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5.6.18



File No. K-12/20/2017-UPA II SECTION-MHUPA (EFS-9021581)  
Government of India  
Ministry of Housing and Urban Affairs  
(NULM-II Section)  
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Nirman Bhawan, New Delhi  
Dated: 01.06.2018

To  
The Chief Secretary  
All States/UTs

Pr Secy (UD&MA)  
1/6

Subject: Meeting Standards of Accessibility norms in Shelters under DAY-NULM- reg

Sir/ Madam

I am directed to refer to the above mentioned subject and to say that under 'Accessible India Campaign', all central government buildings throughout India are to be made barrier free for Persons with Disabilities. Accordingly, the following clause has been added to the existing Operational Guidelines on Scheme of Shelter for Urban Homeless of DAY-NULM:

7.6 Shelters established by way of new construction or refurbished under DAY-NULM and being operated with O&M support of DAY-NULM will be made barrier free for Persons with Disabilities.

2. In view of the above, it is therefore requested that necessary instructions may kindly be issued for compliance of above provisions in shelters under DAY-NULM.

Yours faithfully,

*(Signature)*  
01/06/2018  
(Surender Kumar)

Under Secretary to the Government of India  
Tele:23061185

Copy to:

The Mission Director (DAY-NULM)  
All States/UTs

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# **Guidelines for creating barrier free shelter for persons with disabilities**

## **Introduction:**

A barrier-free environment allows the free and safe movement of all people regardless of age, gender and ability. A barrier-free environment does not just refer to making a building accessible with a ramp. It includes making the whole area, including buildings, pathways, transport, services and facilities, easily accessible by all people.

Making an environment barrier-free does not only entail making changes to the built environment, but also involves a change of attitude by community members so that they accept that all people have a right to move about freely. This means that persons with disabilities should feel welcomed by all members of the community.

## ***Disabilities:***

Disability is part of the human condition. Almost everyone will be temporarily or permanently impaired at some point in life, and those who survive to old age will experience increasing difficulties in functioning. Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.

“Disabilities are an umbrella term, covering impairments, activity limitations, and participation restrictions. Impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person’s body and features of the society in which he or she lives.”- **World Health Organisation**

Disability is an impairment that may be cognitive, developmental, intellectual, mental, physical, sensory, or some combination of these. It substantially affects a person's life activities and may be present from birth or occur during a person's lifetime.

## ***Shelter for disabilities:***

“A habitable covered living space, providing a secure, healthy living environment with privacy and dignity for the groups and individuals residing within it.”

A shelter can protect people from the sun, insects, wind, rain, snow, hot or cold temperatures and enemy observation. It can give people a feeling of well-being. Shelter is one of basic needs of homeless. It is a place that can protect people from the elements, keep warm and safe, and give the encouragement to satisfy peoples other needs. Shelter is one of the requirements for addressing peoples physiological needs (along with the need food, water, air, sleep). Human’s physiological needs as the base of a triangle to show that meeting these needs are the most important in individual’s lives. If these needs are not met, the individual may only be able to focus on meeting their physiological needs and not feel motivated to move towards self-actualization.

Persons with disabilities often experience discrimination and exclusion, despite the adoption of an increasingly rights-based approach to humanitarian assistance. In humanitarian action, shelter and settlement are familiar terms that fall within the scope of the right to adequate housing. Everyone has a right to adequate housing, and this right is recognized in key international legal instruments.

These instruments define adequate housing ensuring protection from the climate, structural hazards and risks to health, access to essential services and facilities, and appropriateness. The World Health Organisation estimates that some form of disability affects 15% of the population.

### ***Barrier free shelter for disabilities:***

A disability is a common occurrence and characteristic of the human condition. The home synonymous with shelter, privacy and well being, can also mean isolation, lack of discomfort, if a minimum degree of physical accessibility is not provided, especially for those people whose needs are greater: the disabled. Barriers are a problem for anyone whose mobility or navigation of the environment is limited due to size, age, pregnancy, vision, hearing, broken bones, sprains, arthritis or painful joints. Accessibility criteria can only be a collection of minimum measurements and recommendations addressed to increase the range of use and function for people with different abilities and physical conditions. Home design criteria, like passage width, turning space, door use, user operation, reaching and holding, seating or perceiving information. For people with disabilities, the need for Barrier free shelter as a precursor to freedom is especially clear.

### **❖ Overview of Barrier Free Shelter:**

It is very important to know exactly what our specific needs are at the time of constructing a barrier-free home and incorporate features to accommodate these needs during the planning stages. There are many ways to design a barrier-free home to be both functional and aesthetically pleasing. A person's home need not and should not take on a "clinical" or "hospital" appearance.

### **❖ *Barrier-free Shelter for different impairments:***

#### **➤ People with vision impairment:**

people with severe vision impairment can move around the shelter easily will be beneficial to many other people who may have moderately impaired vision, such as older people who may have deteriorating vision or people who wear glasses. Ensuring a barrier-free shelter for people with vision impairment might include:

1. Marking the front edge of steps with a contrasting strip so that they can be easily identified.
2. Ensuring that all areas are well lit.
3. All signage is clear, in large letters and at eye level, preferably with raised letters which can be felt.
4. All pathways and commonly used areas are clear of any objects or debris.

#### **➤ People with hearing and speech impairments**

Although people with hearing and speech impairment do not necessarily have mobility difficulties, moving around the shelter can present them with problems. For example, a person with hearing impairment may not hear auditory early warning signals or any public announcements that might be relevant to his safety; a person with speech impairment might have difficulty communicating what he or she needs and asking for other relevant information. a barrier-free shelter for people with hearing and speech impairments might include:

1. Clear and visible signs identifying the location of facilities.
2. Provision of written information.

3. Good glare-free lighting to aid lip-reading and also the visibility of signs and written communication.
  4. Alternative methods of communicating, such as a paper and pencil, so that a person with speech impairment can write questions down.
- **People with mental health impairments:**

People with intellectual and mental impairment can sometimes find unfamiliar environments. If the shelter is cluttered, noisy and the signage is unclear or non-existent they may feel intimidated and may feel excluded from what is happening. Ensuring a barrier-free shelter for people with intellectual or mental health impairments might include:

1. Taking steps to reduce overall noise levels or creating some quiet spaces that are uncluttered and calm.
  2. Providing clear and frequent signage to direct people around the environment to decrease the need for assistance
- **People with Physical impairments:**

Not all people with mobility impairment use a wheelchair or hand-propelled tricycle. Some use a walking stick or crutches or move about slowly. If a shelter has full wheelchair or hand propelled tricycle access it will usually cater for people with other mobility difficulties. Ensuring barrier free shelter for people with mobility issues might include:

1. Making sure ramps and verandas are wide enough to allow a wheelchair or hand-propelled tricycle to move around.
  2. Placing things such as wash basins, tables, benches, and other facilities so that they can be reached from a sitting position and have sufficient space under them so a chair can be wheeled right up to them.
  3. Locating toilets and washing facilities so that they are accessible both in terms of location and design.
  4. Securely fixing handrails to assist with walking up and down slopes and steps/stairs.
  5. Making seats/benches available so that people with mobility impairments can rest.
- **People who have difficulty using their arms and hands:**

People who have difficulty using their arms and hands may have problems holding and moving things, opening a door, turning a tap, or using a water pump. Creating a barrier-free shelter for people who have difficulty using their arms and hands, might include:

1. Using levers rather than knobs for door handles, taps.
2. Extending the length of the pump-handle on water pumps to make the pump action easier.
3. Considering the placement of handrails so that they can be easily grasped or leant on by a person with minimal use of their hands.

❖ **Space Considerations:** When creating a barrier-free environment it is important to consider the size of people with the equipment that they will be using, such as wheelchairs, crutches etc. This is because when the size of these things is considered then it is possible to decide on things such as the width of the ramps and doorways, the height of benches and toilets, the placement of cupboards etc.

The size differences can be illustrated by looking at the difference in size of a person not using any equipment, a person using a cane, a person using crutches, a person using a wheelchair, and a person using a hand-propelled tricycle.



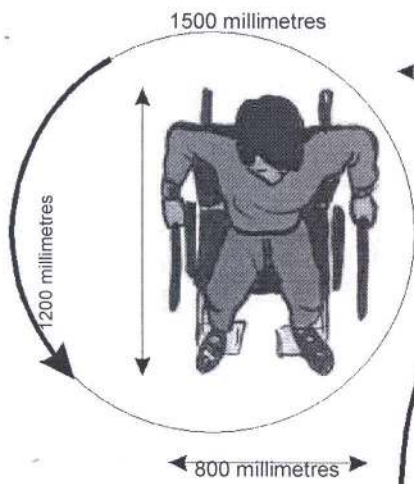
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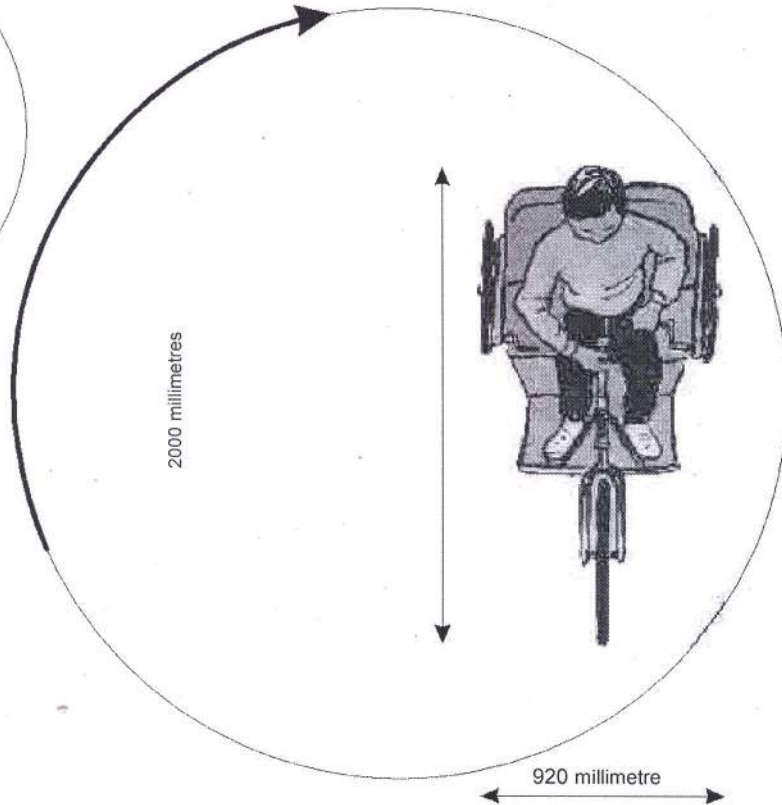
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## ❖ **Structural Changes in the shelter:**

When considering the design of a barrier-free shelter, keep in mind that a wheelchair user will need considerably more floor space in order to independently do many of the same tasks as ambulatory persons. Usually the person with a disability will need to make every square foot count.

### ▪ **Site Locations:**

When choosing the best site for an accessible home, keep in mind that building site that is free of slopes, hills, uneven terrain, and other obstacles will help to facilitate the full enjoyment of backyard barbecues, gardening, light yard work and other hobbies or interests.

### ▪ **Foundations: Concrete Slab or Ramps:**

In order to maximize independence in entering and exiting the house, a wheelchair user will preferably need a house constructed on a concrete slab, thereby eliminating the need for steps, and thus ramping as well. This is highly preferred by the majority of wheelchair users, but should only be done on a lot that has been properly graded so that surface water drains well and does not stand near the foundation of the house. An alternative is to build the house with a conventional crawl space, but construct ramps at the main entrances and exits of the home. As a general rule, a ramp is constructed of either wood or concrete. If wood is used, the timber must be treated to prevent future decaying. Any ramp should be a minimum of 42 inches in width. The slope should provide a minimum of one foot of linear ramp for every one inch of height that must be reached. For example, if the floor/porch level is 20 inches above ground level, the ramp should be at least 20 feet long, excluding any turning platforms. A ramp can be designed and built to turn at 90 degree angles if such a design makes the house more aesthetically pleasing or brings the construction into compliance with local codes. Also, at any point where a ramp enters the house or turns 90 degrees, a minimum of a 5 x 5 feet platform should be inserted to provide adequate turning space, as well as safety when opening and closing a door or descending the ramp. As an added safety feature to both wheelchair users and ambulatory persons, a handrail on both sides of the ramp should be included. The handrail should be 30 to 32 inches high. For added safety in conjunction with the handrails, there should be vertical support pickets under the handrails every 12 to 14 inches, or a guard rail at least 3 inches high. These features will prevent the wheelchair from accidentally rolling off the surface of the ramp. Similar rails and/or guards should also be included at each turning platform. If the ramp is painted to match the exterior trim of the house, a skid-resistant paint should be used on all surfaces where the wheelchair tires come into contact with the wood. If a concrete ramp is used, a slight "rough" or "brushed" finish is desirable to improve traction in slippery weather conditions. Wrought iron or 2 inch diameter piping may be used as handrails if desired, but in some cases may not be as visually appealing.

- There are different styles of the ramps depending on the space available and the height of the rise:

Handrails on both sides of ramp

Length of landing:

- 1500 mm for wheelchair
- 2500 mm for hand-propelled tricycle

Width of ramp:

- 1500 mm for wheelchair
- 2500 mm for hand-propelled tricycle

Ramp gradient 1:20

- A straight ramp where there is a lot of space and/or the ramp is going up a small rise

Width of landing:

- 3000 mm for wheelchair
- 5000 mm for hand-propelled tricycle

Length and width of landing:  
- 1500 mm for wheelchair  
- 2500 mm for hand-propelled tricycle  
Ramp gradient 1:15

▪ **Doorways:**

Ideally, a barrier-free home with doors that are 3 feet wide will provide maximum convenience and accommodate most sizes and models of wheelchairs. If a narrower doorway (e.g., the standard 32 inch) is used, consideration should be given to the use of "offset hinges" to provide a full 32 inches of clear passage width. Also, in areas where traffic will be frequent from one room to another, (e.g., from den to kitchen, or kitchen to dining room), an extra wide passageway of 4 feet or more is strongly recommended. No door should be hung in these wider passageways in order to facilitate better wheelchair manoeuvring and functional use. Another option with regard to doorways is to use sliding "pocket" doors. Pocket doors recess into the wall and therefore save valuable floor space needed for furniture placement, or wheelchair manoeuvring. However, remember that sliding doors do not fully recess into the wall and thus may not permit a minimum passage clearance of 36 or 32 inches. Also, the individual needs to take into consideration the styles or designs of doors that will work best at which locations and still allow maximum physical independence.

▪ **Bathrooms:**

The bathroom is one of the most important areas in a barrier-free home. The floor space required will depend on individual needs, but a minimum recommended space, before fixtures, is 10 x 10 feet. The lavatory must be designed so that a wheelchair user can freely roll up under it. The most popular design is to build a wall-hung countertop with a custom mount basin as close to the front as possible. The countertop should be no higher than 31 inches. Soap dishes, medicine cabinets, and toothbrush holders should be installed at both a location and height that is convenient and functional for the individual user. Electrical outlets and switches for vanity lights or suction fans should be within easy reach. This will usually be 28 to 31 inches high. In new construction, the walls should be horizontally reinforced with 2 x 8's all around the locations where grab bars are likely to be installed to provide maximum anchorage and strength for the bars. Many wheelchair users prefer a roll-in shower for both speed and convenience when bathing. If a roll-in shower is installed, the dimensions should be no less than 4 feet wide by 5 feet long. An alternative to lowering the shower arm is to use a hand-held shower. The bathroom floor should be ceramic or vinyl. Carpet and rugs should be avoided.

▪ **Kitchens**

There should be some basic features built into the kitchen. Countertops should not be higher than 32 inches. Rather than installing a conventional range, a cook top with controls at the front should be mounted into the countertop. The area underneath should be open (roll-under) to permit a wheelchair to freely manoeuvre under the cook top. Someone with weak or stiff fingers might find that push-button or slide lever controls are more convenient than round knobs that have to be gripped and rotated.

**Flooring**

A firm, level floor will provide easy manoeuvrability for wheelchair users and in particular, for those individuals who use manual wheelchairs. The most preferred floor types are vinyl coverings, hardwood flooring, or conventional tile flooring. If carpet is used, it should be the tightly woven, short pile carpeting with no foam layer underneath. Any seam binders and strips that connect different floors should be of a low profile design to enhance easy wheeling from room to room.

## ▪ **Electrical**

Information Support Packet Number 3 Light switches should not be placed higher than 42 inches above the floor. This height is convenient for most users, but is not too low for most non-disabled people. Electrical outlets should be located 18 to 24 inches above the floor. Thermostats should also be installed low enough for a seated person to see and easily operate. Under no circumstances should light switches and electrical outlets exceed 48 inches in height. The use of 2-way switches should be used wherever possible to allow the individual to switch lights on or off at more than one location within a room. The circuit breaker box should be placed at a location that is accessible to, and within easy reach of a user.

### ❖ **Role of staff and functionaries of shelter to make barrier free Shelter:**

To make the shelter barrier free it is important to aware the staff of the shelter. Staff or caregiver of shelter must be informed or trained about the matter. To provide necessary information and to help the persons with disabilities, caregiver will play an important role. Special care should be taken for the persons with disabilities. For this purpose workshop may be arranged for the shelters' staff or caregiver to provide training and to create awareness regarding the special care for physically disabled person. Necessary support should be given by the caregiver to the persons with disabilities for using shelter. All information related to physically challenge should be displayed in the notice board or information board in the shelter and keep under the notice of the physically challenged person.

### ❖ **Role of Urban Local Body for barrier free Shelter**

It is the duty of the Urban Local bodies to make sure all the facilities related to barrier free shelter are available in the shelter and to follow the guidelines for creating barrier shelter. Special attention should be given at the time of selection of land for barrier free shelters. Approach road or connecting road of shelters' should be connected with the municipal road for easy access for the persons with disabilities. Pavements near by the shelter may be planned during the preparation of DPRs of shelter. At the time of submission of the proposal for new construction it will be make sure that, all options in the guidelines are considered in DPR for barrier free shelter. In the case of special type of shelters (i.e. physically challenged) it is necessary to prepare a plan & estimates of shelter considering all the provision of barrier free shelter. Special types of shelters should be designed through the proper technical specifications.

### ❖ **Role of Shelter Management Committee at the ULB level:**

As Shelter Management Committee will supervise day to day functioning of shelters, therefore the committee will ensure that all the facilities are provide properly to the persons with disabilities. Also any issues related to persons with disabilities should be resolved by the committee.

### ❖ **Publicity information:**

Information should be publically displayed in various places (i.e. bus stand, railway station, market places etc) related to shelter and facility for persons with disabilities at the ULB. Symbolic information for persons with disabilities must be displayed at entry and exit of shelter and approach road of the shelter.