

Accessibility Audit Report

Institute of Home Economics

University of Delhi

Delhi

1.07.2026

by



Organisation in Special Consultative Status with the
United Nations Economic and Social Council since 2015



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Acknowledgements

- We are extremely thankful to the Institute of Home Economics Team for their commitment in making their premises accessible & inclusive for persons with disabilities.
- We acknowledge support of the team in facilitating the access audits and are hopeful that the accessible built environment with universal design should be provided in as per the standards given in the report.

Samarthyam Accessibility Audit Team

Lead Accessibility Auditors:

Dr. Anjlee Agarwal, Universal Accessibility and Inclusive Mobility Specialist

Mr. D. Chakravarti, Universal Design Specialist

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Report checked by:

Dr. Anjlee Agarwal

Date: 10.08.2026

Signature:



A handwritten signature in blue ink, appearing to read "Anjlee Agarwal".



About Samarthyam

- Organization of Persons with Disabilities founded in 1991
- 36 years of expertise on universal accessibility and pioneer in conducting accessibility audits, creation of space standards and codes
- Special Consultative Status with United Nations ECOSOC since 2015
- Accredited by United Nations ESCAP to develop National & International Accessibility Codes and Space Standards
- Advisor, Prime Minister's Office on Accessible India Campaign , 2015
- Member, NITI Aayog (CSO St. Committee), Government of India
- Member, Council of Architecture, Committee on National Universal Accessibility Standards
- Member, Transport Research Board, USA
- Member, H8 Committee, Indian Roads Congress

Specialization

- Empanelled Accessibility Auditor, Government of India
- Author of non-negotiable National Accessibility Standards, 2026 (IS 4963, BIS)
- Empanelled Walkability Auditor of roads and streetscape
- Graduated from United Nations ESCAP on Non-handicapping Environment course, 2001
- Accredited National Trainers- Universal Accessibility; Disability, Equity & Inclusion Training

Accessible India Campaign, 2015

- The Government of India launched the Accessible India Campaign (Sugamya Bharat Abhiyan) in 2015 to facilitate barrier free development for Persons with disabilities in three broad domains i.e. Built Environment, Information Technology and Transportation.
- The Department of Empowerment of Persons with Disabilities (DEPwD), Ministry of Social Justice & Empowerment remains the nodal agency for the successful implementation of the Campaign.
- It has been a nation-wide flagship campaign to achieve universal access and enablement for persons with disabilities through infrastructure ecosystems involving built environment, transportation and Information & Communication technologies.



The Rights of Persons with Disabilities Act, 2016

Section 40, 44-46

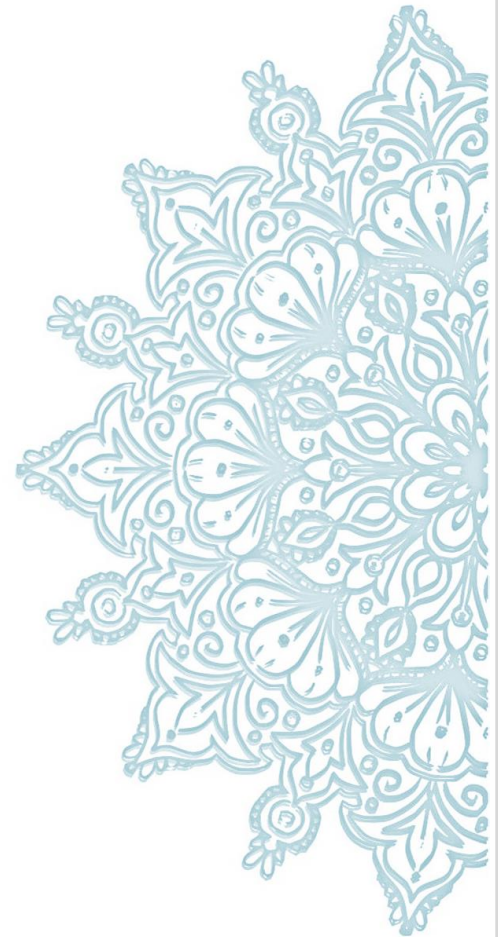
- Universal design forms the base of all new construction and refurbishment/retrofitting of offices, old buildings, transport infrastructure, etc. including heritage sites and monuments.

Chapter XVI. Punishment for contravention of provisions of Act or rules or regulations made thereunder

Offences and Penalties Section 89

- Covers extensively violation issues including punitive actions for non-compliance.
- Individual- fine upto Rs. 5 lakhs
- Enforcement- imprisonment upto 5 years

https://www.indiacode.nic.in/bitstream/123456789/15939/1/the_rights_of_persons_with_disabilities_act%2C_2016.pdf



Methodology

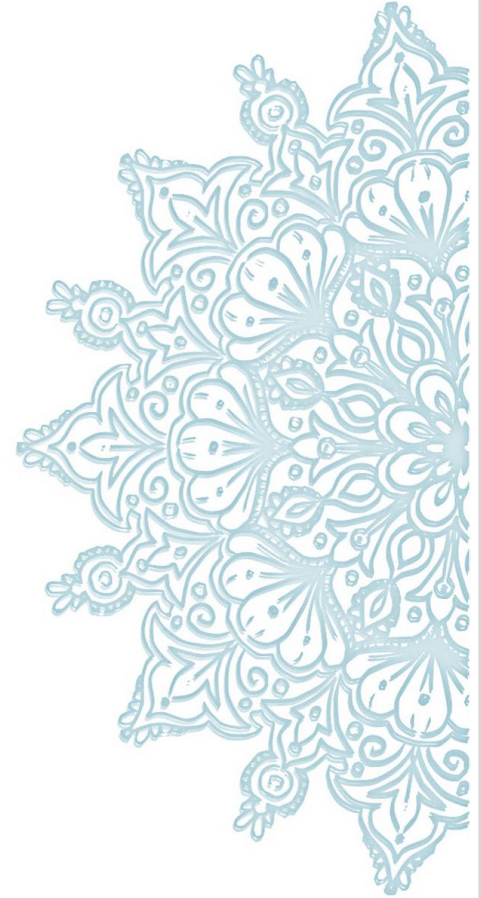
- Samarthyam accessibility audit team along with persons with diverse disabilities audited the external and internal environment of the site.
- The accessibility audit with –disability, -gender, -age lens and gap analysis were documented with existing dimensions and photographs.
- The baseline gap analysis also include observations and feedback from the clients team members.
- The accessibility audit is aligned with “integrated” facilities for a specific category of disability, and focused more on the specific functional domain along with provision of universal design.
- The National Accessibility Standards under the Rights of Persons with Disabilities Act, 2016 are recommended for retrofitting of the premises are provided in this report.

Accessibility Standards Referred

- IS 4963, Bureau of Indian Standards, Government of India as the National Accessibility Standards notified by Govt. of India.
- Indian Roads Congress codes on roads and pedestrian environment IRC 103: 2021 and IRC: SP:117-2018.

Accessibility Audit Report

- Is prepared with line illustrations, graphic designs and cost effective solutions with universal design principles for successful implementation.
- The recommendations of the accessibility audit are based on ground realities and covers accessibility for cross disability population with focus on employees with disabilities.
- Vendors list and approximate costs of special items are given for reference.
- A certificate for accessibility audit undertaken is provided.
- A compliance certificate shall be provided once report recommendations are retrofitted, and evidence (photos and/or videos) are shared with Samarthyam team.



CERTIFICATE

Access Audit Completion

Awarded to

**Institute of Home Economics
University of Delhi
Delhi
1.07.2026**



Dr. Anjee Agarwal
Universal Accessibility &
Sustainable Mobility Specialist
Samarthyam



D. Chakravarti
Universal Design Specialist
Samarthyam

Access Audit Team



List of Contents

I. Main Entrance

- Entrance Gate
- Emergency Gate
- Outdoor parking close to the road and the entrance (only for Students)
- Parking inside the campus (Only for staff)
- Basement Parking (not in use – only used as storage currently)

II. A Block I Admin Block (Lift connecting upper floors)

- Ground floor level : Entry to the building, Lobby, Office, Staff Toilet, Girls Common area, Lift, staircase
- First floor level:
- Second floor level:
- Third floor level:

III. B Block (No lift), A and B block interconnected at every level with a flight of steps

- Ground floor level : Entry to the building, Open air theatre, Creche/Play school
- Basement floor level: Yoga, GYM
- First floor level:
- Second floor level:
- Third floor level:



I-Main Entrance

Main Entrance – Gate 2

Existing

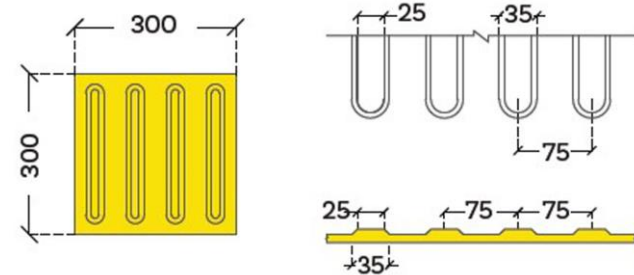
- Pedestrian and vehicular entry are segregated with two gates.
- Width of the pedestrian gate is 1060mm.
- Tactile Ground Surface Indicator (TGSi) warning at the entrance on either side of the pedestrian gate and TGSi guiding pavers till the admin block is also missing.



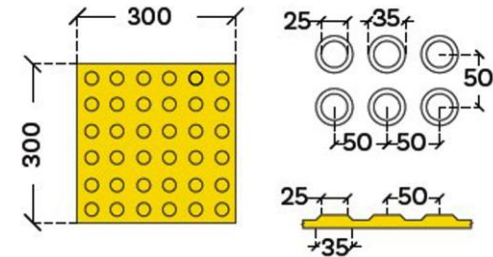
Layout of TGSI guiding, warning and junction (Main entry – Lobby)

Recommended

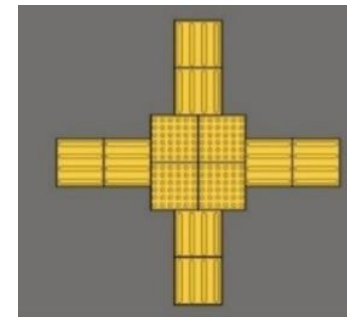
- Typical TGSI layout:
 - a. TGSI warning on either side of the door with offset of 300mm.
 - b. TGSI guiding leading the path to canteen.
 - c. TGSI junction at every turning.
 - d. Offset from pillar is minimum 600mm to avoid hindrance.



Detail of TGSI guiding block
(Vitrified – Johnson)



Detail of TGSI warning block
(Vitrified – Johnson)

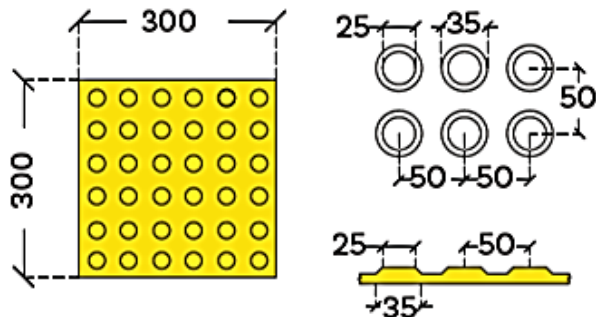
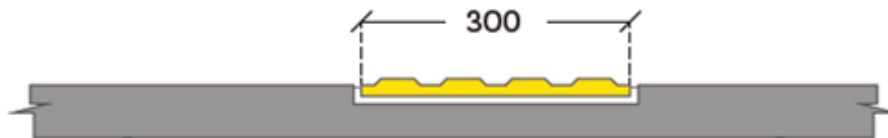
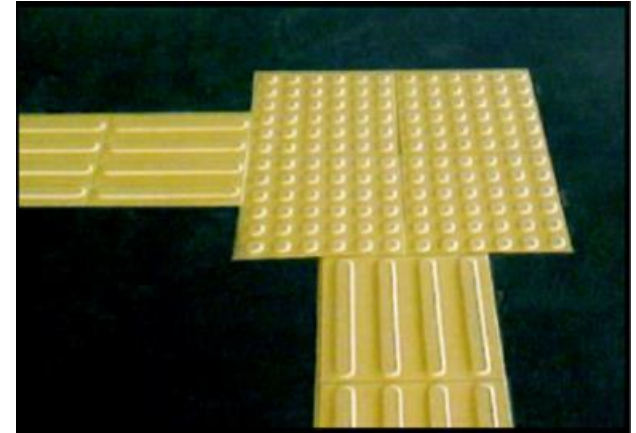


Detail of TGSI junction
(Vitrified – Johnson)

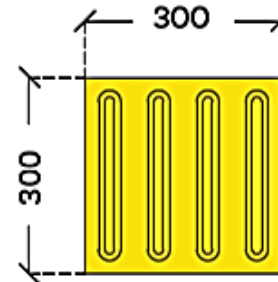
Approach and Accessible Route – TGSI (Tactile Ground Surface Indicators)

Recommendations

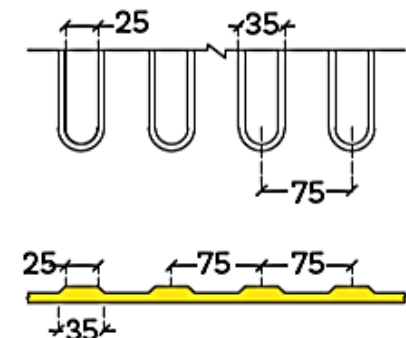
- Dot-type provides warning signal, to screen off obstacles, drop-offs or other hazards, to discourage movement in an incorrect direction and to warn of a corner or junction. Should be placed 300mm at the beginning and end of the ramps, stairs and entrance to any door.
- Line-type indicate the correct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



Dot-type - Warning Pavers



Line-type - Guiding Pavers



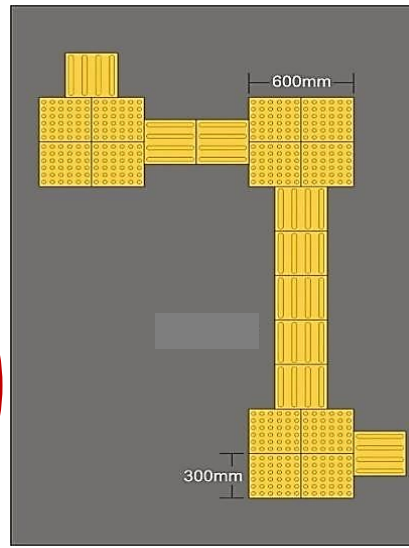
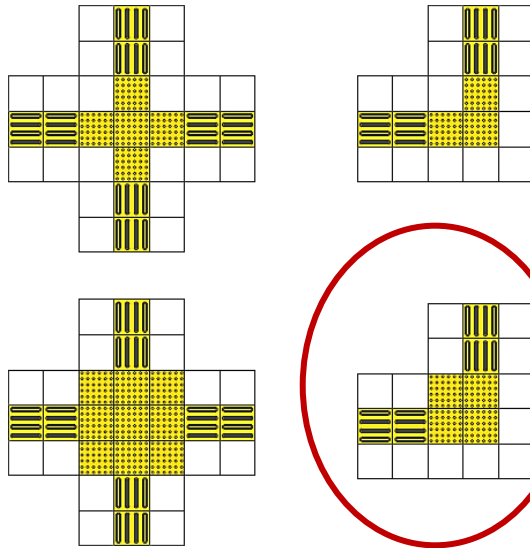
Approach and Accessible Route: TGSI

Recommendations

Install tactile pavers:

- In front of the main entry where traffic is present.
- For level differences, junctions and hazards and for way finding for amenities and public utilities.

 Preferred tactile configurations



Adhesive PU pavers (for internal use only)

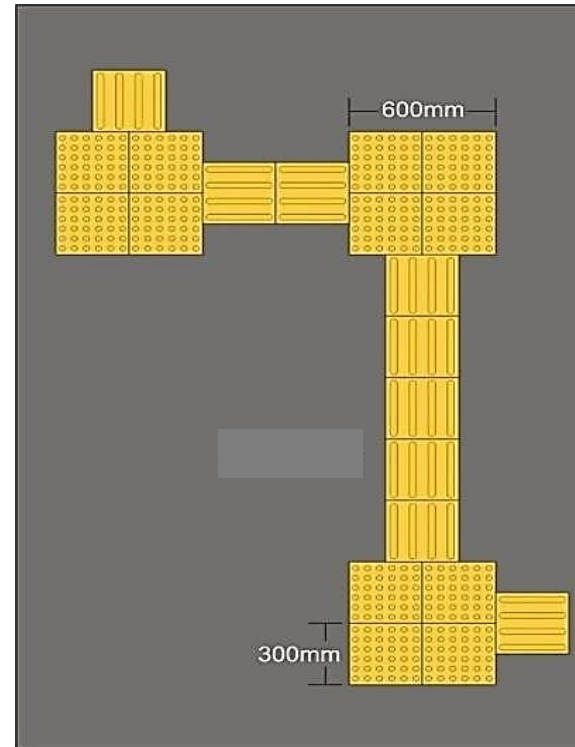
- There are variety of tactile pavers available viz. tactile vitrified tiles, stick pads with adhesive and stud/ strips.
- For internal use only - Adhesive PU pavers /studs/strips can be used as an alternate to tile pavers as these can be installed without any drilling in the floors, just peel and stick.
- Refer Vendors list.

Internal : TGSI

- There are variety of tactile pavers available viz. tactile vitrified tiles, stick pads with adhesive and stud/ strips.
- Adhesive PU pavers /studs/strips can be used as an alternate to tile pavers as these can be installed without any drilling in the floors, just peel and stick.
- Refer Vendor's list.



Adhesive PU pavers



Tactile layout

Outdoor Parking (only for students) – Two wheelers

Existing

- Reserved parking for modified two wheelers for students with physical disabilities is missing.
- Floor marking and signage for accessible parking shall be provided.
- However the space utilised for two wheeler parking is sharing and close to the footpath next to the road.



Parking inside the campus (Only for staff)-Four wheelers

Existing

- Vertical signage with universal symbol for accessible parking is missing.
- The space allocated for each four wheelers is 3310mm x 4600mm.
- Reserved car parking space is given adjacent to the main gate only.



Parking inside the campus (Only for staff)-Four wheelers

Existing

- Main entry kerb connecting pathway leading to the main entry is hidden due to parked vehicle in front of the kerb.
- TGSi warning is missing at the start and end of the kerb.
- TGSi guiding is not connected with this kerb and leading to the main entry.
- No designated surface parking is provided as this entry 6 is close to the main road.



Parking inside the campus (Only for staff)-Two wheelers

Existing

- Accessible parking signage and floor mark for reserved two wheelers is missing.
- The path connecting the two wheeler space from the main gate is not smooth for a staff with locomotive disability to commute, if the vehicle is parked in this space.



Existing Two wheeler space without reserved parking indication



Damaged surface close to two wheeler parking space

Parking inside the campus (Only for staff)-Two wheelers

Recommended

- Space identified for accessible two wheeler parking close to main entrance is recommended below:



Recommended space for accessible two wheeler parking close to main entrance.



Accessible Parking

Developer- Alighting/Drop Off

Recommendations

- Alighting area should be provided near the entry leading to the building.
- Alighting area should be leveled and free from traffic.
- Alighting signage and drop off area should be clearly marked.
- Security staff shall be made aware about the purpose of the alighting/ drop off area and shall allow employees and visitors with disabilities to be dropped/ picked up from here.



**Proposed signage for
alighting/ boarding**

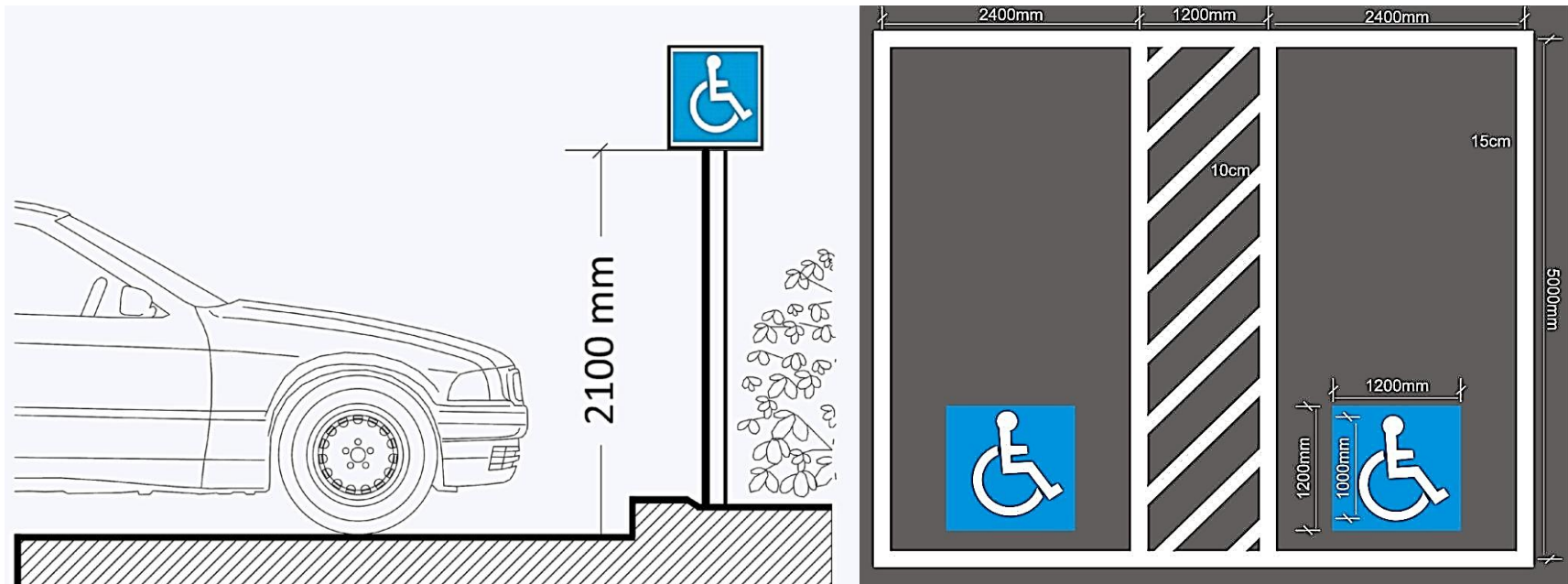
Accessible Parking

Existing

- There is no way-finding and location signage for accessible parking

Recommendations

- Accessible parking for four wheelers should be provided within 30 meters of the main entrance. Overall minimum dimension proposed for vehicle - 6000mm x 5000mm, including aisle space of 1200mm.
- Accessible parking signs should be positioned at 2100mm height, so that they can be seen even if cars are parked in the vicinity.
- Signage should be 600mm x 600mm size, which is easily identified from the driver's seat.

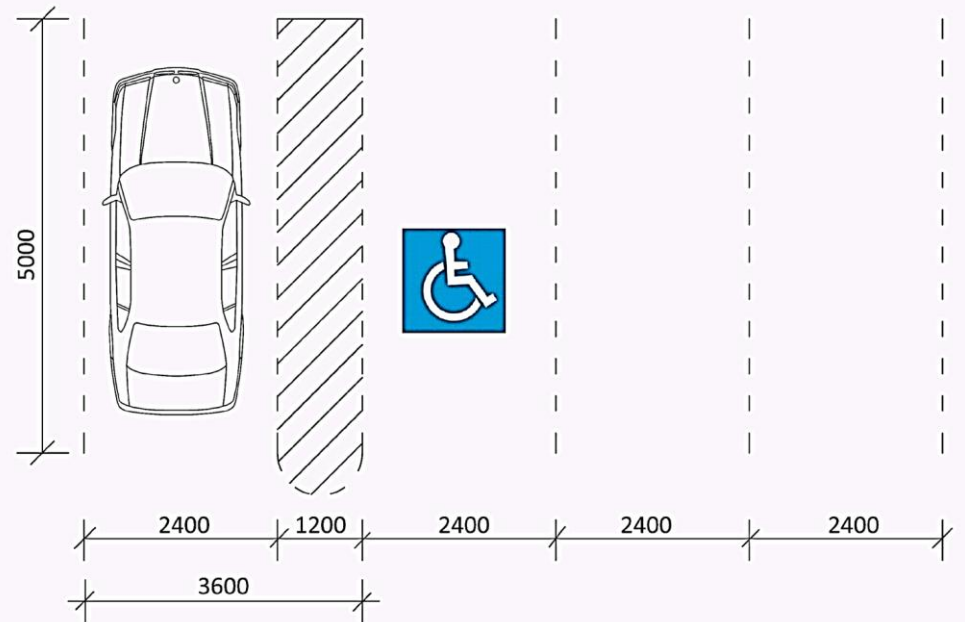
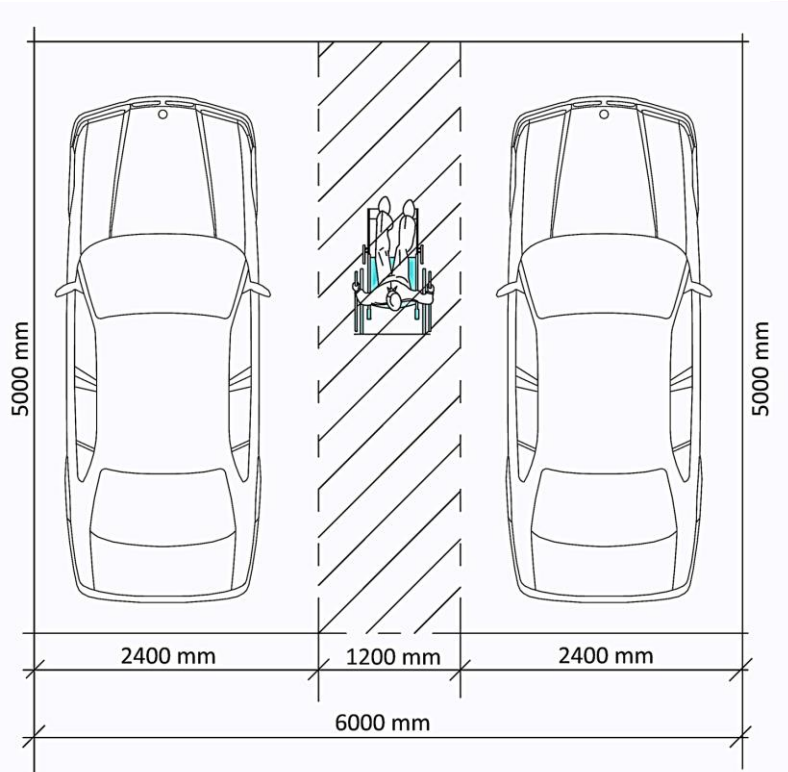


Signage and layout of accessible parking

Accessible Parking

Recommendations

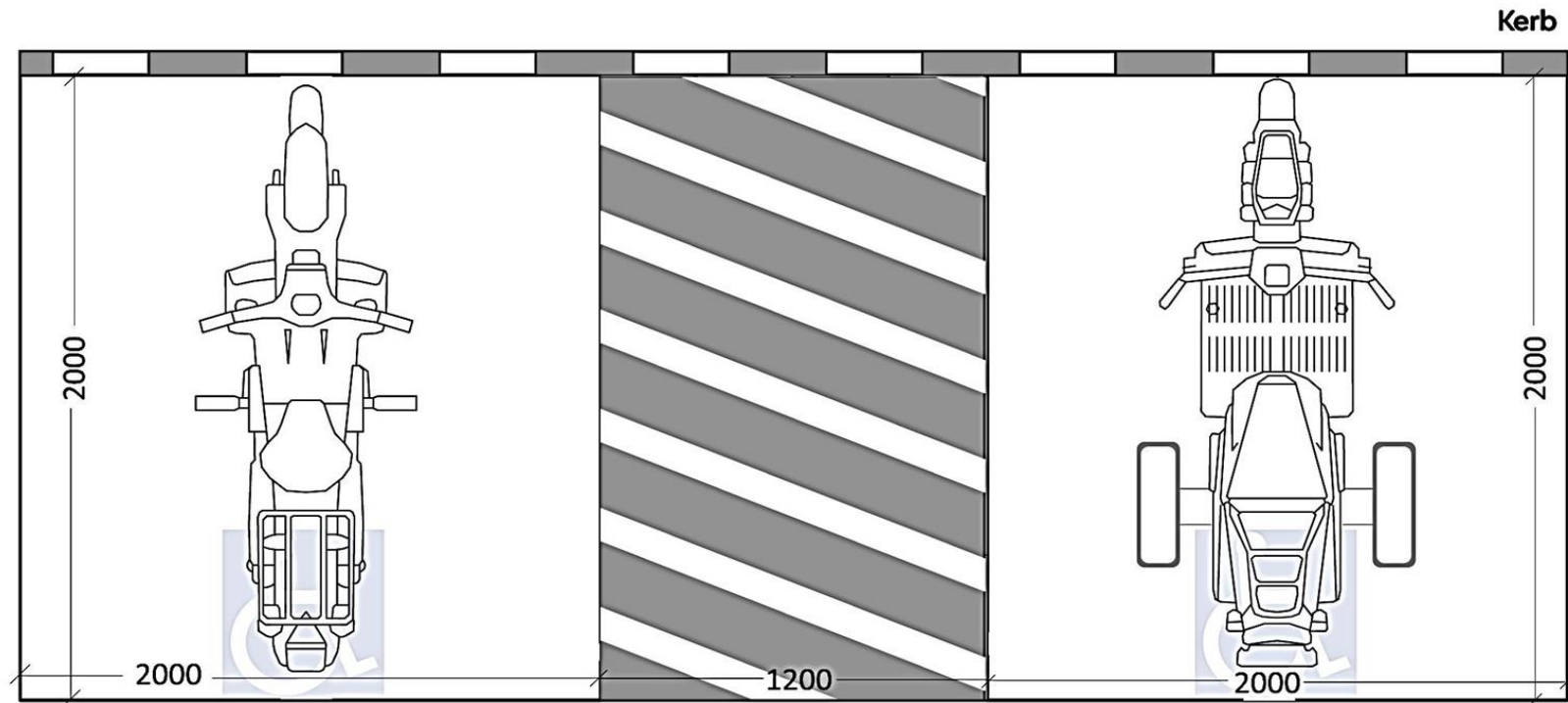
- Accessible parking for four wheelers should be provided as per illustrations.



Accessible Parking (Two wheelers)

Recommendations

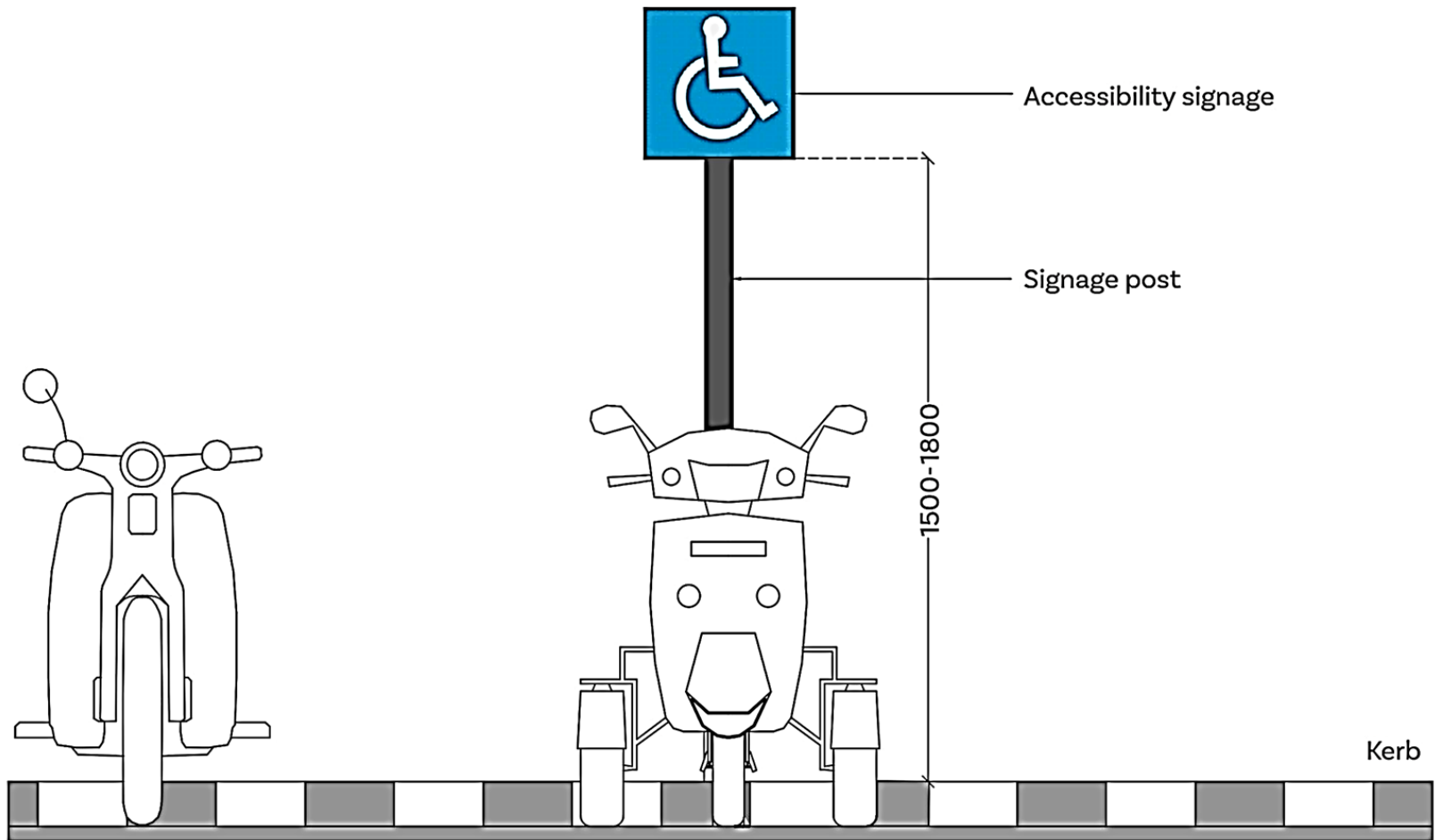
- For two wheelers used by persons with disabilities, reserve parking space shall be provided.



Accessible Parking (Two wheelers)

Recommendations

- Reserved parking space for adapted two wheeler/ tricycles should be provided in the two wheeler parking area with a signage for users for way finding.





Ground Floor Level

Ramp Entry to Lobby/Admin

Existing

- Planters are hindrance to the ramp entry by reducing the sufficient width for wheelchair users or any person with locomotive disabilities to enter the lobby space.
- Handrail on the wall side is missing. The plinth height is 150mm.
- The length of the ramp is 1820mm and the width of the ramp is 1490mm. (Ramp slope ratio is 1:12)



Step Entry to Lobby/Admin

Existing

- Lobby is accessible from the central bay with a step. Bay at the either sides are covered with planters. Riser is 150mm.
- TGSi warning is missing at the start and end of the step for whole length of the lobby space with an offset of 300mm to warn the person with low vision.



Entry to central courtyard

Existing

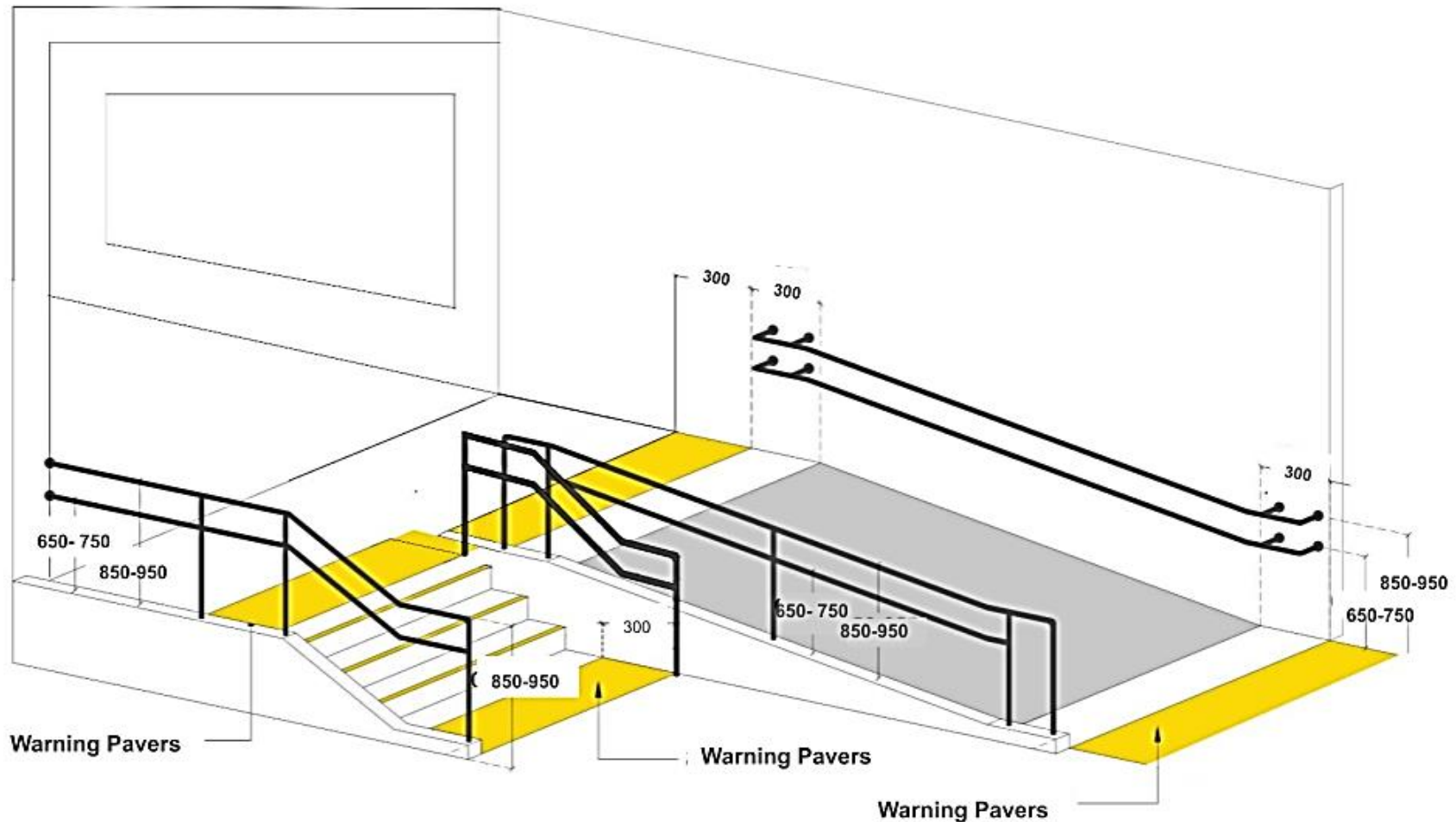
- Central courtyard is connected with 2 ramps. The length of the ramp is 2100mm and width is 900mm. Level difference is -140mm.
- One of the ramp is blocked by provision of seating.
- TGSi warning at the start and end of the ramp is missing.



Typical Ramp and Stairs Layout

Recommendations

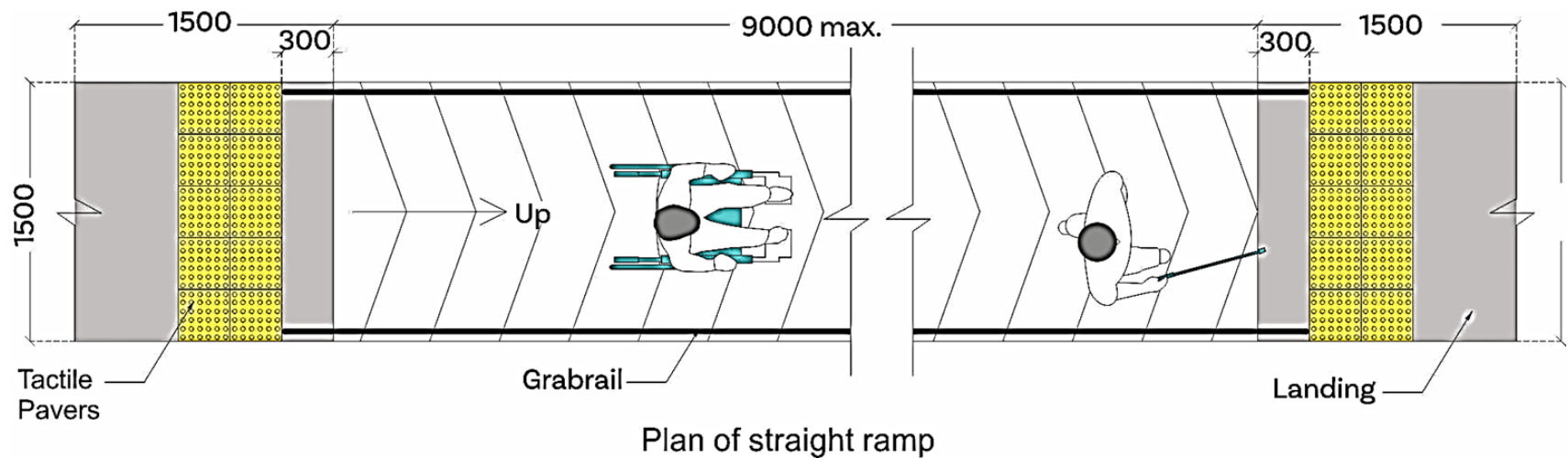
- All ramps and staircases shall be provided as per these standards.



Typical Ramp

Recommendations

- Ramps should have a gentle slope of 1:12.
- The width of ramps shall be 1800 mm min. or as per the width of the existing door opening.
- Surfaces of ramps and landings should be slip resistant/anti-skid.
- Handrails: for plinth height above 150mm, handrails should be provided on both sides of the ramp, at two levels and at a height of 760 mm and 900 mm; both ends of the handrails should be rounded and grouted and extend 300 mm beyond top and bottom of ramp.
- Strips of warning pavers should be placed 300 mm before the beginning of the ramp and after the ending of the ramp.



Information desk

Existing

- The distance between the information desk and the finished floor is 900mm.
- TGSi warning in front of the information counter shall be provided.



Attendance – Biometric machine

Existing

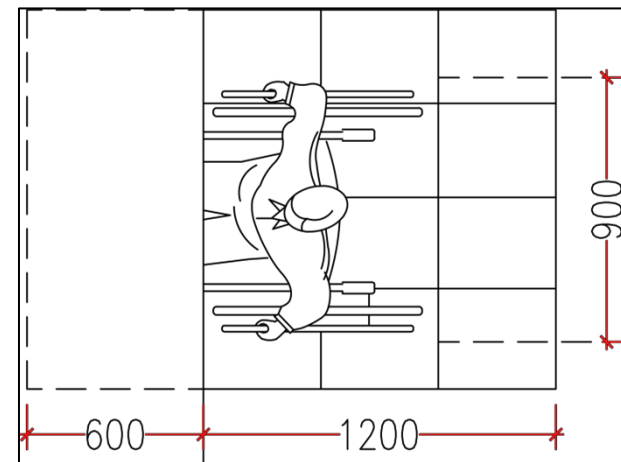
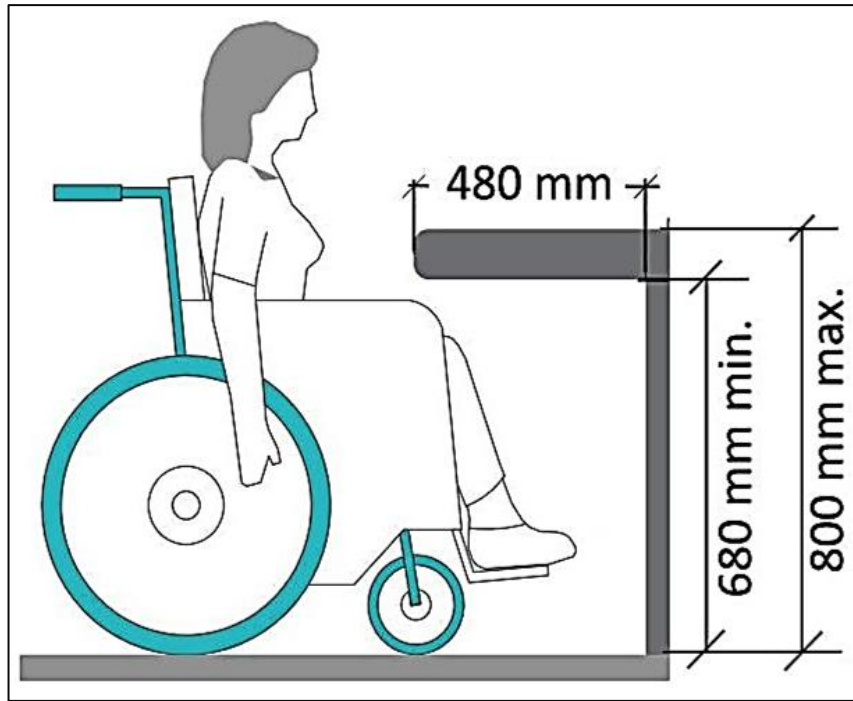
- Height of the biometric machine is 1210mm.



Public Dealing Counters

Recommendations

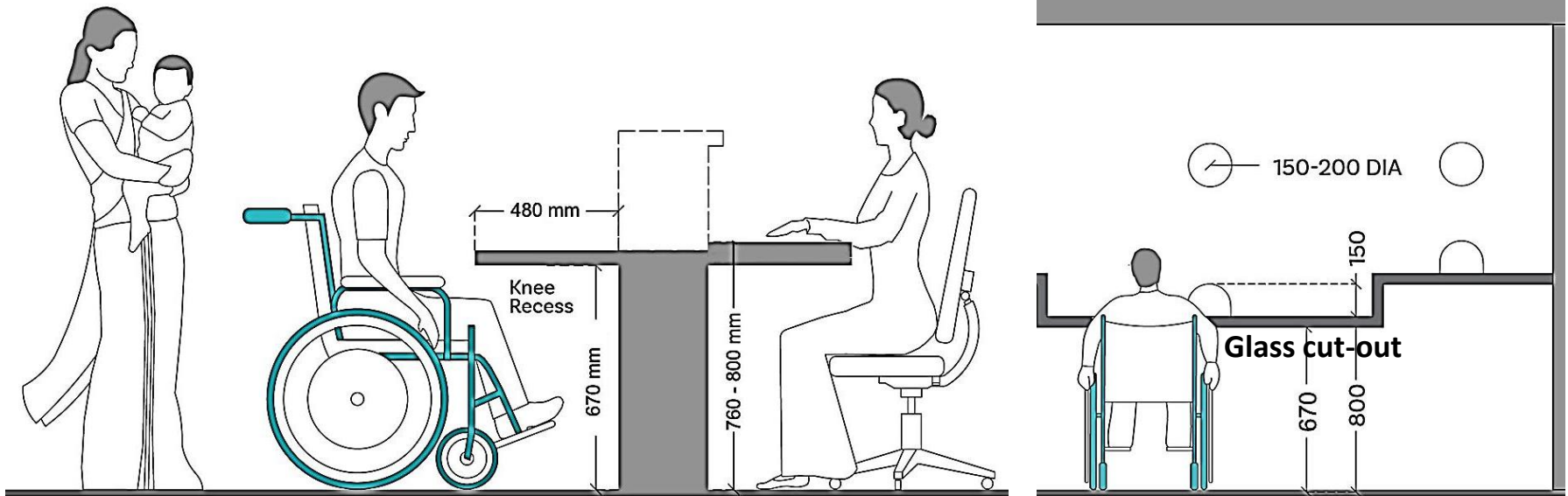
- Public dealing counters /table top should not be more than 800mm from the floor, with a minimum clear knee space of 670mm high and 280mm-300mm deep.
- Tactile paver should be provided for every counter.



Public Dealing Counters

Recommendations

- On the visitors side, there should be leg and knee space should be 670mm
- On employee side, it should be 760-800mm



Public Dealing Counters

Recommendations

- An **induction loop*** system should be installed for persons with hearing impairments. There are two types of loops available- coil type and portable type. If portable type is provided, it will be useful in meeting rooms also.



Signage for Induction
Loop System



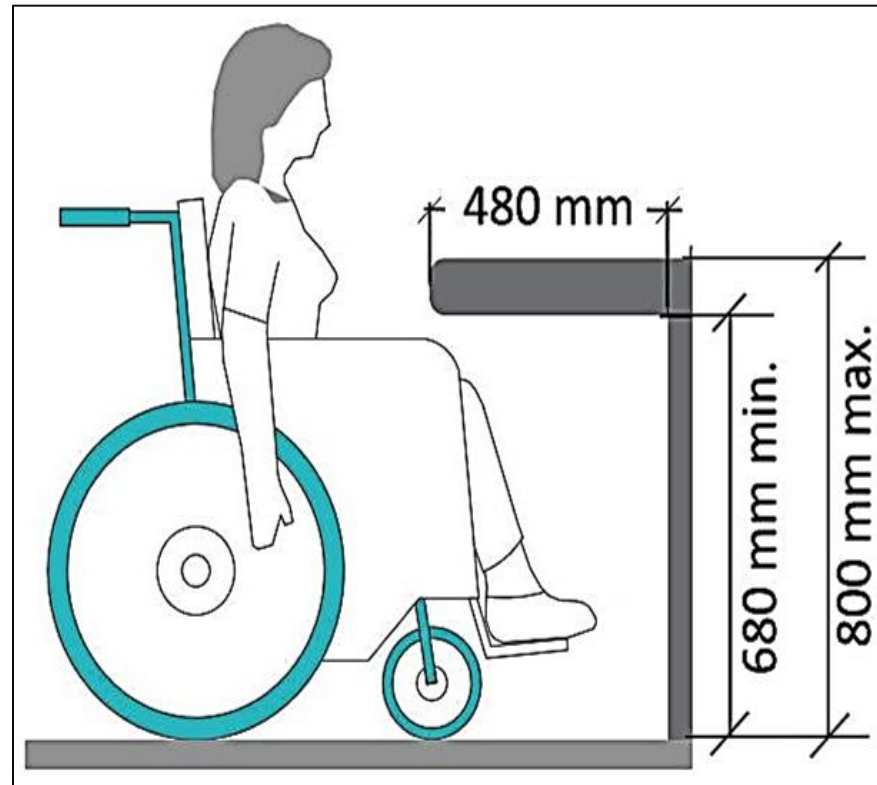
Portable Induction
Loop Unit

***Background noise:** It is most important to reduce any background noise internally and externally. Sound absorbent surfaces should be utilized to minimize reverberation, which could seriously affect the hearing of a person with hearing impairment. Induction loop system helps in amplifying communication with persons with hearing impairment while reducing the background noise.

Attendance Area

Recommendations

- One of the counter height shall be 800mm from the floor, with a minimum clear knee space of 650mm-680mm high and 480mm deep.





Doors

Entry to Admin office space

Existing

- There are 2 doors connecting the admin office from corridor space.
- Both are raised with 50mm from the finished floor level.
- 2 doors, one opening outside with automatic door closer and an another opening inside.



Entry to Admin office space, Directors room and pantry

Existing

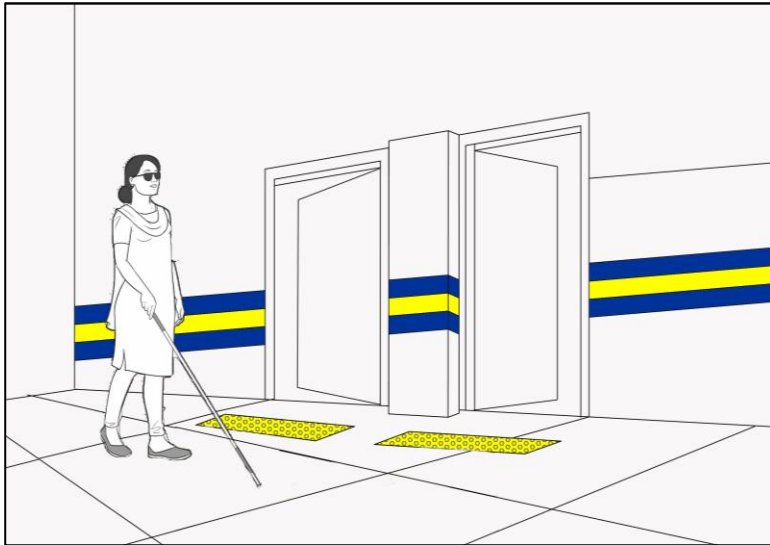
- Bevelled edges shall be provided to have smooth transition from corridor space to the office space and other adjacent rooms (Directors room, pantry) .



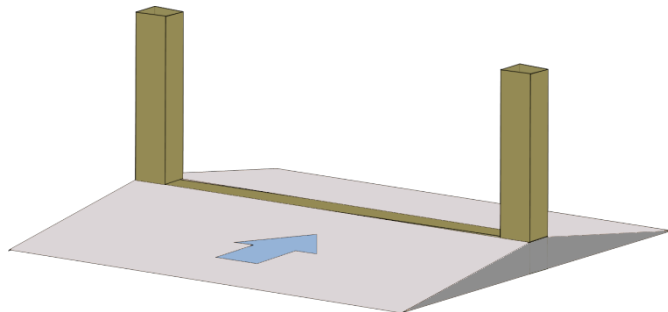
Doors

Recommendations

- All doors should be 900mm min. wide.
- Tactile pavers (warning only) should be provided for all the door entrances on all floors for rooms and toilets, etc.



Tactile Warning Paver



Bevel edge

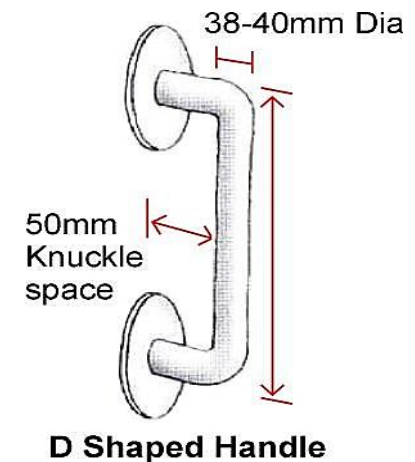
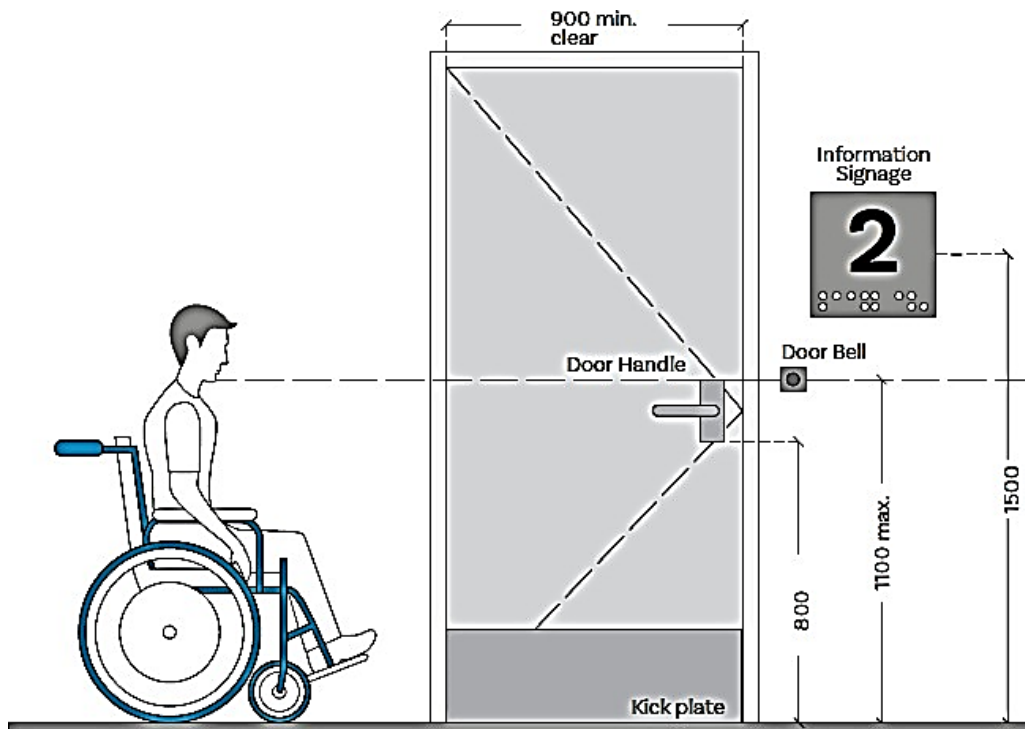


Warning pavers

Doors & Door Hardware

Recommendations

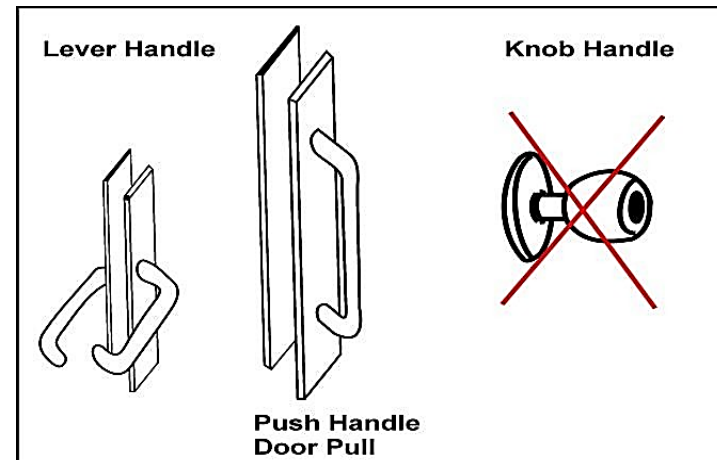
- For all two leaf door, one should not be less than 900mm wide.
- It is safer to use D-shaped handles as they reduce the risk of catching on clothing, or injuring from the exposed lever end.

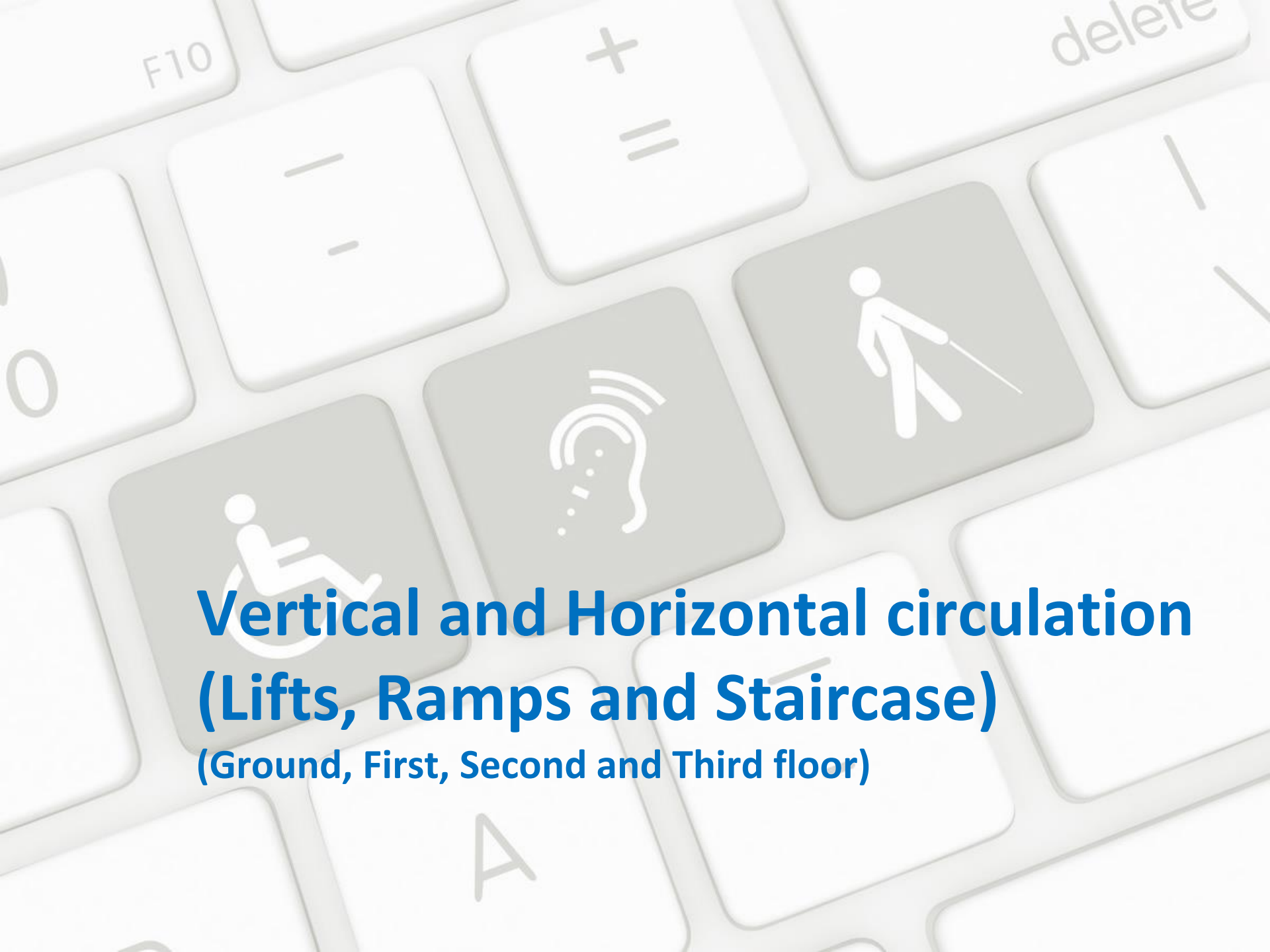


Door Hardware

Recommendations

- Doors should be fitted with a lever action locks and D-handles of circular section, between 800mm and 1100mm from floor level.
- Doorknob is not recommended, as it does not provide adequate grip for persons with impaired hand functions.



The background is a close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with grey backgrounds and white icons: a key with a person in a wheelchair, a key with a stylized ear and sound waves, and a key with a person walking with a cane. Other visible keys include 'F10', '+ =', 'delete', '0', and 'A'.

Vertical and Horizontal circulation (Lifts, Ramps and Staircase)

(Ground, First, Second and Third floor)

A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with grey backgrounds and white icons: a wheelchair icon, a hearing aid icon, and a person with a cane icon. Other visible keys include F10, a minus/underscore key, an equals/plus key, a delete key, a zero key, and an 'A' key.

Lift

(Ground, First, Second and Third floor)

Lift

Existing

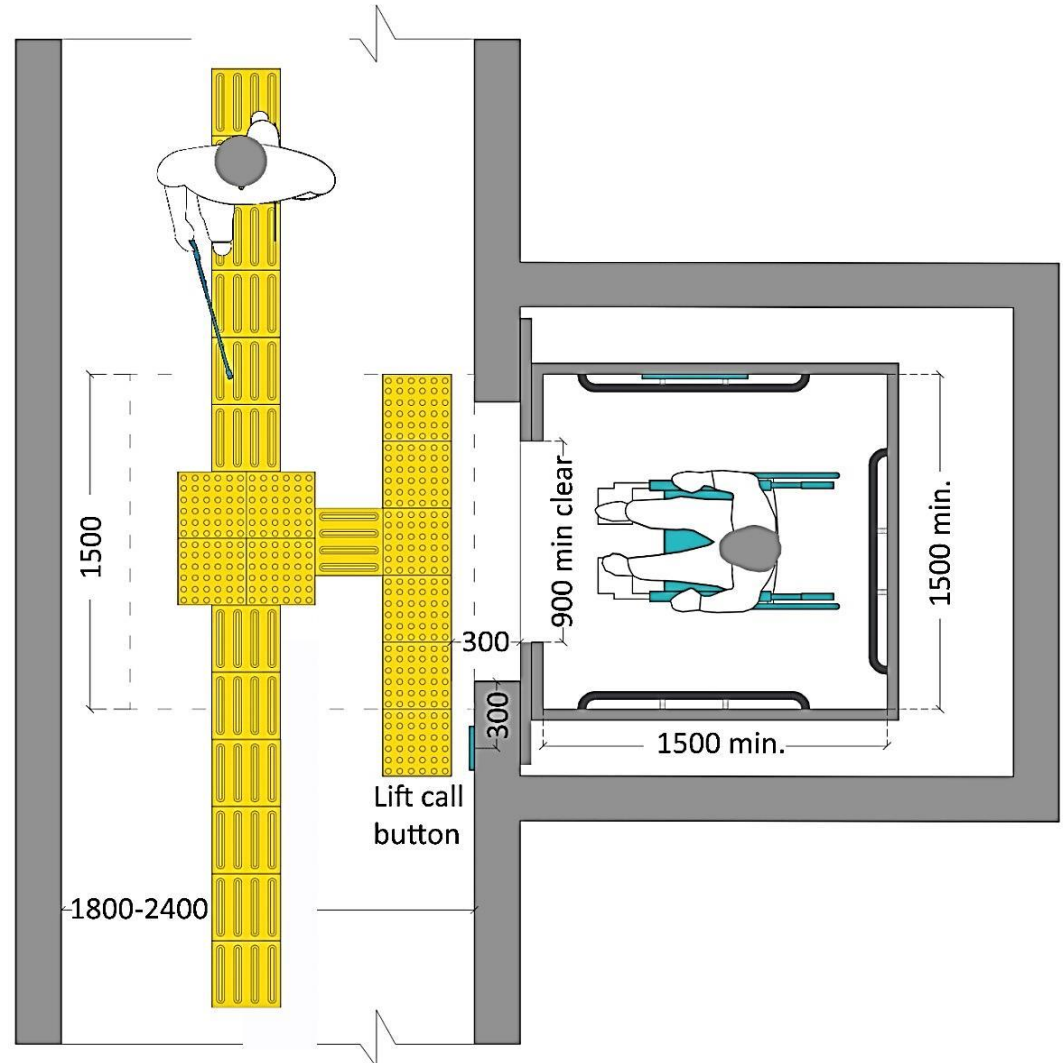
- TGSi warning is missing in front of the lift door opening.
- Size of the lift is 1590mm x 1504mm.
- Switch button is at the height of 966mm.
- Braille signage is not integrated onto the control panels. Also, the audio communication system/audible announcement status needs verification or repair.
- Height of the control panel is at 1012mm from the finish finished lift car floor level.
- Handrails at either side of the lift car is not provided. Mirror is fixed in the opposite side of the door.
- Signage for every floor level opposite to the lift is missing.



Lift Lobby

Recommendations

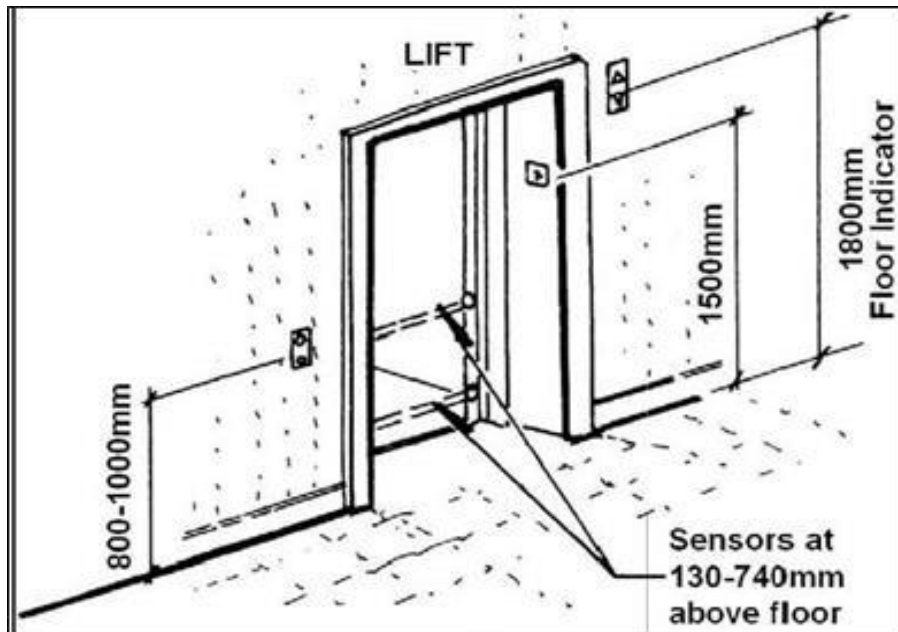
- Lift lobby to have ceiling hung floor number for easy identification of floor by the visitors.
- Tactile pavers should be provided, marking the door and call button also.



Lift

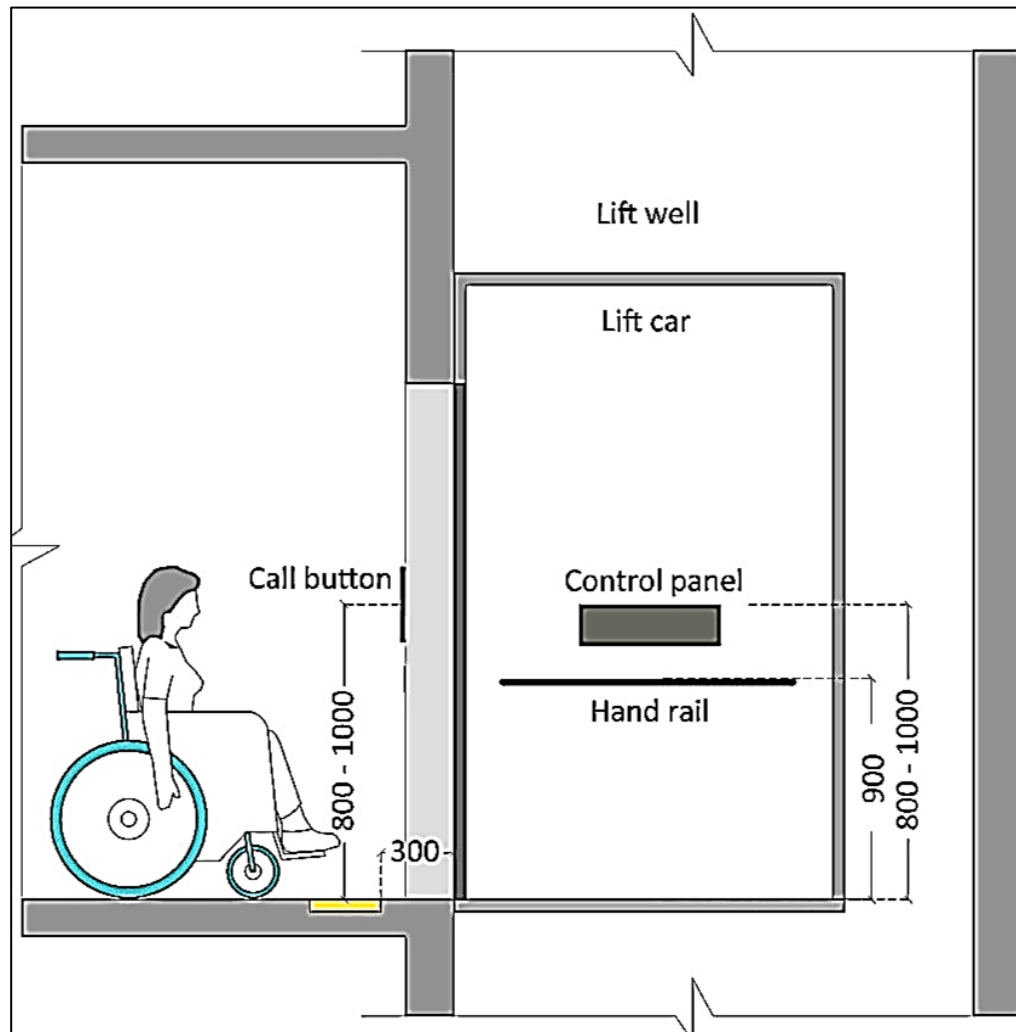
Recommendations

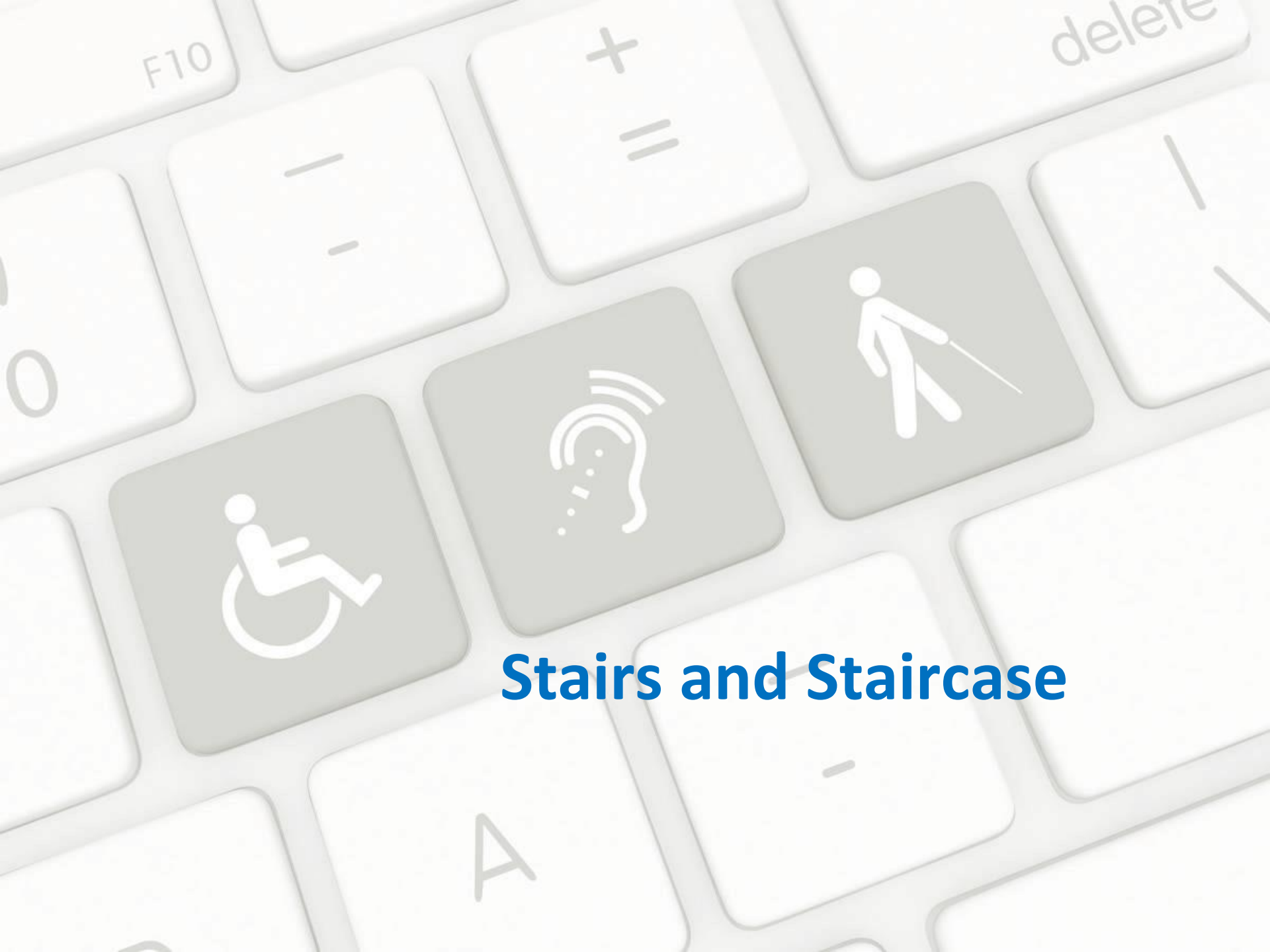
- Call button & control panel: At a reach of 800 mm – 1000 mm; at least 400 mm from any corner or have a clear floor space of at least 900 mm x 1200 mm with no obstruction placed to prevent a wheelchair user from reaching the call button;
- Control panel: Have buttons with Braille/ raised letters and in sharp contrast from the background to aid persons with low vision.
- Rear view mirror to be fitted.
- Grab bars/handrails in the lift shall be provided; outer diameter shall be 38mm
 - Be placed at a height of 800mm from the floor level; and
 - Be fixed on both sides and at the rear of the lift (i.e. all 3 sides of the lift).



Lift

Recommendations



A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with white icons on a grey background. From left to right, the icons are: a person in a wheelchair, a stylized ear with sound waves, and a person walking with a cane. Other visible keys include 'F10', '+ =', 'delete', '0', 'A', and a key with a dash/underscore symbol.

Stairs and Staircase

Staircase (Ground and upper floor levels)

Existing

- TGSi warning is missing in the start and end of the steps including landing of the staircase.
- Handrail is missing on one side of the staircase.
- Extension of handrail on the other side to reach for person with mobility issues from the corridor level with an extension of 300mm is missing.
- Width of the step is 1360mm, height of the handrail on one side is 905mm. First step riser height is 106mm.
- Antiskid edges for each step is missing.



Staircase (connecting A block and B block)

Existing

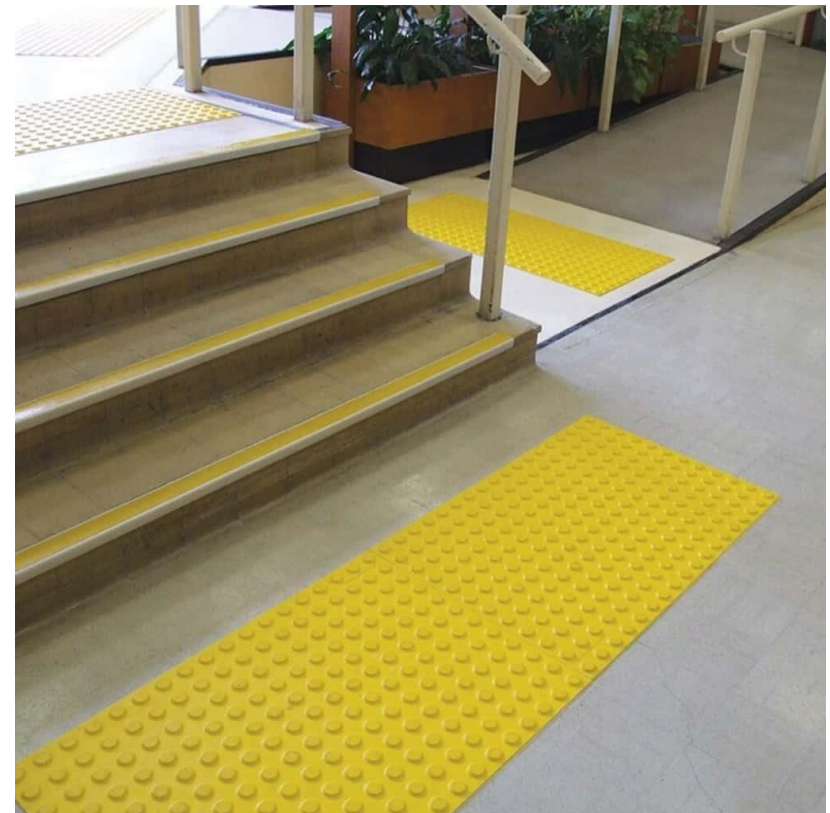
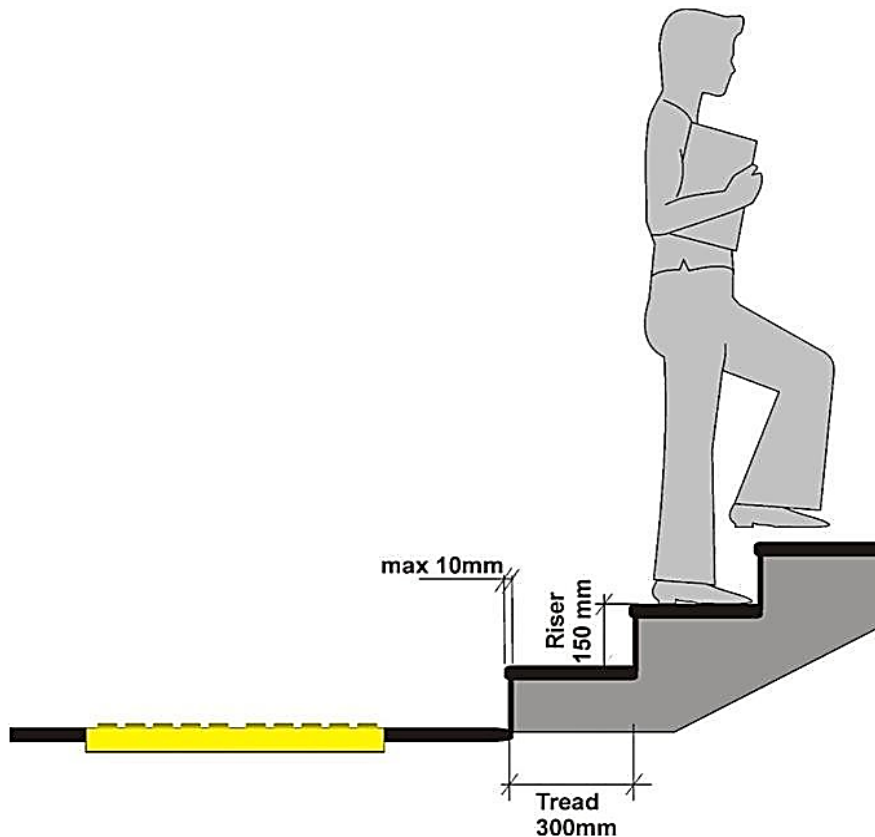
- TGSi warning is missing in the start and end of the steps including landing of the staircase.
- Handrail is missing on one side of the staircase.
- Extension of handrail on the other side to reach for person with mobility issues from the corridor level with an extension of 300mm is missing.
- Width of the step is 1360mm, height of the handrail on one side is 905mm. First step riser height is 106mm.
- Antiskid edges for each step is missing.
- This is the only access to connect B block in upper floors.
- There is no lift provision in B Block.



Stairs (Tactile Paver & Contrast Colour Edges on Steps)

Recommendations

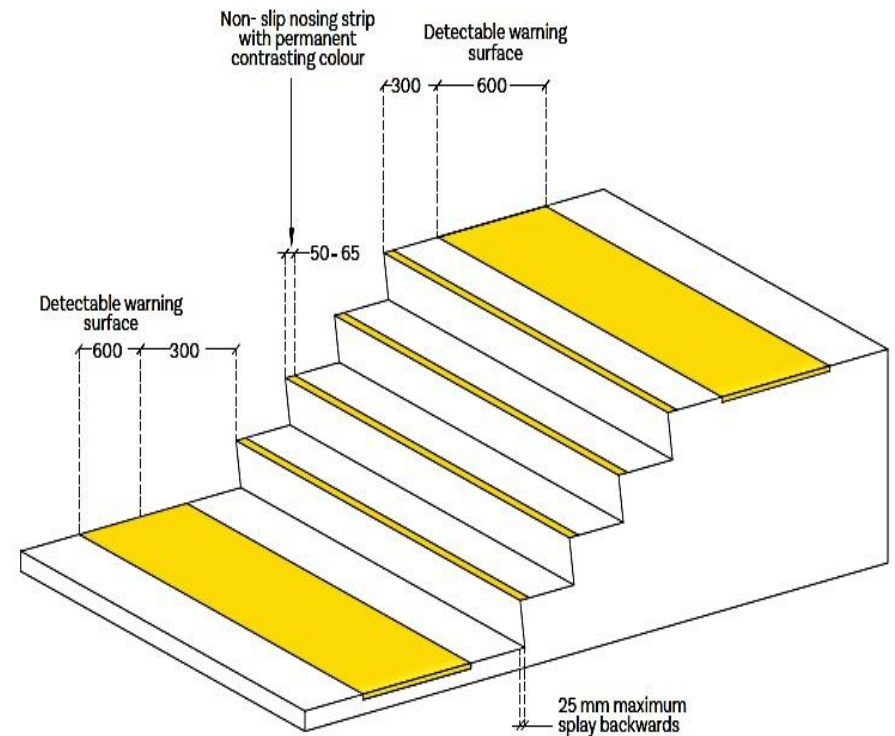
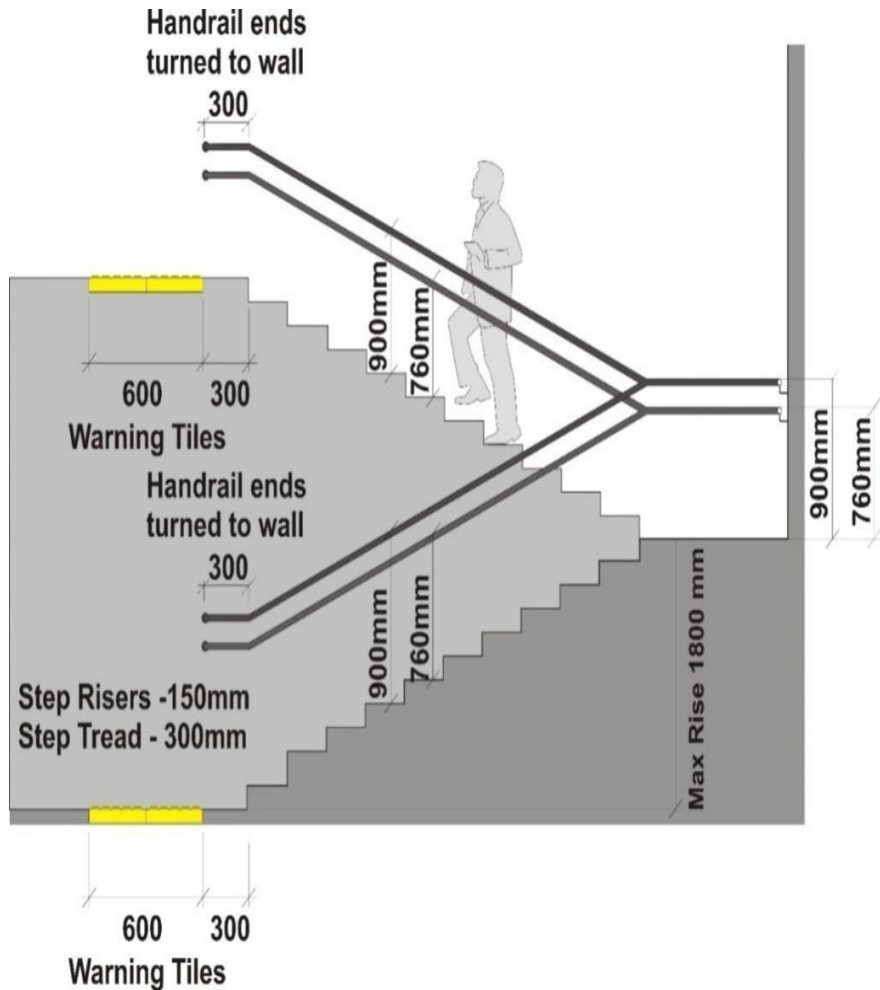
- Specifications for providing tactile pavers and contrast colour strips on the edges of the steps is given in the illustrations- shall be provided for all stairs.



Handrail

Recommendations

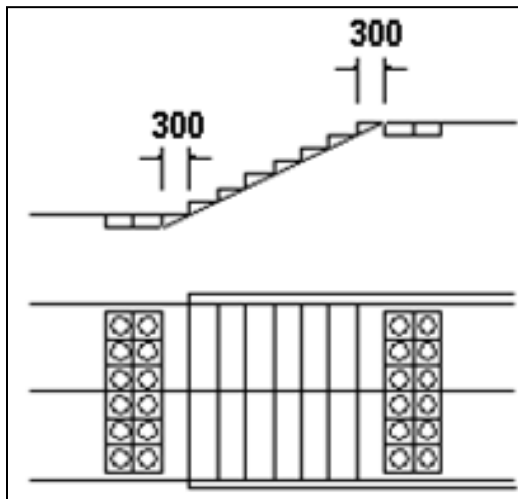
- Provide tactile warning paver as illustrated below.



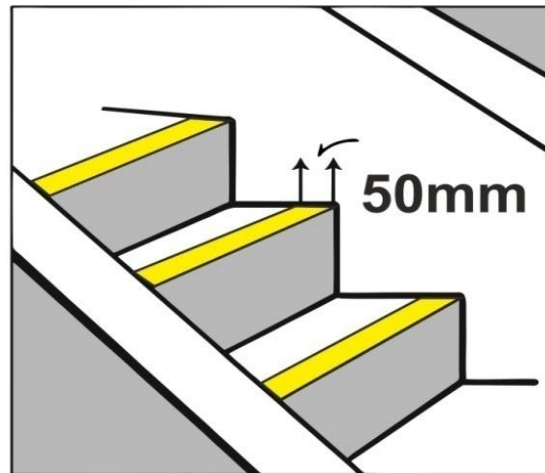
Stairs (Tactile Walking Surface Indicator/ Paver, Handrails and Contrast Colour Strips)

Recommendations

- **Tactile Walking surface indicator/ warning pavers** to be placed 300mm at the beginning and at the end of all stairs. Landings also to have a row of warning strip.
- **Step tread edges**- 50mm minimum should have contrast color band for ease of identification of steps.
- Optional- **Braille plate** on handrails with floor information should be provided on each floor.



Warning pavers before first and last step



Contrast colour band on step edges

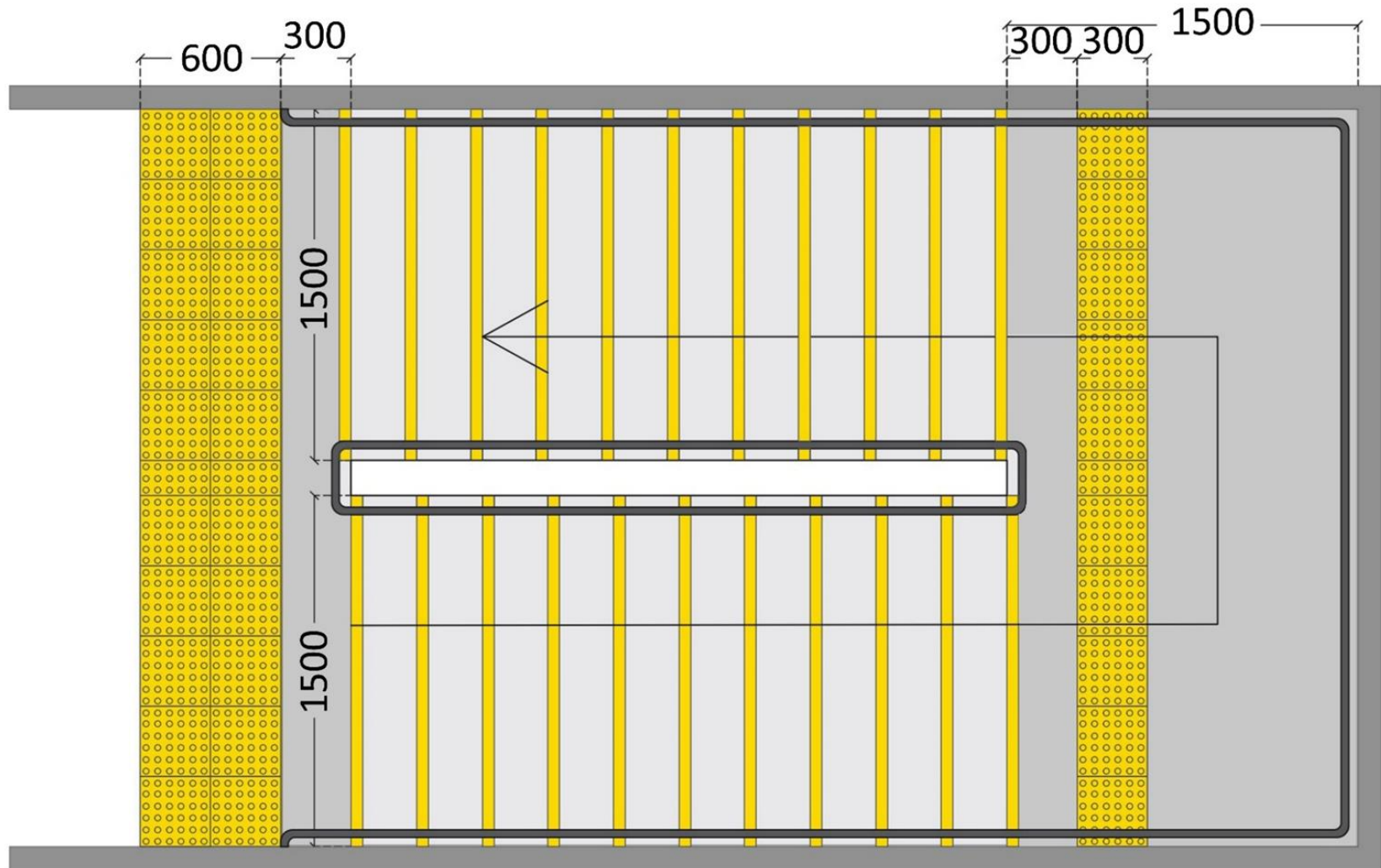


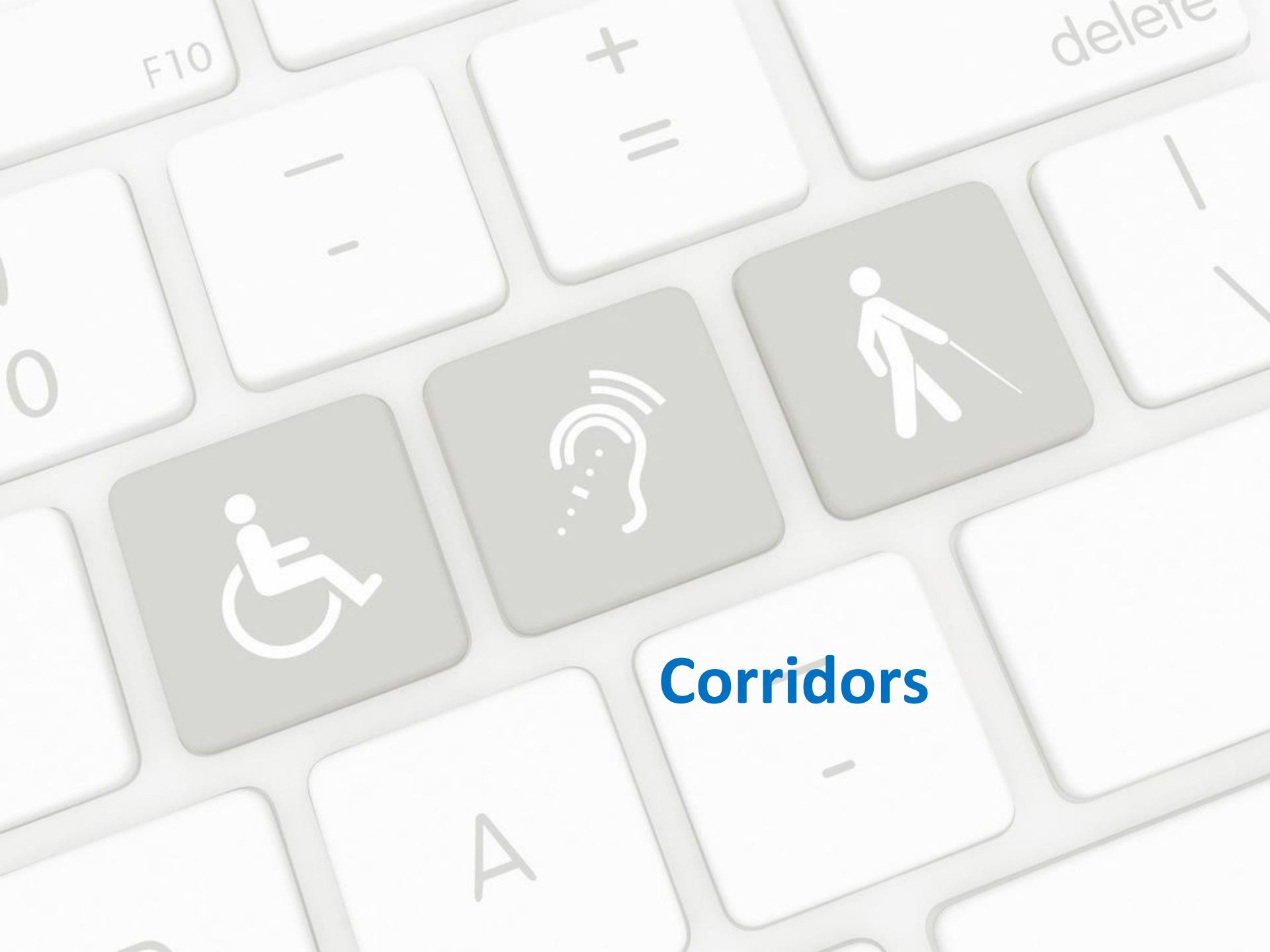
Braille plate on handrail

Stairs (Walking Surface Indicator/ Tactile Paver)

Recommendations

- Tactile paver and colour contrast should be provided as per the illustration





Corridors

Transitional space in between the corridors

Existing

- Doors use heavy glass panels with tight clear openings (720 mm).
- People with low vision will face difficulty whenever they move in this space due to plain glass.
- This space may be created as students common room at every floor level for their discussion.

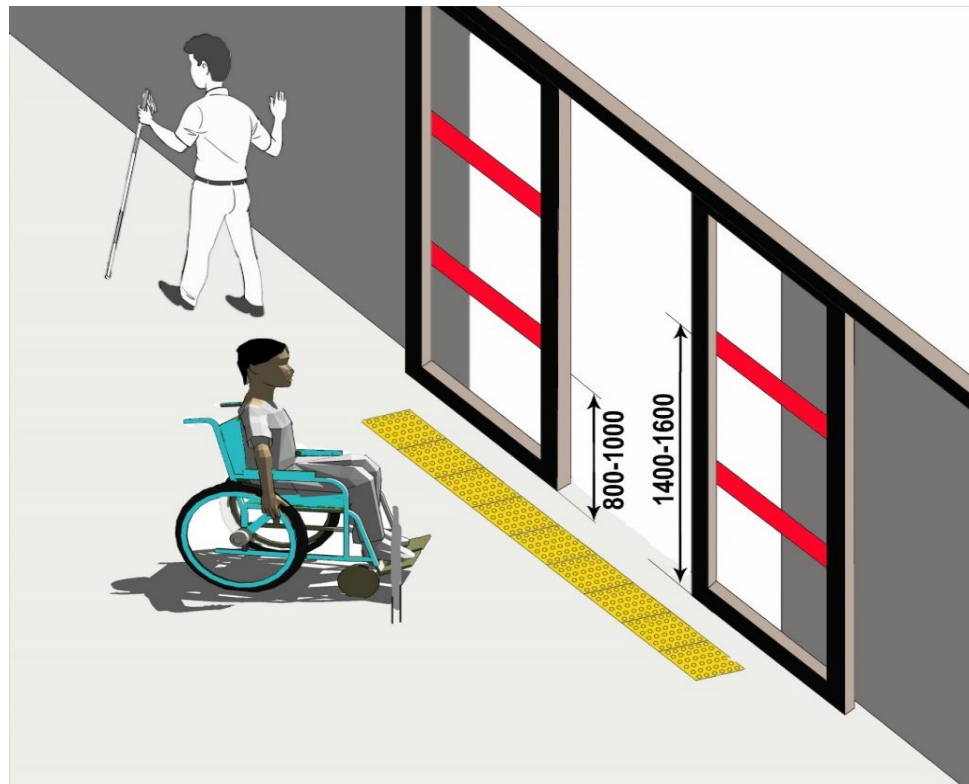


Ground floor and some rooms in upper floors are accommodated with furniture.
Picture: Photo of upper floor

Transition space in the corridors (all floors)

Recommendations

- The presence of a glass door should be made apparent, with permanent (manifestation) at two levels, within 800 mm to 1000 mm from the floor and within 1400mm to 1600mm from the floor, contrasting visually with the background.
- TGSi warning type shall be provided in front of the door entry- leaving a gap of 300mm from the door frame if mat is removed.



Corridor and exit connecting outdoor play area

Existing

- TGSi warning is missing in the start and end of the step. including landing of the staircase.
- Level difference between the connecting corridor and the basket ball court is 170mm.
- Length of the transition space is 5968mm.
- Width between the wall and the raised platform of the basket ball court is 990mm.
- Ramp shall be provided in the direction indicated in the photo below.



View from the corridor towards basketball court

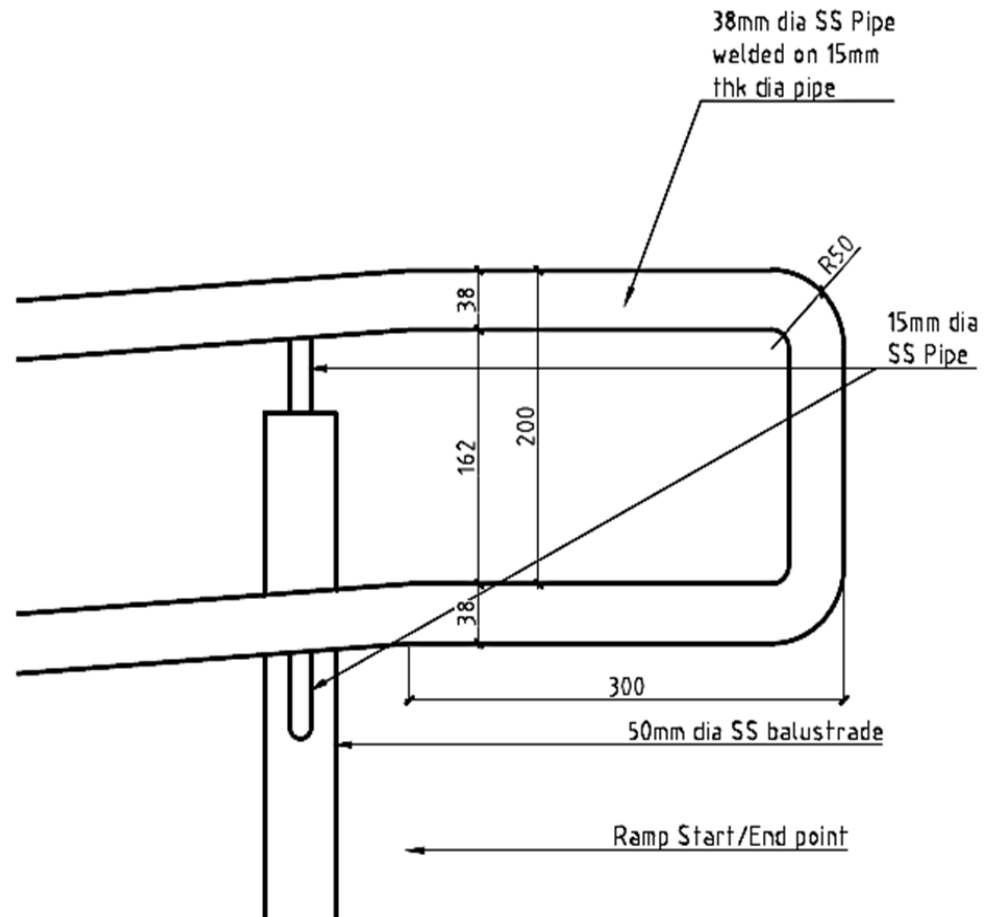


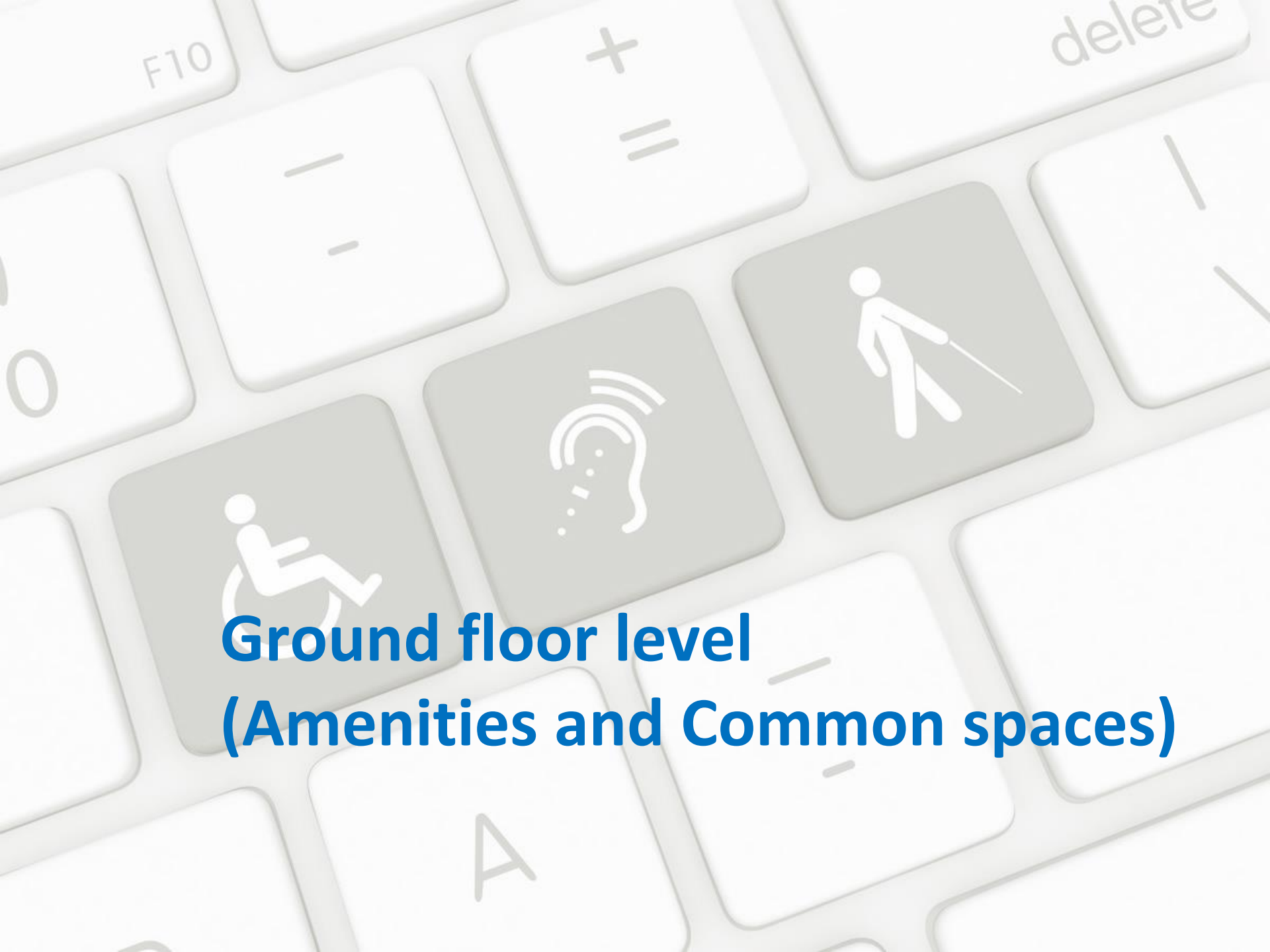
View from the basketball court

Corridors

Recommendations

- Handrails should be provided in the corridors at two levels 760mm and 900mm for people to take support and balance while walking).
- Illumination level in corridors should not be less than 100 lux.
- Slippery glazed tiles should not be used for flooring.
- Wherever marble, kota stone or any other stone flooring is provided, it should not be polished or have mirror finish.



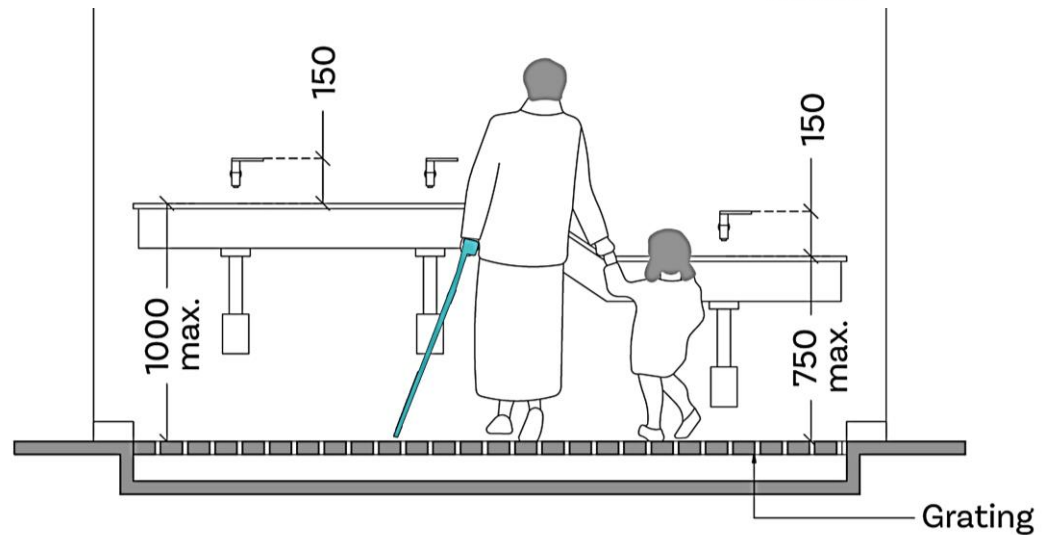
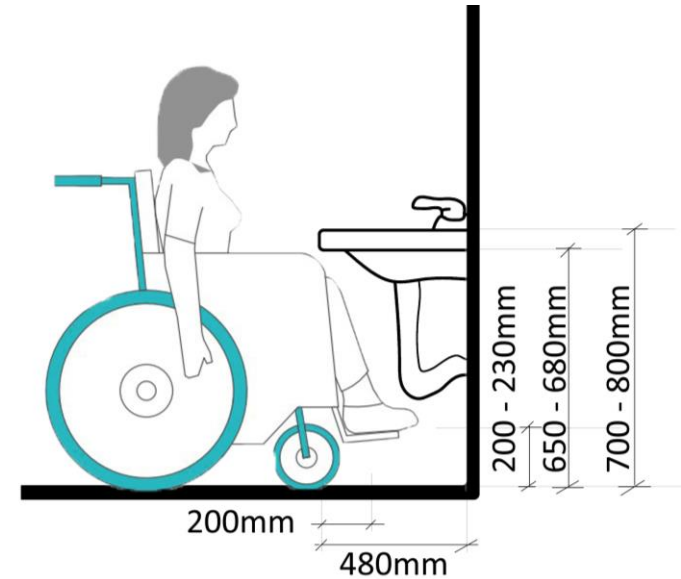


**Ground floor level
(Amenities and Common spaces)**

Water Dispenser

Existing

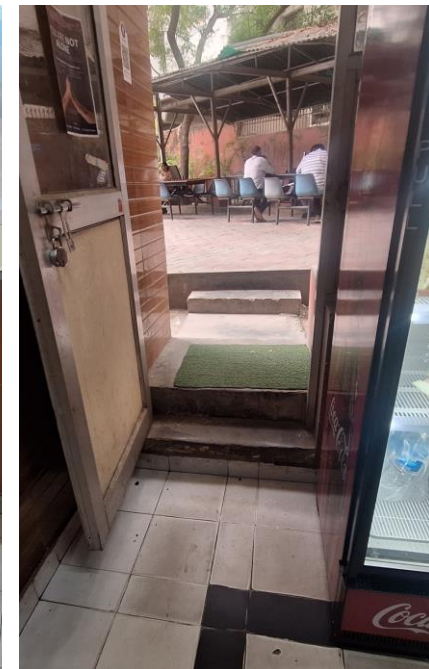
- Taps are high and not accessible.
- **Provide taps at two levels so that dwarf women and those using wheelchair can also access the drinking water unit.**



Canteen and outdoor seating area

Existing

- TGSi is missing in front of the door .
- Trip hazard in front of the canteen.
- Doors use heavy glass panels with tight clear openings (720 mm).
- High service counter (720 mm high, 380 mm deep).
- Additional floor level threshold step of +170 mm at the exit connecting the outdoor eating space.
- Pantry is placed directly opposite narrow structural corridors, causing physical bottlenecks when appliance doors or cabinet units are opened.





Recommendations

- Ramp to be provided to merge the gap.
- Refer page no. 38.
- Provide TGSi for connecting are more than 3 m wide.



The background of the slide is a close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with a greyish-tan color and feature white icons representing different types of disabilities. From left to right, these icons are: a person in a wheelchair, a stylized ear with sound waves (hearing aid), and a person walking with a cane. Other visible keys include 'F10', '+ =', 'delete', '0', and 'A'.

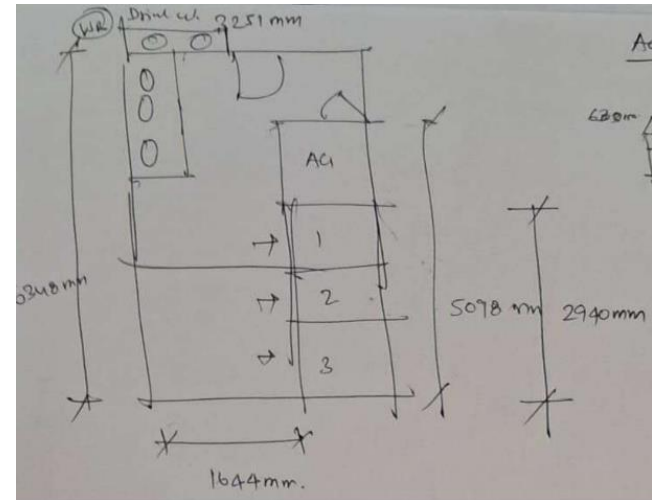
Toilets

(Ground, First, Second and Third floor)

Ladies Toilet (Staff only) – Ground floor level

Existing

- Size of the toilet is 3251mm x 6348mm.
- One **All Gender Accessible Toilet** and 3 regular toilets with western WC with 3 wash basins are provided.
- The size of the all gender toilet is 1377mm x 3178mm. **Grab bars shall be improved.**
- Height of the counter top is 810mm, leg space below the counter is 690mm. Depth of the washbasin is 630mm.



Layout of the Toilet



Ladies Toilet (Staff only) – Ground floor level

Existing

- The size of the **All Gender Toilet** is 1377mm x 3178mm.
- Door opening outside.
- There is no emergency call button inside.
- Grab bars shall be improved.
- There is no washbasin inside the toilet.



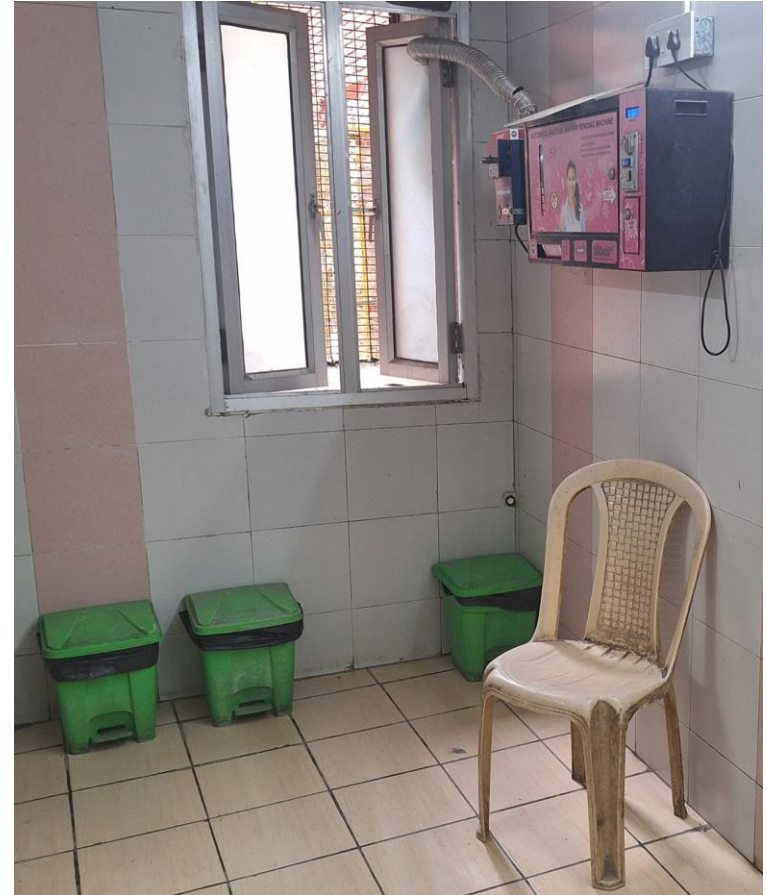
Ladies Toilet (Staff only) – Ground floor level

Existing

- Height of the dispenser is 1638mm from finished floor level.
- Height of the incinerator (napkin disposal) is 1660mm.
- Height of the hand drier is 1530mm.

Recommendations

- All elements to be used shall be at height of 800-1000mm.



Signage- All Gender Accessible Toilet

Existing

- All Gender Accessible Washroom is provided inside the ladies toilet.
- Braille signage is missing.
- Fixing of signage is at different levels.



All Gender Accessible Toilet

Recommendations

- Minimum size of one cubicle shall be 2200mm x 2300mm.
- Single swing type door (two way opening door of min. 900mm wide) / sliding door is strongly recommended.

WC

- Have clear space of not less than 900mm wide next to the water closet.
- Should be located between 350mm to 450mm from the centerline of the WC to the adjacent wall.
- 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 450-480mm from the floor.
- There should be two alarm switches (near L-shape grab bar) at two levels -300mm and 900mm.
- Peb/hook and shelf height should be at 400mm and 800mm.



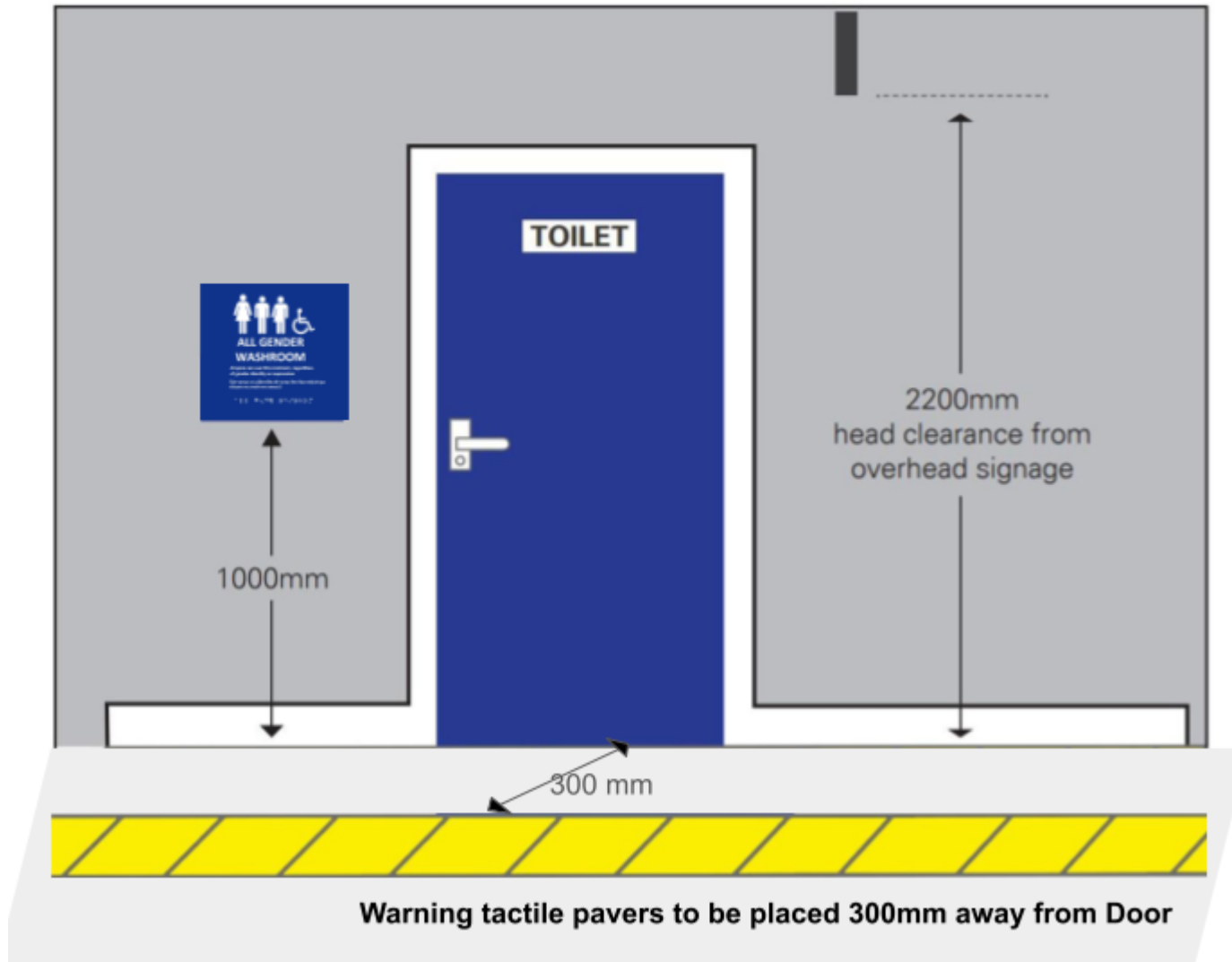
Signage- All Gender Accessible Toilet

Recommendations

- All Gender Accessible Washroom shall have the signage given herewith along with Braille.
- Braille signage shall be on wall (between 1400-1600mm) and visual signage shall be on door.



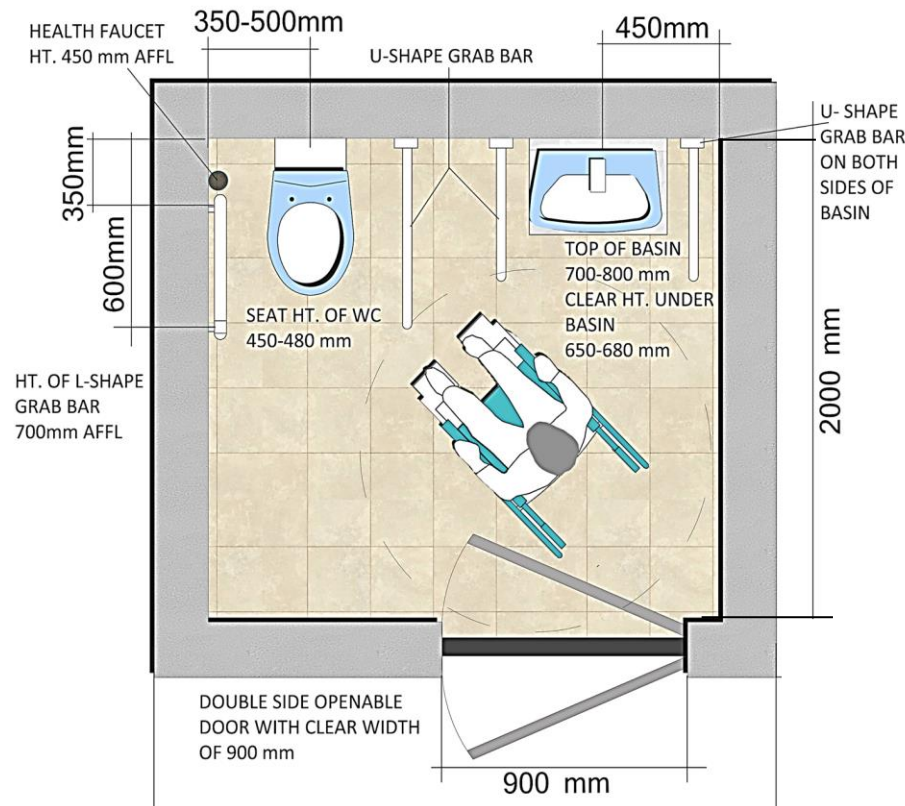
TGSI-Tactile warning before the all toilets door entry



All Gender Accessible Toilet

Recommendations

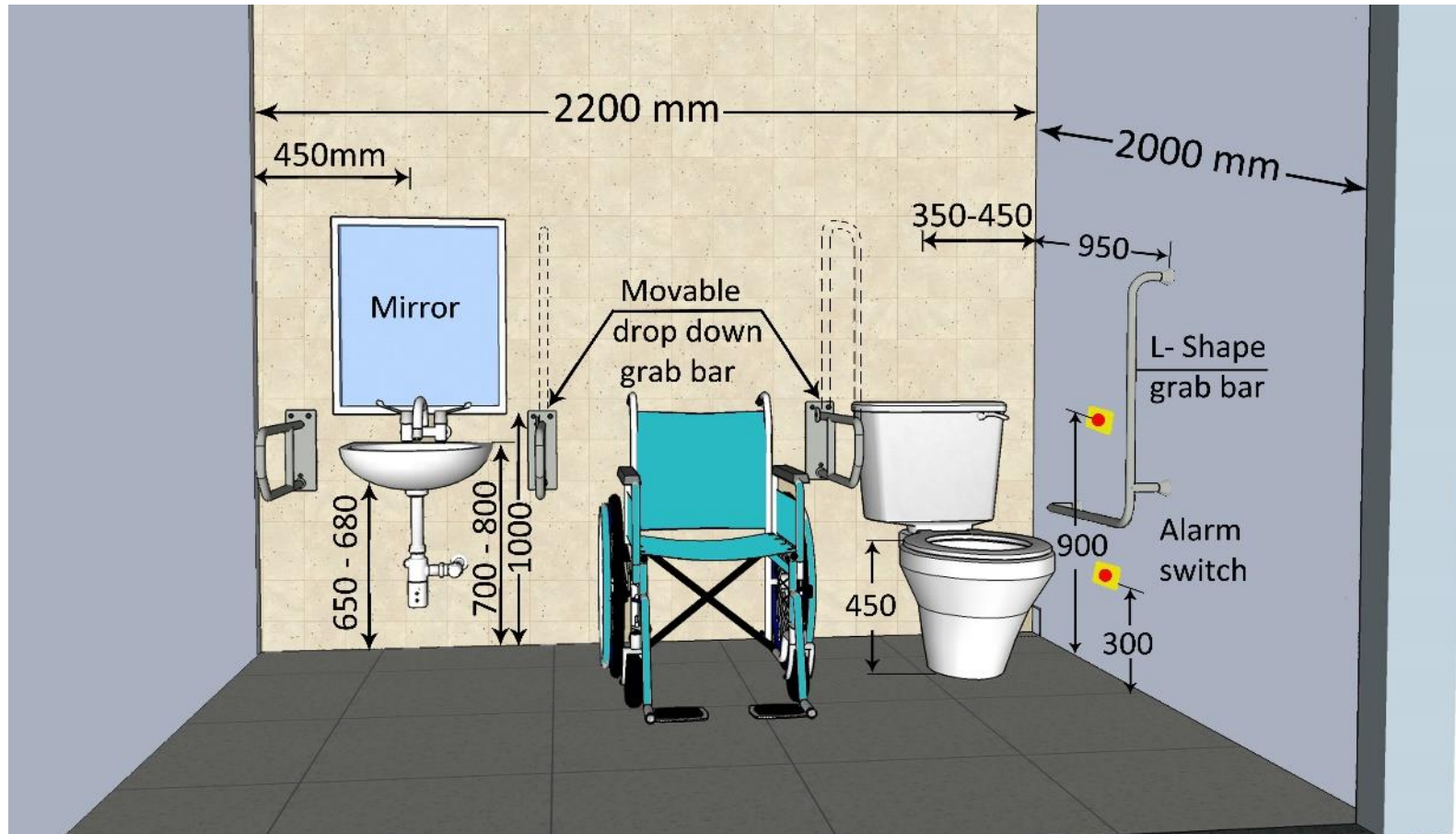
- Size of the accessible washroom shall be 2.3m x 2.2m min. This allows for at least three types of transfers.
- There shall be grab bars – L shape on wall side, U shape moveable on the side of the WC and two moveable grab bars for wash basin
- There should be two alarm switches (near L-shape grab bar) at two levels -300mm and 900mm.
- Peb/hook and shelf for keeping things shall be provided at height between 400mm and 800mm.



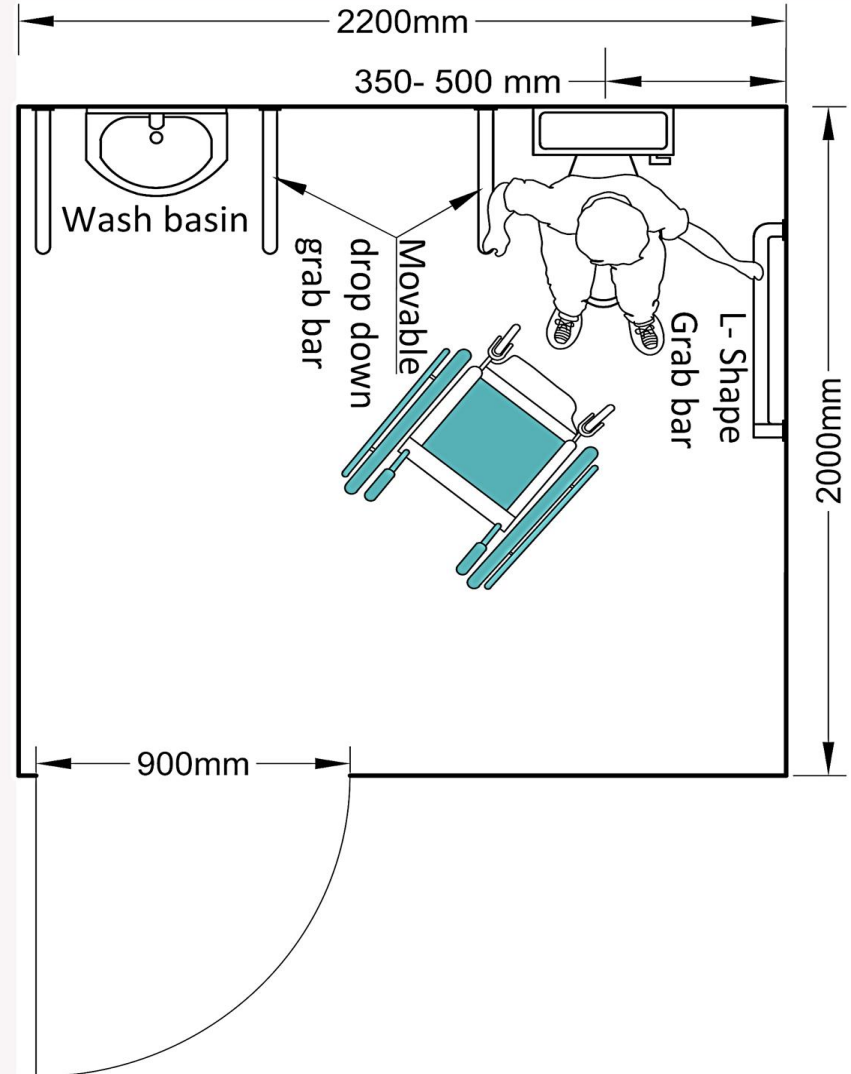
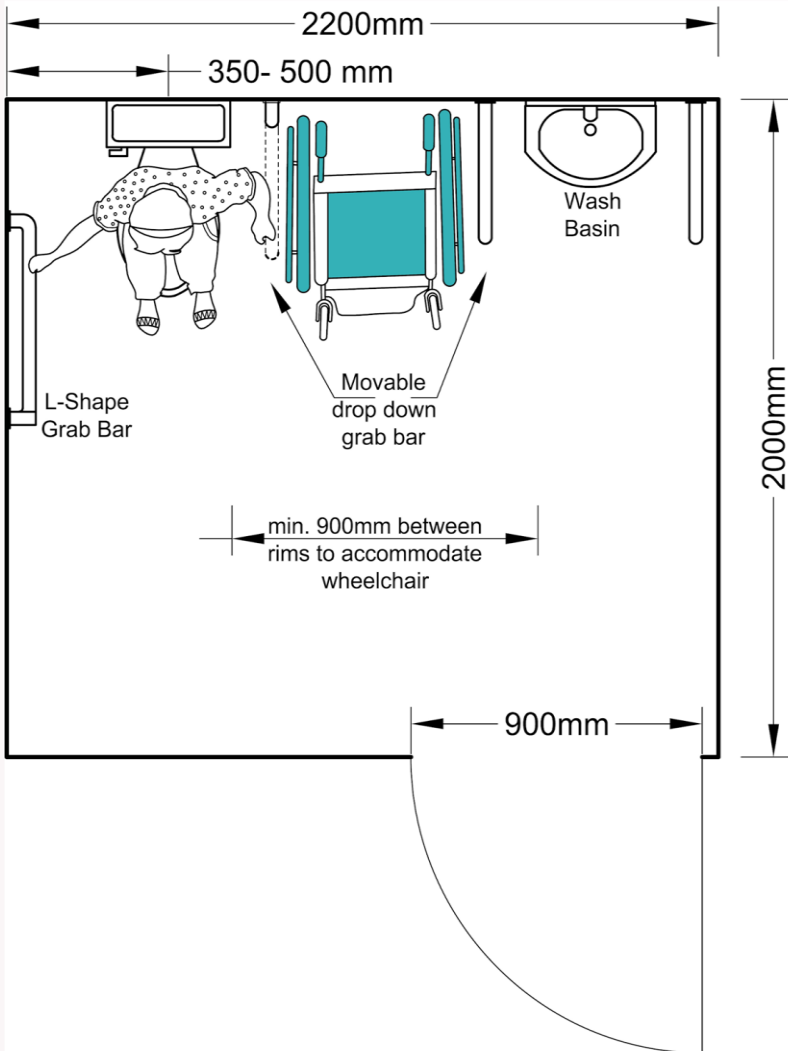
All Gender Accessible Toilet

Recommendations

- Specifications of the various hardware and accessories placement for All Gender Washroom are given in the illustration.



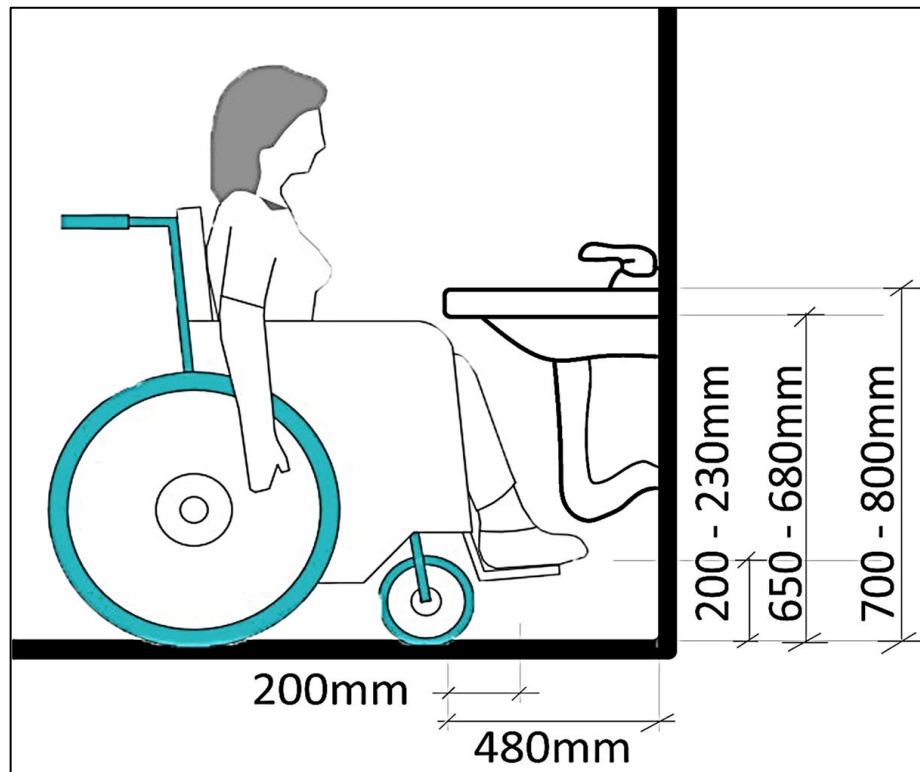
All Gender Accessible Toilet



Accessible Washbasin

Recommendations

- The dimensions of the washbasin should be 520 mm x 410 mm. When mounted, the top edge should be at a height of 700 mm – 800 mm from the floor, and there should be a knee space of at least 760 mm width x by 200 mm depth x 650 mm – 680 mm height.
- There shall be no pedestal under the wash basin.



Wash Basin

Recommendations

- Mirrors should be installed at a height of 900 – 1000 mm (bottom edge) from the floor and the mirror may be inclined at an angle of 25°.
- U-shape moveable grab bars on both the sides of the washbasin are recommended.



Tactile warning for washbasin



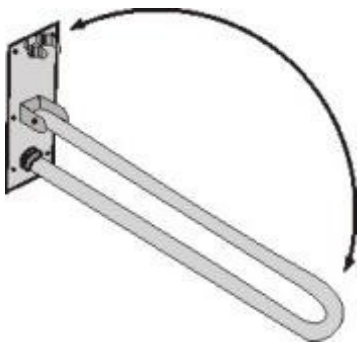
U-shape moveable grab bars

All Gender Washroom

Recommendations

Grab bars

- On the transfer side of the WC, U-shape swing up type and on the wall side L-shape grab bar should be provided.
- L- shape and U-shape grab bar should be at a distance of 350mm from the centerline of the WC cistern, so that these are easy to hold and are not too far from sitting position.
- Support bar should be provided on the wall, near the door, for people to hold on to it for moving towards the WC/washbasin.



U -shape moveable grab bar



L-shape stationary grab bar



Support Bar

Maintenance and Operations

- **Maintenance staff** and security guards should be trained to understand that accessible toilet can be used by anyone, viz, persons with reduced mobility, those with ailments and medical conditions, pregnant women.
- All gender washroom serves use by those who are assisted by carers with opposite sex, hence both male and female can use it.
- **These should not be locked or used as store.**



Toilets (Upper floors)

First floor - No All Gender Accessible Toilet

Second floor – No All Gender Accessible Toilet

Third floor – under renovation

Gents Toilet (Staff only) – First floor

Existing

- Tactile signage at toilet entrances lacks adequate color contrast against surrounding surfaces, limited utility for visually impaired users.
- TGSi warning in front of the doors with an offset of 30mm is missing.
- Door width is 834mm.
- Urinal is inaccessible with a step with height of 160mm.
- The height of the urinal bottom part till the finished floor level is 660mm.
- One washbasin with the height of 834mm is provided.

Ladies Toilet (First floor)

Existing

- TGSi is missing in the front of the door with 300mm offset.
- There are 3 cubicles, 1 and 2 cubicle size are same. Third cubicle size is 1057mm x 1964mm.
- One mirror and 2 washbasins are provided.
- **One low level accessible washbasin shall be provided.**



Ladies Toilet (Second floor) – staff only

Existing

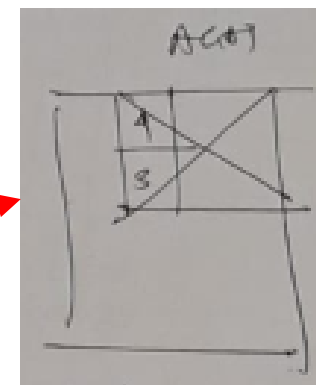
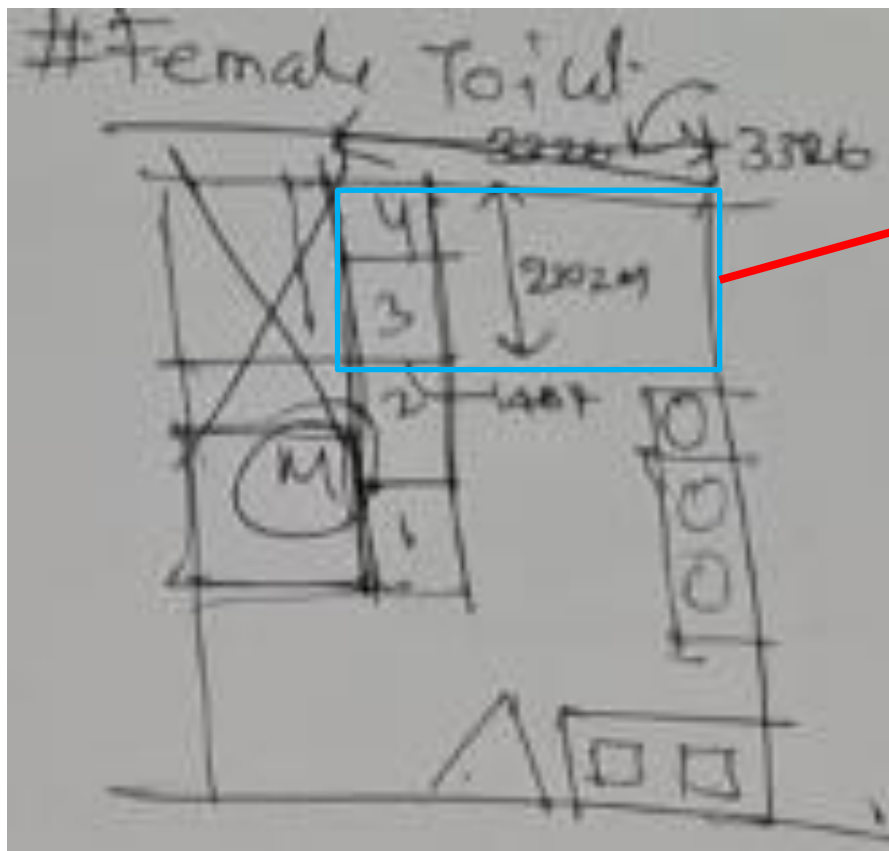
- Only 'mirror room' is provided in the space of all gender accessible toilet.
- There are 3 washbasins and 4 cubicles with western closets are provided.
- **One low level accessible washbasin shall be provided.**
- Toilet is in deteriorated stage. Renovation is in progress as per staff information.



Ladies Toilet (Second floor)

Recommended

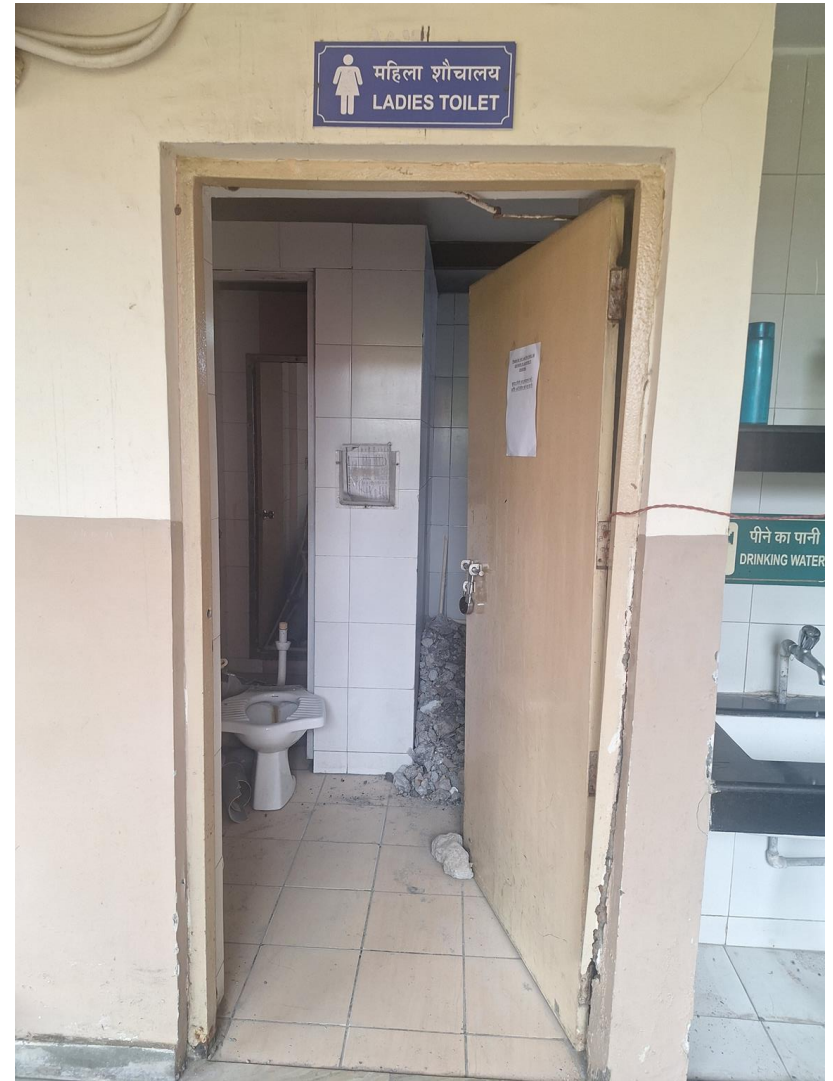
- Cubicle 3 and 4 with the space at the front shall be recommended to create All Gender Accessible Toilet.
- Size available is 3326mm x 2102mm.
- One low level accessible washbasin shall be provided.



Ladies Toilet (Third floor)

Existing

- Toilet under renovation.



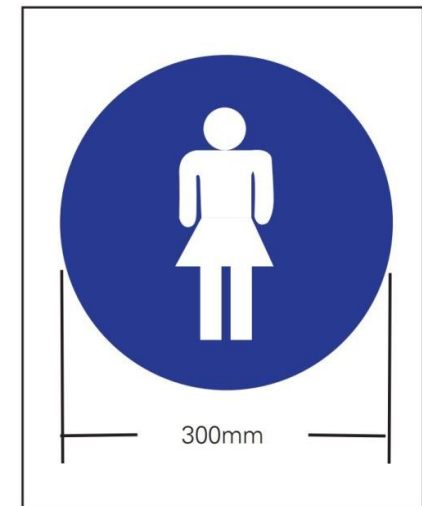
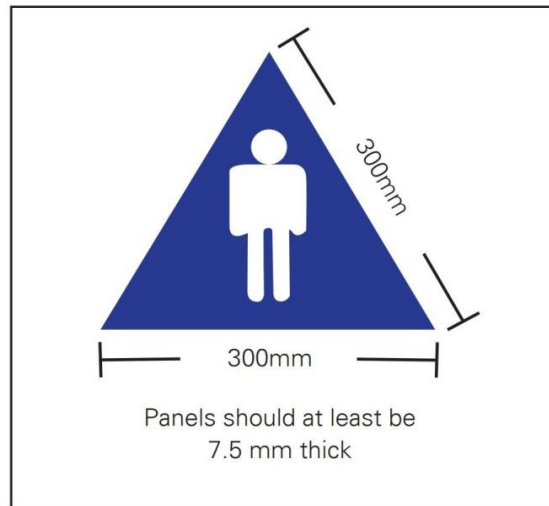
A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with white icons on a grey background. From left to right, the icons are: a person in a wheelchair, a stylized ear with sound waves, and a person walking with a cane. Other visible keys include 'F10', '+ =', 'delete', '0', 'A', and a key with a single dash. The text 'General Washrooms' is overlaid in blue.

General Washrooms

Washroom

Recommendations

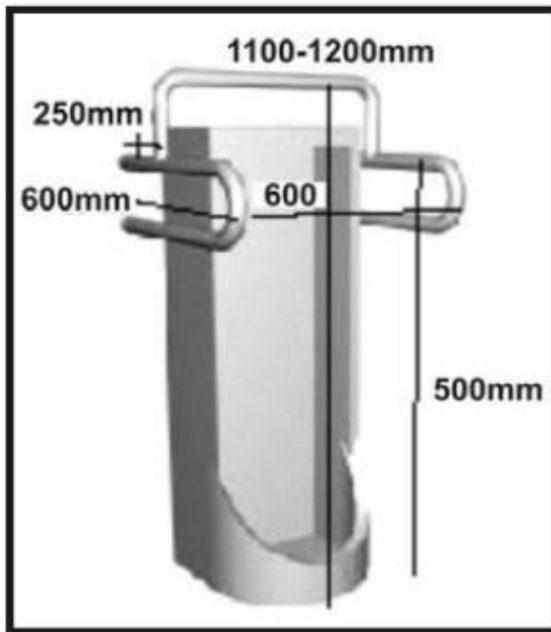
- It is proposed to provide the conventional male and female symbol which are easy to understand by everyone.
- Optional- For persons with low vision - pictogram (male pictogram in triangle and female pictogram in circle), marked on plates along with Braille & raised alphabets, to be mounted on wall at a height between 1400 mm-1600 mm, next to latch side of the door.
- Warning tactile paver strip should be provided 300 mm before all washroom entrances.
- As there are many wash basins in each male and female washrooms, one should be lowered down for persons with short height (dwarf persons). Refer page no. 47.



Accessible Urinal

Recommendations

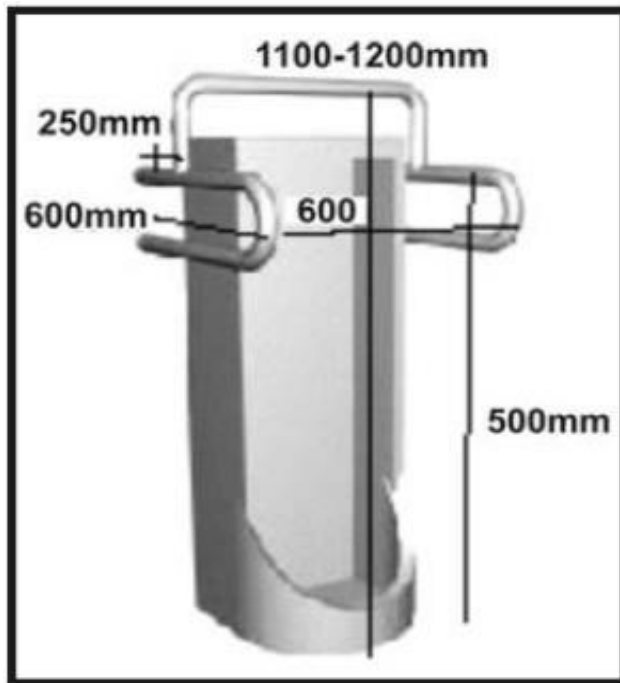
- At least one of the urinals in the male washroom should have chest support grab bar; installed on each side and in the front to support ambulant persons with disabilities (for example, crutch users).
- The front bar is to provide chest support; the sidebars are for the user to hold on to while standing.
- Urinal shields/partition should have a gap of 900mm minimum.
- Urinal rim height should be 430mm from finished floor level.
- Flooring should be anti-skid/ matt finish.



Accessible Urinal

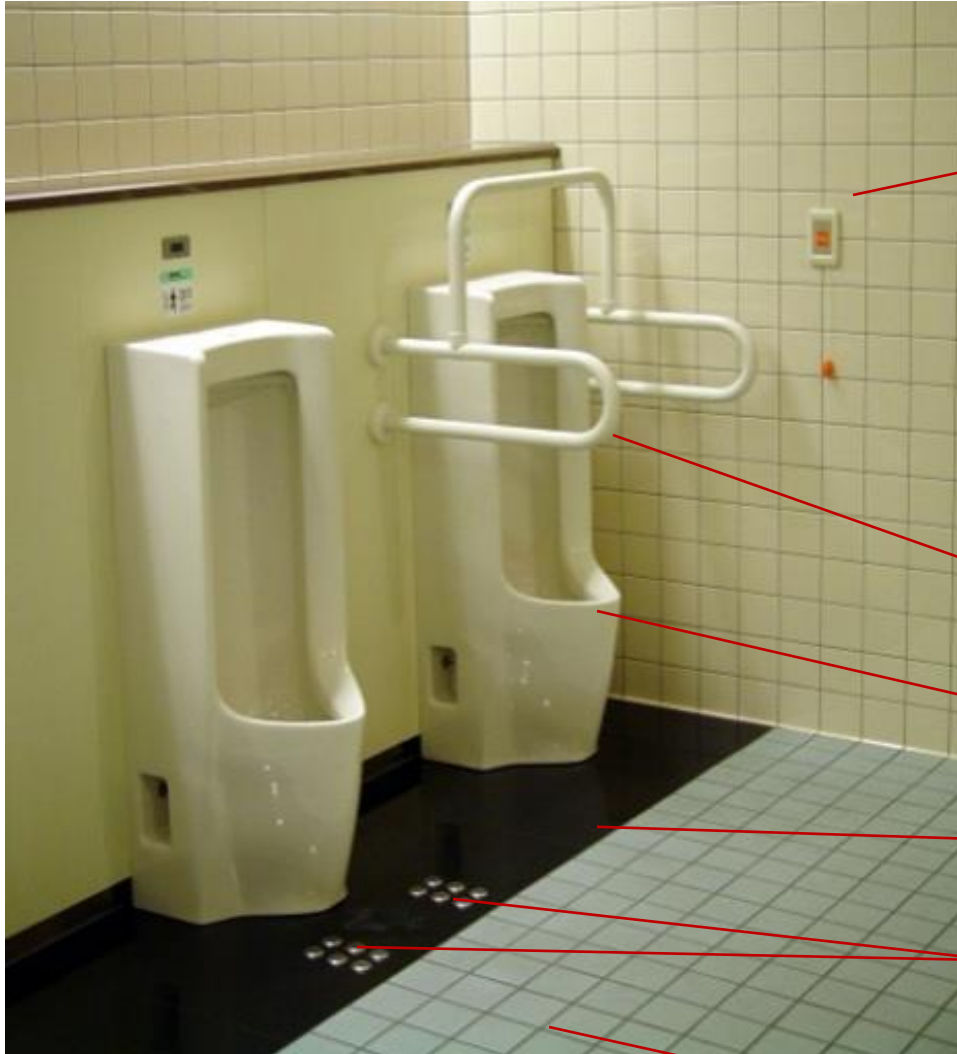
Recommendations

- At least one of the urinals in the male washroom should have chest support grab bar; installed on each side and in the front 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.
- Urinal shields/partition should have a gap of 900mm minimum.
- Urinal rim height should be 430mm from finished floor level.
- Flooring should be anti-skid/ matt finish.



Accessible Urinal- Universal Design

Recommendations



Panic alarm in contrast colour for male adult/ child height- 800-1000mm pull ball

Chest support grab bar for semi-ambulatory male

Lowered rim for child and wheelchair users

Contrast colour floor for easy identification of persons with low vision

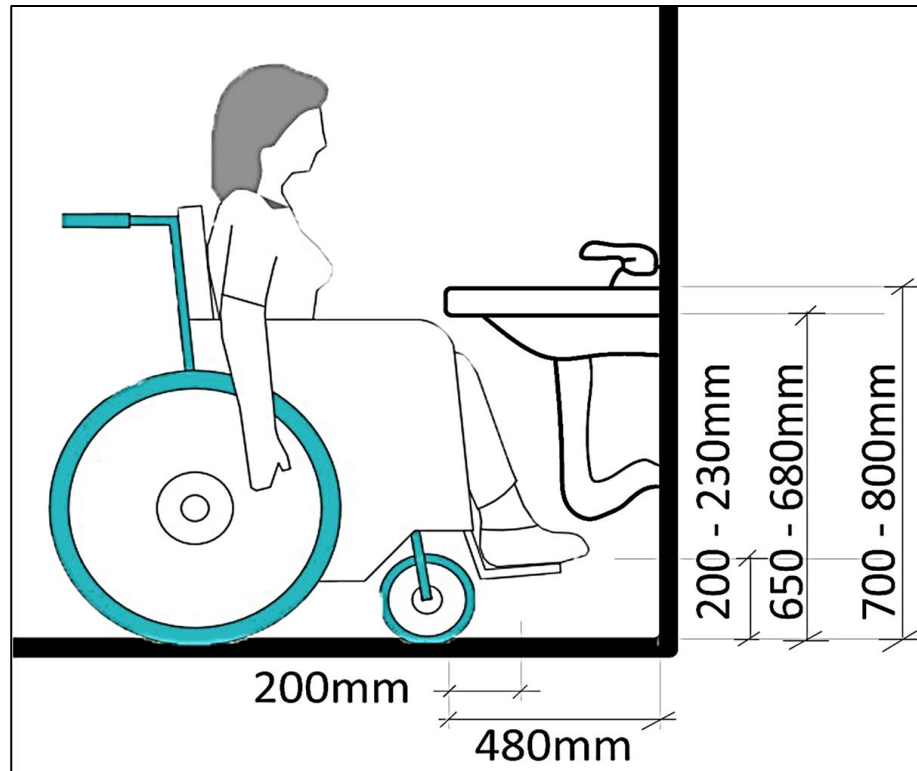
Tactile paver for male with visual impairment to identify standing position

Anti-skid flooring

Lowered Washbasin in Ladies and Gent's Toilet

Recommendations

- One wash basin (preferably near the entry door) to be lowered down.
- The dimensions of the lowered washbasin should be 520 mm x 410 mm.
- When mounted, the top edge should be at a height of 700 mm – 800 mm from the floor.
- These are required for use by people who are dwarf/ short statured.





Signages and way finding systems

Signages

Existing

- The height of the Braille in the signage is at 1360mm. There are 2 doors connecting the admin office from corridor space.



Signages

Existing

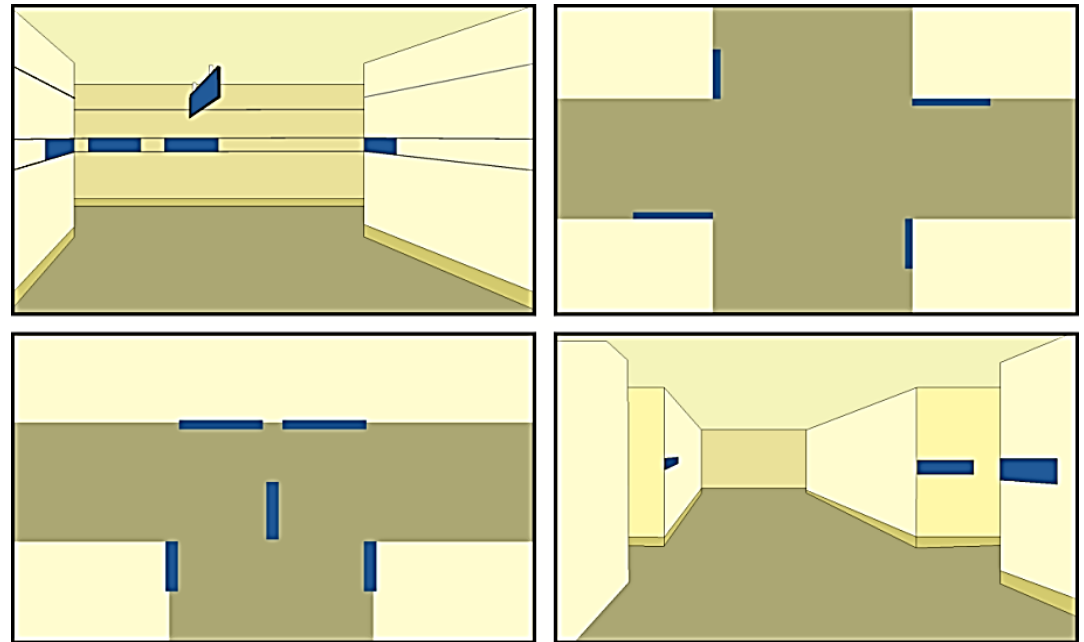
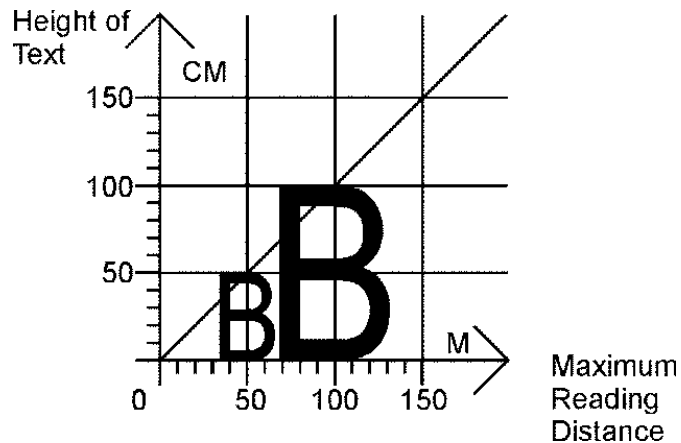
- Signage for ladies toilet shall be improved.
- Waf finding signage with list of rooms is provided in the wall opposite to the lift at third floor.



Way-finding Signage

Recommendations

- Signage having big fonts, color contrast and well illuminated benefit everyone particularly persons with low vision.
- These should be strategically placed for the maximum visibility as shown in the illustrations.



Recommendations - preferred location of signage

Way-finding Signage

Recommendations

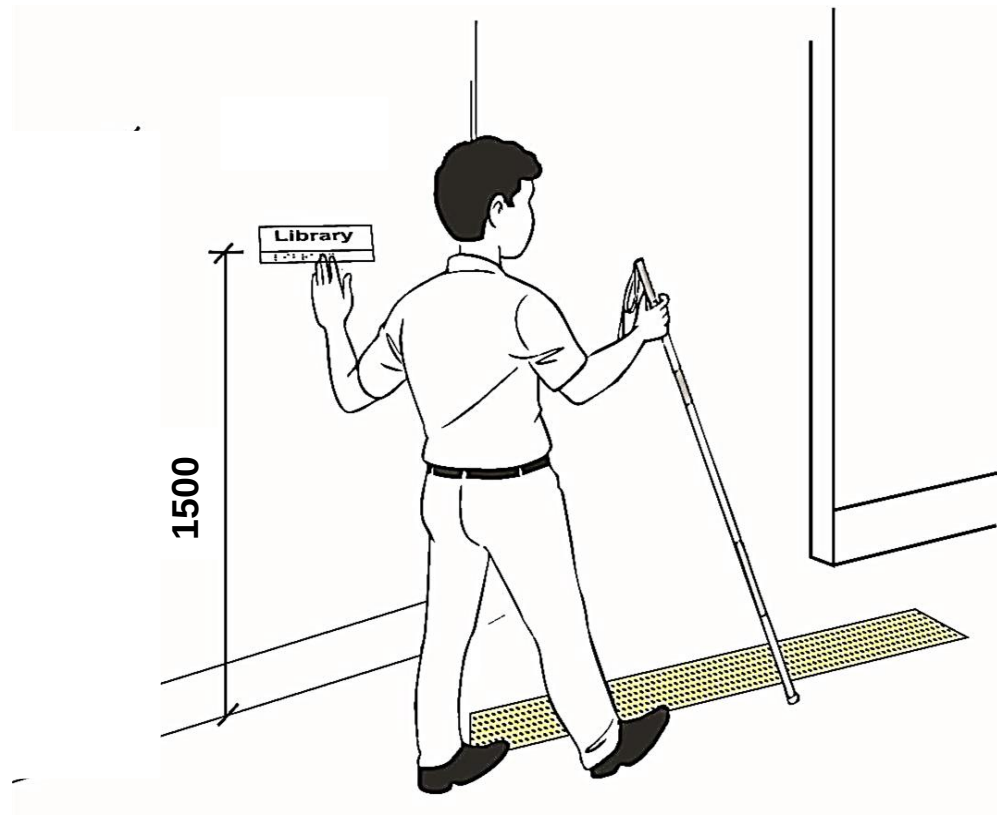
- Block arrows and contrast colour fonts and background colour should be used for signage for accessible facilities.
- All way-finding signage should be strategically located.



Braille Signage

Recommendations

- Braille signage should be mounted between 1400-1600 mm from floor level on the wall (on latch/door handle side of all doors).
- Tactile pavers should be directed towards Braille signage.

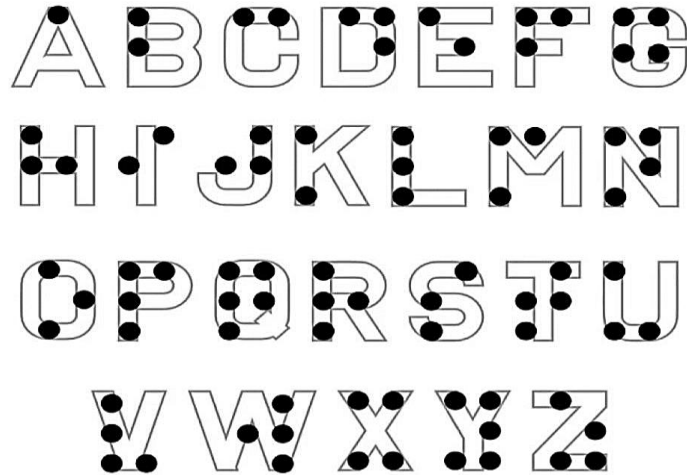


Braille Signage

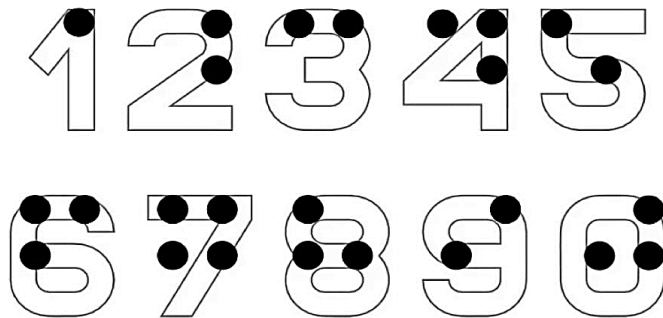
Braille

Recommendations

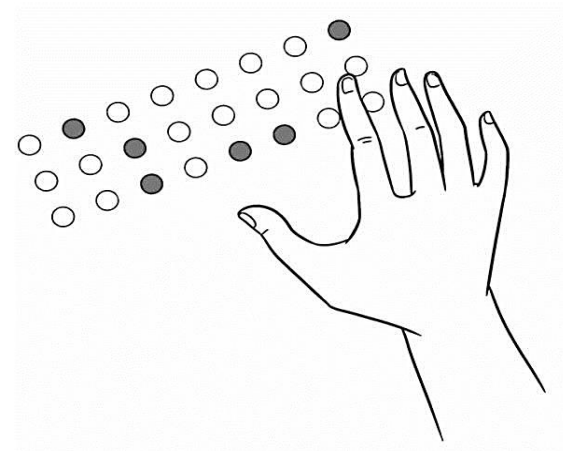
- Braille should be provided as per the illustrations.



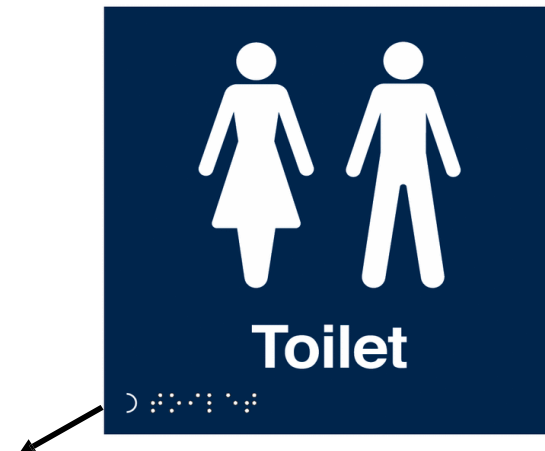
Alphabets



Numeric



Braille is read by fingers

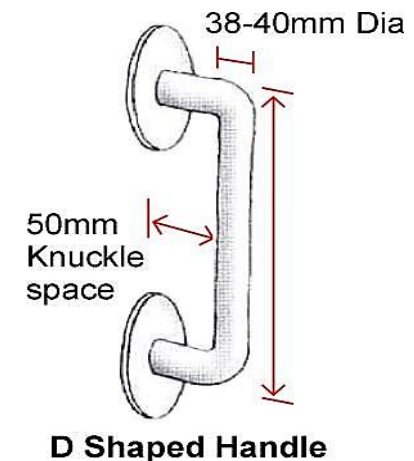
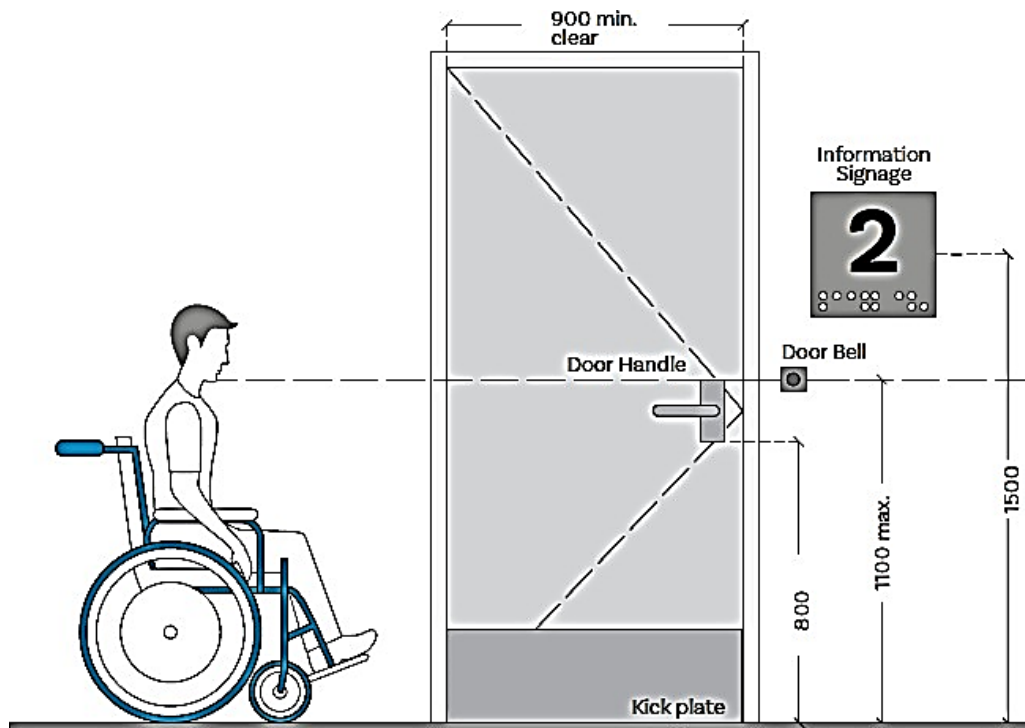


Braille locator

Doors & Door Hardware

Recommendations

- It is safer to use D-shaped handles – max. height 1000mm; they reduce the risk of catching on clothing, or injuring from the exposed lever end.



A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with white icons on a grey background. From left to right, the icons are: a person in a wheelchair, a stylized ear with sound waves, and a person walking with a cane. Other visible keys include 'F10', '+ =', 'delete', '0', and 'A'.

Upper Floor Levels (Academic and Research Facilities)

Biochemistry I Micro biology I Food laboratory

Existing

- Standing-height laboratory counters are between 833mm and 851mm.
- No low-level, height-adjustable, or wheelchair-accessible sit-down laboratory sinks or preparation counters are integrated.



Biochemistry (Typical 010,110, 210)

Existing

- Space recommended for fixing low level sink is indicated below:
- Shifting of this appliance is necessary.



Preparation Room (only for staff)

Existing

- Low level sink or adjustable counter is missing.



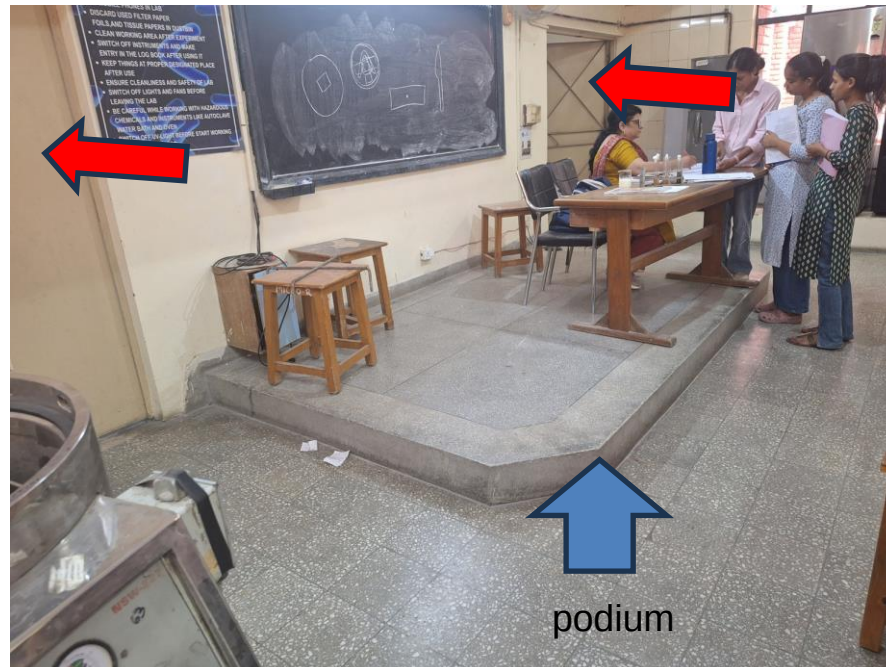
Micro biology Lab

Existing

- Stage/podium is provided for the lecturer. However there is ramp to connect the podium. There is also a space constraints to recommend ramp because the preparation room for the staff is one side of the podium and the entry to the lab on the other side of the podium.
- Low level sink and adjustable counter top shall be provided for person with locomotive disabilities.



Signage fixed at the top of the door



Micro biology – Preparation room (only for staff)

Existing

- Stage/podium is provided for the lecturer. However there is no ramp to connect the podium. There is also a space constraints to recommend ramp because the preparation room for the staff is one side of the podium and the entry to the lab on the other side of the podium.
- **Low level sink and adjustable counter top shall be provided for person with locomotor disabilities.**



Anti Ragging Cell

Existing

- Door is elevated with 50mm rise from the corridor's finished floor level.
- **Bevelled edge shall be provided to have smooth transition for wheelchair users and people with mobility issues.**



Printing shop

Existing

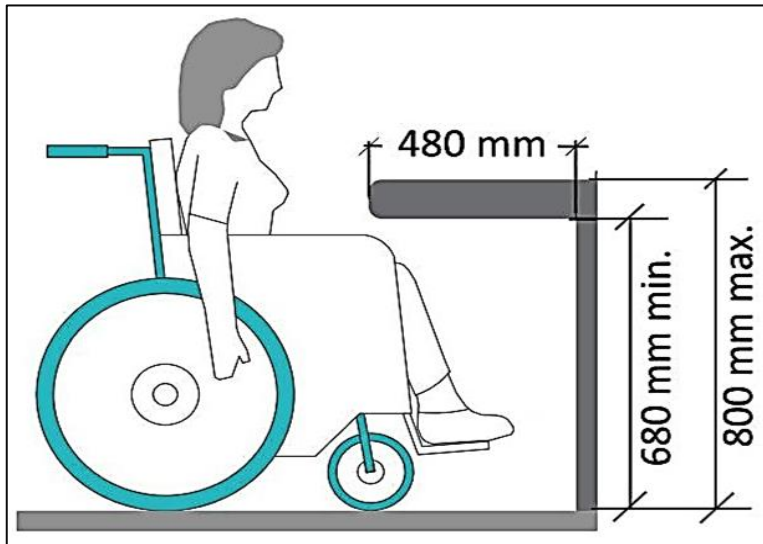
- Printing shop accessories are extended outside the shop and spread-out in the corridor space.
- **There shall be no obstructions in the accessible path.**



Food Lab

Existing

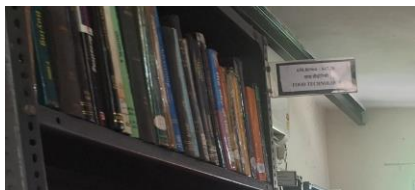
- **Low level sink and adjustable counter top shall be provided for persons with locomotor disabilities.**
- There are fixed counter and gas bank provided for each student.
- **Low level table for students with locomotive disabilities shall be provided at the rear side due to site constraints with the free standing gas cylinder or induction stove shall be arranged.**



Library (first and second floor is interconnected)

Existing

- The main reception/circulation desk is exceptionally high at 1080 mm.
- Digital space is provided. However, librarian is not aware about screen reader software's and Braille based study materials.
- Counter height is at 1080mm.



Library

Existing

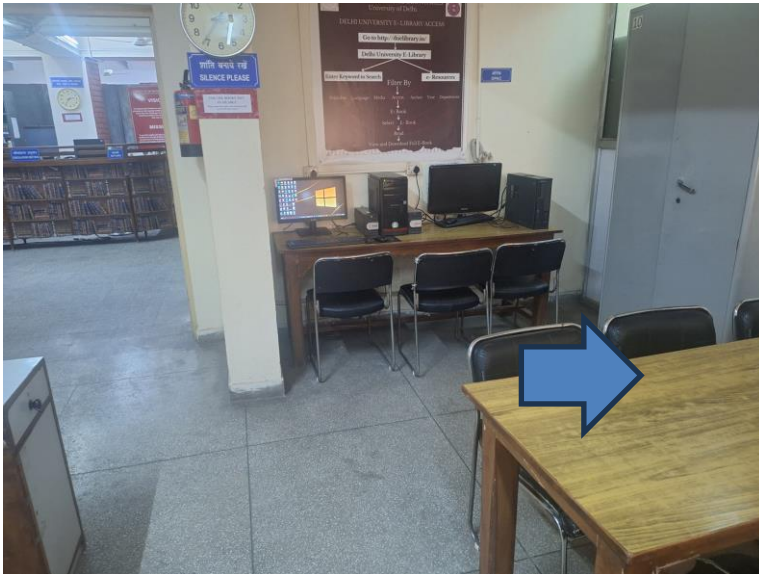
- Distance between two stack area is minimum of 904mm and maximum of 1367mm.
- Signage for locating books are fixed perpendicular to the passage.



Library

Existing

- Reserved space for students with physical disabilities is allocated close to the main entrance of the library at 2nd floor.
- Digital reading – computer space is provided. However, librarian is not aware about screen reader software's and braille based study materials.
- **There is one reading space with a level difference of one step inside the library- ramp shall be provided here.**



Reserved space for student with disabilities



Staircase connecting Library mezzanine floor

Existing

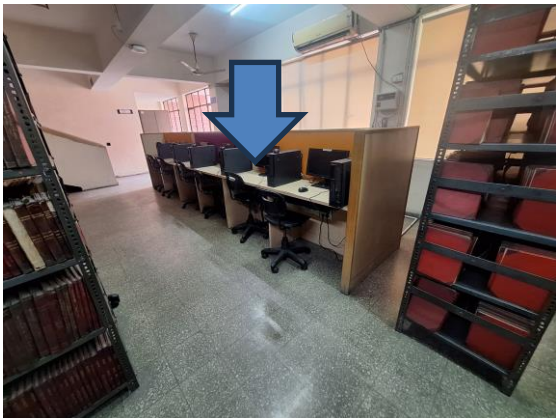
- The mezzanine space is exclusively reachable via a staircase, rendering it entirely inaccessible to mobility-impaired individuals. However reserved space for students with physical disabilities is allocated close to the main entrance of the library at 2nd floor.
- The width of the staircase is 950mm, handrail is provided only on one side.
- TGSi warning is missing at the start and end of the step including landing.
- Lighting is not sufficient in the place of staircase area- **adequate illumination shall be provided.**



Staircase connecting Library mezzanine floor

Existing

- The main librarian is seated in a room which is elevated from the other library floor space.
- One adjustable counter with clear leg space for wheelchair user shall be provided in the digital lab.
- Space connecting drinking water is narrow due to the stocking of almirah- **almirah shall be relocated.**

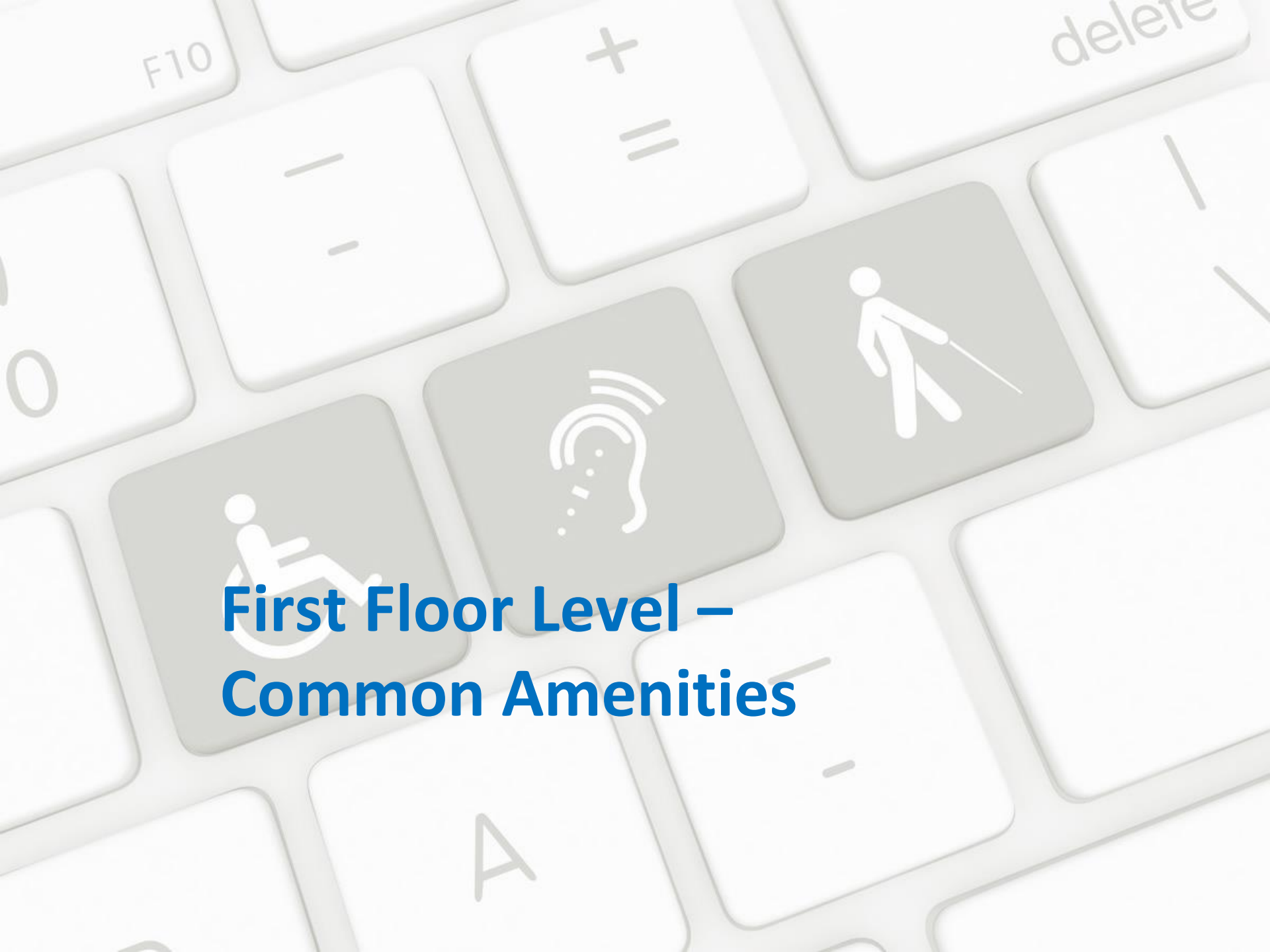


Theory rooms (Audited room no. 117)

Existing

- Door with double shutter is provided to enter the theory room.
- However there is a level difference due to new flooring with ceramic tiles. **Bevelled edge shall be provided to have smooth transition for person using wheelchair.**
- There is no stage/podium for lecturer. Hence, there is enough space to accommodate reserved seating area for wheel chair users in the first row close to the teaching board.
- However, high-level platform/stage access requires traversing 6 steps without an accompanying ramp option.
- There are provision of 2 doors to the theory room. One at the level of the corridor and an another at the last step height inside the theory room with a flight of stairs to exit from the rear side.



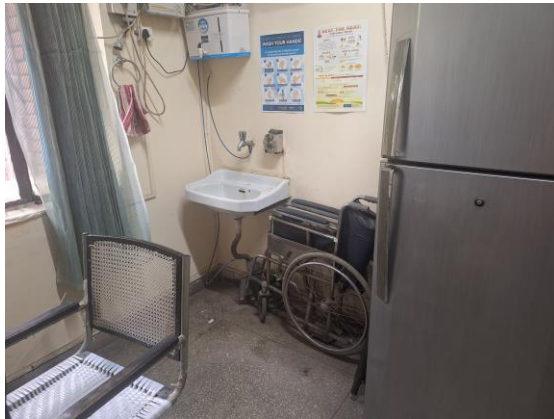
A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with grey backgrounds and white icons: a wheelchair icon (bottom left), a hearing aid icon (center), and a person with a cane icon (top right). Other visible keys include 'F10', '+ =', 'delete', '0', 'A', and a key with a dash/underscore. The text 'First Floor Level – Common Amenities' is overlaid in blue.

First Floor Level – Common Amenities

Medical Room

Existing

- Signages and way finding system is in place. However TGSi warning is not provided in front of the door with 300mm offset.
- 2 wheelchair is kept inside the medical room.



A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with grey backgrounds and white icons: a person in a wheelchair, a person with a hearing aid, and a person with a cane. Other visible keys include F10, a minus sign, an equals sign, a delete key, a zero key, and an 'A' key.

A Block (Second floor)

Communication plus Development

Existing

- TGSi, room signage and way finding system is missing - **shall be provided.**



A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with grey backgrounds and white icons: a person in a wheelchair, a person with a hearing aid, and a person with a cane. Other visible keys include F10, a minus sign, an equals sign, a delete key, a zero key, and an 'A' key.

A Block (Third floor)

Resource Management Laboratory

Existing

- Signages are missing- **shall be provided.**
- **One adjustable computer table shall be provided.**



Students Computer Lab

Existing

- Students computer lab is provided with collapsable gate outside and a door with double shutter inside.
- Due to the collapsible gate frame, there is no seamless access to computer lab for wheelchair users.
- One low level adjustable computer lab close to the door with wheelchair turning radius shall be provided.
- There is one huge room locked with old computers in the same floor.



Faculty Computer Lab

Existing

- Faculty computer lab is provided with collapsable gate outside and a door with double shutter inside.
- Due to the collapsible gate frame, there is no seamless access to computer lab for wheelchair users.
- **One low level adjustable computer lab close to the door with wheelchair turning radius shall be provided.**
- **There is one huge room locked with old computers in the same floor.**





III- B Block

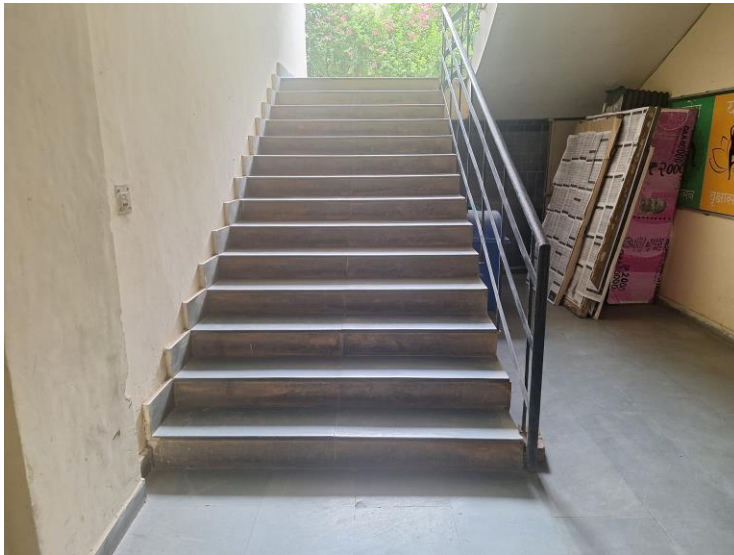


Basement Floor

Dept. of Physical Education

Existing

- Basement is connected with a flight of stairs.
- **TGSI warning is missing at the start and end of the steps. Refer page 58.**
- There is raise of 50mm due to new flooring from the corridor space. **Bevelled edge shall be provided at the entry to multipurpose room.**

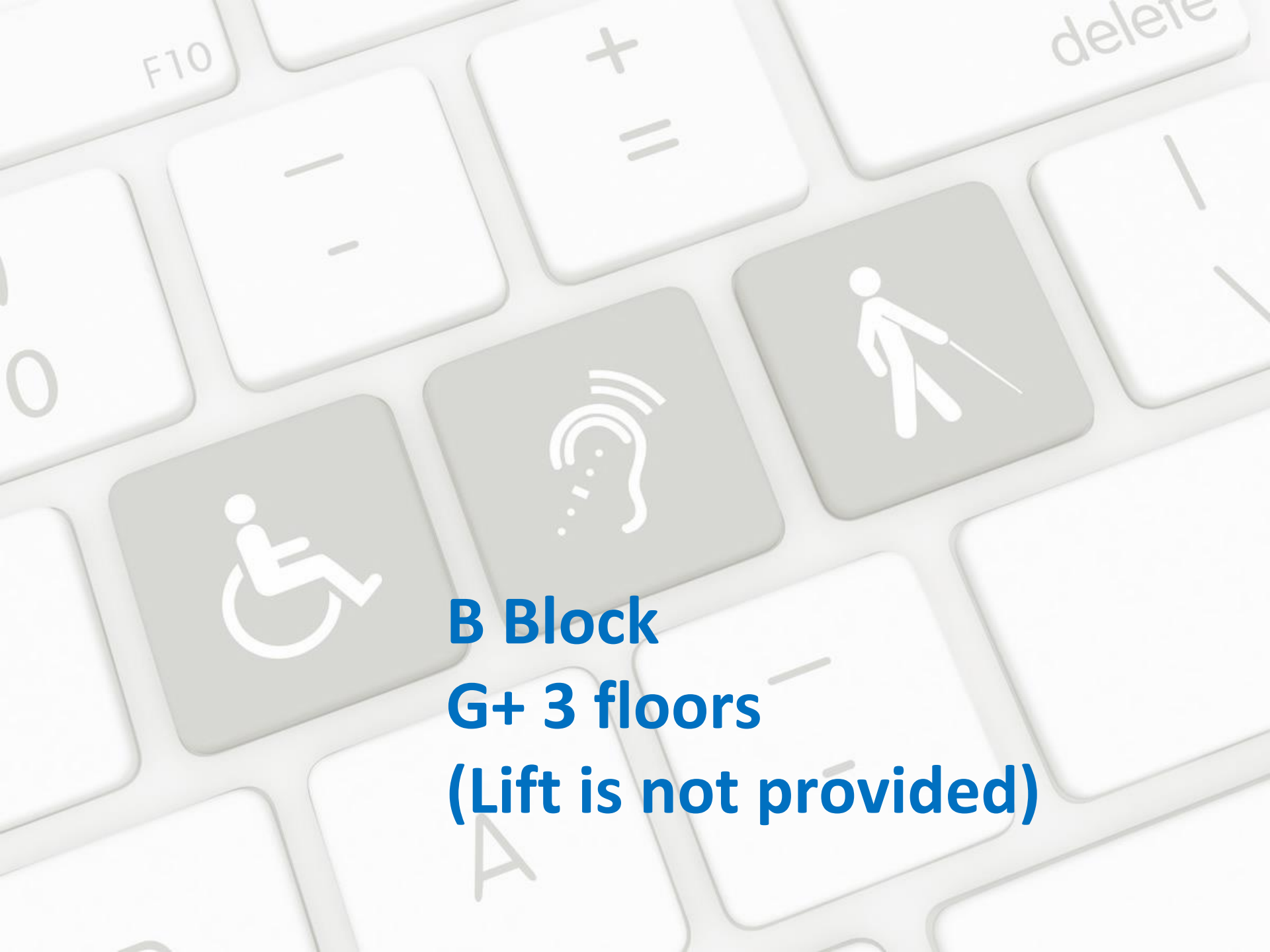


Dept. of Physical Education

Recommendations

- Bevelled edge shall be provided at the entry to multipurpose room. There is raise of 50mm due to new flooring from the corridor space.



A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with grey backgrounds and white icons: a person in a wheelchair, a person with a white cane, a person with a hearing aid, and a person with a white cane. Other visible keys include F10, delete, +, =, -, and 0.

**B Block
G+ 3 floors
(Lift is not provided)**



**B Block
Ground floor level**

Ramp Entry to Block B

Recommendations

- TGSi warning is missing at the start and end of the ramp including landing.
- Two level handrail on one side and one level handrail on another side is already provided.
- Removal of planters in front of the ramp is essential to avoid hindrance for wheelchair users.
- **Refer page no. 34.**



Step Entry to Block B

Existing

- TGSi is missing at the start and end of the steps.
- Handrail is missing at the either sides of the steps.
- Contrast colour tapes on step edges shall be provided. **Refer page no. 58**



Open air theatre

Existing

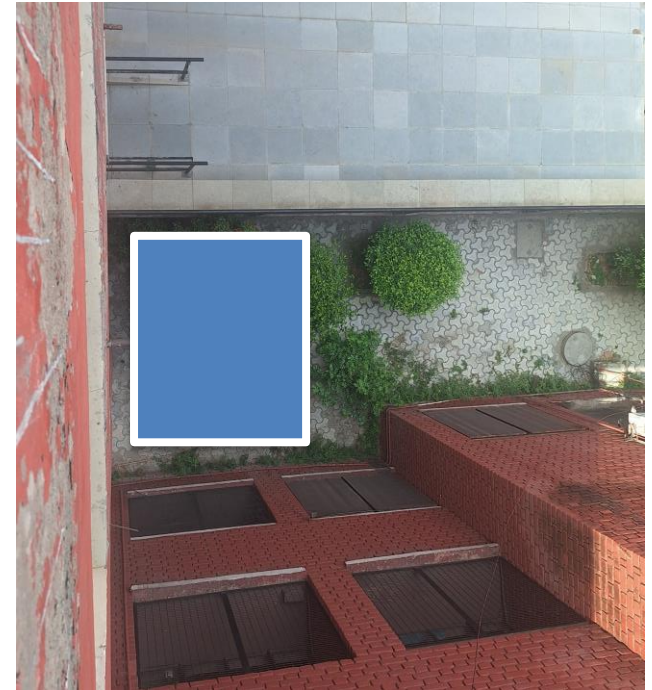
- TGSi warning is missing at the steps (start and end of the steps)
- Ramp shall be provided by replacing the steps on one side.
- **Refer page 34 and 58.**



Recommendations for Lift (connecting A & Block) location

Existing

- Space highlighted is suitable to provide new lift.
- This area has a connection at all floor level.
- This is also close to the connecting staircase between A & B block.
- **Refer page no.**



Ramp connecting corridor

Recommendations

- The length of the ramp is 1500mm, width of the ramp is 1100mm, and the plinth height is +370mm.
- **Provide ramp as per page no.**



Day care

Existing

- The multipurpose hall is very spacious.
- However, the therapy room is small and it is used as storage space.



Day care (Toilets for Children)

Existing

- Low level washbasins are provided.
- One Indian closet and 2 low level WC is provided for children.
- One staff toilet is inside the toilet.



Drinking water

Existing

- Tap height is fixed at 920mm, tray is at 609mm.
- TGSi warning is missing in front of the dispenser.
- **Refer page no.**



Students Toilet

Existing

- TGSi is missing at the front of the door.
- There are 3 cubicles and 3 washbasins.
- Door opening accessing the toilet is 770mm wide.
- Washbasins are fixed at height of 804mm.
- Napkin dispensers and hooks shall be provided.



All Gender Accessible Toilet

Existing

- TGSi warning is missing in front of the toilet.
- Size of the toilet is not meeting standards.
- Grab bars shall be improved.



Staff Toilet (Ladies)

Existing

- All Gender Accessible Toilet shall be provided in the new space recommended is indicated below.
- This space is well connected from the corridor and shall be provided at every floor except ground floor.



Gents Toilet

Existing

- TGSi is missing at the front of the door.
- The lower most height of the urinal is 609mm from finished floor level.
- The height of the washbasin is fixed at 800mm.

Staff Toilet (Ladies)

Existing

- TGSi is missing in front of the door.
- Door opening width is 804mm.
- There are 4 washbasins and 5 closets.
- Height of the washbasins are fixed at 802mm and depth is 509mm.
- The door accessing closet is 606mm.



Staircase connecting upper floors

Existing

- TGSi is missing at the start and end of the steps including landing.
- Handrails are not round handrail, instead flat handrail is provided. Also handrail is missing on one side of the staircase. **Refer page 58.**





First floor

Human Development Lab

Existing

- TGSi is missing at the start and end of the steps and door entrances.
- Handrails are not round handrail, instead flat handrail is provided. **Refer page 58.**
- Also, handrail is missing on one side of the staircase.
- Floor level indication (level of each floor) is missing at every floor.





Third floor

Food Technology (upper floor)

Existing

- TGSi is missing.
- Signage is missing.
- Podium is provided without ramp. **Refer page 34.**
- Low level accessible sink with adjustable tap shall be provided.



A close-up, slightly angled view of a white computer keyboard. Several keys are highlighted with grey backgrounds and white icons: a person in a wheelchair, a person with a white cane, a person with a hearing aid, and a person with a white cane. Other visible keys include F10, delete, +, =, -, and A.

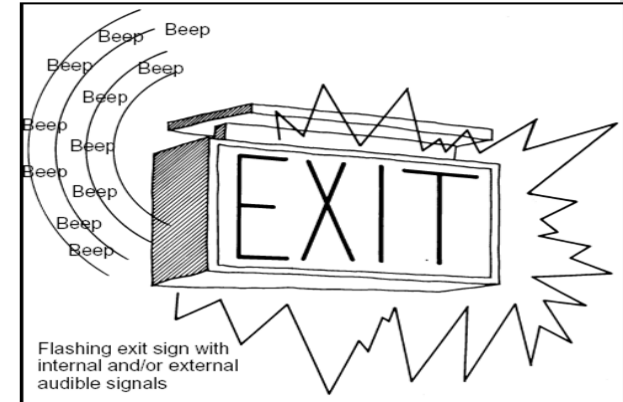
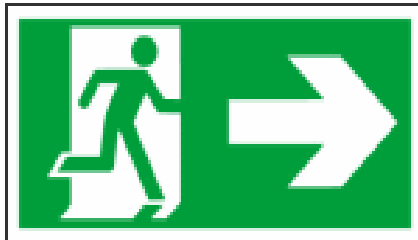
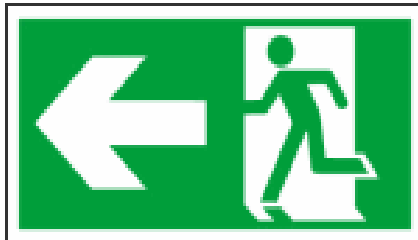
Emergency Evacuation

(Ground, First, Second and Third floor)

Emergency Evacuation Systems

Recommendations

- Evacuation routes are clearly identified by floor signage in contrast colour.
- Emergency alarm both audio (hooter type) and visual (flashing bulb) to be provided at strategic locations to alert all people including those with hearing and visual impairments.
- Assembly area signage is provided and employees with disabilities shall be well oriented about the same.



Controls and Operating Mechanisms

Recommendations

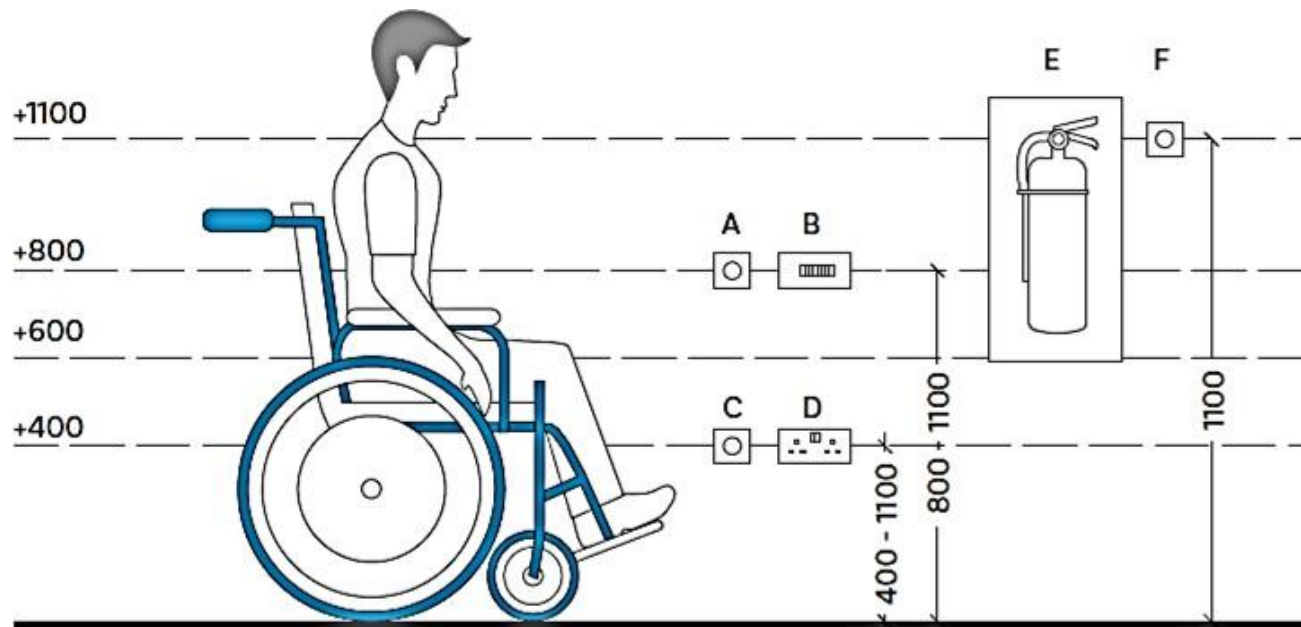
Controls should be color-contrasted, with the surrounding face plate panel and the faceplate contrasting with the background wall on which they should be mounted for persons with low vision.

- The control panels /switch boards should be flushed to the wall.

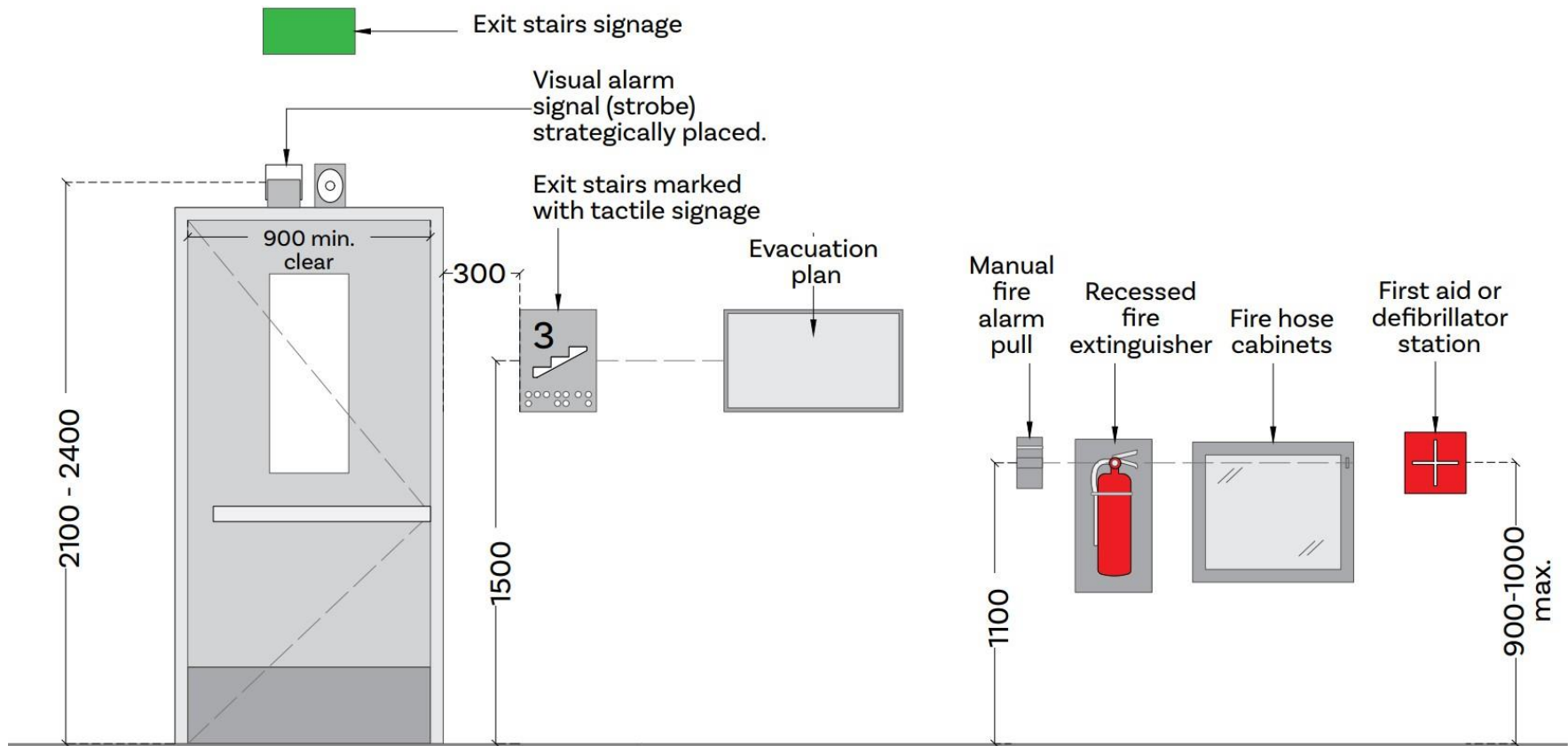
Operable part of controls such as handles, etc. should be:

- located adjacent to the clear floor space;
- height between 400-1100 mm;
- operable by one hand;
- does not require tight grasping, pinching or twisting of the wrist; and operable with a force less than 22N.

A- Push Button
B- Switches
C- Outlet
D- Sockets
E- Fire extinguisher
F- Fire alarm, call point



Emergency Evacuation Systems



Color Contrast in Finishes and Accessories

Recommendations

Contrast colours should be provided between:

- Signage and background sign frame/ wall,
- Step edges and risers/ treads on steps,
- Handrails and background wall,
- Doors and surrounding walls,
- Switches/ sockets and background wall,
- Toilet fixtures, accessories and background walls.





Services & Facilities Information & Communication

Particulars	
1.	Disability sensitization sessions are part of the staff induction programme.
2.	Staff are trained to assist persons with disabilities, including persons with hearing disabilities.
3.	Reception staff are trained in basic Indian sign language.
4.	Staff members are trained in Indian sign language interpretation. If not, then sign language interpreters are available on call.
5.	Staff are aware of the accessible facilities and know how to operate them.
6.	All accessibility equipment such as grab bars in washroom, Evac chair, etc. are checked regularly and maintained well.
7.	Trained live assistance is available in premises for all disability constituencies where it may be required.
8.	Site has a disability focal person in charge who manages the concerns of employees with disabilities.
9.	There is adequate and uniform lighting and no glare or dark spots for persons with low vision and persons with hearing impairment.
10.	There is a procedure for visitors and employees with disabilities to lodge a complaint or make suggestions.

Accessories List

S. No.	Particulars	Materials/Accessories
1.	Route	Tactile Paver- both guiding and warning type
2.	Accessible Parking	Floor marking and ceiling hung/wheelchair signage on pole
3.	Ramp	Handrails with 38mm -40mm OD and warning tactile paver
4.	Accessible toilet	Grab bars (3 U shape [rate Rs. 7800/- per pc] , 1 L shape [rate Rs. 7800/- per pc] , 1 support bar [rate Rs. 3700/- per pc]), door handle- D shape pull bar [rate Rs. 1000/-] WC with ht. 450-480mm, wash basin, lever handle taps, health faucet, panic button/alarm system
5.	General toilet	1 Urinal chest grab bar [rate Rs. 9500/- per pc]
6.	Way finding	Exit signage, floor or ceiling signage in contrast colour and large fonts

**Rates given above are for reference only*

Vendors List

Guiding/warning tactile pavers (tiles)

- Johnson, Durato, Endura and Nitco brand available at all leading stores
- Pelican Ceramic Industries Pvt. Ltd., Mr. Ashok K. Luthra (M) 9810545699 Ph: 25552097, 32482791

Tactile Adhesive Pavers ((PU-Tactile made of Polyurethane) ground surface indicators)

- AutoMark - Mr. Mayur Khara. Cell No. +91 98 222 20201., 1st Floor, “Saraf Court” Opposite Yashwant Stadium, Dhantoli, Nagpur-440012, Phone No.: +91-712-6603-671 to 678, +91-712-6615768,
- Polyventure- Mr. Soumavo Ghosh, Technical Manager, 43C, Avenue South Road, Santoshpur, Kolkata-700075, Telephone: +91- 33-4001 5443, Telefax: +91 33 2416 3462, Mobile: +91-9836142793
- Delco Rubber Traders, E- 48 Laxmi Nagar , Vikas Marg, Opp. Metro pillar No. 45/46, DELHI-110092. PULKIT JAIN (M) 8368306660 - 9899180477- 9811043913.
Email: delcorubbertraders@gmail.com
- Eminent Tactiles, Monish Goyani | Trade Manager, M: 99981 99968
Reg. Office: R K Prime. Office No. 920, 9th Floor. Nr. Nana Mava Circle, Beside Silver Heights, 150 Ft. Ring Road. Rajkot - 360004 (Guj.) India.



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United Nations Economic and Social Council since 2015



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