

3.10 Management and Maintenance

3.10.1 Sustainability of Universal Accessibility Concept

Upon completion of a facility, the design intent can only be realized and sustained if the universal accessibility concept is applied in the management and maintenance aspects as well. For example, a signage, no matter how user-friendly, cannot serve its purpose at night if the nearby lighting is out of order and not repaired. A handrail cannot offer a good and firm grip if it is not cleaned promptly after rainfall. The importance of management and maintenance is of no less priority than the design elements.

The successful implementation of universal design concepts throughout the life span of the facility depends very much on the awareness and participation of the client, users and maintenance agent. To start with, a user manual or an operational manual is a useful tool for conveying universal accessibility concepts and elements to the concerned personnel. A good management plan is essential for the staff to follow and it can also be used for auditing and review purposes.

To preserve the elements for sustained use, there are 2 'Not's and 3 'R's suggested for the client, users and maintenance agent to follow:

- Do Not cover up
- Do Not obstruct (3.10.1a and 3.10.1b)
- Regular checking
- Repair promptly
- Replace when necessary

The items to be included in a maintenance plan depend on the individual facility. For example, the operational requirements during different times of the day and different weather conditions could be considered.



3.10.1a Obstruction to tactile guide path



3.10.1b Travel path should be diverted when maintenance work is being carried out

3.10.2 Maintenance and Continuous Improvement

The plan could outline the actions required for the following circumstances:

- Daytime
- Night time
- Fine weather
- Inclement weather, i.e., during and after rainfall, thunderstorms, and typhoons.

In external and open space designs, elements that enhance universal accessibility may often be integrated into the environment and hence unnoticeable. Elements like Braille signs, tactile warning strips, or low-level drinking fountains are examples of universal accessibility elements requiring preservation and maintenance. The more intangible elements such as the minimum required clear widths of pathways, or wheelchair spaces beside seating benches also require maintenance, especially during times of alteration and repair works or temporary fencing off of certain areas.

If timely repair and maintenance cannot be carried out, then appropriate temporary diversion or protective measures should be provided to prevent the damaged facilities from becoming a hazard to users (3.10.2a). People should be warned to keep away from facilities awaiting repair and maintenance. During the time of repair or closure of a facility, alternative temporary provisions should be arranged for continuous service and operation.

Measures should be taken to guard against misuse or improper change in use of an accessible facility. For instance, toilets for persons with disabilities should not be used as storage rooms.

To ensure proper and continuous functioning of building services like call buttons, regular re-testing and commissioning procedures should be performed.



3.10.2a Damaged areas should be properly fenced off and the travel path properly re-diverted

As for outdoor installations, discoloration is a common defect found due to prolonged exposure to sunlight. Timely replacement and maintenance of the discoloured items is essential, especially for maintaining the required colour contrast.

Different and new requirements may arise as time goes by. Continuous assessment of a facility based on the users' needs would allow the facility to become more sustainable. This can be done, for example, by means of user surveys to collect new suggestions and ideas.

Regular review and audit is a proactive way of maintaining facilities in an effective and efficient manner. Special attention should be paid in updating any new information on directory signs. In addition, as products and materials become available in the market, new technologies should be considered for continuous improvement and sustainability.

Accessibility improvements to facilities can add value and encourage wider usage by people with different needs; sometimes even subtle enhancements may be very helpful to certain users (3.10.2b and 3.10.2c).



3.10.2b Accidents can happen anytime anywhere



3.10.2c Addition of adequate signage can help in preventing accidents