



THE GOVERNMENT OF REPUBLIC OF SERBIA
The Ministry of Labour and Social Policy



KINGDOM OF NORWAY



Serbia

ACCESSIBILITY RULES IMPLEMENTATION GUIDE

United Nations Development Programme
Belgrade, 2008

ACCESSIBILITY RULES IMPLEMENTATION GUIDE

Project:

Increase in Competitiveness of Enterprises for Vocational Rehabilitation and Employment of the Persons with Disability on the Commercial Market of Serbia

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TABLE OF CONTENTS

MANEUVERING A WHEELCHAIR	4
ROAD DIMENSIONS	5
ACCESS PATH DIMENSIONS	6
GAATES' tables	6
ACCESS TO BUILDINGS	7
Ramps for pedestrians and wheelchair users	7
RAMP DIMENSIONS	10
GAATES' tables	10
HANDRAILS	11
Ramps and staircases	11
ACCESS TO FACILITIES AND INSIDE FACILITIES	12
Stairs	12
MOVEMENT INSIDE A BUILDING	13
One-way movement	13
Two-way movement	14
Elevators	15
Platform lifts (wheelchair lifts)	17
Doors	18
ENTRANCE DIMENSIONS	19
GAATES' tables	19
WORKPLACE	20
Working table/desk	20
WC / TOILETS	21
Cabins	21
Grab bars	22
Lavatory	23



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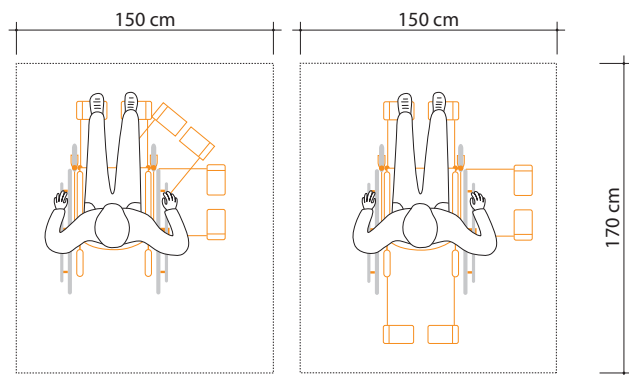
Serbia

The following brochure has been made as a working document of the component “Workplace accessibility” of the Project “Increase in Competitiveness of Enterprises for Vocational Rehabilitation and Employment of the Persons with Disability on the Commercial Market of Serbia”. The Project is financed by the Government of the Kingdom of Norway. The leader of the project is the Government of Serbia Ministry of Labour and Social Policy, and the implementing agency is the United Nations Development Programme (UNDP).

The brochure serves as a guide to accessibility implementation and as a source of information on accessibility measures and standards for the construction of new and renovation of already existing buildings. Also, the brochure gives an overview and comparison of national and international accessibility standards.

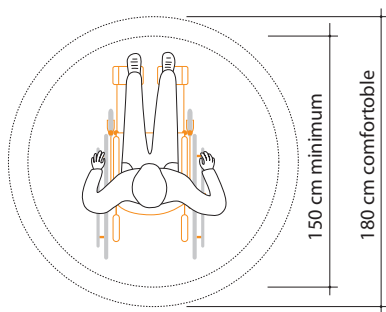
- Rules on the Conditions of Planning and Design of Building for Free Movement of Children, Elderly and Disabled People (*“Off. Gazette RS”, no. 18/97*)
- American Disability Act (ADA) Standards for Accessible Design
(<http://www.ada.gov/stdspdf.htm>)
- UN Accessibility for the Disabled a Design Manual for a Barrier Free Environment
(<http://www.un.org/esa/socdev/enable/designm/>)

MANEUVERING A WHEELCHAIR

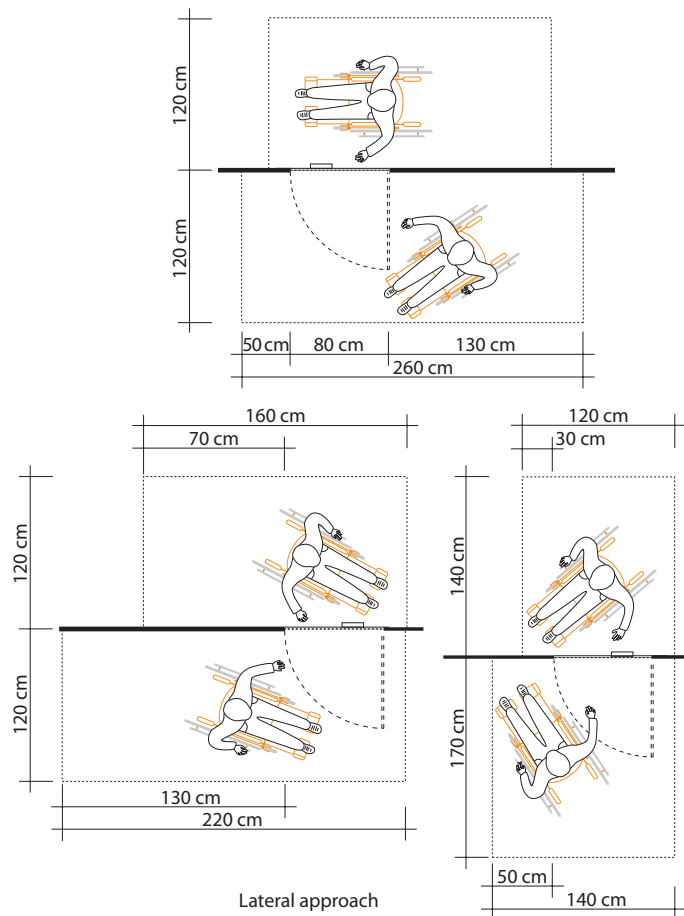


1/4 Turn

1/2 Turn



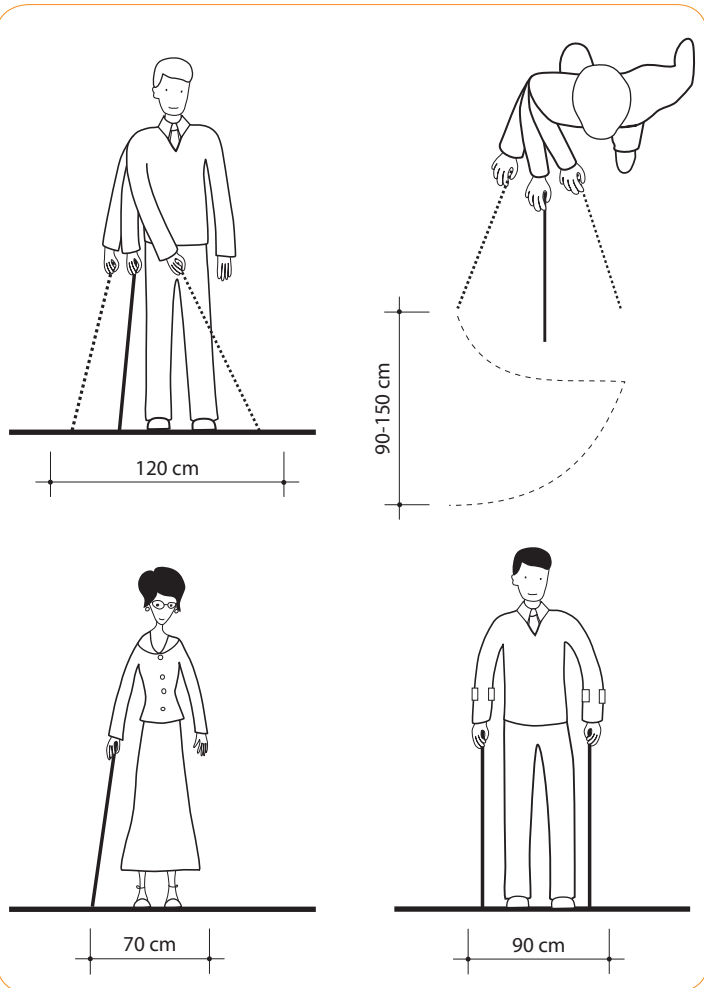
Complete turn



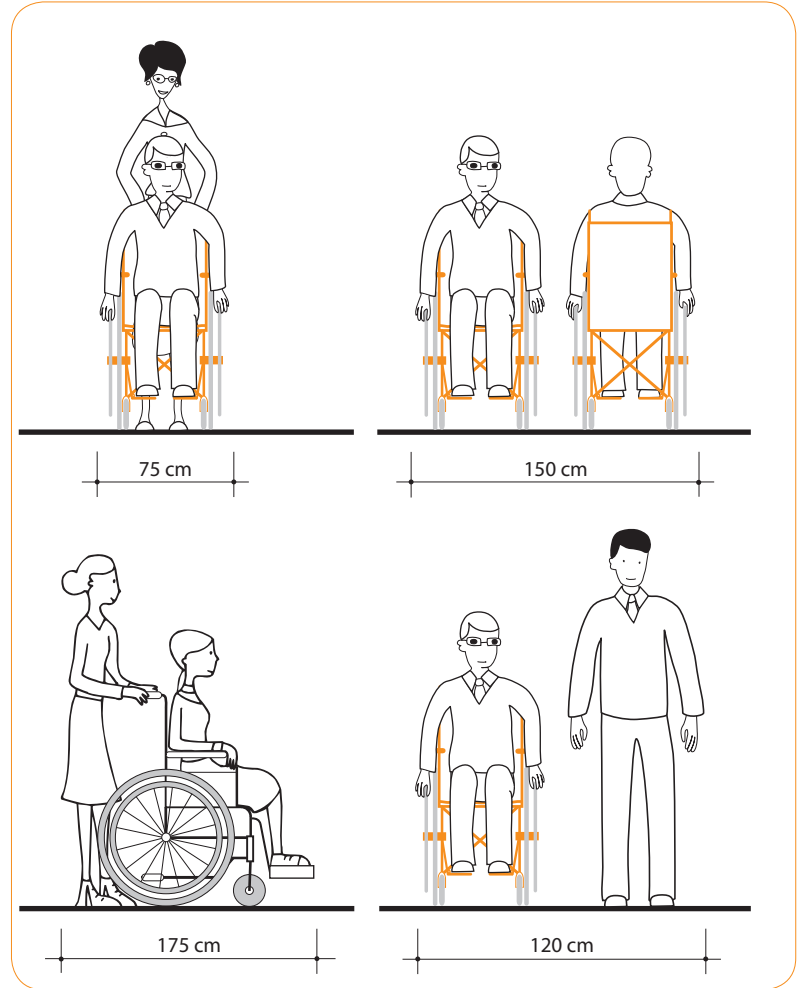
Lateral approach

UN measures and standards

ROAD DIMENSIONS



UN measures and standards



ACCESSIBILITY RULES IMPLEMENTATION GUIDE

ACCESS PATH DIMENSIONS

GAATES' tables

These two tables show results of a research on measures and standards done by the Canadian company The Global Alliance on Accessible Technologies and Environments (GAATES)

<http://www.gaates.org>

Minimum access path width:

Australia	100 cm	Philippines	120 cm
CSA (CAN) ¹	92 cm	SERBIA	180 cm
Ireland	120 cm	Singapore	120 cm
Lebanon (UN)	90 cm	South Africa	110 cm
Malaysia	120 cm	Spain	105 cm
Mexico	120 cm	Sweden	130 cm
NBC (CAN) ²	92 cm	Uruguay	90 cm
		US ADAAG ³	91,5 cm

Country names are listed in alphabetical order

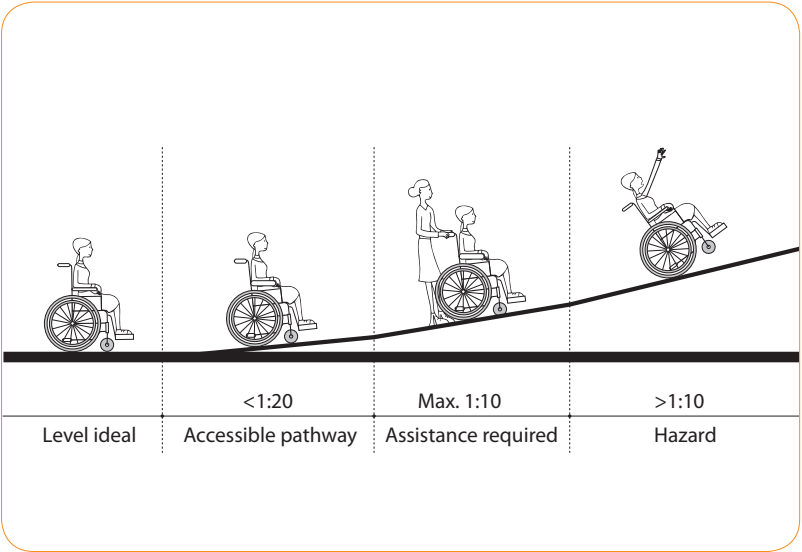
¹ The Canadian Standards Association (Canada)

² North British Columbia (Canada)

³ United States of America, ADA Accessibility Guidelines

ACCESS TO BUILDINGS

Ramps for pedestrians and wheelchair users



UN measures and standards

Ramp slope

Maximum ramp slope:

National measures and standards	1:20
ADA measures and standards	1:20
UN measures and standards	1:20

Length of ramp and ramp landing dimensions

Ramps longer than 6 m, up to 9 m, if they are of lower slope, are separated at the landings.

Ramp landing dimensions:

National measures and standards	150 cm (exceptionally 140 cm)
ADA measures and standards	152.5 cm
UN measures and standards	120 cm (per every 10 m)

Ramp width

Minimum ramp width for one-way movement:

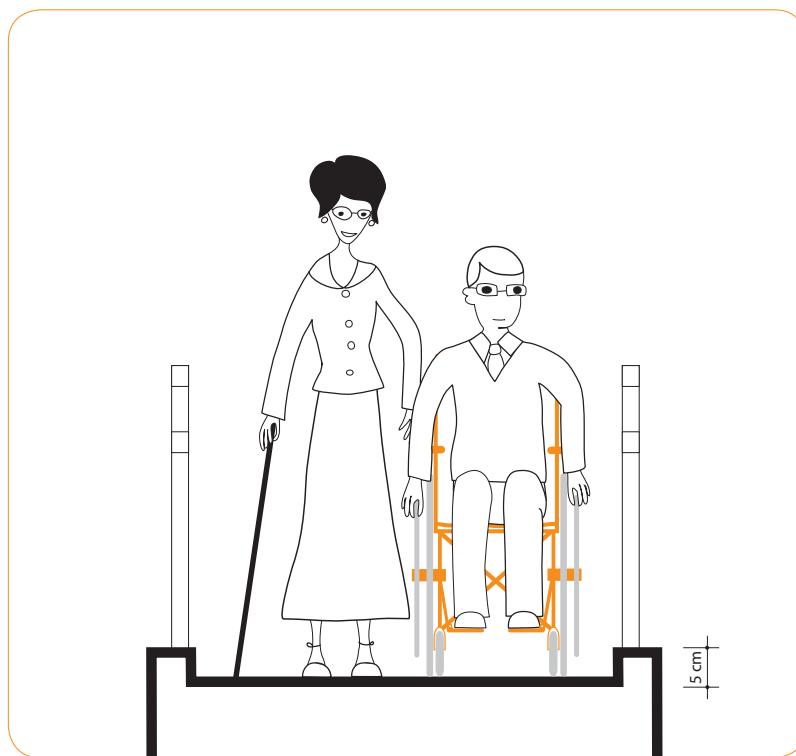
National measures and standards	90 cm
ADA measures and standards	91.5 cm
UN measures and standards	90 cm

Ramps are protected by curbs of the following height:

National measures and standards	5 cm
ADA measures and standards	5 cm
UN measures and standards	5 - 7.5 cm

ACCESS TO BUILDINGS

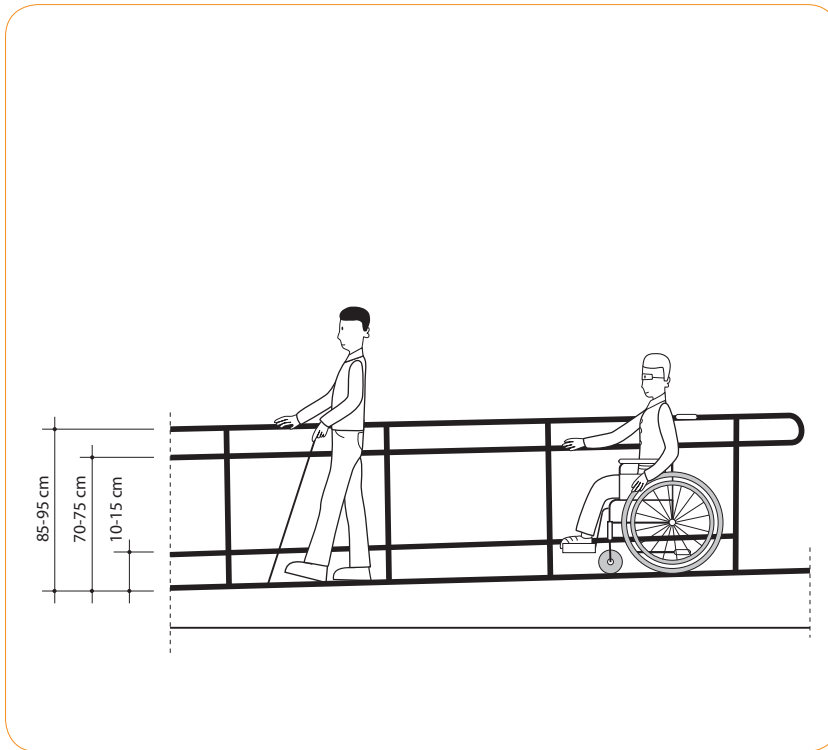
Ramps for pedestrians and wheelchair users *(continued)*



National measures and standards

ACCESS TO BUILDINGS

Ramps for pedestrians and wheelchair users *(continued)*



UN measures and standards

Handrails

Ramps should have handrails mounted at two points on both sides.

Top of handrail gripping surface should be mounted at the height of:

National measures and standards

70 - 90 cm

ADA measures and standards

86.5 - 96.5 cm

UN measures and standards

70 - 95 cm

RAMP DIMENSIONS

GAATES' tables

These two tables show results of a research on measures and standards done by the Canadian company The Global Alliance on Accessible Technologies and Environments (GAATES)
<http://www.gaates.org>

Minimum ramp width:

Australia	100 cm
CSA (CAN) ¹	92 – 100 cm
Ireland	100 cm
Lebanon (UN)	90 cm
Malaysia	120 cm
Mexico	120 cm
NBC (CAN) ²	87 cm
Philippines	120 cm

SERBIA	90 cm
Singapore	120 cm
South Africa	110 cm
Spain	120 – 150 cm
Sweden	130 cm
Uruguay	90 cm
US ADAAG ³	91,5 cm

Country names are listed in alphabetical order

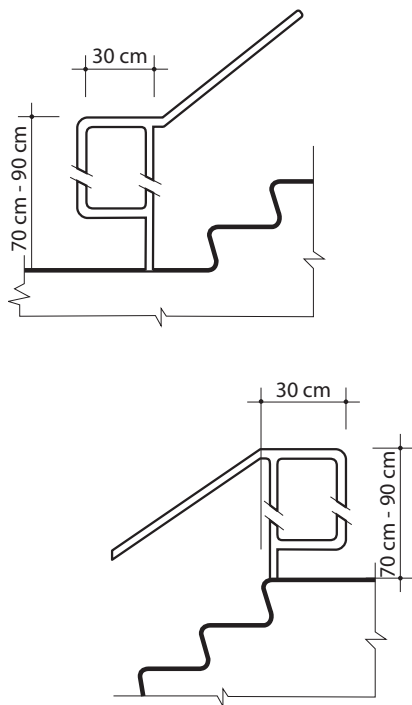
¹The Canadian Standards Association

²North British Columbia (Canada)

³United States of America, ADA Accessibility Guidelines

HANDRAILS

Ramps and staircases



National measures and standards

Handrails

Top of handrail gripping surfaces should be mounted between 70 cm and 90 cm above ramp or staircase surfaces according to the national measures and standards.

Handrails should be continuous along both sides. If handrails are not continuous, they should extend beyond the top and bottom of the ramp or staircase at least:

National measures and standards	30 cm
ADA measures and standards	30.5 cm
UN measures and standards	30 - 45 cm

ACCESS TO FACILITIES AND INSIDE FACILITIES

Stairs

Stairs

Minimum width of the tread:

National measures and standards

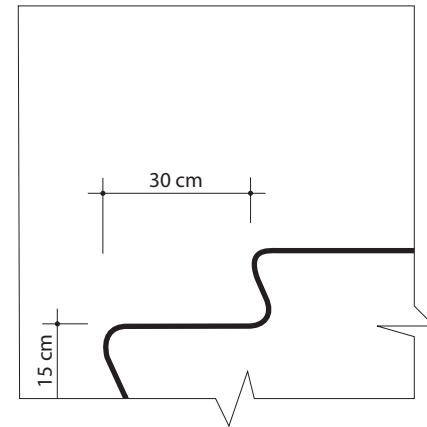
30 cm

ADA measures and standards

28 cm

UN measures and standards

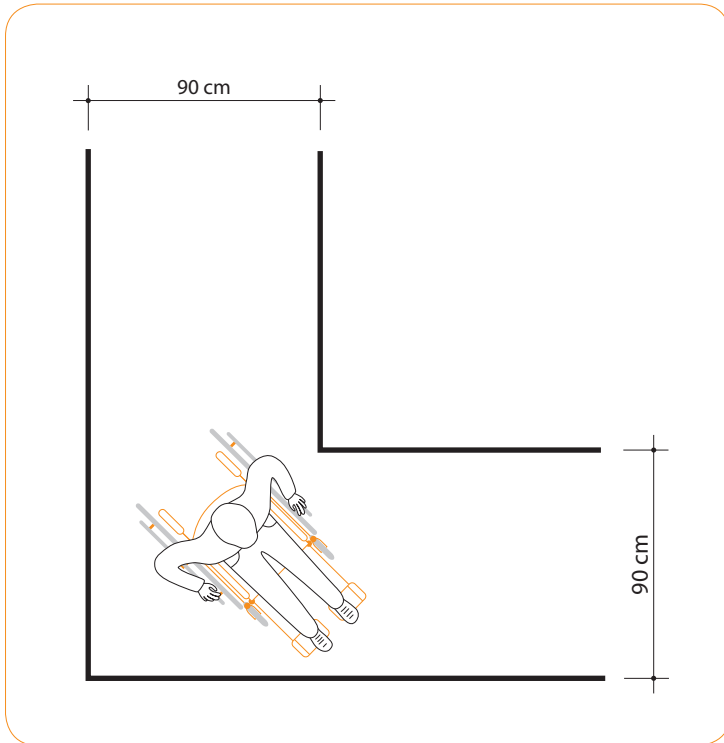
28 - 35 cm



National measures and standards

MOVEMENT INSIDE A BUILDING

One-way movement



National measures and standards

Aisles/tunnels for one-way movement

For one-way movement at short distances the aisles have the minimum width of:

National measures and standards

90 cm

ADA measures and standards

91.5 cm

UN measures and standards

90 cm

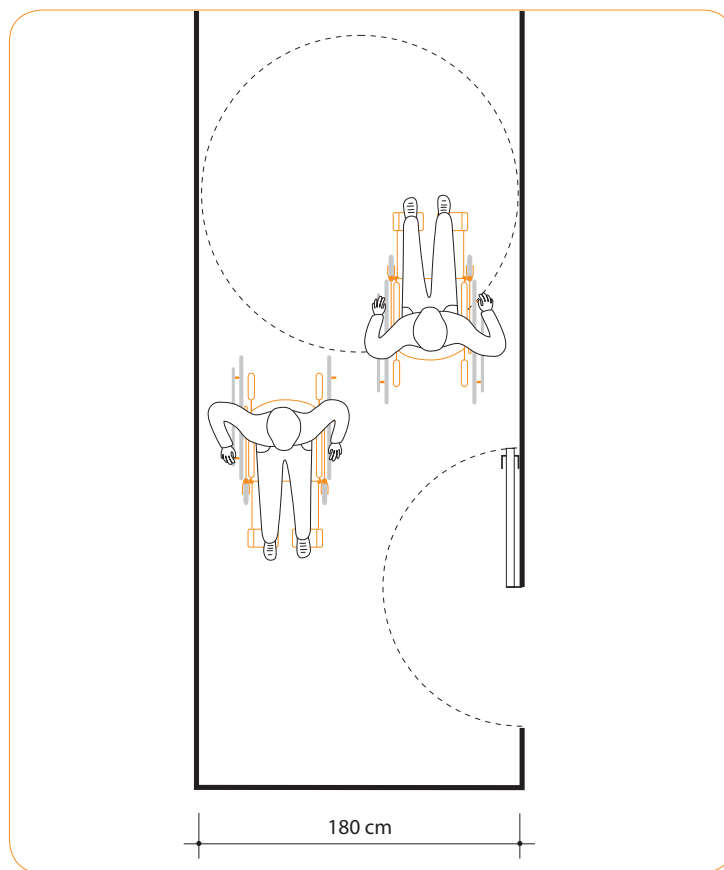
Two-way movement aisles

For free movement of persons with disabilities inside a building pedestrian to-way routes and tunnels are designed with the minimum width of:

National measures and standards	180 cm (exceptionally 195 cm)
ADA measures and standards	152.5 cm
UN measures and standards	150 cm (exceptionally 180 cm)

MOVEMENT INSIDE A BUILDING

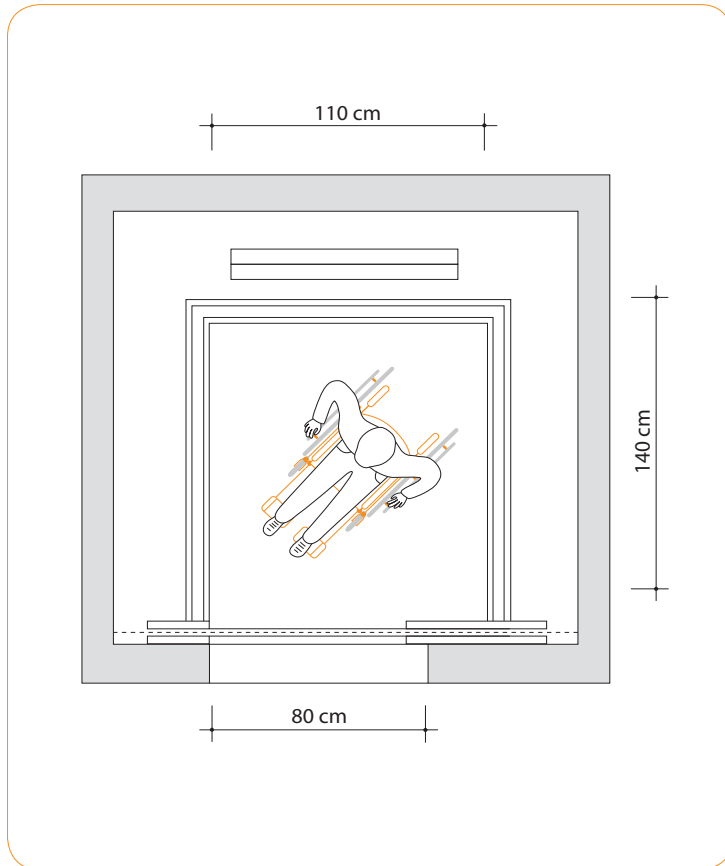
Two-way movement



National measures and standards

MOVEMENT INSIDE A BUILDING

Elevators



National measures and standards

Inside of an elevator

Minimum dimension of an elevator interior:

National measures and standards	110 x 140 cm
ADA measures and standards	137 x 173 cm
UN measures and standards	100 x 130 cm

Elevator doors

Elevator doors, whether they open and close automatically or not, have a minimum opening of:

National measures and standards	80 cm
ADA measures and standards	91.5 cm
UN measures and standards	80 cm

MOVEMENT INSIDE A BUILDING

Elevators *(continued)*

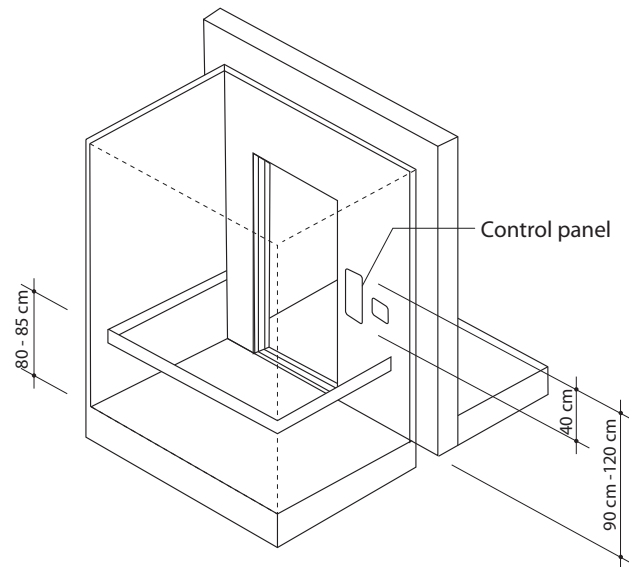
Control buttons

Control buttons should be mounted at the height of:

National measures and standards	90 - 120 cm
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ADA measures and standards	89 - 137 cm
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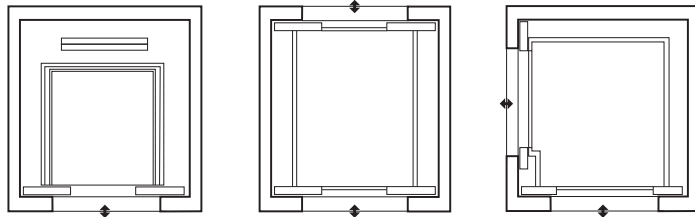
UN measures and standards	90 - 120 cm
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UN measures and standards

MOVEMENT INSIDE A BUILDING

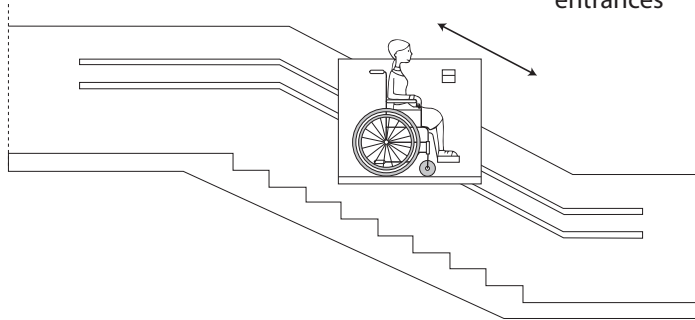
Platform lifts (wheelchair lifts)



Platform lift with
one entrance

Platform lift with
two entrances

Platform lift with
90 degrees separated
entrances



UN measures and standards

Platform lifts

Platform lift has the following minimum dimensions:

National measures and standards

110 x 140 cm

ADA measures and standards

76 x 122 cm

UN measures and standards

90 x 120 cm

Door width

Door width for free wheelchair passage is minimum:

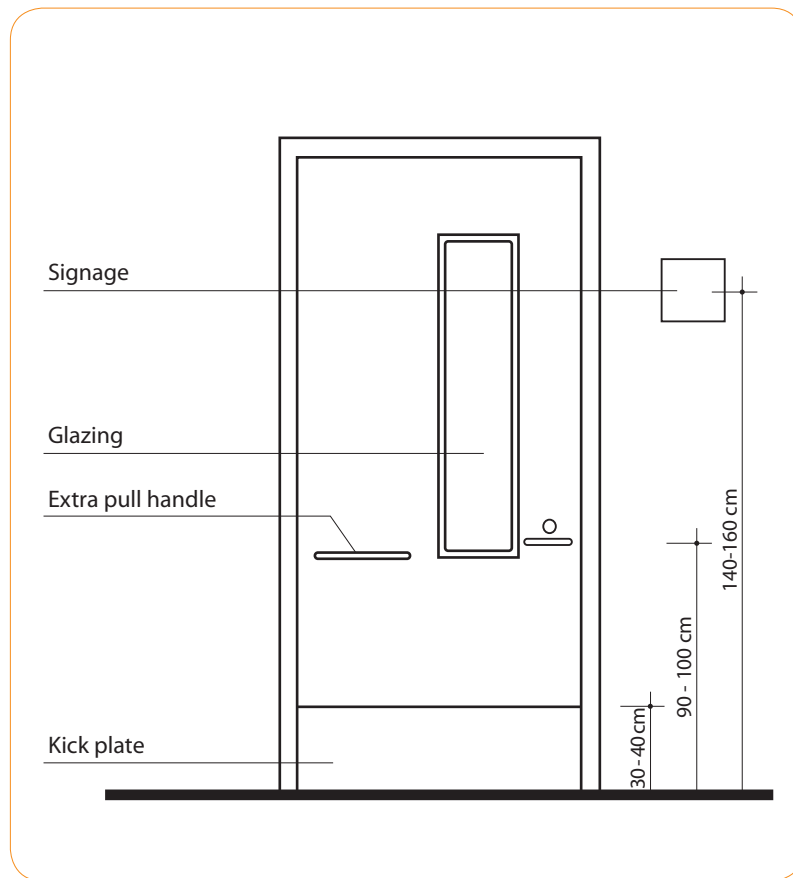
National measures and standards	76 cm
ADA measures and standards	81.5 cm
UN measures and standards	80 cm

The handle and the lock are mounted at approximately:

National measures and standards	80 cm
ADA measures and standards	max. 122 cm
UN measures and standards	90 - 100 cm

MOVEMENT INSIDE A BUILDING

Doors



UN measures and standards

ENTRANCE DIMENSIONS

GAATES' tables

These two tables show results of a research on measures and standards done by the Canadian company The Global Alliance on Accessible Technologies and Environments (GAATES)

<http://www.gaates.org>

Minimum clear width of the entrance:

Australia	80 cm	Philippines	80 cm
Bangladesh	100 cm	SERBIA	76 cm 85 - 90 cm (for maneuvering clearances)
CSA (CAN) ¹	81 cm	Singapore	90 cm
Ireland	75 cm (int.) 80 cm (ext.)	South Africa	75 cm
Lebanon (UN)	80 cm (int.) 90 cm (ext.)	Spain	85 cm
Malaysia	80 cm	Sweden	80 cm
Mexico	90 cm	Uruguay	80 cm
NBC (CAN) ²	80 cm	US ADAAG ³	81,5 cm

Country names are listed in alphabetical order

¹The Canadian Standards Association

²North British Columbia (Canada)

³United States of America, ADA Accessibility Guidelines

Table height

Working surface height of the table should be between 75 cm and 90 cm according to the UN measures and standards.

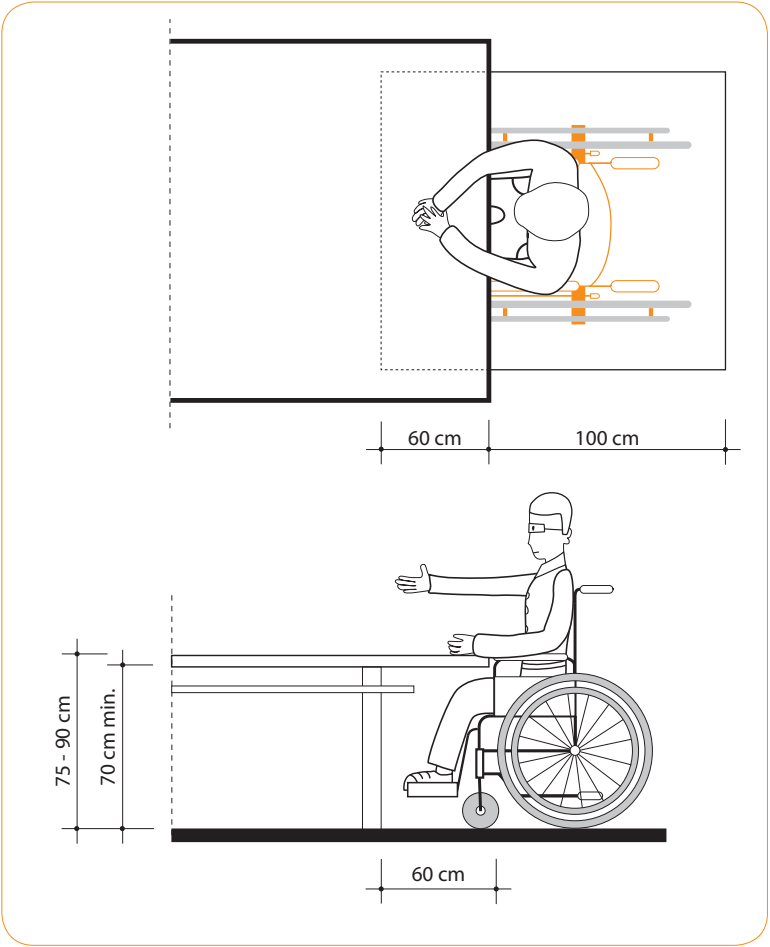
National measures and standards	None
ADA measures and standards	min. 68.5 cm
UN measures and standards	75 - 90 cm

Depth of the table

Minimum depth of the table (area under the surface) should be 60 cm in order to fit the wheelchair under the table according to the UN measures and standards.

National measures and standards	None
ADA measures and standards	min. 48.5 cm
UN measures and standards	60 cm

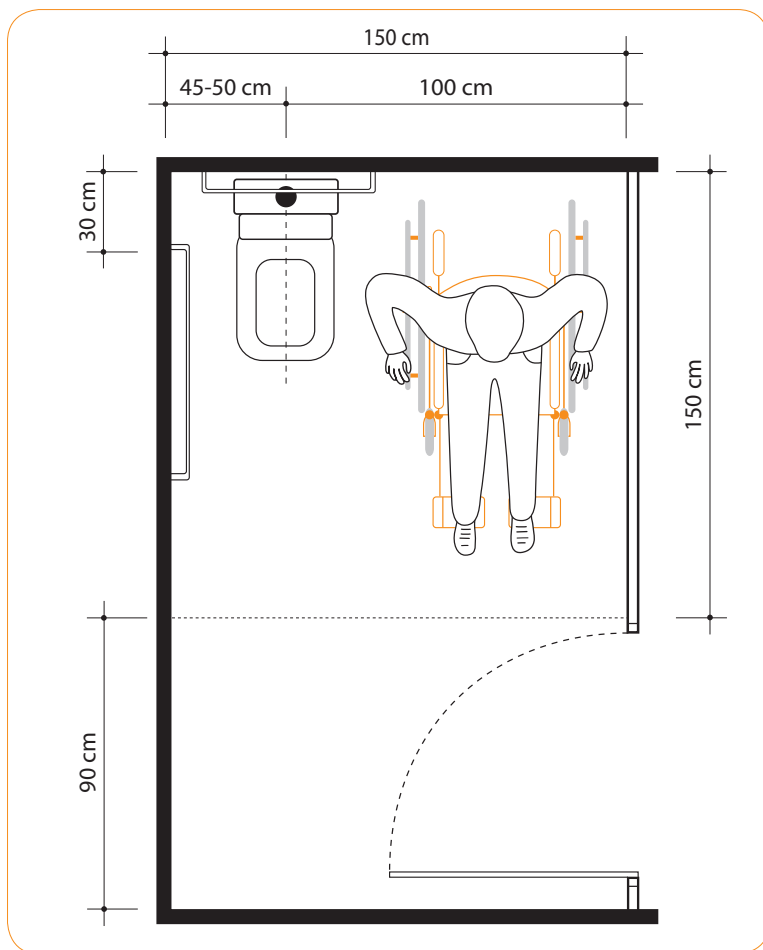
WORKPLACE Working table/desk



UN measures and standards

WC / TOILETS

Cabins



UN measures and standards

Toilet door width in public facilities

Minimum one per four toilets should be adapted to persons with disabilities.

Toilet door width in public facilities:

National measures and standards

90 cm

ADA measures and standards

81.5 cm

UN measures and standards

90 cm

WC height

National measures and standards	None
ADA measures and standards	43 – 48.5 cm
UN measures and standards	45 - 50 cm

Height of mounted grab bars

National measures and standards	None
ADA measures and standards	84 – 91.5 cm
UN measures and standards	85 - 95 cm

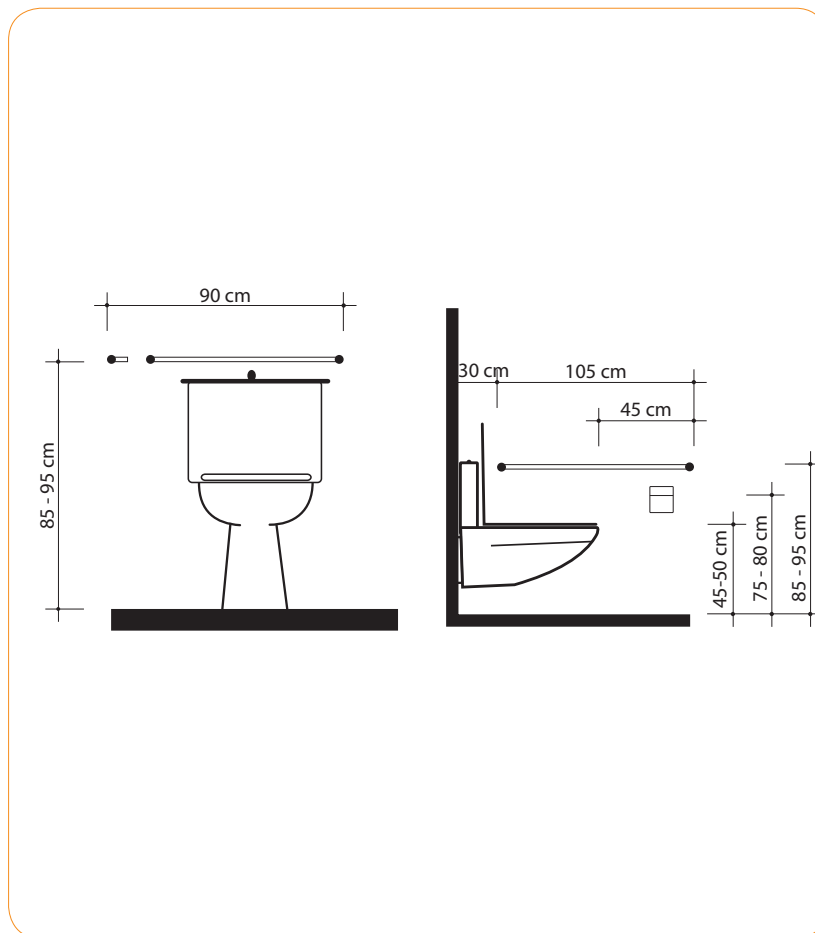
Length of grab bars

National measures and standards	None
ADA measures and standards	106.5 cm
UN measures and standards	105 cm

Toilet paper holder height

National measures and standards	None
ADA measures and standards	48.5 cm
UN measures and standards	75 - 80 cm

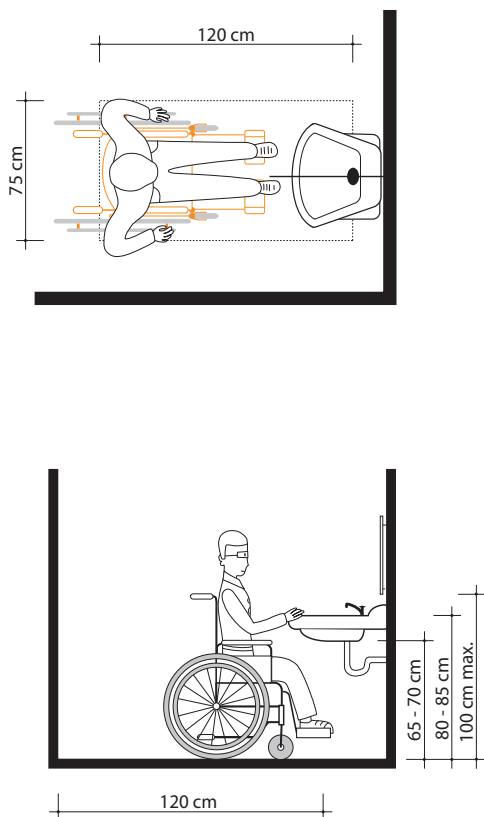
WC / TOILETS Grab bars



UN measures and standards

WC / TOILETS

Lavatory



UN measures and standards

Clear floor space at lavatories

National measures and standards

None

ADA measures and standards

76 x 122 cm

UN measures and standards

75 x 120 cm

Lavatory height

National measures and standards

None

ADA measures and standards

86.5 cm

UN measures and standards

80 – 85 cm

Mirror height

National measures and standards

None

ADA measures and standards

101.5 cm

UN measures and standards

100 cm

The findings and recommendations contained in this publication do not necessarily reflect the position of the United Nations Development Programme.