

ACCESS AUDIT REPORT

Of



KIRORI MAL COLLEGE

By

Sanjeevani Creations
A-130, Surajmal Vihar,
Delhi.

email: sanjeevanicreations@gmail.com



INTRODUCTION

INTRODUCTION

The Persons with Disabilities (Equal Opportunities, Protection of Rights & Full Participation) Act 1995 is a milestone as far as rights of the persons with disabilities (PWD's) in India is concerned. Its chapter on "Non Discrimination", Section 44 to 46, calls for accessibility in both the built environment (Internal/ External) and transportation. The office of Chief Commissioner for Persons with Disabilities (O/o CCPD) has been working tirelessly to achieve the gigantic task of "Access for All". Article 9 of The UN Convention for Rights of Persons with Disabilities (UNCPRD) also stresses on the "Accessibility" and "Universal Design". India is a signatory and ratified UNCPRD.

With a view to ascertain the details of accessible features in the existing facilities and to suggest improvements, an access audit of Kirori Mal College at North campus, Delhi University was done. It is important to mention that Access Audit is not a fault finding exercise. Its objective is to contribute to the creation of a better universally accessible infrastructure by assessing the accessibility of the facilities and suggest improvements, if necessary. The Access Audit of Kirori Mal College was conducted to confirm that the guidelines on accessibility have been followed in construction/up gradation of the place and to include any point that may have been missed out. At this stage, it also intended to include, any point which is unknowingly or inadvertently missed out.

The report recommendations only include what is achievable and does not contain standards as it has been adhered in making of the venue. We once again appreciate the determined efforts of Administration of Kirori Mal College (Specially the College Principal, Dr. Khattar) & CPWD to make the said premises accessible to all. We wish them all success and support.

Sudhir Bansal

Director

Sanjeevani Creations

A-130, Surajmal Vihar,

Delhi-110092

9810100857,9212054663,01165809940

sanjeevanicreations@gmail.com

About Sanjeevani creations

Sanjeevani Creations is an organization comprising persons with diverse disabilities, professionals i.e. Architects, Engineers & Others having expertise in Universal Design & access for all.

Its members devoting their time professionally, voluntarily or honorary services are trained by UNESCAP & training program of the **Handicap International India, Delhi.**

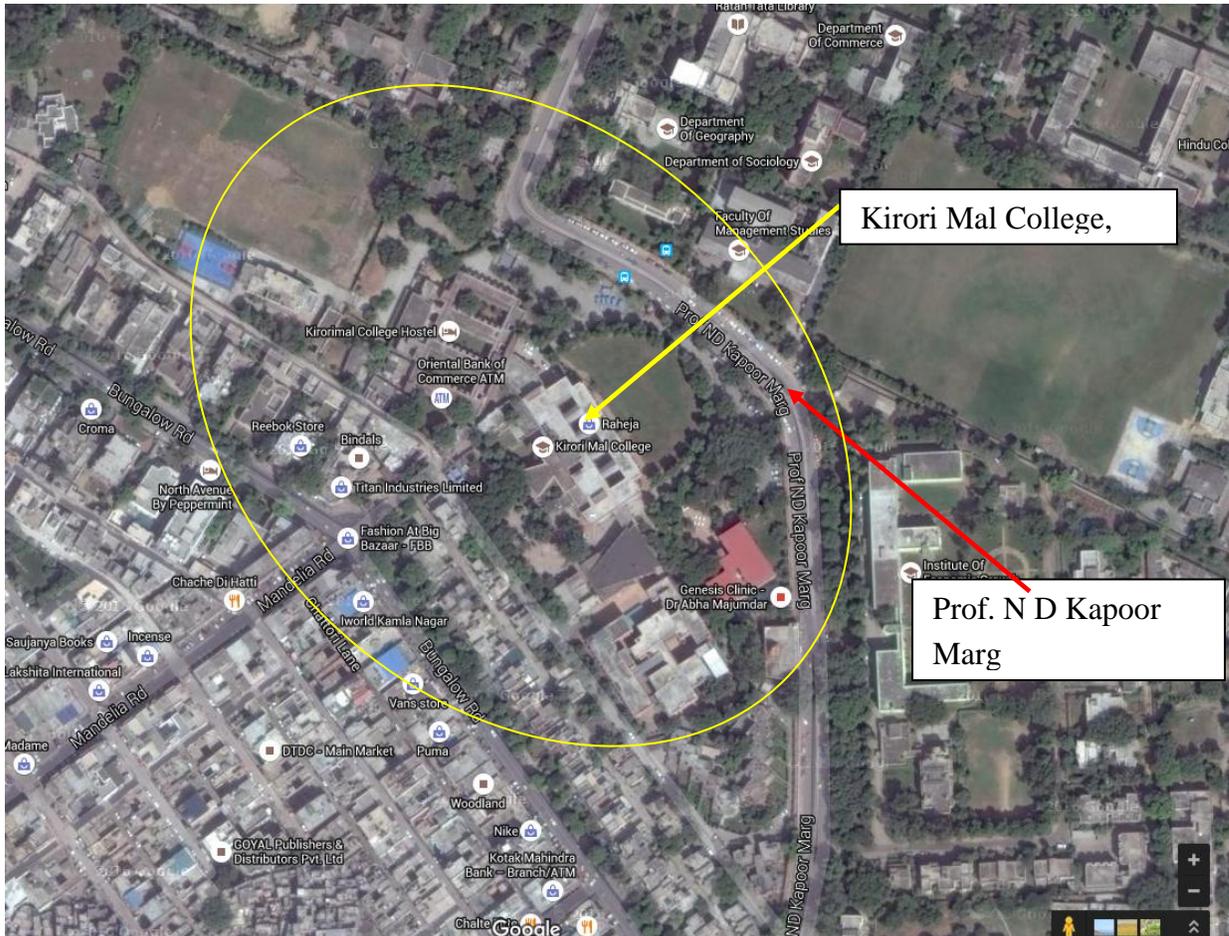
1. Put together the resource team has the experience of access audits & executions
2. The resource faculty also conducts sensitization programs & training of trainers courses on “**Universal design**” & “**Accessibility for all**” for professionals & Organizations.

The team covered the following points

- Full inspection of the campus
- A written report
- Recommended action
- Layouts, drawings and pictures explaining barriers

1 APPROACH

The Campus is located on Prof. N D Kapoor Marg, at North campus of Delhi University & is well connected with the nearby Bus stop.

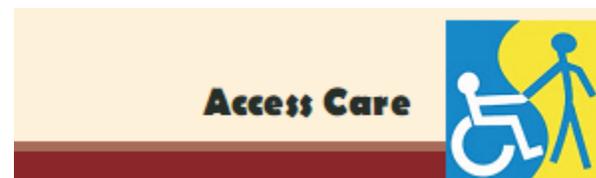


Roads & pathways/walkways

Observations

1. There is one main entrance of the campus has two M.S. gates along with 4'-0" wide pedestrian entry.

Access Audit-Kirori Mal College





Entrance No. 1



Pathways

Loosely placed flower pots may hinder the movement persons with visual impairment



Broken Water Chambers may be dangerous for persons with partial or full visual impairment.

Pathways

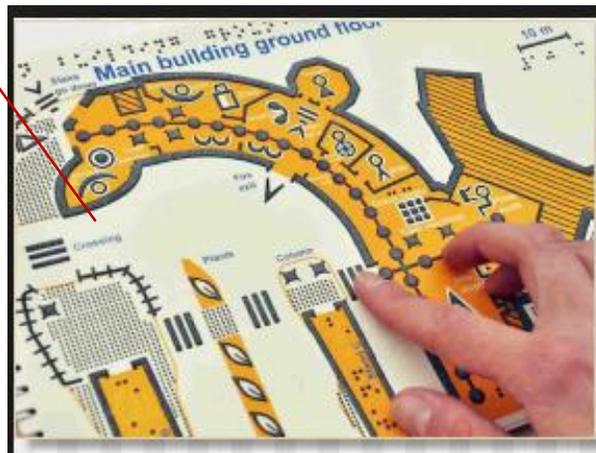
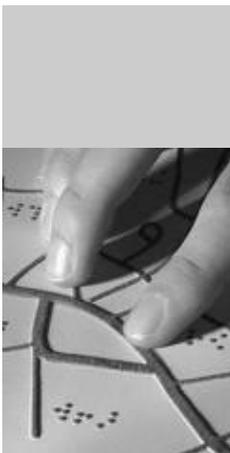
2. The entrance is through the road which merges smoothly with the inner road.
3. The Signage is provided above the gates, with good colour contrast, font & size, The location of signage is good & helps to identify the location of the entrance
4. For the Entrance of Vehicles as well as pedestrians there is swing type metal gate, with a guard who manually operates the gate. The path material used at the entrance is not in good condition.
5. There are few hindrances on the roads i.e. broken manhole covers. & flower pots loosely put on both side of the road.
6. No, Way finding signage, have been observed on the entrance & internal roads/

paths.

Suggestions

- ✓ On the right side of the main entrance it is proposed to install a **Braille Tactile map** to orient students with vision impairment.

Tactile Map



- ✓ Signage for the pedestrians including **access symbol** to be provided at these gates



- ✓ Signboards to be provided at strategic location
- ✓ All signage to be mounted 2000mm from the footpath level
- ✓ The individual characters to be bold and the color should be in contrast to the background.
- ✓ For orientation and to avoid the above mentioned problem; it is suggested to provide Tactile preferably in colour contrast on the pathways, starting from entry to many different buildings.
- ✓ It is further proposed to provide dia. 50 mm & 0.3 m. high tap rail on either side of the pathways keeping flower pots behind.

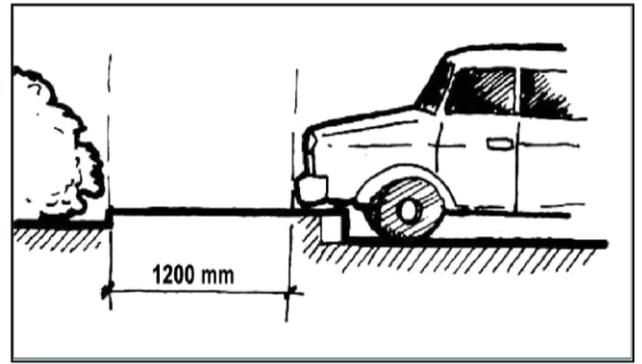
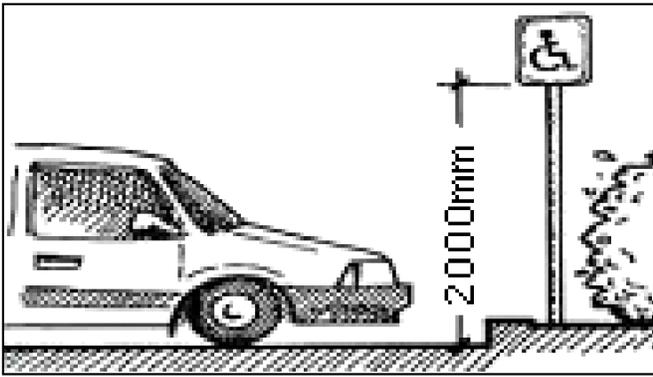
1.3 PARKING

- ✓ There is parking space for scooters and cars.
- ✓ Reserved parking for PwDs is proposed near administrative building as shown below after making the necessary alteration in the front curbstone to merge the parking space with pedestrian path/ Road.
- ✓ Two accessible parking lots with overall minimum dimension 3600mm x 4800mm, should be provided.



Proposed parking space

Proposed spaces for reserved parking



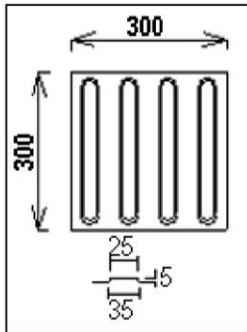
- ✓ Parking should be within 30meters of the main entrance of the building.
- ✓ It should have the international signage painted on the ground with contrasting colour and also on a signpost\ board put near it.
- ✓ There needs to be directional signs guiding students to the accessible parking. All security guards/staff should be sensitized and well informed about these reserved parking for PwD



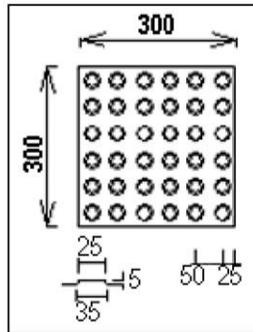
1.5 Tactile Surfaces / Guiding strip & Warning blocks

- ✓ **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.** Line-type blocks indicate the correct route to follow.



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.Sidewalk section of an approach road to a building.

2 ENTRIES TO THE BUILDINGS (Ramps & Steps)



Observations & Suggestions.

1. The ramps with good slopes were found at many entries i.e. Seminar room, library building, academic block. But at the entry of administrative building has a wooden ramp with inappropriate slope.



Entry to Administrative building

Access Audit-Kirori Mal College

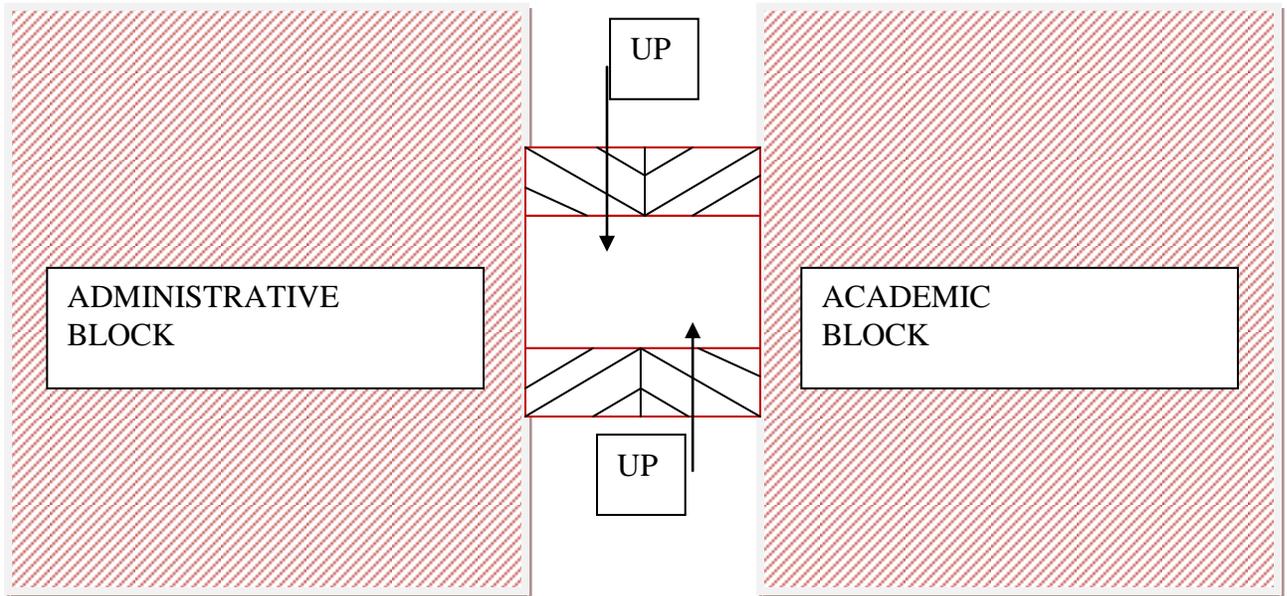


Entry to Seminar Room

Access Care



2. It is proposed to provide 3.0 m wide table top with 1:12 slopes on both the sides, as shown below.



PROPOSED TABLE TOP FOR EASY ACCESSIBILITY.



Entry to the Library Building
(Appropriate slopes & handrails)

Access Audit-Kirori Mal College



Entry to the Academic building.
(Appropriate slopes & handrails)

- It is proposed to provide Braille slickers on the handrails of, library, facilitation counter, academic building, at the beginning on both the sides (describing about the destination information & UP or DOWN movement) of the ramps.

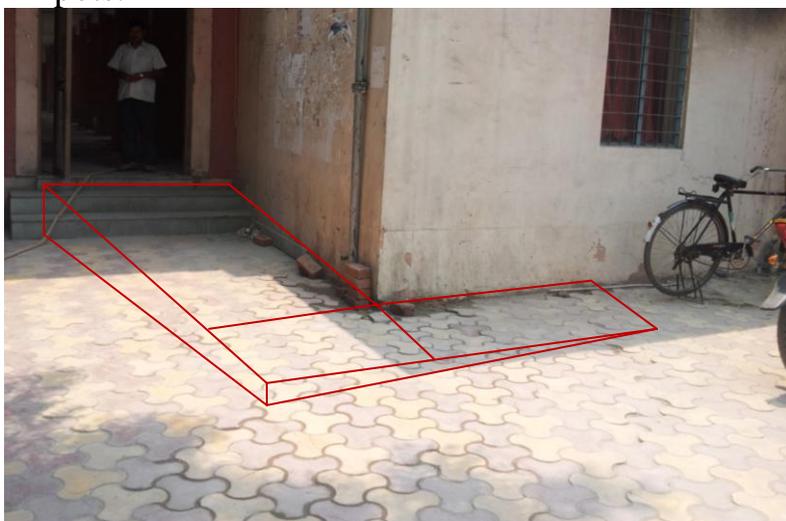


Entry for the fee counter etc.



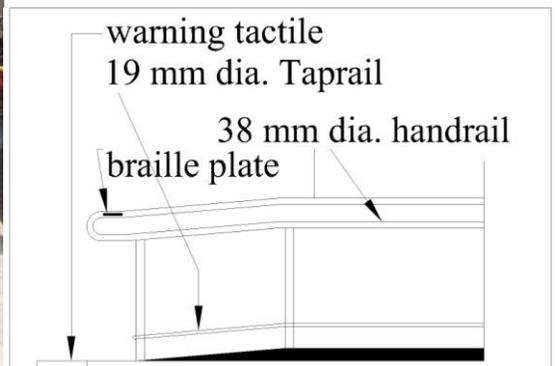
No ramp for the accessibility to Prayas

- No ramp has been observed at the entry to Prayas , Computer centre in the administrative block. It is thus proposed to provide 1.2 m. wide plinth at the existing level of corridor, connecting to the prayas and next room after removing the flower pots.



Proposed Ramp at the entry of Hostel Block.

Access Audit-Kirori Mal College



5. At the entry of the Hostel Block no ramp has been observed which may obstruct the entry of wheelchair to the hostel block. It is proposed to provide 1.2 m. wide Ramp of slope 1:12 with non slippery material along with the tactile arrangement at starting & ending of ramp. It is also proposed to provide 40 mm dia. handrail @ 0.9 m. along with Braille inscription on handrail at starting and end.

STAIRCASE



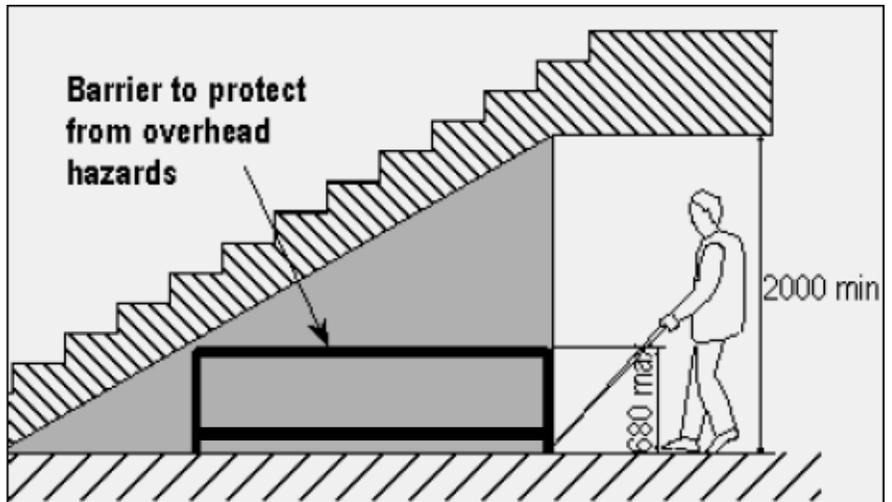
Observations

1. Straight flight staircase with landing in between has been provided for the vertical connection.
2. Handrail has been found at one side of the staircase.
3. The open soffit of the staircase could be dangerous for person with visual impairment as the white can only detect the obstruction up to 2'-0" height.

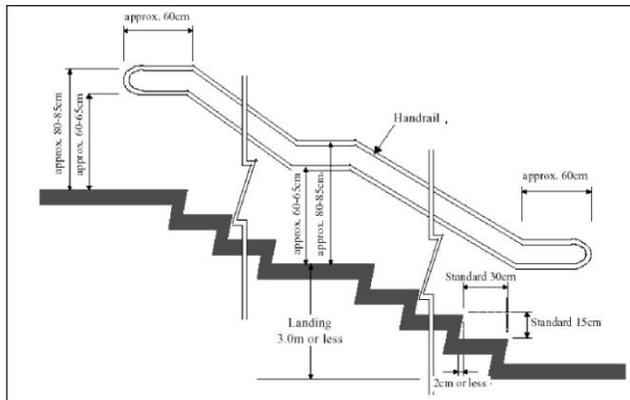


Suggestions.

- ✓ Handrail should be provided at other side of the staircase on the wall.



- ✓ Warning strip and edges of the steps, to be as shown in the photograph.
- ✓ Color contrast in the steps and flooring can be provided for persons with low vision.
- ✓ Braille Plates should be fixed at starting & ending of handrails describing about the no. of steps, landings, destination i.e. going to first floor, etc.
- ✓ The refuge area below the staircase Should be closed upto 2.1 m by providing M.S. railing system to save from overhead injuries.



Detail of Hand rail

- ✓ It is proposed to provide signage of staircase along with the floor number i.e. Ground Floor, First Floor, Etc. along with the Braille inscription on the hand rail providing the same information.
- ✓ It is proposed to provide the tactile map of that particular floor near the staircase along with Braille inscription, which could be helpful for the students with vision impairment to orient themselves.

LIFT

1. It has been observed that, for the vertical movement of the students with disabilities, the lift shafts are being constructed at appropriate locations i.e. library block, Administrative block, academic block.etc.

Suggestions

1. It is proposed to provide the calling button @ between 0.9 m. to 1.2 m. from finished

floor along with Braille inscription.

2. The audio announcement is proposed on the floor announcing the arrival & departure of the lift, along with the digital visual signage @ 1.2 m. & above the door lintel of the lift.
3. The width of the lift door should be 0.9 m.
4. A kick plate, 0.3 m. wide should be provided at the opening of door at bottom.
5. It is proposed to provide the audio announcement system inside the lift car along with the digital visual signage which may be helpful for the student with vision impairment as well as student with hearing impairment.
6. It is proposed that the control panel buttons inside the lift car should be placed at @ between 0.9 m & 1.2 m. along with the Braille inscription.
7. It is proposed to provide 40 mm dia. Handrail on the three side of the lift cars @ 0.9 m. high from the finished floor level.
8. It is proposed to provide tactile map of that particular floor with Braille near the lift entrance.

CORRIDORS



Observations & suggestions.

1. The corridors in all the buildings were found wide enough.
2. At few places it has been observed that there is a level difference of more than 0.3 m. between the corridor and nearest ground level, this could be dangerous for students with vision impairment. It is suggested to provide continuous tap rail @ 0.3 m. on both sides of the corridors leaving the door openings.
3. It is further proposed to provide numbering to the each room.
4. It is proposed to provide floor signage describing about the destinations.



Narrow Aisle at stack room of library

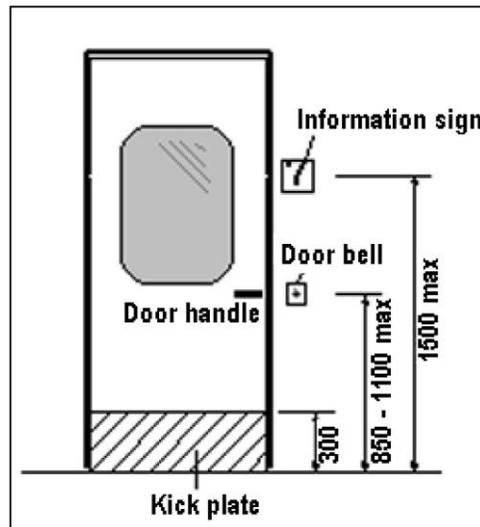
5. The narrow aisles have been observed inside the stack room of the library which could obstruct the movement of a student with a wheelchair, it is, therefore, proposed to keep the gap of 1.5 m. between the two racks of the books.
6. It is proposed to provide colour contrast between the floors & walls by putting the contrasting colour or band on the floor on both sides of the corridor.

SIGNAGES

Signage outside the rooms are mounted too high & on the door shutters & not clearly visible.

Suggestions

- ✓ **Signs** side of all doors) should be mounted between 900mm and 1500mm from floor level (preferably on right)
- ✓ The individual characters between 15mm-50mm tall and raise 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.



DOORWAYS

Observations & Suggestions.

1. It has been observed that the colour of door frames along with the shutters are not contrasting colour with the adjacent wall. It is therefore proposed to either paint the door shutter in contrasting colour or to provide contrasting colour strip sticker or paint of 0.15m wide @ 1.2 m from floor level.
2. It has been observed that the door handles are not of level type. It is proposed to provide



all the door handles with lever type.

3. It is proposed to provide tactile map of the room arrangement inside i.e furniture layout, black board location, mid aisles, etc., along with Braille information, at outside the room near the door entry @ 1.2 m. high.



Level difference at hostel block, between rooms and corridors



Hindrance by collapsible gates

THRESHOLD AT ENTRANCES

A Level differences were noticed at the junction of rooms and connecting corridor

1. All level difference should be smoothly merged by providing the beveled edge or suitable slopes, for an easy use.



Hindrance by iron mats

2. It is proposed to place the collapsible gate in such a manner that the bottom rail may be merged with the floor level, by providing the groove in the floor.

FOOT MAT

- ✓ All foot mats to be embedded in the ground in a niche.
- ✓ Rubber foot mats can replace the coir mats.

CLASSROOMS, LABORATORIES, LECTURE THARTRES, HOSTEL ROOMS, PRINCIPAL ROOMS ETC.

Observation & Suggestions.



Furniture arrangement at library reading room



Computer room



Lecture Theatre

Access Audit-Kirori Mal College

1. The furniture in all the rooms are provided with adequate height & leg space along with the loose chairs, which are helpful for student using the wheel chair, to use.
2. The colour contrast of the furniture with the floor is not very good. It is proposed to provide colour contrast between two of them by providing contrasting strips or paints.
3. It is proposed to provide Braille information stickers on the bench table and chair, providing the information about particular numbering of the furniture or its location.



4. It is proposed to provide contrasting colour strip around the black boards.
5. It is proposed to provide audio announcement system and visual display screen near to the existing black boards, translating the display or lecture, which could be helpful for students with vision impairment and hearing impairments.
6. It is proposed to provide furniture in such a manner in which easy arrangements could be done for students with wheelchair to sit or accommodate.
7. Low lighting level has been observed at few places. It is therefore suggested to provide adequate lighting level.
8. In laboratories it has been observed that the working counters are not provided with leg space. It is suggested to provide adequate leg space at few counters by removing the wooden cupboards & skirting etc. below the working counters.
9. In the canteen, bad colour contrast has been observed along with the signages.

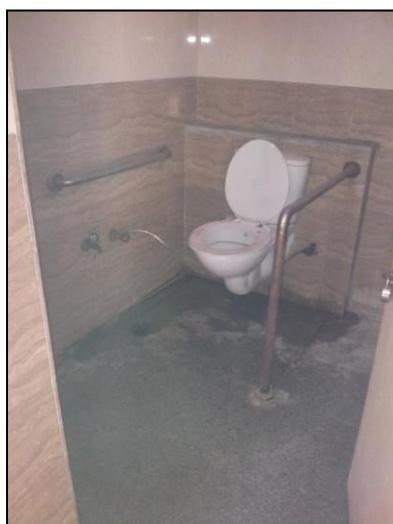
10. It is proposed to make provisions in at least one hostel room on the ground floor so that it could be accessible & disabled friendly.
11. The room sizes of the hostel are bigger & spacious and allow smooth movement of wheelchair.
12. The table provided with good leg spaces so that it can be utilized while using the wheelchair.
13. It is proposed to provide the bed of the height of 480mm it allows the easy transfer from wheelchair to bed.
14. It is proposed to provide pull out grab bar on the back of the wall @ 700 mm from finished floor level on either side of the bed.
15. It is proposed to provide the contrasting colour in all the furniture with respect to the wall & floor.
16. It is proposed to provide the colour bands in contrast on the main entrance door, Balcony door & toilet door.

TOILETS



General Toilet

Access Audit-Kirori Mal College



Toilet for disabled



Signage at higher place.

Access Care



Observations & Suggestions:-

1. A disabled friendly toilet has been observed on ground floor at academic block.
2. Grabs bars at appropriate height on side wall has been observed.
3. Fixed Grab bar at other side of the WC has been observed, which is the hindrance for person with wheelchair to shift on the WC from the front side.
4. The signage provided outside the toilet is at very high location.
5. In all other toilets other than disabled friendly toilet few components are missed.

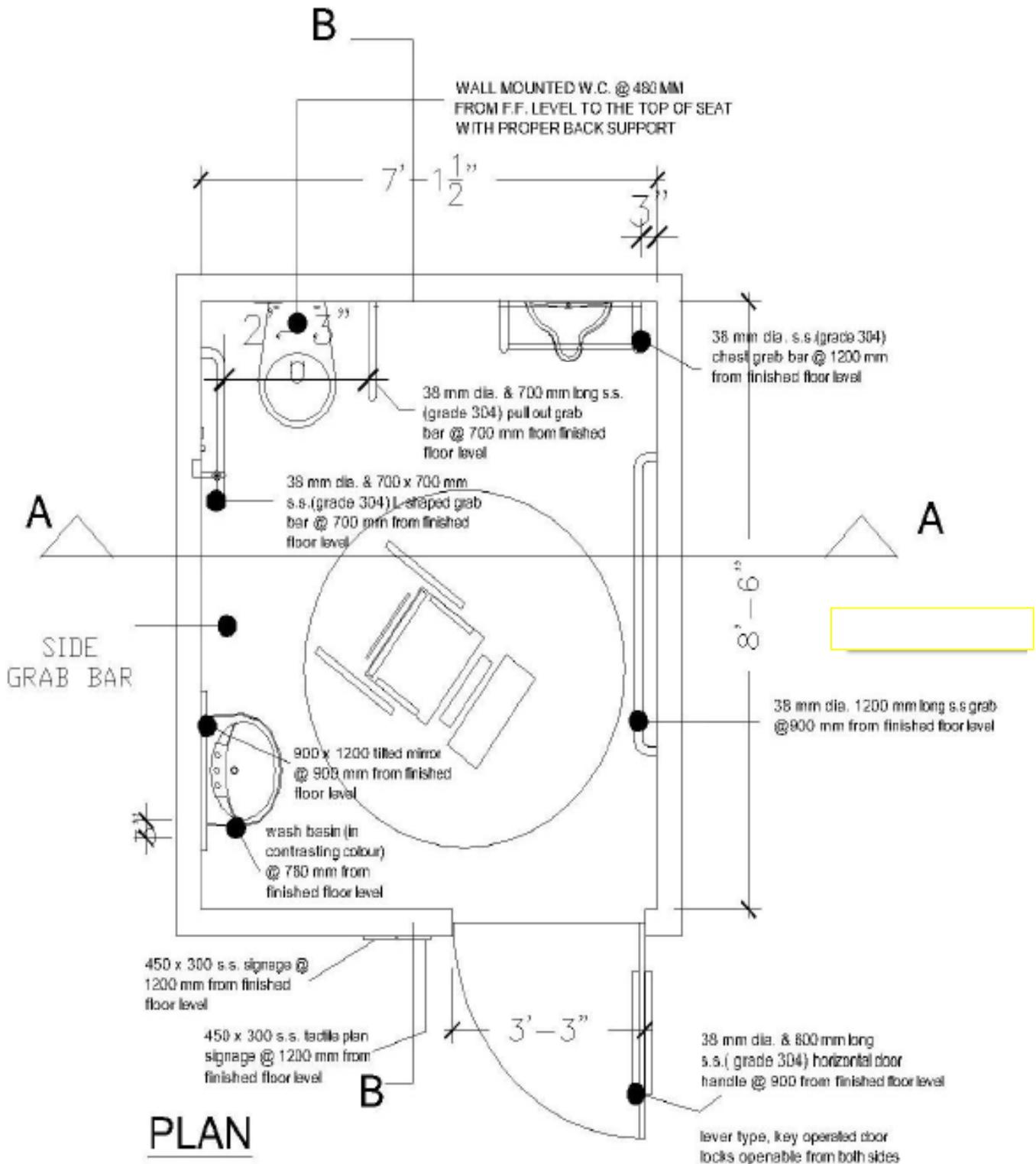
TOILETS

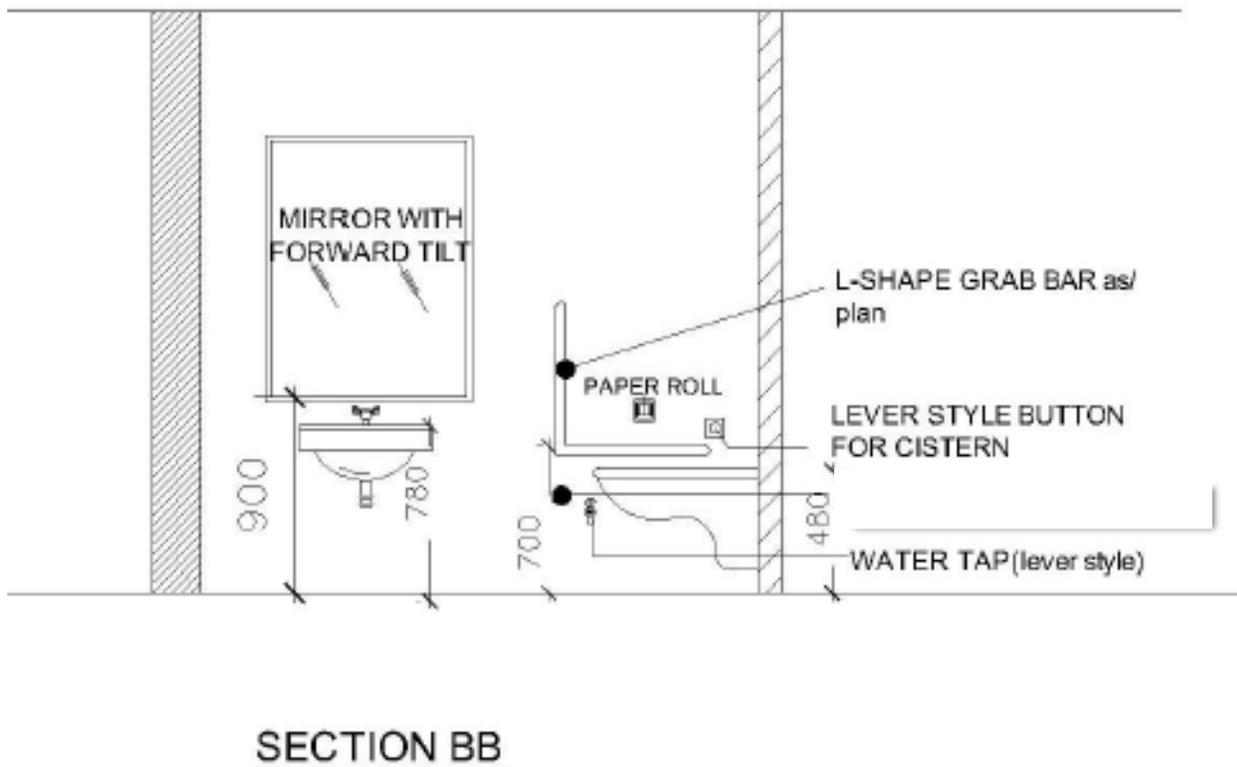
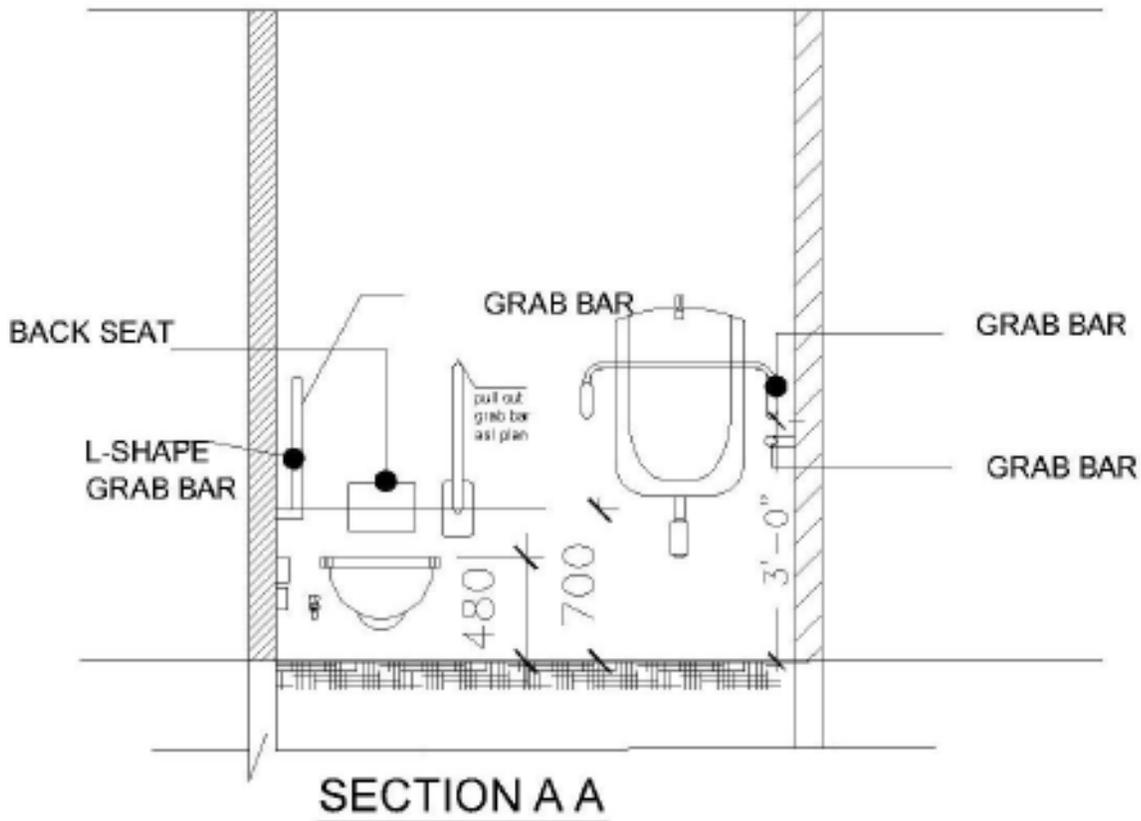


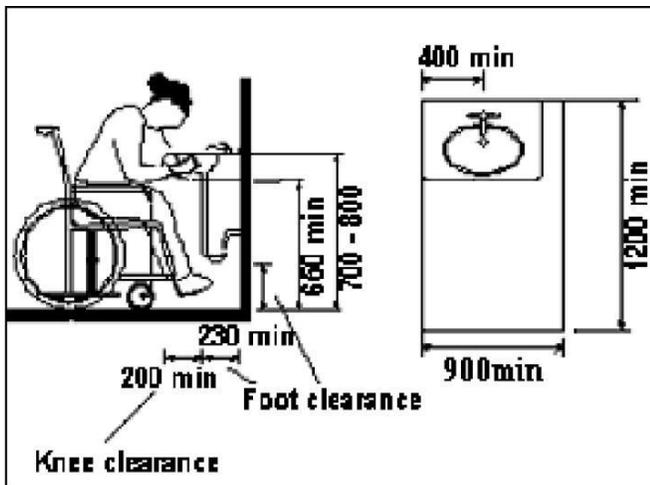
The design of the accessible toilet should be as following

Suggestions

- ✓ Toilet should be provided with a door of clear opening of at least 900mm with the door swing outwards or be folding or sliding type
- ✓ Toilet should have slip resistant flooring
- ✓ Toilet should be provided with a horizontal pull bar at least 600mm long on the inside and 140mm long on the outside, at a height of 700mm
- ✓ There should have clear space of not less than 900mm wide next to the water closet
- ✓ The WC seat should be located between 460mm to 480mm from the centerline of the area 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 with a back support.
- ✓ 700 mm x 700 mm L-shaped S.S.Grab bars of 38 mm dia. should be provided at the rear and the adjacent wall. On the transfer side- swing away/up type and on the wall side L-shape grab bars should be provided.
- ✓ 700 mm long Pull Grab bar, 700 apart from side L-shaped wall to be provided







The design of the drinking water/ washbasin should as following

- The dimensions could be of 520mm and 410mm, the top edge should be between 700mm-800mm from the floor; with 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.
- ✓ The upper floors are not accessible so a lift could be provided which will connect the complete upper floor of admin block but there was no suitable space available in the existing

structure. So if a lift/ramp is to be added it has be added on external area with due consultation from the structure engineer/architect.

- ✓ All the ramps should be provided with the 1:12 gradient with railing on both sides.

EMERGENCY EVACUATION

Exit signage and fire hydrant signage are 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.

Access Aud



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 conference room

Students 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 students 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.

PRIORITIES

- Toilets
- Signage
- Beveled Edges
- Colour Contrast

Rest Suggestions can be taken with the availability of budget

LIST OF NGOS/COMPANIES FOR ACCESSORIES

- **Handrails/Grab bars & signage**

Sanjeevani Creations (M) 9810100857, 01165809940

REPORT COMPLIED BY

Access Resource Group, Sanjeevani Creations

Contact person: Mr. Sudhir Bansal..... Email sanjeevanicreations@gmail.com.