# SERVE STRUCK

# **GITAM: GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

(Deemed to be University u/s 3 of the UGC Act, 1956)

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Visakhapatnam | Hyderabad | Bengaluru

# BARRIER FREE ACCESS TO PERSONS WITH DISABILITIES

The "Individuals with Disabilities (Equal Opportunities, Protection of Rights, and Full Participation) Act" of 1996 established by Indian Govt. for Equal Opportunities of Persons with Benchmark Disabilities (barrier-free environment for persons with disabilities) and made particular provisions for them. This Act includes requirements for ramps in public buildings, restroom adaptations for wheelchair users, Braille symbols, and auditory indications in elevators, all of which will make it easier for Divyangjan to access the built environment. The physical environment and provisions to be created in public areas such as Educational Institutions and Hospitals have been proposed by the Central Public Works Department. According to the provisions stated, it is advised that there should be no discrimination against physically challenged people in those institutions. There are four different types of

- 1. **Non-ambulatory:** Impairments that, for all practical purposes, limit people to wheelchairs, regardless of their cause or appearance.
- Semi-ambulatory: Impairments that make it difficult or insecure for people to walk.
   Amputees, arthritics, spastics, and people suffering from pulmonary and cardiac illnesses may be semi-ambulatory.
- 3. **Sight:** Total blindness or vision impairments to the point where an individual's ability to function in public places is jeopardised or endangered.
- 4. **Hearing:** impairments such as deafness or hearing loss can make a person feel uneasy in public places because he is unable to speak or hear warning signals.

# **MOBILITY DEVICES**

Persons are utilizing mobility devices, such as wheelchairs, crutches, and walkers, as well as those walking with the assistance of others, should be given adequate room.

- A person in a wheelchair's range of reach (forward and side; with or without obstruction) should be considered. The dimensions of wheelchairs in use in the area should be considered. The standard size of a wheel chair is 1050mm x 750mm (as per ISi).
- The minimum width of the space for wheelchair entry should be 900mm, the length should be 1200mm, and the breadth should be 1600-2000mm. (for the reason of rotation of the wheelchair).
- The forward reach should be a minimum of 380mm and a maximum of 1300mm without obstruction.

- Grasp reach should be a maximum of 500mm and Touch reach should be a maximum of 600mm. For locking and opening controls for window and doors should not be more than 1400mm from the finished floor usable by one hand.
- Switches for electric light and power as well as door handles and other fixtures and fittings should be between 900 mm - 1200 mm from finished floor.
- Power point for general purpose should be fixed between 400-500 mm from the finished floor.

#### **PARKING PROVISIONS**

The following provisions must be made for parking handicapped people's vehicles:

- Surface parking for two care spaces near the entrance for physically handicapped people with a maximum travel distance of 30 meters from the building entrance shall be provided.
- The width of parking bay shall be minimum 3.60 Meter.
- A sign indicating that the space is reserved for wheelchair users must be prominently displayed.
- Guiding floor materials shall be provided.

# APPROACH TO PLINTH LEVEL

- Every building should have at least one handicapped-accessible entrance, which should be clearly marked.
- To enter the building, the ramp must be finished with non-slip material.
- Minimum width or ramp shall be 1800 mm with maximum gradient 1:12
- The length of the ramp shall not exceed 9.0 meters, with a double railing on both sides at a height of 800-900 mm, extending 300 mm beyond the top and bottom of the ramp.
- There must be a 50 mm gap between the adjacent wall and the handrail.
- A ramp's grade should be a gentle increase of 10mm for every 120mm of travel.
- At the top and bottom of a ramp, provide a flat surface of 1500mm or more in length.

#### STEPPED APPROACH

- The tread must be at least 300mm wide, with a maximum riser of 150mm.
- A 900mm high handrail should be installed on both sides of the stepped approach, identical to the ramped approach, with a 40mm diameter and a 50mm spacing from the wall.

# **CORRIDOR**

Minimum width of corridor should be 1500mm.

#### **TOILET**

- In each set of toilets, one unique western closet for the handicapped shall be provided, with a washbasin at the door.
- The door must have a minimum clear opening of 900mm and must swing out.
- The western closet seat must be 500mm above the ground level.
- The toilet floor must have a non-slip surface with no variation in level.

# **SIGNAGES**

- Signs must include the symbol of access as well as the direction and name of the accessible facility.
- The height of the letter should be readable at various viewing distances.

# **OTHER FACILITIES**

 Allow a space under the counter of 700mm height and 350mm depth to make a counter wheelchair accessible.