



Swedish Legislation

Accessibility and usability in public spaces

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Regulations and general recommendations issued by the National Board of Housing, Building and Planning on accessibility and usability for people with limited mobility or orientation capacity in public spaces and in areas for constructions other than buildings; adopted on 13 August 2004.

The National Board of Housing, Building and Planning prescribes¹⁾ the following under Section 6 of the Planning and Building Ordinance (Swedish Code of Statutes (SFS) 1987:383).

National Board of Housing, Building and Planning

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Introduction

Important information

The following translation is strictly for informative purpose. The legally binding text is found in the Code of Statutes of the Swedish Board of Housing, Building and Planning.

General provisions

The National Board of Housing, Building and Planning prescribes¹ the following under Section 6 of the Planning and Building Ordinance (Swedish Code of Statutes (SFS) 1987:383).

Section 1

This statute contains regulations and general recommendations relating to the requirement in Chapter 3, Section 18 of the Planning and Building Act (1987:10), “the PBA”, that public spaces and areas for constructions other than buildings shall be usable by people with limited mobility or orientation capacity.

General recommendations

Detailed development plans or special area regulations show what areas are public spaces. Examples of spaces that can be public spaces are streets, roads, squares and parks. An area for constructions other than buildings refers to land that is used or needed for normal use of the construction. Examples of areas for constructions other than buildings can be recreational areas, amusement parks, zoos, golf courses, ski slopes with lifts, camping sites, marinas, outdoor baths, outdoor parking spaces and graveyards.

It is clear from Chapter 3, Section 18 and Chapter 3, Section 15 of the PBA that public spaces and areas for constructions other than buildings shall be used in a way that is suitable with regard to the landscape as well as to the natural and cultural values of the site.

The regulations and the general recommendations in Sections 6–16 are applicable unless this is not justified in view of the terrain and other conditions.

General recommendation

Rocky sections with large height differences can be examples of parts of spaces and areas where full application of the regulations is not justified in view of the terrain.

The regulations

Section 2

The regulations are applicable to

- when a public place is arranged;
- when an area for constructions other than buildings is arranged;

In these regulations arranging refers to new construction.

¹ Cf. Govt Bill 2000/01:48, Committee Report 2000/01:BoU5, Riksdag Communication 2000/01:155.

The general recommendations

Section 3

The general recommendations contain general recommendations on the application of the regulations in this statute and in the main statutes and specify how someone can or should act in order to comply with the regulations. However, the individual is free to choose other solutions and methods, if these comply with the regulations. The general recommendations may also contain certain explanatory or editorial information.

The general recommendations are preceded by the text General Recommendations and are printed in smaller, indented text.

Terminology

Section 4

Terms which are not specifically defined in the principal statutes or in the mandatory provisions in this statute have the meaning set out in Publication No TNC 95 Plan- och byggtermer 1994 (Glossary of Planning and Building 1994) of the Swedish Centre of Technical Terminology.

Sizing

Section 5

When this statute states that places or areas shall be usable by people with people with limited mobility or orientation capacity this means that they shall be usable both by people with large outdoor wheelchairs, with manual wheelchairs or with rollators for outdoor use and by people with impaired vision, hearing or cognitive ability.

General recommendations

The design turning space that is appropriate in an assessment of usability for people with a large outdoor wheelchair is a circle with a diameter of 2.00 metres.

Public spaces (spaces) and areas for constructions other than buildings (areas)

Design

Section 6

Spaces and areas shall be designed to be usable by people with limited mobility or orientation capacity. Both children and adults with limited mobility or orientation capacity shall be able to use play areas. When a toilet is provided for the general public, at least one toilet shall be usable by people with wheelchairs for restricted outdoor use.

General recommendations

When level differences cannot be avoided they should be minimised and evened out using a ramp and stair.
Continuous passages should be designed with easily understood and clear walking zones and furniture zones.

An obstacle-free environment is important in terms of safety and passability. This applies especially to people with limited mobility or orientation capacity

A toilet intended for people with wheelchairs for restricted outdoor use should be at least 2.2 x 2.2 metres in size and have a free door passage dimension of at least 0.90 metres. There should be a turning zone directly alongside the toilet door.

Walking areas

Section 7

Walking areas shall be designed so that people with limited mobility or orientation capacity can move about on them and so that people in wheelchairs can also move around without assistance.

Walking areas shall be level, firm and non-slip. There shall be special guide paths on open surfaces.

General recommendations

Examples of walking areas can be walkways, footpaths, ramps, stairs and communication areas at play areas.

Examples of open areas can be squares and parking spaces.

Walking areas should be designed without level differences.

Asphalt, concrete ground slabs and level flagstones are examples of suitable materials. In natural environments crushed stone fines that have been hardened by watering can be a suitable material. In gravel areas, firm walking areas can be arranged through surface treatment.

A walking area should

- a. be as horizontal as possible – since a lengthwise gradient steeper than 1:50 can be hard for people with reduced mobility to use;
- b. not have a sideways gradient of more than 1:50;
- c. be at least 2.00 metres wide or be at least 1.80 metres wide and have turning zones at regular intervals;
- d. be at least 0.90 metres wide at openings, for instance, in fences and hedges, etc.;
- e. be free from obstacles;
- f. be well separated from cycle lanes and roadways; and also
- g. be separated from furniture zones by a different surface covering, for instance.

When level walking areas are combined with uneven walking areas that have a different ground surfacing, the level walking area should be at least 0.90 wide and be provided with passing places and turning zones so as to function for people with rollators, for instance.

See under Sections 11 and 12 below for requirements concerning the design of walking areas and guide paths so that people with impaired orientation capacity can move about.

Levelling between walking areas

Section 8

Spaces with passages between different types of walking areas and places that connect with walking areas shall be designed, placed and marked so that they do not result in obstacles for people with limited mobility or orientation capacity. In these spaces parts of the level differences shall be levelled out with ramps to the 0 level so that people with limited mobility can move about.

General recommendations

Examples of spaces with passages between different types of walking areas and spaces that connect with walking areas are pedestrian crossings and other places provided for pedestrians to cross the street, parking spaces for people with limited mobility who hold special permits and spaces for embarkation and alighting in public spaces and within areas for constructions other than buildings.

Levelling off to the 0 level should not have a greater gradient than 1:12. The width should be 90–100 cm. At pedestrian crossings and other places provided to enable pedestrians to cross the street, the kerbstone should be retained alongside the levelling so that people with visual impairments can identify the direction for crossing the street.

See Section 11 concerning requirements for contrast markings at pedestrian crossings.

Ramps and stairs

Section 9

If it is not possible to avoid providing a stair, it shall be supplemented with a ramp or an alternative path that people with reduced mobility can use. Stairs and ramps shall be designed so that people with limited mobility and orientation capacity can also move around safely.

General recommendations

A ramp should

- a. have a gradient of no more than 1:20 between landings at least 2 metres long;
- b. have a height difference of no more than 0.5 metres between landings;
- c. have a free width of at least 1.5 metres;
- d. be free from obstacles; and
- e. have a safety side edge that is at least 40 mm high if there are height differences to the surroundings.

It can be difficult for people with reduced mobility to use more than two ramps in succession.

In designing a stair, consideration should be given to the gradient and length of the stair and also to the relationship between the rise and going of the steps. The gradient of the stair in the walking line should not be altered within the same flight of steps. There should not be any individual steps

with a different height. The depth of the steps in a stair should be at least 0.30 metres, measured in the walking line.

In order to avoid the risk of stumbling, a stair should have more than 2 steps. See Section 11 concerning requirements for contrast markings.

Stairs and ramps shall have handrails on both sides that it is possible to grip round.

General recommendation

A handrail should:

- a. be ergonomically designed;
- b. run continuously;
- c. pass the front edges of the top and bottom steps as well as the beginning and end of the ramp by at least 300 mm;
- d. have lightness contrast in relation to surrounding surfaces;
- e. have a height of at least 0.90 metres; and
- f. also be provided at a height of 0.70 metres in ramps.

It should also be possible to hold the handrail past its fastenings

Lifts

Section 10

If a level difference corresponding to more than one storey is created/constructed, the level difference shall be bridged by a lift and stair if it is not possible or suitable to use a ramp and stair for bridging.

A lift or other lifting device shall accommodate one person in a large outdoor wheelchair and a helper and otherwise be designed so that people with limited mobility or orientation capacity can use it by themselves.

General recommendations

At important destinations, such as terminals, and at transport stops large differences in level corresponding to more than one story, such as between streets or between a street and a bridge, should be bridged both with a stair and with a lift.

Further requirements concerning lifts intended for transporting people with reduced mobility and orientation capacity are set out in the Regulations and General Recommendations issued by the National Board of Housing, Building and Planning on Lifts and Other Motorised Devices, BFS 1994:25 with amendments, annex 5:1, sections 1.2 and 1.6.1.

Lifts that meet the requirements for internal car dimensions are set out in SS-EN 81-70 (1), type 3 (2.00 x 1.4 metres). There are also examples of appropriate operating and signal devices.

Contrasts and markings

Section 11

Important destinations, walking areas, stairs and ramps shall be easy to identify. Stairs shall be supplied with contrast markings so that partially sighted people and people with other orientation difficulties are able to discern the level difference.

General recommendations

Bus stops, lift doors, pedestrian crossings and other important destinations as well as walking areas, stairs and ramps should be designed so that they are prominent in relation to their surroundings so that it is easier for partially sighted people, blind people, people with intellectual disabilities or people with other orientation difficulties, etc. to use them.

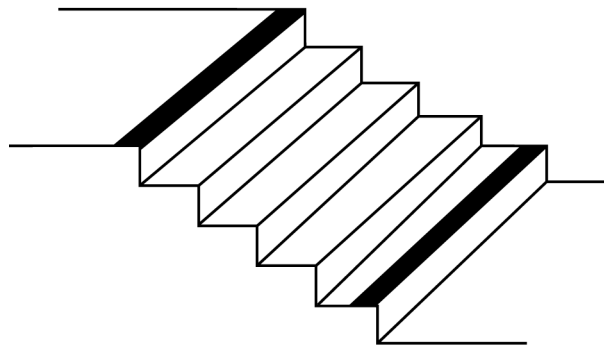
Contrast in relation to the surroundings can, for instance, be achieved by inserting material with a different structure and lightness in the ground surfacing, such as clearly perceptible paving stones in asphalt surfaces.

Guide paths should provide both visual and tactile contrast in relation to their surroundings.

Grass edges, walls, fences, edges and facades are natural boundaries that can facilitate orientation for partially sighted people and people with other orientation difficulties.

Walking areas with contrast marking should be designed so they do not result in a risk of stumbling. A lightness contrast of at least of at least 0.40 according to the NCS (Natural Color System) between the contrast marking and the surrounding ground surfacing can greatly assist partially sighted people and people with other orientation difficulties in discerning the marking.

Logical colour systems facilitate orientation for people with intellectual disabilities or other orientation difficulties. The lowest tread of a stair and the corresponding part of the front edge of the landing at the top riser in every flight of stairs should be given a tone contrast of at least 0.40 according to the NCS. The markings should be made in a consistent way throughout the area.



Contrast marking of a stairs.

Warning markings

Section 12

Fixed objects and parts of buildings that may constitute dangers or obstacles shall be placed and designed so as to restrict the risk of involuntary collisions. Where this is impossible, the obstacles shall be marked with warnings.

Protruding parts of buildings, such as stairs, signs and balconies, placed lower than 2.20 m above the ground shall be clearly marked with warnings or dealt with in some other way so that they do not present a danger to blind and partially sighted people and to people with orientation difficulties.

Warning markings shall be placed and designed so that they can also be noticed easily by partially sighted people and by people with orientation difficulties.

Warning markings shall be applied to unprotected glass surfaces.

The term warning markings in this section does not refer to road warning signs regulated in the Road Signs Ordinance (1978:1001). Warnings markings shall be designed and placed so that they cannot be confused with road signs and road markings (see Section 85 of the Road Signs Ordinance).

General recommendations

Unprotected glass surfaces should have warning markings for both people who are standing and people who are seated using, for example, different lightness from the background.

Fixed obstacles, such as benches and posts, should be placed in furniture zones, marked clearly visually and also designed so that they can be identified using a white cane stick.

Both temporary and permanent fixed objects that can constitute obstacles, such as open-air cafés, benches, cycle stands, posts and flowers should be placed in furniture zones in such a way that they do not obstruct passability or constitute a risk for people with limited orientation capacity or mobility.

Level differences that can entail a risk of falling shall be clearly marked.

General recommendation

Platforms and similar places and areas should be contrast-marked, see Section 11. In the case of other level differences that can entail a risk of falling, there should be a rail or other protection against falling.

Signs

Section 13

The necessary information signs shall be displayed to make it easier for people with limited mobility and orientation capacity to use the space or the area. It must be possible for people with impaired orientation capacity to discern and understand such information signs.

The term signs in this section does not refer to road signs and road markings regulated in the Road Signs Ordinance (1978:1001). Signs shall be designed and placed so that they cannot be confused with road signs and road markings (see Section 85 of the Road Signs Ordinance).

General recommendations

Signs should be easy to understand and to read, have tone contrast and be placed at an appropriate height to be read/heard both by people in wheel-chairs and by people with impaired vision who are standing. They should be placed where they are expected and so that people can get right up to them. The text size should be designed on the basis of the reading distance and the surface should not cause reflection. Signs should be supplemented with letters in raised relief and/or Braille and also, in certain cases, with spoken information and clear, easy to understand and well-known symbols.

Electronic signage should be designed to function for people with, for example, impaired vision, hearing or cognitive ability.

Clear and well-lighted signage is of great importance in enabling, inter alia, people with impaired vision or hearing and people with intellectual disabilities, reading difficulties or other orientation difficulties to orient themselves.

Lighting

Section 14

Lighting in walking areas and at important destinations shall be designed and be of such brightness so that people with limited mobility or orientation capacity can use them.

General recommendation

Examples of important destinations are bus stops, platforms, pedestrian crossings and entrances.

Lighting should be even and arranged so that partially sighted people, people with other orientation difficulties and people with limited mobility can see what the ground surface looks like and so that people with impaired hearing and the deaf can discern sign language and lip-read.

Fixed lighting should not be dazzling. For instance, it is important that the light source is screened off

Seats

Section 15

Seats that can be used by people with limited mobility shall be provided in connection with walking areas and at important destinations.

General recommendation

Seats should be provided, for example, in squares, at transport stops, on platforms, at stairs and at regular intervals along walkways and in parks. A seat should have a back rest and arm rests, have a seating height of 0.45–0.50 metres and have an arm rest height of 0.70 metres and also have arm rests with a front edge that can be gripped around. The arm rests should extend beyond the front edge of the seating area. A place for a wheelchair should be provided alongside the seat. Seats should be placed at the side of the walking area.

Parking spaces for people with limited mobility who hold special permits

Section 16

Parking spaces for people with limited mobility who hold special permits shall be designed to be usable by people with limited mobility or orientation capacity. The ground surfacing on such parking spaces shall be firm, even and non-slip.

Where parking spaces are provided for people with limited mobility who hold special permits, at least one space shall be designed so as to enable the wheelchair to be loaded from the side of a vehicle using a ramp or lift.

General recommendations

Parking spaces for people with limited mobility who hold special permits should be provided at important destinations such as parks, recreation areas, camping sites and outdoor baths, for example.

The lengthwise and lateral gradient should not be more than is required for water runoff and should not exceed 1:50.

The width of a parking space that is to enable the loading of a wheelchair from the side should be at least 5.0 metres. The width can be reduced if the adjacent walking area can be used or if parking spaces for disabled people are placed beside one another.

This statute enters into force on 1 October 2004

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