

توانای تیپه ریوون

ناماده کردنی

ئەندازیار : ئارام سەلام

ئەم بابەتە لە دوو بەش پێک هاتوووە :

بەشی یەکەم پێشەستی بەستوووە بە رینماییهکانی

کۆدیکێ ئۆستورالی و بەشی دوووەم کۆمەڵیک وێنەن کە لە کوردستان و

ئەو ولاتانە گیراون کە لە دوو سالی پێشودا سەردانم کردوون.

WELCOME TO *The good, the bad and the ugly –* design and construction for access

The purpose of this resource is to explain how people with a disability benefit from good design and construction and why precise application of relevant technical specifications is necessary to achieve the greatest level of access for the greatest number of people.

مه‌به‌ست له‌م سه‌رچاوه‌یه نه‌وه‌یه که روونیی‌که‌ینه‌وه که چون که‌سانی خاوه‌ن پیداو‌یستی تاییه‌ت نه‌توانن سوود و‌ه‌یگرن له‌ دیزاین و‌ بیناکردنی باش . هه‌روه‌ها بۆچی گرنگه‌ که ره‌وشی ته‌کنیکی و‌ ورده‌کاری دیری‌کراومان هه‌بیت به‌ شیوازی‌ک که بتوانریت به‌رزترین " ناسانی به‌کاره‌ینان و‌ تیپه‌ربوون " بینینه‌ دی بۆ زۆرترین ژماره‌ له‌ به‌کاره‌ینه‌ران.

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Tactile Ground Surface Indicators (TGSIs)

Importance of the feature

TGSIs are used to warn people who are blind or vision impaired that they are approaching a hazardous situation such as a set of stairs, a ramp or an overhead obstruction that they might bump into or injure themselves on.

The TGSIs are designed so that they may be read either tactually underfoot; through the tip of a long cane, or visually because of a high luminance contrast - which means that the colour of the TGSIs stands out compared to the surrounding floor/ground surface.

Code requirements

The Building Code of Australia (BCA) specifies where TGSIs must be provided at D3.8 and refers to and requires compliance with the relevant parts of AS 1428.4.

This includes: stairs; escalators; travelators; ramps; and in situations where there are overhead hazards less than 2m above the ground or floor surface. TGSIs would also provide valuable safety information in places such as 'at grade' road crossings found in places such as hotel driveways.

AS 1428.4 specifies technical details such as size, location and luminance contrast.



Photo 1



Photo 2

Photo 1 shows discrete-type and photo 2 shows integrated-type warning TGSIs.

Achieving best results

To be effective TGSIs must give a consistent message to people who are blind or vision impaired.

For example, the technical requirements say that TGSIs should be setback from the top of a set of steps by 300 +/-10 mm. This means that a person knows that when they identify the TGSIs underfoot there will be about 300 mm before the steps begin. If the TGSIs are placed right at the beginning of the first step a blind person could miss the first step and fall.

This is achieved by ensuring they are:

- set back by the specified distance from the hazard, such as the top nosing or bottom riser of stairs or the beginning and end of ramps
- of the specified depth
- across the full width of the path of travel, and
- of high luminance contrast

Common problems and misinterpretations

1. Luminance contrast



Photo 3

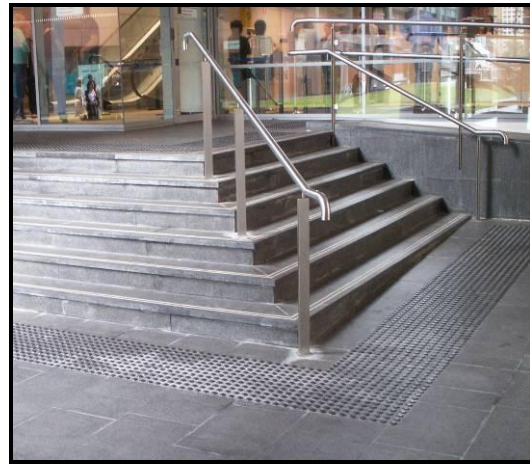


Photo 4

The TGSIs in photo 3 and 4 do not meet the specifications of AS 1428.4 as they do not have the required luminance contrast. For TGSIs to be useful to as many people as possible a minimum of 30% luminance contrast compared to the surrounding floor/ground surface is required. These photos also show a number of other non-compliant features in relation to handrails and the lack of colour contrast nosings which are addressed in other parts of this document.



Photo 5



Photo 6

Photos 5 and 6 show TGSIs that have high luminance contrast as specified in AS1428.4. Note the correct setback from the top nosings of 300 +/-10 mm and the minimum depth of 600mm.

2. TGSIs on landings of stairways

TGSIs are only required on intermediate landings if there is a break in either or both of the two required handrails across the landing.

As is the case for most people, people who are blind or vision impaired who do not feel comfortable using stairs will use the handrail as a guide for their ascent or descent. Often the handrail will end on a landing where another path of travel enters the stairway, such as a walkway or doorway.

In situations like this the break in the handrail could be misread by a person using the stairway. They may believe they have reached the top or bottom of the stairway, whereas they have only reached an intermediate landing.

Similarly, a person approaching the intermediate landing from a cross walkway or through a doorway has no way of knowing that they are about to enter an intermediate landing on a stairway.

In both these situations TGSIs will need to be applied to the landing.

While the position of TGSIs on landings must be the same as at the top and bottom of stairs the requirement on landings is that they only need be 300 - 400mm in depth. This is because generally a person has a reduced gait on stairways and is more likely to detect the TGSIs underfoot at this depth.



Photo 7



Photo 8

Photos 7 and 8 show incorrect installations as the TGSIs are not required on either intermediate landing as both handrails are continuous.

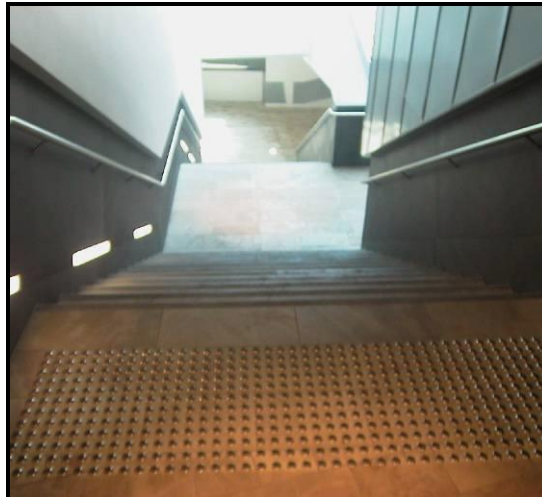


Photo 9

Photo 9 shows an intermediate landing with one handrail broken, but no TGSIs installed on the landing. TGSIs are required on the intermediate landing as there is a path of travel coming in from the right.



Photo 10

Photo 10 shows the correct interpretation of requirements for TGSIs on an intermediate landing with no handrail break: there are no TGSIs on the landing.

ISSUE 2: دهسترایه له و پلیکانه

Handrails on stairways

Importance of the feature

Handrails are important to all of us, but especially so for people who are blind or vision impaired, people who have a mobility disability (but able to use stairs) and people who have an intellectual disability or brain injury.

Handrails are used to steady and provide guidance as we ascend or descend the stairs. To ensure the stairway is as accessible as possible two handrails are required. This assists those people who don't have the use of both hands, in which case they may need to use either the left or right hand handrail as they ascend or descend.

Effective handrails are ergonomically designed so that they can be used by all people, especially those with an impairment to their hand or arm function. Continuous handrails that allow a user's hand to maintain a hold on the handrail without the fixings breaking the grip assists in safe transition throughout the complete journey either up or down a stairway.

The ends of handrails must be designed to reduce the incidence of injury to pedestrians.

Code requirements

The Building Code of Australia (BCA) specifies handrails in D2.17 and D 3.3(c) where it refers to and requires compliance with AS1428.1.

AS 1428.1 specifies technical details such as clearances, location, ergonomic and safety design criteria.



Photo 1 shows a well-designed and constructed handrail

Achieving best results

To be effective handrails suitable for people with disabilities must be within the design criteria set out in AS1428.1.

This is achieved by ensuring:

- Clearances of the top arc of 270° are achieved throughout their full length.
- The ends are terminated by returning to a side wall or downwards onto a post or returning back 180° on themselves.
- Ends of handrails at the bottom of stairs extend beyond the last riser for the depth of one tread and then horizontally for at least 300mm.
- They are 30 – 50mm in diameter.

Raised dome buttons on the top of the handrail surface are only required on the ends of the handrails where TGSIs are exempt from being used, for example, in Aged Residential Care facilities.

Common problems and misinterpretations

1. Ends of handrails & clearances



Photo 2



Photo 3



Photo 4



Photo 5

The handrails in photos 2 – 5 do not meet the specifications of AS 1428.1 for handrails on stairs suitable for people with a disability as they do not return to a side wall or downwards and back on themselves 180°.

In addition the handrails in photos 4 and 5 do not comply with AS1428.1 because they do not have the required 270° top arc clear along the full length of the handrail or the minimum 15mm clearance under the handrail for finger and thumb transition as set out in the diagram below (taken from AS 1428.1 2001).

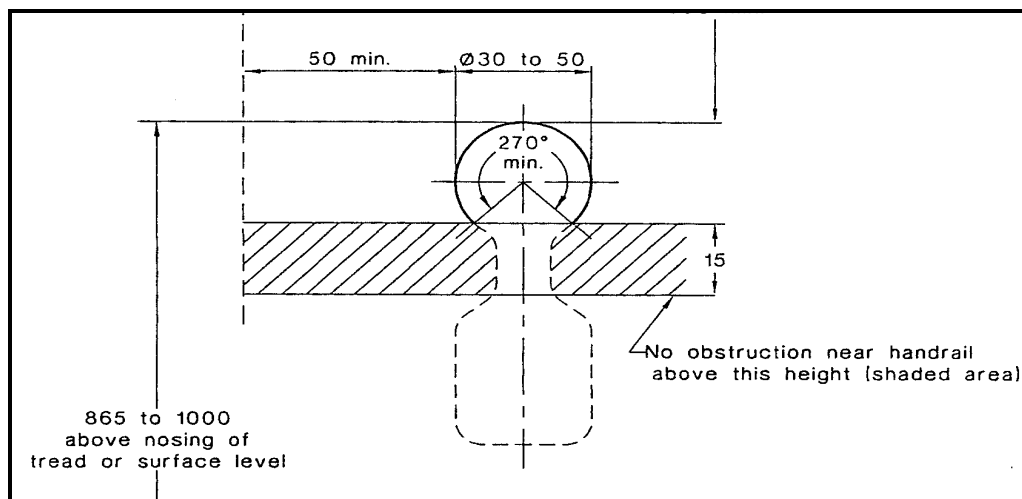




Photo 6



Photo 7

Photo 6 shows the correct application of returning the handrail back to a side wall and the required 270° top arc clearance. Photo 7 has the alternative application of returning back on itself 180°.

2. Extension of handrails at bottom of stairways



Photo 8

Handrails at the bottom of stairs should extend for the depth of one tread and then horizontally for at least 300mm. Photo 8 shows none of the required handrail extension features.



Photo 9

Photo 9 shows a handrail that appears to stick out into a path of travel. Care has to be taken to make sure the stairway is set back to allow for the correct handrail configuration so that the handrail does not encroach on the transverse path of travel. All too often the stairs are built hard up on the boundary line without the handrail configuration being taken into consideration.

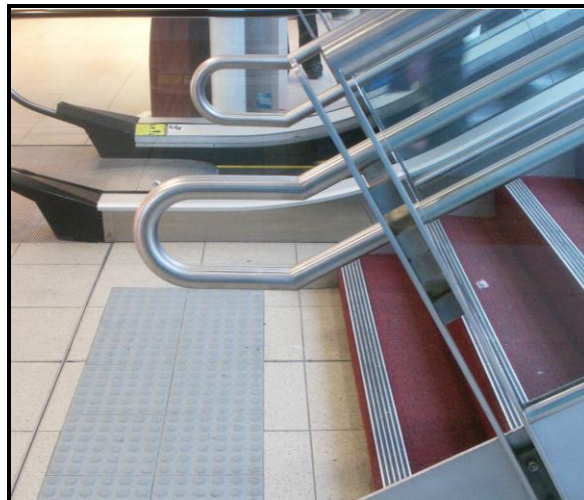


Photo 10

The handrail in photo 10 shows the correct interpretation of requirements for handrails in that they extend beyond the last riser for the depth of one tread and then horizontally for at least 300mm.

ISSUE 3: لووتی پله کان

Nosings on stairways

Importance of the feature

The application of highlighted nosings on treads/ goings on stairways assists, in the main, people with a vision impairment; however all members of the community benefit from this application.

The highlighted nosing is used to indicate the location of the nosing or leading edge of the tread/going to ensure safe movement up and down the stairway by all members of the community.

People with a vision impairment may not be able to locate the edge of the tread/going on a stairway if the top of the nosing does not have adequate highlighting to distinguish one tread from the next, thus making it extremely difficult for them to use the steps safely.

To many people with a vision impairment the stairway without this application will look like a ramp or shaded section of a walkway.

Code requirements

The Building Code of Australia (BCA) refers to stairways in D3.3(c) and requires compliance with AS1428.1 for stairways that are required to have access features. The Commission's view is that all stairways, other than those specifically exempted under the BCA, should have these features for access and safety reasons.

AS 1428.1 clause 9.1(c) specifies technical details such as dimensioning, location and luminance contrast criteria.

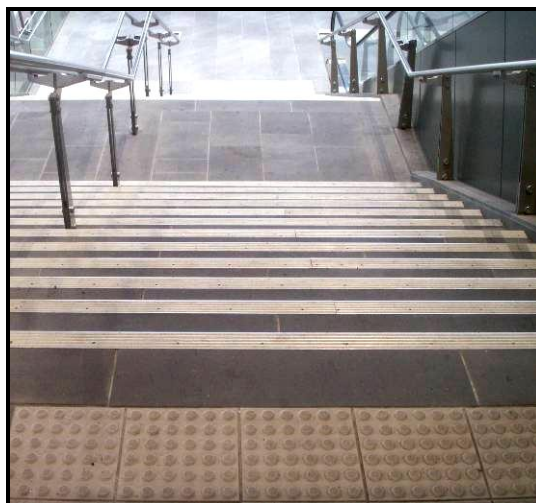


Photo 1 shows a stairway with good nosings

Achieving best results

To be effective highlighted nosings must be within the design criteria set out in AS1428.1.

This is achieved by ensuring:

- The minimum luminance contrast to the adjacent tread/going colour is achieved.
- Continuous depth across the full width of every tread/going. The depth of the contrast nosing area must be between 50 – 75mm to ensure its visibility by users. Often we find that 2 x 25mm wide strips have been inserted into the nosings, which have a tendency to be “washed” out by the surrounding tread/going colour.

Common problems and misinterpretations

1. Poorly highlighted nosing on treads/goings



Photo 2



Photo 3

Photo 2 shows an example of the typical view a person with a vision impairment may experience (note no definition between treads/goings). Photo 3 shows the same stairs as seen by a person with 20/20 vision.



Photo 4



Photo 5



Photo 6



Photo 7

Photos 4 – 7 show nosing treatments that would not meet the requirements of AS1428.1.

Although the treatment, for example, in photo 4 may meet the criteria in the dry weather it will not in the wet weather as the luminance contrast is lost when the concrete becomes wet.

Photos 5, 6 and 7 are all variations of thin inserts placed in the nosing for slip resistance and will not achieve the required minimum 30% luminance contrast.



Photo 8



Photo 9

Photos 8 and 9 show the required minimum luminance contrast and depth of treatment on the nosings of the treads/goings.

Open risers and overhanging treads on stairways

Importance of the feature

Open risers in stairways cause particular access difficulties for people with a vision impairment, especially if there is a light source coming from behind the stairs. Open risers or overhanging treads/goings that result in lips on each step also make upwards movement very difficult for people with mobility disabilities who are able to use stairs.

Open risers can cause people with certain types of vision impairment to experience vertigo as they ascend a flight of stairs due to the strobing effect of the stair treads/goings and the light between each tread/going.

People using walking sticks can also experience difficulties if their stick slides from the step into the opening. People who have a prosthesis or a disability that limits limb movement face a much greater risk of catching their toes under the lip and losing balance when trying to retrieve their foothold.

Code requirements

The Building Code of Australia (BCA) refers to stairways in D3.3(c) and requires compliance with AS1428.1 for stairways that are required to have access features. The Commission's view is that all stairways should have these features for access and safety reasons.

AS 1428.1 specifies technical details on the construction of stairways including requirements for opaque risers.



Photo 1 shows a set of stairs with no open risers

Achieving best results

To be effective stair design must be within the design criteria set out in AS1428.1.

This is achieved by ensuring:

- Risers are enclosed and without lips.
- Each riser is opaque.

Common problems and misinterpretations

1. Open risers



Photo 2



Photo 3

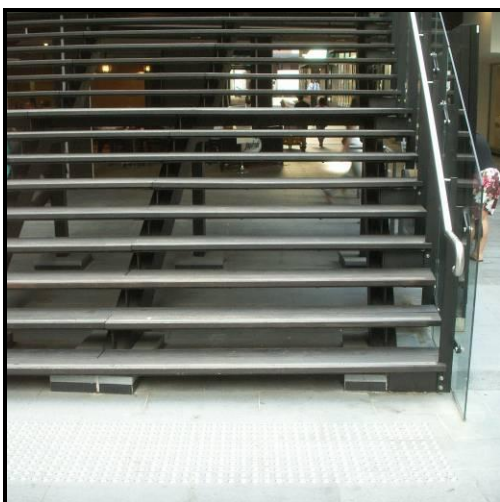


Photo 4



Photo 5

None of the stairways in photos in 2 – 5 meet the requirements of stairways suitable for people with disabilities in AS1428.1. Photos 2, 3 and 4 show open risers, with 3 and 4 showing light sources coming from behind the stairways, thus creating a strobing effect as one ascends the stairways. People using walking sticks or canes could also lose their footing if their stick slipped through the openings.

Photo 5, although showing enclosed and opaque risers this stairway still presents as a problem for people with a prosthesis or someone with ambulant disabilities that restricts leg movements due to the protruding lip which might catch someone's toe.



Photo 6

Photo 6 shows the required enclosed opaque risers with no overhangs.

ISSUE 5: دسترایه لهو کیږی رامپ

Handrails and kerbs or kerb rails on ramps

Importance of the feature

Handrails and kerbs or kerb rails on ramps are important to people with a range of disabilities, for example, people who are blind or vision impaired, people with a mobility disability and people who have an intellectual disability or brain injury.

Two handrails are required as some people may not have the use of both hands in which case they may need to use either the left or right handrail. Kerb rails are required to reduce the chances of people who use wheelchairs running off the edge of the ramp or catching their toe plate behind the handrail supports and as a result tipping out of their chair.

The specifications relating to the ergonomic design of handrails ensure they can be used by all people, especially those with a disability that affects hand or arm function. Continuous handrails that allow a user's hand to maintain a continuous hold on the handrail assist in safe movement throughout the complete journey either up or down a ramp.

The ends of handrails must be designed and constructed to reduce the incidence of injury to pedestrians.

Code requirements

The Building Code of Australia (BCA) specifies handrails in D2.10(b)(i) and D3.3(c) where it refers to and requires compliance with AS1428.1.

AS 1428.1 specifies technical details such as clearances, location, dimensioning and safety design criteria.



Photo 1 shows a ramp with appropriate handrails and kerb rails

Achieving best results

To be effective handrails must be within the design criteria set out in AS1428.1.

This is achieved by ensuring:

- Clearances of the top arc of 270° throughout their full length.
- The ends are terminated by returning to a side wall or downwards on to a post or by returning back 180° on themselves.
- Ends of handrails at the bottom and top of ramp must horizontally extend for at least 300mm from the transition in change of plane.
- Handrails on both sides of the ramp are 30 – 50mm diameter.

Raised dome buttons are only required on the ends of handrails where TGSIs are exempt from being used, for example, in Aged Residential Care facilities.

To be effective kerb rails must be within the design criteria set out in AS1428.1.

This is achieved by ensuring:

- Correct placement and dimensioning of the kerb rails.
- Location of the kerb rails in relation to the handrails.

Common problems and misinterpretations

1. Ends of handrails & clearances



Photo 2

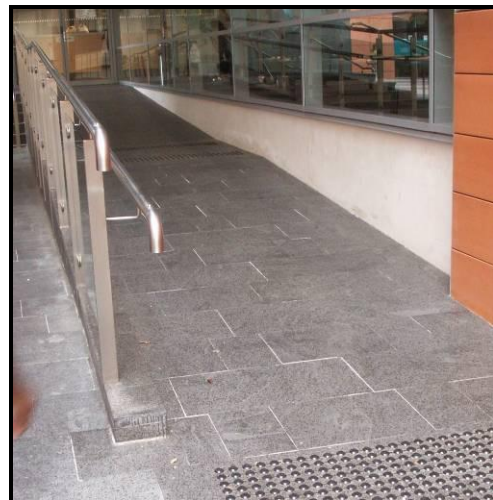


Photo 3

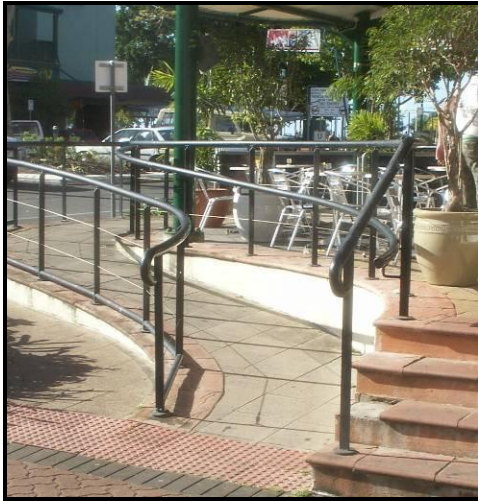


Photo 4



Photo 5

The handrails in photos 2 and 3 do not meet the specifications of AS 1428.1 as they do not return to a side wall or downwards and back on themselves 180°.

Photo 3 shows the handrail end at a height where a small child could accidentally run into it and injure their head. The handrails in photos 2, 3 and 4 do not meet AS 1428.1 because the handrails do not extend out horizontally for a minimum of 300mm past the transition point in the change of plane.

Photos 4 and 5 do not have the required clearance for the full length of the hand rails as the fixings intrude into the required clear top 270° arc and 15mm minimum clearance under the handrail (see diagram in *Issue 2*).



Photo 6

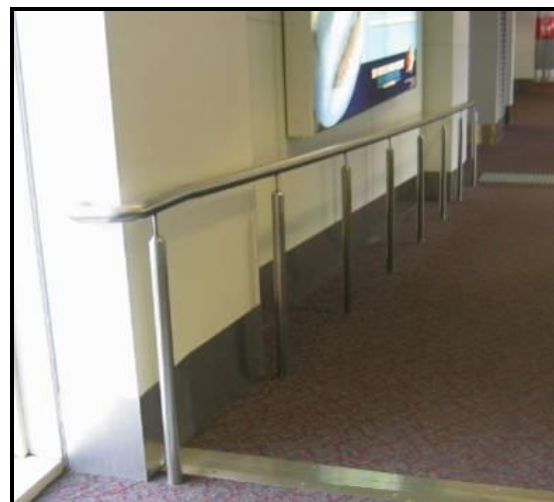


Photo 7

Photos 6 and 7 show the correct application of returning the handrail down and back onto itself to form the 180° return or onto a post. Note also the required clearances on the top 270° arc of the handrail and the 15mm directly under the handrail to allow for an uninterrupted transition along the full length of the handrail for fingers and thumbs.

2. Kerb rails on ramps



Photo 8



Photo 9



Photo 10

The ramps in photos 8 and 9 do not comply with AS 1428.1 because they have no kerbs or kerb rails. The ramp in photo 10 has the kerb rail incorrectly located as it intrudes into the trafficable surface of the ramp beyond the inside edge of the handrail. It is required to be parallel with the inside edge of the handrail or set back no further than 100mm.



Photo 11

In photo 11 the kerb rails are parallel with the inside edge of the handrail and located as required by AS1428.1.

ISSUE 6: بهرچاووختنی زهرگا شووشهکان

Visual indicators on fully glazed doors and side lights

Importance of the feature

The application of visual indicators on fully glazed doors and sidelights is to inform all members of the community, particularly those with a vision impairment of the presence of the fully glazed panels in their path of travel.

Many people with a vision impairment have a depth of field limitation, which requires them to focus their attention 1 to 2 metres ahead of them as they proceed along a path of travel, which results in them looking down at an angle of 45 – 50 degrees. This also allows them to choose a safe path of travel.

When a person is within 1 – 1.5 meters from a fully glazed door or sidelight they are able to detect the visual barrier at the height of 900 – 1000mm above the finished floor/ground level, provided the luminance contrast criteria has been met in respect of the background on which it is being viewed. People with 20/20 vision will be able to detect the visual indicators without difficulty at the location heights as set out in the relevant standards.

Code requirements

The Building Code of Australia (BCA), through reference to AS 1428.1 at D3.3(c) and AS 1288, provides technical details of requirements for the location, dimensioning and luminance contrast of visual indicators.

Visual indicators are only of use to all members of the community if they are installed in accordance with AS1428.1 clause 7.5.

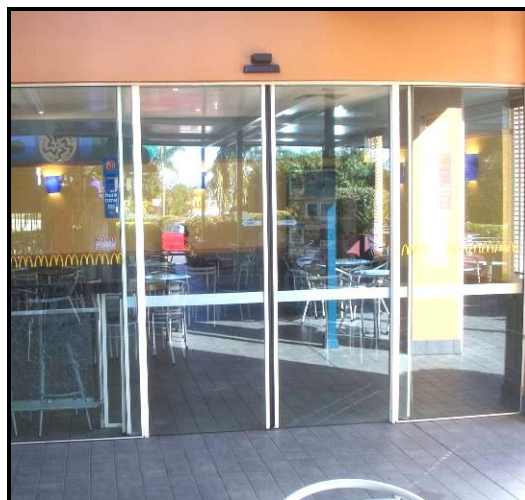


Photo 1 shows a good example of the use of visual indicators.

Achieving best results

To be effective visual indicators must be within the design criteria set out in AS1428.1.

This is achieved by ensuring:

- The visual indicators are located at the appropriate height above the finished floor
- The visual indicators are the full width of the door and sidelight and the specified depth. The Commission's view is that the visual indicator should be solid and continuous as broken lines, symbols or words may not achieve the required effect.
- The luminance contrast of the indicators of at least 30% is achieved when viewed by a person with a depth of field limitation. The background in all cases will be the circulation space on the opposite side of the door

Common problems and misinterpretations

1. Dimensioning of the visual indicators and height above the finished floor level



Photo 2



Photo 3



Photo 4



Photo 5

The visual indicators in photos 2 - 5 are located too high and/or do not meet the specifications of AS 1428.1. The intent of the requirement is to have a solid 75mm line extending across the full width of the glazed doorway and sidelights. These photos have in all cases a broken line of symbols or words, none of which have a depth of 75mm.



Photo 6



Photo 7

Photos 6 and 7 show the correct application of visual indicators on fully glazed doors.

2. Luminance contrast of visual indicator to background



Photo 8



Photo 9



Photo 10



Photo 11

Photo 8 depicts what a person with a vision impairment may see as they approach a fully glazed doorway and sidelight. Photo 9 shows the doors in question with the inadequate visual indicators that are very common in the built environment. Photo 10 shows glazing with no visual indicators. The door and sidelights in photo 11 would be excellent if the background behind the symbols was to be filled in with a light colour.



Photo 12

The visual indicator in photo 12 complies with AS 1428.1 as it has the required luminance contrast of at least 30 percent and is located at the appropriate height of 900mm – 1000mm above the finished floor.

Door opening requirements

Importance of the feature

The opening of doors can be extremely difficult for many people with disabilities. Many doors require excessive forces to push/pull the door open. Often incorrect door furniture is used that does not allow people with hand or arm impairments to effectively operate the door mechanism.

This is especially so if a door closer is attached that does not meet the appropriate specifications. If the door is of a heavy construction or is located where the wind pressure may make opening difficult it may be most appropriate to fit an automatic door opening system.

An additional issue is that of the type of handle used on the door. Round door handles do not allow people with a disability that affects hand or arm function to operate the latch mechanism, hold it open and then pull/push a door open, as the degree of grip required to keep the handle in the open latch position is difficult for many people with disabilities.

Code requirements

The Building Code of Australia (BCA) D 3.3(c) is relevant to door opening requirements where it refers to and requires compliance with AS1428.1.

AS 1428.1 specifies technical details such as location, dimensioning, forces and design criteria.

Achieving best results

To be effective the pressures required to open and close doors should not exceed those specified in AS 1428.1 section 11.

Similarly in order to be effective door handles must be within the design criteria set out in AS1428.1 section 11.

This is achieved by ensuring:

- Correct location and height above the finished floor.
- Use of an appropriate door handle.
- Clearance behind the handle to reduce the risk of hand or wrist entrapment and correct clearance from the door jambs.

While AS 1428.1 refers to lever type handles the Commission's view is that the preferred type of door handle is the "D" type lever handle, which allows a person to operate the latch mechanism with minimal effort. The return on the "D" type lever handle keeps the hand from slipping off the lever and assists in opening the door when being pulled open.

Recessed finger grip handles used on sliding doors cannot be used by many people with disabilities, while "D" type pull/push handles make the opening/shutting task a lot easier.

Minimal clearances of the door handles on sliding doors from the door jambs must be maintained in accordance with AS1428.1 to ensure that knuckles are not damaged when the door is being fully opened or closed.

Access can also be improved by having good colour contrast of the handle to the door.

Common problems and misinterpretations

1. Force required to open doors



Photo 2

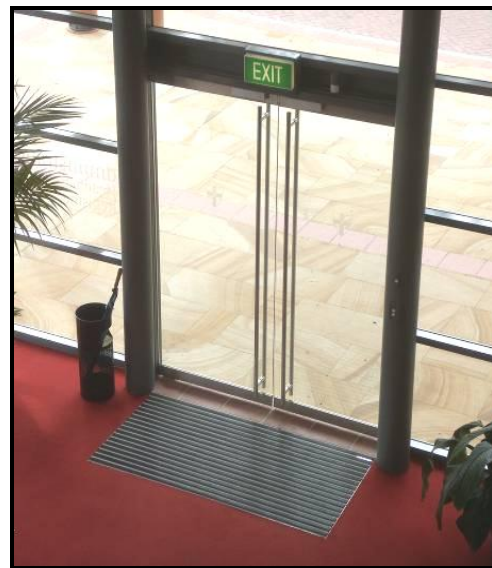


Photo 3

Photos 2 and 3 show larger manual doors that are often used that can exceed the maximum required force as set out by AS1428.1. To overcome this issue electronic door opening systems may be used.

2. Door handles



Photo 4

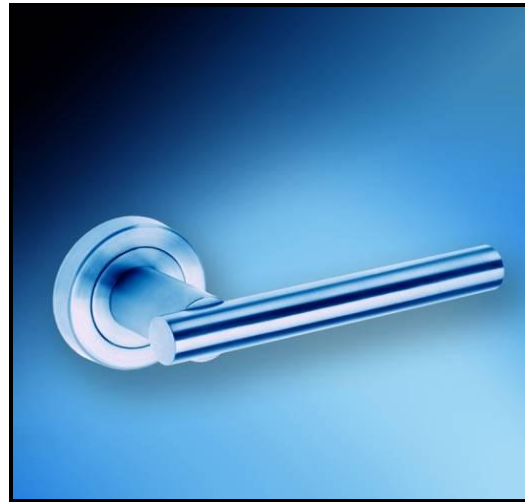


Photo 5



Photo 6



Photo 7

Photos 4 and 5 show “L” type lever handles. “D”-type lever handles are preferred as they provide the added advantage of reducing the risk of a person's hand slipping off the lever when operating the latch and opening the door.

The recessed sliding door handle and door knob shown in photos 6 and 7 are extremely difficult for people with hand, wrist or arm disabilities to use due to reduced dexterity and strength.



Photo 8



Photo 9

The “D” type lever handles in photos 8 and 9 are very user friendly for people with hand, wrist or arm impairments. Note the set out from the face of the door is such so as not to cause hand or wrist entrapment.

3. Handle clearances on sliding doors



Photo 10



Photo 11



Photo 12



Photo 13

Minimum clearance of the door handles from the jambs shown in photos 10 - 13 has not been achieved in accordance with AS1428.1. This can result in injury to the knuckles when the door is opened or closed.

ISSUE 8: به رده رگاکان

Door thresholds

Importance of the feature

Door thresholds (steps) at the entrances to businesses present access problems for people who use wheelchairs and those with ambulant disabilities who have difficulty lifting their feet whilst progressing along their path of travel. The application of step ramps or threshold ramps where there is a small change in level ensures a relatively comfortable access solution into these premises.

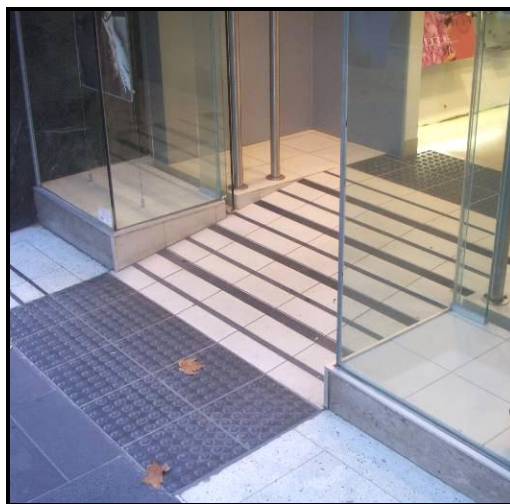
Where a step ramp is used, there must be a landing between the top of the ramp and the door so that a person using a wheelchair or walking frame, for example, has a flat surface on which to rest while opening the door. Trying to open a door while on a slope is for most people very difficult if not impossible.

An alternative to having a landing would be to have automatic doors or have the doors open at all times, which many businesses do.

Code requirements

The Building Code of Australia (BCA) D2.10(b)(1) and D3.3(c) are relevant to door sills where it refers to and requires compliance with AS1428.1.

AS 1428.1 specifies technical details such as dimensioning, and design criteria.



*Photo 1 shows a well designed and constructed door sill
(in this case there is an automatic door opener)*

Achieving best results

To be effective step ramps and threshold ramps must be within the design criteria set out in AS1428.1. This is achieved by ensuring:

- Gradients within the allowed limitations of no greater than 1 in 8.
- Splayed or suitable side barriers.
- Slip resistant surfaces

Tactile Ground Surface Indicators (TGSIs) are currently not required on step ramps under the BCA.

Common problems and misinterpretations

1. Door sills without required step/threshold ramps

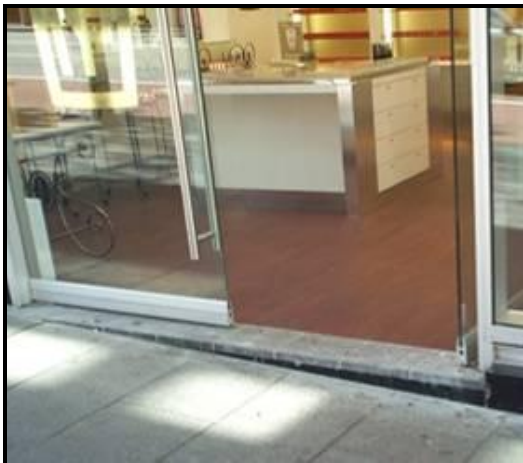


Photo 2



Photo 3

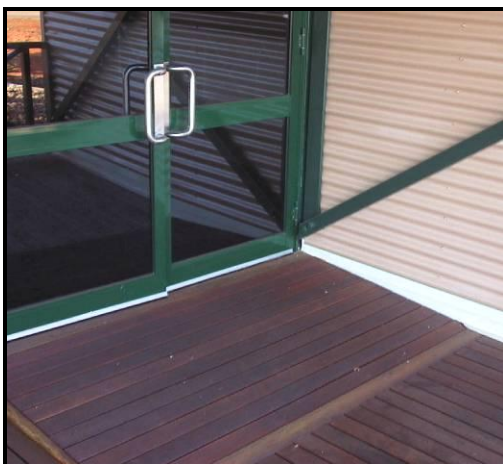


Photo 4



Photo 5

Photos 2 and 3 show entries with sills that restrict access by people who use wheelchairs and some with mobility disabilities, who might, for example, use a walking frame.

Photo 4 shows a step ramp that does not comply with requirements as there is no landing at the top and there are closed doors. The landing is important to ensure that the required circulation space is available for people who use wheelchairs to be on a stable flat surface before opening the door.

Photo 5 shows a threshold ramp that has a small lip at the top and no suitable treatment at the sides of the ramp, note the corner of the projecting tiles that can be trip hazards.



Photo 6



Photo 7

Both step ramps in photos 6 and 7 are at entrances to businesses that leave their doors open throughout business hours. Although there is no landing before the door these premises have implemented an alternative solution.

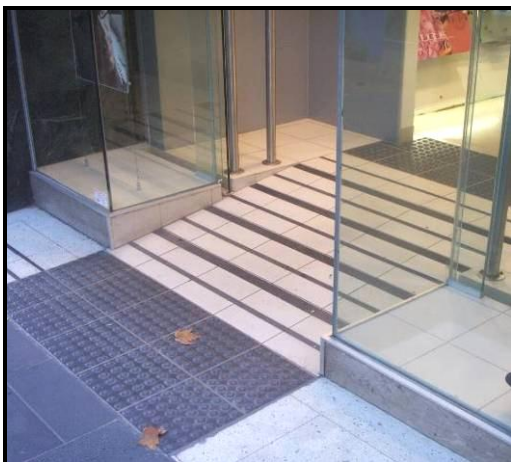


Photo 8

Photo 8 shows another example of an alternative solution as in this case the shop has an automatic door which removes the need for a landing.

میزی پیشوازی و کاؤنٲر: ISSUE 9

Reception desks and counters

Importance of the feature

While not an issue covered by the BCA many reception desks and counters are far too high for people with disabilities who use wheelchairs or for people who are of short stature.

Many people who use a wheelchair are unable to approach a reception desk/counter side on and turn to face the receptionist due to their disability, hence the need for design to allow for a frontal approach. In some cases where the task to be undertaken at the counter involves only the passing of cash and receipt of goods the fully recessed area may not be required.

The lowering of a section of the reception desk allows people to communicate and complete transactions, such as signing credit card dockets or receipts, in a comfortable and dignified manner.

Code reference

AS 1428.2 specifies technical details such as dimensioning, and design criteria.



Photo 1 shows a well-designed and constructed reception desk

Achieving best results

To be effective reception counters must be within the design criteria set out in AS1428.2.

This is achieved by ensuring the desk or counter:

- Is within the required height range, which is between 830 mm and 870 mm from the floor surface to the top of the desk or counter.
- Allows for a frontal approach.
- Provides adequate knee and toe plate clearances under the counter.
- Is the minimum width of 800mm as set out by the standard.

Common problems and misinterpretations

1. Counters too high or no provision made for a frontal approach



Photo 2



Photo 3



Photo 4



Photo 5

Photo 2 shows a recently refurbished hotel reception that could have had a section of the reception counter lowered and made accessible while maintaining the style and ambience.

The counter in photo 3 has a lowered section but no provision is made for a frontal approach.

Photo 4 shows five reception counters of which one could have been made accessible. Photo 5 is a counter in a coffee shop that would only have needed the front section lowered to allow for ease of payment and receipt of goods.



Photo 6



Photo 7

Photos 6, 7 and 8 show reception desks and counters that allow for a frontal approach with adequate toe plate and knee space and have a suitable surface height.



Photo 8

Signage required by the Building Code

Importance of the feature

Most of us benefit from the availability of good and clear signage. This is particularly so for people with a vision and/or hearing impairment, people with a cognitive and/or intellectual disability and people with a brain injury. Many of the signs we find around the built environment are not easy to comprehend due to their location, type of font styles used and the colours chosen.

Lack of raised tactile and Braille in signs require people with a vision impairment to rely on others to assist them.

Many people with cognitive disabilities are less able to comprehend a sign if it is all in upper case, however if the sign is in sentence case with upper and lower case, the accessibility of signs is improved.

Nine out of ten legally blind people have some usable residual vision; it is this group plus those with low vision that particularly benefit from the correct use of luminance contrast and the use of a sans serif font style such as Arial or Helvetica medium. This also makes the signs more user friendly for the remainder of our community, especially those 1 in 10 males in Australia who have a colour deficiency, often referred to as colour blindness.

The location of signs is vital if they are to be easily identified and read, particularly signs indicating facilities for people with disabilities.

Code requirements

Signage requirements in the Building Code of Australia (BCA) in D3.6 are limited to the identification of accessible facilities, services and features. D3.6 refers to and requires compliance with relevant parts of AS1428.1.

AS 1428.1 specifies technical details such as dimensioning, and design criteria of the signage and symbols to be used.



Photo 1 shows clear signage for toilets

AS1428.1 provides information on the international symbol for disability access and deafness along with their design criteria and colours to be used. These signs are used to indicate where an accessible facility has been provided.

In addition to D3.6 there is another section titled Specification D3.6 which sets out the parameters in good sign design and covers issues such as placement heights, font types, use of raised tactile and Braille, luminance contrast requirements of lettering and lighting requirements.

Even though the BCA has limited application to required signage if a building owner wishes to improve other signage to assist everyone who uses the building (such as other wayfinding signage, building occupant directories and room names) the good design parameters set out in Specification D3.6 should be applied to the other signs as far as possible.

Achieving best results

To be effective signs must be within the design criteria set out in BCA specification D3.6 and AS1428.1.

This is achieved by ensuring:

- Mounted within the required height range.
- Use of raised tactile and Braille on signs identifying facilities for people with disabilities.
- Correct use of luminance contrast and font size and type.
- Good provision of lighting without glare.

Common problems and misinterpretations

1. Font styles and symbols used



Photo 2



Photo 3



Photo 4



Photo 5

The signs in photos 2, 3 and 4 have all used incorrect fonts. The sign in photo 2 has used a serif type font and in upper case, which can make it difficult for people with a vision impairment to understand the sign due to the varying thicknesses in the font.

The signs in photos 3 and 4 have also used all upper case instead of sentence case, which can create an access problem for people with cognitive disabilities who may have difficulty comprehending what the signs are telling them.

The international symbols for disability used in photos 2 and 3 do not meet the requirements of the standard as the symbol must always be white on a blue background, which makes it instantly recognizable.

Photo 5 shows a stylized version which may be quite unrecognizable by many people with cognitive or intellectual disabilities.

The sign in photo 3 has a line between the male and female figures, which indicates a separate accessible facility for each gender. Accessible facilities must always be non-gender specific to enable a male occupant and their female carer or assistant (or visa versa) to enter an accessible facility through a non specific gender area.



Photo 6



Photo 7

Both signs in photos 6 and 7 have used the correct symbol and colours for disability and required font styles along with the Braille. Note: the arrow on the sign has been repeated in the Braille section of the signs.

Photo 7 shows the correct symbols to be used identifying a unisex accessible facility without a dividing line between the male and female figures.

2. Location of signs



Photo 8



Photo 9

The sign in photo 8 is definitely too high being outside the 1200mm to 1600mm range above the finished floor level required by AS 1428.1. People in a seated position in a wheelchair may not be able to tilt their head back on an angle to read a sign higher than 1600mm above the finished floor level due to their disability.

The sign in photo 9 is definitely too low as it would not be possible for a person to read the Braille unless they were laying on the ground.



Photo 10

The sign in photo 10 is within the correct height range, which allows it to be read in relative comfort by all members of the community.

Lift call buttons

Importance of the feature

Lift call buttons if located and designed in accordance with the regulations will assist many people with disabilities to confidently use a lift. Often the call buttons are difficult or impossible to use due to their size, location or lack of clear raised tactual information.

If call buttons are placed too close to a corner, this restricts people who use a wheelchair from accessing the buttons. Placement of external call buttons within a reasonable distance from the lift will assist in their being found by people who are blind or vision impaired.

In many situations the raised tactile numbers and Braille information is not available or inadequately designed.

Location of the call buttons and their style is vital if they are to be easily identified and read, particularly by people who are blind or vision impaired. Location of call buttons is assisted by good illumination and use of the luminance contrast criteria.

Code requirements

The Building Code of Australia (BCA) addresses lifts in D3.3(a)(iii) & E3.6 where it refers to and requires compliance with the criteria to be met for lifts for people with disabilities and AS1735.12.

AS 1735.12 specifies technical details such as dimensioning, and design criteria.



Photo 1 shows good position for control buttons

Achieving best results

To be effective lift call buttons must be within the design criteria set out in AS1735.12.

This is achieved by ensuring:

- Mounted within the required height range.
- Use of raised tactile and Braille on or adjacent to call buttons to ensure easy identification.
- Correct use of luminance contrast.
- Good provision of lighting.

Note: The Commission's view is that raised tactile and Braille information is most accessible if placed adjacent to or above the buttons and not on them as there is a probability of someone engaging a button when trying to read it by touch.

Common problems and misinterpretations

1. Location of call buttons.



Photo 2



Photo 3



Photo 4



Photo 5

Photos 2 and 3 show the call buttons for the same lift at different locations on each floor and too far away from the lift, which makes them difficult to locate for a person who is blind or vision impaired.

Photos 4 and 5 show lifts that have the call buttons within the minimum 400mm from an internal corner, which is difficult and in some instances impossible for people who use a wheelchair to access. Photo 4 is a recently refurbished lift.



Photo 6



Photo 7



Photo 8

The lifts in photos 6, 7 and 8 have used call buttons that meet the requirements with location, luminance contrast application, lighting and raised tactile and Braille consistently placed adjacent to each button.

ISSUE 12: جۆرى پرووهكان Floor surfaces

Importance of the feature

Often floor surfaces do not meet the slip resistant requirements making them hazardous for pedestrians to walk on, particularly people with mobility disabilities. Highly polished surfaces can indicate that the slip resistance rating has not been achieved, especially when people entering a building have wet feet.

Managers of buildings usually resort to the provision of a strip of carpet or a mat immediately inside the entry to dry soles of shoes before coming in contact with the floor surface. These mats can themselves become an access problem if not secure, particularly for people who are blind or vision impaired.

Often overhead concentrated down lighting will reflect upwards from a shiny floor surface into the eyes of people travelling across the floor. For a person with certain types of vision impairment this can have the effect of causing physical pain, in some cases a migraine headache.

Code requirements

The Building Code of Australia (BCA) does not specifically refer to slip resistance of flooring surfaces but under clause D3.3(a)(iii) generally refers to and requires compliance with AS1428.1.

AS 1428.1 clause 12 sets out the criteria for types of surfaces traversable by people with disabilities and references AS4586 and HB197 for guidance on slip resistant surfaces.



Photo 1

Achieving best results

To be effective flooring surface finishes must be within the testing criteria set out in AS4586 and HB197.

This is achieved by ensuring:

- Materials used meet the slip resistance rating set down for each type of flooring material used.

While not addressed in the BCA good results are also achieved by ensuring finishes do not induce glare from overhead lighting.

Common problems and misinterpretations

1. Shining floor surfaces that do not meet the required slip resistance ratings



Photo 2

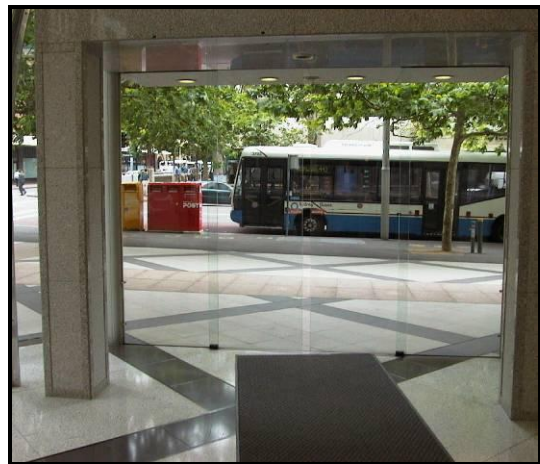


Photo 3

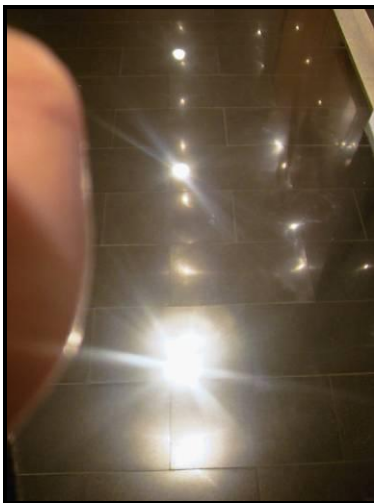


Photo 4



Photo 5

Photos 2 – 5 all show floors that may not meet the “R” ratings as required by AS4586 and HB197. Photos 3 and 5 both show mats placed inside the entrances to dry off wet soles of shoes before encountering the “Slippery” floor surface. These mats can themselves become trip hazards for people with mobility disabilities, blind people and people with vision impairment if not secure.

Photos 2, 3 and 4 show the glare arising from the overhead lighting. In the case of photo 4 the overhead lighting is quartz halogen that causes even worse glare.



Photo 6



Photo 7

Photos 6 and 7 show floor coverings that are likely to meet the slip resistance requirements and do not produce excessive glare from overhead lighting.

Accessible WC's

Importance of the feature

Accessible WC's are often built and certified as meeting the technical standards, however, more often than not they fall well short of those requirements.

There are three critical areas that need to be applied to the design and construction of accessible WC facilities, these being;

- Doorway circulation spaces external to the door and within the facility clear of fittings and fixtures.
- Internal circulation space to enable wheelchair manoeuvrability for safe transfer and use of fixtures.
- Reach ranges to fittings and fixtures.

Failure to provide adequate doorway and internal wheelchair circulation and correct placement of components means the facility cannot be used by many people with physical disabilities.

For people who use a wheelchair, the circulation spaces into and within the accessible facility is critical if they are to be able to carry out a safe transfer from their wheelchair to the pan.

Users of the accessible facilities need to carry out a range of transfers onto the pan depending on their particular disability and what they consider is the best method to transfer.

Approximately 1/3 will carry out a side transfer from the side of the pan, which requires aligning themselves with the seat on the pan. Another 1/3 will carry out a frontal transfer, which requires aligning themselves to face the front of the pan and then pull themselves onto the pan facing the cistern. The remaining 1/3 will carry out a half frontal/side-on transfer which can vary depending on the method of transfer chosen by the person. (See AS1428.1 - Supplement [1990] for more details).

The area of the circulation space is critical to allow these transfers to take place, as is the correct location of the grab rails because of limitations of reach ranges and varying levels of ability.

It is important that the fit out does not result in the intrusion of fittings into the doorway circulation spaces and toilet pan circulation area, except where allowed by the technical standards - for minor overlapping of washbasins.

Reach ranges and location of fixtures if installed in accordance with the technical standards will allow the majority of people to use these facilities in relative comfort and not have to struggle to reach taps, toilet paper holders, hand dryers, grab rails, shelves and other fixtures.

Clearances above grab rails are important so that a person may use the wall adjacent to the grab rails for support if needed.

Code requirements

The Building Code of Australia (BCA) sets out in F2.4 the requirements for the number of accessible WC's to be provided and under clause D3.3(a)(iii). refers to and requires compliance with AS1428.1 for design and fit out criteria.

AS 1428.1 Clause 10 sets out the criteria for fit out and dimensioning and provides various circulation space diagrams which can be used in template form to assemble the design.

These must be used in conjunction with doorway circulation spaces and include a clear plan of whether the door will swing outwards or use another mechanism for emergency access as required by clause 10.2.10(c) of AS1428.1.

Clause 10 also provides several diagrams for accessible shower configurations which can be integrated with the toilet pan and other fittings.

Achieving best results

To be effective accessible WC's and showers must be within the minimum requirements set out in AS1428.1. This is achieved by ensuring:

- The location of the doorway and swing (or sliding) will enable appropriate area to operate the door. The door must also facilitate emergency access and when using swinging doors either by swinging the door outwards or installing a doorway mechanism to allow the door to swing outwards by using a pivot hinge and associated fittings.
- Provision is made for the correct dimensioning of circulation spaces without any intrusions such as the basin obstructing the doorway circulation space when exiting or the waste pipe from the basin intruding on required space for footplates.
- Dimensioning is taken from finished surfaces finishes, not set outs, with adequate allowances for finishes in the structural set out.
- Location of components is in accordance with the standard.
- Any minor permissible intrusions into the pan circulation space are in accordance with the standard.
- Heights and reach ranges are as per the standard.

- Vertical grabrails in showers are capable of meeting the required force specifications of 1100 N. The installation of light-weight plastic vertical grabrails in showers is not likely to meet this requirement.
- Installing shower hoses long enough to allow users sitting on a fold down seat to access and use them. For example, installing a 1200mm-1500mm length shower hoses attached to a 1800mm+ height water outlet may not provide adequate useability. Either a longer hose is required or a lower water outlet.
- Heavy door closers requiring forces greater than 19.5 Newtons do not cause difficulties for people opening a doorway. A low-tech alternative of using self-closing gravity hinges can be a better solution in many cases.



Photo 1 shows a good example of correct installation of toilet and shower fittings



Photo 2 shows a good example of the installation of a washbasin and other fittings, including a shelf as required by Table F2.4 of the BCA, note that tilt mirrors are not a requirement of AS1428.1.

Common problems and misinterpretations

1. Intrusions into required pan circulation space.



Photo 1



Photo 2

Photos 1 and 2 show intrusions into the required circulation space for the pan.

2. Incorrectly located fittings.



Photo 3



Photo 4

Photos 3 and 4 have a toilet paper holder above the grab rail, which does not allow users to take advantage of the side grab rail to use as support when rising from the pan.

Many users place their arm along the grab rail, which is supported by the rail and the wall. This assists them in rising off the pan and transferring back onto

their wheelchair. The toilet roll holders above the grab rails do not allow users to carry out this procedure.

Correct location of the toilet paper holder is below the grab rail as was originally designed for in photo 3.



Photo 5



Photo 6

Photo 5 shows the wrong central fitting on the grab rail. They are attached to the side of the grab rail and not underneath it. The top 270° arc is required to be clear along the full length of the horizontal and 30° - 45° angled section of the rail. People have injured themselves when “grabbing” at the grab rail by catching their fingers on the central fixings.

Photo 6 shows the toilet paper fixture too far from the front of the pan, which requires users to lean forward to get the paper. People with limited upper trunk control may and have fallen off the pan whilst reaching for the paper in this location.



Photo 7



Photo 8

Photo 7 shows the correct location for the toilet roll holder and photo 8 shows the required minimum 300mm for the basin from the swing of the door thereby allowing enough circulation space at the door to open it when exiting.

3. Grab rails incorrectly located or wrong type used.



Photo 9



Photo 10

Photo 9 shows the handrail fitted totally the wrong way round and photos 10 and 11 have incorrect grab rails fitted as they do not extend back to within 50 - 60mm from the rear wall.



Photo 11

When carrying out a frontal transfer onto the pan, a person will pull themselves onto the pan by stretching out their arm to gain maximum purchase on the rail and then pull themselves forward.

If the grab rail does not extend back to within the 50 - 60mm from the rear wall they will not be able to comfortably pull themselves forward onto the pan as their purchasing power drops off when their arm is in the bent position.



Photo 12



Photo 13

Photos 12 and 13 show correct type of grab rail used and fixed within 50 – 60mm of rear wall.

4. Ongoing management problems

While not a BCA building and construction issue one of the most frequent problems associated with accessible toilets are the barriers caused by inappropriate usage and management.



Photo 14



Photo 15

Photo 14 shows a sanitary napkin bin, which should be in the corner at the rear of the pan. The bins cannot be moved by many of the users of these facilities, if they do try to move them it is likely that they may be knocked over. Their positioning restricts those users who wish to carry out a side transfer to the pan.

The bin in photo 15 is placed in the corner out of the way of users who can now carry out side, frontal or half frontal transfers without difficulty whilst also allowing the bin to be within reach of the pan.

Perhaps the most common problem, however, is the practice of using accessible toilets as store rooms as in photo 16. Apart from the use of the toilet as a storeroom this shows a particularly creative interpretation of AS1428.1 in relation to the grab rails!

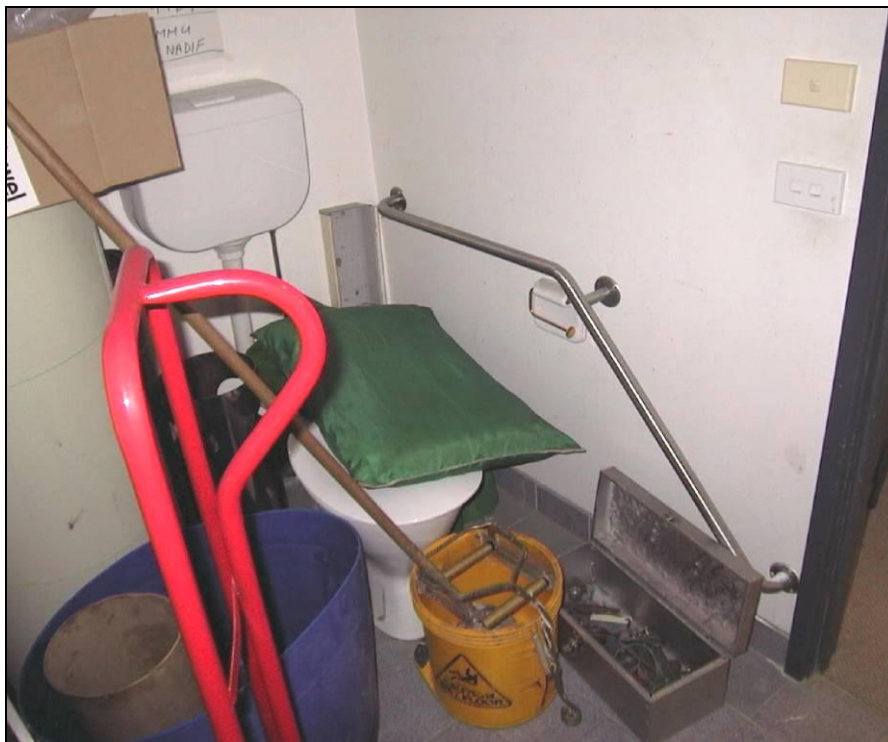


Photo 16

جیگای پیویست بۆ جولان له بهردهگاکاندا

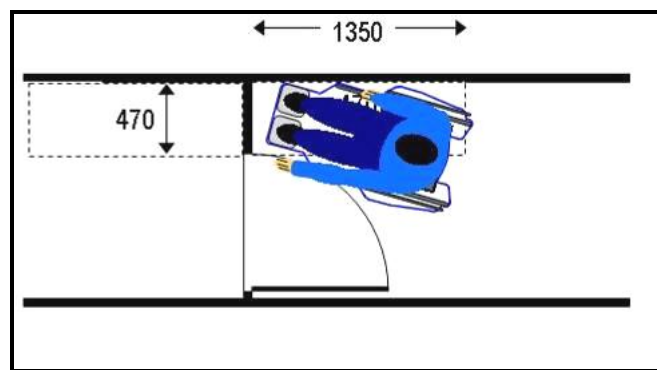
Doorway circulation space

Importance of the feature

Doorway circulation space is a critical design and construction issue for people who use wheelchairs or scooters, especially for swing doors.

A person using a wheelchair has to be able to reach the handle and there has to be enough circulation space for the door swing plus the spatial area for the person in the wheelchair. Once the door is opened, of course, the person has to be able to manoeuvre through the doorway.

Below is an example of an approach someone using a wheelchair might typically make to opening a door. Note that in order to access the handle and open the door a number of circulation space requirements need to be met.



*Diagram 1 shows just one example of circulation spaces requirements around a door.
See section on Code Requirements below for information on other examples.*

The issue of opening doors with door closers is significantly more difficult for people who use a manual wheelchair as they have to counter the force of the door closer while holding the wheelchair in a steady position. For people using a powered wheelchair there is often a problem of limited clearances due to the position of the joystick control box which is generally the first obstruction to the swing of the door.

The issues concerning doorway access are further exacerbated by incorrectly installed doors and in the case of airlocks inadequate provision of area between two doorways and the swing of each door.

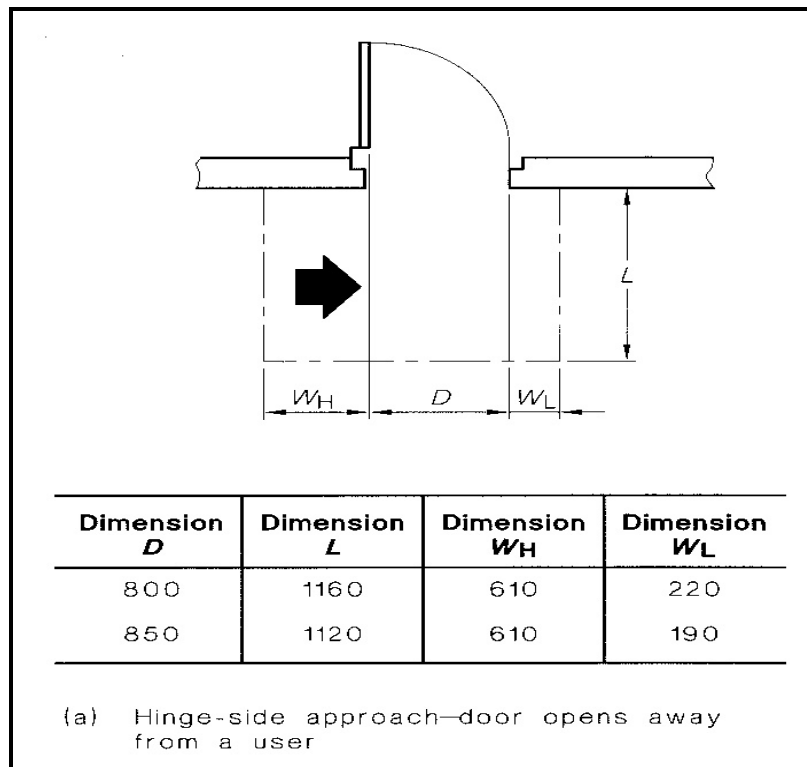
The relationship between doorways, corridor widths, circulation space and positioning of doors and door hardware requires careful consideration of relevant technical specifications. If those specifications are not effectively applied circulation around and through doorways can be severely hindered.

Where doorway circulation spaces do not comply with the deemed-to-satisfy technical requirements the most common alternative solution is the installation of automatic doors or push button powered door openers.

Code requirements

The Building Code of Australia (BCA) D3.2(c)(iv) and D3.3(c) are relevant to doors where it refers to and requires compliance with AS1428.1.

AS 1428.1 specifies technical details such as dimensioning and design criteria in section 7 and provides twelve different scenarios of doorway approaches and doorway operation for swing and sliding doors in Figures 12 and 13. For example, the one given below which provides dimensions for a hinge-side approach where the door opens away from a user.



Achieving best results

To provide effective doorway circulation space the design should provide adequate corridor width to accommodate; nib walls on each side of the door plus the correct door width to achieve 800mm minimum clear opening width as set out in AS1428.1 (850mm clear opening width for AS1428.2 which is preferred). This is achieved by ensuring:

- Vigorous application of the technical requirements found in AS 1428.1 section 7 and in particular the relevant options presented in Figures 12 and 13 for circulation space and Figure 15 for distance between two doorways.

- Nib walls on each side of the door are constructed to the requirements of AS1428.1, which include the door frames, plus the correct door width to achieve 800mm minimum clear opening width as set out in AS1428.1.
- Allowances are made for wider corridors and doors where pivot hinge doors are to be installed.
- Consideration is given to building materials to be used such as external face brickwork, feature sidelights and the like as they may cause a repositioning of the doorway and subsequent reduction in latch side clearance.
- Allowance is made for wall coatings such as rendering, architraves and skirting panels.
- Critical doorway and corridor setout dimensions are incorporated on construction drawings with appropriate building tolerances.

People who use a wheelchair report that the minimum requirements of AS1428.1 do not always meet their needs and hence the achievement of independent access is compromised. Wherever possible designs should incorporate doorway clearances above the minimum for best practice.

Common problems and misinterpretations

1. Design and installation



Photo 1



Photo 2

While in Photo 1 it appears that the approach to the door is sufficient to allow for a 470mm nib wall on the door latch side for a front-on approach the installation of the door did not allow adequate area for a latch side nib wall. As

a result it may be impossible for someone using a wheelchair to actually access the handle and open the door independently.

In Photo 2, however, the door has been correctly installed with a 470mm minimum nib wall on the latch side with an 870mm door to achieve 800mm clear opening width.

2. Alternative solutions

Photos 3 and 4 below illustrate an alternative solution applied to an entrance door to an existing building where a ramp has been installed and the landing was too small to provide the required circulation space for the side-on approach to a door swinging towards the user.



Photo 3

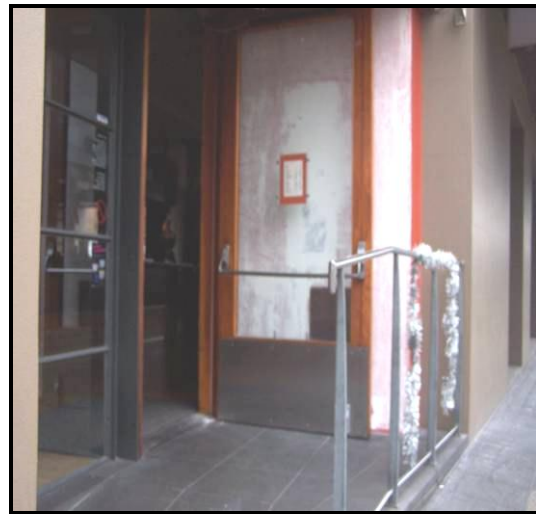


Photo 4

Photo 3 shows the push button control and signage as the door is approached and photo 4 shows the door opened by the powered door opener which in this instance is held open for approximately 15 seconds.

Photos 5 and 6 below illustrate an alternative solution applied to a door to a unisex accessible toilet within an existing building.



Photo 5



Photo 6

Photo 5 shows the nib wall on the latch side is significantly less than the 470mm minimum required circulation space for the front-on approach to a door swinging towards the user. The push button control on the right of photo 5 is correctly located beyond the swing arc of the door. Photo 6 shows the door automatically opened to allow for easy access.

بهشی دووهم :

زور جار زوربهی كهسهكان گرنگیی نادهن به " توانای تیپه‌ریبون " له شار و بیناكاندا لهو سۆنگه‌یهوه كه لهو كهسانه‌ی پێویستیان به مامه‌له‌ی تایبته ژماره‌یان زور كهمه ، نهم بۆچوونه هه‌له‌یه هۆكارێکی سهره‌کی بێباکیمانه بهم بابته گرنگه . به‌لام نه‌گهر هه‌ندیک به‌رپرسیارانه بروانین ده‌بینین شته‌كان زور جیاوازن ...

پایزی سالی ۲۰۱۰ بۆ جاری دووهم كه چوومه‌وه بۆ له‌ندهن (یه‌كێك له هۆكاره ههره سهرکییه‌كان نه‌وه بوو كه ژماره‌یه‌ك وینه بگرم كه تایبته بهو گرنگییه‌ی یاساكانی نه‌و وولاته داویانه به خاوهن پێداویستیه تایبته‌كان و ره‌نگدانه‌وه‌ی له شارو بیناكان و هۆكاره‌کانی گواسته‌وه‌دا) . سهرنجراکیشترین سهرتا بۆ من نه‌وه بوو کاتیک له فرۆكه‌خانه‌ی گاتوویک؛ نه‌و ژنه نه‌فسه‌ره‌ی مۆری چوونه‌ژوره‌وه‌ی له پاسپۆرته‌كان نه‌دا پرسپاری لیکردم " مه‌به‌ستت له هاتن بۆ یوو- که‌ی چیه ؟ " پیم ووت چهند کاریکم هه‌یه به‌لام گرنگترینیان ناماده‌کردنی راپۆرتیکه به مه‌به‌ستی گۆڕینی پله‌ی نه‌ندازیارییه‌که‌م ده‌رباره‌ی کهسانی خاوهن پێداویستی تایبته . نه‌فسه‌ره ژنه‌که كه لهو بروایه‌دام ته‌مه‌نی له کۆتایی په‌نجاکاندا بوو یه‌کسه‌ر ووتی (راست نه‌که‌یت . نه‌وه بۆ ئیوه زور گرنگه چوونكه عێراق زور ده‌میکه له شه‌ردایه و ئیوه زیاتر له وولاتانی تر پێویستیان به گرنگی دان بهم بابته هه‌یه) . مۆری له پاسپۆرته‌که‌م دا و هیوای سهرکه‌وتنی بۆ خواستم ...

نهم مامه‌له‌یه زور کاری تیکردم . یه‌که‌م له‌به‌ر نه‌وه‌ی نه‌و نه‌فسه‌رانه هه‌میشه کهسانی زور کهم دوون و زوربه‌ی کات زور مۆنن به‌تایبته له‌گه‌ڵ هه‌لگرانی پاسپۆرتی وولاتانی نیمه‌هومانان ناسا .

دووهم له‌به‌ر نه‌وه‌ی به شیوه‌یه‌کی کاردانه‌وه‌یی و بێ بیرکردنه‌وه یه‌کسه‌ر نه‌و ژنه هه‌ستی به گرنگی نه‌و بابته کرد بۆ ولاتیک كه سالاتیکه له جه‌نگدایه‌وه له پله‌ی یه‌که‌می نه‌و وولاتانه‌یه كه مینی دژه مرو‌فی تێدایه . وه‌ک نه‌وه وابوو من بلیم ماست سپییه ، نه‌ویش بلیت وایه سپییه .

به‌لام کاتیک سه‌یری دیزاینی بیناكان و ریگه‌وبانه‌كان و شوسته‌كان و نامرازه‌کانی گواسته‌وه ده‌که‌م له‌م وولاته به‌دیه‌خته‌ی خۆمدا ، سه‌رم نه‌سوهرمیت . بۆ نه‌ندازیاره‌كان و خاوهن بریاره‌کانی شه‌ره‌وانی و کهسانی کهرتی تایبته ناتوانن وه‌ک نه‌و ژنه هه‌ست به گرنگی نهم بابته بکه‌ن ؟

هه‌لبه‌ته وه‌لامه ساویلکانه ناماده‌که نه‌وه‌یه كه له وولاتی نیمه‌که‌سی ساغ حسابی بۆ ناكریت ، جا چ کهسانی خاوهن پێداویستی تایبته .

به هه‌ر حال وه‌لامی نهم وه‌لامه هه‌لده‌گرم بۆ شوینیکی تر و کۆتایی به‌م سه‌ره‌تایه ده‌هینم به نامازه به قسه‌یه‌کی که‌سینکی قوشمه‌ی هه‌ست به‌رزی شاری سلیمانی که ده‌لێت " رۆژانه من ده‌یان جار له جینگه‌ی خۆمدا ته‌ریق نه‌به‌مه‌وه (هه‌ست به شه‌رمه‌زاری نه‌که‌م) له بری هه‌لسووکه‌وتی نا‌شیاووی هه‌ندیک که‌سی نهم شه‌ره‌ " .

منیش زور جار كه رۆژانه به شاردایه‌په‌رم ، لای خۆمه‌وه وه‌ک نه‌ندازیار ده‌یان جار هه‌ست به شه‌رمه‌زاری نه‌که‌م و ته‌ریق ده‌به‌مه‌وه له بێباکی نه‌ندازیاران و بیناكان و خاوهن بیناكان ، به‌تایبته شه‌ره‌وانی سلیمانی و نه‌ندازیاره‌کانی و نه‌نجوومه‌نه‌که‌ی به‌رامبه‌ر به کهسانی خاوهن پێداویستی تایبته و نا تایبته . هه‌لبه‌ته بێباکی شه‌ره‌وانی نوێش كه له ۲۰۱۱ کرایه‌وه ، وه‌ک من ، هه‌مان هه‌ستی هه‌یه نه‌گهر بێته قسه .

کین کەسانی خاوەن پێداویستی تایبەت ؟

یان کین ئەو کەسانە ی پێویستیان بە ئاسان تێپەربوون هەیە ؟

بەرایێ من هەر کەسێکە کە نەتوانێت لەبەر هەر ھۆکاریک بێت بە ئاسانی تێپەربێت .

لەم پێناسەییەو ، بۆ من خاوەن پێداویستیە تایبەتەکان دەبن بە سێ بەشەو .

- ئەوانە ی کە کێشەییەکی دەروونی یان فیزیایان هەیە .
- ئەوانە ی کە توانایی جەستەییان لە خوار تێکراوێە .
- ئەوانە ی کە ھۆکاریک توانای تێپەربوونیان کەم نەکاتەو .

لێرەو بۆمان دەرئەکەوێت کە بەشێکی زۆر گەورەتر لەوێ کە درکی پێ نەکەین کەسانێک پێویستیان بە پێداویستی تایبەتە . بەتایبەت کەسانی بەشی دووەم و سێیەم زۆر کەم ناماژەیان بۆ دەکریت .

بۆ ڕوونکردنەوێ بۆچوونەکەم ، بە رای من ھەموو مندالیک ، ھەموو کەسێکی بە تەمەن ، ھەموو نەخۆشێکی ئاسایی ، ھەموو دایکێکی دووگیان ، ھەموو دایکێک کە مندالیکێ لە پاوەشدا بێت ، ھەموو دایکێک مندالی لە گالیسکەدا پێبێت ، ھەموو کەسێک پێویستی بە گۆچان بێت ، ھەموو پاسکیل سواریک ، ھەموو کەسێک چانتایەکی سەفەر رابکێشیت بەدوای خۆیدا و ھتد ، خاوەن پێداویستی تایبەتە ...

تەنھا کەسی نابینا پێویستی بە ناگادار بوون نییە ، بەلکۆ ھەموو کەسێکی بە تەمەن کە چاوی کز بووبێت ھەمان شتە . نەمە بۆ بیستنیش ھەر ھەمان شتە . بۆ جوولەش ھەر ھەمان شیووہ...

پێش کۆتایی ھینان ، لێرەدا نموونەییەکی تر نەھینمەو . کە پەییوەندی بەو کەسانەو هەیە کە ئەوانە یە وا ھەست بکەین کە ھیچ کێشەیان نییە .

ناشکرایە راکردنی بەیانیان لە زۆربە ی کۆمەلگا شارییە پێشکەوتووکاندا بوو بە شتێکی زۆر ئاسایی لە کەلتووری رۆژانە ی میرمنداڵ و گەنج و پیرەکاندا . بەیانینی پارکی نازادی سلیمانیش گەواھی نەوہ نەدەن کە لێرەش ھەست بە گرنگی ئەو بابەتە دەکریت . بەلام ناشکرایە لە زۆربە ی وڵاتان کەسەکان لە نزیک گەڕەک و پارک و رێگاکانی خۆیان رانەکەن . من بەش بە حالی خۆم بڕیارم دا کە بەیانیان لای ئاسایشی گشتییەو سەرکەووم بۆ کۆتایی تووی مەلیک و بگەریمەو بۆ خواروہ ، ھەر لە یەکەم پێنج دەقەدا درک بەو جیاوازییە گەورە یە کرد کە لە ئێوان جادەکانی خۆمان و دەرەوہدا ھەیە کە بە ھیچ شێوازیک ناگونجێت بۆ راکردنی بەیانیان ، چوونکە لە ھەموو ساتیکدا تۆ بەرامبەر پلەییەکی لەسەر ریزەوہکانت ، جا سەرەتاو کۆتای فەرعی جادەکان بێت یان خراپی وک وەییەکان ، یان ھەر نەبونیان یان مەزاجی خاوەن مأل و بیناکان کە ھار یەکیکیان بە ناوازیک شۆستەکانی بەردەم خۆیان پلە باران کردوہ یان چالریژ کردوہ ... رەنگە زۆریە ی مەرچەکانی شارەوانی لە وڵاتانی دەرەوہ لە بەر خاتری کەسانی خاوەن پێداویستی تایبەت بێت ، بەلام بە دڵنیاوییەو نەوہ نەک ھەر ژیانی ئەوان ، بەلکۆ ژیانی ھەموو کەسەکانی تریش ئاسانتر و شاریش زۆر جوانتر دەکات .

لەم بەشەدا لەمە زیاتر نانوسم چوونکە وەک دەلێن " وینەییەک بەرامبەر ھەزار وشەییە "

نەم وینانە لە نیوہراستی ۲۰۱۰ بۆ کۆتایی ۲۰۱۱ لە (کوردستان – تورکیا – ئەلمانی – بەریتانی – فەرەنسا – ھۆلەندا – سوید – ئەمەریکا) گیراون .



لهڼدهن – ۲۰۱۰/۱۱



سلیمانی – ۲۰۱۱/۱۱



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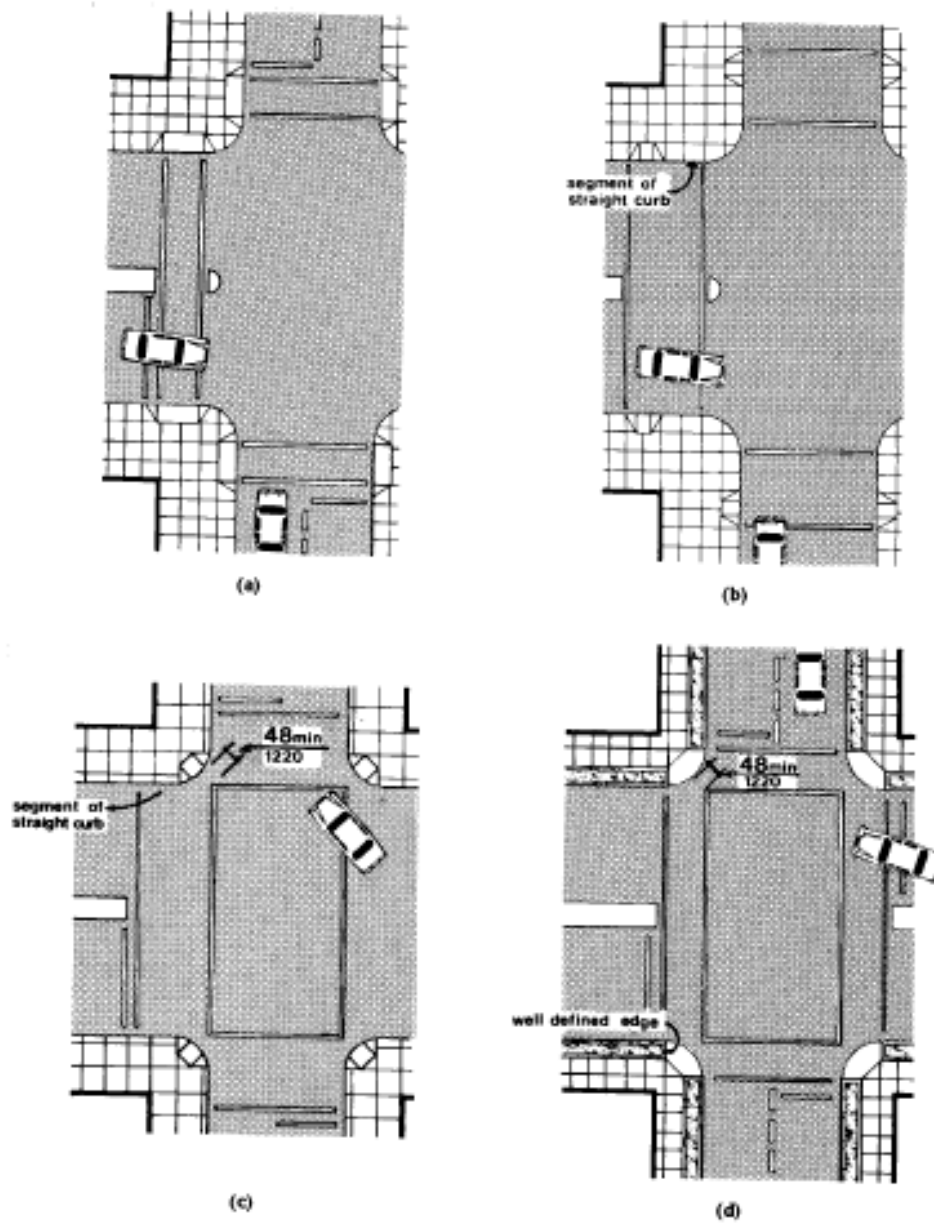


Fig. 15
Curb Ramps at Marked Crossings



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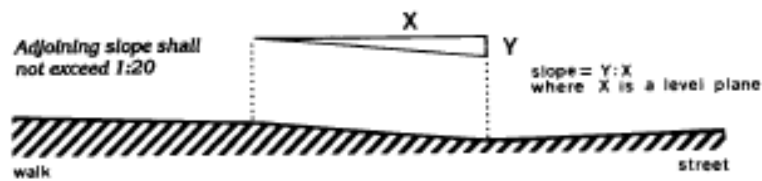


Fig. 11
Measurement of Curb Ramp Slopes

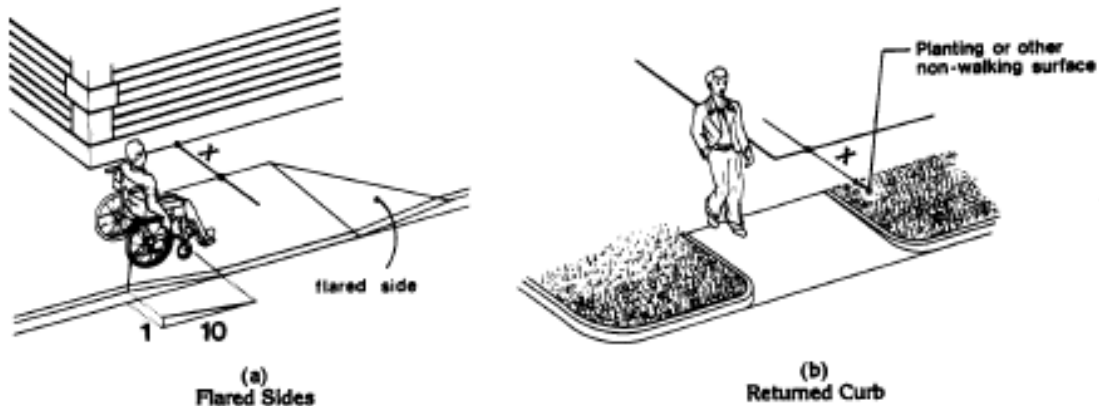


Fig. 12
Sides of Curb Ramps

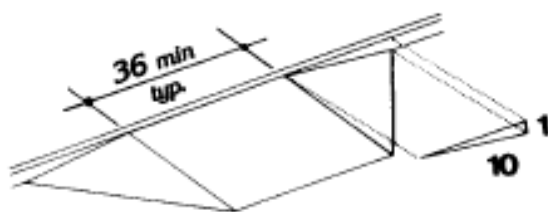


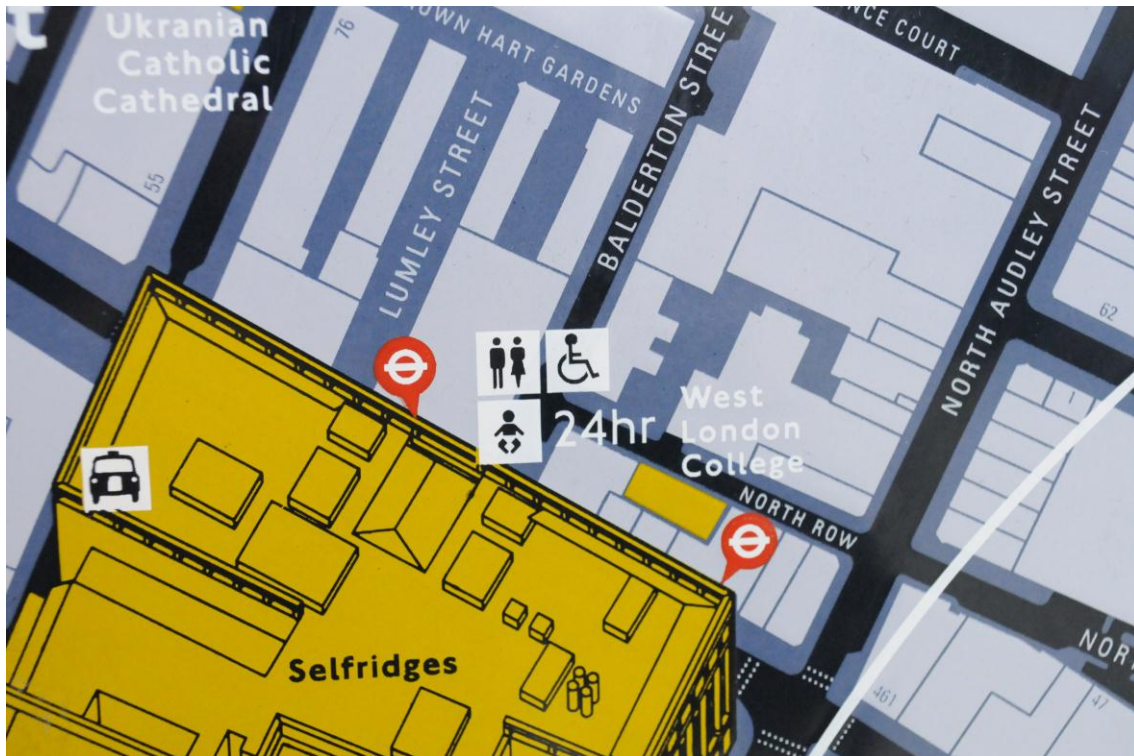
Fig. 13
Built-Up Curb Ramp

4.8 Ramps.

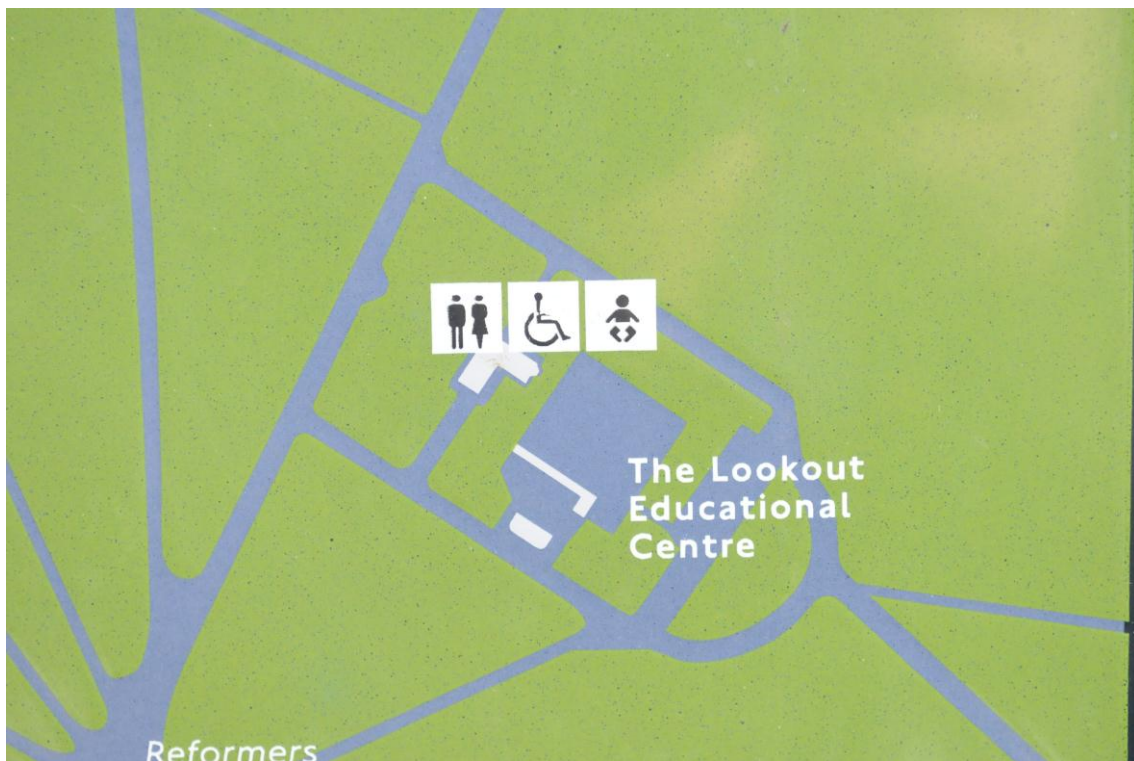
4.8.1* General. Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8.

4.8.2* Slope and Rise. The least possible slope shall be used for any ramp. The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) (see Fig. 16). Curb ramps and ramps to be constructed on existing sites or in existing buildings or facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less.





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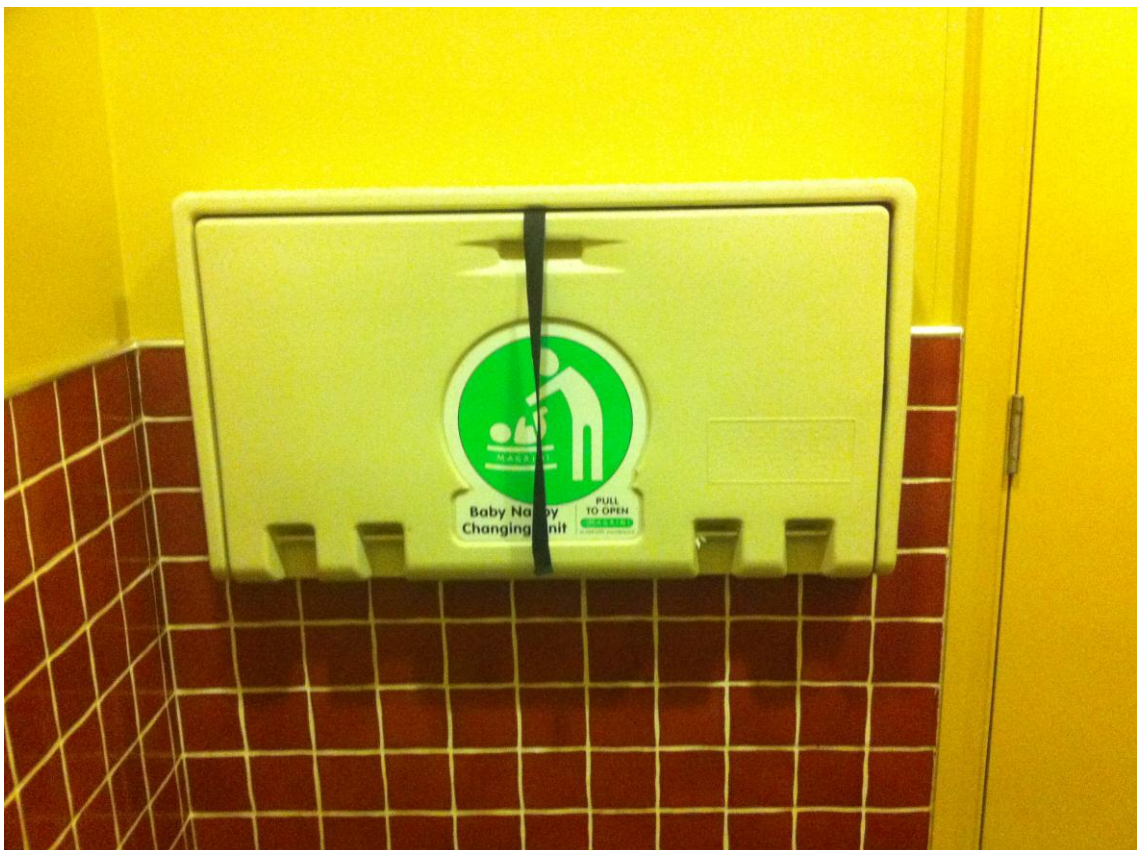
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Blue Badge and parent & child bays

We are making checks on vehicles parking within Blue Badge and the parent and child bays.

Please observe the following conditions to avoid a parking charge notice of £50.

 **Blue Badge holders only within marked bays.**
Please inform us if you wish to park longer than the maximum time indicated.

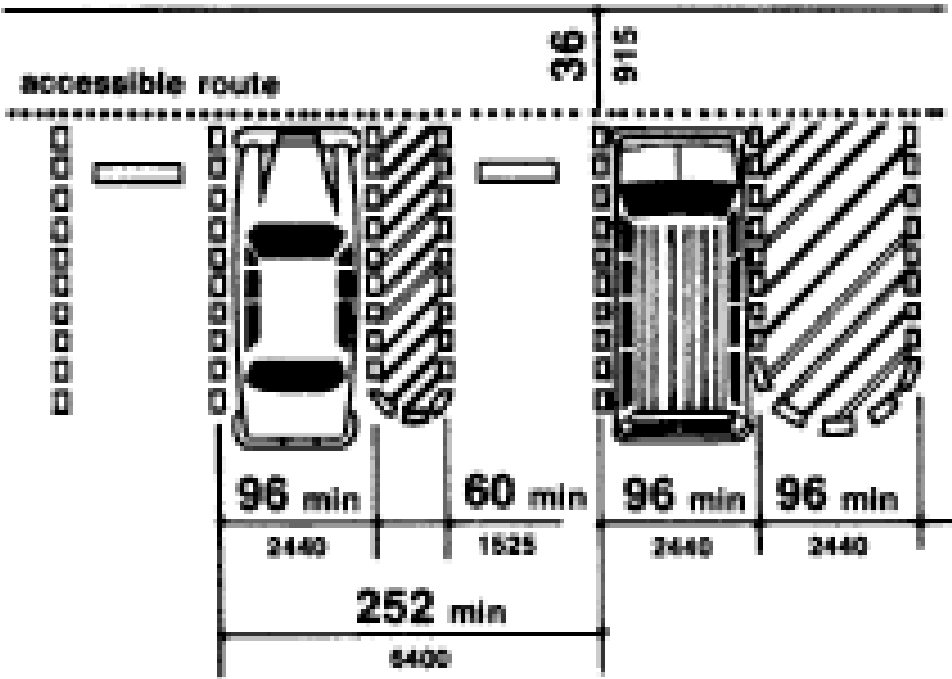
Free parking for Blue Badge holders, please display your Blue Badge.

 **Parent & child parking only within marked bays.**
To park within these bays you must be accompanied by one or more children up to the age of 12.
Income generated from paid parking charge notices is used to fund the monitoring operation and any profits returned to Sainsbury's are donated to Mencap (UK registered charity 222577) or another nominated charity that we may from time to time select. Further details available at www.sainsburys.co.uk.

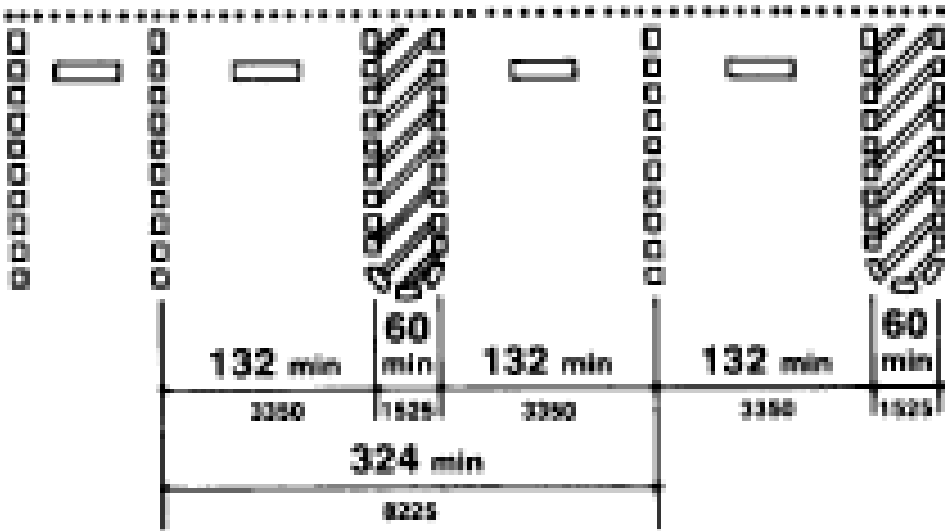
Euro Car Parks have been appointed to enforce the conditions of parking on this private land. In the event that the conditions of parking are breached Euro Car Parks may submit the relevant details of the registered keeper from the DVLA. Euro Car Parks is a member of the British Parking Association (BPA) and strictly adheres to the BPA's code of practice for parking enforcement on private and unregulated car parks. Further details of the BPA's Code of Conduct and Code of Practice can be viewed at www.britishparking.co.uk

 **euro car parks**  **30 Dorset Square, London, NW1 6QJ. 0870 907 9777**

Working in partnership with Sainsbury's



(a)
Van Accessible Space at End Row



(b)
Universal Parking Space Design

Fig. A5
Parking Space Alternatives

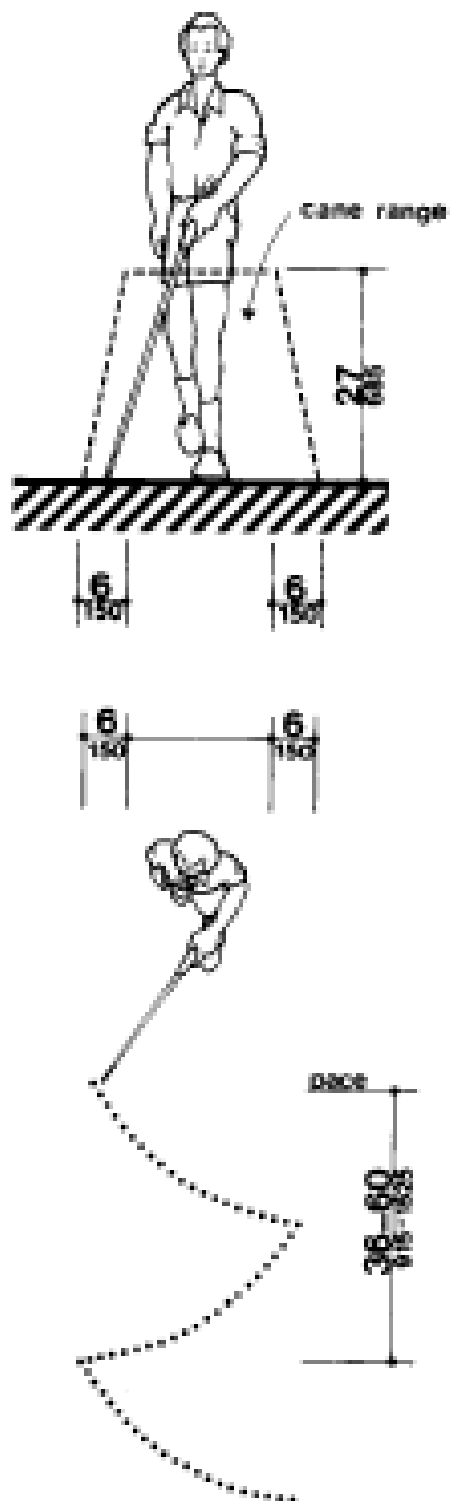


Fig. A4
Cane Technique







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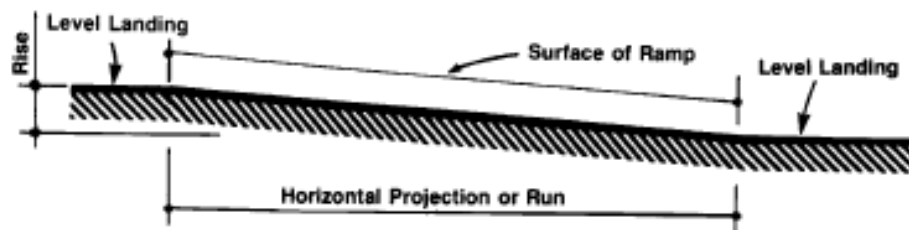
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Slope	Maximum Rise		Maximum Horizontal Projection	
	in	mm	ft	m
1:12 to < 1:16	30	760	30	9
1:16 to < 1:20	30	760	40	12

Fig. 16
Components of a Single Ramp Run and Sample Ramp Dimensions

4.8.3 Clear Width. The minimum clear width of a ramp shall be 36 in (915 mm).

4.8.4* Landings. Ramps shall have level landings at bottom and top of each ramp and each ramp run. Landings shall have the following features:

- (1) The landing shall be at least as wide as the ramp run leading to it.
- (2) The landing length shall be a minimum of 60 in (1525 mm) clear.
- (3) If ramps change direction at landings, the minimum landing size shall be 60 in by 60 in (1525 mm by 1525 mm).
- (4) If a doorway is located at a landing, then the area in front of the doorway shall comply with 4.13.6.

4.8.5* Handrails. If a ramp run has a rise greater than 6 in (150 mm) or a horizontal projection greater than 72 in (1830 mm), then it shall have handrails on both sides. Handrails are not required on curb ramps or adjacent to seating

in assembly areas. Handrails shall comply with 4.26 and shall have the following features:

- (1) Handrails shall be provided along both sides of ramp segments. The inside handrail on switchback or dogleg ramps shall always be continuous.
- (2) If handrails are not continuous, they shall extend at least 12 in (305 mm) beyond the top and bottom of the ramp segment and shall be parallel with the floor or ground surface (see Fig. 17).
- (3) The clear space between the handrail and the wall shall be 1 - 1/2 in (38 mm).
- (4) Gripping surfaces shall be continuous.
- (5) Top of handrail gripping surfaces shall be mounted between 34 in and 38 in (865 mm and 965 mm) above ramp surfaces.
- (6) Ends of handrails shall be either rounded or returned smoothly to floor, wall, or post.
- (7) Handrails shall not rotate within their fittings.



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