

ACCESS AUDIT REPORT

Shri Ram College of Commerce

Under the Project



Accessible University of Delhi

By



SAMARTHYAM

NATIONAL CENTRE FOR ACCESSIBLE ENVIRONMENTS
B-181, MANSAROVAR GARDEN, NEW DELHI-110015, INDIA

Telefax: 91-11-41019389, Cell: 9810558321

E-mail: samarthyaindia@yahoo.com

Web site: www.samarthyam.org

January 2008

CONTACT DETAILS OF COLLEGE

Principal - Dr. P. C. Jain

Address- Shri Ram College of Commerce, Maurice Nagar, Delhi-7

Ph. No. – 27667385, 27667905, 27666280, M: 9873245000

Fax: 27666510

Email- principal@srcc.du.ac.in

Web site- www.srcc.edu

ACCESS AUDIT REPORT BY

Access Resource Group, SAMARTHYAM

Contact person - Ms. Anjee Agarwal

Ph. No. - 9810558321

Email- samarthyaindia@yahoo.com

INTRODUCTION

The University of Delhi is the premier university of the country and is known for its high standards in teaching & research. It offers courses at the Undergraduate and Post Graduate levels in most subjects and at present, there are around 71 colleges spread all over the city. With the number of students exceeding 3,00,000, it is among the largest universities in the world. The University of Delhi is taking all measures to achieve the goal of "Education for All". Special emphasis has been on the students with diverse disabilities. In this year more than 700 students have been admitted in various colleges. Still, many opt out because of accessibility issue. Physical access to the college building, both external & internal is usually full of barriers, are unapproachable and non-usable.

The University of Delhi in association with SAMARTHYAM (a Civil Society Organization promoting Accessible Environments for Disabled Persons) has launched a Project "Accessible University of Delhi", to make all colleges disabled friendly. It is also mandatory under The Persons With Disabilities (PWD) Equal Opportunities, Protection of Rights and Full Participation Act, 1995. University Grants Commission (UGC) has issued necessary orders/directions to all the Universities and Colleges to implement provisions of the PWD Act, and for this a one time grant amount has also been allocated. It is extremely important that this Project should be expedited as efficiently and as conscientiously as possible; to ensure that all persons with disabilities (students, teaching and non teaching staff) receive an equal opportunity to participate and succeed in the academic program.

ACCESS AUDIT & REPORT

SAMARTHYAM's Access Resource Group, which includes trained access auditors with diverse disabilities and professionals, greatly appreciates Dr. P. C. Jain Principal, Shri Ram College of Commerce, for extending all co-operation during the access audit of the College premises.

It may be pertinent to mention that access audit is not a fault finding exercise. The **objective** of the access audit is to assess the existing facilities and provide suggestions for further improvement. The Report recommendations of the access audit are based on ground realities and provide cost effective solutions. A list of companies/vendors supplying accessible accessories is also given in the report.

GENERAL INFORMATION

Number of Students with Disabilities: 2
Number of Teachers/Faculty with disabilities: 2
Number of non-teaching Employees with disabilities: Nil

AREAS REQUIRING URGENT ATTENTION

- ✚ Lift in the teaching block, Braille signage and tactile tiles, all ramps and staircase to have handrails,
- ✚ Canteen to be shifted in a convenient location on ground floor.

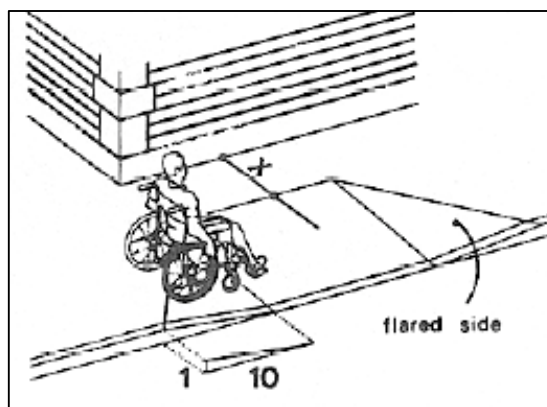
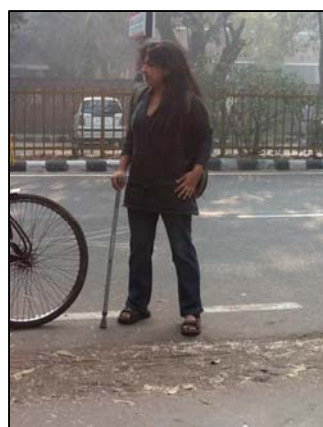
ACCESS AUDIT OF THE FOLLOWING AREAS WAS CONDUCTED

- | | |
|--|-----------------------------|
| 1. Approach & Main Gate | 10. Staff Room |
| 2. Parking | 11. Computer Lab |
| 3. Building Entrances | 12. Class Room |
| 4. Principal's Room | 13. Common Room |
| 5. Administrative Room/ Fees Counters | 14. Auditorium |
| 6. General circulation area- corridors | 15. Seminar Hall |
| 7. Signages | 16. Toilets |
| 8. Staircase | 17. Drinking water facility |
| 9. Ramp | 18. Canteen |
| | 19. Sports ground |

EXTERNAL

APPROACH CURBS

The pavement is full of barriers and inconsistency in placement of street furniture (trees and electric poles) cause problems for persons with disabilities using mobility aids (wheelchair/walker etc.) and persons with vision impairments.



Existing

Proposed

- ⚠️ Kerb ramps to be provided where the pavement is high.
- ⚠️ Pavement should be dropped, to be flush with roadway, at a gradient no greater than 1:10 on both sides of necessary and convenient crossing points. Width should not be less than 1200mm.
- ⚠️ If width (X) is less than 1200mm, then slope of the flared side shall not exceed 1:12.
- ⚠️ Warning strip (Annexure IV) to be provided on the kerb side edge of the slope, so that a person with vision impairment does not accidentally walk onto the road.

SIGN BOARD

There is no proper sign board on the compound wall; name of the college has been displayed which are inconspicuous.

- ✚ It is proposed to provide one sign board on the main gate and one with directional arrows at the turning of the main road.
- ✚ Should be mounted above 2100mm from the floor level.
- ✚ To be in bright colour contrast and bold/large lettering.
- ✚ Font Size 100 – 170 mm.



MAIN GATE

- ✚ 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 for persons using mobility aids.

- ✚ Periodic General maintenance of the road should be undertaken.



GENERAL PARKING

A designated parking lot was found for Student and Staff parking. No sign board was found to locate the parking lot.

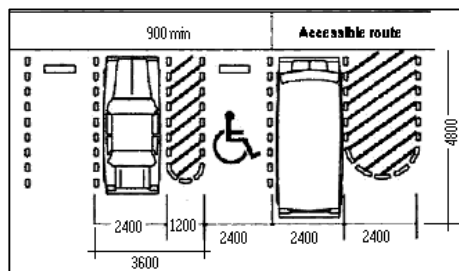
- ✚ Parking area to be clearly specified with directional signage.
- ✚ Gate to have leveled flooring.



RESERVED PARKING

For staff/students with mobility impairments driving their own vehicles (scooter/car) reserved parking should be provided (refer photo given above) in the area near the gate.

- ✚ Parking should be within 30 meters 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 sensitized and well informed about these reserved parking for Persons with Disabilities (PwDs).



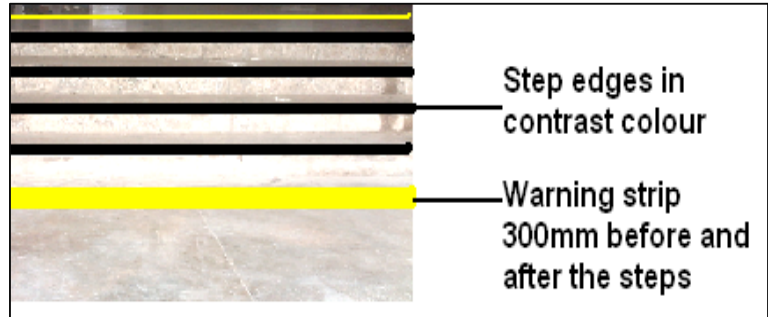
ENTRANCE TO THE MAIN BUILDING

There are four steps (170 + 270 + 270+270mm) marking the front entrance to the college building.

- ✚ Steps to have edges in contrast colour (Annexure II) and warning strip (Annexure IV) 300mm before and after the steps.
- ✚ Directional information signage to be displayed for ramp at side and back entrance.



Existing

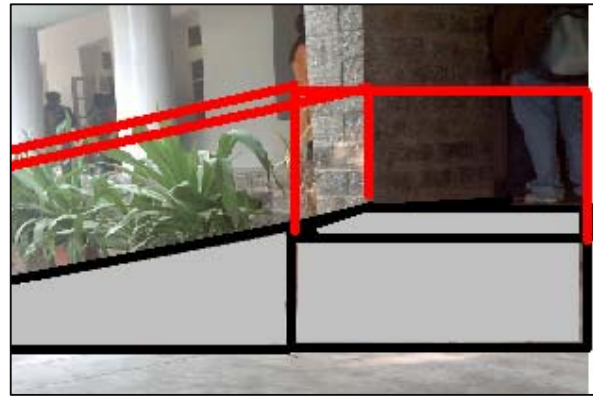


Proposed

- ✚ Ramp is proposed at the side entrance as per the proposed illustration.
- ✚ Warning strip (Annexure IV) should be provided 300mm before and after the ramp edges.
- ✚ Ramp standards and handrail specification are at Annexure I and III.



Existing



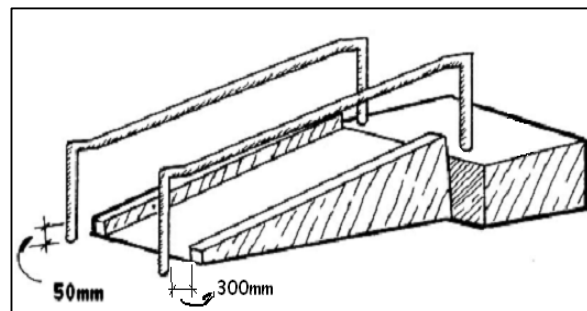
Proposed

Ramp for teaching block is from the back entrance in front of class room no.6

- ✚ Ramp landing to be increased (1500 x 1500mm min.) and gradient to be made more gentler (1:12).
- ✚ Refer Annexure I for ramp standards.



Existing



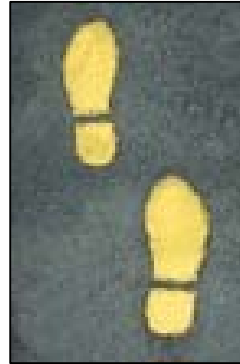
Proposed

INTERNAL

WAY FINDING SIGNAGES

Signage on the wall is provided at strategic locations regarding all the amenities/ lecture room etc.

- However, floor wise key plans are proposed next to steps on each floor.
- Floor signage may be provided that help identify facilities by persons with short stature, wheelchair users etc.
- Braille plates giving information of class rooms/labs etc. may be provided on the handrails of ramp and stairs.



Floor signage

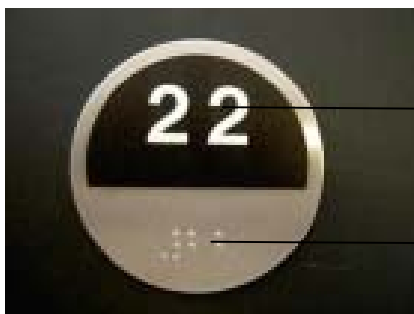


Braille Plate

Braille Plate

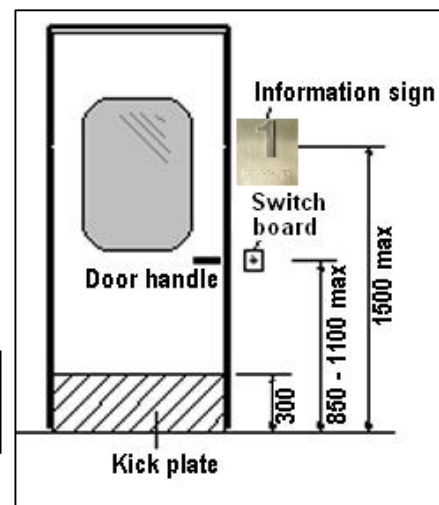
ROOM SIGNAGES

- Signs should be mounted between 1400mm and 1700mm from floor level on the wall (preferably on right side of all doors).
- The individual characters between 15mm-50mm tall and raised by 1-1.5mm.
- Signage, nameplates and numbers of the rooms** to be in Braille & raised alphabets at the eye level, on the wall, bold & color contrasted with their background.



Colour contrast
Raised room No.

Braille
locator



Proposed Braille signage on wall

PRINCIPAL'S ROOM

Door entrance has a coir foot mat.

- ✚ To have rubber mat to avoid trip hazard over thick coir mat.
- ✚ Room signage to be as mentioned on page 6.
- ✚ Door to be 900mm wide (refer Annexure V).
- ✚ A PVC strip 900mm wide to be placed from the door directing towards the seating arrangement on the floor. This orients persons with vision impairment in big rooms such as this.



ADMINISTRATIVE/ACCOUNTS ROOM

Signage is bad and glare produced due to glass makes it unreadable.

- ✚ Signage to be on the wall, at eye level and as per above mentioned standards.
- ✚ There is adequate circulation space inside the room.



FEES DEPOSIT COUNTER

- ✚ Is fairly accessible



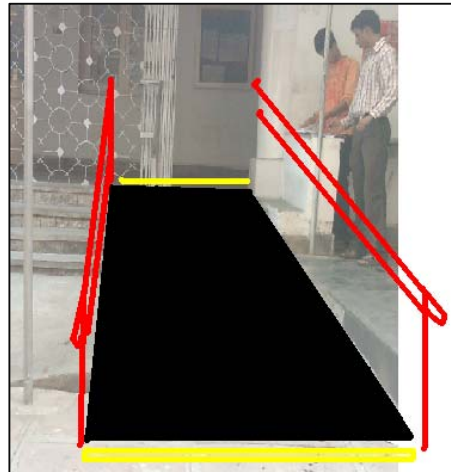
BANK EXTENSION

A steep ramp with narrow landing marks the Bank Extension counter.

- Ramp and handrails to be extended for smoother gradient and better support (refer Annexure I and III).



Existing



Proposed



Existing



Proposed

CORRIDORS & GENERAL CIRCULATION AREA

These are the main movement areas for visitors, students and staff.

All iron collapsible gate have raised threshold, which may cause trip hazard.

- Iron collapsible door threshold to have beveled edges as shown in the proposed illustration.



Existing



Proposed

FOOT MAT

Good orienting cue for persons with vision impairment and low vision.

- ✚ To be placed for entrance to all departments, room and toilet entrances.
- ✚ However, coir foot mats to be replaced by bright colour (red/yellow/orange) rubber mats, as it is difficult to move mobility aids on thick coir mats.
- ✚ In all new constructions foot mats to be embedded in a niche (refer photo on right).



Existing

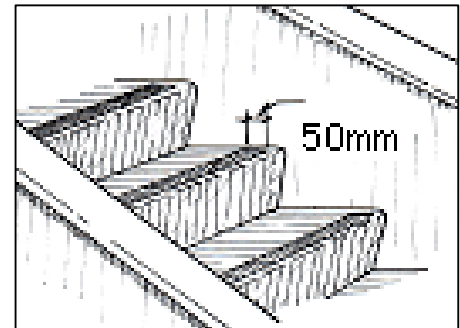


Proposed

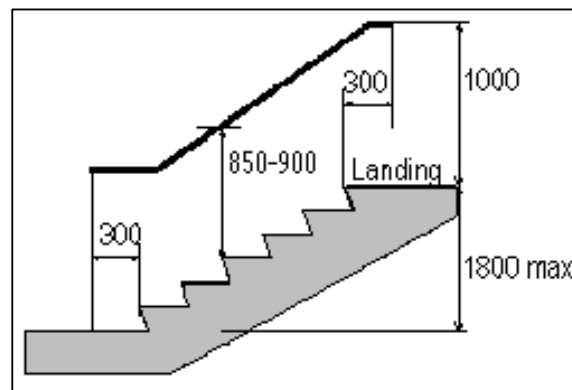
STEPS & STAIRS

Many staircases connect the ground floor with other floors. There is no extension of handrails for first step and at many staircase handrails are missing.

- ✚ **Step riser** is 170mm, to be reduced to 150mm in all new constructions.
- ✚ Handrails to be provided on wall side also to help persons with reduced mobility to take support while descending.
- ✚ **Stair edges** (50mm min.) should have bright contrasting colors, which helps persons with low vision to identify height and depth of each step.
- ✚ Refer Annexure II for steps and Annexure III for handrail standards.



Existing



Proposed



Existing



Proposed

COMPUTER LAB

Existing Key board is at the height of 600mm.

- ✚ To be at height of 700mm to allow wheelchair user to access it.
- ✚ Computers with Screen Reading Software/ Jaws software and scanners to be provided for students/teachers with vision impairment.

CLASS ROOM (Room no. 5)

- ✚ Signage to be as mentioned on page 5.
- ✚ It is proposed to provide clear aisle space of 900mm for easy entry and exit of mobility aid users in between the rows.



LIGHTING

Illumination level is less.

- ✚ At least six tube lights to be provided in all class rooms.
- ✚ Light should also be placed above the teacher seat to provide uniform illumination on black board for low vision student as well as focused illumination on teacher for lip reading by the student with hearing impairment.

COMMITTEE ROOM

- ✚ Signage to be as mentioned on page 5.
- ✚ Door entrance to have bevel edge to merge the level difference.

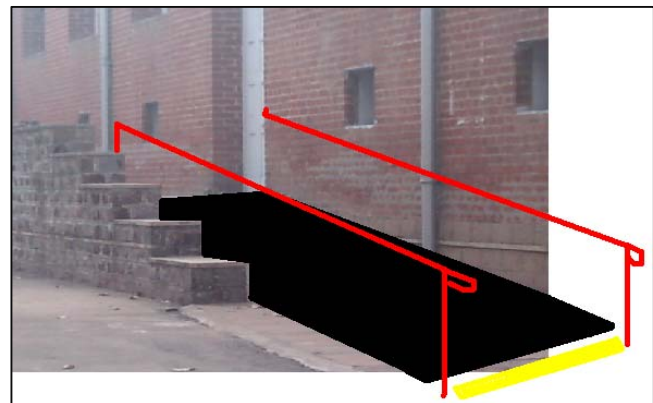


AUDITORIUM

Ramp at the entrance is steep and with out handrails. Total height is 730mm and 8meter long ramp (gradient 1:12) should be provided.



Existing side entrance



Proposed ramp with handrails

STAGE

- ✚ 8 steps from the back entrance to stage, should have ramp as per Annexure I and III.

Entrance for stage



Front entrance to the Audi to have handrails (Annexure III) on the steps and step edges in contrast colour (Annexure II).

Existing

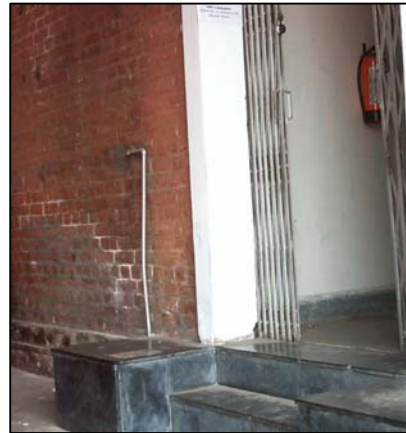


SEMINAR HALL

Seminar room is near the canteen.

Seminar room has three steps from its front entrance and two steps and a threshold from its side entrance.

- ✚ Ramp should be provided preferably from the front entrance.
- ✚ Side entrance iron channel gate threshold to be embedded in the ground.



LIBRARY

- ✚ Signage to be on the wall as mentioned on page 5.
- ✚ Uniform illumination on the reading tables should be provided.

Book issue counter is at 1050mm

- ✚ A lowered counter at 800mm height should be provided.
- ✚ Books in Braille and Screen Reading Software to be provided for persons with vision impairment.

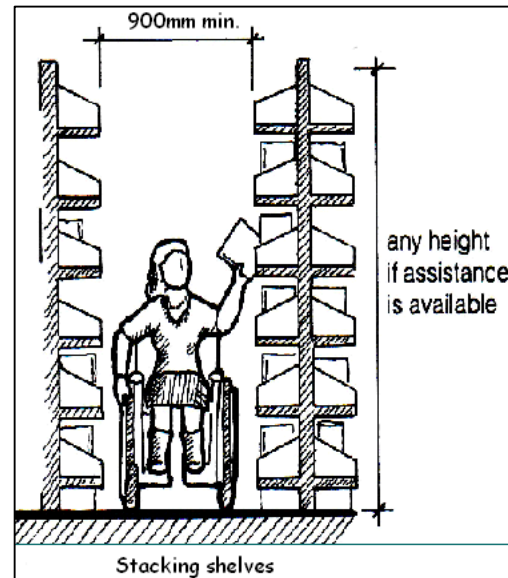


Aisle space between stacks is only 680mm.

- ✚ Aisle space (900mm min.) between stacking shelves/almirahs to be maintained for students using mobility aids.
- ✚ Stacking are lighting to be increased.



Existing



Proposed

TOILETS IN FACULTY ROOM

- ✚ Signage for the general toilets to be provided on the wall as mentioned in Annexure VI.



There is adequate space for providing one accessible toilet cubicle in the Staff toilet.

- ✚ Accessible toilet to be provided as per Annexure VI.



GENERAL TOILETS

- ✚ Signage for the general toilets to be provided on the wall as mentioned in Annexure VI.
- ✚ Anti skid/matte finish flooring is recommended In the toilets.



Existing Accessible Toilet

Toilet size is 1700mm x 2000mm which is fairly accessible.

- ✚ Toilet signage to be as mentioned in the illustration.
- ✚ Toilet grab bars to be modified as per the Annexure VI.



Existing



Signage for accessible toilet



Existing



Proposed

CANTEEN

Is on the first floor marked by a flight of steep stairs.

Steps rises are unequal and there are no handrails.

- ✚ Handrails to be provided from the first step on both the sides as per Annexure III.
- ✚ Step edges to have contrast colour strip and warning tiles should be provided as per Annexure IV.
- ✚ It is strongly proposed to shift the canteen on ground floor to allow “everyone” including students with mobility impairments to access it.



- ✚ Menu and rate list with pictograms and bigger fonts to be provided as per the photo on the right.

Items	Rates	Items	Rates
TEA	2.50	MASALA DOSA	15.00
COFFEE	5.00	SAMBER VADA	10.00
PEPSI	10.00	IDLI	10.00
PATTY	6.00	KACHORI	7.00
BURGER	5.00	CHOWMIEN HALF	10.00
BREAD ROLE	5.00	CHOWMIEN FULL	20.00
CHEESE BREAD	6.00	PAV-BAJI	15.00
SAMOSA	3.00	AALOO TIKKI	10.00
RICE-RAJMA	12.00	BHALLE PAPRI	12.00
HOT DOG	10.00	PASTRY	5 to 10
CHOLE BHATURE	12.00	ICE-CREAM	5 to 20

TODAY'S SPECIAL

WAY TO GIRLS COMMON ROOM

- ✚ Uneveled manhole covers on the way to GCR and canteen to be maintained to prevent accidental hazards.



GIRLS COMMON ROOM

A temporary wooden ramp with extremely steep slope (1:2) marks the GCR.

- ✚ Ramp to be urgently modified as per Annexure I.



DRINKING WATER

Drinking water near class room (height of the tap is 820mm) and one near library (tap height is 1300mm) has a step.



Near class room



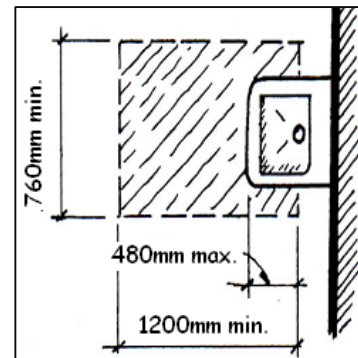
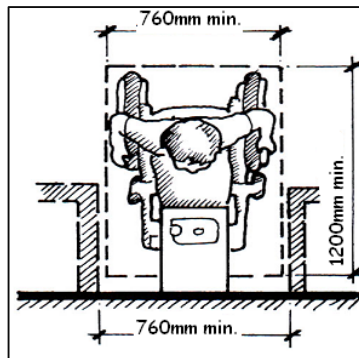
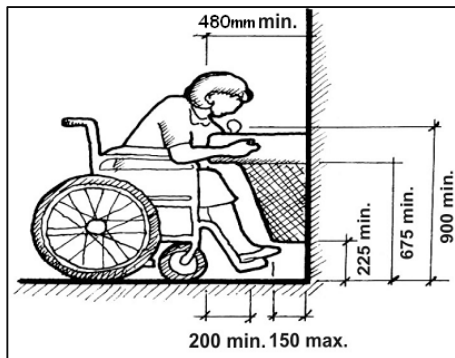
Near library

High taps and inadequate water drainage system makes it inconvenient to access drinking water for the general students also.

Recommendations:

At least one tap in each unit to be modified as per the standards given below:

- Tap to be lowered down so that all operable parts are between 900mm-1000mm height.
- Leg and knee space to be provided (as shown in the diagrams) with basin to avoid spillage of water.
- This allows both front and parallel access to taps for students using mobility aids like wheel chair, crutches etc.
- Glazed ceramic tiles should be replaced by anti-skid/matt finish tiles benefitting everyone.



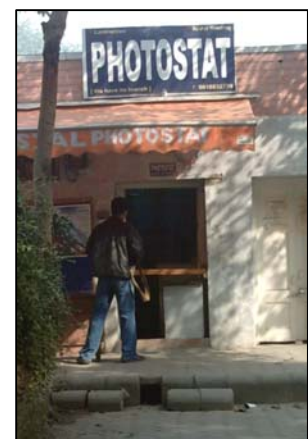
PHOTOSTAT SHOP

Photostat shop is placed outside the college building near the parking area.

- Ramp to be provided as per Annexure I.

PROPOSED SITE FOR LIFT/RAMP

- Lift is proposed to connect the other floors of the teaching block.



EMERGENCY EVACUATION

There is no Exit signage or fire hydrant observed in the building.

- ✚ **Emergency exits** should be clearly marked with proper signage and should be clear of all obstructions.
- ✚ **Emergency alarm** both audio (hooter type) and visual (flashing bulb) to be provided on each floor/level at strategic locations.
- ✚ **Employees/staff and security guards**, need to be drilled for the same at periodic intervals.
- ✚ An **access sensitization/ awareness training** to be given to security guards and staff handling/transferring students with disabilities to refuge area during emergency.



GENERAL REMARKS

✚ **Lighting**- Adequate and well distributed lighting should be installed. Glare from excessively bright lights should be avoided. Staircases & corridors should have adequate lighting.

✚ **Induction loop system** in classrooms/Lecture rooms and Seminar Halls etc.

People with hearing impairments find it difficult to grasp mass audio activity. In an enclosed venue, it is possible to enclose a small area with a loop-induction system so that people with hearing impairments within it can hear voices and sounds without ambient noise. A loop-induction system comprises of a microphone, an amplifier and a loop (a conducting wire encircling the enclosure). The sound of music or the voices of actors are converted into electromagnetic signals. The signals are carried to the loop. A pickup coil fitted in a hearing aid picks up the electromagnetic signals and the receiver in the ear converts this into comprehensible speech or music. Since the hearing aid does not pick up actual sound signals, it receives no ambient noise, ensuring good quality of sound.

LIST OF NGOS/COMPANIES FOR ACCESSORIES

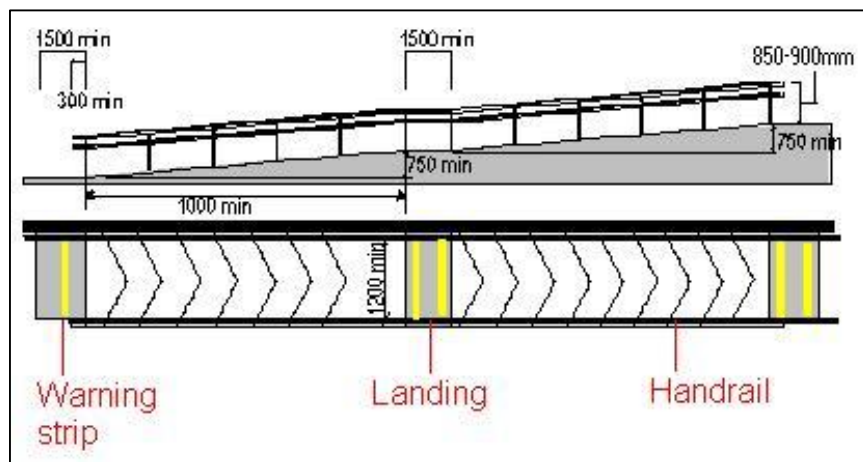
- **For Braille plates/signage/tactile maps**
National Federation of the Blind (NFB), Office Ph: 23562277, 23562546
Mr. R. K. Pandey, (M) 9873346121, Bahadurgarh (Factory) 95127-6235849
- **Handrails/Grab bars**
Access Plus (M) 9810558321, 9910359591
- **Guiding/warning tactile tiles**
Mr. Ashok K. Luthra (M) 9810545699, Pelican Ceramic Industries Pvt.Ltd.,410, Suneja Tower-1, District Centre, Janakpuri, New Delhi-58 Tel No. 25552097, 32482791, 32982791
- **Loop Induction System**
Mr. V.P. Sah, AYJ National Institute for the Hearing Handicapped, Kasturba Niketan, Lajpat Nagar-II, New Delhi-110024 (O) 011-29815093, (R) 95120-2611784

REPORT PREPARED BY

Access Resource Group, SAMARTHYAM
Contact person: Ms. Anjlee Agarwal
(M) 9810558321
Email: samarthyaindia@yahoo.com

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

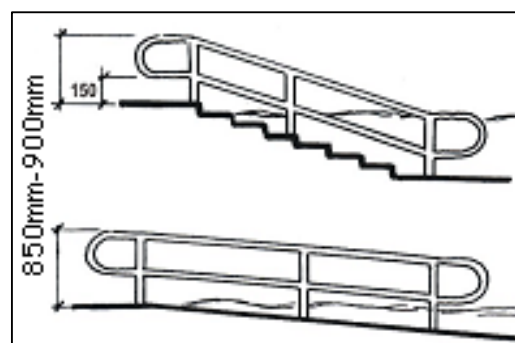
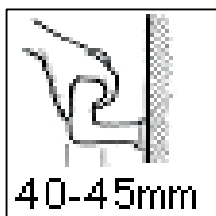
STEPS & STAIRS

- ✚ 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.).

Annexure III

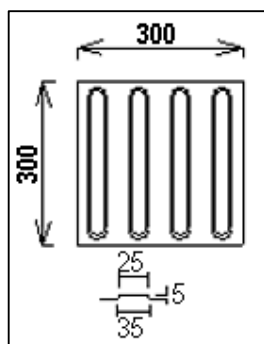
HANDRAILS

- ✚ 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).

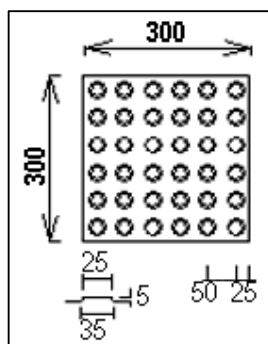


Tactile Surfaces: Guiding strip & Warning blocks

- 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

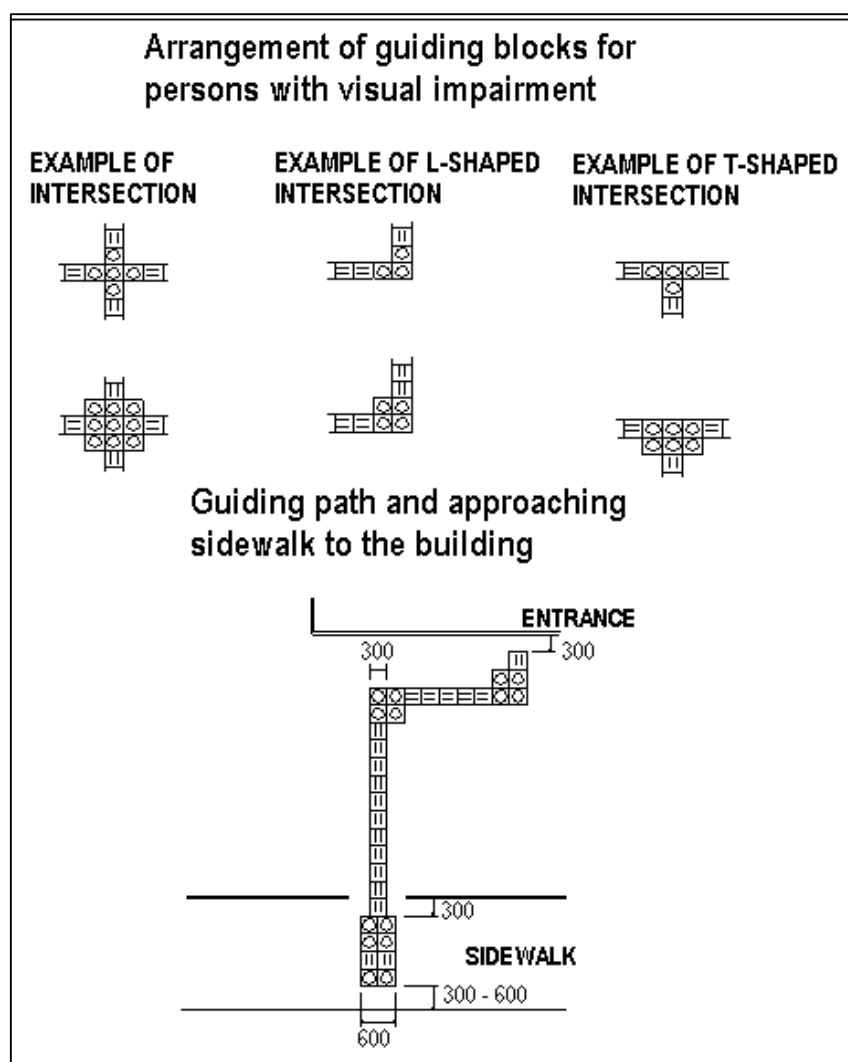


Warning strip



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.



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.

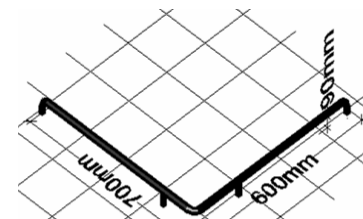
Annexure VI**ACCESSIBLE TOILET**

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.).

WATER CLOSET (WC)

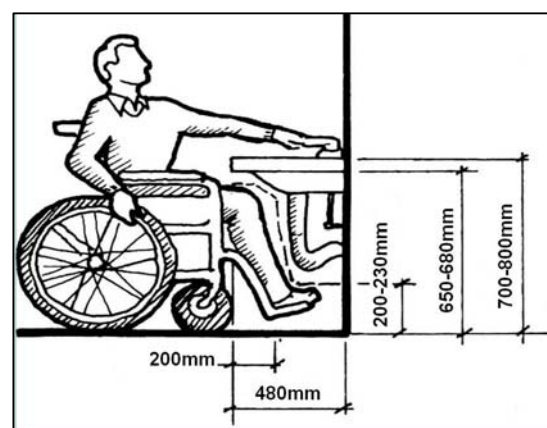
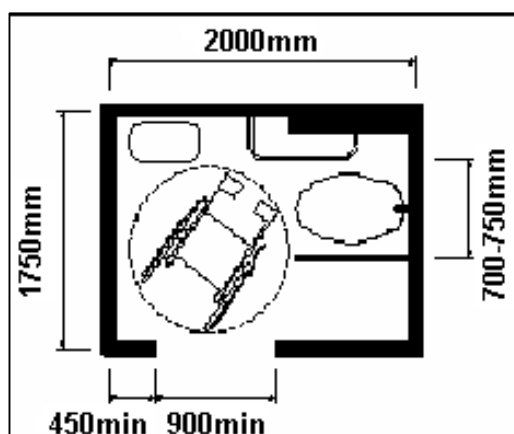
- ✚ Have clear space of not less than 900mm wide next to the water closet.
- ✚ Be located between 460mm to 480mm from the centerline of the WC to the adjacent wall and have a clear dimension of 800mm from the edge of the WC to the rear wall to facilitate side transfer.

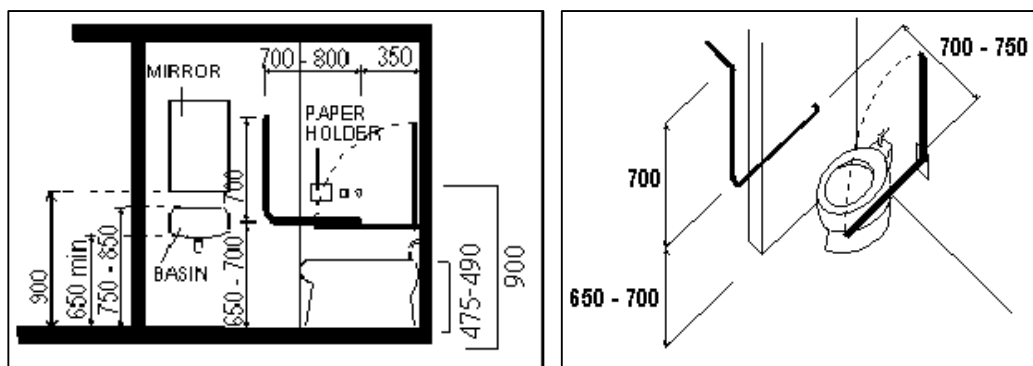
**L-shape grab bar**

- ✚ 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.

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.

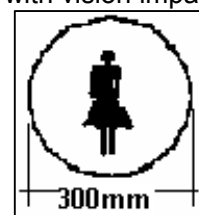
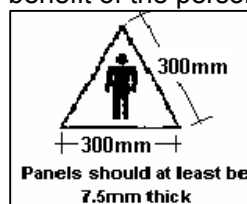
PLANS OF ACCESSIBLE TOILET



Annexure VII

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.

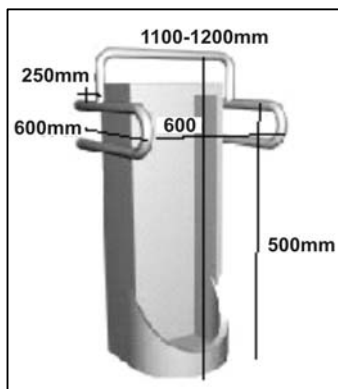
- ✚ For students/employees with low vision and vision impairments, following are proposed:
- ✚ Warning strip/ door mat 300mm before the toilet entrance.
- ✚ Braille signage should be displayed on the right side of every toilet by indicating embossed letters with ladies and gents pictogram.
- ✚ All signage to be in raised alphabets at the eye level, on the wall and in bold and contrasting colors.



Annexure VIII

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.



Accessible Urinal



Urinal with grab bar, Dilli Haat

-
- Technical drawing of a window frame showing dimensions and mounting points. The drawing includes the following dimensions and labels:
- Top left mounting bracket: 42 / 106.5
 - Top right mounting bracket: 42.5 / 106.5
 - Bottom left mounting bracket: 5 / 125 / 29 / 73.5
 - Bottom right mounting bracket: 60 / 132.5
 - Bottom right mounting bracket: 72 min / 183.5
 - Bottom right mounting bracket: 35

