

FOREWORD

In compliance with the UN convention on the Rights of Persons with Disabilities, and the 1995 Constitution of Uganda, National Policy on People With Disabilities, the Uganda National Action on Physical Disabilities (UNAPD) together with the Ministry of Gender, Labour and Social Development developed accessibility standards to promote better access for all.

This was done through a number of consultative meetings with different stakeholders including representatives from various sectors. The accessibility standards developed were broad and rich in content. However on closer scrutiny interventions that would appeal to the grass root level settings at community and household levels were not appropriately addressed.

It is for this reason that the Ministry of Gender, Labour & Social development, the Ministry of Water and Environment, WaterAid, Uganda National Action on Physical Disability and representatives from other stakeholders developed a practical guide for inclusive water and sanitation services at household and community levels in Uganda. The new guideline builds on the initial work done and narrows the scope to water, sanitation and hygiene access.

The process of developing these guidelines was consultative and participatory involving a cross section of duty bearers and rights holders.

With such an inclusive guide, accessibility will be enhanced as the gap between the poor and the middle income populations will be bridged.

I would like to extend my appreciation to all Government ministries, Development Partners, various organizations for their invaluable contribution in this process and on implore all ministries, local governments, civil society, local communities and persons with disabilities to constantly utilize these guidelines for improvement of accessibility for all persons with disabilities, the elderly and other vulnerable groups in Uganda.

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Minister of State For Elderly and Disability Affairs

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These guidelines would also not have been possible without the dedication of the Technical Working Committee who reviewed and guided the development of these guidelines. This team comprised of Olweny Lamu (Ministry of Water & Environment), Spera Atuhaire (WaterAid Uganda), Ashabrick Bamutaze (Appropriate Technology Centre for Water & Sanitation), Akope Francis (Ministry of Education and Sports), Sandra Muhirirwe (Ministry of Water and Environment), Lydia Kiwumulo (Ministry of Gender, Labour & Social Development), Vincent Lyazi Kafeero (UNAPD) and Paul Kimera (Appropriate Technology Centre for Water and Sanitation). Gratitude is also due to their respective organizations for releasing them for this assignment.

Over time, as the ideas were being put together, part of the team benefitted from interactions with Hazel Jones who came with a wealth of experience on working on issues of equity and inclusion. Her influence and guidance, as well as that of Jane Wilbur (WaterAid) are highly valued and appreciated.

ACRONYMS

CDC	- Centre for Disease Control
EMAS	- Mobile School for Water and Sanitation
MoGLSD	- Ministry of Gender, Labour and Social Development
MWE	- Ministry of Water and Environment
PWDs	- Persons with Disabilities
SPR	- Sector Performance Report
UBOS	- Uganda Bureau of Statistics
UN	- United Nations
WASH	- Water, Sanitation and Hygiene
UNAPD	- Uganda National Action on Physical Disability

GLOSSARY

- Access -** Access means the possibility of any person to reach a place, maneuver within it, use a service, and participate in activities provided in a public place; with dignity, independence and safety on an equal basis with other”
- Disability -** Disability is defined as permanent and substantial functional limitation of daily life activities caused by physical, mental or sensory impairment and environmental barriers resulting in limited participation
- Impairment -** Impairment is a loss or abnormality in body structure or physiological function (including mental functions).
- Inclusion -** Inclusive development is about respecting the full set of human rights of every individual, acknowledging diversity, eradicating poverty and ensuring that all people are fully included and can actively participate in development policies and practices. In other words, inclusive development ensures that disabled people are recognised as rights-holders who must be actively engaged in the development process, irrespective of disability, age, colour, sex, race, social origin, nationality, property, birth, ethnicity, religion, or other status and that development institutions, policies and programmes must take into account and be assessed in accordance with their impact on the lives of disabled people, and are consistent with the promotion and protection of internationally recognised human rights.

1.0 INTRODUCTION

Access to water and sanitation was recognized in 2010 as a basic human right. In Uganda access to improved water source stands at 70% for the urban population and 64% for the rural population. Meanwhile, access to improved sanitation stands at 71% in rural areas and 80% in urban areas (SPR, 2013 pg.2). Therefore more than 8 million Ugandans do not have access to basic sanitation. The concern goes beyond the numbers to who those people are. A good number of those without these basic services include the poor. However there are still a number of people who may not access those services even when they are provided. This is due to a number of barriers impeding their access to such services. Although a number of barriers exist, this guideline deals with the physical barriers. These may be due to the natural environment or the physical terrain. The people who are excluded from accessing such services within the community, schools and households include the elderly, the frail, the sick, young children, women in their late stages of pregnancy, the visually impaired, amputees, people using crutches or sticks and wheel chair users.

According to the Uganda Population and Housing Census (2002), 4 out of every 25 persons in Uganda are people with disabilities (UBOS, 2002). The World Health Organization estimates that about 10% of any population is disabled. PWDs are vulnerable due to their impairments and negative society attitudes. This limits their ability to access services and this holds true for water, sanitation and hygiene services both at home and in public spaces. These challenges are not limited to PWDs but may extend to others, such as the sick, children, short/little people, pregnant women and the elderly.

The Uganda National Action on Physical Disability (UNAPD) in collaboration with the Ministry of Gender, Labour and Social Development (MoGLSD) developed quite comprehensive guidelines on accessibility titled, "Accessibility Standards: A practical guide to create a barrier free environment in Uganda." It goes a long way to describe and illustrate in detail elements such as ramps, stairs, entrances, doors, toilets, latrines, door handles, boreholes and wells. It is therefore useful for planners to carry out accessible designs. However the standards did not furnish enough in terms of appropriate designs to suit households, especially those who use the most basic structures. For instance, whereas the standards illustrate hand rails built into the walls of the toilet, the reality is that many of the traditional toilets have walls built with mud and wattle, simple pole frames with grass thatch or soil blocks. These designs may not withstand the weight of a person using hand rails supported by the wall. Looking at the whole spectrum of interventions, there is a need to adapt existing universal designs to local realities. Adapting the designs to use locally available materials is necessary to bringing down barriers to accessing WASH services.

Several of the designs illustrated in these guidelines have been tested by PWDs, the elderly, women and other vulnerable groups in Amuria and Katakwi districts as part of the development process. Improvements to the initial designs were made along the way and the users were active in the design process.

It is therefore expected that the designs illustrated in this manual shall raise the bar and go a long way in enhancing equity and inclusion in WASH. The guidelines will make it possible for government and implementing organizations to modify existing facilities to suit PWDs and other vulnerable groups but also promote integration of these design principles for new facilities.

2.0 GETTING TO WATER AND SANITATION FACILITIES

Communities are usually involved in selection of the location of water sources. The location can be a barrier because of distance, steep terrain and uneven ground. It is therefore important that communities are sensitized about equity and inclusion issues to help them make an informed decision about the location and the design of the pathway or steps to a water point. The pathway should be at least 0.8m wide to allow wheel chair access. Additionally the access path, staircases and ramps should have a provision for hand rails to assist users with physical disabilities.

Quality of construction is very important for accessibility. For example ramps should be built to join the ground in a neat way. If there is a height difference between the edge of the ramp and the ground, the ramp would be inaccessible to wheel chair users. Doors should be in good working order. If broken or hard to open and close, they become a barrier.

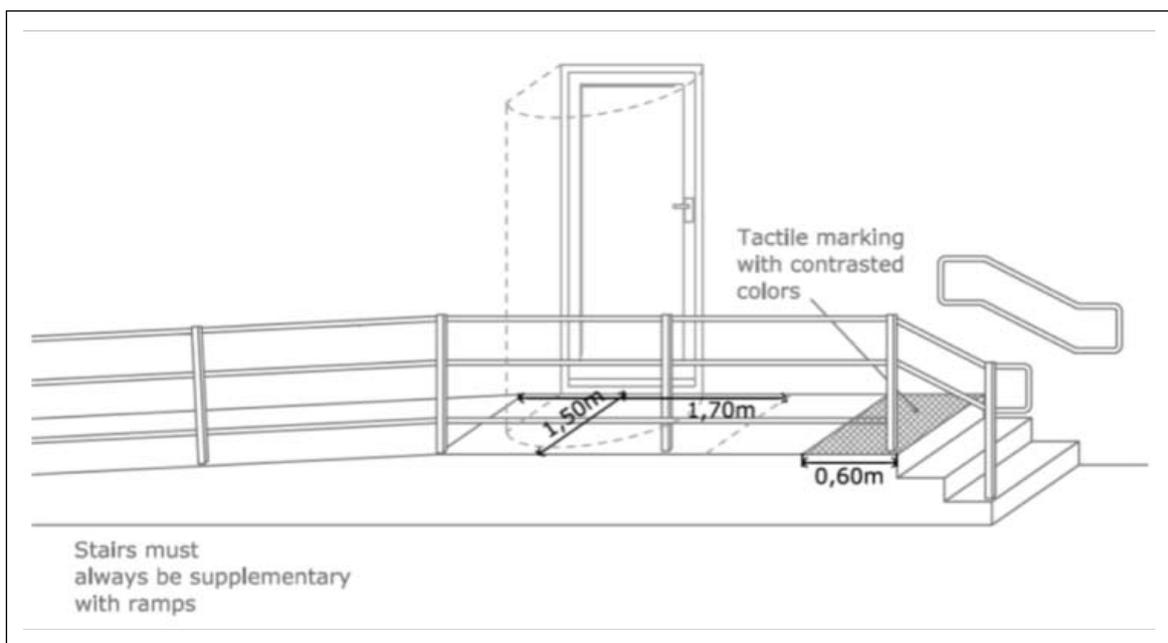


Fig. 2.1: Ramp and stair case with support rails (UNAPD, 2010)

Although most standards provide for standard designs for some facilities, these standard designs may be unsuitable for some people. An example is hand washing taps that may be too high to be used by smaller children in schools. This can be addressed either by providing taps at different levels to cater for people of different heights or providing steps or step stools to enable children to use adult facilities.

WASH facilities for people with disabilities require extra space, more so for people who use wheel chairs. In addition, the entrance to toilets needs a clear sign to indicate that they are accessible. The inside of the toilet must be well maintained, hygienic and safe.

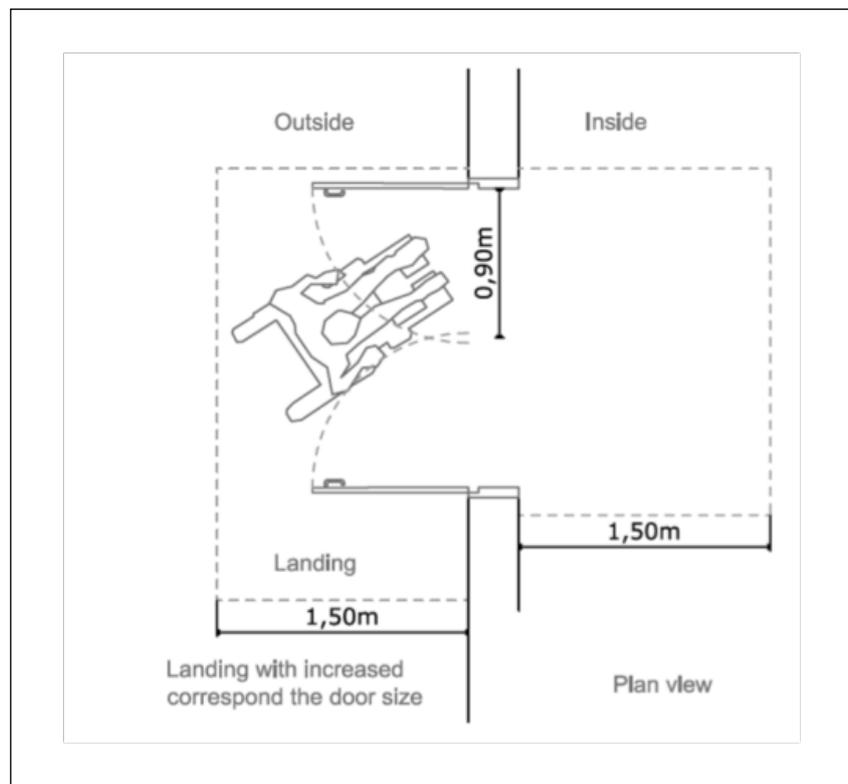


Fig. 2.2: Landing and door access for wheel chair user

Locks can be difficult to use for people with arthritis. An accessible door should be opened, shut and closed with a closed fist.

Waste bins are essential for those using sanitary or continence pads and should be provided within the toilet or alternatively a chute should be provided inside leading to a waste bin outside to preserve the dignity and privacy of users.

3.0 TOILETS

Access to a place to safely dispose off human excreta is a basic human need. The reality however is that only 68% of households in Uganda have toilets. In 2010, the UN General Assembly recognized the right to sanitation as a human right. The toilet designs at the household level must take into account cost, availability of materials but also the users in the house. If there are people in the household with some form of vulnerability within the household the design of the toilet must take into account their specific needs. At a minimum the entry point and internal space should be adequate for all household members. Seats and supports may be added to suit people with physical disabilities. Painting features such as the door and clearly outlining the access path would greatly aid the visually impaired.

This chapter illustrates some designs and features of household toilets. There is a range of options to take into account cost.

3.1 Toilet with extended Veranda

This is an improvement to a traditional pit latrine to make it accessible to people with physical disabilities. The floor of such a toilet typically consists of earth overlaying strong timber poles which are laid across a rectangular pit. In some cases, depending on the geographic region, cow dung may be mixed with soil to give the floor a better finish. The walls may be made from mud and wattle, un-stabilized soil blocks, timber poles or sticks covered with grass, or a timber frame with papyrus mat or polythene sheet covering. These types of walls and floors are not designed to support handrails, as they are not able to take the weight of a person if attached to the walls. Similarly embedding metal rails into the timber poles that support the floor may weaken them. Instead a timber frame seated on an enlarged timber base will form the support.

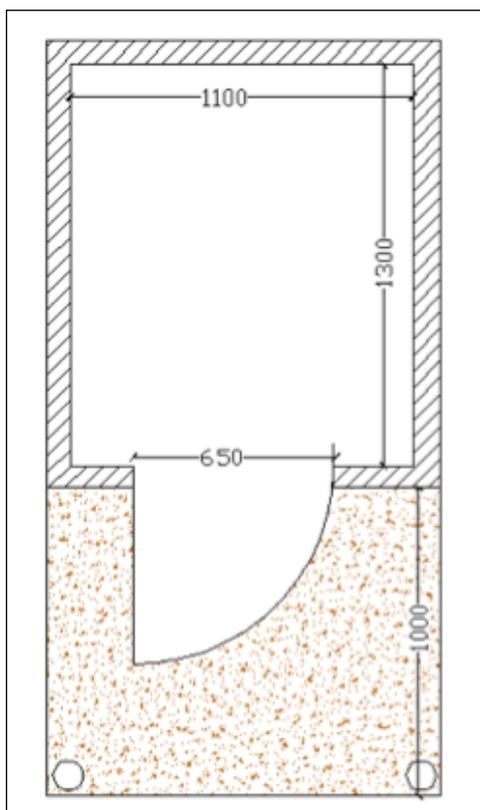


Fig. 3.1: Plan view of Toilet with extended Veranda

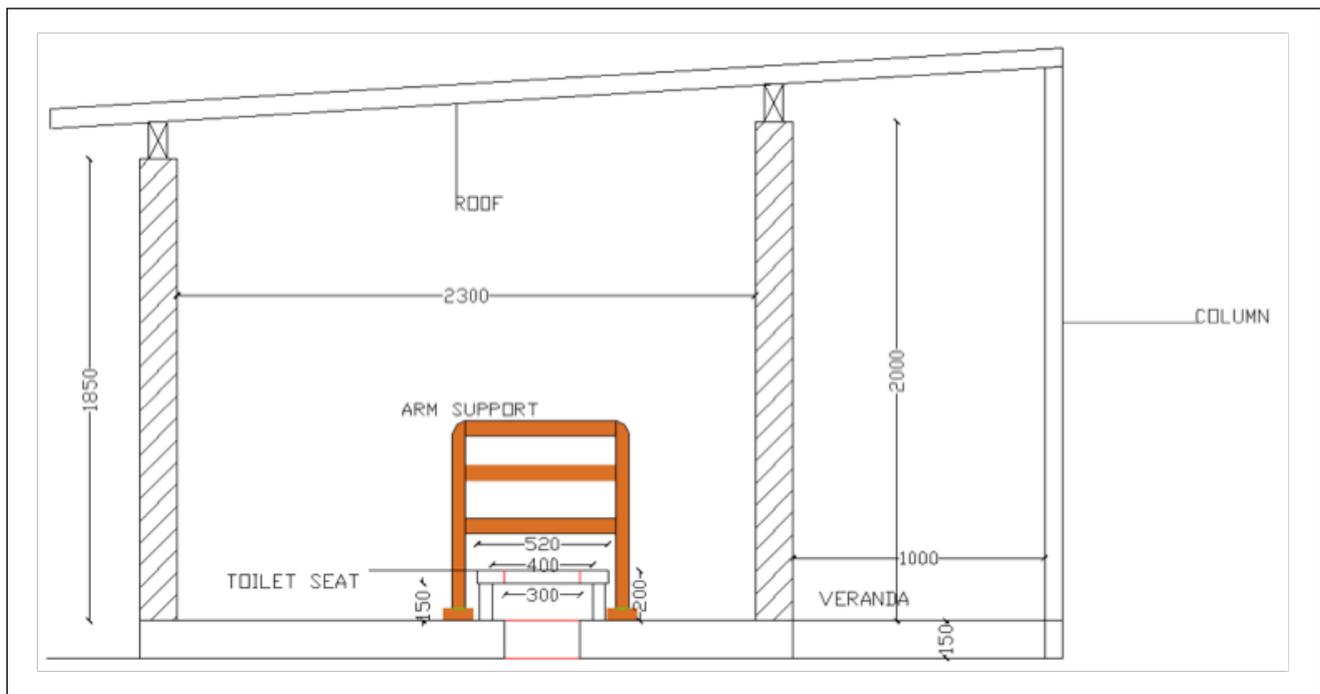


Fig. 3.2: Side view of toilet with extended veranda

3.1.1 Toilet Features

The toilet should have all or some of these features depending on the unique needs of the intended users.

- Extended veranda-Extra floor space of 1m length is provided outside the toilet to allow someone using a wheel chair to disembark onto a floor that will not be wet when it rains. The floor (veranda and toilet interior) will be raised about 1-2" above the ground level to keep out surface runoff. The edge of the veranda will have a gentle slope to the ground. The roof will extend over the veranda to keep rain from making the veranda floor wet.
- Internal Space- The minimum internal space inside the toilet is 1.2m X 1.1m. This will allow for adaptations such as a toilet seat and support rails to be added.
- Toilet seat- The most basic form of a toilet seat will be made from soil blocks with a soil mortar. The finishing of these toilets may be a smooth soil plaster to make it more comfortable, with the edges slightly rounded off. A cow dung plaster or a mixture of soil with cassava flour and water will give a more durable and better looking finish. It will be necessary to render plaster over the seat from time to time. Other options for the seat include a built seat with a cement screed finish, a wooden chair/stool and a plastic bucket with a concrete seat.
- Lighting- Many traditional latrines are usually dark spaces. In order to improve lighting, a 2l plastic Coca-Cola bottle filled with water may be placed upside-down within the roof to act as a skylight greatly enhancing the illumination of the room.
- Hand rails- Hand rails can provide support to people who need them such as the elderly, the sick, pregnant women, wheel chair user and others with physical disabilities. Universal designs use metal frames. This guideline recommends timber frames since the required materials and skills set are more abundant.

3.2 Toilet with wheel chair access

Where more resources, in terms of land and materials are available, and there is a wheel chair user in the household, it is desirable to have the toilet accessible by the user while on the wheel chair rather than having the wheel chair user disembark from the wheel chair outside the toilet. This design takes up more space and requires more materials, which may not always be available.

The internal space for this design shall be 3.3 X 3.3 m to cater for a wheel chair with 3 wheels. Available guides provide for a wheel chair with 2 wheels, whereas in Uganda, the 3 wheeler is predominant and because it is longer it requires more space for manoeuvring.

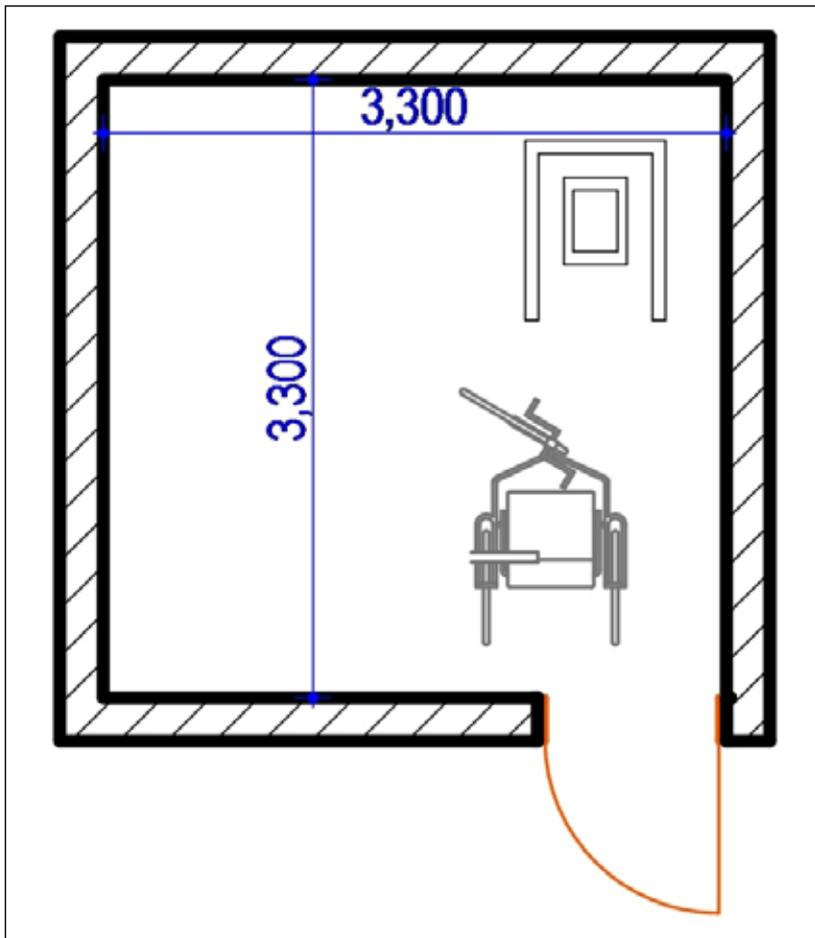


Fig. 3.3: Household toilet with wheel chair access.

3.3 School and Community toilets

These toilets serve a more diverse group of people, so it is important that accessibility is addressed more strictly to cater for the needs of this diverse group. There will therefore be more details to enhance accessibility. Each block of toilets should have at least one accessible toilet.

An access ramp to the toilet is necessary to ensure that wheel chair users and other physically disabled people can access the toilet less strenuously. At the upper end of the ramp should be a flat resting area which provides a wheel chair user with a place to adjust before opening the door. It would generally be easier to manipulate the door while on level ground. The ramp will also feature a raised guide along the edges (10 cm height, 10 cm width) to guide wheel chair users, the blind and the visually impaired.

Two grab bars fixed to the wall may be used by physically disabled people and the elderly as supports when using the toilet.

The door handle should be easy to operate and useable by someone using a closed fist or an elbow.

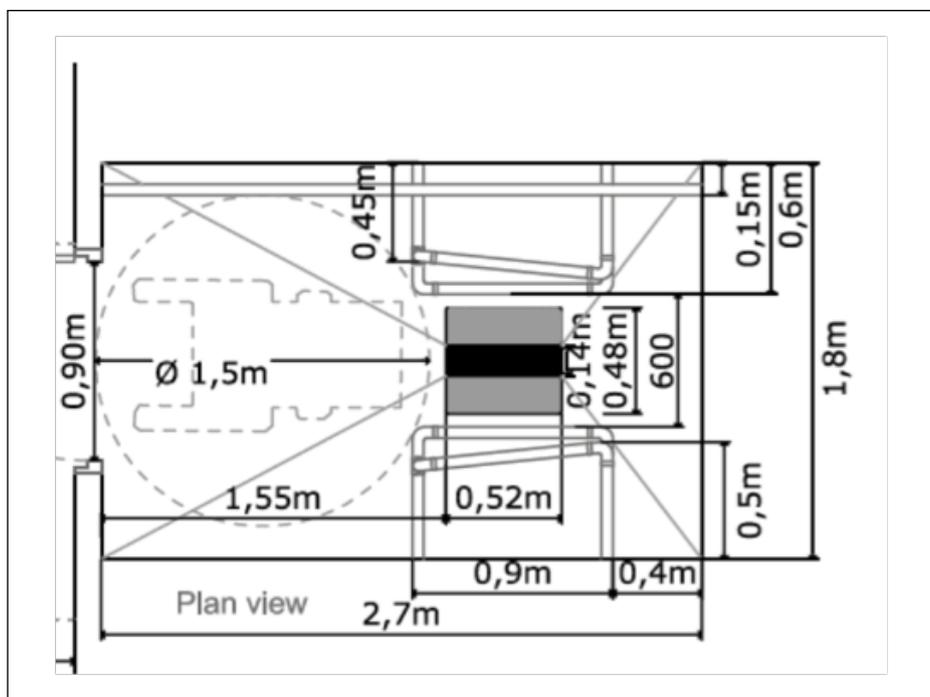


Fig. 3.4: Floor Plan of Accessible pit latrine (UNAPD, 2010)

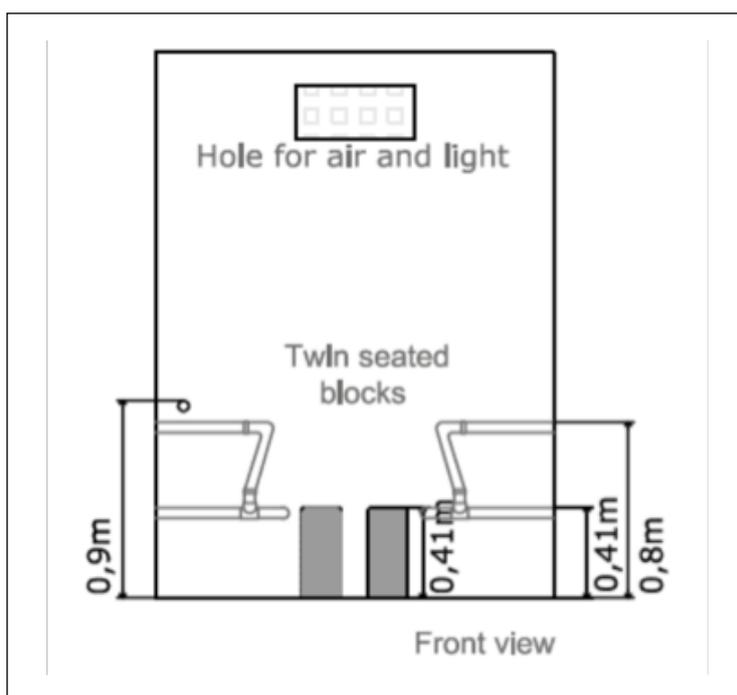


Fig. 3.5: Front View of accessible pit latrine interior (UNAPD, 2010)

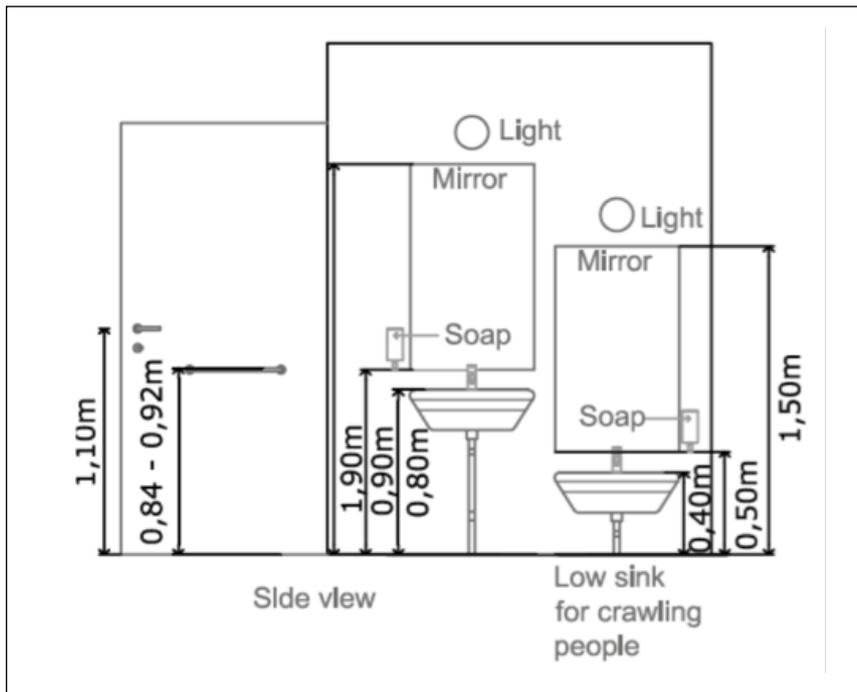


Fig. 3.8: Modern accessible toilet for community

3.3 General toilet features in detail

3.3.1 Toilet seats

Toilet seats are suitable for people who have difficulty squatting. Toilet seats may take on various materials for their construction including those built from bricks or blocks, timber, metal and plastic. The seats may either be fixed or moveable. The Construction is done in such a manner as to allow comfortable seating and easy cleaning. The height of the toilet may vary according to the needs of the user. Generally though, for people crawling, the seats should be lower than normal.

Fixed Seat Pan

This is constructed using blocks. The most basic shape is a rectangular seat (0.4 X 0.45 m) with a rectangular drop hole in the centre (0.2 X 0.2 m). The height of the seat should range from 0.2m to 0.48m. The lower height is better suited for people who may only access the toilet by crawling. The toilet may be finished with a mud mixture, a mixture of mud and cow dung, a mixture of mud and cassava flour or a cement screed. The cement screed would be most desirable as it is easiest to clean.

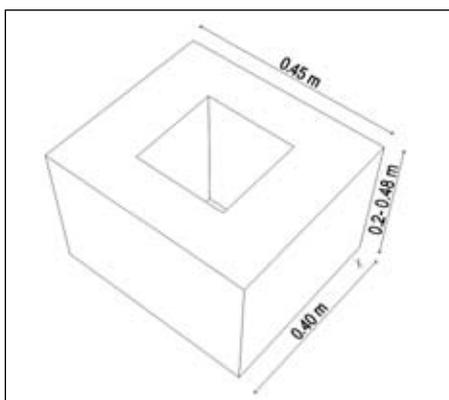


Fig. 3.9: Solid block fixed seat pan

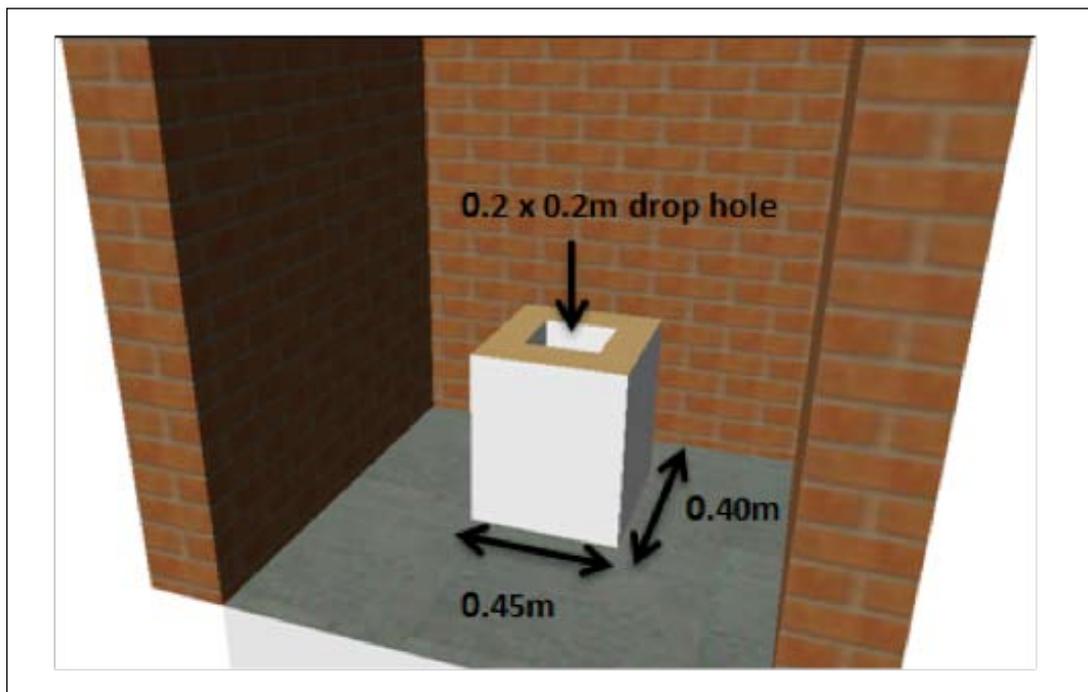


Fig.3.10: Raised concrete/ plastered brick seat

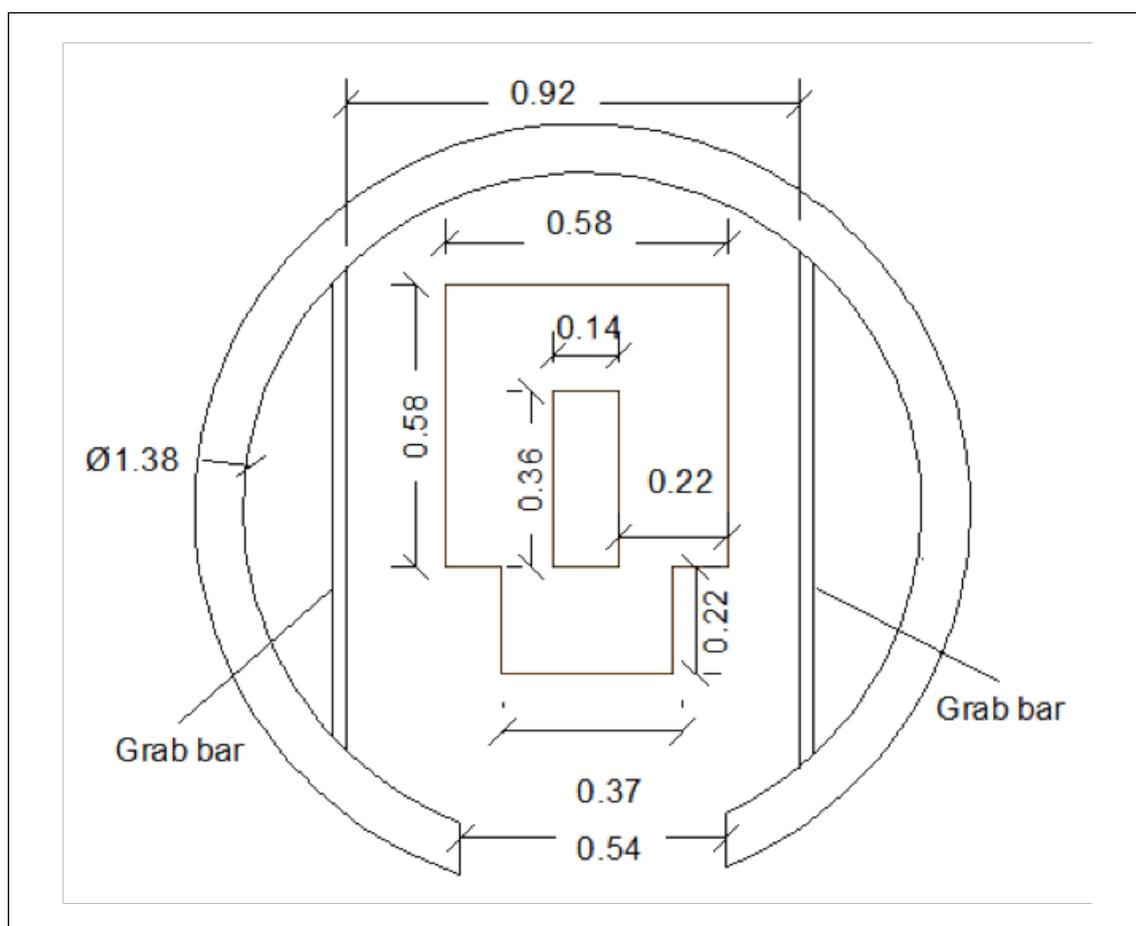


Fig.3.11: Plan view, Block seat and hand rails for a circular toilet

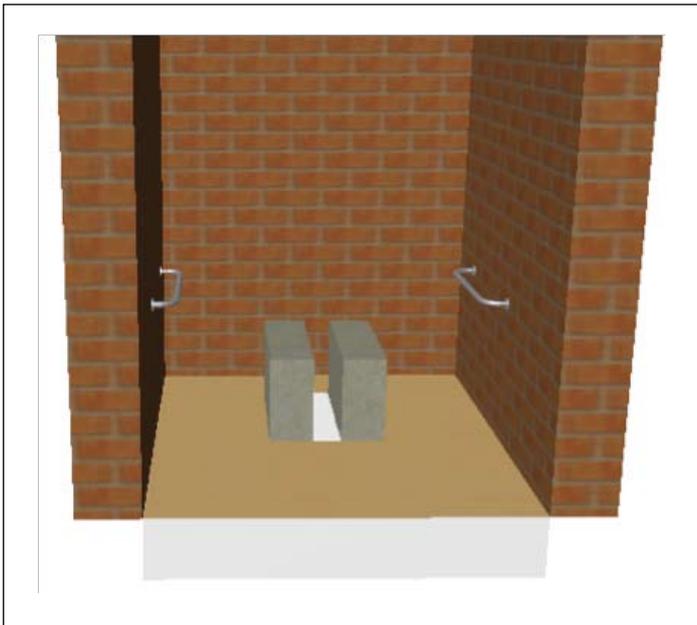


Fig. 3.12: Toilet with twin block seat and support rails-front view(Jones& Reed, 2005)

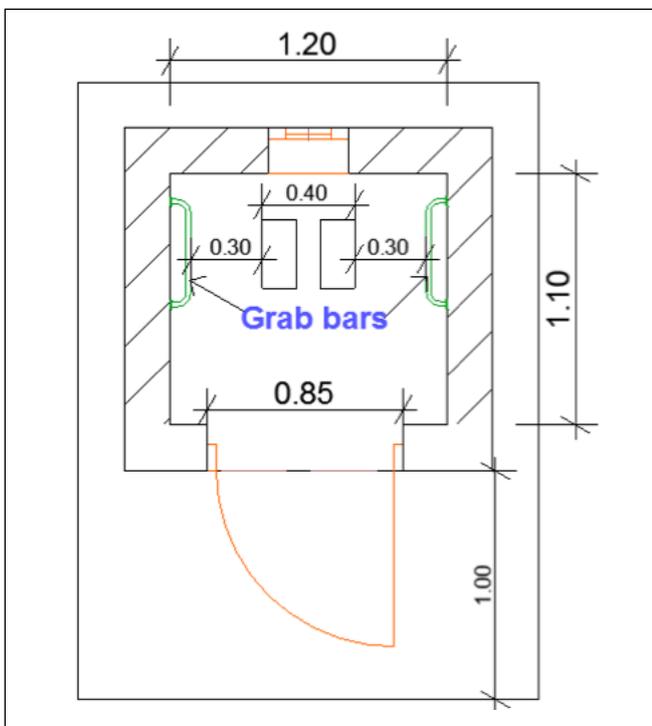


Fig. 3.13: Toilet with twin block seat and support rails

Cement bowl seat

This may be an oval shaped or circular seat made by pouring concrete into a mould.



Fig. 3.14: Oval concrete seat(Jones/WaterAid)

Timber stool with rectangular hole

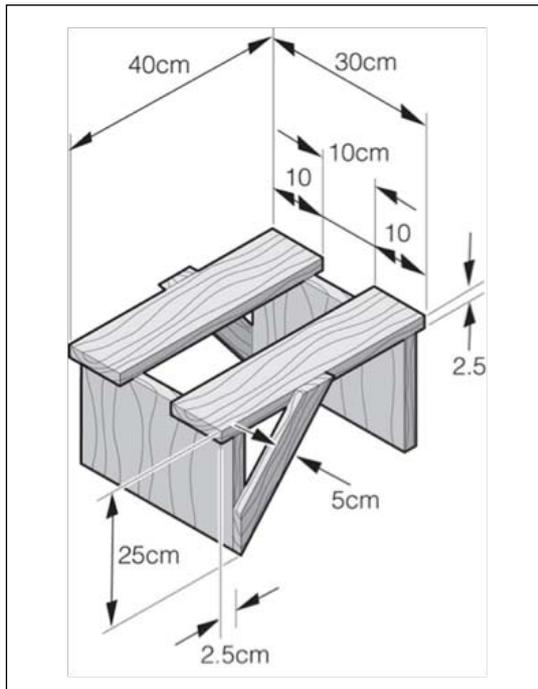


Fig. 3.15: Timber stool with rectangular drop hole(Jones & Reed, 2005)

This seat which is 0.4 x 0.3m can be made from 6 pieces of sawn timber of different sizes. It features a splash guard to ensure that human waste is guided into the hole.

Timber stool with circular hole/key hole

This may be a 4 legged stool with a circular hole or key hole in the middle. It may be 0.4 X 0.4 m and the height will vary according to the needs of the users but 0.48 metres would be standard.

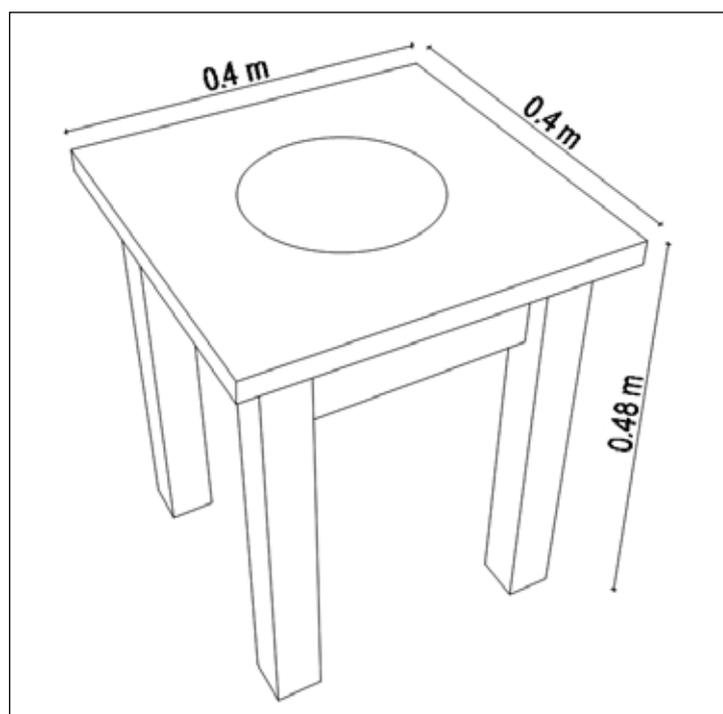


Fig. 3.16: Timber stool with circular hole

Timber chair with circular hole/keyhole

This is similar to the stool above. A back rest and arm rests may be added to give extra support to the user. Runners joining the legs together ensure better weight distribution. Varnishing will improve durability and make cleaning easier.

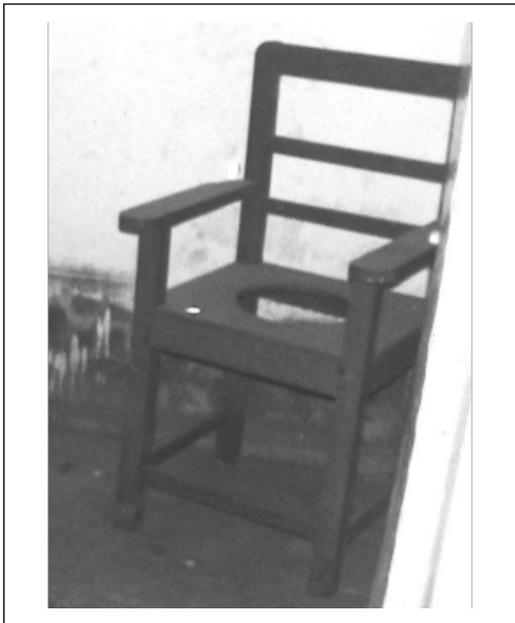


Fig. 3.17: Chair with round hole (WaterAid & WEDA)

Bucket seat

The bucket seat is made from a 10 litre plastic bucket with the bottom cut out. A square pedestal and circular seat made from a mixture of cement and sand in the ratio 1:3 by volume is built onto the bucket. These, as well as the sides of the bucket are reinforced with binding wire. The seat is placed over the toilet drop hole. It is easy to clean because the interior is a smooth plastic bucket.



Fig. 3.19: Bucket seat

3.3.2 Sanitary pad receiver

It is important to take into account the needs of menstruating girls for community or school toilets. It is not uncommon for sanitary pads to be disposed in latrines. However because the materials used for making pads are largely non-biodegradable, this leads to the latrines filling up much faster. These materials are also not suited for disposal in other types of toilets such as pour flush toilets and ecological sanitation toilets.

It is therefore critical to provide a system that will allow girls or women to safely and privately dispose sanitary pads. The pad receiver is a pipe in which the pads are dropped from inside the toilet that leads to a closed bucket that receives the used sanitary pads.

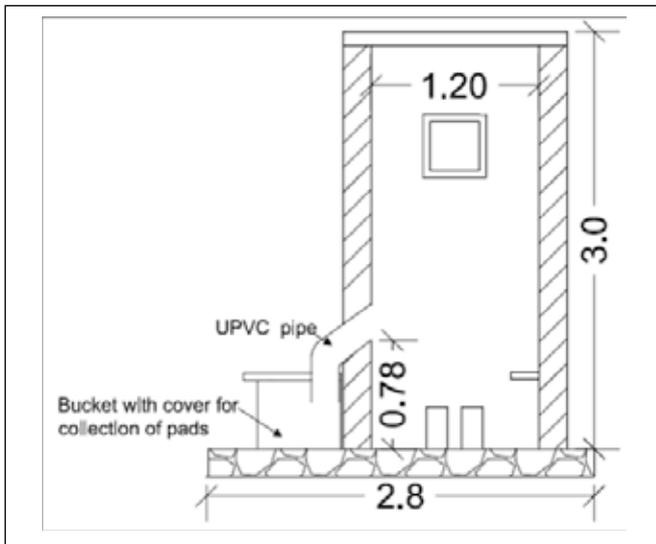


Fig. 3.20: Sanitary pad receiver

3.3.4 Support Rails

The conventional designs illustrated before will still have their place, but in the case of traditional toilets without concrete floors and strong walls, these structures built from timber would do a good enough job of providing support rails.

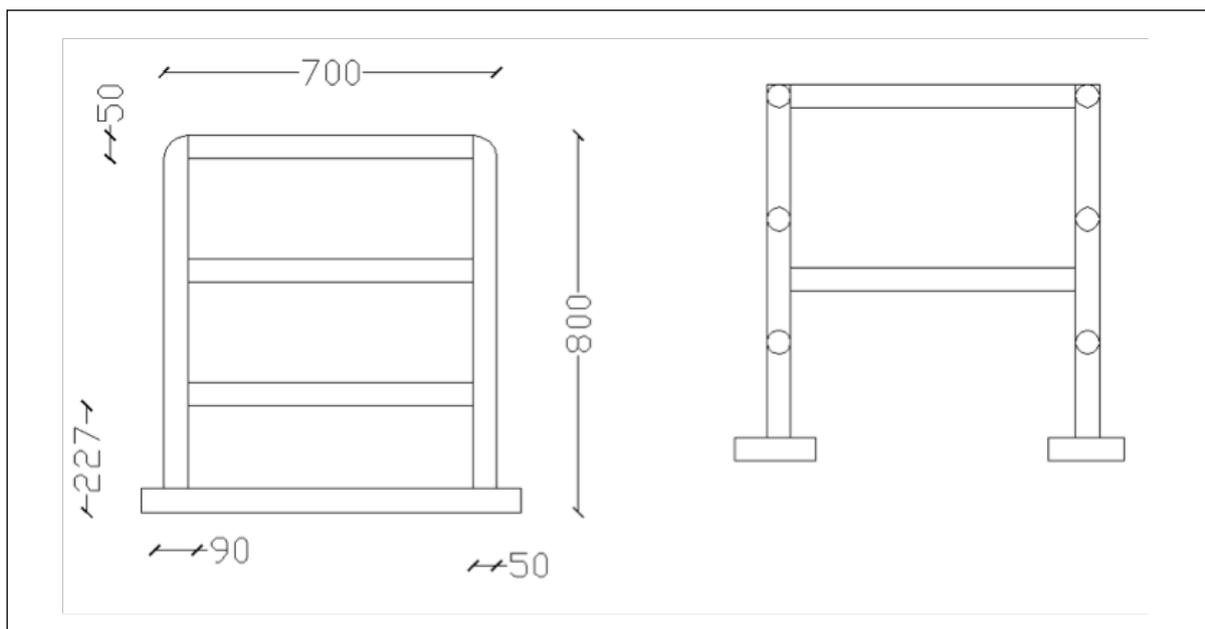


Fig. 3.21: Timber support rails

3.3.5 Lighting

Many traditional toilets are often dark places. A 2l coca cola bottle may be used as a sky light to enhance lighting and improve the experience of the visually impaired and children, who may fear the dark inside the toilet.

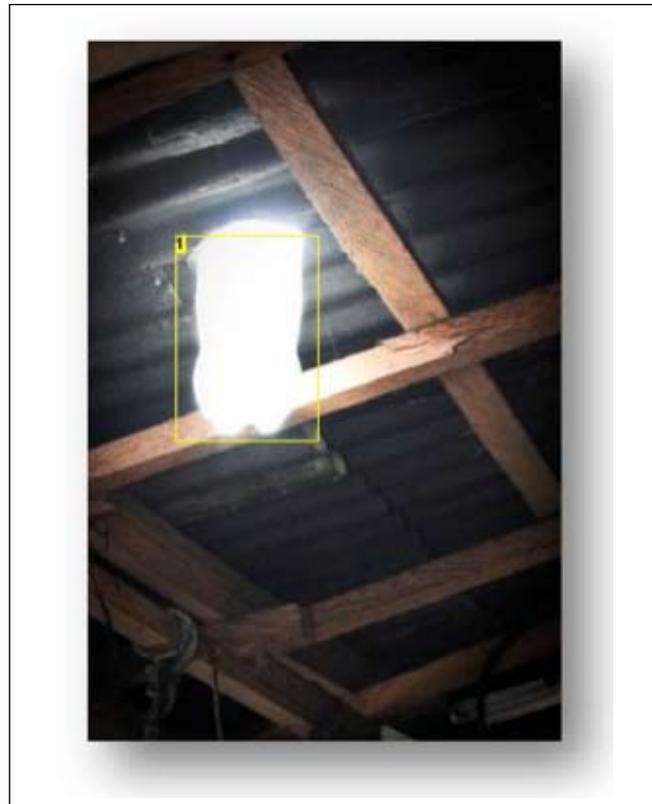


Fig. 3.22: Coca Cola bottle skylight