

Session : 2 Accessibility and Usability of the Built Environment (Functional Requirements)

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I.S. EN 17210, 2021 & 2025 Accessibility and Usability of the Built Environment (Functional Requirements)



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Contents

- Context – Article 9 UN Convention, BS 8300...
- Introduction to I.S. EN 17210
- Universal Design Principles
- Design Considerations;
 - Paving
 - Visual Contrast
 - Height difference

Please note that I.S EN 17210 covers a very broad spectrum of the built environment, and for designers involved in public realm design, I encourage you to purchase the standard from the National Standards Authority of Ireland and to familiarise yourself with it.



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Article 9 of the UN Convention on the Rights of Persons with Disabilities (UNCRPD)

Emphasizes the importance of accessibility for persons with disabilities to live independently and participate fully in society.

Key Provisions of Article 9

Article 9 outlines the obligations of States Parties to ensure that persons with disabilities have equal access to various aspects of life, including:

Physical Environment: Access to buildings, roads, transportation, and other facilities, both in urban and rural areas.

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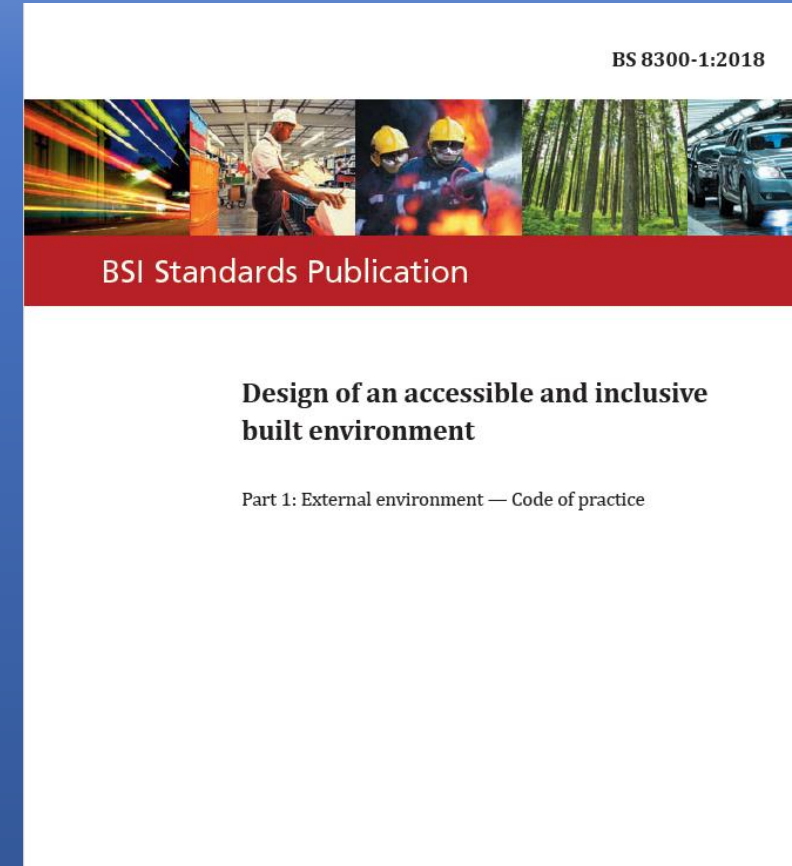
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Context

- BS 8300 - Design of an accessible and inclusive built environment, 2018

3.10 light reflectance value (LRV)

Appendix b - B.2 Methods of measuring LRVs



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Session : 2

Accessibility and Usability of the Built Environment (Functional Requirements)

Introduction

Contents

Page

European foreword	5
Introduction	6
1 Scope.....	8
2 Normative references.....	8
3 Terms and definitions	9
4 Legal and policy background and associated benefits	17
4.1 European legal background	17
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	38
6.1 Wayfinding, orientation and navigation.....	38
6.2 Wayfinding information.....	39
6.3 Visual contrast	40
6.4 Tactile information	43
6.5 Audible information and hearing enhancement	46
6.6 Signage.....	47



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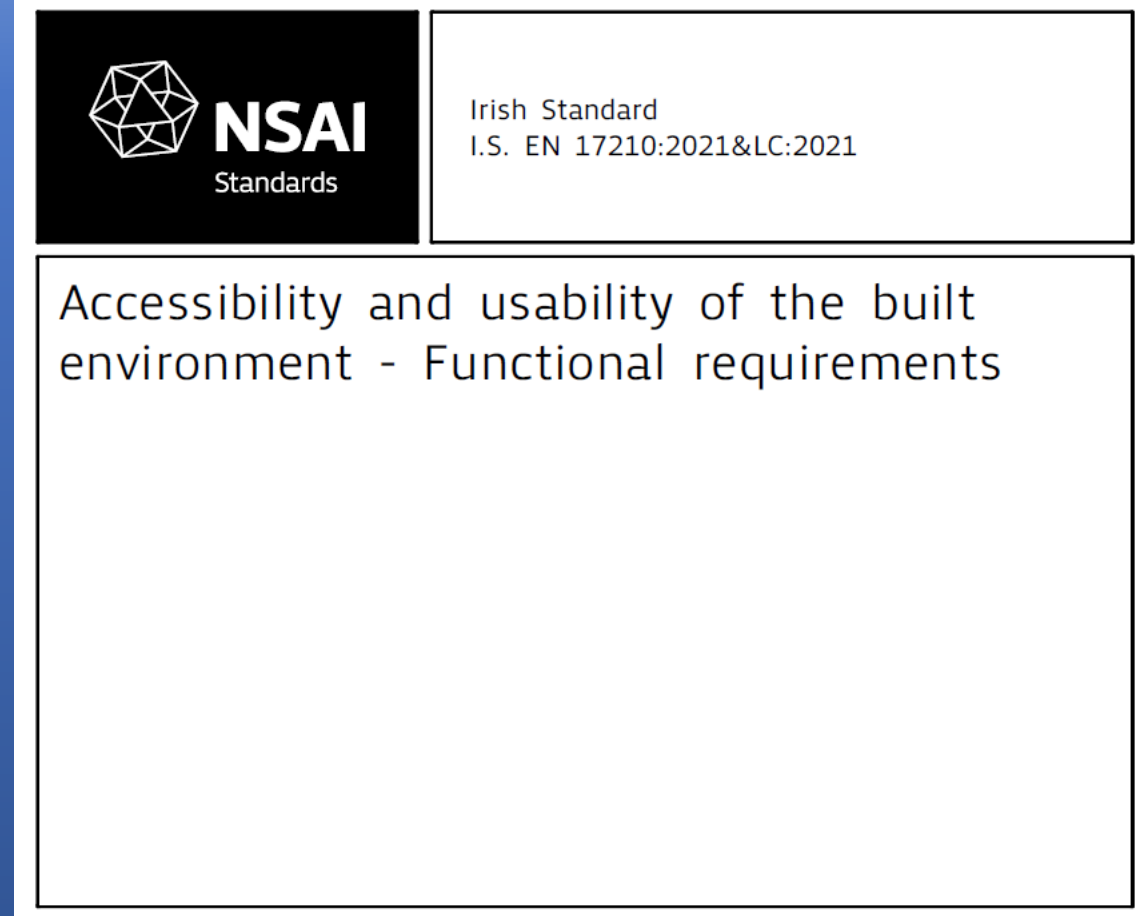


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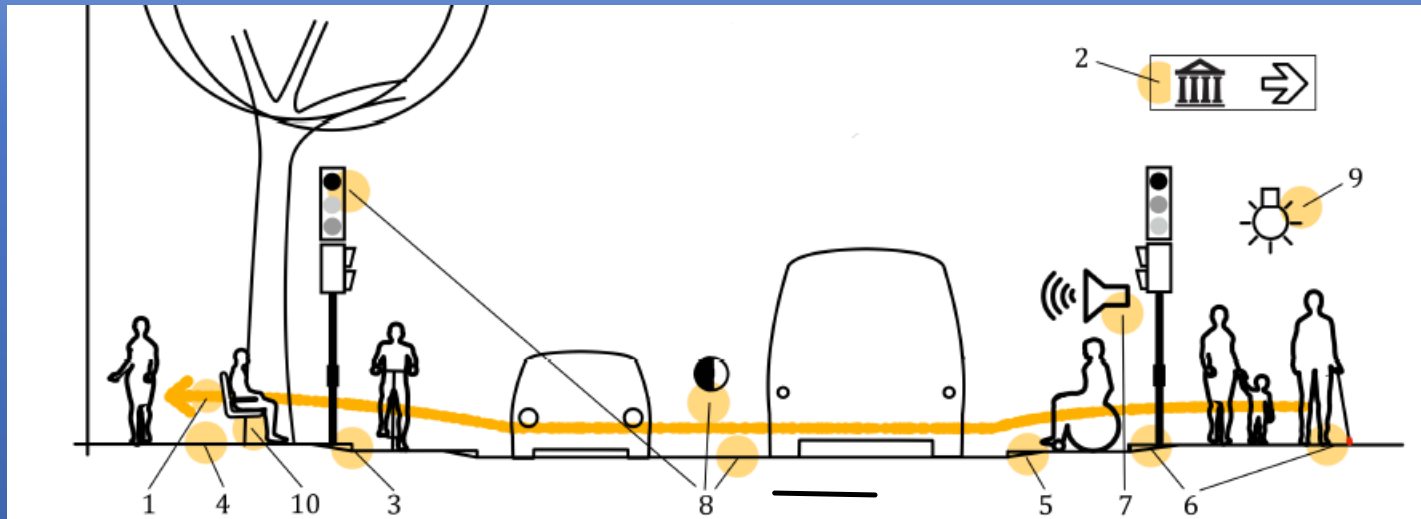
Scope

- Outlines some functional accessibility and usability requirements and recommendations that are relevant to the design, construction, refurbishment or adaptation, and maintenance of the **built environments, including outdoor pedestrian and urban spaces.**
- **It does not prescribe or describe how these functional requirements should be met for public realm design, and it would be prudent to ensure that the public realm is designed using DMURS, the National Cycling Manual and other National guidance, and applicable standards.**



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Design



Key

- 1 accessible route in pedestrian area and road crossing
- 2 good wayfinding signage, e.g. signs with clearly legible text and numbers, directional wayfinding signage
- 3 separate pedestrian, cycling and vehicular areas, e.g. kerbs, guarding or tactile surfaces
- 4 even, firm and slip-resistant surfaces
- 5 step-free accessible routes and pedestrian crossings, e.g. kerb ramps
- 6 tactile guidance, e.g. guidance and warning surfaces, tactile signals at crossings
- 7 audible guidance, e.g. audible signals at pedestrian crossings
- 8 good visual contrast, e.g. white markings on dark road surface, high lighting levels in traffic lights
- 9 good lighting, e.g. lighting on footways and crossings
- 10 resting places at regular intervals along pedestrian areas

Figure 2 — Examples of main design considerations for accessible and usable pedestrian areas

Paving - Section 7.5.6 of I.S. EN 17210

Recommends that in urban environs, the paving is suited to pedestrian users and that **over-decorative patterns should be avoided** as they may cause disorientation to pedestrians. It also outlines that the paving surface should not pond surface water and that it should be **slip-resistant** and should not constitute a danger in freezing weather, which are all prudent from a risk management perspective.



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Visual contrast - Section 6.3.3 of I.S. EN 17210

Recommends that a higher level of visual contrast shall be provided and maintained:

- in **safety situations**, e.g. railway platform, and step nosing;
- to highlight small items such as text, characters and symbols on signs, these shall have a very clear high visual contrast;
- where the **level of illumination is low**.

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Height Difference - Section 7.4.2 of I.S. EN 17210

- Recommends that in urban squares or plazas, the area is protected from vehicular traffic, and that any **height differences between surfaces are highlighted to prevent falls.**
- In Urban environments in advance of a planned change to the street layout or use of spaces, it is imperative that existing pedestrian desire lines are studied and that mitigation measures are taken (if necessary) to prevent adverse events such as trips/falls.

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Summary

- Very broad scope of guidance/recommendations
- Suggest that Councils consider it, or encourage consultants to include it
- Multi-disciplinary design team approach
- Paving
- Visual Contrast
- Height change/Desire Lines.

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