



Accessible Public Infrastructure The Only Way Forward



By
Svayam
(An initiative of Sminu Jindal Charitable
Trust,
New Delhi, India)



Svayam - dignity for people with reduced mobility



Svayam an Initiative of **Sminu Jindal Charitable Trust** has been working towards providing independence and dignity to people with reduced mobility.

Svayam aspires to make India barrier free and provide universal access to all. Despite having been around for a relatively few years Svayam has taken the lead to make the public places universally accessible and barrier free to all.

Sminu Jindal-Founder of Svayam

- **Sminu Jindal founded Svayam to realize her dream of making India Accessible to all.**
- She is the first lady entrant in the country to do her gender proud by breaking the glass ceiling in the Steel, Oil and Gas sector in India. She is the Managing Director of Jindal SAW Ltd.
- An alumna of Shri Ram College of Commerce, Delhi University.
- MBA from Fore School of Management, with specialization in Finance.
- **Silver Medal** for outstanding academic performance.
- **Award for Excellence** as the top woman entrepreneur by Institute of Marketing and Management.



Accessible Public Infrastructure the Only Way Forward

Observations

- The very expanse of the nation and the size of the population make the task of incorporating barrier free universal design features in the built environment daunting despite best of intentions.
- Low awareness levels, lack of trained manpower in the field and monitoring of implementation of various laws, rules, regulations and schemes further adds to the woes.
- **Svayam**, an initiative of Sminu Jindal Charitable Trust steps in to fill the gap by way of undertaking audits, identifying problem areas, developing strategies to overcome the same as per international standards of accessibility and universal design and handhold the implementation process to ensure the accurate execution so that rightful needy benefit.

- To date Svayam has been involved with government civic agencies like the New Delhi Municipal Council as Access Consultants as well Education Ministry of Government of Delhi to make its public conveniences and schools accessible and barrier free respectively.
- As Access Consultant to Archaeological Survey of India Svayam has so far undertaken access audits for the heritage site of Qutub Minar. The accepted report is currently at the implementation stage. ASI further invited Svayam to help make the World Heritage sites in Delhi, Agra and Goa barrier free.
- Svayam is also involved in motivating corporate houses and hospitality giants like ITC and Hyatt to incorporate accessibility as one of their prime concerns in making their built and social environment barrier free and accessible to all.

Facts from World Bank Report

- India has some 40 to 80 million disabled people.
- At least one in twelve households has a member with disability.
- Illiteracy, unemployment, and poverty among the disabled is high.
- Children with disabilities are 5 times more likely to be out of school than average.

Universal Access in the Public Convenience Units of New Delhi Municipal Corporation (NDMC), Qutub Minar – Historic monument (ASI) and Bus Q Shelters of the Delhi Transport Corporation (DTC)

Purpose of the Audit

- The purpose of this study was to assess the sensitisation of the people involved in the implementation of the project towards accessible design, take a ground reality check, identify gaps in the end product due to improper execution and build stakeholders support.
- India is at the threshold of laying the foundations of future infrastructure development and at the same time is redeveloping the old infrastructure.
- There cannot be a better time to incorporate universal design and barrier free environment concepts in all developmental activities being undertaken by various agencies.
- To ensure all public infrastructures should provide barrier free access to all including people with reduced mobility.

Involvement with Civic Agencies to incorporate Universal Design and Non-handicapping Environment Features



Svayam identified **NDMC, Delhi Transport Corporation** and **Archaeological Survey of India** which were initiating redevelopment of the public conveniences, the Bus Q Shelters and incorporating accessibility features at the Historic monuments respectively.

Funding – Moving away from the Exchequer Financing the Project mode to Public Private Partnership and Build Operate Transfer systems, the NDMC and DTC both have given preference to the BOT system where a concessionaire is identified through a tendering process, to construct and maintain the infrastructure as well as generate revenue by way of advertisements which is shared with them.

Role of Svayam



- The stakeholders could never reap benefits because of lag between the design phase and the actual end product.
- Svayam in its role as Access Consultant is helping NDMC, ASI and DTC provide universal access.
- Svayam provided not only the guidelines, specifications but architectural blueprints as well.
- The role does not end here, as it has been experienced that despite sharing the requisite information on all design aspects the end result could never match the specifications and standards of the accessible design that was given to the implementing agency.

Purpose

- This initiative of making the public conveniences, historic monuments and Bus Q Shelters accessible can be expected to serve as an example of accessible and inclusive design.
- This will not only help integrate reduced mobility section of the society into mainstream but also make them part of the social fabric and embrace them into its fold.

Methodology

Active Involvement

To overcome the lag between the design phase and the actual end product Svayam felt that it was imperative to be actively involved with the executing agencies during the execution stage to ensure all standards and the specifications are adhered to during the implementation period itself.

A framework of involvement during the different stages was devised which is being followed at present.

On site contacts with contractors were made

A detailed report with inputs from the user groups like All India Confederation of the Blind along with guidelines and specifications complete with a draft action plan was given..

Status of public Conveniences infrastructure in New Delhi

Till about half a decade back public conveniences as a part of Public infrastructure did not feature as a prominent subject.

- A feeble attempt did come up and basic public utilities were developed with little respite for female users.(perhaps nobody expected the females to step out of the four walls of their homes let alone any thought being spared for the disabled population)
- This initiative of NDMC to make its public conveniences accessible to all represents a unique opportunity to remove barriers that come up, keeping the elderly and the disabled and even those suffering from temporary ailments from venturing out in the neighbourhood let alone go about their daily chores without timing themselves out or deny themselves a chance to step out and socialise or even conduct their business.

- Accessibility issues were discussed with the promoting Civic Agency in this case NDMC.
- A conscious decision has been taken by the civic agency to incorporate the accessibility features in all the public conveniences that would be constructed in the future.
- A detailed audit of public conveniences was undertaken.
- The layout design proposed by Svayam has been accepted in totality and is being incorporated in the Public Convenience Units and form integral part of the tendering process for all the new sites being developed.
- Currently 92 of public conveniences are being remodelled to incorporate barrier free universal access features.
- Svayam developed individual layout plans of the audited PCU and gave to NDMC
- The projected expansion plan includes the numbers going up to 150 public convenience units.

Problems Encountered

Exposure to Universal Design

- Many planners and officials other than those who have travelled to developed nations have not had any first hand experience of accessibility features that accompany universal design in their immediate neighbourhood.
- There is a lack of first hand experience and non-familiarity with emerging international norms for universal design.
- Nor have most disabled persons experienced the comforts of accessibility features in any public conveniences utilities..
- People involved in execution of the project, their own interpretation of accessible features and non familiarity with the concept of universal design is another roadblock encountered.

Accessibility Issues Identified in the Existing Public Convenience Units

- Currently most of the Public Convenience Units do not have any universal design features.
- Most of these units do not have barrier free access from the pedestrian pathway or the road.
- In some of the cases the access to these facilities is via steps
- Non-availability of even a single unisex accessible toilet in the Public Convenience Units

Accessibility Issues Identified in the Existing Public Convenience Units



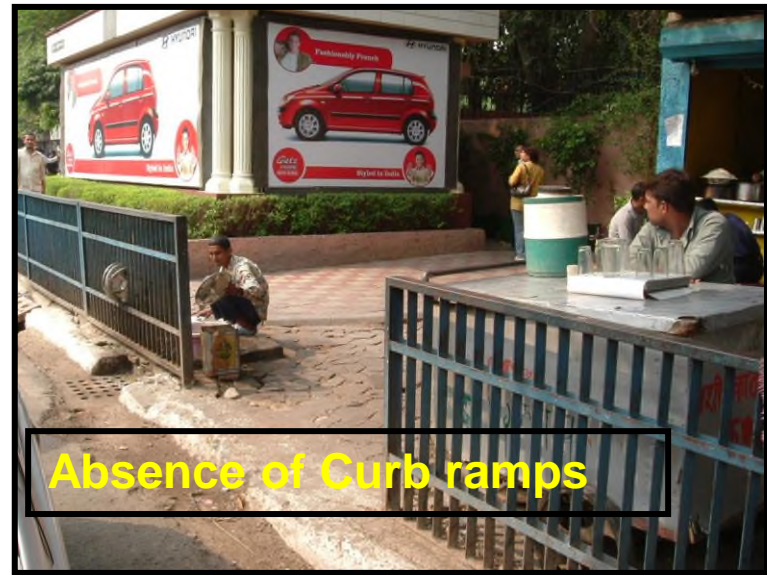
Steps at the entrance



No Accessible Cubicle



Inaccessible Accessible Toilet



Absence of Curb ramps

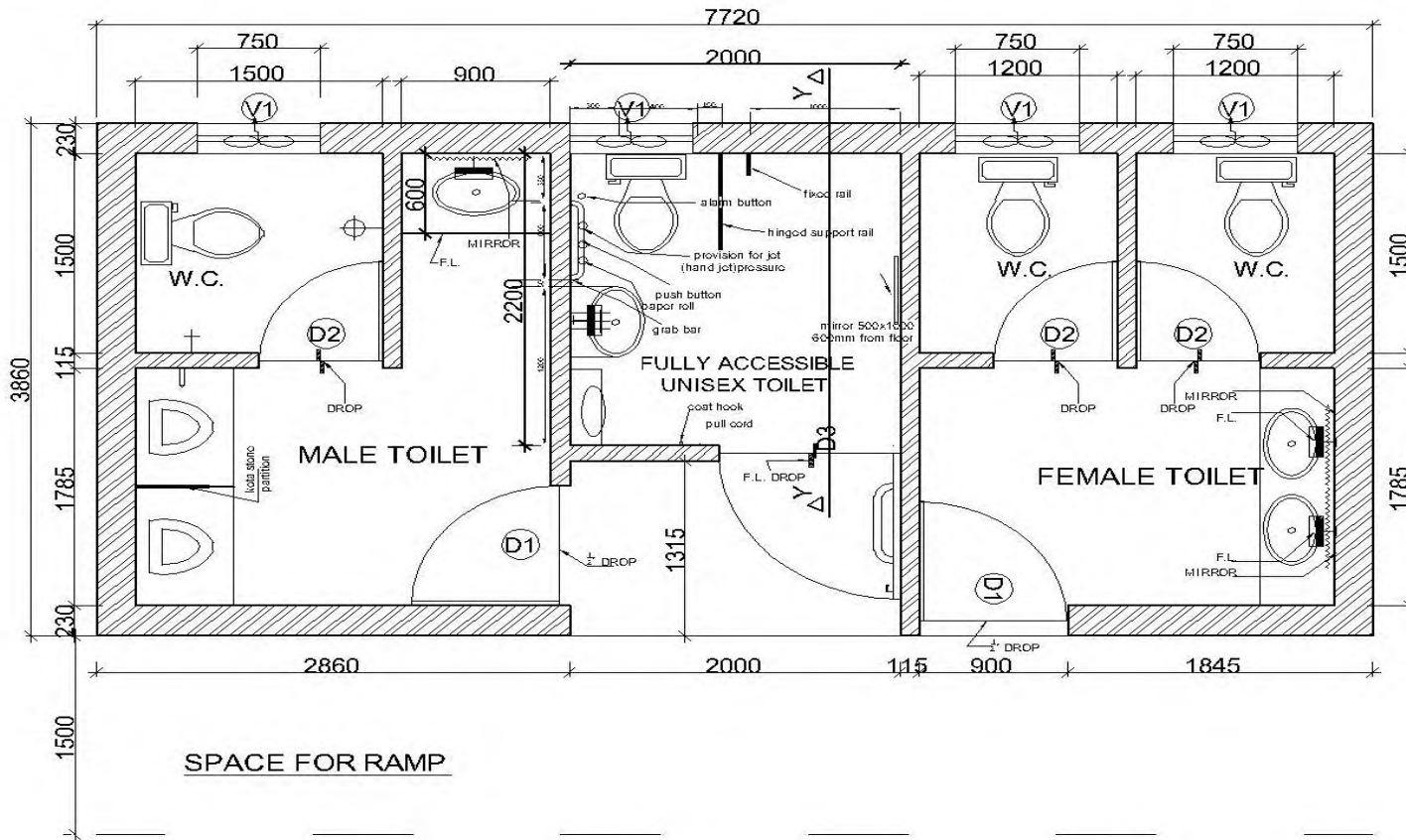
Content of the Accessibility Guidelines for Accessible Public Convenience Units provided by Svayam



- Size specifications of the unisex accessible toilet
- Layout of the Unisex Public Toilet with emphasis on placement of the WC, Grab Bars, Washbasin, and door width specifications
- Accessible approach to the toilet block
- Ramped access wherever required along with design specification of the ramp
- Basic hygiene, safety and appropriate international signage and proper manning
- Issues like ventilation, natural light, rainwater harvesting, and alternate energy solutions like solar energy

Accessible Toilet Design Layout

Provided by Svayam



PLAN

Various Stages of Construction of PCU's



Delhi Transportation Corporation's Initiative to make its Public Transport System Inclusive and Accessible

DTC is currently involved in making Delhi's public transport system inclusive and accessible.

Not only it is in the process of acquiring new low floor buses but is also making the relevant supporting infrastructure like the Bus Q Shelters more accessible. A total of 2000 Bus Q Shelters are being remodelled.

However when Svayam undertook an audit of the sample Bus Q shelter that was constructed it found that still there were flaws in the execution, which need to be rectified to match the international standards and guidelines.

The audit report was shared with the DTC authorities post, which a stakeholders meeting was convened to discuss the matter and take necessary remedial measures.

Accessibility Issues identified in the Bus Q Shelter being developed by DTC

- The bus Q shelters being developed are isolated islands of accessibility in themselves.
- Absence of kerb ramps to access the bus Q Shelters from the bus bays and vice a versa
- At places the ramps exceed 1:12 ratio
- The horizontal gap issue between the floor of the bus Q shelter and the low floor buses when docked needs to be addressed
- Absence of auditory signal to help visually impaired identify that they are in the vicinity of the Bus Q Shelter

Key Issues Identified During the Formation of the Guidelines

- A near absence of user and focus groups to involve persons with disabilities across different disabilities at the planning stage as well as the monitoring of the same.
- Lack of co-ordination between various agencies with overlapping jurisdictions
- Need to have systematic, synchronized actions of various civic agencies with overlapping areas of jurisdiction failing which no implementation can bring the desired benefit to the end users.
- Inadequate training and monitoring of ground personnel involved with implementation.

Disability Awareness and Sensitization Workshop conducted for the Drivers and conductors by Svayam jointly with AICB



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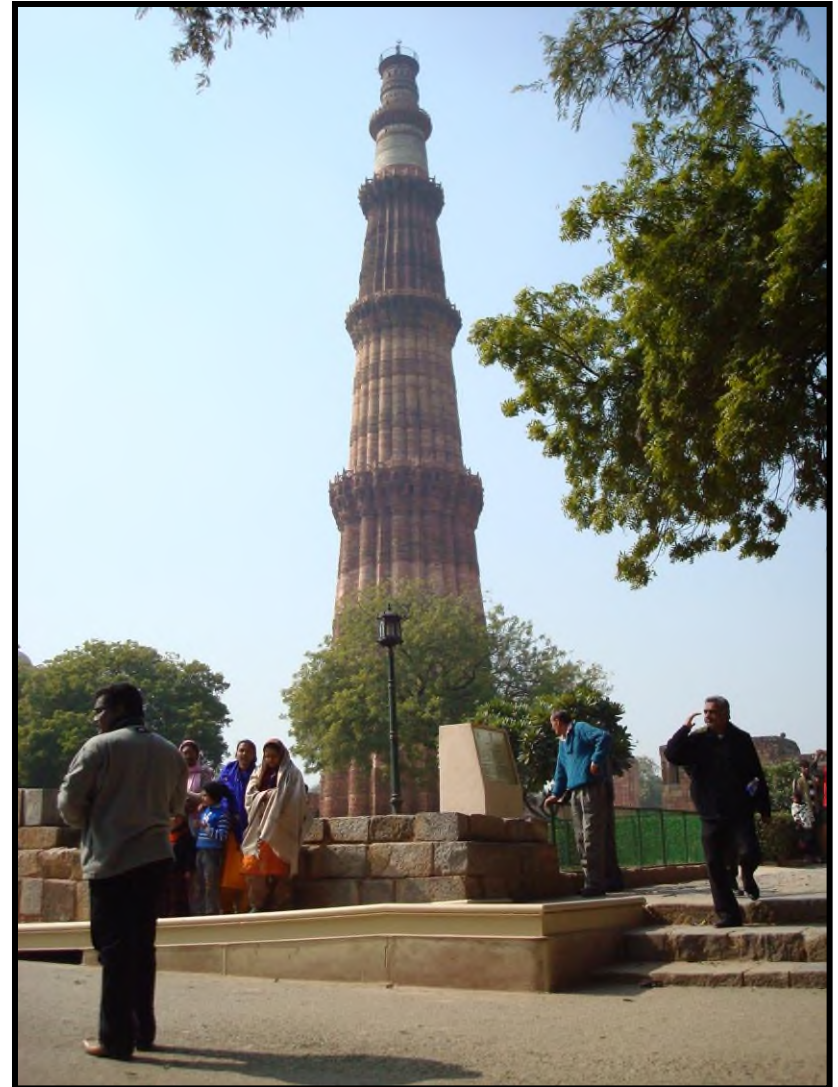


Flaws in the Current Bus Q Shelters



Qutub Minar-Historic Monument

- Qutub Minar is a world heritage site maintained by the Archaeological Survey of India.
- It is frequented daily by tourists from all over the world.
- It has steps at the entrance and a flight of steps leading to the Iron Pillar which is also frequented by all visitors.
- There is no accessible toilet within the complex.



Outcome of Svayam's Efforts

- ASI had made feeble effort to make Qutub Minar accessible but lack of inputs of the user groups and organizations working in the field left much to be desired.
- The concrete ramp at the entrance was steep.
- The temporary ramp at the iron pillar was unstable, without handrails and had a very steep gradient.



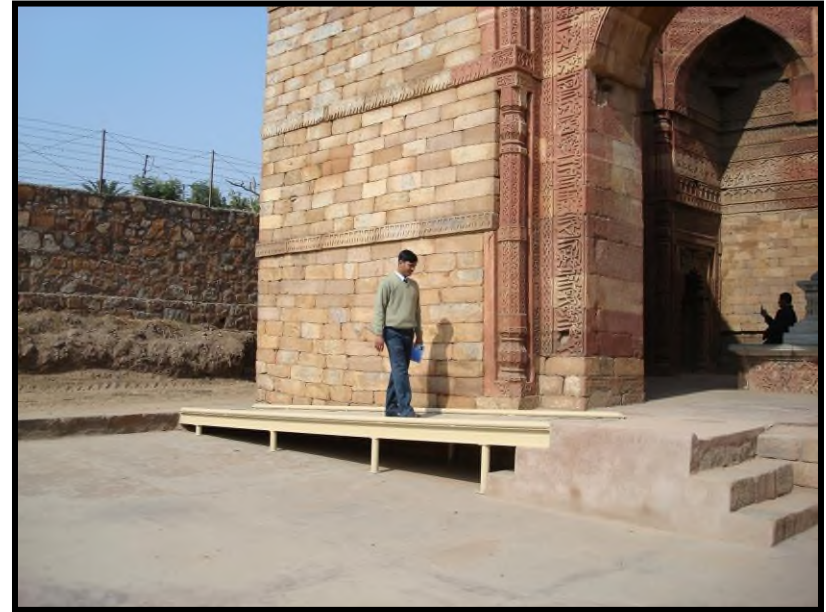
Outcome of Svayam's Efforts

- After Svayam's intervention and subsequent audit, today the report is under execution.
- Consistent efforts are still pressed in, to ensure that the visitors with reduced mobility benefit.
- The current ramps have a gradient of 1:12 which is as per international standards.



Outcome of Svayam's Efforts

- Svayam's persistent efforts have been fruitful.
- ASI has installed another ramp at the Iltutmish Tomb at Qutub Minar and made this site also accessible to visitors with reduced mobility.
- Work is still underway and the pathway to the ramp is being laid out.



Ticketing Complex

- At Svayam's intervention an accessible ticket window, signage and unisex accessible toilet has been constructed in the ticketing complex of Qutub Minar



Accessible Parking and Pathway to Ticketing Complex

- An accessible parking and a tactile pathway has been constructed adjacent to the ticketing complex as a result of consultations held with Svayam.



Measures to be undertaken to link Accessibility issues with disability agendas

- Workshops to sensitise people on how to apply the guidelines, standards and specifications in different and often daunting circumstances at different levels who are involved in the implementation process.
- Workshops and simulation exercises to change attitudes and long held beliefs of the service providers as well as planners and implementers.

Conclusions

These three initiatives can serve as a benchmark of incorporating accessible and barrier free universal design that benefit the people with reduced mobility and help them undertake their day-to-day chores with independence and dignity. Yet this alone cannot suffice as adequate measure of efforts needed to make the public infrastructure truly accessible and barrier free.

Svayam is confident, every little step taken to overcome any discrimination by design will go a long way in mainstreaming of this hugely marginalized section of the society.