

## 3.5 Way Finding, Orientation and Signage

### 3.5.1 Introduction

The provision of effective signage is essential for way finding and orientation in open spaces such as parks, recreation grounds and urban squares. People with disabilities often find it difficult to fully engage in the environment that they are in because of inadequate information being provided or the information is simply not accessible. By designing and providing signage that caters to the needs of the widest spectrum of users, more people will be able to utilize and explore the space as the designer intended (3.5.1a). This section aims to give some guidelines on how information may be provided such that it can be within everyone's reach. Other way finding and orientation tools apart from the conventional visual signage will be examined.

### 3.5.2 Way Finding and Orientation

People with disabilities and the elderly are probably most in need of having clear and concise direction when they are in large open spaces. Communication should be established at the onset by providing the necessary information about the space at its major entrances. For example, for a park, the information may come in form of a large display directory with tactile and Braille information positioned near the major entrance gate and led by a tactile guide path. A tactile directory must be accessible and approachable (3.5.2a).

The physical layout of an open space itself can also help to facilitate way finding and orientation. A clear and simple layout with well-defined routes and interconnected areas would allow users to move about that space more easily, whereas a highly complex layout may cause confusion even with signage provided. Therefore, it is important that way finding and orientation strategies of an open space be carefully considered at the early stages of the design process.



3.5.1a Interactive tactile directory led by tactile guide path



3.5.2a Interactive tactile directory led by tactile guide path

### 3.5.3 Function of Signage

The main purpose of signage is communication, to convey information such that its receiver can make cognitive decisions based on the information provided. In general, signage can be classified into the following functions:

- (a) **Information:** signs giving information about services and facilities, e.g., maps, directories, instructions for use, etc. (3.5.3a).
- (b) **Direction:** signs leading to services, facilities, functional spaces and key areas, e.g., sign posts, directional arrows, etc. (3.5.3b).
- (c) **Identification:** signs indicating services and facilities, e.g., room names & numbers, toilet signs, number of floors, etc. (3.5.3c).
- (d) **Safety and Regulatory:** signs giving warning or safety instructions, e.g., warning signs, traffic signs, exit signs, rules & regulations, etc. (3.5.3d).

Accessible signage enables everyone to receive the information readily and use that information to move about his or her surroundings independently. Information can be conveyed to the users by written text, pictorial diagrams and symbols, as well as other media. Signage does not need to be limited to the conventional visual format. Multi-media signs can serve a wide range of users with different capabilities.



3.5.3a Directory with ordinary text and Braille giving information on the services and facilities



3.5.3b Directional sign with colour contrast



3.5.3c Pictorial signage with tactile and Braille information



3.5.3d Pictorial signage giving instructions for use of exercise equipment

## 3.5.4 Design Considerations

### 3.5.4.1 Dimension

Recommended dimensions:

- (a) Wall-mount and free-standing signs
  - Mounting height: 1450 — 1750mm, centred at 1600mm high
- (b) Directories
  - Height of bottom level: maximum 900mm from the floor level, and inclined from the horizontal and in line with the orientation of the building or open space (3.5.4.1a).

### 3.5.4.2 Location

(a) Signage at entrance

- The major entrance(s) to an open space should be readily recognizable.
- Signage should be prominently located at the perimeter of the space to identify the major entrance(s), e.g., at the entrance gates.
- A tactile directory map and/or a tactile model with Braille information should be provided near the entrance, led by a tactile guide path (3.5.4.2a).
- Where the main entrance to a facility is inaccessible or at places with multi-level entrances, adequate directional signage should be provided to guide users to use an accessible route to the nearest accessible entrance that is commonly used by the public (3.5.4.2b).



3.5.4.1a Accessible interactive tactile directory placed at prominent location led by tactile guide paths



3.5.4.2a Inclined tactile directory led by tactile guide path near the building entrance



3.5.4.2b Signage directing wheelchair users to an accessible entrance

### 3.5.4.3 Material

- (b) Signage in open areas
- Signs should not protrude onto the path of travel.
  - Signage incorporating tactile and Braille information should be provided to facilitate use by persons with visual impairment.
  - Tactile signs and maps should be provided with an accessible path so that users can approach them closely to touch them.
  - Tactile models are helpful to users in getting an impression of the overall space.
- (c) Signage along the travel path
- Signposts should not protrude onto the path of travel or obstruct the pedestrian flow.
  - The base of the signpost should be detectable by a cane.
- (a) Materials used for external signage must be durable and pleasing to touch, especially if it is a tactile sign. Some materials such as stainless steel, becomes very hot or cold when exposed to extreme weather conditions and it is not a desirable choice for tactile signs. Materials such as plastics that are suitable for outdoor use could be considered.
- (b) Matte materials or materials with a low-gloss factor are preferable as they have less glare (3.5.4.3a and 3.5.4.3b).
- (c) External signage, like any fittings in an external environment, is subject to wear and tear. Regular maintenance should be carried out to ensure that the signage serves its intended function, especially if the signage contains mechanical and electrical components.



3.5.4.3a Signs made of material with a high gloss factor is difficult to read, especially if the contrast between the information and the background is low



3.5.4.3b Sign in low-gloss material with Braille superimposed on top of the text

### 3.5.4.4 Display Information

- (a) The information contained on the sign should be as clear, concise and simple as possible so that the user can readily understand it (3.5.4.4a).
- (b) Pictograms and symbols used for signage within the same open space should be consistent. International symbols and well-accepted or standardized pictograms should be used, as most users are already familiar with them. Such pictorial images should have sharp visible outlines (3.5.4.4b and 3.5.4.4c).
- (c) Text, if any, should be of a suitable size and clearly legible, supplemented with Braille. The type of lettering that should be used is shown in *Design Manual on Barrier Free Access* issued by Buildings Department.

### 3.5.4.5 Colour and Lighting

- (a) The information on the sign (either pictorial or textual) should have a high colour contrast with its background colour (3.5.4.5a). The overall signage itself should have colour contrast with the background or the surrounding where it is located. Refer to *Section 3.7 — Colour and Luminous Contrast*.
- (b) Adequate lighting must be provided so that the sign is legible both in the daytime and at night. Lighting fittings should be positioned to avoid glare. Special lighting in certain key areas within an external place can help to define those areas and enhance orientation. Refer to *Section 3.8 — Lighting*.



3.5.4.4a Signage with easy to understand pictograms in high colour contrast to its background colour



3.5.4.4b Sign with standardized pictograms and contrast with the surroundings



3.5.4.4c Standardized pictograms



3.5.4.5a International symbol for accessibility with colour contrast to its surrounding background

### 3.5.4.6 Other Senses

- (a) Multi-media signage with audible device and tactile information should be incorporated whenever it is appropriate to do so. This would allow users of varying abilities to use senses other than the visual sense to obtain information about their surroundings (3.5.4.6a).
- (b) Other effective orientation and way finding tools such as infrared or radio frequency devices could also be considered.

### 3.5.4.7 Sensory and Psychological Needs

Visual signs are conventionally used as way finding and orientation tools. However, signage should not be limited to visual signs only. Other sensory format such as audible and tactile, should also be incorporated into the signage where appropriate. Depending on the setting and condition of the environment, other types of sensory signs are very useful in conveying information and stimulating the senses (3.5.4.7a).

The external environment itself can offer a wealth of experiences for the user. Sensory cues that stimulate the various senses of touch, hearing, vision, and smell can be effective in engaging users of different abilities to interact more intimately with their surroundings. Such cues can also serve as reference points to facilitate way finding and orientation in open spaces (3.5.4.7b). However, it should be noted that some subtle sensory cues, such as aromatic scents and background sounds could be supplanted by other environmental factors. This should be taken into consideration when designing detectable elements for way finding purposes.

Sensory and psychological aspects should be considered in the early stages of the design and built in as part of the overall experience of the open space.



3.5.4.6a Directory with audio and Braille information, led by tactile guide path



3.5.4.7a Sensory elements which stimulate senses other than the visual sense can help in way finding and orientation



3.5.4.7b Signage design that fits in with the natural environment

## 3.5.5 Sensory Considerations

### VISUAL ■ AUDIBLE ■ OLFACTORY ■ TACTILE

#### 3.5.5.1 Visual

Information, for the most part, is transmitted visually. Even in visual communication, careful consideration should be made so that the information can be conveyed effectively. By incorporating the design considerations mentioned above, i.e., colour contrast, lighting, etc., into the signage design, more users would be able to benefit.

In external spaces, landmarks and points of reference can also serve as effective visual signage and facilitate way finding (3.5.5.1a).



3.5.5.1a Landmarks in open spaces can serve as effective visual signage to facilitate way finding

#### 3.5.5.2 Audible

##### For the Hearing Impaired

- (a) Assistive listening systems such as induction loop, infrared, and FM systems that are suitable for external use are effective tools to enable the hearing impaired user to pick up information with special receivers.
- (b) For different types of assistive listening systems, refer to Section 6.10 of “Universal Accessibility — Best Practices and Guidelines”.

##### For the Visually Impaired

- (c) Audible signs are very useful in conveying information to the visually impaired. A tactile sign that incorporates audible messages can be particularly valuable to help visually impaired users manoeuvre around a space (3.5.5.2a).



3.5.5.2a Multi-media directory with visual, tactile and audio information

- (d) Audible messages can allow many users to obtain information quickly and effectively. However, careful considerations should be made with regard to the surrounding environment because audible signals may not be appropriate everywhere. Having too many audible messages on at once would also defeat the purpose and may even cause nuisance to some people.
- (e) In open spaces, sounds from natural and decorative elements such as those generated from waterfalls, fountains, plants, bells, and wind chimes could be used as more subtle audible cues. Visual impaired users tend to be more receptive to the presence of such elements and are able to use them as way finding and orientation tools.

(f) Technology

- With advancing technological developments, navigating tools are being developed and made use of progressively. One such tool is Radio Frequency Identification (RFID). It is a navigation and location system using an installed RFID tag grid. Each RFID tag is programmed with spatial coordinates and information describing the surroundings. The tag activates speakers, monitors, or receivers when a user carrying them passes in the vicinity. The base information grid can provide the basis in allowing visually impaired users to detect precise locations in his surrounding areas. It can also help electronic wheelchair users to navigate.
- There are systems that can be used indoors and outdoors. For outdoor use, RFID tags can be installed along the edge of pathways, stairs, designated markers, etc., to convey route information to the user from starting point to destination.
- An example of a navigating tool is shown in 3.5.5.2b in which electric signboards situated at various locations transmit signals to a portable terminal held by the user who is able to receive information as he/she passes the designated zones.



3.5.5.2b A voice information system that uses electric signboards to transmit signals to a portable terminal



### 3.5.5.3 Olfactory

The distinctive scents produced by some natural fauna and flora can be psychologically stimulating to users. However, it should be noted that scents could be easily supplanted by other sensory elements particularly in an external environment, and many plant species are seasonally variable. Therefore, special attention should be paid in order to achieve the desired effect.

As orientation tools, aromatic cues may be more effective in identifying specific nodes (3.5.5.3a). Users who are generally familiar with the setting may find such cues useful in locating themselves in the surroundings.

### 3.5.5.4 Tactile

#### (a) Tactile signage

- Many users are very sensitive to the sense of touch and tactile signage is not only limited to use by the visually impaired. Signage that includes

tactile elements allows user to interact and at the same time receive information (3.5.5.4a).

- Change in surface texture is also one way of giving tactile cues to identify and indicate change in areas.

#### (b) Tactile map and model, Tactile guide path, Braille

- As mentioned earlier in this section, tactile maps/directories and tactile models, together with Braille text, can provide valuable information to visually impaired users regarding the place where they are at, the directions to take, and the spatial layout of the space. Such tools, including tactile guide paths, are essential for way finding and orientation for the visually impaired. Refer to Section 3.6 — Detectable Surfaces.

- Apart from tactile signage, other tactile elements such as sculptures, water features, play equipment, pebble walk, certain types of planting, etc. can also offer stimulating experience for many users (3.5.5.4b).



3.5.5.3a Plant species that give off scents can serve as an olfactory clue for users to locate themselves



3.5.5.4a Interactive multi-media directory



3.5.5.4b Three dimensional tactile model can give an overall sense of the facilities