

# Accessible City for Physical Disability Sharjah City, UAE

## A. General Report

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## I. Introduction

In order to check whether the **City of Sharjah** is a **Friendly City** for people with disabilities, a 9 (+1) member team visited the City of Sharjah under the auspices of **WDU** led by Mr. Necdet Öztürk; organizer of the visit and Vice president of the delegate was Mr. Haider Tallib Erabeh.

The visit included site visits to 25 facilities, such as Administrative Facilities, Education Facilities, Shopping and Entertainment, Socio-Cultural and Leisure Facilities, Transport Facilities (government institutions, museums, schools, shopping centers, leisure facilities and more).

A four-day working visit included; meetings with institutional leaders as well as facility overview and accessibility to facilities.

Below are all the facilities that are visited:

### **Administrative Facilities**

- Al Gharb Police Station
- Al Traffic Center, Sharjah
- Emirates Identity Authority
- Government of Sharjah, Department of Economic Development
- Government of Sharjah, Directorate of Human Resources
- Government of Sharjah, Social Services Department
- Sharjah Book Authority
- Sharjah City Municipality
- Wasit Police Station of Sharjah

### **Education Facilities**

- Al-Kamal American International School – Helwan Branch
- Sharjah University

### **Health Facilities**

- University Hospital
- Mobile Medical Center

### **Shopping and Entertainment**

- Al Qasba
- Sharjah MegaMall Center
- Sahara Centre

### **Socio-Cultural and Leisure Facilities**

- Al Thiqah Club for Handicapped
- Butterflies garden of Sharjah

Islamic museum  
Sharjah Discovery center  
Sharjah Maritime Museum  
Sharjah Waterfront  
The Flag Island

### **Transport Facilities**

Sharjah International Airport  
Gas station

## II. Accessibility of the Built Environment for Physical Disability: General review of Sharjah

According to the situation in the field, based on a review of all the above-mentioned institutions/facilities in Sharjah City, it was found that there is a great effort and has taken great steps to enable access to public facilities and facilities of public importance for wheelchair users, as well as technical and organizational assistance to persons with disabilities for enhancing the accessibility of facilities.

In general, there were facilities achieved to be accessible and adapted to wheelchairs.

The general conclusion is that the City of Sharjah is friendly to the person on wheelchairs.

Based on the review on the field, it was noted that there are also minor shortcomings in certain aspects that need to be corrected.

In the vast majority of the buildings, the facilities almost had reserved parking spaces. Smaller deficiencies can be found in the way of toilet design and some in the way of designing the ramps, shape of ramps.

The interior of the building was barrier-free. Minor disadvantages can be found in the design of the elevators, such as the height of the button, that the height is inadequate for persons with disabilities or at the height of the information desk.

For the purpose of precisely determining the condition of individual facilities, a more detailed and more precise overview, including measurements, should be carried out, thus giving clear and precise suggestions and recommendations for the reconstruction of a facility or public space according to the Universal Standards.

Detailed inspection of facilities in accordance with WDU Universal Standards can be performed by the Regional WDU office in Sharjah.

Therefore, accessibility of the built environment of Sharjah City for physical disabilities is given a start with this work that is focused on disabilities for wheelchair users at first. The important things for the next steps towards improvement the quality of life in Sharjah should also be addressed to people who are blind and deaf in next three years.

After three years it is necessary to check again accessibility throughout the city.

Then Sharjah should be accessible also to blind and deaf people.

We can conclude based on a review that Sharjah City has many example buildings and facilities for accessibility where can offer good practice to the rest of the world.

With certain corrections done, Sharjah can become an example of a world-friendly city for people using wheelchair.

It is also important to become an example of good practice for all forms of disability.

### III. General Recommendations and Conclusion according to WDU “Universal Standards for People with Disabilities”

Below are some key elements related to the availability of wheelchairs according to WDU “Universal Standards for People with Disabilities”.

Based on the assessment of the situation in the field of all these objects, there are several key suggestions below, which include availability of parking, appropriate ramps, accessible toilet facilities etc..

Suggestions are written in general. Each facilities needs to improve that part of the disadvantages that it does not accepted by the Universal Standards.

For a detailed analysis of the facilities, it is necessary to make a detailed inspection of the facilities including measures and, on this basis, provide improvements to the situation where needed.

The vast majority of facilities have made such solutions that can be an example for World good practice.

## Accessible parking space

### Number of parking spaces

5% of the total number of parking spaces should be designated for use by person with disabilities as being not less than one parking stall at public buildings, district parking lots and general parking lots, with adjacent access aisle which does not overlap the vehicular way. Designated accessible parking stalls should be located on road, exterior parking lots and within enclosed or covered parking structures at each barrier-free level.

### Location

Location of accessible parking spaces should be on shortest accessible route to an accessible building entrance/facility, such as, hospitals, malls, etc, as well, open and closed parking facilities should designate stalls for the disabled near elevators and building entry. Distance should be 10 m – 25 m maximum from the parking stalls to the entry.

If these are walkways, these should be lowered to have "0" or "+3" cm with an acceptable slope or curb/kerb ramp no greater than 8° to create safe access to the intended destination.

### Signage and Notifications

Accessible parking spaces should be identified by signs with the international symbol of accessibility, on the ground surface and mounted vertically on a post or the wall. It should be displayed that will be visible from a distance, easy to read and illuminated. Maximum height standing sign: 2,0 m, measured from the flooring to the bottom of the sign.

### Size of Parking Stalls, Types of Parking Lots and other details

See Universal Standards p. 35-42 (1. Annex).

## Ramps

Ramps are incorporated into walkways, crosswalks, building entrance to create an easier travel experience for all pedestrians, including people with disabilities, specifically by eliminating differences in height.

### Ramps size

In high pedestrian traffic areas ramps should be designed with a minimum 180 cm width to allow the passage of two wheelchairs traveling in opposite directions.

Ramps that are longer than 10 m and higher than 50 cm or if there is connecting ramp, a landing area of 250 cm in length to act as a rest area shall be incorporated into the design and construction of the ramp.

Where there is less pedestrian traffic, ramps may be designed with a minimum width of 90 cm on ramps with a straight run. Ramp with 90 degree turn shall be 140 cm width and ramp with a 180 degree turn may have a minimum width of 90 cm.

### **Slope of the Ramps**

Slope of the ramp will define safety of pedestrian with disabilities. Ideally, a vertical obstacle of 20 mm or more, measured from the finished floor, shall have a slope no greater than 8% or 1:2 with landing platforms, if appropriate.

### **Surface of the Ramp**

Ramp surfaces should be covered with hard, stable, non-slip material or surface may be lightly roughened.

### **Edge protections**

Ramps shall be designed with railings and borders or guard on the unprotected side(s) of the ramp. Guard or border on the side of the ramp will prevent wheels of wheelchairs, strollers and other mobility devices from slipping off the ramp. Provide edge protection on ramps and landings if no other protection, like walls, exists.

For more details about ramps (Slope of the Ramps, Surface of the Ramps, Type of Ramps etc.) see Universal Standards p. 23-26 and 58-64 (1. Annex).

## **Accessible Washroom / Toilet**

The accessible washroom requires modification to improve accessibility:

Provide at least one accessible toilet in the building. The accessible toilet has to be located on an accessible path and shall be well-lit.

### **Signage**

Mark the accessible toilet with the international symbol of accessibility. The signage should be easy to understand and clearly visible. Toilet designations must be replaced - word handicapped shall be replaced with the word *accessible*.

### **Size**

The washroom should not be less than 2.4 m by 2 m. It is necessary to maximize access to the washroom. If possible to provide a side transfer space adjacent to the toilet.

### **Doors**

The entrance of the toilet needs to be accessible.

Doors of accessible toilet have to open to the outside to allow people access to the toilet in case a person needs help and blocks the door from inside. The door should swing outward if it does not impede traffic or blocks an exit.

Doors shall be lockable from the inside.

Clear opening width:  $\geq 81,5\text{cm}$ . Doors have to open to 90 degrees. Floor space shall be provided on both sides of all kinds of doors.

A power or automated door that swings outward may be a consideration – this is for all of the public including parents with strollers and. The doors should not be heavy. The door hardware should be between 100 – 110 cm.

### **Accessible toilet bowl**

Provide transfer from both sides to the WC, clear width between toilet and adjacent wall/fixtures 90 cm minimum, length toilet bowl 70 cm, provision of a back rest and a turning space in front of toilet bowl, location back rest 55 cm measured from front edge toilet bowl.

The toilet needs to be closer to the wall with the grab bar. The distance is measured between the wall and the side of the toilet – it should be between 18 – 20 cm – to allow for ease of reach and grasp of grab bar. This will leave a transfer space of at least 87,5 cm for a wheelchair to park adjacent to the toilet for a side-to-side transfer.

In order to maximize the space for improved usage the grab bar should be anchored the wall adjacent to the toilet for greater stability.

### **Washbasin**

At least 1 washbasin shall be lower. Height-adjustable washbasins are suitable for children and adults. Provide a turning space in front of the washbasin.

The washbasin should be further away from the toilet on that same wall or on the opposite wall to keep the access open to the toilet.



Distance washbasin to adjacent wall/object is 30 cm minimum. Provision of in-wall or on-wall trap for extra knee clearance under the washbasin.

### **Grab bars**

Grab bars should be anchored to the wall. The horizontal grab bar should be located between 30 – 33 cm, when measured from the surface of the toilet seat (not the toilet bowl or toilet cover). The grab bar should be L-shaped or have a 60° vertical in addition to the horizontal bar. The purpose of the vertical or 60° bar is to provide an easier opportunity for a person to pull himself/herself up because not everyone has the strength to push up. Not all individuals have the strength to push, the vertical bar allows for pulling. The horizontal grab bar should not be less than 100 cm in length and the vertical bar should not be greater than 200 cm when measured from the front of the toilet bowl (not all toilet bowls are the same design). This eliminates the need for a pull handle that may be suspended from the ceiling and found in other washrooms (not every person will have the range of motion, strength or stability to access and use it safely or at all).

### **Mirror**

A mirror may be mounted with a vertical tilt at 8% to be useable by a person in a wheelchair.

### **Flooring and threshold**

Flooring shall be even, stable, slip and glare resistant. An accumulation of water has to be avoided.

The threshold needs to be lowered to allow a wheelchair or walker to roll smoothly and safely moving.

### **Alarm**

All accessible bathrooms and accessible toilet compartments require an emergency assistance cord.

The pull rope shall be accessible from the toilet bowl and from the floor.

A “HELP” button should be installed to request assistance should the need arise to ask help desk from outside in case any help is needed inside.

### **Light**

Light switch shall be inside the accessible toilet. Height light switch: 90cm – 120cm measured from center line of button to floor surface.

For more details about Accessible Toilet see Universal Standards p. 48-49 (1. Annex) and p. 50-64 (2. Annex).

## Other details

See UNION Standards attached to the report (1. Annex, 2. Annex).