeys, and improving people’s perceptions of train journey convenience and reliability, is to make stations more accessible to people arriving on foot or by bike. Many stations were not built to cope with the volume of vehicles they now attract, and many have been the subject of re-designed approaches and forecourts which have prioritised motor traffic above other modes of transport, placing vehicles, cyclists and pedestrians in conflict, even though the latter represents by far the most popular means of accessing stations⁴.
2.4 In response to Government prioritisation, there is unprecedented interest from the rail industry in increasing access to railway stations by sustainable means. Examples of significant investment range from large scale projects like Chelmsford's new 1,000 space cycle park and York Station's award winning access ramps linking the platforms directly to the National Cycle Network, through to small scale changes such as increased cycle parking at over 150 stations nationally. However much more remains to be done in order to overcome the barriers that many people face to making safer and more sustainable journeys to stations.

2.5 When considering ways to increase sustainable transport access to stations it is important to consider each of the following:

- travelling to the station
- routes into and within the station
- signage and information
- cycle parking

3. Travelling to the station

3.1 Passengers often cite safe, convenient and direct routes as their biggest wish when it comes to accessing stations by bike. 3 miles is the typical maximum distance that people will comfortably consider for a journey to the station by bike although creating safe routes can extend this up to 5 miles.

3.2 Routes to stations should:

- be well signed with distances / journey times clearly displayed
- use quiet / local / traffic-calmed roads or, if using or crossing major roads is unavoidable, have segregated cycle lanes or shared paths which ensure cyclists are not placed in conflict with vehicles or squeezed into narrow corridors alongside traffic
- have safe, direct and convenient crossings of any junctions or roundabouts that do not require the rider to dismount or make a significant diversion
- link to existing cycle routes wherever possible – the National Cycle Network passes within 1 mile of over 1,200 stations
- use high quality traffic-free routes wherever possible, particularly when closer to urban stations where traffic and built up areas become denser
- given that the majority of usage is likely to be for daily commuting, traffic free paths should be at least 3 metres wide, have sufficient width to accommodate anticipated volumes, have a sealed surface such as tarmac, and be well lit to ensure they can be used throughout the year

3.3 An audit of existing and potential cycle routes, major transport corridors, likely barriers formed by roads and railway lines, traffic levels on approach roads, rail season-ticket holder address data and population levels by area will often reveal which are the best routes to use – or create – in order to make the journey to the station on foot or by bike more convenient and safer.
Fig 2.1 **Cycle/rail integration**

Urban and rural railway stations may have a commuter catchment by bike of at least 5 miles radius. Railways present linear barriers to cycle permeability so high quality cycle crossing provision is essential.

**Note:** Station forecourt design to prioritise pedestrian, cycle and bus passenger movements over taxis and private cars

*Bike Hub* - may provide
- secure cycle parking
- luggage storage
- maintenance facility
- sales
- bike hire
4. Routes into and within the station

4.1
The most difficult part of any journey to a station by bike or on foot is often the last half-mile. This is where traffic and urban development is typically at its densest, thus limiting space, and where the railway line itself forms a barrier that needs to be safely crossed. Additionally station forecourts often present an obstacle for people with many forecourts prioritisng motor vehicles through “kiss and go” drop off areas immediately outside the station entrance, taxi-ranks again immediately outside the station, or car parks in front of the main station building. Approach roads are often one-way in order to try and keep motor traffic flowing but which can cause a barrier for non-motorised users.

4.2
Stations typically have more than one entrance but not all of these may be easily accessible, particularly by bike, forcing cyclists to make diversions to other entrances often on major roads or on busy or inconvenient crossings of railway lines. Additionally small obstacles – kerbs, entrance barriers, doors, steps, bridges etc – can form a significant inconvenience to people trying to access stations by bike.

4.3
When considering how best to access stations:

- routes into the station should ideally be segregated and should be clearly signed, either to the station entrance or to cycle parking
- forecourts should ideally observe a hierarchy of provision which prioritises in order – 1. pedestrians. 2. cyclists. 3. buses. 4. taxis. 5. private vehicles
- shared-use paths should feature flush kerbs for cyclists to access them without dismounting or “bumping up”
- station entrances should be wide enough to accommodate people with large luggage items, such as bicycles, have doors which open automatically (motion detection), and should be step free.
- routes into the station itself should be direct and easily identifiable, minimising interaction with other modes of transport.
- station ticket areas should have adequate space for convenient access. Cyclists in particular will want to keep their bikes with them, or have somewhere convenient to secure it within sight such as a wall anchor
- any gates/barriers on to platforms should be wide enough to accommodate bicycles
- the location of lifts should be clearly signed and lifts should be large enough to accommodate bicycles at the same time as other users
- any bridges should ideally have ramps with a suitable gradient (preferably not greater than 5% or, as a minimum, have wheeling channels which allow easy access for bicycles).
- wheeling channels should not prevent access to handrails or create trip hazards, but must be sufficiently placed to ensure pedals and handlebars do not clash while the bike is being held relatively upright
Steps, Paddington station

Useful ramps to platforms, Grange-over-Sands

Wheeling ramp added, Euston Station

Forecourt with pedestrian and bike central route, Norwich station

No wheeling ramp, Euston Station

Narrow barriers, London Bridge Station

Wheeling ramp added to stone steps, Plymouth

Useful ramps to platforms, Grange-over-Sands

Wheeling ramp added to steps, York
5. Cycle parking

5.1
The amount and quality of cycle parking at stations has improved dramatically over recent years as a result of programmes like “Bike N Ride” and investment by train operators such as Northern, Merseyrail and others. To keep pace with the rapid growth in cycling it is important that the current trend for increasing cycle parking continues, and that not just quantity but also quality remains a focus, ensuring cycle parking is secure and well-sited. A particular area of focus needs to be at major stations in London where cycle parking needs to keep pace with rapidly growing demand and achieve European levels of provision.

5.2
Particular considerations include:

- the level of cycle parking provided should be determined by future demand rather than present usage – a lack of adequate facilities may be suppressing demand
- cycle parking should be easy to see and conveniently located, ideally as close to station entrances as possible
- cycle parking that is poorly located will be ignored by users in favour of railings and other informal cycle parking spaces
- routes to cycle parking should be as convenient as possible without detours, diversions, or access by steps
- cycle stands should be easy to use and allow the frame and at least one wheel to be locked. A simple Sheffield stand is the most convenient and reasonably priced solution provided it is adequately spaced allowing at least two bikes to be parked per stand
- cycle parking should be covered and located in a well-lit area, and should be easily visible from the station entrance
- where demand is high but space is limited, two-tier cycle parking can make a good solution provided low-level parking is also provided for those unable to lift their bicycles
- lockers and secure compounds provide other alternatives but may require a user charge which may lead to informal cycle parking outside the station being preferred
Toast rack too narrow for bikes, Huddersfield

Convenient on platform cycle parking, Stalybridge

Vertical cycle stands, not everyone can use them

Two tier parking, Liverpool Street

Cycle Point, Leeds

Cycle parking, Bedford

Poor design, butterfly stands, Inverness

Poorly located cycle parking, Clapham
6. Signage and information

6.1 As well as providing the means by which people can make journeys to public transport hubs by sustainable means, giving people information about how they can do this is vital if it is to be successful. This is particularly important for new rail passengers, or those making journeys by bike or on foot for the first time.

6.2 Provision of high quality signing and other information should have regard to the following:

- clear, standard cycle and walking signage should be used both to and within the station
- signage on roads should conform with existing TSRGD regulations
- signage at stations should comply with the Network Rail Wayfinding and Signing Design Guidelines and Standards 2010 (for Network Rail managed stations) and the DfT’s Accessible Train Stations guide for train operator managed stations
- signage should not only be from local destinations to the station, but also from the station to key destinations such as town centres, workplaces, sports stadia etc
- signage to cycle parking should be clearly displayed on approaches to the station
- many maps on posters and leaflets at stations focus on local road networks and are not designed for people on foot or cycling
- consistent maps in station entrances showing people the safest way to reach key destinations would increase usage
- greater use of buses for onward journeys can be achieved by providing real-time bus information inside station entrances or shops outside station entrances (e.g. Amersham Station in Buckinghamshire)
7. References

Cycle Rail Toolkit, ATOC 2012

Bike and Rail: A Good Practice Guide, TAL 04/04

Better Rail Stations, Chris Green and Professor Sir Peter Hall, DfT 2009

8. Notes

1. UK drivers wasted a total of 30 hours in traffic congestion in 2013 - one hour more than in 2012. BBC News 2014

2. Passenger journeys in the last three months of 2013 totalled 402.8 million, the highest number of passenger journeys on franchised services ever recorded and an increase of 4.5% over the same period 12 months earlier – Office of Rail Regulation

3. When questioned, nearly a third of rail users and nearly half (47%) of those who drove and parked at the station, would like to use an alternative means of travel to or from the station. (Passenger Focus 2010 National Station Improvement Programme final report)

4. In the Cycling England “Bike N Ride” study across 159 stations, over 50% of people walked to the station, as opposed to 23% who drove, making investment in sustainable transport more reflective of the needs of passengers. (Cycling England 2011 Bike ‘N’ Ride evaluation)

5. In the same survey over 11% of rail users questioned said they would like to cycle to and from the station. 40% of passengers questioned cited an increase in bus/cycle lanes near the station as a key measure in getting them to travel to the station by sustainable means. (Passenger Focus 2010 National Station Improvement Programme final report)

6. At “Bike N Ride” stations (Cycling England research programme) 79% of journeys to the stations were less than 5 miles, showing the potential for and attracting new passengers through investments in cycle routes, parking, signage and information (Cycling England 2011 Bike ‘N’ Ride evaluation)

7. For public transport operators, encouraging bicycle access to public transport offers increased passenger catchments compared to walking (typically up to four times the catchment area for the same journey time to the stop). (DfT 2010 Cycling and Public Transport)