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**Public information guidance systems - Design and setting
principles and requirements for the consideration of accessible
needs**

公共信息导向系统 基于无障碍需求的设计与设置原则和要求

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1 Scope

This document specifies the principles and requirements for the accessible guidance design and setting of public information guidance systems where account is taken of the guidance needs of persons with physical disabilities, persons with visual impairment, older persons and other persons with accessibility needs (including persons with hearing impairment, persons with speech impairment, persons with intellectual disabilities, children and the like).

This document applies to the design and setting of public information guidance systems in which accessible guidance needs have to be taken into account.

4 General principles

4.1 Accessible guidance is an important part of a public information guidance system, and accessible guidance should be designed and set at the same time as the rest of the public information guidance.

4.2 The design of accessible guidance should take full account of the use of advanced

technology and should make the accessible guidance systematic and intelligent, so that the guidance needs of the groups with accessibility needs are met. Note: the groups with accessibility needs include persons with disabilities, older persons and others with accessibility needs, such as persons with speech impairment and children.

4.3 Before the accessible guidance is designed, a survey should be made of the groups with accessibility needs who are active in the public place, and the main target audience of the accessible guidance design should be identified, so that the design can meet their needs in use.

4.4 In a public place where the distribution of the groups with accessibility needs shows no marked difference, the public information guidance system should take full account of the needs of all the kinds of groups with accessibility needs, so that they can obtain the guidance information equally and conveniently.

4.5 In the accessible guidance design of a public information guidance system, the accessible signs provided include not only visual signs; auditory signs and tactile signs should also be provided, so that the guidance needs of the different kinds of groups with accessibility needs are met.

5 Design requirements

5.1 General requirements. 5.1.1 The public information graphical symbols used on the guidance elements shall preferably be selected from GB/T 10001 (all parts); where there is no suitable graphical symbol in the standards in force, the needed graphical symbol should be designed in accordance with GB/T 16903, and a newly designed graphical symbol shall be accompanied by supplementary text when it is used. 5.1.2 The design of the visual guidance elements shall meet the requirements of GB/T 20501 (all parts) and should take account of the viewing needs of persons with visual impairment and persons with hearing impairment. 5.1.3 Where colour is used on a sign, the colour shall be used together with text or a graphical symbol, and colour alone shall not be used as the means of conveying guidance information, so as to avoid inconvenience to persons with colour blindness, weak colour vision and other visual impairments. 5.1.4 The guidance elements designed for accessibility needs shall be consistent in their use of information elements with the other guidance elements in the same public place.

5.2 Design for persons with physical disabilities. 5.2.1 The guidance design for persons with physical disabilities in a public place should consider mainly the needs of wheelchair users and of others with restricted mobility, and the guidance information should be mainly information about accessible facilities. 5.2.2 The graphical symbols for accessible facilities shall preferably be selected from GB/T 10001.9; Figure 1 gives the graphical symbol for a general accessible facility. [SOURCE: GB/T 10001.9-2021 (01), accessible facility]

5.3 Design for persons with visual impairment. 5.3.1 Persons with visual impairment shall

be helped to obtain the guidance information by means of visual enhancement, such as raising the colour saturation and the contrast and enlarging the size of the graphical symbols and the text, or by non-visual means such as braille and sound. 5.3.2 When a plan diagram is designed, red, green and similar colours shall not be used as the colours of adjacent areas, so that they are not confused by persons with colour blindness or weak colour vision. 5.3.3 In consideration of the needs of persons with visual impairment, the luminance contrast between the graphical symbols and the text and the background colour shall be not lower than 80 %. 5.3.4 An auditory sign that provides guidance information by a sound signal should be used together with a visual sign; the speech level of the auditory sign shall be 15 dB higher than the background environmental sound, and under a certain amount of noise interference the speech intelligibility shall be greater than 75 %. Note: speech intelligibility usually means the proportion of the words broadcast that are correctly understood. 5.3.5 The design of the sound signal of an auditory sign should meet the needs of the human ear for recognizing sound. To keep the sound signal distinguishable, an intermittent or variable sound signal shall be used. 5.3.6 The tactile signs designed for persons with visual impairment may include tactile guide maps, braille door plates, braille signboards, braille lift buttons and the like. 5.3.7 Where the touchable content of a tactile sign includes a touchable graphical symbol, that symbol shall be located within a separate field of 152 mm square, and the braille shall be located below the touchable graphical symbol at a spacing of not less than 9.5 mm from it. 5.3.8 Where a tactile guide map has to be provided for persons with visual impairment, the design of that map shall comply with GB/T 43351.

5.4 Design for older persons. 5.4.1 In places where older persons gather, such as care institutions and community elderly service centres, the design of the guidance elements should be optimized for the physical and psychological characteristics and the wayfinding ability of older persons, should use graphical symbols and concise text, and should enlarge the size of the graphical symbols and the text appropriately. 5.4.2 The accessible design for older persons in a public place should be merged into the universal design of the guidance elements, for example by raising the luminance contrast of the information on the face of the sign, by using brighter colours or by increasing the ambient lighting of the sign, so that older persons obtain the guidance information without difficulty. Note: universal design generally means design that does not treat the ordinary individual and the special individual differently but tries as far as possible to consider the needs of all users. 5.4.3 In the accessible guidance design for older persons, auditory information or tactile information should be used to complete the guidance information in addition to the visual guidance information. Sensing devices should be used to integrate the visual, auditory and tactile guidance information, or intelligent sign technology should be used so that older persons obtain the guidance information more conveniently. 5.4.4 Where manual guidance service is provided at an enquiry desk, a service counter or a similar position in a public place for older persons who have difficulty or impairment in speech communication, graphical

symbols for communication aids for older persons may be used, and the design of those symbols shall meet the requirements of GB/T 44936.1.

5.5 Design for other persons with accessibility needs. 5.5.1 For persons with hearing impairment, visual information made up of graphical symbols, text and the like should be provided to remove the barrier caused by the absence of auditory information. 5.5.2 For persons with speech impairment, in addition to visual information made up of graphical symbols, text and the like, sign language service or language interpretation service should be provided to remove the language barrier, so that persons with speech impairment obtain the guidance information in good time. Note: persons with speech impairment mainly include persons whose speech impairment accompanies a hearing impairment, persons whose speech impairment was acquired through injury or illness, and persons with a cross-cultural language barrier. 5.5.3 In places where persons with intellectual disabilities gather, such as special schools and enterprises where persons with intellectual disabilities are employed in numbers, simple and direct graphics should mainly be used to convey the guidance information, and the colours of the signs should be soft, light tones. 5.5.4 In places where children gather, such as playgrounds and children hospitals, simple and direct graphics suited to the mind of a child should mainly be used to convey the guidance information, the colours of the signs should use brighter colours as the main colour, and the shape of the sign carrier may take a more flexible form, for example the shape of a small animal.

6 Setting requirements

6.1 General requirements. 6.1.1 Accessible signs shall be set at the same time as the other public information guidance elements, and public places much used by persons with visual impairment shall have tactile signs or auditory signs. 6.1.2 Where a public place has a counter or a window serving groups with accessibility needs, a sign indicating that accessible service is provided shall be set at that counter or window, an example being shown in Figure 2. Note: the graphical symbol comes from GB/T 10001.9-2021 (01), accessible facility. 6.1.3 Accessible facilities serving different kinds of accessibility need, such as telephones for persons with hearing impairment and text telephones, shall each have their own location sign. 6.1.4 A public place into which assistance dogs (for example guide dogs) are allowed shall have the assistance dog graphical sign at the main entrances and at the corresponding positions, and a corresponding text explanation should be given. An example of the assistance dog graphical sign is shown in Figure 3. Note: the graphical symbol comes from GB/T 10001.9-2021 (17), assistance dog. 6.1.5 A public place with auxiliary facilities for persons with visual impairment shall have the visual impairment graphical sign, an example being shown in Figure 4. Note: the graphical symbol comes from GB/T 10001.9-2021 (13), visual impairment. 6.1.6 A public place with auxiliary facilities for persons with hearing impairment shall have the hearing impairment graphical sign, an example being shown in Figure 5. Note: the graphical symbol comes from GB/T