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Dostopnost in uporabnost grajenega okolja - Funkcionalne zahteve

Accessibility and usability of the built environment - Functional requirements

Barrierefreiheit und Nutzbarkeit der gebauten Umgebung. Funktionale Anforderungen

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Accessibility and usability of the built environment - Functional requirements

Barrierefreiheit und Nutzbarkeit der gebauten
Umgebung. Funktionale Anforderungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/CLC/JTC 11.

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Contents	Page
European foreword	6
Introduction	7
1 Scope.....	9
2 Normative references.....	9
3 Terms and definitions	10
4 Legal and policy background and associated benefits	18
4.1 Legal background.....	18
4.2 Accessibility and Usability, Universal Design and Design for All	18
4.3 Mandate 473 and CEN/CENELEC Guide 6	19
4.4 Accessibility contributing to safety.....	19
4.5 Integrate accessibility at all stages of procurement, design, construction and conformity assessment.....	19
4.6 Accessibility consultation	20
4.7 Accessibility: Contributing to health and wellbeing	20
4.8 Accessibility planning as an overall strategic issue	20
4.9 Accessibility: Economic and social benefit	21
4.10 Accessibility and the sustainable built environment	21
5 Diversity of users and design considerations.....	22
5.1 Diversity of users	22
5.2 Human abilities and design parameters	23
5.3 Key areas for accessibility and usability of the built environment	28
6 Wayfinding	37
6.1 Wayfinding, orientation and navigation.....	37
6.2 Wayfinding information	38
6.3 Visual contrast	39
6.4 Tactile information	42
6.5 Audible information and hearing enhancement	44
6.6 Signage	46
6.7 Graphical symbols	51
6.8 Architectural and urban design references for wayfinding	52
7 Access in the outdoor environment	54
7.1 Accessible routes.....	54
7.2 Street furniture.....	66
7.3 Pedestrian crossings.....	71
7.4 Squares and plazas	79
7.5 'Shared Space' design approach.....	80
7.6 Plantings.....	84
7.7 Pedestrian bridges and underpasses	86
8 Arrival and departure areas – Parking areas	87
8.1 Rationale	87
8.2 Boarding points/Set-down points	88
8.3 Location of designated accessible parking spaces.....	89
8.4 Number of designated accessible parking spaces.....	89

8.5	Design of designated accessible parking space	90
8.6	Pedestrian paths in car parks	92
8.7	Signage of designated parking spaces.....	92
8.8	Access from parking space to an adjacent higher pedestrian path.....	92
8.9	Surface	92
8.10	Indoor parking.....	93
8.11	Cycle parking.....	93
9	Horizontal circulation in buildings	94
9.1	Entrances.....	94
9.2	Corridors and passageways	103
9.3	Doors	109
9.4	Windows	116
9.5	Patios, balconies, terraces	119
9.6	Surface finishes and materials.....	121
10	Vertical circulation in buildings and outdoors.....	124
10.1	Ramps	124
10.2	Steps and stairs.....	129
10.3	Handrails	133
10.4	Lifts	137
10.5	Vertical and inclined lifting platforms.....	144
10.6	Escalators and moving walks	146
11	Specific areas, equipment and provisions	147
11.1	Service counters for information, ticketing and reception	147
11.2	Waiting and queuing areas	150
11.3	Seating and resting areas.....	152
11.4	Storage areas, lockers and baggage storage	157
11.5	Kitchen areas and kitchenettes	159
11.6	Facilities for assistance dogs (outdoor and indoor)	161
12	Sanitary accommodation	162
12.1	Accessible toilets.....	162
12.2	Toilets for general use	171
12.3	Sanitary facilities for other users	173
12.4	Accessible Showers and bathrooms.....	180
13	User interface, controls and switches	183
13.1	Rationale.....	183
13.2	Public ICT information screens	183
13.3	ICT user interfaces	184
13.4	Controls and switches	186
13.5	Examples of general use elements	187
14	Fire safety for all - Evacuation and emergency exits	188
14.1	Concept for Fire safety for all	188
14.2	Fire engineering design objectives	190
14.3	Evacuation for all	190
14.4	Assistive fire evacuation: Areas of rescue assistance.....	192
14.5	Emerging fire evacuation technologies	193
14.6	Fire defence plans.....	194
14.7	Lifts for emergency evacuation	194
14.8	Emergency warning systems, signals and information	194
14.9	Emergency exit doors.....	195
15	Environmental conditions in buildings	196

15.1	Lighting.....	196
15.2	Acoustics	201
15.3	Indoor climate.....	207
16	Accommodation.....	208
16.1	General.....	208
16.2	Hotels	208
16.3	Student accommodation.....	213
16.4	Adaptable housing.....	213
17	Cultural, leisure and sport buildings	219
17.1	General.....	219
17.2	Auditoriums, concert halls and similar	219
17.3	Libraries	221
17.4	Museums	223
17.5	Heritage buildings and sites	225
17.6	Retail and shopping buildings.....	228
17.7	Sport facilities	232
17.8	Restaurants, bars and cafés.....	234
17.9	Swimming pools, saunas	236
18	Administrative, service and employment buildings	239
18.1	General.....	239
18.2	Conference venues.....	239
18.3	Offices.....	240
18.4	Healthcare buildings.....	241
18.5	Educational buildings.....	247
18.6	Laboratories	248
18.7	Banks, post offices	249
18.8	Industrial buildings.....	250
18.9	Courts, police stations and detention facilities.....	251
18.10	Religious buildings.....	253
19	Outdoor and urban areas.....	254
19.1	General.....	254
19.2	Playgrounds	254
19.3	Garden, parks, nature parks	255
19.4	Beaches.....	257
20	Transport facilities.....	260
20.1	General.....	260
20.2	Taxi facilities	260
20.3	Bus and Coach facilities	261
20.4	Rail facilities	264
20.5	Metro/underground facilities	266
20.6	Tram and light rail facilities	267
20.7	Airport facilities	268
20.8	Ports facilities	270
20.9	Cable car facilities.....	272
20.10	Gas stations	272
	Annex A (informative) Fire safety for all in buildings and assisted evacuation.....	274
A.1	Fire safety, protection and evacuation for all.....	274
A.2	Assisted evacuation and rescue from buildings — Rescue techniques.....	274
A.3	Management of fire evacuation lifts in buildings.....	275

A.4	Evacuation skills and self-protection from fire in buildings.....	275
	Annex B (informative) Management and maintenance issues.....	276
B.1	General	276
B.2	Outdoor issues	276
B.3	Internal issues	276
B.4	Maintenance issues.....	277
B.5	Communication issues	277
B.6	Policy issues.....	278
	Annex C (informative) List of figures.....	279
	Bibliography	284

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European foreword

This document (prEN 17210:2019) has been prepared by the Joint Technical Committee CEN-CENELEC/JTC 11 “Accessibility in the built environment”, the secretariat of which is held by UNE.

This document has been prepared under Mandate M/420 given to CEN, CENELEC and ETSI by the European Commission and the European Free Trade Association in support of European accessibility requirements for public procurement in the built environment.

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Introduction

This document has been developed in response to mandate M/420 of the European Commission, providing a standard for procurement of an accessible and usable built environment. The main goal of this document is to contribute to the implementation of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in Europe.

The functional requirements and recommendations in this document are formulated with qualitative terms and describe the objectives which have to be reached, based on the diversity that a wide range of users presents (goals for protection) and can be used as criteria for awarding public contracts (in support of the Public Procurement Directives) as well as for other purposes, i.e. for accessibility legislation. This document does not prescribe or describe how these functional requirements should be met and thus it is not intended that it will conflict with national accessibility standards.

This document specifies a range of functional accessibility and usability requirements and recommendations for many of the elements of construction, assembly, interior settings, components and fittings, which comprise the built environment. These functional accessibility requirements relate to the constructional aspects of outdoor pedestrian and urban areas; approaches and access to buildings; indoor circulation and use of facilities within buildings; egress from buildings in the normal course of events; and evacuation in the event of an emergency.

The functional accessibility and usability requirements in this document are based on the widest range of user needs and target groups as identified in Phase I of Mandate M/420. These requirements support the diversity of all persons and a life-course perspective, i.e. persons with physical impairments, persons with sensory impairments, persons with allergies, persons with learning difficulties/cognitive impairments and persons with mental-ill-health, persons with age-related conditions, but also persons in different stages of life, as children, adults and older persons.

This document also specifies the functional accessibility and usability requirements and recommendations to enable the use of wheeled mobility devices in the built environment. The type of wheeled mobility devices to be facilitated, and consequently the amount of space to be allocated, may be determined by National standards or regulations and/or a procuring body may specify the provision of space for larger electric wheelchairs and mobility scooters in certain types of buildings.

For the purposes of this document, the term 'accessibility' refers to both 'accessibility and usability'.

For specific building uses (see Clauses 16 to 20), such as accommodation, cultural, leisure and sport use, administrative, service and employment buildings, outdoor and urban areas and transport facilities; the basic functional accessibility requirements are supplemented by key requirements and recommendations supported by other related standards or guidance documents.

This document is based to a great extent on ISO 21542:2011 *Building construction – Accessibility and usability of the built environment* (under revision) and where not sufficient, supplemented with references to alternative and/or complementary documents (identified in Phase I of Mandate M/420).

This document is intended to assist primarily public procurers and also architects, engineers, facility managers, ergonomists and other stakeholders in their respective areas of work, enabling them to require, specify, design and assess conformity related to the accessibility of the built environment, using a common framework and a common language, thus ensuring accessibility for all.

As a general structure, explanations on the motives for the requirements and recommendations given in this standard are given in previous short informative 'Rationale', understood as a background.

prEN 17210:2019 (E)

The technical performance criteria to fulfil the functional requirements given in this document, based on classes, detailed dimensions, etc. will be defined by a CEN-CENELEC Technical Report “*Accessibility and usability of the built environment - Technical performance criteria and specifications*” (NWI JT011002), currently under development, and may also be determined by National standards.

Another CEN-CENELEC Technical Report on the assessment of conformity to the functional requirements given in this document and the technical specifications given in NWI JT011002 is currently also under development.

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1 Scope

This document describes basic, common minimum functional requirements and recommendations for an accessible and usable built environment, following the Design for All/Universal Design principles which will facilitate equitable and safe use for a wide range of users, including persons with disabilities.

The requirements and recommendations given in this document are applicable across the full spectrum of the built environment.

These functional accessibility and usability requirements and recommendations are relevant to the design, construction, refurbishment or adaptation, and maintenance of built environments including outdoor pedestrian and urban areas.

NOTE 1 Design for All and Universal Design share a similar inclusive design philosophy. "Universal Design" means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. "Universal Design" does not exclude assistive devices for particular groups of persons with disabilities where this is needed.

NOTE 2 Terms such as "design for all", "universal design", "accessible design", "barrier-free design", "inclusive design" and "transgenerational design" are often used interchangeably with the same meaning.

NOTE 3 This document does not cover management and maintenance issues, but provides basic information in Annex B.

NOTE 4 All figures are provided as examples. They are described by their title and key and do not provide additional information. Some figures show negative examples to be avoided; these are identified by the insertion of a red cross on them. A list of all the figures included in this standard is given in the informative Annex C.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 54-23, *Fire detection and fire alarm systems - Part 23: Visual alarm devices*

EN 81-20, *Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 20: Passenger and goods passenger lifts*

EN 81-40, *Safety rules for the construction and installation of lifts - Special lifts for the transport of persons and goods - Part 40: Stairlifts and inclined lifting platforms intended for persons with impaired mobility*

EN 81-41, *Safety rules for the construction and installation of lifts - Special lifts for the transport of persons and goods - Part 41: Vertical lifting platforms intended for use by persons with impaired mobility*

EN 81-70, *Safety rules for the construction and installation of lifts - Special lifts for the transport of persons and goods - Part 70: Accessibility to lifts for persons including persons with disability*

EN 81-72, *Safety rules for the construction and installation of lifts - Particular applications for passenger and goods passenger lifts - Part 72: Firefighters lifts*

CEN/TS 81-76, *Safety rules for the construction and installation of lifts - Particular applications for passengers and goods passenger lifts - Part 76: Evacuation of disabled persons using lifts*

EN 115-1, *Safety of escalators and moving walks - Part 1: Construction and installation*

EN 12183, *Manual wheelchairs - Requirements and test methods*

prEN 17210:2019 (E)

EN 12184, *Electrically powered wheelchairs, scooters and their chargers - Requirements and test methods*

EN 16005, *Power operated pedestrian doorsets - Safety in use - Requirements and test methods*

EN 301549, *Accessibility requirements for ICT products and services*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at <http://www.electropedia.org/>

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 accessibility

provision of buildings, parts of buildings, or outdoor built environments for people, regardless of disability, age or gender, to be able to gain access to them, into them, to use them and exit from them

Note 1 to entry: Accessibility includes ease of independent approach, entry, evacuation and/or use of a building and its services and facilities, and outdoor spaces by all of the potential users with an assurance of individual health, safety and welfare during the course of those activities.

[SOURCE: ISO 21542:2011, definition 3.2, modified]

3.2 area of rescue assistance

building space directly adjoining, and visible from, a main vertical evacuation route, robustly and reliably protected from heat, smoke and flame during and after a fire, where people requiring assistance can temporarily wait with confidence for further information, instructions, and/or rescue assistance, without obstructing or interfering with the evacuation travel of other building users

Note 1 to entry: "Robust" means structurally hardened and resistant to mechanical damage during the fire and for a period of time afterwards, i.e. the cooling phase.

[SOURCE: ISO 21542:2011, definition 3.3]

3.3 assisted evacuation

strategy that exists during which a designated person or persons provide assistance, during an emergency, to another person to leave a building or a specific part of the built environment and to reach a final place of safety

[SOURCE: ISO 21542:2011, definition 3.4]

3.4 assistive product

product especially produced or generally available, for preventing, compensating for, monitoring, relieving or neutralizing impairments, activity limitations and participation restrictions

EXAMPLE Devices, equipment, instruments, technology and software.

[SOURCE: ISO 21542:2011, definition 3.5]

3.5**assistive technology**

equipment, product, system, hardware, software or service that is used to increase, maintain or improve capabilities of persons

Note 1 to entry: Assistive technology is an umbrella term that is broader than assistive products.

Note 2 to entry: Assistive technology can include assistive services, and professional services needed for assessment, recommendation and provision.

[SOURCE: ISO/IEC Guide 71:2014, 2.16, modified – "individuals" replaced by "persons" for consistency within this document]

3.6**audio description**

verbal narration that conveys the visual description of a presentation or performance

[SOURCE: ISO 21542:2011, definition 3.7]

3.7**built environment**

external and internal environments and any element, component or fitting that is commissioned, designed, constructed and managed for use by people

[SOURCE: ISO 21542:2011, definition 3.10, modified – deleted Note 1 to entry.]

3.8**circulation space**

unobstructed space necessary for people, including persons using mobility devices, for access to, into and within, and exit from any part of the built environment

[SOURCE: ISO 21542:2011, definition 3.11, modified]

3.9**contraflow**

<fire> emergency access by fire fighters or rescue teams into a building and towards a fire, while people are still moving away from the fire and evacuating the building

[SOURCE: ISO 21542:2011, definition 3.14]

3.10**cyclability/bikeability**

conditions in a village, town or outdoor area associated with transport-related cycling, including for example: bike route density, cycle route separation, connectivity, topography and destination density

[SOURCE: Patricia Jasmin Krenn, Pekka Oja, Sylvia Titze, Development of a Bikeability Index to Assess the Bicycle-Friendliness of Urban Environments; Open Journal of Civil Engineering, 2015, 5, 451-459, https://file.scirp.org/pdf/OJCE_2015123114394282.pdf]

prEN 17210:2019 (E)**3.11****disorientation**

permanent or temporary inability of people to orient themselves with regard to space, time and context in either the built environment or virtual environment

Note 1 to entry: Acute disorientation brought on by the use of alcohol, “social” drugs and some medicines, or dramatic alterations in a person's circumstances, e.g. involvement in a fire incident, is not uncommon. Long term progressive disorientation is a symptom of a variety of psychological and/or neurological disorders.

[SOURCE: ISO 21542:2011, definition 3.15, modified]

3.12**evacuation lift**

lift that can be used, during an emergency, for self or assisted egress

[SOURCE: ISO 21542:2011, definition 3.18]

3.13**fire compartment**

enclosed space, which may be subdivided, separated from adjoining spaces by fire barriers

[SOURCE: ISO 13943:2017, definition 3.120]

3.14**fire engineering strategy**

coherent and purposeful arrangement of fire prevention, fire protection and fire management measures which is developed in order to attain specified fire engineering design objectives

Note 1 to entry: Some “fire safety objectives” may be required by national legislation/regulations.

[SOURCE: ISO 21542:2011, definition 3.22]

3.15**fire prevention**

all measures necessary to prevent an outbreak of fire in a building, including such secondary activities as fire research and education of the public concerning fire hazard

[SOURCE: ISO 21542:2011, definition 3.23]

3.16**fire protection**

use of spatial planning, building design, construction, services, systems, personnel and equipment in order to control and extinguish fire, and minimize any adverse or harmful environmental impacts caused

[SOURCE: ISO 21542:2011, definition 3.24]

3.17**fire resistance**

ability of an element of construction to withstand or give protection from heat, smoke and flame for a period of time

Note 1 to entry: Adapted from ISO 13943:2008.

[SOURCE: ISO 21542:2011, definition 3.25, modified]

3.18**fire resisting doorset**

doorset, properly installed or mounted on site, the function of which is to resist the passage of heat, smoke and flame for a specified time during a fire

[SOURCE: ISO 21542:2011, definition 3.26]

3.19**flush kerb**

kerb whereby the edge of the footway/pavement is at the same level as adjoining carriageway (road)

[SOURCE: ISO 23599:2012, definition 2.2]

3.20**footpath**

path for the exclusive use of pedestrians and users of mobility devices which is not adjacent to a carriageway (road)

3.21**footway**

part of the highway adjacent to the carriageway (road) on which the pedestrians and users of mobility devices have exclusive access, commonly known as the pavement. For ease of understanding and to clearly distinguish this from a footpath the term pavement is used in this EN

3.22**going**

tread

⟨stair⟩ horizontal distance between two consecutive nosings, measured on the centre line

[SOURCE: ISO 21542:2011, definition 3.27]

3.23**going**

⟨ramp⟩ horizontal distance between the start and finish of a flight of a ramp

[SOURCE: ISO 21542:2011, definition 3.28]

3.24**guiding pattern**

tactile walking surface indicators (TWSIs) to indicate a direction of travel

[SOURCE: ISO 21542:2011, definition 3.29]

3.25**handrail**

component of a stair or of a ramp or other building components that provides guidance, balance and support

Note 1 to entry: Adapted from ISO 6707-1:2004, 5.2.73.

[SOURCE: ISO 21542:2011, definition 3.31]