

Pedestrian Access & Mobility – A Code of Practice



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Note - Diagrams within the Code of Practice:

- Not to scale.
- All dimensions shown in millimetres.
- Details shown relate only to disabled provision, full detailed design standards can be found in the relevant Standard Detail pages.

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1. Introduction. Why designing for people with disabilities is necessary.

This code of practice is designed to give advice on improving the highway environment to give greater access to people with mobility impairment.

It is aimed at highways engineers, statutory undertakers, developers and anyone who works on or in the pedestrian environment; it provides guidance on best practice to create an inclusive pedestrian environment. The aim is to ensure ease of access and movement for all people regardless of mobility impairment between and within public areas.

The need to create an inclusive environment is now covered by the Disability Discrimination Act (DDA) 1995. Part III of the DDA gives disabled people a 'right of access' to goods, services and facilities, including in the pedestrian environment and in transport related infrastructure such as pedestrian crossings and bus stops. The new requirements are being phased in over a period to 2004.

This code of practice relates mainly to external environments. Details relating to building standards can be found in Part M of the Building Regulations which has been extended to include all new homes.

1.1 Medical model versus social model.

Historically, policies and acts of parliament define and deal with disability using the medical model. The medical model sees disabled people as the problem; disabled people need to be adapted to the existing environment. Attention is focused on the impairment rather than the needs of the disabled person.

The social model shows that discrimination against disabled people is created by society. It is not the disabilities but the attitudes and actions of others that discriminate and provide barriers that disable people.

This code of practice uses the social model approach and details the current best practice available for the removal of the physical barriers that may disable people.

1.2 Types of mobility impairment

The user groups that need to be considered include:

- Wheelchair users,
- Visually impaired with canes,
- Visually impaired with guide dogs,
- Visually impaired without aids,
- Ambulant disabled with walking aids,
- Ambulant disabled without walking aids,
- Parents with pushchairs,
- Electric scooter users, and
- Shoppers with heavy shopping bags

This list is not all inclusive; there are many forms of permanent and temporary mobility impairments that can be experienced by people. Impairments may not be evident because walking aids are not used, but may become apparent when a person encounters a barrier to movement.

Wheelchair and pushchair users have difficulties in negotiating changes in levels. Raised crossing points and dropped kerbs provide for easier access across roads. Even a small step can prevent access along the highway and to buildings, so the provision of ramps has to be considered.

Visually impaired and blind people need information about where they are and need to be sure that they will not walk into street furniture or the carriageway. This can be achieved by considering the layout and colour of street furniture to provide clear routes, strong contrasting colours and providing tactile information where appropriate.

Guide dogs will take their owners around objects, but they still require routes that avoid forcing them to weave in and out of obstructions. Guide dogs have difficulty preventing collisions with overhanging obstacles and so clear headroom must be given or a warning or barrier provided.

Cane users use their canes to feel the area directly in front of them so they do not bump into things. Obstacles overhanging the zone of likely contact require a tapping rail or they will not be detected safely.

People with visual impairments who do not use canes or guide dogs rely on colour and tonal contrasts to provide information on locations of street furniture and hazards.

People with differing disabilities have differing needs, often in direct conflict with each other. An example is the need for a flush kerb for wheelchair or pushchair users which causes problems for visually impaired people who do not know where the kerb line is located. The solution is to use tactile paving which can cause discomfort for some wheelchair users and people with other ailments such as arthritis. Compromises often have to be made to accommodate all users.

1.3 Meeting the guidance

In all development proposals, including traffic management schemes, suitable provision for people with mobility impairment should be included. Consideration should be given to:

- Access to route and route distances,
- Access to public transport,
- Parking for vehicles of blue (orange) badge holders,
- Layout and dimensions of footways and footpaths,
- Layout and construction of pedestrianised areas,
- Choice and positioning of street furniture,
- Layout and construction of crossing facilities,
- Lighting, and
- Signing.

New developments will be expected to meet the desired standards described in this Code of Practice.

Developers will have to demonstrate good reason why desired standards cannot be met on new developments or when providing new facilities within the existing network.

1.4 The existing environment

Our existing built environment has developed over many centuries and has been designed to differing standards to those expected today.

Existing networks should be upgraded where practical towards these standards during maintenance or improvement schemes.

The cost of trying to bring the existing environment up to the standards described in this document may be too expensive or beyond the scope of a proposed scheme; in some locations there may not be any space to make improvements.

Where new facilities are to be added to the existing network then the absolute minimum dimensions may be the only solution. The maxim 'something is better than nothing' (unless safety is reduced) is a general rule.

1.5 Pedestrian audits and reviews

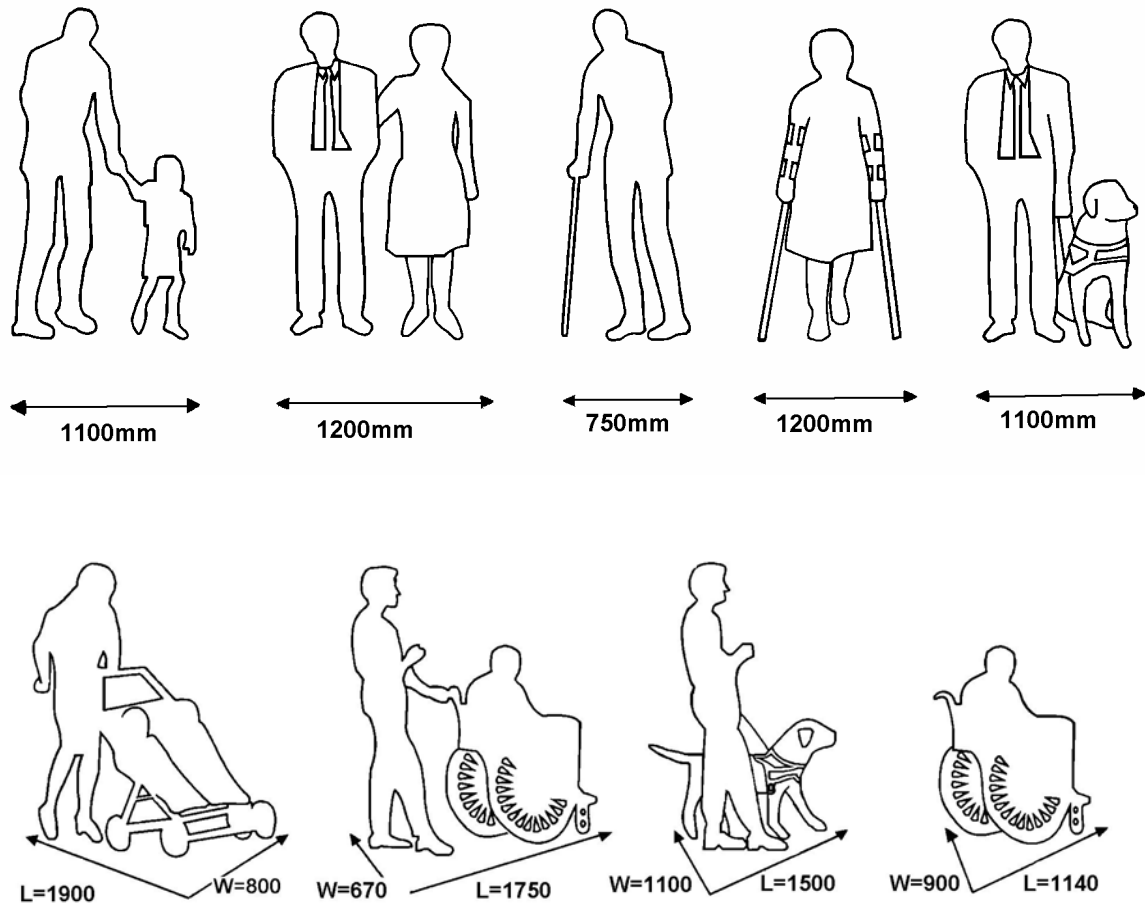
All new developments should be audited to ensure that the needs of all pedestrians, especially people with mobility impairments will be met.

Where improvements to the existing highway are proposed then a pedestrian review should be made to assess existing provisions and identify where improvements can be made for pedestrians and people with mobility impairments.

2. Dimensions of people and equipment

It is necessary to take into account the aids people use to get about when designing or improving the highway. Any facility with dimensions less than those stated below will mean that a mobility-impaired person will not be able to negotiate it easily.

Diagram 1. Dimensions of people and equipment



These dimensions cover most individuals. However there will be some cases where these dimensions are exceeded.

Further information on dimensions, reach and space required for movement can be found in BS8300:2001 Design of buildings and their approaches to meet the needs of disabled people – Code of practice.

2.1 Mobility ranges

It is estimated that some two million people in the UK are unable to walk more than 400m, (IHT 2000). The limited mobility of some groups of mobility impaired persons is shown in the table below. This illustrates the importance of;

- minimising walking distances when designing pedestrian facilities, such as the location of crossings (direct walking routes should have priority over vehicular routes),
- the need for good walking surfaces to assist mobility, and
- the importance of facilities such as seating and toilets.

Table 1. Cumulative percentage of mobility impaired people observed to be unable to move more than the stated distance in city centres without rest.

	18m	68m	137m	180m	360m
Wheelchair Users	0	5	5	60	85
Visually Impaired	0	0	5	50	75
Ambulant Disabled with walking aid	10	25	40	80	95
Ambulant Disabled without walking aid	5	15	25	70	80

Source Leake *et al*, 1991.

Mobility ranges vary enormously between individuals. Other factors that can affect mobility ranges include weather, topography and obstacles.

Pedestrian schemes and new developments should aim to achieve the following mobility range targets if significant numbers of mobility impaired are not to be excluded from parts of the area:

- 50m on unprotected routes,
- 100m on covered routes, and
- 200m on completely enclosed routes.

Where there are gradients, the target distances should be reduced.

The provision of suitably located seating and resting places can extend mobility distance along with direct, obstacle-free routes.

3. Footway and footpath facilities

Definition:

Footway - the pedestrian part of the highway adjacent, or close, to the carriageway.

Footpath - a pedestrian route not adjacent, or close, to the highway.

General guidelines:

- Minimum footway of **2000mm** width, free of obstructions.
- Footways to be provided on both sides of the carriageway.
- Footways and footpaths to be firm, even, level and slip-resistant even when wet.
- Joints should be closed and flush to prevent the trapping of canes or small wheels.
- For further guidance on footway requirements refer to the Cheshire County Council Design Aid document (section1). However, criteria described in this document supersede criteria in the County Council Design Guide.

3.1 Street furniture

Street furniture can pose a physical obstruction to visually impaired pedestrians and people in wheelchairs.

This includes any object which is placed on the footway (e.g.: seats, bollards, waste bins, barriers, utilities' boxes, lampposts and traffic signs).

Guidelines:

- Free standing items should:
 - be a minimum of **1000mm** high;
 - Consistent width to ground level.
 - Provide colour contrast to the surrounding environment or have;
 - a minimum **150mm** contrasting colour band at **1400 -1600mm** above ground level, or
 - near the top if furniture is below 1400mm in height,
- All edges should be rounded.
- Free standing items should avoid obstructing the footway;
 - Ideally they should be grouped together or in lines along one side of the footway with as few additional poles as possible,

- Footway width should not be reduced to below **2000mm**, minimum **1800mm**. Absolute minimum **1200mm** (with specific approval of Highway Authority),
- On existing footways an absolute minimum **1100mm** clearance should be maintained.
- Lamps and signs should be wall mounted if possible.
- Overhead projections and signs should have a minimum clearance of **2100mm** above the ground to the lowest point of the projection (see diagrams 3 and 4).
- Overhanging obstacles and tapering street furniture should have a tapping rail, the lower edge of which should be no more than **250mm** above ground level.
- Where spaces occur under steps, ramps and stairways, these should be blocked off or provided with a protective rail.
- Cycle stands and the surrounding area should be defined for visually impaired pedestrians by a contrasting surface.

Seating

- Seating should be provided at frequent intervals;
 - No greater than **100m** on heavily used routes, preferably every **50m**.
- Recommended height of between **400-500mm** off the ground.
- With an upright back and arm rests.
- An adjacent wheelchair space of **1100mm** should be provided next to the seat.
- Seating should be in safe, well lit and clearly visible locations.

Diagram 2. Dimensions for seating

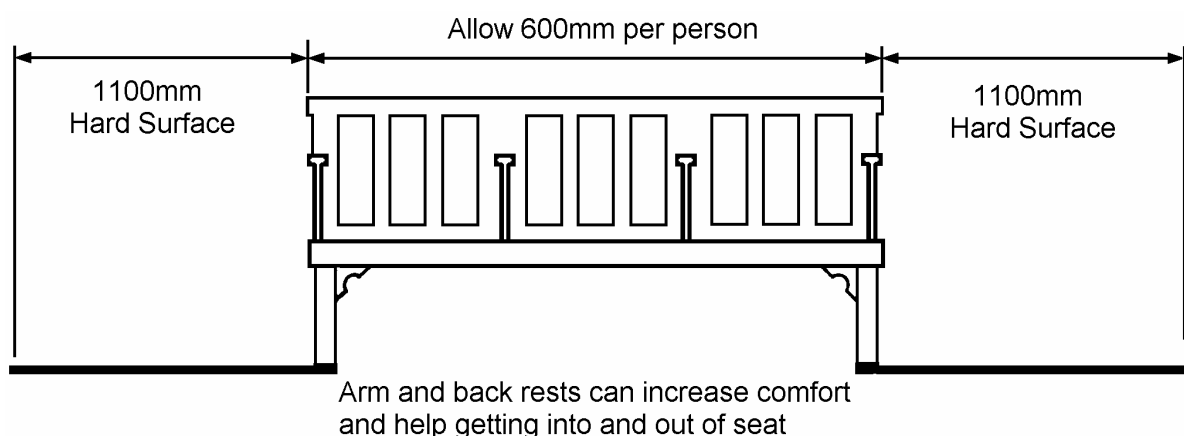
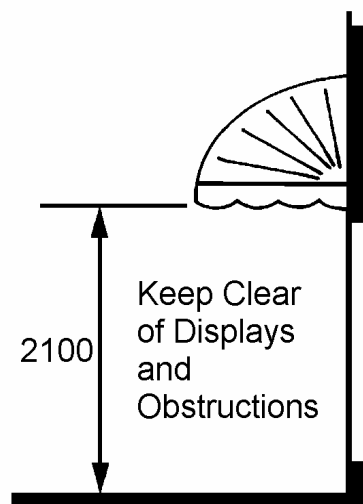
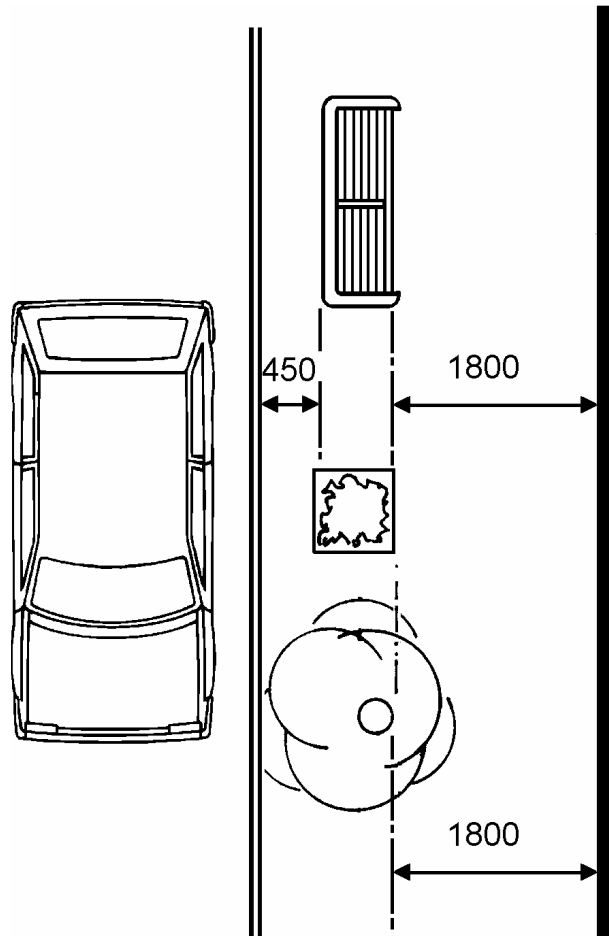


Diagram 3. Minimum footway clearance around street furniture



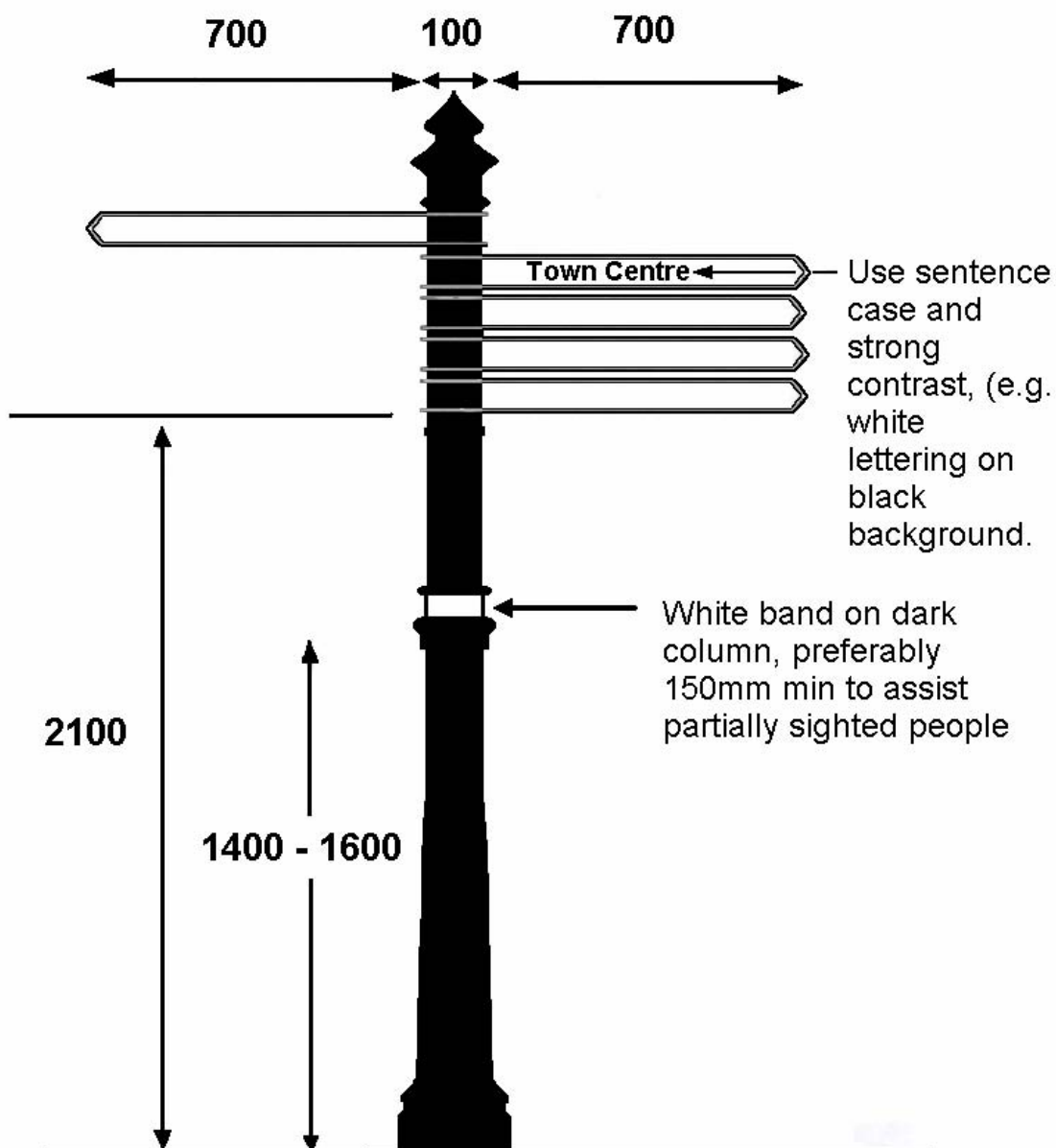
3.2 Signing and road markings

Signs and information must be in a form that can be used by people with mobility impairments. It is particularly important to take into account the needs of visually impaired and hard of hearing pedestrians and to make information as simple and easy to understand as possible.

Guidelines:

- Signage should include all the facilities within an area, particularly any services or facilities for people with disabilities (e.g. rest rooms, accessible toilets, Shopmobility, accessible buses and recommended routes fully accessible by wheelchair users).
 - Size of letters should be minimum height of **30mm**.
 - Typeface should be Sans Serif e.g. (**Transport Medium** or **Helvetica**).
 - Words in sentence-case are easier to read than capital letters, because of the shape they give to each word.
 - Colour contrast is essential e.g. black text on a white or white text on a blue background, though on some finger signposts white or gold lettering on a matt black background may be preferable.
- To reduce clutter and cost, and avoid obstruction to movement, the number of additional poles should be minimised by rationalising signs;
 - by grouping them,
 - fixing to other street furniture wherever possible, and
 - wall mounting where feasible.
- Road signs must be mounted at least **2100mm** from the ground.
 - 2400mm for shared footway / cycleway
- Posts in the footway should be provided with a white visibility band **150mm** deep at a height of between **1400-1600mm** above ground.
- Where appropriate, tactile directional signing should be provided for visually impaired pedestrians.

Diagram 4. Dimensions for pedestrian signs



If located adjacent to a carriageway the end of any sign post fingers must be at least 450mm from the kerb edge.

3.3 Lighting

Good lighting is important from several points of view – personal security, safety, and ability to see signs and instructions.

Many visually impaired pedestrians suffer with increased problems in poor lighting conditions.

Recommendations for carriageway and footway lighting levels are given by BS 5489, the Code of Practice for Road Lighting.

Part 3 of the Code recommends maintained average illuminance figures depending on the road category. Other factors include types of facilities and extent of night time pedestrian use.

Guidelines:

- Good lighting should illuminate;
 - any obstructions,
 - changes in level, and
 - changes in surface texture.
- Subways, footbridges, stairways and ramps should be lit to a higher level than the surrounding area.
- Lighting should be sited clear of trees and other obstructions, which would cast shadows and obstruct the light output.

3.4 Bus stops

Getting about on foot or on wheels is an integral part of the total transport system.

For many people, especially those without access to a car or who are unable to drive for medical reasons, travel by public transport is essential.

The County Council's Local Transport Plan sets out to upgrade all bus stops in Cheshire to new accessible standards by 2006.

This includes providing new accessible bus shelters at all inbound bus stops wherever possible and practical, providing new bus stop poles, raised kerbs at boarding points, dropped crossing points, bus stop road markings and improved bus information

Guidelines:

- To aid visibility, transparent panels in bus shelters;
 - should be divided by a mid-rail in a contrasting colour, and
 - be lit to assist visibility in the dark.
- Priority should be given to providing shelters at stops used by a high proportion of elderly or disabled passengers (e.g. near sheltered accommodation or day-care centres).
- Any infrastructure and highway improvements should accommodate the needs of low, flat-floor, accessible buses and passengers with mobility problems.
 - This includes the provision of tactile dropped crossing points for access to and from the bus stop, and the bus stop opposite, where necessary.
- Further guidance on bus and bus interchange standards is available in the documents Cheshire Bus Strategy and Cheshire Interchange Strategy. These can be obtained from Cheshire County Council Transport Co-ordination Service (see page 62).

3.5 Trees and landscaping

Trees and plants can improve the visual and environmental appearance of an area. However they can cause problems for people with mobility impairments if they are not sited and maintained correctly.

Guidelines:

- Specialist advice should be sought when choosing tree species to ensure that trees do not have shallow, wide-spreading roots which will lift the footway surface.
- Where trees are planted next to, but not on, the highway, then the owner must maintain them to ensure that they do not become a hazard.
 - If the owner fails to do this, then the Highway Authority may serve notice that the work be undertaken within a specified timescale; if not the Highway Authority may carry out the work and recharge the owner.
- Overhanging branches should be cut back to give at least **3000mm** clear height to allow for regrowth.
- Landscaping on or next to the highway should be within clearly defined boundaries (e.g. raised kerb for identification by cane users and guide dogs).
 - A border of soft earth is not acceptable as it could trap wheels of pushchairs and wheelchairs.

3.6 Access in the Countryside

This code of practice mainly concerns the provision in the highway environment. Those who are involved in the design, planning and provision of access to the countryside should consult the British Telecom Countryside for All Standards and Guidelines (1997).

3.7 Access Controls

Access controls frequently inhibit legal access for many disabled people especially those using any form of wheeled vehicle apart from a conventional pushed wheelchair and therefore are not recommended.

Access controls are often used to try and curb the illegal use of motorcycles on footpaths or in recreational areas. This problem is rarely solved, those who can legally use a motor bike on the highway prefer to do so, and illegal riders may find their way into 'protected' areas regardless of access barriers.

3.8 Changes in level.

Steps and ramps should be provided together where there is a change in level. Steps are inaccessible to wheelchair users and steps are preferable to ramps for people with some medical problems.

3.8.1 Ramps

A ramp is an external slope with a gradient of more than **5% (1 in 20)**, for guidance for ramps and steps serving subways and footbridges see section 4.4.

Some wheelchair users lack the strength to propel themselves up a slope and have difficulty in slowing down or stopping when descending, so steep gradients can cause problems.

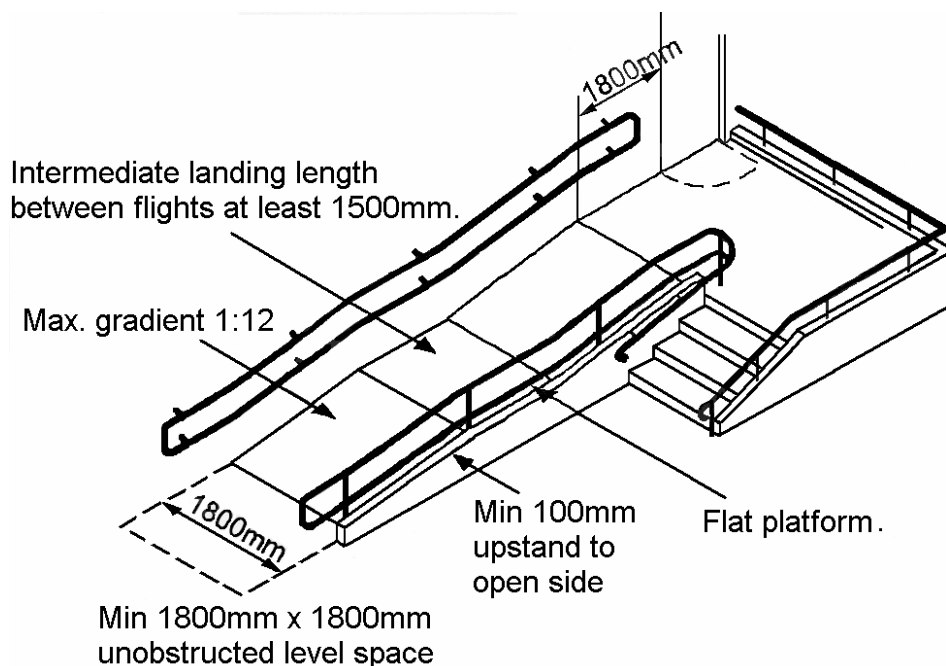
Guidelines:

- Ramps should be built with a minimum width of **1800mm** and have a non-slip surface.
- Maximum permitted gradient should be **8 % (1 in 12)**.
- Dual height handrails should be provided on each side (see 3.6.4).
- Ramp lengths will depend on the gradient; recommended limits are shown in table 2 below.
- Level resting places should be minimum 1500mm in length.
- Highlight top and bottom of the ramp by colour contrast.
- Good lighting should be provided.
- 1800mm clearance of street furniture and doors at top and bottom should be provided.

Table 2. Recommended maximum ramp lengths in relation to ramp gradient.

Length of Ramp	Maximum gradient
2m	1:12
5m	1:15
10m	1:20

Diagram 5. Ramp detail.



3.8.2. Access ramps on public highways

The principal entrance to a building should be accessible for disabled and non-disabled people alike. Many buildings are still inaccessible to some people.

The construction of a ramp on the footway (public highway) can be considered only if it is structurally impossible to achieve a satisfactory solution within the curtilage of the building and/or by footway regrading.

The need must be balanced against the following considerations;

- Maintaining access for statutory undertakers to underground pipes cables and equipment,
- Preserving adequate footway width, and
- Ensuring safe passage for pedestrians along the footway.

An access ramp will not always be approved.

There are many solutions available for improvements within the curtilage of a building.

At some locations regrading or reshaping the footway may improve access. This requires prior permission of the Highway Authority (by a Highway Opening Order under the New Roads and Street Works Act 1991). Any alterations should avoid creating gradients that are problematic to pedestrians on the footway.

If approval is given, it is recommended that a licence or legal agreement be drawn up, setting out responsibilities and liabilities for maintenance and repairs.

3.8.3. Steps

Visually impaired people may have problems identifying flights of steps so tactile and contrasting colour changes at the top and bottom of a flight are vital.

Where steps are provided on the highway, a ramp should be located close by to enable mobility impaired pedestrians to negotiate the change in levels.

Ramped steps must not be provided.

Guidelines:

- Minimum width of **1200mm**.
- Risers should be between **150-170mm** high.
- Treads should have non-slip surfaces and be between **280 – 425mm** deep,
 - Preferred tread depth **300mm**.
- Risers and treads must be constant over the whole flight of steps.
- Nosings should be colour contrasted from the rest of the steps.
- Do not use open risers.
- Maximum flight of 12 risers for tread width of less than 350mm or,
 - 18 risers for tread width greater than 350mm.
- Landings should be a minimum **1200mm** deep.
- Corduroy hazard warning surface should;
 - be laid for the full width at the top and bottom of the steps,
 - be **400mm** from the first nosing to a depth of **800mm**,
 - depth of 400mm may be considered if a conscious turn is required to reach step, and
 - extend at least **400mm** beyond the width of the steps on either side.

Diagram 6. Step dimensions

- A - Return handrail to wall or provide positive ends. Likewise at head of stairs
- B - 45mm - 50mm diameter handrails both sides and continuous across landings
- C - Handrails smooth and continuous where more than one flight
- D - All nosings distinguished together with top and bottom treads of each flight

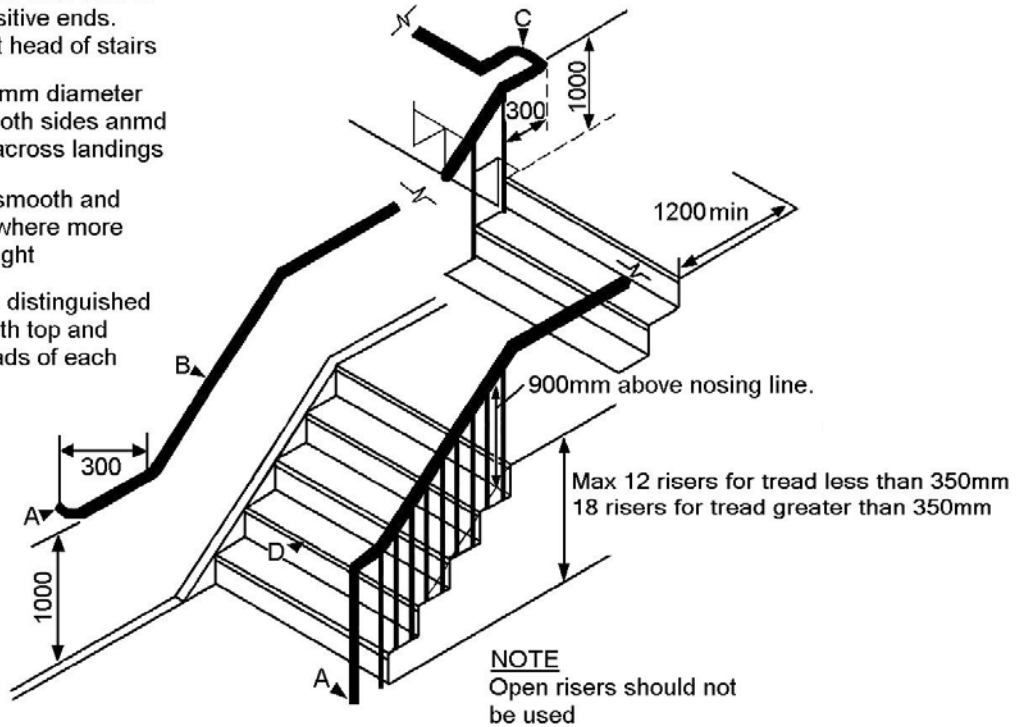
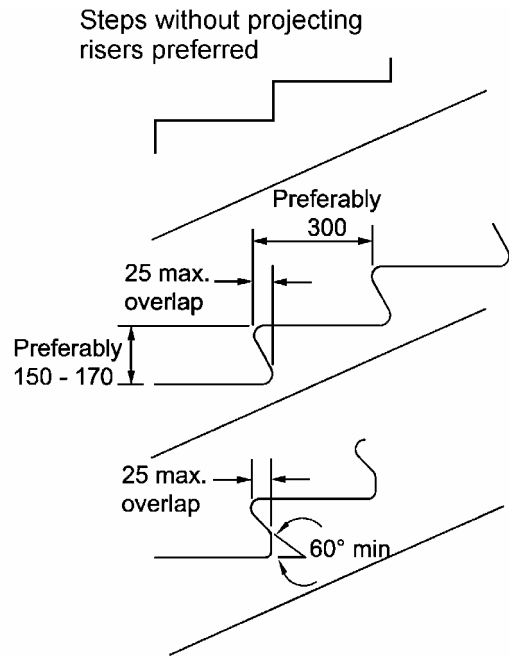
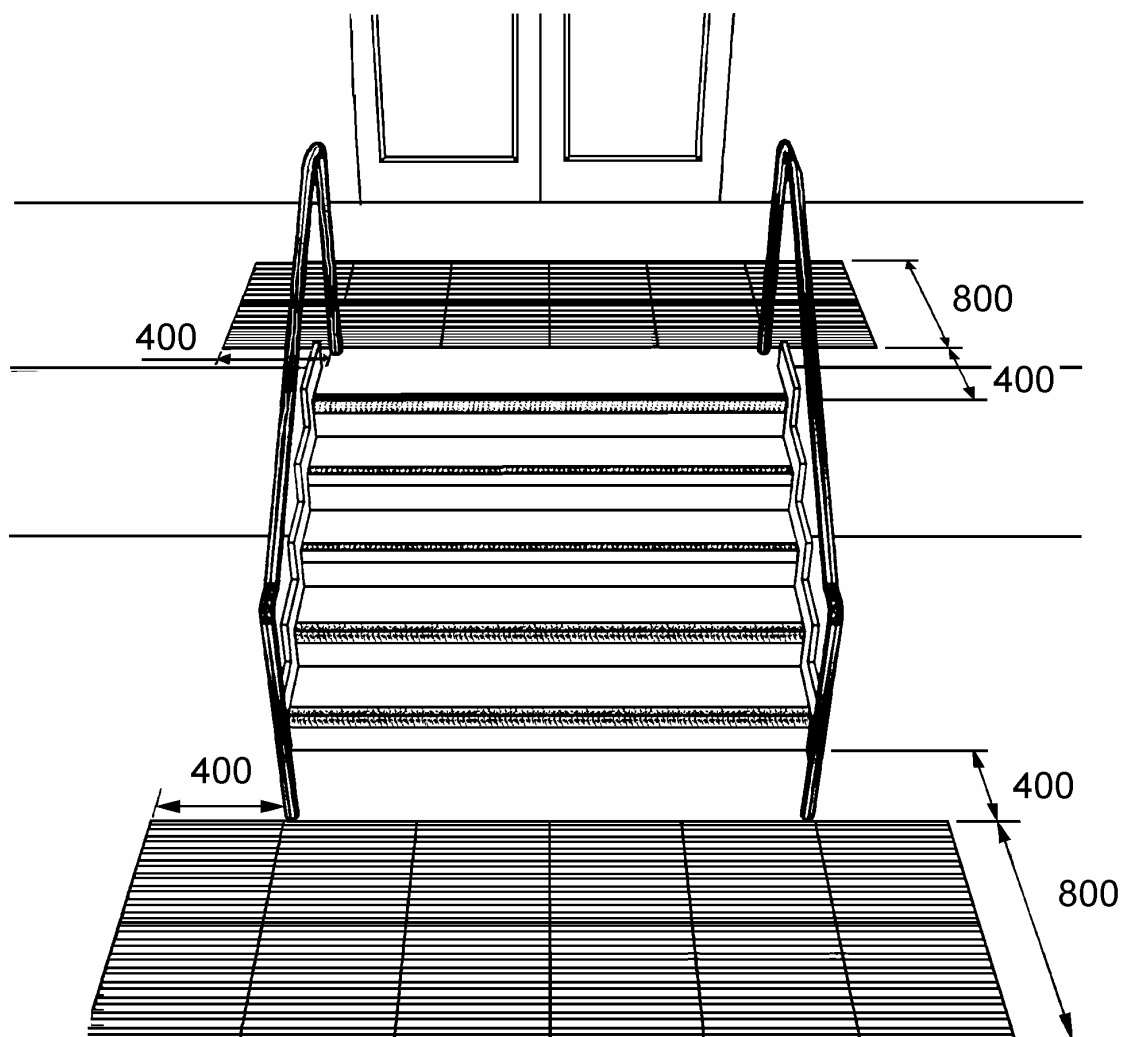


Diagram 7. Profiles of steps and risers.



All risers should be solid

Diagram 8. Corduroy hazard warning surface on a flight of steps



n.b. 400mm depth may be used if a conscious turn is required to reach the step.

3.8.4 Handrails

People with frail or arthritic fingers have difficulty in gripping objects, so the dimensions of the handrail are important. There should always be a handrail on both sides and for the full length of a flight of steps or a ramp. A second, lower, handrail should be considered where appropriate for children and people of short stature.

Guidelines:

- A contrasting colour or tone to surrounding environment should be used to make it more conspicuous.
- **40mm-45mm** in diameter and be situated **60 - 75mm** from the wall.
- Height above the nose of a step and ramp **900-1000mm**.
- Height above landings **1000-1100mm**.
- A second handrail between **550mm** and **650mm** above the step nosing or ramp should be considered.
- The end of the handrail should extend horizontally beyond the top and bottom step by at least **300mm**.
- Positive end to the handrail or it should return to the wall – this indicates that the flight of steps or ramp has come to an end.

Diagram 9. Cross section of a mounted handrail

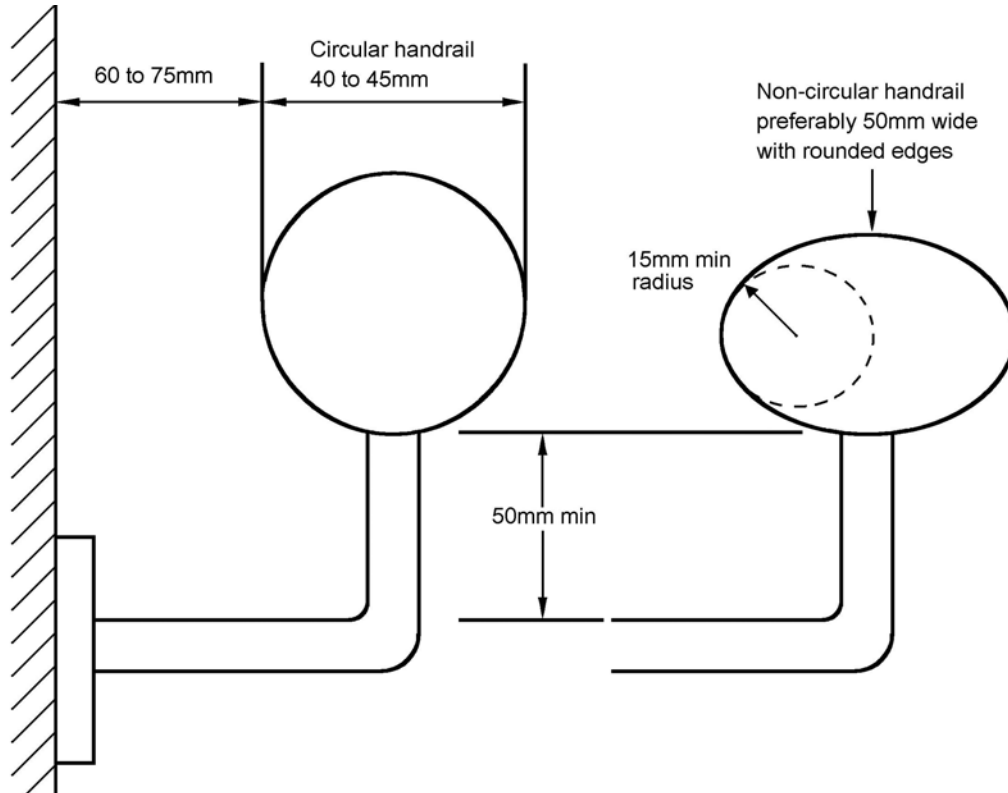


Diagram 10. Profile of handrail provision for steps

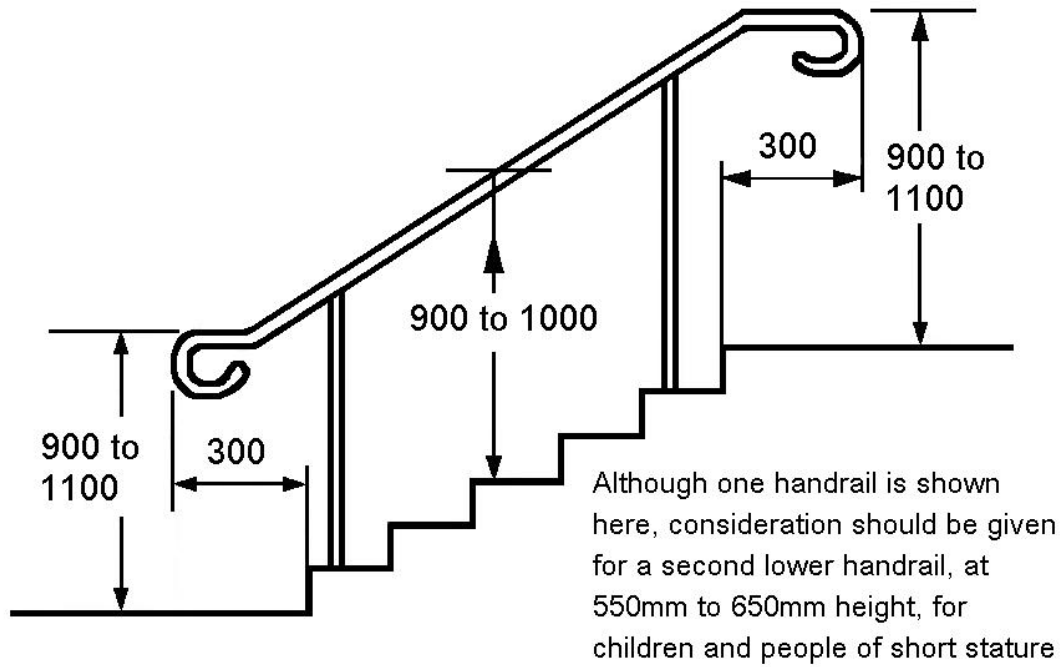
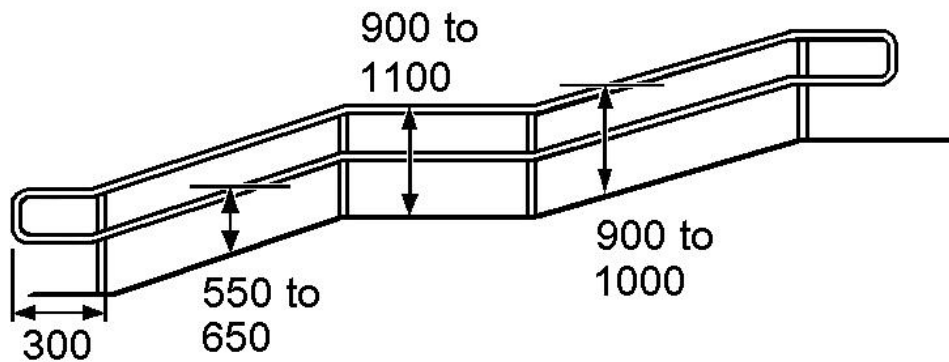


Diagram 11. Profile of dual height handrail provision for ramps.



3.9. Tactile paving

Tactile surfaces are used to give advanced warning of changes in level, priority or a road crossing to sight impaired people because they can be detected underfoot. Detailed guidance is provided on appropriate surfaces within DETR's '*Guidance on the Use of Tactile Paving Surfaces*', 1998. Tactile paving must only be used for the purposes described within the guidance

Red coloured tactile paving **must** only be used with the blister tactile paving used at controlled crossings.

Only the following three types of tactile paving are used regularly on the highway in Cheshire;

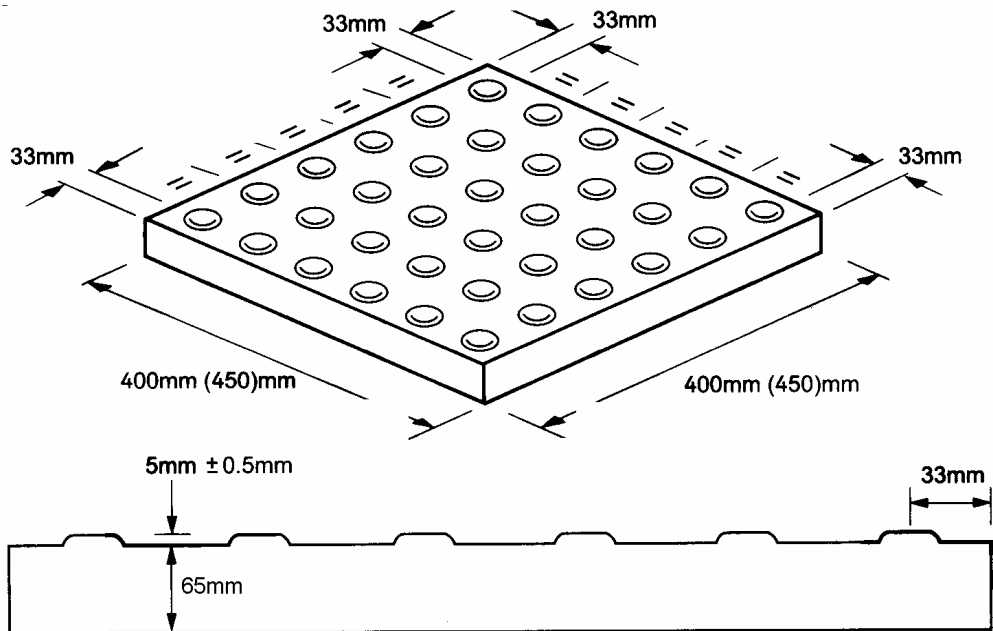
- Blister surface for pedestrian crossing points, (see section 4 for guidance),
- Corduroy hazard warning surface, (see section 3.6.3 for guidance), and
- Segregated shared cycle track/footway surface, (see section 5 for guidance).

3.9.1 Blister surface for pedestrian crossing points

Guidelines:

- Should be used on all controlled and uncontrolled crossings;
 - where the footway has been dropped flush with the carriageway, or
 - the carriageway has been raised level with the footway.
- Red coloured tactile paving should be used at all controlled crossings.
- Buff coloured tactile paving at all uncontrolled crossings.
- In conservation areas, consideration may be given to using brass studs, but not at controlled crossings.
- In locations where over-running by vehicles could be a problem then alternatives should be considered e.g. block paving or stick-on versions, which can also be more flexible in conforming to the footway profile.

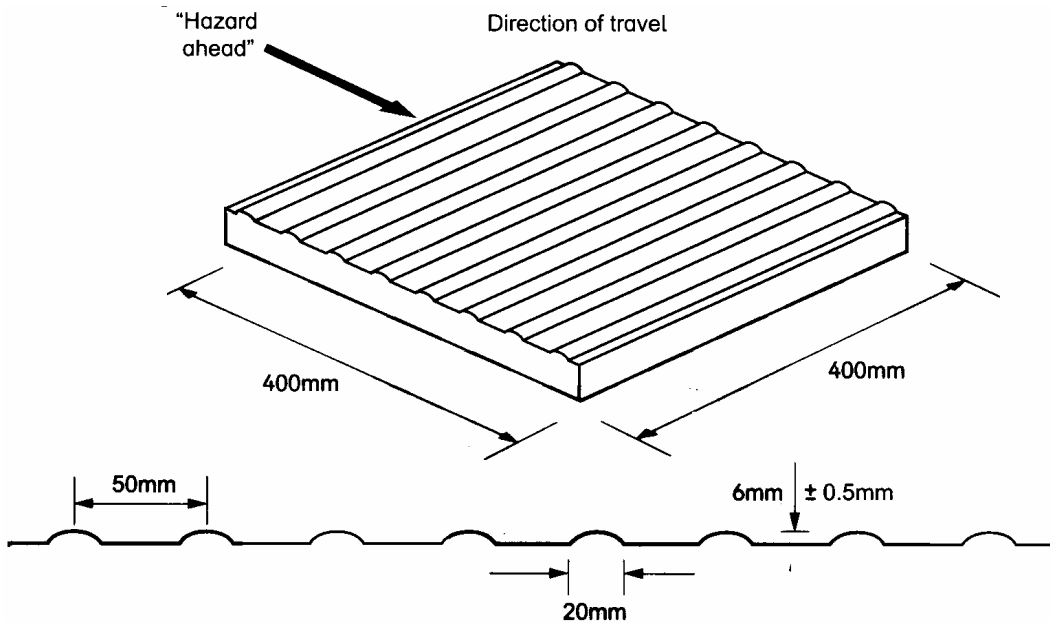
Diagram 12. Profile of blister surface for pedestrian crossings



3.9.2 Corduroy hazard warning surface

Used to warn of the presence of hazards (e.g. steps, where a footway joins a shared pedestrian/cycle route). It conveys the message 'hazard, proceed with caution'.

Diagram 13. Profile of corduroy hazard warning surface



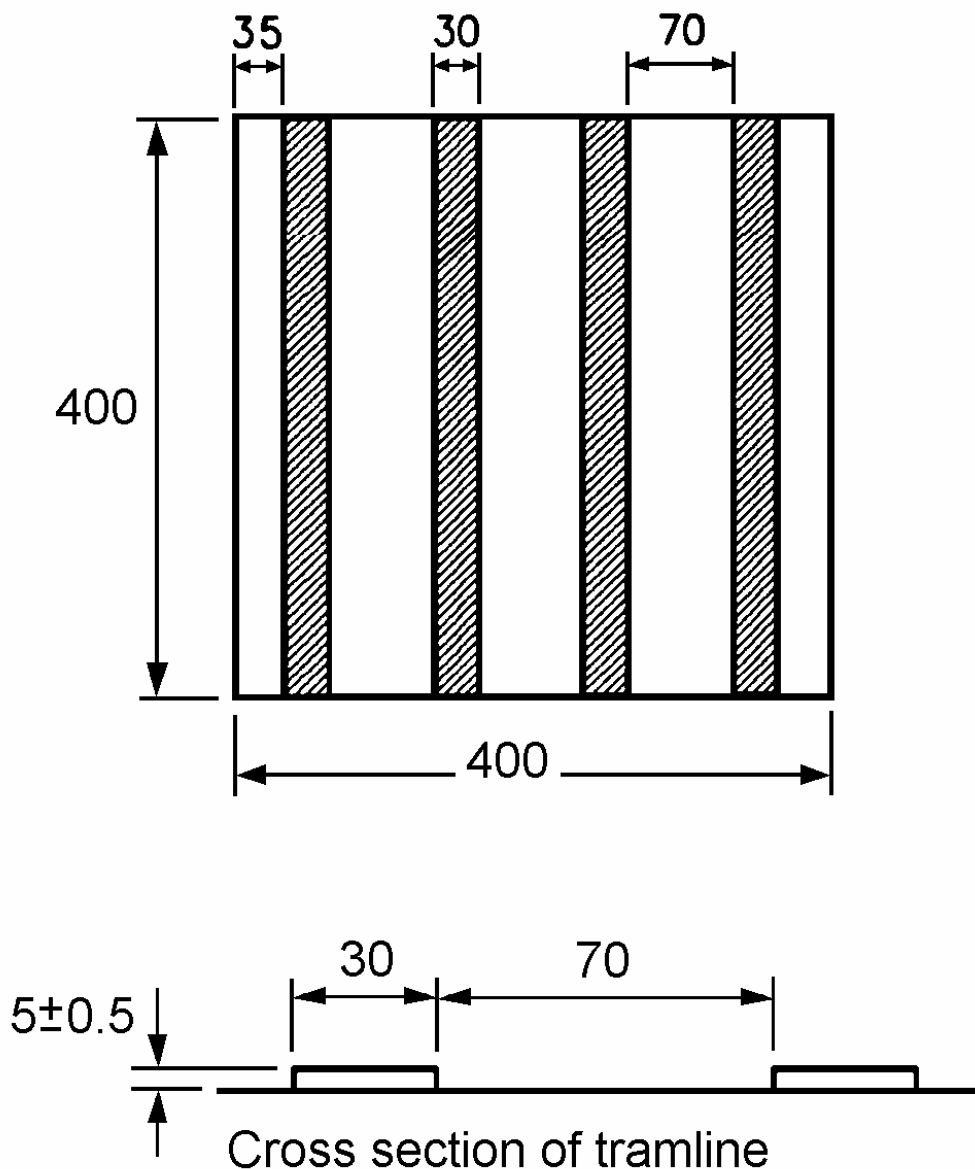
3.9.3 Segregated shared cycle track/footway tactile surface

This advises visually impaired people of the correct side to enter the route.

The paving is laid either against the direction of travel to show the pedestrian side or in the direction of travel for cyclists.

The paving should be laid with a delineator strip, which forms a dividing line between the pedestrians and cyclists.

Diagram 14. Profile of segregated shared cycle track/ footway tactile surface.



3.9.4. Guidance Path Surface

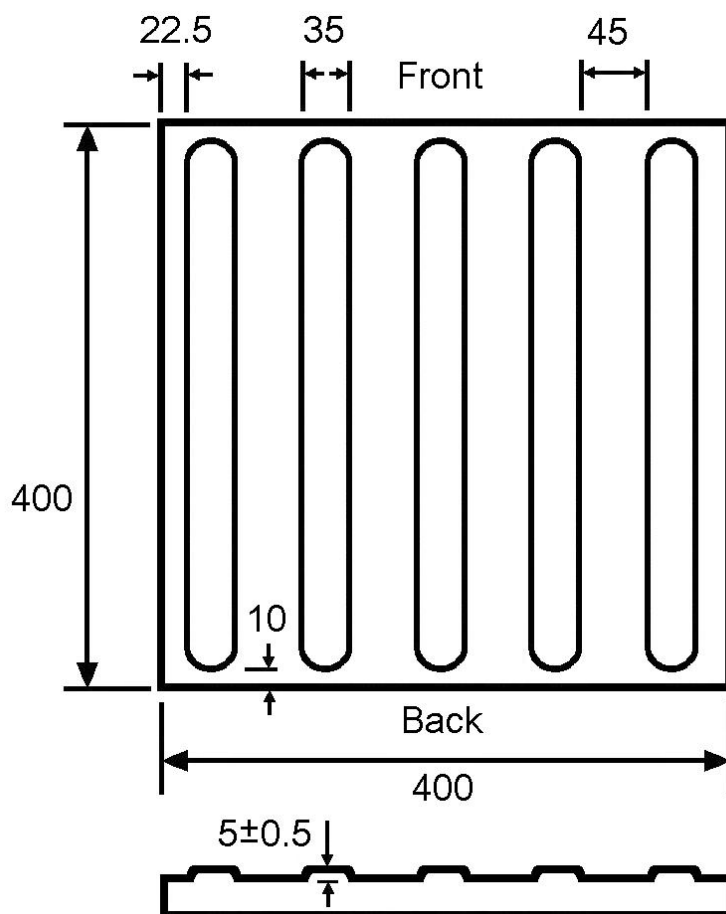
The purpose of the guidance path surface is to guide visually impaired people along a route when the traditional clues, such as a property line as kerb edge, are not available, and where a number of visually impaired people need to find a specific location

To maximise its effectiveness the surface should be used sparingly and **only** after local consultation with relevant local groups.

Guidelines

- **800mm** width.
- As straight as possible in a contrasting colour but not red
- **800mm** unobstructed space either side, to allow guide dogs or in case anyone strays off the path
- Busy shopping centres - **2000mm** unobstructed space between path and property line to provide clear route for pedestrian who may find surface uncomfortable.

Diagram 15. Profile of guidance path surface.

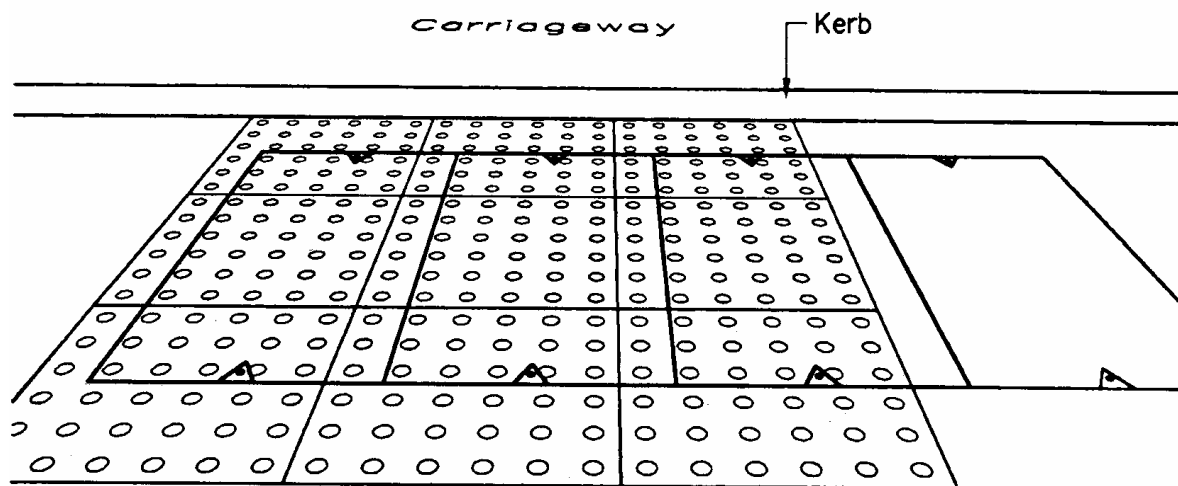


3.9.5. Access covers

Tactile paving surfaces are primarily hazard warnings. Access covers located within the layout of tactile paving should be in-laid to prevent visually impaired people missing the message being conveyed.

This applies to all types of tactile paving.

Diagram 16. Inspection cover inlaid with blister surface so as not to disrupt the desired layout.



Stick-on tactile surfaces

Tactile paving is available in a stick-on format.

These are particularly useful for use;

- Where dropped kerbs already exist (without tactile provision)
- where vehicle overrun is expected, and
- where excavation for block pavers would be difficult, (e.g. on reinforced concrete).

Another advantage is they are flexible and can mould themselves to the profile and slope of the footway.

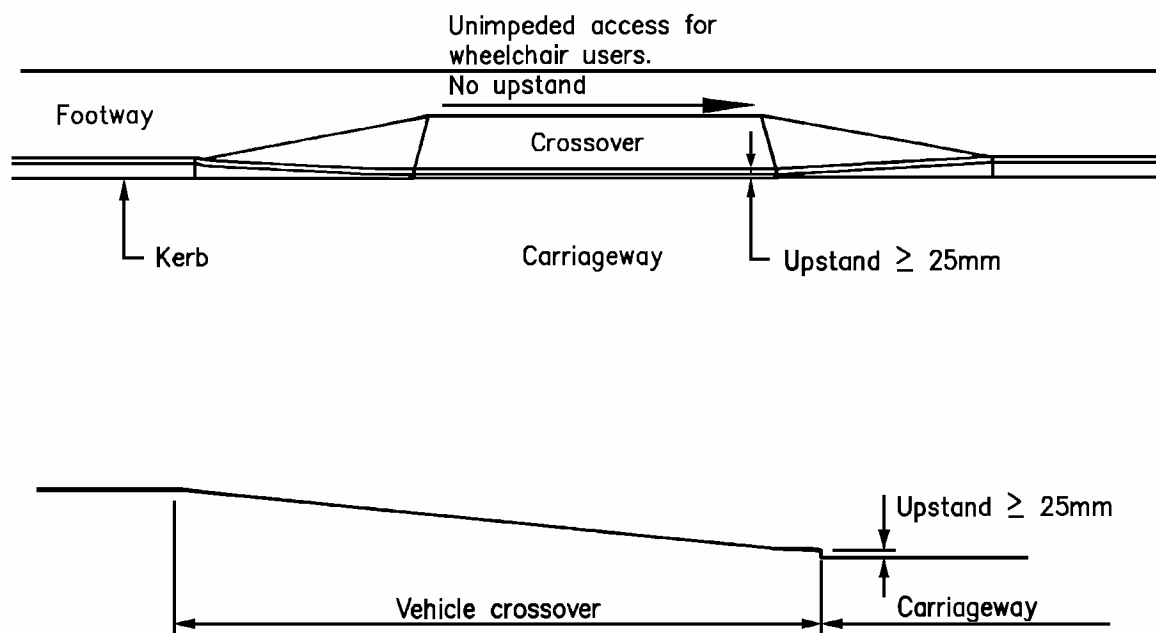
3.10 Crossovers

Crossovers are locations where the kerb has been lowered to allow vehicular access over the footway; they are not the same as dropped kerbs used at crossing points for wheelchair users (see 4.1).

To enable visually impaired people to detect the edge of the footway, vehicle crossovers should maintain a minimum upstand of **25mm** between the footway and carriageway.

- If footway width is less than **3m**,
 - the slope of the vehicle crossover should extend to back of footway.
- If footway width is wider than **3m**,
 - the slope of the vehicle crossover should extend **1.8m** into the footway,
 - leaving a minimum flat width of **1.2m** for people who may experience difficulty crossing the slope.
- Slope gradient should not exceed **8% (1 in12)**.

Diagram 17. Crossover detail



3.11 Pedestrianised areas

Pedestrianised areas provide an opportunity to improve the safety, comfort and enjoyment of everyone using the area.

Access to all parts of a pedestrianised area must be available, especially for people with mobility impairments who rely on motorised transport; this is a key element in its success. Means of reaching it other than walking and cycling include:

- Bus,
- Train,
- Park and Ride,
- Taxi,
- Community transport,
- Dial-a-ride, and
- Private cars.

Consideration must be given to the mobility ranges for mobility impaired people, mentioned in section 2, as to the locations of access points for all modes of transport.

The nature of pedestrian schemes means that walking distances become longer and areas of schemes may become inaccessible for some if mobility ranges are exceeded.

- Where gradients exist the target distances should be reduced.
- The provision of seating and resting places can extend mobility distance.

4. Crossing facilities

There are three types of crossing facilities:

1. Controlled – where pedestrians have direct control over vehicles e.g. Pelican, Puffin, Toucan, Pegasus and Zebra crossings.
2. Uncontrolled – where pedestrians usually do not have priority over vehicles and have to make a decision about whether it is safe to cross.
3. Grade separated - these are crossings separated from the level of the carriageway, most common in the form of footbridges and subways.

4.1 Dropped kerbs

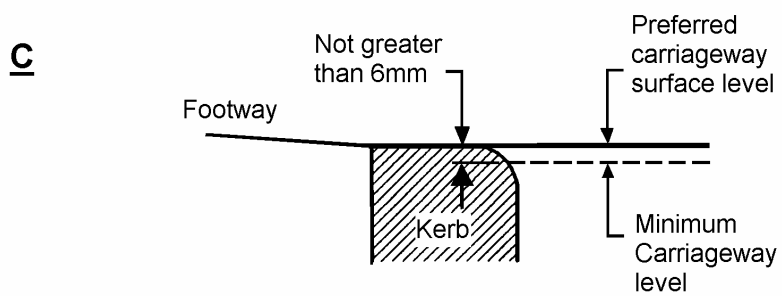
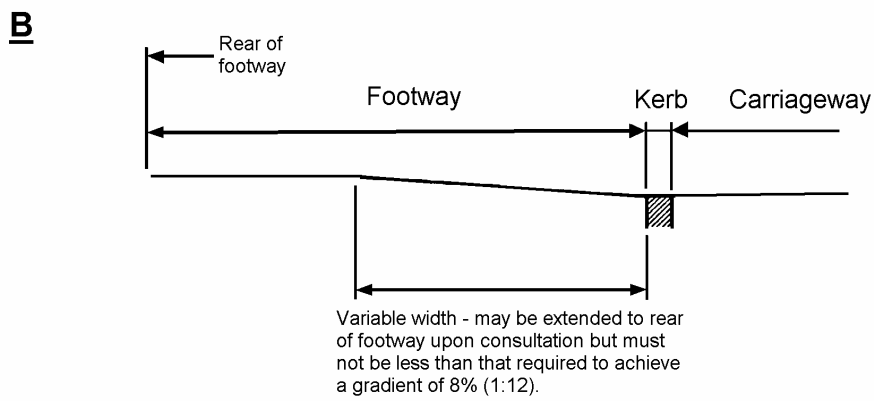
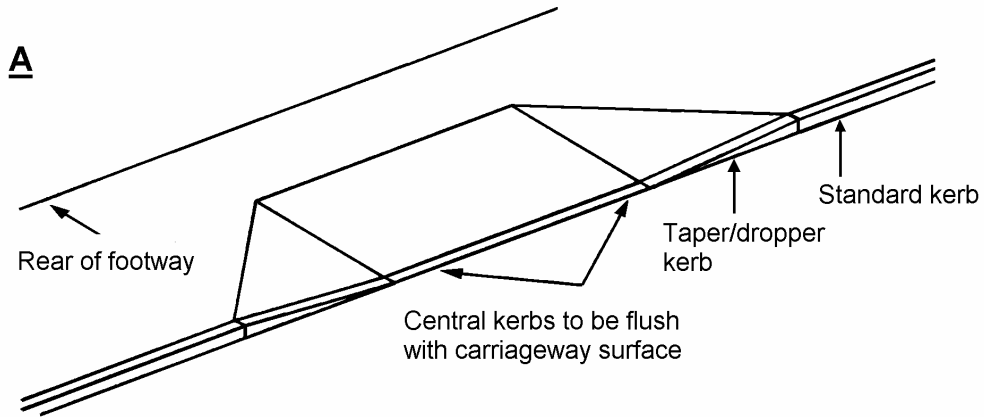
Kerbs present a significant barrier to the mobility of wheelchair or pushchair users. At locations where pedestrians are expected to cross, dropped kerbs should be provided.

If a dropped kerb is provided on one side of the road, another **MUST** be provided on the other side, directly opposite and on any intervening central refuges.

Guidelines:

- Where the kerb is dropped it should be flush with the carriageway surface;
 - If there are difficulties an upstand of **6mm** maximum may be provided.
- Care should be taken when siting dropped kerbs to prevent them being placed close to drain covers or grilles that could trap the wheels of wheelchairs.
 - Where this is not possible thought should be given to changing the grating, also bearing in mind the needs of cyclists.
- Preferred slope gradient is **5% (1:20)** and should not exceed **8% (1 in12)**.
- If footway width is less than **2.5m**,
 - the ramp of the flush dropped kerb should extend to back of footway.
- if footway width is less than 1.5m,
 - the footway should be reprofiled to obtain minimum 1:12 gradient.
- Minimum width **0.914m** (one-kerb length) may be provided where there is;
 - a parking space reserved for the mobility impaired, or
 - low pedestrian flow.
- Tactile paving should be installed as laid out in the *DETR's 'Guidance on the Use of Tactile Paving Surfaces, 1998'*, (see sections 4.2 and 4.3),
- Road Marking Diagram 1026.1 (Traffic Signs Regulations and General Directions -TSRGD) 'H' markings should be used at uncontrolled crossings to prevent blockage by parked vehicles where a problem is known to exist or is anticipated.

Diagram 18. Dropped Kerb Detail



4.2 Controlled crossings

These crossings include signal controlled e.g. Pelican, Puffin, Toucan (shared with cyclists), Pegasus (shared with horses) and Zebra crossings.

Guidelines:

- Flush dropped kerbs should be provided.
- Blister surfaces should be provided across the full width of the crossing.
 - Blister surfaces must be **RED**.
 - If the surrounding footway is in a similar colour, then a **150mm** contrasting border should be provided.
 - The tactile paving layout will vary according to whether it is an inset or inline crossing, (see diagrams 18 and 19).
 - The stem should extend back to the rear of the footway from the tactile paving adjacent to the push button control box to form an L shape.
- The Wait Box should be located on a post on the right hand side of the crossing as the pedestrian faces the road.
- This will allow a guide dog user to press the button whilst holding the dog in the left hand.
 - The centre of the push button should be **1000-1100mm** above the ground.
 - Whilst standing on the tactile paving a visually impaired person should be able to reach the wait box or find the post with a cane.
 - For the benefit of visually impaired pedestrians, audible signals and/or tactile cones that indicate when the green man is displayed and it is safe to cross, should be installed.
 - Where crossings are close together, (e.g. on junctions), an audible signal from one may be mistakenly heard at another crossing.
 - ❖ If an audible signal cannot be used, then a tactile cone must be provided beneath the push button control unit. This is beneficial to pedestrians who are both blind and deaf.
 - The user must be able to stand at the crossing point and make contact with the cone.
 - ❖ If the red lights of the traffic signal heads fail, then the audible signal and tactile cone should be switched off.
 - On the posts, a white band **150mm** wide placed at a height of **1400-1600mm** above ground level would assist visually impaired pedestrians.
- Good street lighting is essential to allow drivers to clearly see pedestrians who are waiting, especially at Zebra crossings.

Diagram 19. Layout of blister surface at inset and standard controlled crossings.

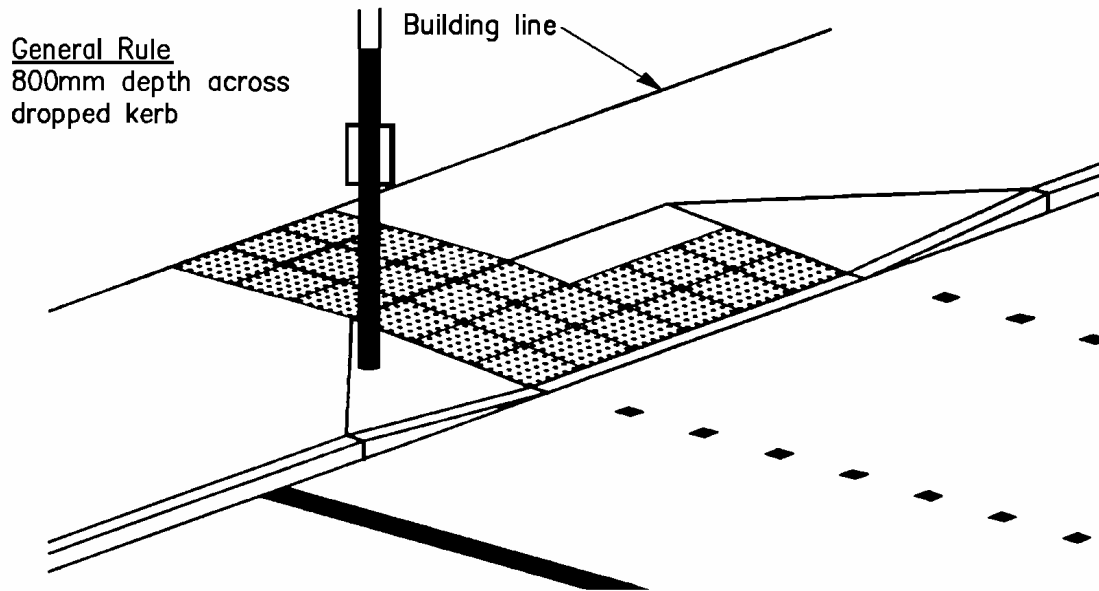


Diagram 20. Layout of blister surface at inline controlled crossings

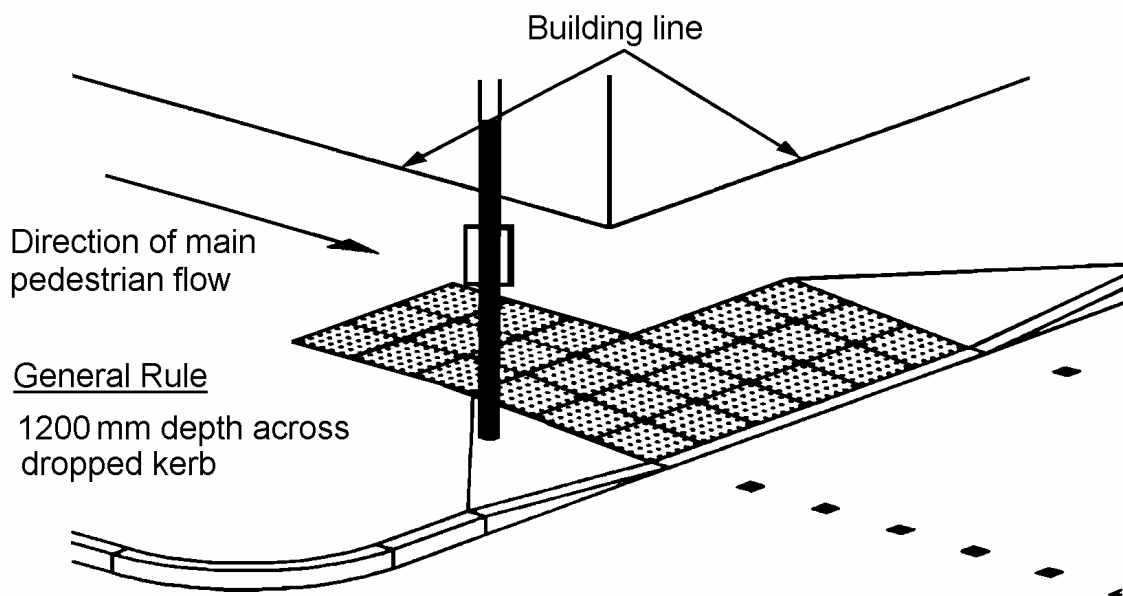
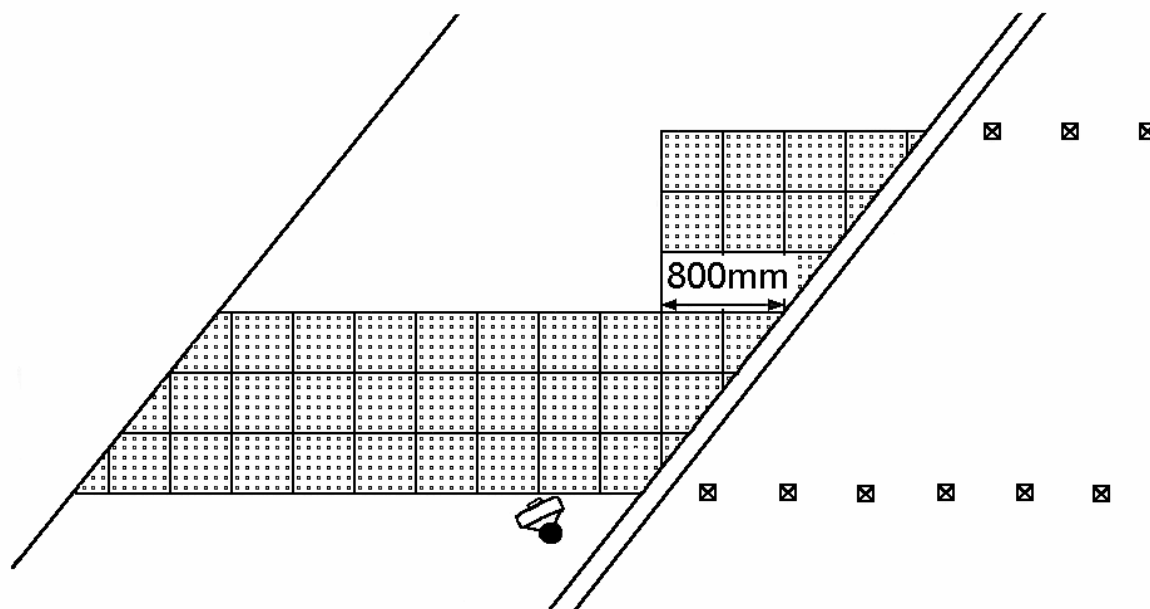


Diagram 21. Layout of blister surface where the back edge of the tactile is not parallel to the kerb.



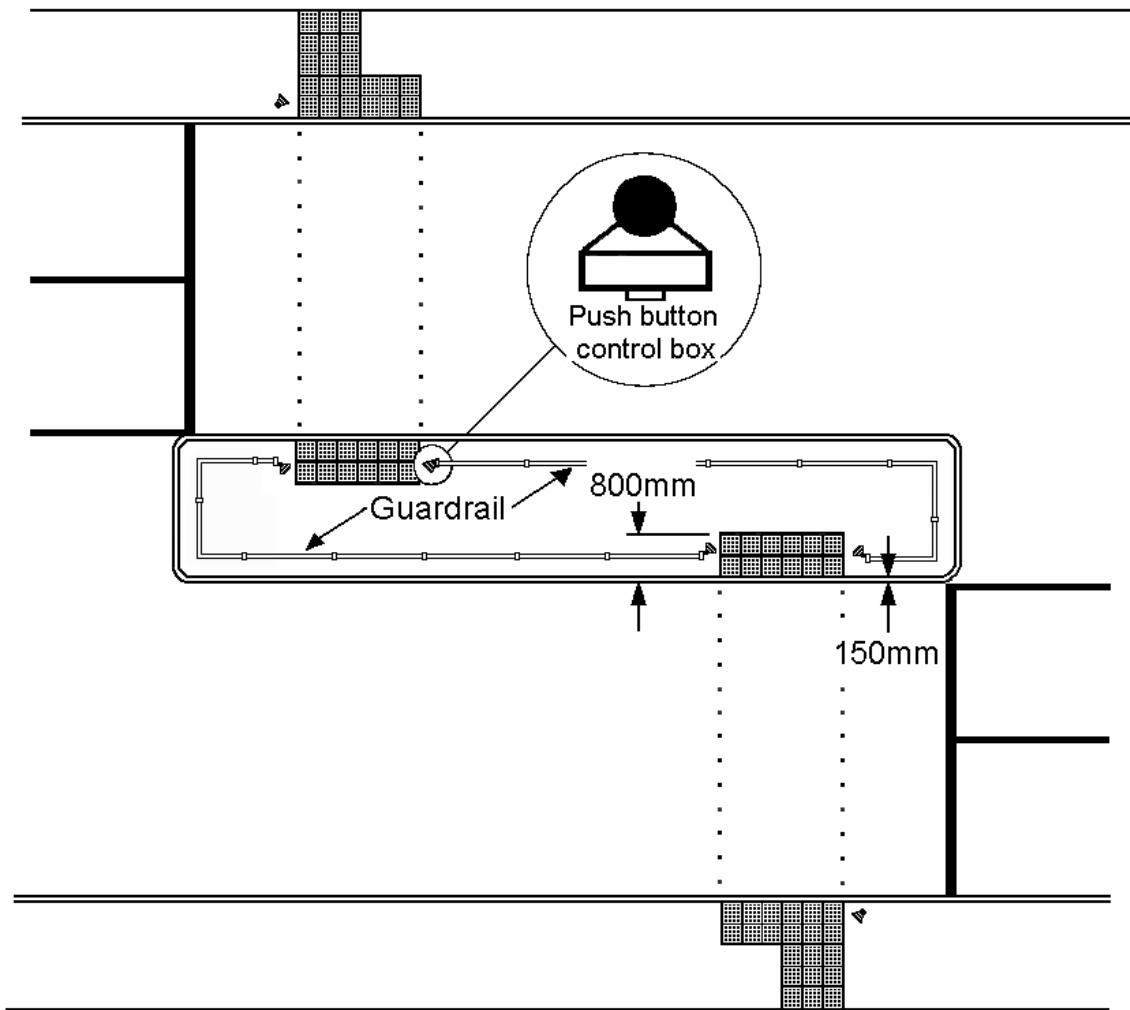
4.2.1 Staggered controlled crossing

These are two-stage signal controlled crossings with a central refuge.

Guidelines

- The stagger should be left-handed so that pedestrians on the central refuge are guided to face the oncoming traffic, (see diagram 21).
- The central refuge should be of sufficient size and capacity. It should be;
 - long enough to indicate to visually impaired pedestrians that it is segregated (i.e. minimum of **3000mm** between crossing points), and
 - deep enough to allow two wheelchairs or electric scooters to pass each other between the crossings.
- There is a risk that the audible signal at one crossing may be heard and mistaken for another. The possible solutions are:
 - use at a lower volume with a rotating cone, or
 - use only the rotating cone.
- Maximum visibility guardrails should be used on the central refuge, not only to protect and guide visually impaired pedestrians, but also to increase the comfort and safety of **all** pedestrians.
- Red blister tactile paving should be laid to a depth of **800mm** across the full width of the dropped kerbs leading off the central refuge.

Diagram 22. Layout of blister surface on a staggered pedestrian island



4.3 Uncontrolled crossings

Generally, at this type of crossing, motorists do not have to give way to pedestrians, so pedestrians have to make decisions as to when it is safe to cross.

There are three types of uncontrolled crossing;

1. **Inset (indented) uncontrolled crossing** –located within the side road off the line of travel (see diagrams 22 to 24),
2. **Inline uncontrolled crossing** – located in the direct line of travel (see diagrams 25 to 28), and
3. **Standard crossing** - located between junctions (see diagrams 29 and 30).

Guidelines:

- The footway should be flush with the carriageway surface to aid wheelchair users and other mobility impaired (see 4.1).
- Dropped kerbs must be in pairs;
 - opposite each other,
 - close to the desired line of travel, and
 - preferably at the shortest crossing distance.
- Blister surface tactile paving is used to compensate for the absence of a kerb upstand.
 - It should extend the full width of the dropped kerb to prevent visually impaired people from accidentally walking into the carriageway.
 - The blister surface should be **BUFF** in colouring to distinguish between a controlled and uncontrolled crossing.
 - If the buff colour is similar to the existing footway colour then either;
 - ❖ highlight the tactile paving with 150mm contrasting border, or
 - ❖ Use contrasting, different coloured tactile paving, **but**
 - **NOT** red
 - The tactile paving should **NOT** extend to the back of the footway.
 - ❖ This may indicate to fully blind people that the crossing is controlled.
- Depth of blister surface will depend on location.
 - At an Indented crossing tactile paving should be laid **400mm** (one row) deep (see diagrams 22, 23 & 24).
 - At an In-line crossing tactile paving should be laid **1200mm** (three rows) deep (see diagrams 25 & 26).

- At a Standard crossing tactile paving should be laid **800mm** (two rows) deep (see diagrams 29 and 30).
- If located on the corner radius the minimum depths refer to the shortest side of the tactile paving layout (see diagrams 23 & 26)
- Ideally the crossing point should be indented 1m beyond the tangent of the corner radius. This provides the shortest route across the carriageway, however;
 - Pedestrians waiting at a crossing point should be visible to approaching cars, which can be difficult with encroaching buildings, garden walls and hedges.
 - Visibility, road width, traffic flow and speed should be considered,
 - Large radii may take pedestrians away from desire line,
- Acute angled junctions may create large diversions on one side of the crossing or wide crossing points if crossing points are close to desire lines, (see diagram 24),
- to align themselves correctly in the direction of the crossing visually impaired pedestrians may use;
 - the alignment of the blisters, or.
 - the back edge of the tactile paving which must be at right angles to the direction of crossing
- Road markings to Diagram 1026.1 (Traffic Signs Regulations and General Directions - TSRGD) may be used to prevent crossing points being blocked by parked cars.

Diagram 23. Layout of blister surface at indented uncontrolled crossing point

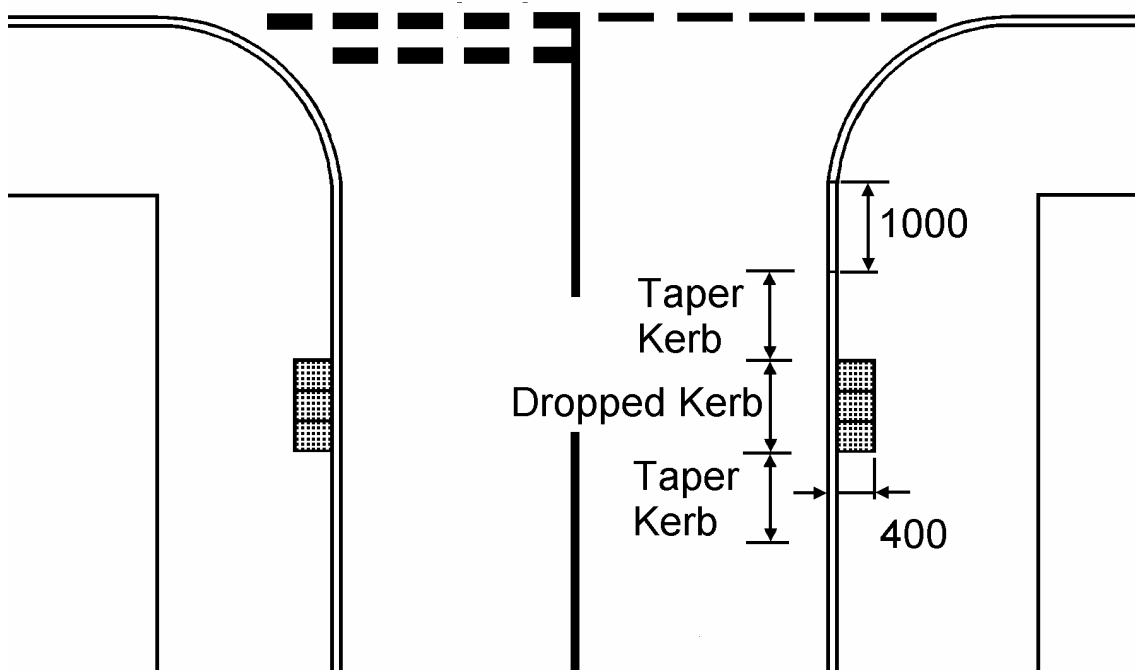


Diagram 24. Layout of blister surface at indented crossing point on the corner radius

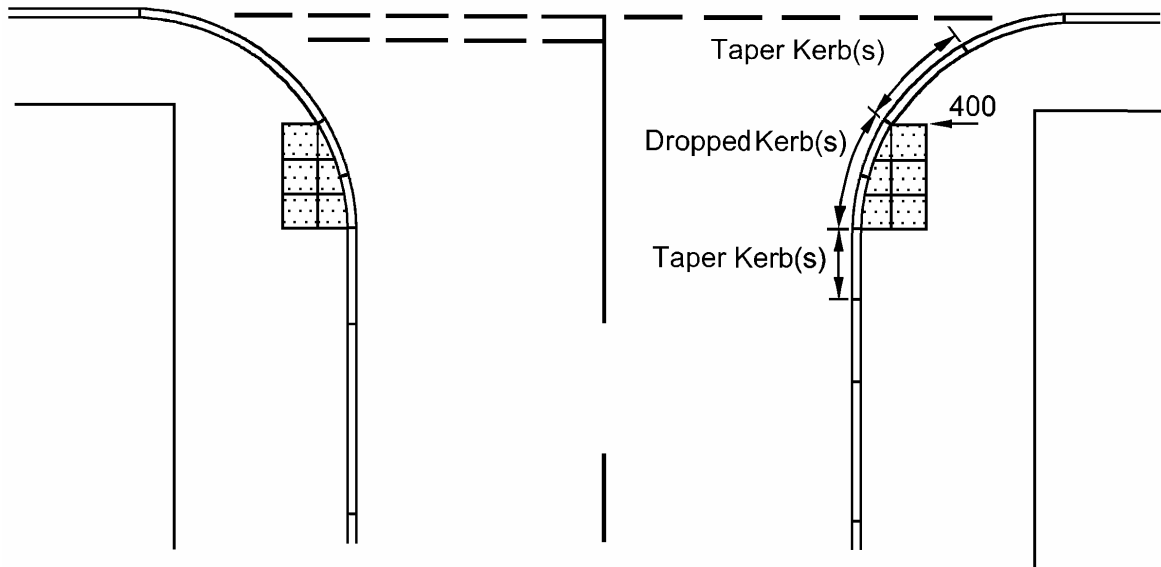


Diagram 25. Layout of blister surface at (indented) uncontrolled crossing at acute angled junction.

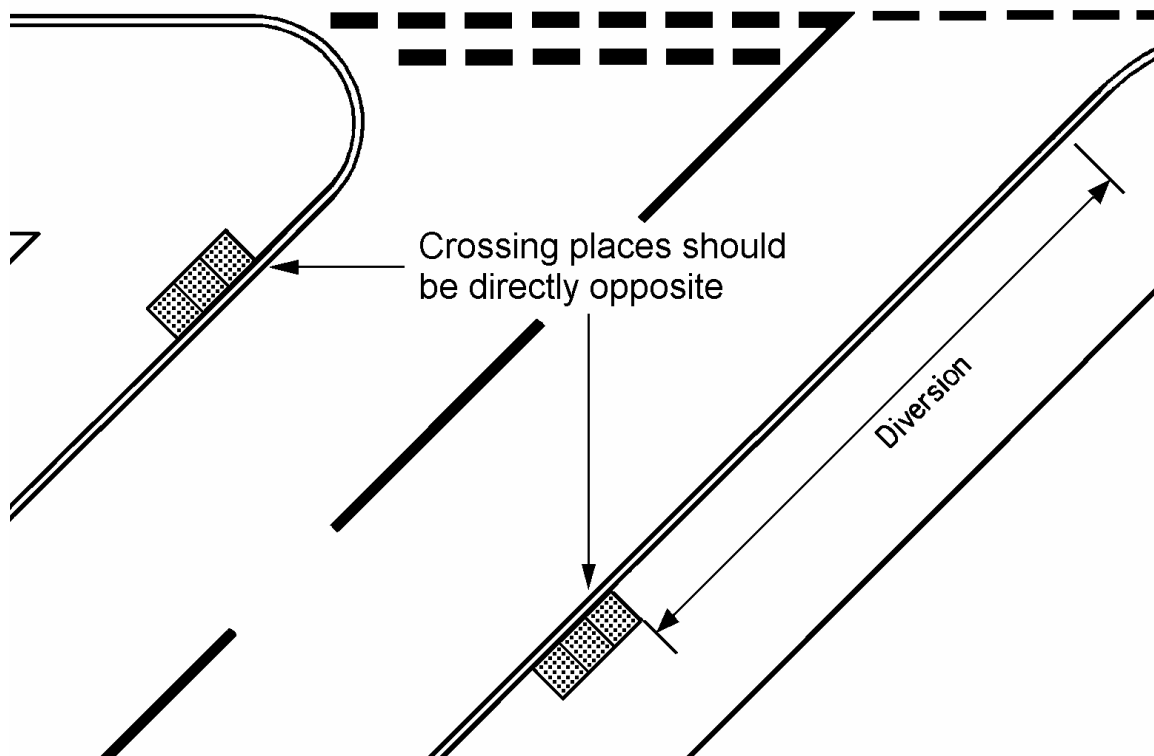


Diagram 26. Layout of blister surface at in-line uncontrolled crossing point at a side road

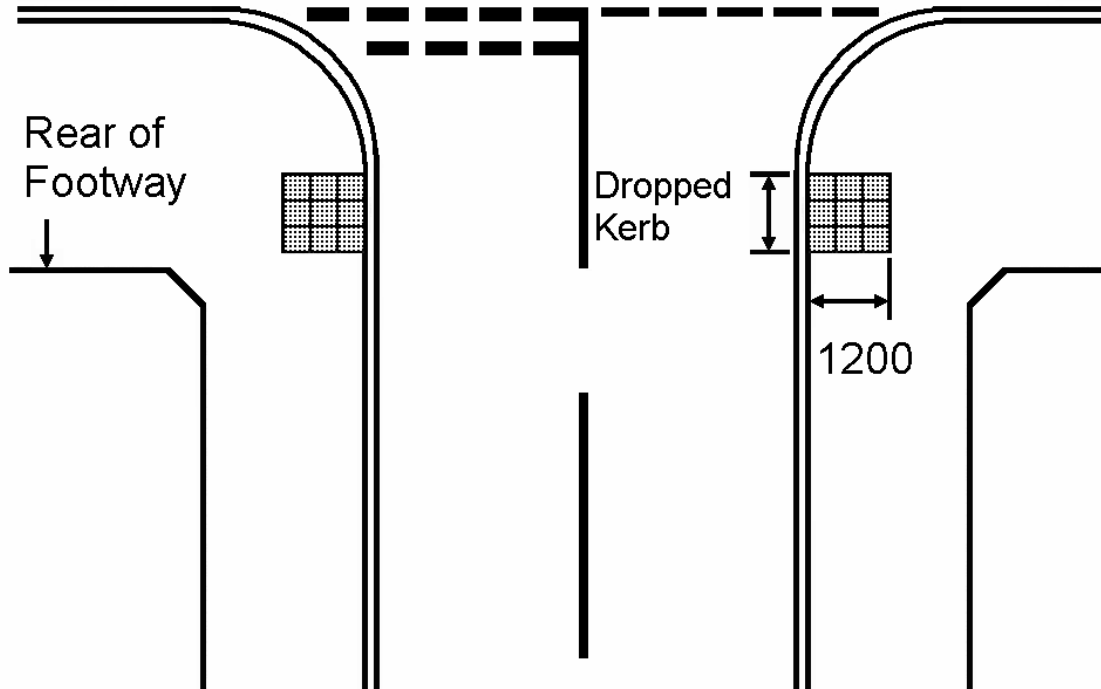


Diagram 27. Layout of blister surface at in-line crossing point located on the corner radius

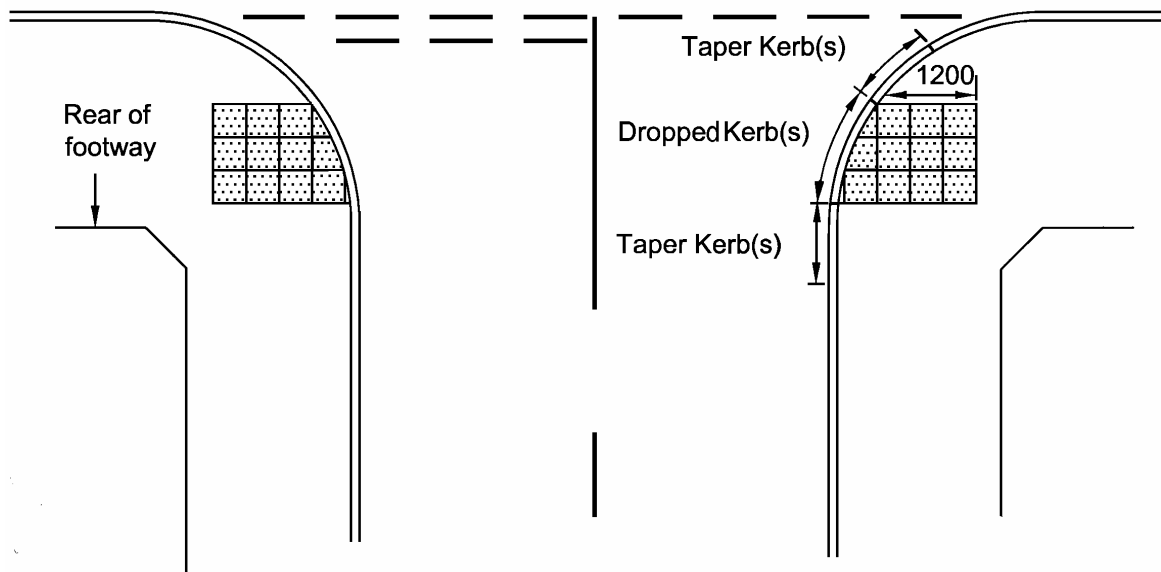
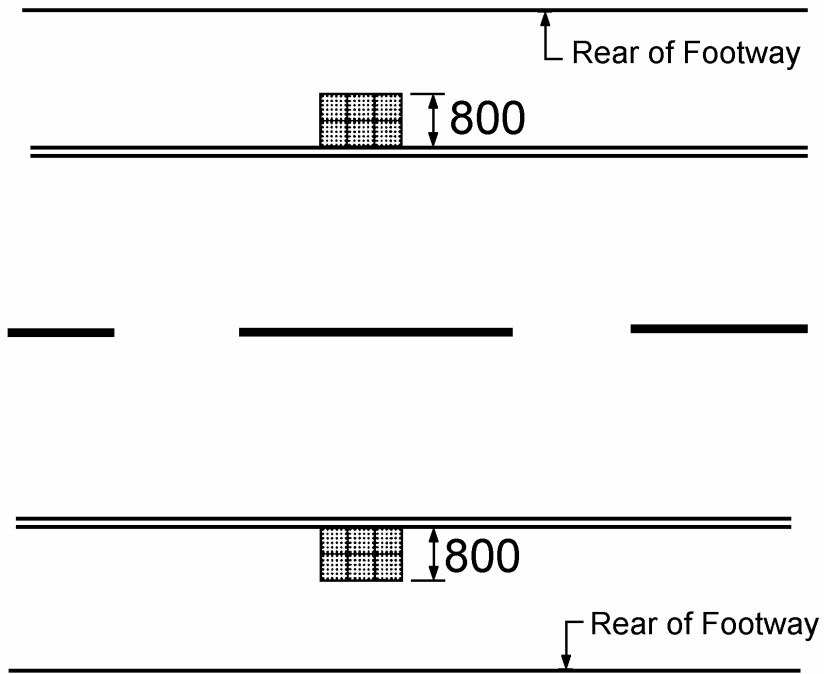


Diagram 28. Layout of blister surface at a standard crossing away from junction.



4.3 1 Raised crossing points

Raised crossing points are particularly helpful for wheelchair users because they maintain a level route.

They should be considered in areas of high pedestrian flow; they are also useful as gateway features for 20mph zones, traffic calmed area and Home Zones; they are also useful as traffic calming features.

Guidelines

- Flush transition between footway and carriageway.
- Relevant tactile provision laid to full width of crossing.
- Crossing surface should be contrasting colour , or
- Highlight edges at top of slope.

Diagram 29. Layout of blister paving at a side road junction, where the side road carriageway has been raised to the level of the footway.

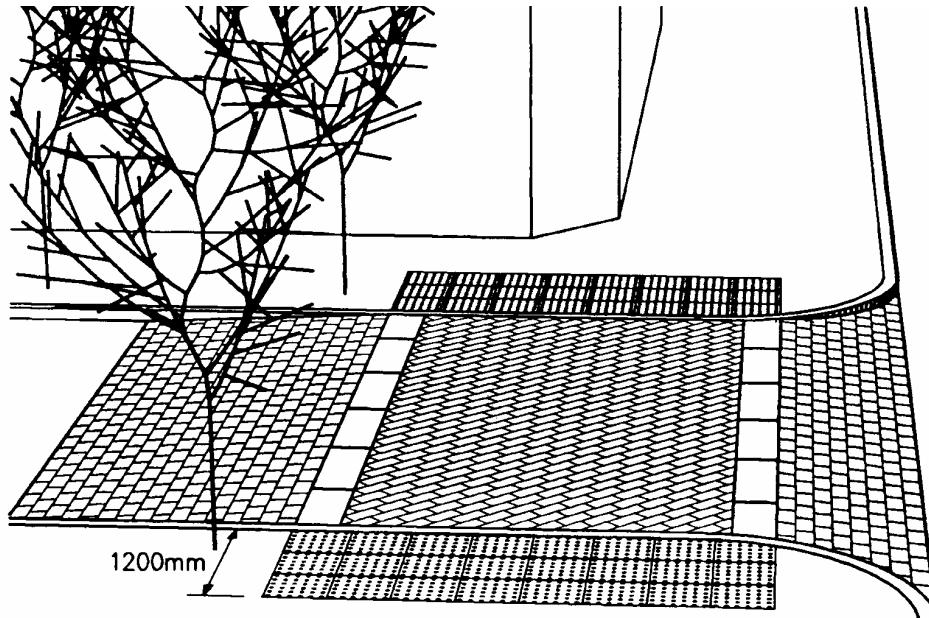


Diagram 30. Layout of blister surface at a junction where the entire carriageway has been raised to the level of the footway.

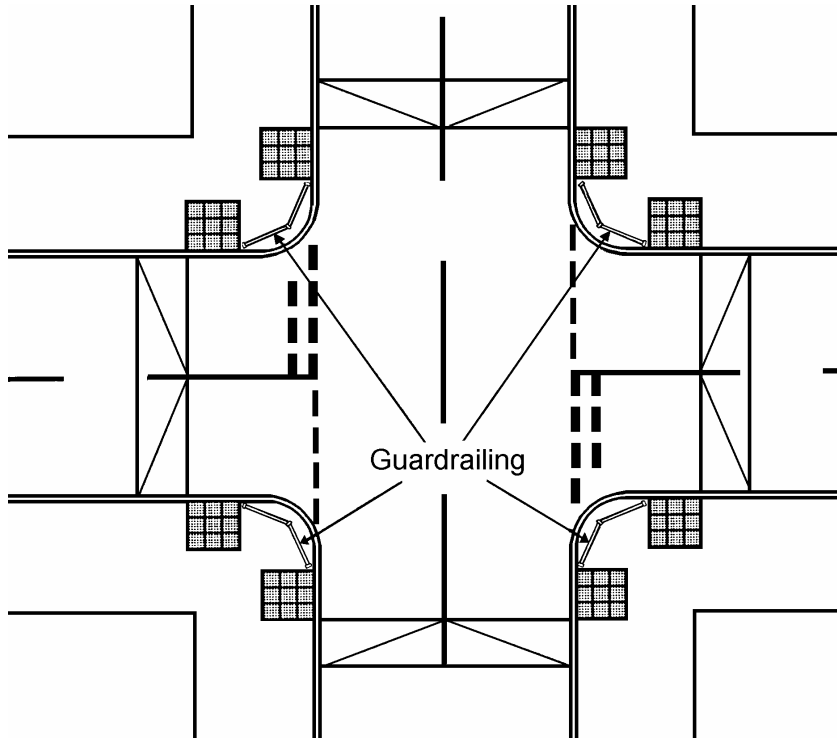
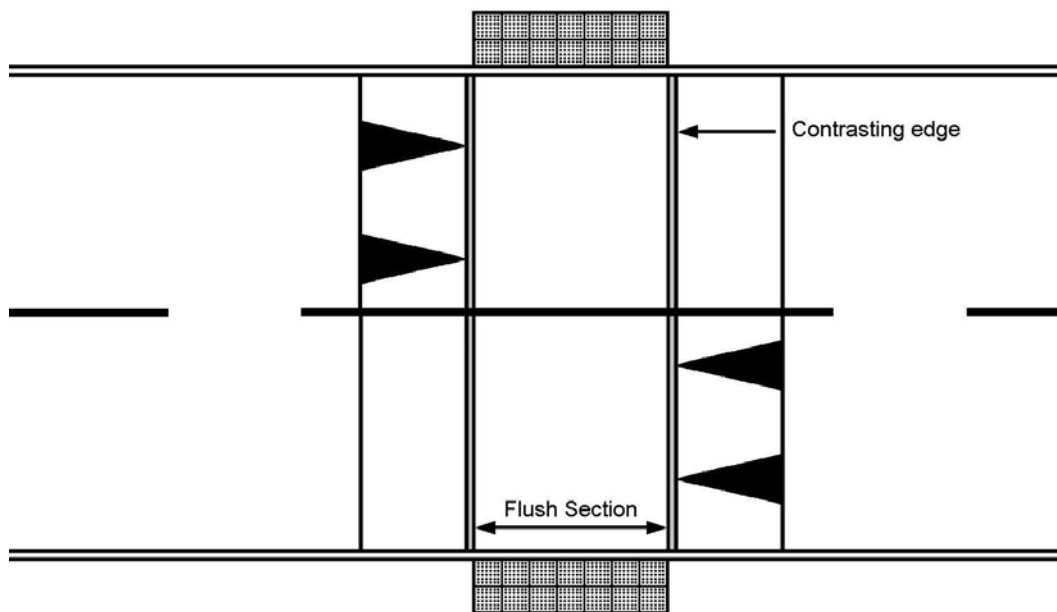


Diagram 31. Layout of blister surface at an uncontrolled crossing on a kerb to kerb flat top road hump.



4.3.2 Pedestrian refuges and traffic islands

Pedestrian refuges and traffic islands help pedestrians by enabling them to deal with one lane or direction of traffic at a time.

Guidelines:

- Should be deep enough to accommodate a wheelchair or pushchair and pusher, (**2000mm** minimum).
- Blister surface should be laid across full depth of refuge if less than **2000mm** wide, set back **150mm** from edge of carriageway, (see diagram 30).
- For refuges over **2000mm** deep then two rows of blister surface **800mm** deep should be laid, again **150mm** from carriageway, (see diagram 31).
- The two dropped kerbs on the footways and the refuge should be aligned and fitted with flush dropped kerbs and tactile paving.
- The width of a refuge (across the direction of travel for the pedestrian) should be related to pedestrian flow and composition, (**2000mm** minimum).

Diagram 32. Layout of tactile surface on standard refuge less than 2000mm wide

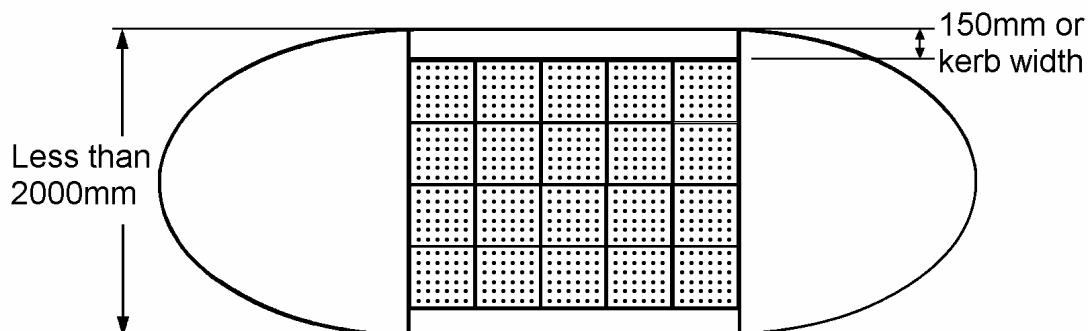
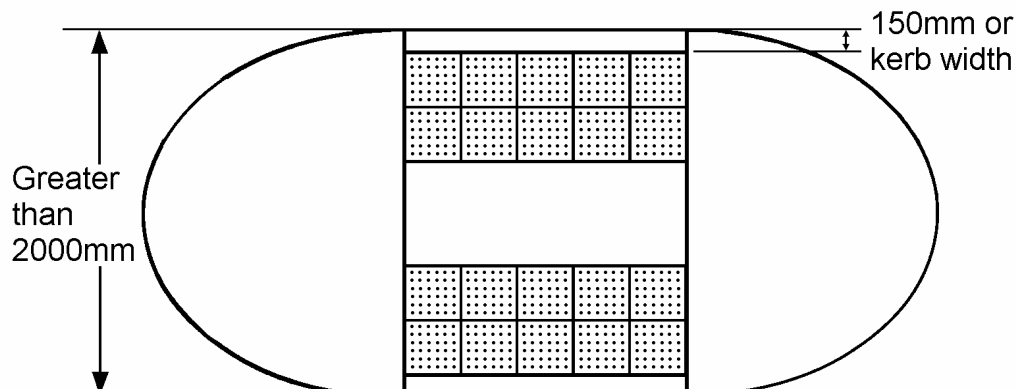


Diagram 33. Layout of tactile surface on standard refuge greater than 2000mm wide

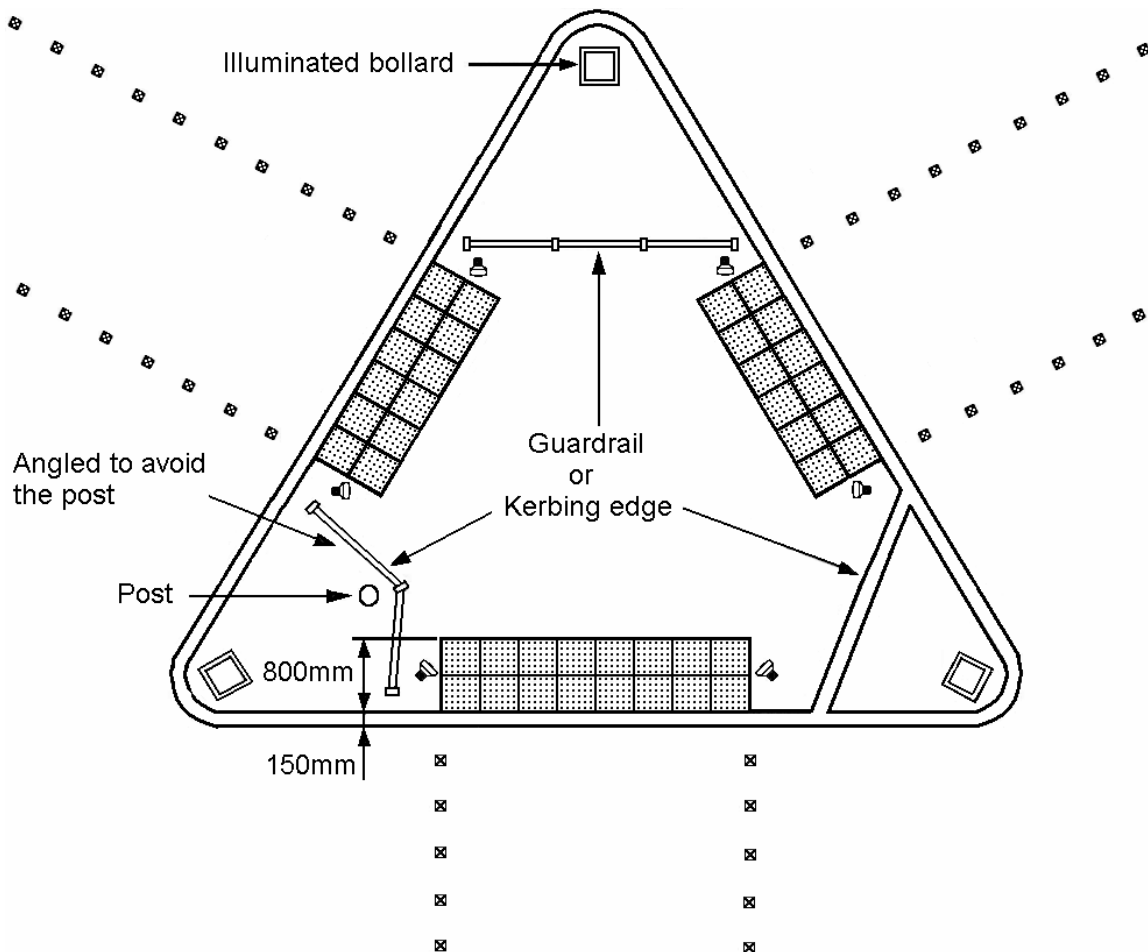


4.3.3 Triangular island pedestrian refuge

Guidelines:

- A level area should be provided in the centre of the island to allow users to move between crossings – especially important for wheelchair users.
- Pedestrians should be guided between crossing points by the use of kerbing edge surface or guardrails.
- Blister surface should be installed across the full width of each dropped kerb to a depth of **800mm**, set back **150mm** from the carriageway on all sides.

Diagram 34. Location of blister surface on a triangular pedestrian refuge



4.4 Footbridges and underpasses

The quickest and easiest way to cross a road is on the surface. Footbridges and underpasses can be impossible barriers. They can confuse people with visual impairments, add additional distances for the frail and elderly, and provide unnecessary gradients for wheelchairs and pushchairs as well as adding to the real or perceived risk of being attacked.

Guidelines:

- Footbridges and underpasses should be carefully designed to minimise these difficulties as much as possible, so maximising use.
- DETR Departmental Standards BD29/87 '*Design Criteria for footbridges*' and TD 36/93 '*Subways for Pedestrians and Pedal Cyclists*' set out design standards.
- Corduroy hazard warning surface should be installed at the top and bottom of flights of steps to aid visually impaired people.
 - These areas should also be well lit.

5. Shared footway/cycle tracks

Shared use facilities where pedestrians and cyclists are in close proximity to each other can cause problems especially for people with vision and hearing loss. The speed, quietness and proximity of some cyclists can cause anxiety and danger, particularly where there is no physical segregation between the two groups.

Consideration will be given first to providing on-road cycling facilities. Where this is not possible then a shared footway/cycle track may be provided, where it is safe and reasonable to do so.

There are two types of shared use footway/cycle track facilities, they are;

- Unsegregated, where pedestrians and cyclists mix freely, and
- Segregated, where the footway and cycle track are separated by a white line or physical barrier.

Where shared use facilities are introduced the National Cycle Network (NCN) guidelines should be followed:

Guidelines:

- For an unsegregated facility the desirable minimum width is **3000mm**.
- For a segregated facility on an open site, a desirable width of **3000mm (1500mm footpath, 1500mm cycle track)**, and
- on a bounded site **3250mm (1750mm footway, 1500mm cycle track)** if the carriageway is on the cycle track side.
- The facility should be set back **500mm** from the carriageway.
- On a site bounded on both sides **3500mm (1750mm footway, 1750mm cycle track)**
- On segregated routes, road marking 1049, (TSRGD). a flat or embossed, white centre line should delineate the cyclist and pedestrian sides,
- To advise visually impaired people of the correct side to enter the track;
 - The Segregated Shared Cycle track/footway tactile surface should be used
 - The centre delineator strip can help the partially sighted keep to the pedestrian side.
- In rural areas, shared surfaces should be created with cyclists and horse riders wherever it is safe and reasonable to do so if providing on-road facilities is impractical.

Diagram 35. Plan of segregated shared cycle track/footway tactile surface and delineator strip.

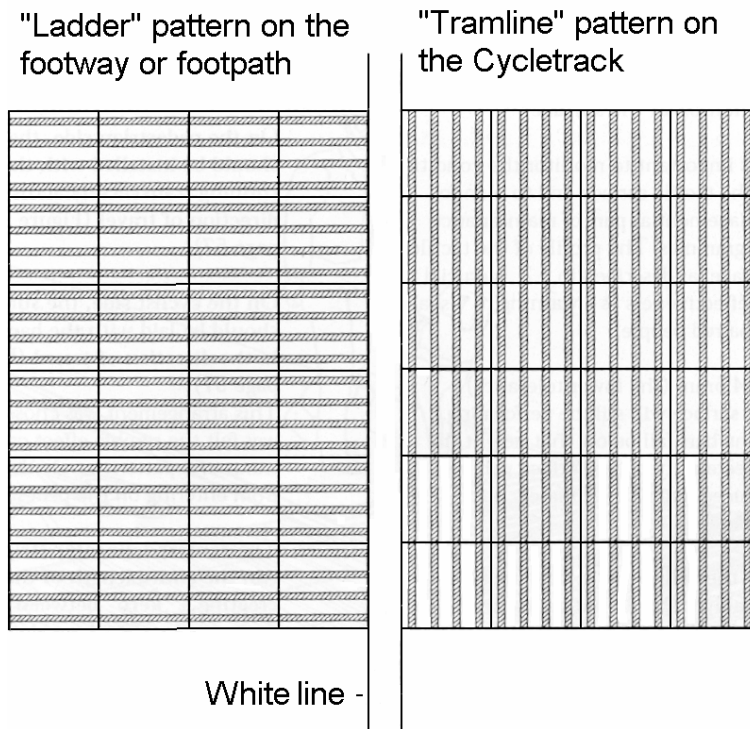


Diagram 36. Where a shared route meets a shared route

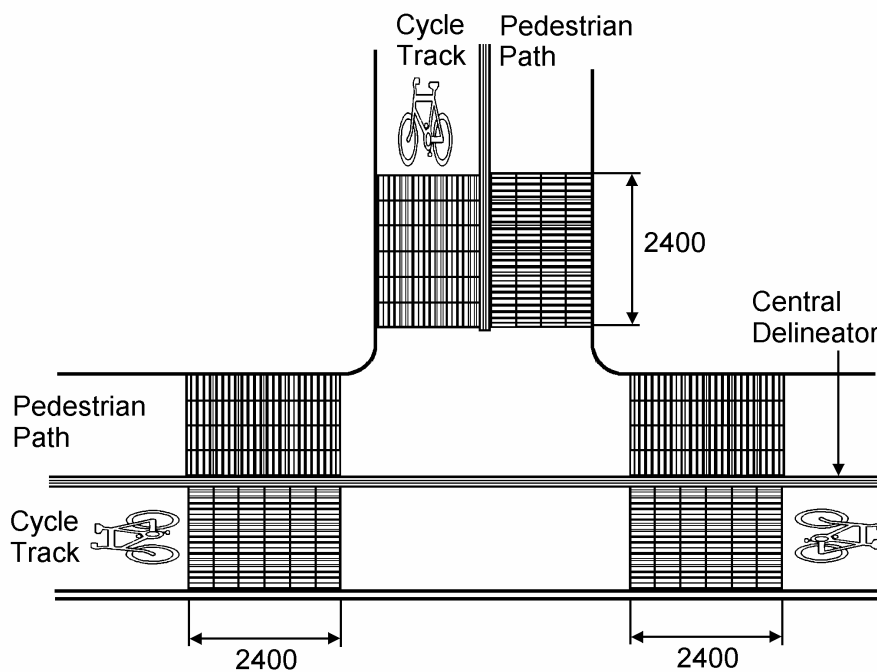


Diagram 37. Where a footpath meets a shared use route

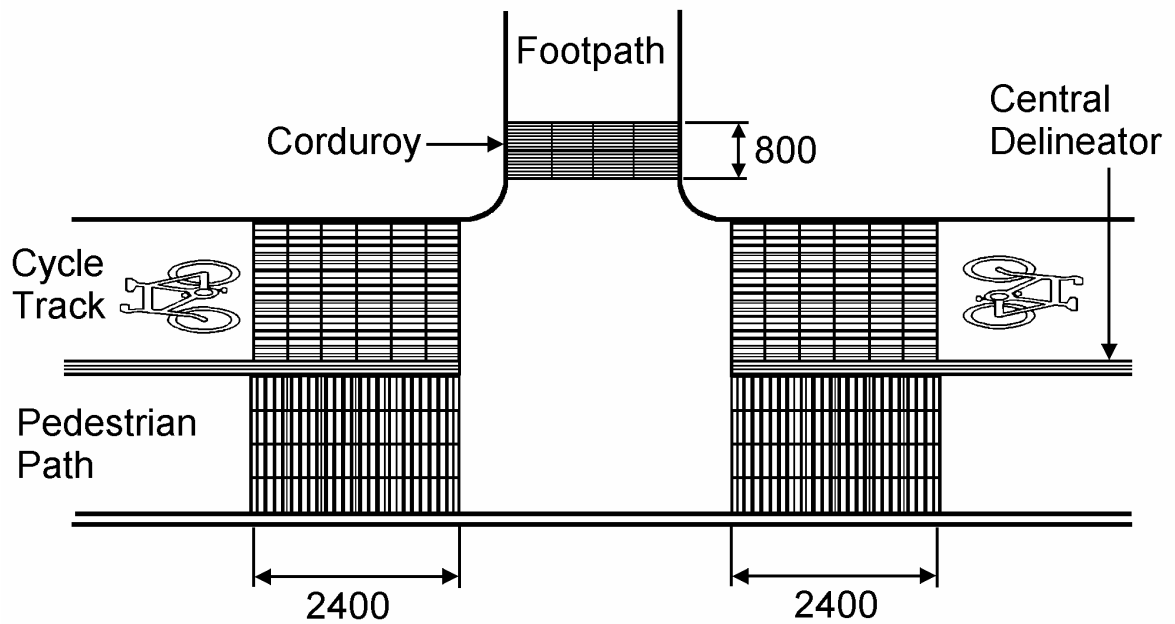
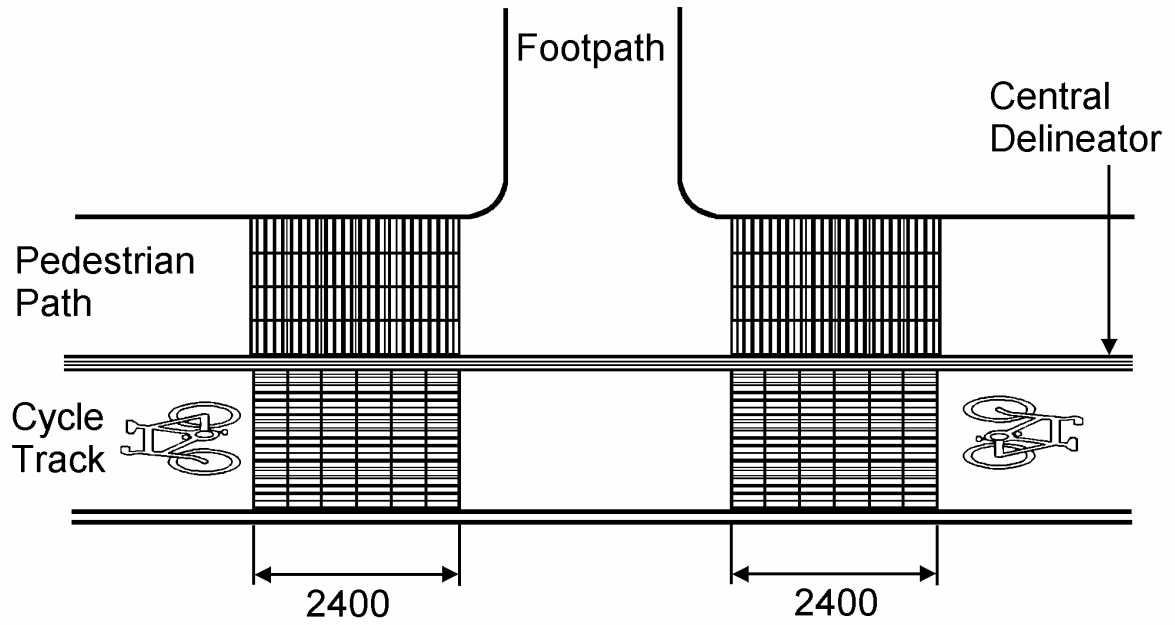


Diagram 38. Where a cycle track meets a shared use route

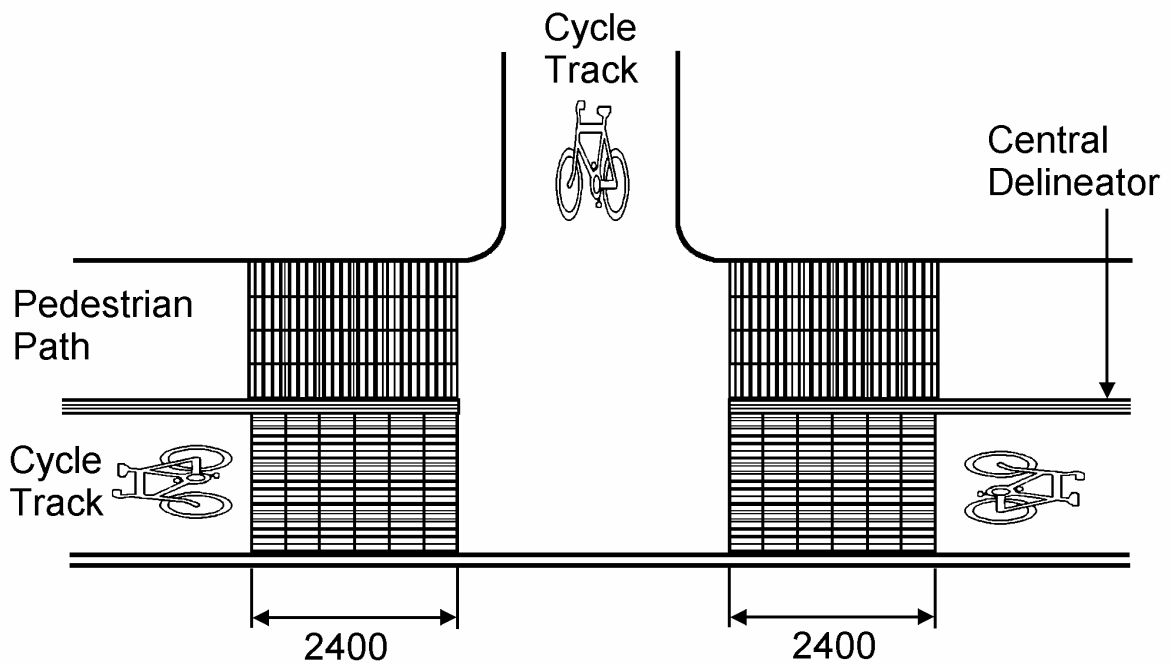
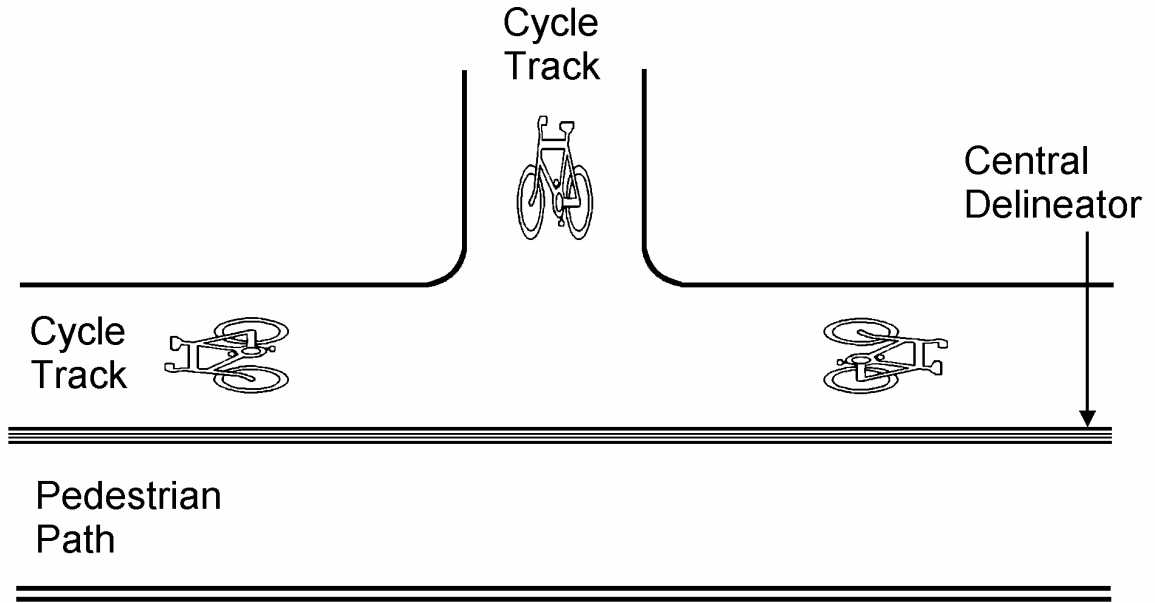


Diagram 39. Controlled crossing layout along a shared route at side road or in-line crossings.

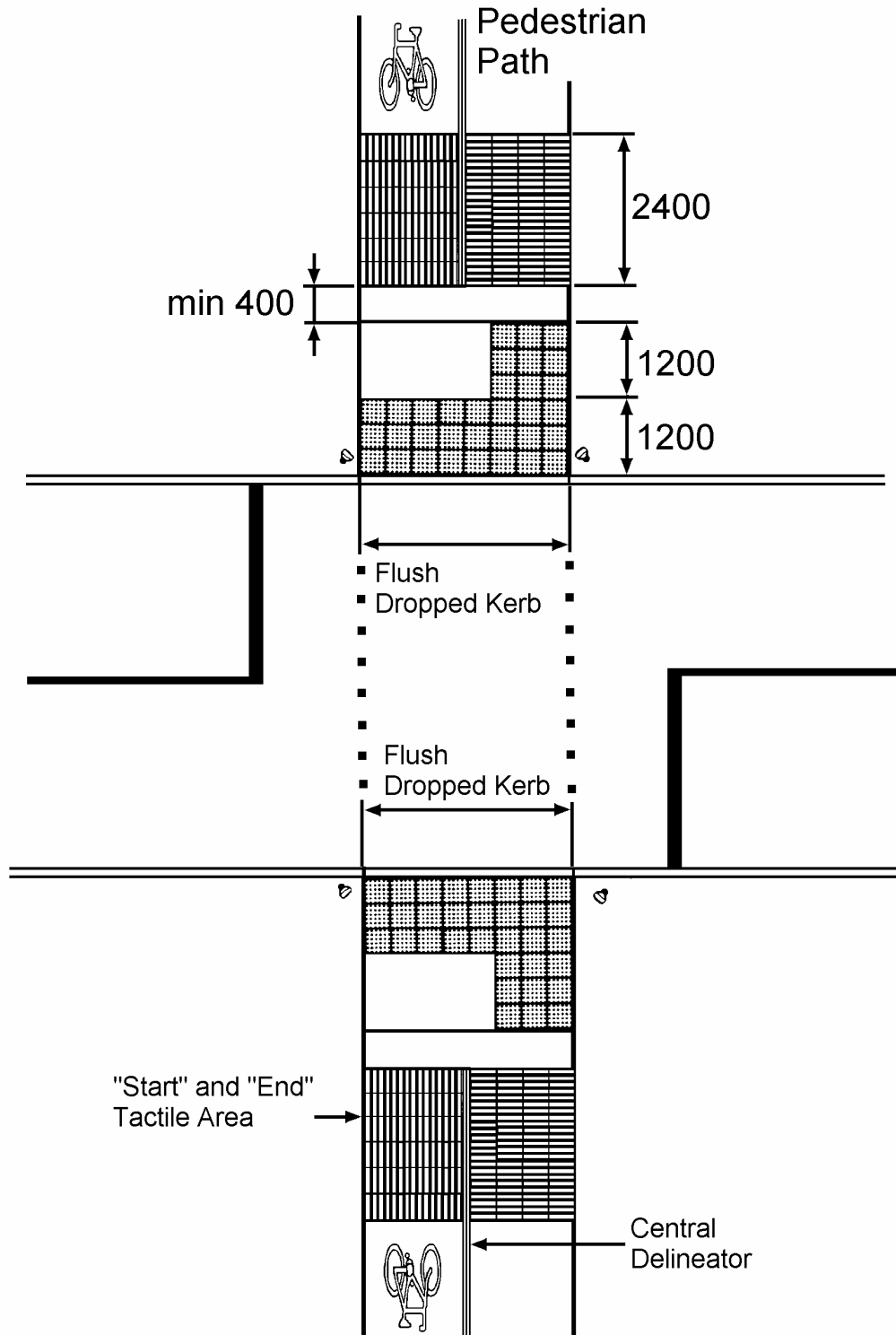


Diagram 40. Layout at controlled crossings along a shared route.

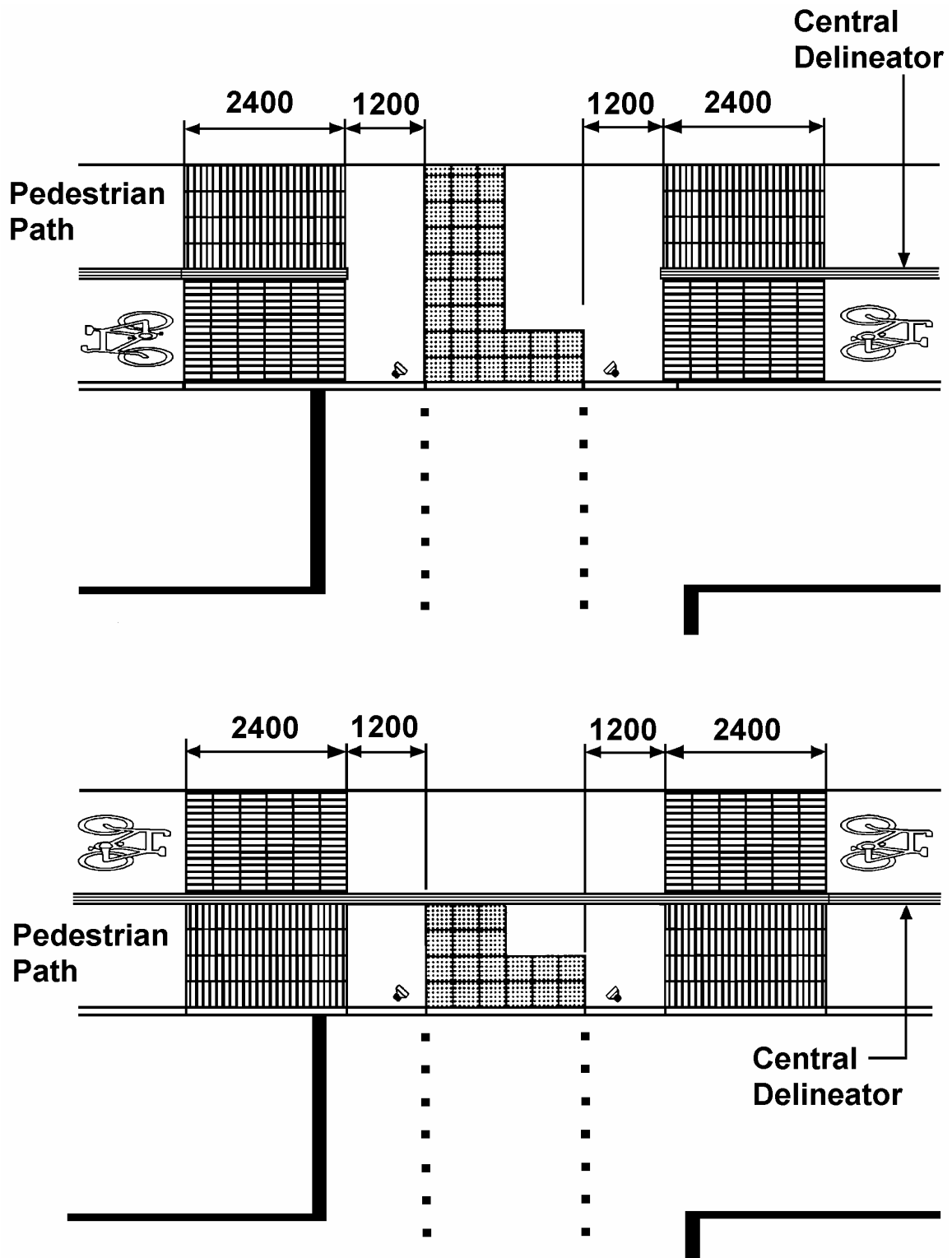
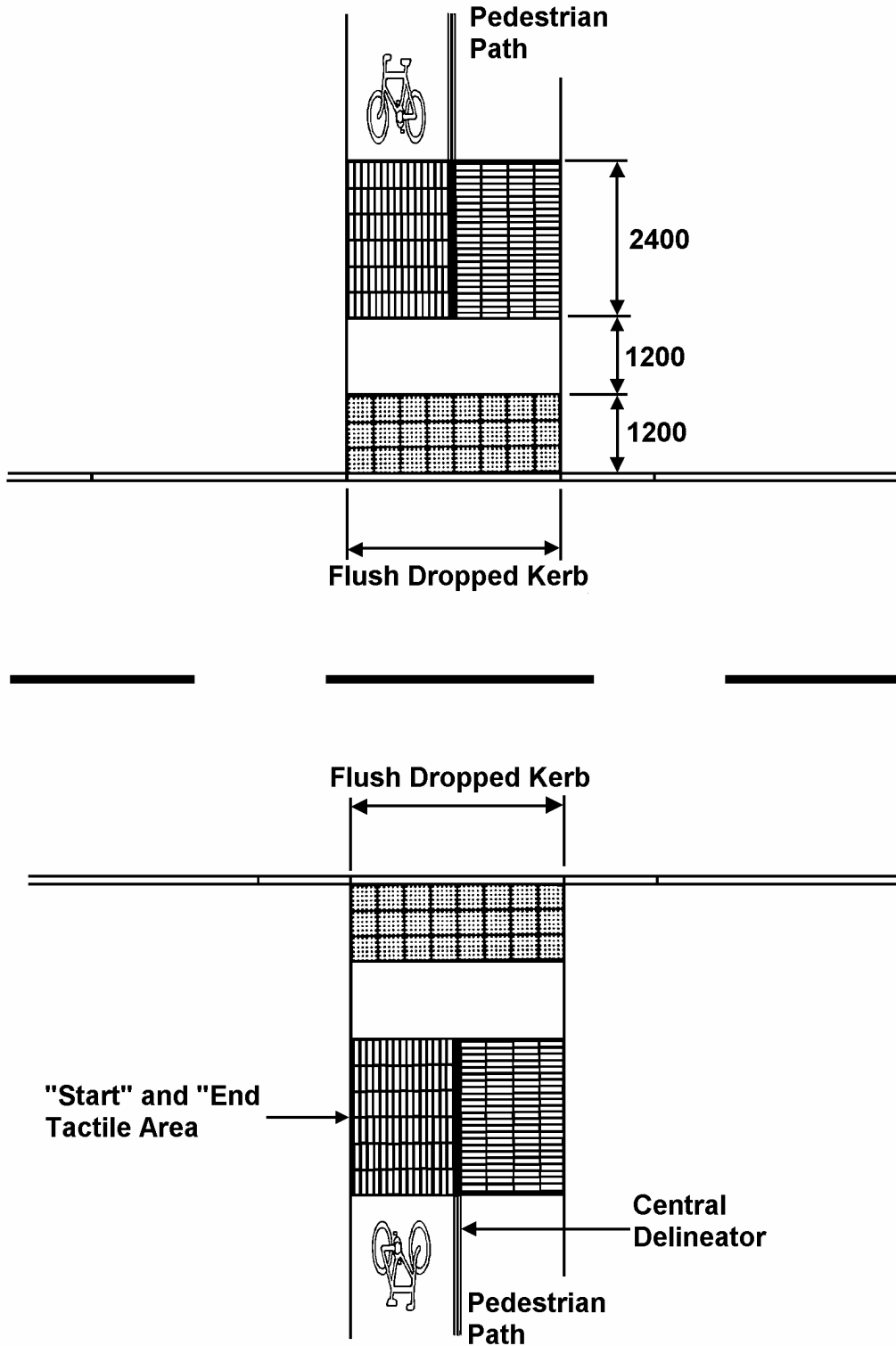


Diagram 41. Layout between Shared route and a carriageway - Uncontrolled Crossing.



6. Car parking

For someone to obtain a Blue Badge they are expected not to be able to walk **50m** or walk that far without pain. This should be used as a guide to the provision of disabled parking spaces and the location and spacing of seating.

parking spaces for people with disabilities need to be larger than standard bays to allow extra space for access, especially if a vehicle occupant has to transfer to a wheelchair. some wheelchair are loaded using mechanical hoists which also require extra space to operate.

Guidelines:

- Dropped kerb access to parking bays should be provided.
- On-street parking parallel to the kerb; minimum **6600mm** long by **2700mm** wide.
- On-street parking at an angle to the kerb; minimum **4200mm** long by **3600mm** wide
- On - street parking bay markings should comply with diagrams 1028.3, 1032 or 1033 of the Traffic Signs Regulations and General Directions 2002.
- An 1800mm wide bay may be provided where the overall width of an existing carriageway is insufficient to accommodate a wider bay.
- Off-street parking bays; a minimum **4800mm** long by **2400mm** wide plus additional access space;
 - Where bays are parallel to the access aisle; an extra **1800mm** length.
 - For bays perpendicular to the access aisle; an extra **1200mm** width.
 - Adjacent bays can share the same **1200mm** access space.
 - Where space permits a **1200mm** safety zone may be added to the rear of the bay.
- Disabled spaces should be placed on all sides of a pedestrianised area, ideally where the ground is flat.
- For further guidance on parking requirements refer to the Cheshire County Council Parking Standards document.

Diagram 42. Off- street disabled parking bay dimensions

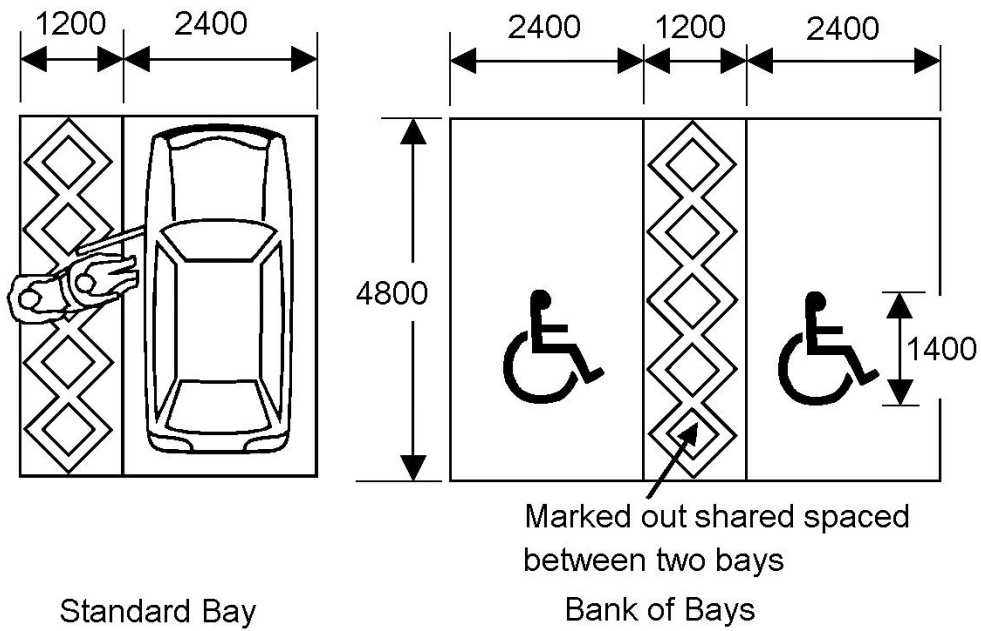
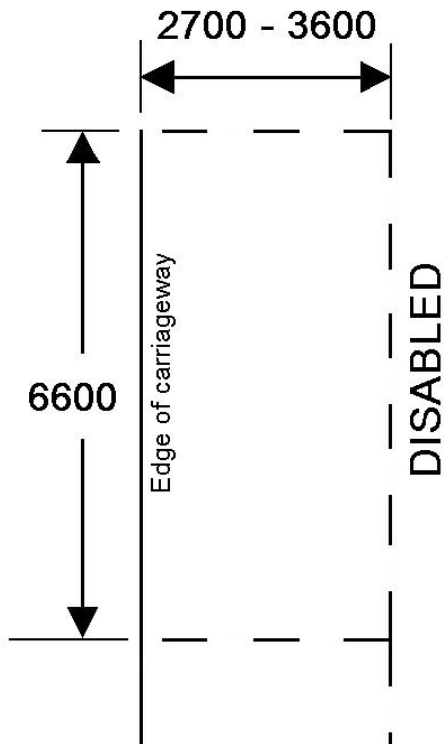


Diagram 43. On - street disabled parking bay dimensions



7. Shopmobility

Shopmobility schemes offer the use of powered scooters and wheelchairs on loan free of charge or for a small fee, to anyone with temporary or permanent mobility impairment. They then give people greater access to shopping and other facilities in town centres.

Schemes within Cheshire are located in:

- Chester,
- Crewe,
- Ellesmere Port,
- Macclesfield,
- Northwich,
- Wilmslow, and
- Winsford.

Guidelines:

- The mobility centre for the scheme should be based as near as possible to areas where clients can arrive by public transport, with reserved parking for those arriving by car.
- Visitors may not be aware of a Shopmobility scheme, so clear signs to the scheme should be erected.
- Accessible routes to key destinations and back to the Shopmobility centre should be signed.

Diagram 44. Shopmobility sign



8. Works and maintenance

8.1 Temporary works

When temporary works occur on the highway, the needs of visually impaired people and wheelchair users have to be considered.

Guidelines:

- All works in the highway must be carried out in accordance with the requirements of the *New Roads and Streetworks Act 2002* and *Safety at Street and Road Works – A Code of Practice* pages 28-33 'Work on Footways – Look after Pedestrians'.
- Protection of visually impaired pedestrians will require the roadworks to be guarded on those sides accessible to the public.
- A footway route of **1500mm** (**1000mm** minimum) width should be maintained.
- If **1000mm** cannot be given then a protected route in the carriageway should be provided.
- Barriers must be used to;
 - delineate the works and warn pedestrians of their presence, and
 - to protect pedestrians diverted into a hazardous situation.
- Barriers should be conspicuous, with vertical posts coloured red.
- Base supports should not protrude more than **300mm** into the pedestrians' path.
- The lower barrier should be **150mm to 200mm** from the ground. Cane users will use the lower barrier as a tapping rail so it must be sturdy. It will also prevent guide dogs from walking under the top barrier.
- The top barrier between **1000mm and 1200mm** from the ground.
- Information boards should be displayed at every site with;
 - Name of organisation for which the works are being done,
 - Contact phone number for emergencies, and
 - Other information (e.g. contractor's name, details of the works, apology for inconvenience and completion date, if works are for more than one month in duration).
- Temporary signs on the footway must not obstruct pedestrians;
 - The absolute minimum footway width should be **1000mm**.
- Works should be phased so that only one footway is out of use at one time.
- Alternative routes must be safe and accessible.
- Temporary footway surfaces should be of a standard to accommodate wheelchairs and people who are unsteady on their feet.

Diagram 45. Works on Footways

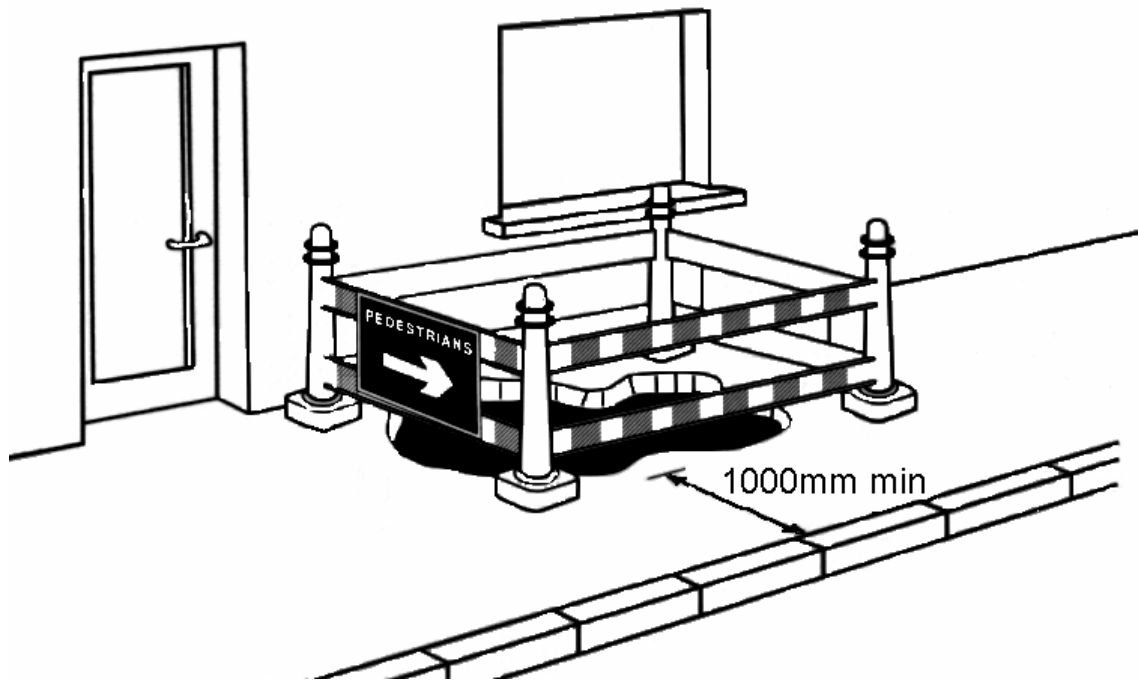
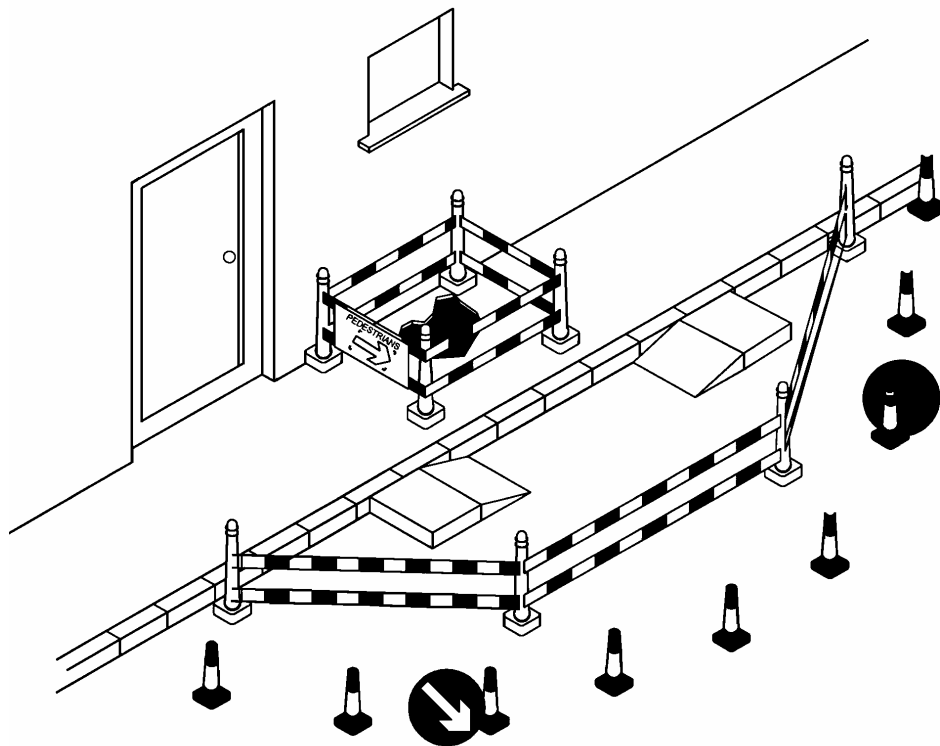


Diagram 46. Works on footway with temporary footway in carriageway

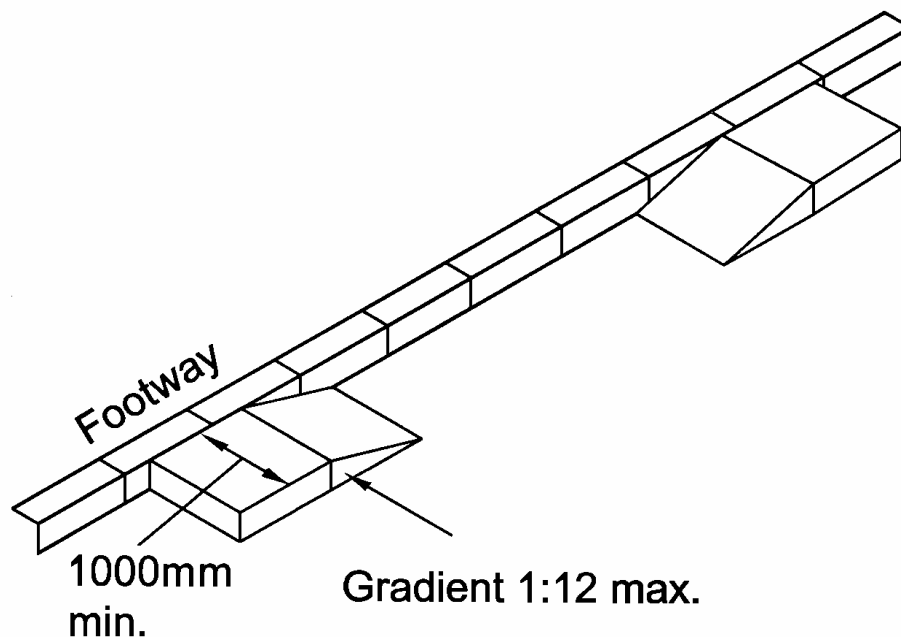


When pedestrians are diverted to temporary footways in the carriageway, suitable ramps must be provided to enable people using wheelchairs and pushchairs to negotiate kerbs safely.

Ramps should;

- cover the full width of the temporary footway,
- be constructed from materials strong enough to support,
- preferably with edging to prevent wheelchairs slipping over the edge,
- maximum, slope gradient 8% (1:12),
- slope should be parallel to kerb, with
 - a platform at kerb level to allow wheelchair users to turn 90 degrees before descending the ramp.

Diagram 47. Detail of ramps used to divert pedestrians off footway into carriageway.



Ramped platform must be full width of temporary footway.

8.2 Scaffolding

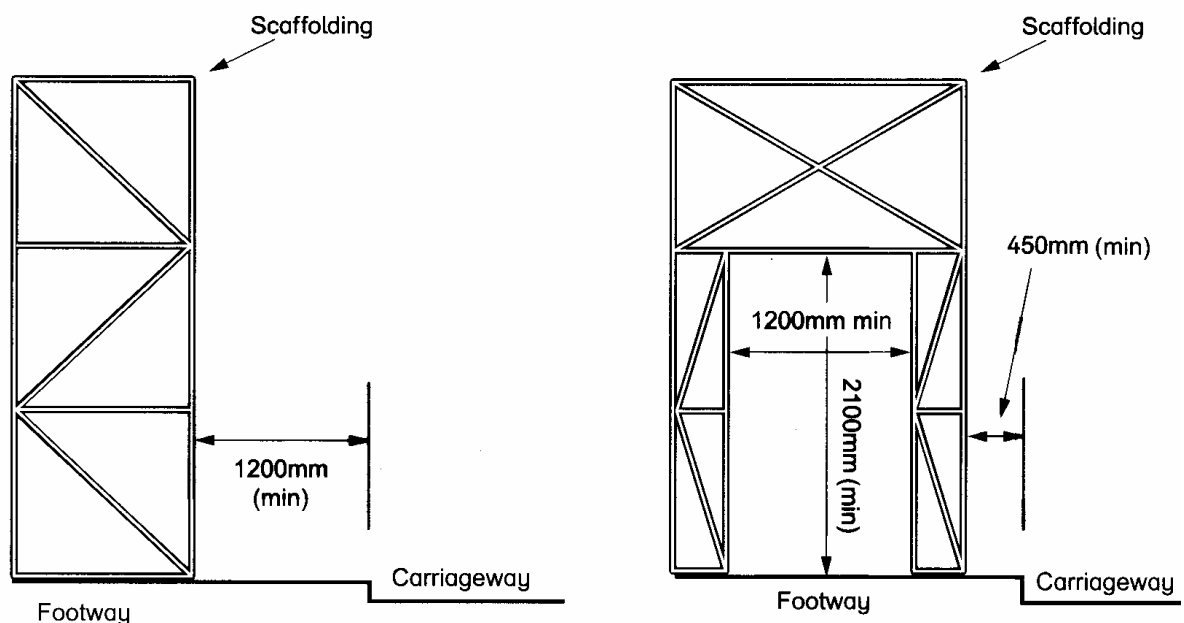
Consent must be obtained from the Highway Authority prior to the erection of any scaffolding that will obstruct any part of the highway.

Chapter 43 of the Disabled Persons Act 1981 requires that their presence be made clear to visually impaired people.

Guidelines:

- 1200mm footway width should be maintained.
- Corner poles should be clearly indicated by warning tapes and sleeves.
- Warning signs should be provided at ends and external corners.
- Each tabular support adjacent to the footway should be provided with;
 - Distinctive red and white banding, or
 - A 150mm white band 1500mm above ground level
- If 2100mm headroom is not possible then either;
 - Part of the footway should be closed off, or
 - Footway diverted.
- Boarding must cover cross bracing at ground level.

Diagram 48. Footway Clearances at scaffolding



8.3 Site reinstatement and maintenance

Poor maintenance is a danger and a barrier for mobility impaired pedestrians. Uneven and cracked paving flags, poor reinstatements, ruts and gaps can lead to trips, trapped wheels and canes, and cause uncomfortable jolts to wheelchair and pram users.

Cheshire County Council currently carries out scheduled safety inspections and subsequent maintenance of footways, the frequency of which is dictated by the importance of the route.

Frequencies range between once every two weeks to once every six months and are increased under conditions where motorised traffic has to be diverted onto the footway.

Further information on the frequencies and inspection methods can be obtained from Cheshire County Council's handbook 'Code of Practice for Highway Safety Inspections'.

Guidelines:

- On completion of any works, all materials must be cleared from the highway, which should be left in a clean and tidy condition.
- Any damage caused to the footway or carriageway must be made good to the satisfaction of the County Council.
- Routine inspections and maintenance programmes should ensure that all routes are accessible to people with mobility impairments.
- It is important to monitor the condition of tactile paving and plan for replacement; if the blisters fall below **3mm** the material is likely to be virtually undetectable.
- The *New Roads and Streetworks Act 2002* requires the replacement of tactile paving when it is removed or disturbed in the course of works being carried out on the footway.

9. Other Information

9.1 Useful addresses

9.1.1 Cheshire County Council Highways Service

For advice on planning applications, technical advice on installing street furniture or to report faults and obstructions to the highway and street furniture please contact the local joint highway team;

Chester District

Highways Maintenance office
Guilden Sutton Depot
Guilden Sutton
Chester, Cheshire CH3 7EX

Tel: 0845 020 0666

email: engch@cheshire.gov.uk.

Congleton District

Congleton Joint Highways Team
Westfields
Middlewich Road
Sandbach, Cheshire CW11 3HZ

Tel: 0845 020 0666

email: engco@cheshire.gov.uk

Crewe & Nantwich District

Crewe & Nantwich Highways Team
Brierley Business Centre
Mirion Street
Crewe, Cheshire CW1 2AZ

Tel: 0845 020 0666

email: engcn@cheshire.gov.uk

Ellesmere Port & Neston District

Ellesmere Port & Neston Joint Highways Team
Council Offices
4 Civic Way
Ellesmere Port, Cheshire CH65 0BE

Tel: 0845 020 0666

email: engepn@cheshire.gov.uk

Macclesfield District

Macclesfield Joint Highways Team
London Road
Lyme Green
Macclesfield, Cheshire SK11 0JX

Tel: 0845 020 0666

email: engm@cheshire.gov.uk

Vale Royal District

Vale Royal Joint Highways Team
Phoenix House
Clough Road
Winsford, Cheshire CW7 4BD

Tel: 0845 002 0666

email: engvr@cheshire.gov.uk

For lighting policy and advice, contact:

Phil Edwards
Cheshire County Council
Engineering Service
Backford Hall
Chester, Cheshire CH1 6EA

Tel: 01244 973737

email: phil.edwards@cheshire.gov.uk

For signing advice, contact:

Neil Theobald
Cheshire County Council
Backford Hall
Chester, Cheshire CH1 6EA

Tel: 01244 973621

email: neil.theobald@cheshire.gov.uk

To discuss pedestrian provision and details of this code of practice contact:

David Reeves
Cheshire County Council
Backford Hall
Chester, Cheshire CH1 6EA

Tel: 01244 973762

email; dave.reeves@cheshire.gov.uk

If you are unsure who to contact, ring a County Council information point:

Tel 0845 11 333 11

email; engineering@cheshire.gov.uk

Complaints

If you are not satisfied with the service you receive from the County Council's Engineering Service, please contact;

County Engineer
Cheshire County Council
Backford Hall
Chester, Cheshire CH1 6EA

Tel: 01244 973575

email:

9.1.2 Other Cheshire County Council Services

Transport Co-ordination

For information on Cheshire County Council's Bus Strategy or Bus Interchange Strategy contact:

Colin Kennington
Transport Co-ordination Service
Cheshire County Council
Rivacre Business Centre
Mill Lane
Ellesmere Port, Cheshire CH66 3TL

Tel. 01244 603896

email: colin.kennington@cheshire.gov.uk

Social Service Access Team

These are the first point of contact for help or information for all aspects relating to disability, visual impairment, and deafness.

Email: www.cheshire.gov.uk/social

Central Area

County Offices
Watling Street
Northwich, Cheshire CW9 5ET Tel: 01606 814900

County Offices
Wyvern House
The Drummer
Winsford, Cheshire CW7 1AU Tel: 01606 815600

Delamere House
Delamere Street
Crewe, Cheshire CW1 2LL Tel: 01270 505100

East Area

County Offices
Chapel Lane
Wilmslow, Cheshire SK9 1PU Tel: 01625 534700

Macclesfield Library
Jordangate
Macclesfield, Cheshire SK10 1EG Tel: 01625 534700

Congleton Library
Market Square
Congleton, Cheshire CW12 1BU Tel: 01625 534700

West Area

Goldsmith House
Hamilton Place
Chester, Cheshire CH1 1SE Tel: 01244 603400

Coronation Road
Ellesmere Port, Cheshire CH65 9AA Tel: 0151 357 4500

Dial-a-Ride and Community Transport

Cynthia Nelson
Rivacre Business Centre
Mill Lane, Ellesmere Port CH66 3TL
Tel: 01244 603269 email: cynthia.nelson@cheshire.gov.uk

9.1.3 Local Organisations:

These groups can offer advice on mobility issues and will have knowledge of local conditions and will be able to advise on specific local issues.

Cheshire Disabilities Federation

Central Office

Hartford Business Centre

Chester Road

Northwich, Cheshire CW9 2AP

Tel: 01606 888255 email: office@cdfnorthwest.org.uk

Cheshire Deafness Support Network

144 London Road

Northwich Cheshire CW9 5HA

Tel: 01606 47831 email: dsn@deafnesssupportnetwork.co.uk

Congleton Disabled Access Club

8 The Green,

Astbury Street

Congleton Cheshire CW12 4EL

Tel: 01260 271997 email: annconvoy@ecosse.net

Congleton Disabled Club

197 Longdown Road

Congleton Cheshire CW12 4QT

Tel: 01260 273494

D.I.A.L. Chester Disability Information Centre

Dial House

Hamilton Place

Chester Cheshire CH1 2BH

Tel: 01244 345655 email: enquiries@dialhousechester.org.uk

Website: www.dialhousechester.org.uk

Disability Resource Exchange

PO Box 82

Crewe, Cheshire CW2 8FA

Tel: 01270 501535 email: info@drecrewe.org.uk

Disabled Information Centre Ellesmere Port (DICE)

6 Mercer Walk
Port Arcades
Ellesmere Port Cheshire CH65 0AP

Tel: 0151 356 8253 email: linda@diceshopmobility.org

IRIS Vision Resource Centre

14 Chapel Street
Crewe Cheshire CW2 7DQ

Tel: 01270 250316 email: iriscentre@comcarenet.net
Website: www.iriscentre.comcarenet.net

Living Streets (Wilmslow).

Dale Langham
32 Curzon Mews
Wilmslow Cheshire SK9 5JN

Tel: 01625 548572 email: dale.langham@lineone.net

Macclesfield Access Group

29 Westbury Drive
Macclesfield Cheshire SK11 8LR

Tel: 01625 427453

Macclesfield Blind Society

15 Queen Victoria Street
Macclesfield Cheshire SK11 6LP

Tel: 01625 422602

Vision Support

67 Liverpool Road
Chester Cheshire CH2 1AP

Tel: 01244 651905 email: resource@visionsupport.org.uk

Wilmslow Access Action Group

Alan Pearce
9 Curzon Mews
Wilmslow Cheshire SK9 5JN

Tel: 01625 536602 email; awpearce@wilmslow9.fsbusiness.co.uk

9.1.4 National organisations:

Arthritis Care

18 Stephenson Way
London NW1 2HD

Tel: 020 7380 6500 email: reception@arthritiscare.org.uk

British Standards Institute

389 Chiswick High Road
London W4 4AL

Tel: 0208996 7400 email: info@bsi-global.com

Centre for Accessible Environments

Nutmeg House
60 Gainsford Street
London SE1 2NY

Tel: 020 7357 8182 website: www.cae.org.uk

Community Transport Association

Highbank
Halton Street
Hyde, Cheshire SK14 2NY

Tel: 0161 366 6685 email: ctauk@communitytransport.com

Deafblind UK

100 Bridge Street
Peterborough, Cambridgeshire PE1 1DY

Tel: 01733 358356 email: info@deafblind.org.uk

The Mobility and Inclusion Unit

The Department for Transport

Zone 1/18
Great Minister House
76 Marsham Street
London SW1P 4DR

Tel: 020 7944 6102 email: miu@dft.gov.uk

Disabled Drivers Association

National HQ
Ashwellthorpe
Norwich NR16 1EX

Tel: 01508 489449 email: ddahq@aol.com

The Disabled Persons Transport Advisory Committee (DPTAC)

Zone 1/14
Great Minister House
76 Marsham Street
London SW1P 4DR

Tel: 020 7944 6100 email: dptac@dft.gov.uk

Institute of Historic Building Conservation

3 Stafford Road
Tunbridge Wells, Kent TN2 4QZ

email: it@ihbc.org.uk

Institution of Highways and Transportation

6 Endsleigh Road
London W13 0RE

Tel: 020 7387 2525 email: iht@iht.org

Joint Mobility Unit (JMU)

224 Great Portland Street
London W1N 6AA

Tel: 020 7387 2233 website: www.jmuaccess.org.uk

Jointly funded by the RNIB and Guide Dogs for the Blind and gives advice on the design of facilities to meet the needs of visually impaired people.

Living Streets

31-33 Bondway
London SW8 1SJ

Tel: 020 7820 1010 email: info@livingstreets.org.uk

Website: www.livingstreets.org.uk

National Federation of Shopmobility UK

12 City Forum

250 City Road
London EC1V 8AF

Tel: 020 7689 1040 website: www.justmobility.co.uk

Royal Association for Disability and Rehabilitation (RADAR)

Address as for Shopmobility

Tel: 020 7250 3222 website: www.radar.org.uk

Royal National Institute for the Blind (RNIB)

105 Judd Street
London WC1H 9NE

Tel: 020 7388 1266 website: www.rnib.org.uk

Royal National Institute for the Deaf (RNID)

19-23 Featherstone Street
London EC19 8SL

Tel: 020 7296 8000 website: www.rnid.org.uk

Royal Society for Mentally Handicapped Children and Adults (MENCAP)

123 Golden Lane
London EC1Y 0RT

Tel: 020 7454 0454

Scope

6 Market Road
London N7 9PW

Tel: 020 7619 7399

9.2 Bibliography

9.2.1 Technical Guidance

- British Standards 1992; BS5489:1992 *Road Lighting*.
- British Standards 2001; BS8300:2001 *Design of buildings and their approaches to meet the needs of disabled people – Code of practice*.
- British Telecom 1997; *BT Countryside for All – Standards and Guidelines – A Good Practice Guide to Disabled People’s Access in the Countryside*. BT
- Cheshire County Council 1996; *Design Aid: Housing, Industrial and Commercial Estate Roads*. CCC
- Cheshire County Council 2000; *Code of Practice for Highway Safety Inspections. Inspectors’ Handbook*, Second Edition. CCC.
- Department for Transport 2002; *Code of Practice ‘Safety at Street Works and Road Works*. HMSO
- DfT 1987; Departmental Standard BD 29/87, *Design Criteria for Footbridges*. HMSO.
- DfT 1991; Traffic Advisory Leaflet 4/91 *‘Audible and Tactile Signals at Pelican Crossings’* HMSO
- DfT 1991; Traffic Advisory Leaflet 5/91 *‘Audible and Tactile Signals at Signal Controlled Junctions’* HMSO.
- DfT 1993; Design Manual for Roads and Bridges TD36/93, *Subways for Pedestrians and Cyclists Layout and Dimensions*. HMSO
- DfT 1993; Traffic Advisory Leaflet 4/93 *‘Pavement Parking’* HMSO
- DfT 1995; Local Transport Note 1/95 *‘The Assessment of Pedestrian Crossings’* HMSO
- DfT 1995; Local Transport Note 2/95 *‘The Design of Pedestrian Crossings’* HMSO
- DfT 1995; Traffic Advisory Leaflet 5/95 *‘Parking for Disabled People’* HMSO
- DfT 1998; Traffic Advisory Leaflet 4/98 *‘Toucan Crossing Development’* HMSO
- DfT 1998; *‘Guidance on the Use of Tactile Paving’* HMSO (supersedes Disability Unit Circular 1/91)
- DfT 2001; Traffic Advisory Leaflet 1/01 *‘Puffin Pedestrian Crossing’* HMSO
- DfT 2002; Traffic Advisory Leaflet 1/02 *‘The Installation of Puffin Pedestrian Crossings’* HMSO.
- DfT 2001; New Road and Street Works Act 1991; HMSO and subsequent amendments
- DfT 2002 Statutory Instrument 2002/3113. Traffic Signs Regulations and General Directions 2002 (TSRGD)

9.2.2 Further Reading

DfT 1998; *Places, Streets and Movement: A Companion Guide to Design Bulletin 32, Residential Roads and Footpaths* HMSO

DfT 2002; *Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure*

DfT 2003 Traffic Advisory Leaflet 5/03 *Walking Bibliography* HMSO

Duncan-Jones, Beata 1998; *Understanding Tactile Paving* London Borough of Hammersmith and Fulham

Institution of Highways and Transportation 1991; Revised Guidelines *Reducing mobility Handicaps – Towards a Barrier Free Environment*

Institution of Highways and Transportation 2000; *Guidelines for Providing for Journeys on Foot*

Kent County Council 1999; *Highways suitable for the Mobility Impaired - A Code of Practice*

Merseytravel 1999; *Merseyside Code of Practice on Access and Mobility* Liverpool

Oxley, Philip 2000; *Guidance on Best Practice in Meeting the Needs of Disabled People in the Pedestrian Environment and in Transport Related Infrastructure (Second Draft)* Cranfield Centre for Logistics and Transportation.