

Yaadgar Building



Under the project 'Mainstreaming Disability in Rajasthan'

**Access Audit
Of
DCP (Traffic) Office
Ajmeri Gate, Tonk Road, Jaipur
June 30, 2011**

**By
CUTS Centre for Consumer Action, Research & Training
(CUTS CART)**



In partnership with Sightsavers



1. Background

An accessible built environment has been recognized as a core element of an inclusive society. An accessible environment provides citizens with autonomy and the means to pursue an active social and economic life (EC Expert Group on Accessibility, 2003).

Many persons with disabilities (PwDs) are faced with barriers that exclude them from participating as equal citizens. These barriers can be attitudinal and societal as well as physical and affect people with different impairments at different times of their lives.

The case for making our society more accessible is a compelling one on many fronts. It is not only an issue of justice but it makes good business and social sense. In addition to contributing to the development of a more inclusive and equal society an accessible environment offers the following advantages:

- ✓ An accessible environment increases the pool of potential new workers that an employer can tap into. It also helps organizations retain existing employees who may acquire a disability;
- ✓ An accessible building enables more people with disabilities to enter the premises and/or use the services;
- ✓ Accessibility improves overall safety of buildings, which has a direct impact on the number of accidents taking place and therefore the cost of insurance premiums;
- ✓ An accessible environment gives greater customer and staff satisfaction and can improve public perception and recognition of a Department or Agency.

2. Access Audit: Definition and Objectives

An access audit is one of the first of many steps that can help to improve accessibility and provides the basis for an access improvement plan or strategy. There are a number of reasons for carrying out an audit including: legislation; universal access; gather data on buildings for comparison or analysis; check compliance with certain standards and regulations; organizational policy on equal opportunities; public relations/organizational image; conservation by use of historic buildings; and pressure from lobby groups and awareness of particular problems.

CUTS CART in collaboration with Sightsavers is implementing a project entitled, 'Mainstreaming Disability in Rajasthan'. The objective of the project is to make the society more aware and the buildings more accessible to PwDs in order to ensure their participation.

CUTS CART has also been working in collaboration with different government departments, NGOs, disability activists and experts for mainstreaming disability in Rajasthan. CUTS CART and DCP (Traffic), Rajasthan Police with the aim to make its Yaadgar Office, more accessible and disabled friendly conducted an access audit of the campus June 30, 2011 with the technical assistance of Prateek Agrawal (Blind Gentleman), Dinesh Upadhyay, Madhuri and Deepak (persons with locomotor disability), Rajendra Singh (person with hearing impairment), Pratibha (mother of a autistic child), Deepak Sogani (architecture engineer), Manoj Bhardwaj (sign language interpreter) and Nayeem (advocate) along with other experts from CUTS.

3. Audit Recommendations

The following conclusion was reached after an intensive effort to find the barriers that restrict the access of PwDs.

1. Reserved Parking for PwDs

12.



The parking place at both the sides of the Yaadgar office entrance is not disabled-friendly since there is no place reserved for them. So it is recommended to keep reserve at least one car parking place at right side where presently car parking is there and at the

same time parking place for at least five 'two wheelers and tricycles' parking place at the left side of the entrance with proper signage and sizes for PwDs. The recommended signage and size has been annexed with this report.



2. Main Gate

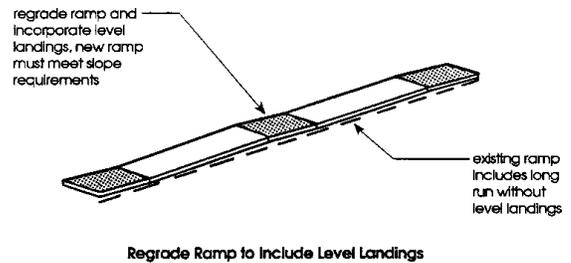
The slope in the main gate entrance ramp may be made more gentle to avoid accidents, since a wheel chair user can pass through own his own but a person from back has to hold the wheel chair (see photo).

Both vehicular and pedestrian movement takes place



from this entrance. Main gate to be painted in bright colors (preferably yellow/red) for easy identification

by persons with low vision from a distance. Unmaintained road trapped small wheels of the wheelchair and can cause trip hazard also for persons



using mobility aids.

Periodic General maintenance of the road should be undertaken.
(The models of ramps has been shown herewith)

3. Reception

It is good that at reception one person is trained in attending hearing impaired person since he/she has been taught in sign language



briefly but receptionist shall be trained to receive other PwDs as well. At reception it is



recommended to have some audio signal to guide blind persons that here is reception otherwise they will not identify it. The burger sign alert them. Please ask staff for help sign to be affixed at reception.

4. Steps and Stairs

In the Yaadgar building two main stairs were visited by the access auditors and it was found that there is



no hand rails in both the stairs which pose a hazardous barrier for PwDs. Without handrails person with locomotor disability and blind person find difficulty



in climbing stairs. At first step some yellow colour highlighter also has to be there so that low vision people can easily identify the step and avoid accident. However, it was noticed that the doormats are disabled-friendly and does not pose any barrier for wheelchair users. Herewith the design of the handrails and has been



proposed as shown in the picture. As a second option these stairs can be converted into a ramp also which can be a great help for different PwDs.

5. Pathways and Corridors

"Accessible routes" are pathways which can be used by anyone. They shall be accessible which means an unobstructed path connecting all accessible spaces and elements in a building or facility. Interior accessible routes



may



include corridors, floors, ramps, elevators, lifts, and clear floor space at fixtures. Exterior accessible routes may include parking access aisles, curb ramps, walks, ramps and lifts. For buildings or facilities and sites to be accessible, they must incorporate, and be linked by, an accessible route. Thus, the accessible route serves as a key organising principle for the provision of access. Therefore, in the pathways and corridors of chairs, decorative pots, coolers protruding in the platform which not only obstructs movement but also can prove hazardous. (see photos)

6. Disability Cell

This picture is of the DCP office at first floor in visits for getting NoCs from way reaching up to this cell them so it is advised to shift ground floor so that their ensured.



disability cell, open in the which number of PwDs the department but the is not at all accessible for the cell somewhere at the accessibility can be

7. Accessible Toilet

- A. In total there are two toilets in this office which were visited by access audit team. At least one toilet in a two storey building should be made accessible. In the end near police thana office there is one toilet and at same place at first floor there is another toilet. Directional signage for the same to be displayed at the corridor leading to the same, visible from the courtyard. A



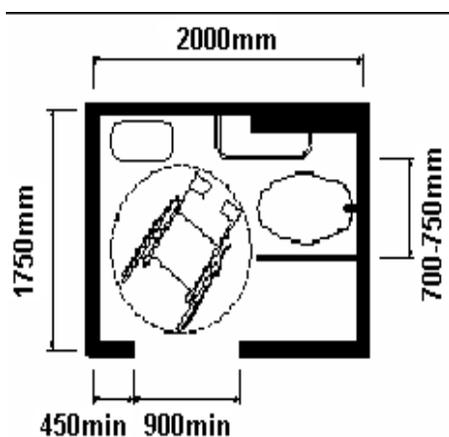
minimum of one toilet compartment should have enough floor space for wheelchair in the office.

One of the major difficulties for the PwDs is non-availability of accessible toilets. It is therefore proposed to either convert at least one toilet on each floor into a disabled friendly toilet as per the specifications given below.

- Toilet size: 2000mmX2000mm
- Door size at least 900mm
- Comode height 450-500mm
- Railing Height 700mm
- Quarter Turn Tap
- Alarm Bell at 450mm
- Kick Plate 250mm
- Washbasin Top 750-800mm
- Grab Bar Top- 1500mm
- Urinal Grab Bar Bottom- 1000mm
- Mirror Top with tilted mirror(100mm)- 2000mm



- A minimum of one toilet compartment should have enough floor space for wheelchair users to enter and exit.
- Clear floor space 2000mm x 1750mm.
- Provide a door of clear opening of at least 900mm with the door swing outwards or be folding or sliding type.
- Should have slip resistant flooring.
- Accessible toilet should have a switch near the WC (one at 300mm and the other at 900mm from the floor level), which activates an emergency audio alarm (at the reception/attendants desk, etc.). The following design has been recommended for disabled friendly toilets.



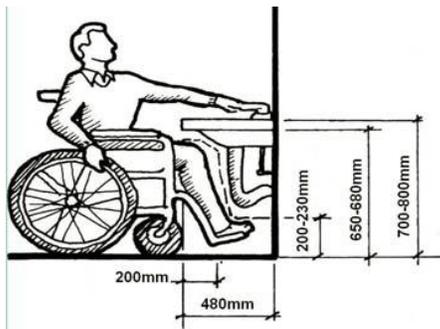
B. Water Closet (WC)

- Have clear space of not less than 900mm wide next to the water closet.
- Be located between 460mm to 480mm from the centerline of the WC to the adjacent wall and have a clear dimension of 800mm from the edge of the WC to the rear wall to facilitate side transfer.
- The top of the WC to be 475-490mm from the floor.

- Have a back support.
- Grab bars at the transfer side of the WC and the adjacent wall.
- On the transfer side of the WC- swing up type and on the wall side
- L-shape grab bars should be provided.

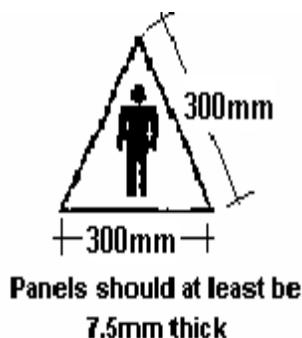
C. Washbasin

- With dimensions 520mm and 410mm, so mounted that the top edge is between 700mm-800mm from the floor; have a knee space of at least 760mm wide by 200mm deep by 650mm-680mm high.



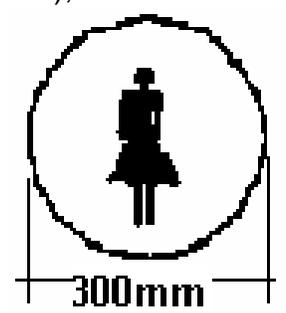
- Lever type handles for taps are recommended.
- Mirror's bottom edge to be 900-1000mm from the floor and the mirror may be inclined at an angle.

D. General Toilets to have pictogram (male in triangle and female in circle), marked on plates along with Braille & raised alphabets, put on wall next to door, for the benefit of the persons with vision impairment.



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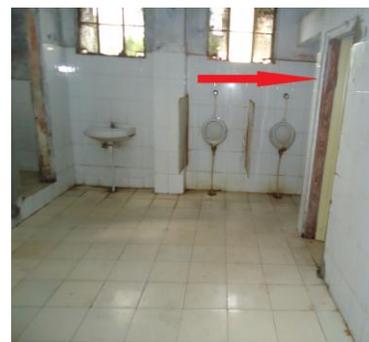
- For students / employees with low vision and vision impairments, following are proposed:
- Warning strip/ door mat 300mm before the toilet entrance.



- Braille signage should be displayed on the right side of every toilet by indicating embossed letters with ladies and gents pictogram.
- All signage to be in raised alphabets at the eye level, on the wall and in bold and contrasting colours.

E. Accessible Urinals

- At least one of the urinals in the Gents toilet should have grab bars; installed on each side and in the front of the urinal to support ambulant persons with disabilities (for example, crutch users).
- The front bar is to provide chest support; the sidebars are for the user to hold on to while standing.
- Urinals shall be stall-type or wall-hung, with an elongated rim at a maximum of 430mm above the finish floor.
- A clear floor space 760mm by 1220mm should be provided in front of urinals to allow forward approach. Urinal shields (that do not extend beyond the front edge of the urinal rim) may be



provided with 735 mm clearance between them.

This is the proposed design of the disabled friendly urinals



Accessible Urinal



Urinal with grab bar

8. Eclectic Meter Box

The meter box has been installed at a lower height which is highly dangerous; the people with vision impairment may get hurt. It is proposed that the height of the meter box may be raised to enable clear obstacle free passage for the visually impaired. (see photo)



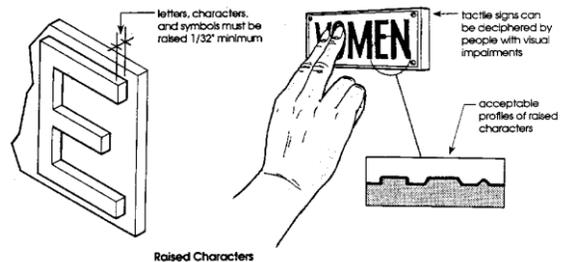
9. Name plate and Room number signage

The name plates as mentioned in the picture are not accessible for blind person so the letters and numbers on signs must have a width-to-height ratio between 3:5 and 1:1 and a stroke width-to-height ratio between 1:5 and 1:10. The nameplates and numbers of rooms to be in braille and raised alphabets with color contrast in



background.

and raised alphabets with color contrast in



10. Loose stone strips or tiles are dangerous for PwDs

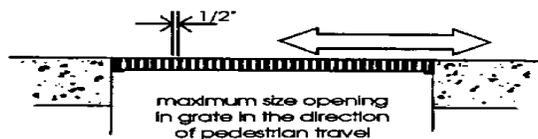
The pictures are showing that on the drains loose tiles



are posing risk of being hurt (see picture below) by any wheelchair user or blind person so these to be fixed with having gentle slope so



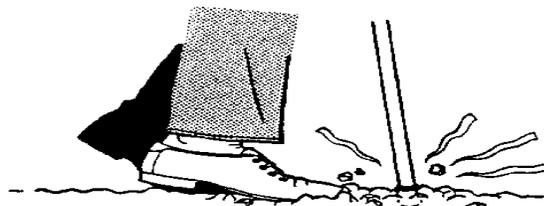
that wheelchairs can be passed through easily. As the access audit team found that it was quite risky to cross the pathways from the highlighted areas which are common in the Yaadgar building in the pathways and galleries at ground floor right from entrance to all the corners of building. (See pictures)



accessible routes must be smooth and hard surfaced



loose gravel and sand are not acceptable



11. Access Audit Team

Access Audit team visited parking area, main gate, reception, DCP office, Additional DCP office, disability cell, stairs, toilets, pathways and corridors etc. to observe barriers for cross disabilities. The audit team made its every effort to verify the accuracy and appropriateness of the design solutions and suggestions presented in this report. The information in this report is advisory in nature and must be refined and developed before being implemented.

These recommendations are provided to initiate some action regarding making the DCP (Traffic) office fully accessible for PwDs. Information regarding the application of the standards in retrofit situations. UFAS and/or the Architectural and Transportation Barriers Compliance Board must be consulted to ensure compliance.

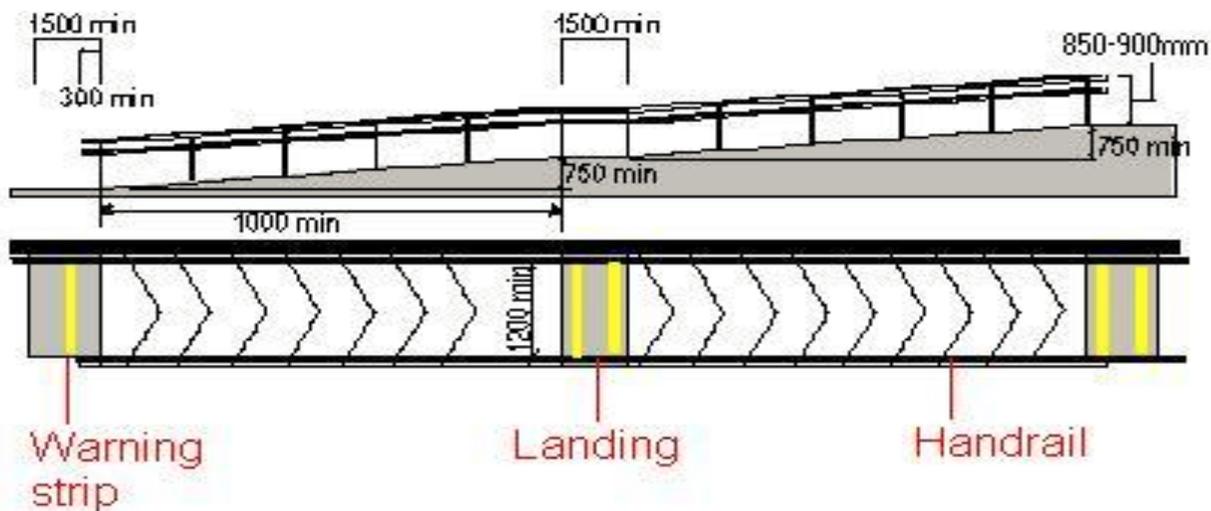


1. Prateek Agrawal (A blind gentleman)
2. Dinesh, Madhuri and Deepak (Wheelchair users)
3. Rajendra Sigh (HI)
4. Manoj Bhardwaj (Sign language interpreter)
5. Deepak Sogani (Architecture En.)
6. Nayeem (Advocate)
7. Madhu Sudan Sharma & Kanak Srivastav (CUTS Staff)
8. O P Sharma (ADCP, Traffic)

Annexure I

RAMP

- Indoor- Gentle slope of 1:12 max.
- Outdoor- For first floor and above 1:15 or 1:20 gradient ramp is advised depending upon Availability of space.
- Landings - every 750 mm of vertical rise clear space of 1500mm x 1500mm minimum.
- Ramp width to be 1200 mm or more.
- Handrails to be on both sides at a height of 850mm-900mm; both ends to be rounded and Grouted and extend 300mm beyond top and bottom of ramp.
- Surfaces (ramp + landing) should be slip resistant.
- Strip of warning blocks should be placed 300mm before and after the ramp edges.



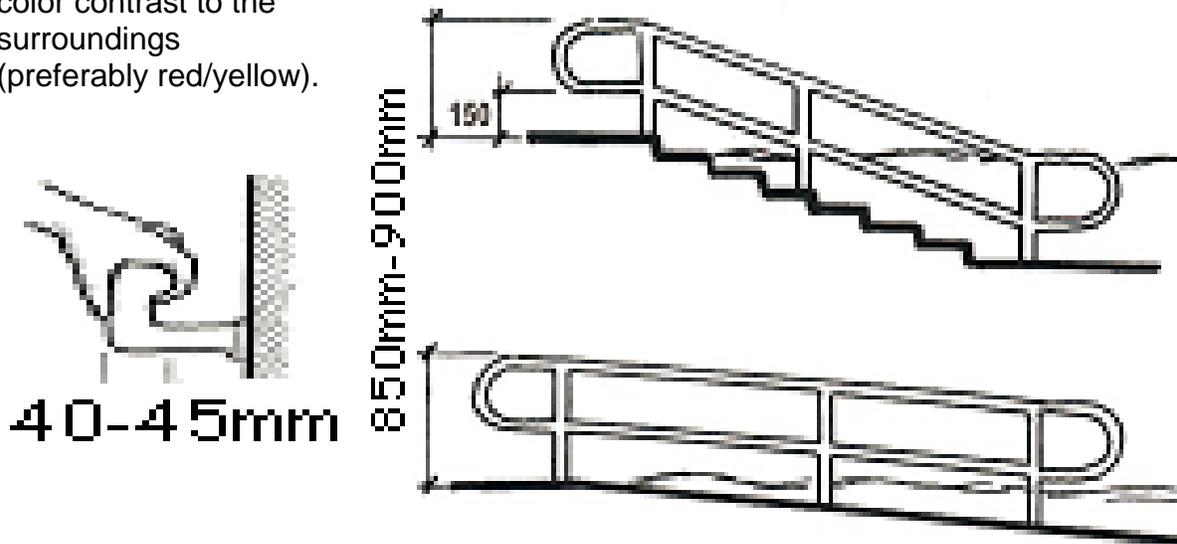
Annexure II

STEPS & STAIRS

- Have continuous handrails on both sides including the wall (if any) at 850mm-900mm.
- Warning strip to be placed 300mm at the beginning and at the end of all stairs.
- Nosing to be avoided.
- There needs to be signage indicating the floor level on each floor. It is also desirable to have a directory of services available on each floor at the landing areas.
- It is desirable to use tactile features on the handrail to indicate the end of the rail and to give information for benefit to visually impaired people. (e.g. it is possible to indicate the floor level on each handrail by adopting the use of raised spots, where one spot indicates first floor, two spots indicate second floor etc.).

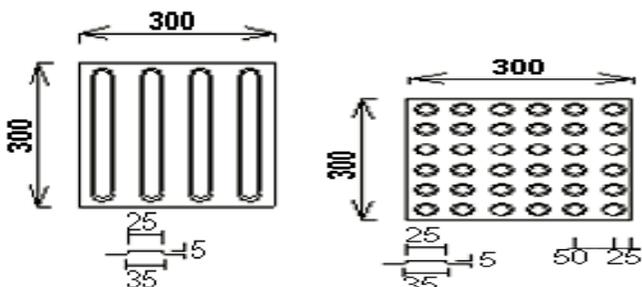
HANDRAILS

- Should be circular in section with a diameter of 40-45mm.
- At least 45mm clear of the surface to which they are attached.
- At the height of 850mm-900mm from the floor.
- Extend by at least 300mm beyond the head and foot of the flight and ramp in the line of travel and grouted in the ground.
- Should be in bright color contrast to the surroundings (preferably red/yellow).



Tactile Surfaces: Guiding strip & Warning blocks

- Line-type blocks indicate the correct path/route to follow.
- Dot-type blocks provides warning signal, to screen off obstacles, drop-offs or other hazards, to discourage movement in an incorrect direction and to warn of a corner or junction. Should be placed 300mm at the beginning and end of the ramps, stairs and entrance to any door.



Guiding path Warning strip

Places to install guiding blocks

- In front of an area where traffic is present.
- In front of an entrance/exit.
- To and from a staircase or
- Multi-level crossing facility.
- In open space to orient students with Vision impairment.

Annexure V

DOORS

- Should provide a clear opening of 900mm.
- Be fitted with a lever action locks and D-handles of circular section, between 850mm and
- 1100mm from floor level.
- Also be fitted with vision panels at least between 900mm and 1500mm from floor level.
- Be color contrasted with the surrounding wall and should not be heavier than 22N to open.
- Kick plates are recommended 300mm from the bottom, to resist wear and tear.

Annexure IX

RESERVED PARKING

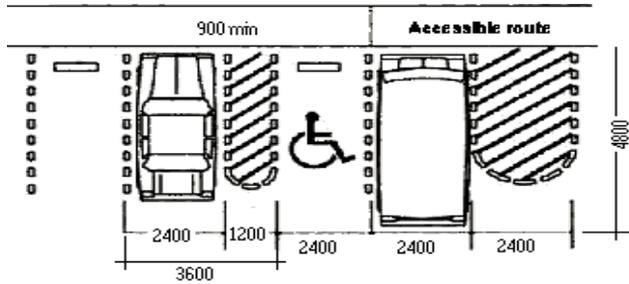
- For staff/students with mobility impairments driving their own vehicles (scooter/car) reserved parking should be provided.
- Parking should be with in 30meters of the main entrance of the building.
- Two accessible parking lots with overall minimum dimension 3600mm x 4800mm, should be provided.
- It should have the access symbol painted on the ground and also on a signpost\ board put near it.
- There needs to be directional signs guiding people to the accessible parking.
- Approach to the parking to be maintained.
- All security guards/staff should be sensitised and well informed about these reserved parking for PwDs.



SIGN BOARD

SIGN BOARD

- It is proposed to provide one sign board with directional arrows, at the turnings of the

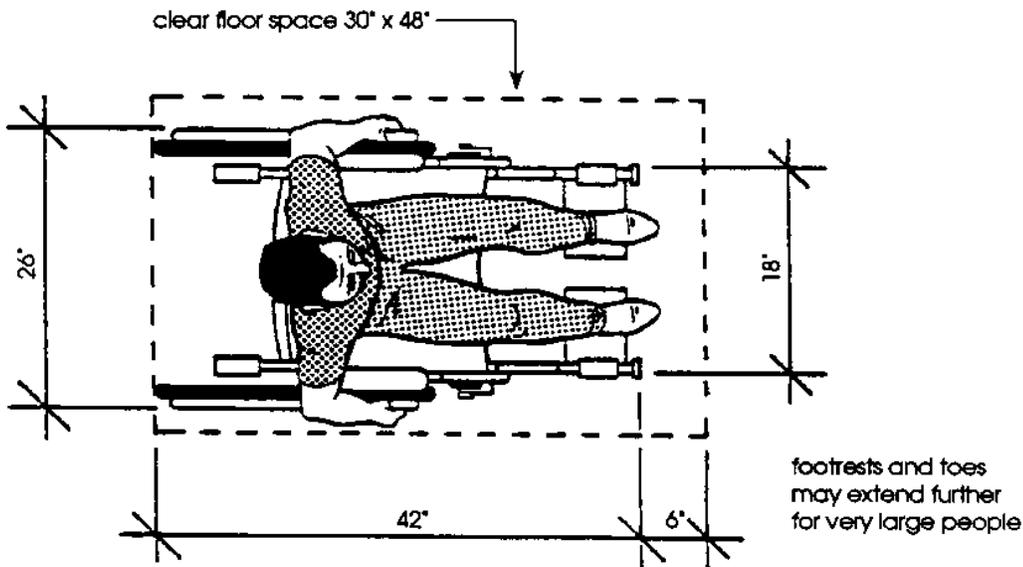


main road.

- Should be mounted above 2100mm from the floor level.
- To be in bright color contrast and bold/large lettering.
- Font Size 100-170 mm.

The floor of the building shall be even so that barriers created by pits, cracks, furrows for PwDs which increases the risk for them to be avoided. (See pictures A, B & C below)

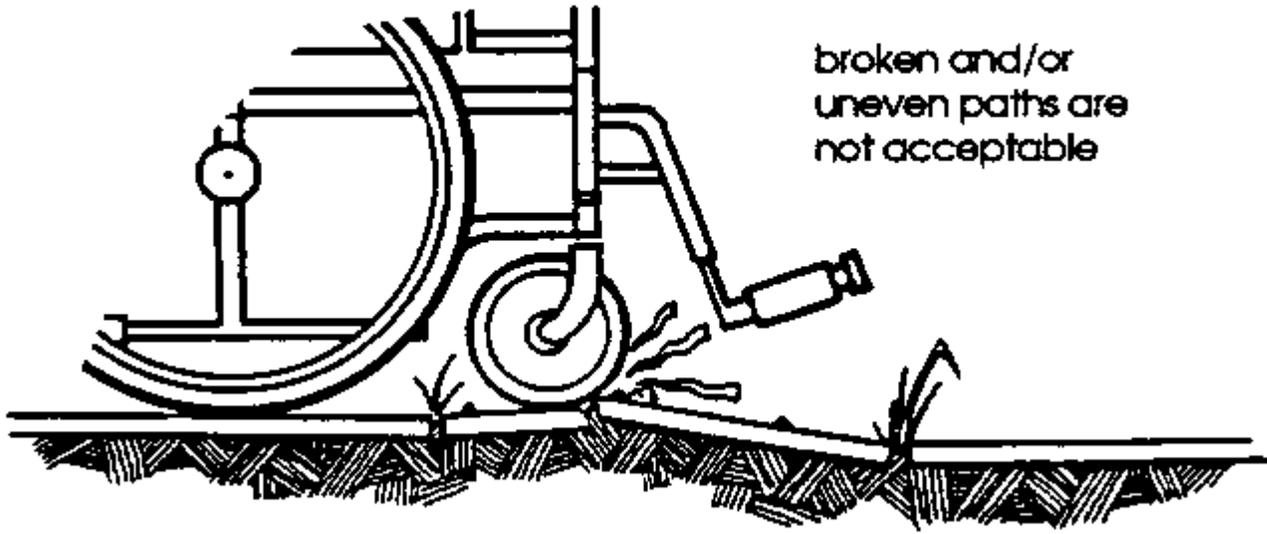
A.



Space Allowances and Approximate Dimensions of Adult-Sized Wheelchairs

B.

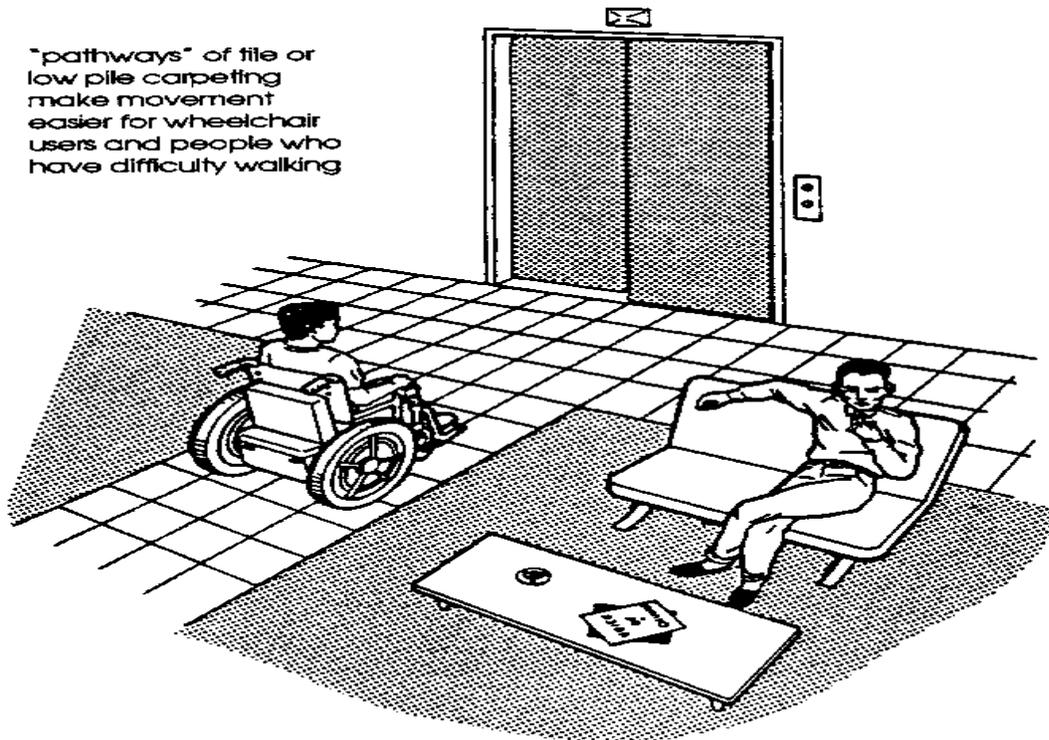
Ground and Floor Surfaces



broken and/or
uneven paths are
not acceptable

C.

"pathways" of tile or
low pile carpeting
make movement
easier for wheelchair
users and people who
have difficulty walking



"Pathway" of Tile or Carpeting