

Both in terms of parks elderly and disabled users: butterfly valley district in Konya-Selçuklu example

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Abstract. The availability and accessibility for people with disabilities and for elderly people in their social environment as parking is extremely important. Therefore, the planning of the park accessible format in order to continue living as a barrier of all individuals with disabilities must be designed and implemented. In the case of individuals with disabilities feel helpless and hopeless and care that leads to restless against them. Therefore, designers need to be sensitive to a barrier-free design will offer the possibility of life on equal terms with everyone. Thus, all disabled people will be fully and be able to easily access social life. In this study, one of the largest parks in Konya Butterfly Valley park for disabled and elderly people were examined and evaluated. Parking available in the area, walking paths, plantings and urban equipment of the appropriateness of the elderly and disabled, has tried to expose the problems occurring in use. Design measurements were compared with data obtained from space for the disabled, suitable for those determined unsuitable for proposals has been required.

Keywords : Obstacle, handicapped people, elderly, parks, accessibility

1. INTRODUCTION

Definition of the disabled person provided in Global Foundation for the Disabled People (GFDP) issued report of year-2010 embedded into Urban Planning Report for Disabled Free Living was directly quoted from United Nations Declaration on the Rights of Disabled People. As the term goes, disabled people as a concept refers to “people, due to any of the deficiencies in physical /mental capacity because of a genetic predisposition or any given adventitious mishap, who are incapable of performing the usual tasks that a normal person could independently accomplish in his/her personal or social life”. On a national scale, 5378 no Law on the Handicapped (Disabled) People provides this definition: “a 'disabled person' is the one who, due to his/her genetic predisposition or any given adventitious mishap, loses in varying degrees his physical, mental, spiritual, sensory and social abilities which ultimately leads the individual to seek assistance in adapting to social life and meet the necessities of daily life and in need of protection, care, rehabilitation, counseling and support services (Kuleli 2012; 1).

1.1. Problems that disabled and elderly citizens cope with in urban parks and outer spaces

It is an acknowledged fact that not all the environmental factors, ranging from private residences to all public life spaces & transportation vehicles, were originally designed on the basis of specific features and demands of disabled citizens. In a long list of cities we come across numerous barriers against the easy access and transportation means for disabled people. Roads, pavements, public buildings, parks & gardens, schools, residences, transportation vehicles and several other physical environmental components

constitute major barriers against the social integration of disabled people. In that case the problem that a disabled person copes with due to his/her already-limited mobility skills is even further accelerated because of similar and identical physical barriers in cities. Hence any person with limited mobility freedom is further ostracized from the community. The truth is that all of the physical components listed above could have been designed and developed in a favorable way at the very onset to warrant the social integration and union of disabled citizens with the rest of the community. Bumpy roads, unsafe infrastructural works, excessively-high pavements, payphones and telephone booths unfriendly for the use of handicapped people, nonexistence of required settings and audio & visual warning signs which prevents handicapped people to use urban transportation system and vehicles are a few of the frequently-observed barriers in urban transportation and living. In the entire urban scale and structural scale signs, audio & visual notices that would particularly be of use to hearing and sight impaired citizens are extremely insufficient. Green areas and sport fields are not favorable to the use of handicapped citizens either. It can thus be argued that except for a few minor acts there are quite a restricted number of adjustments that could potentially ease the life of handicapped people in our cities. Nonstandard ramps and various other erroneous practices prove that rather than offering assistance many of these improper acts would even further drive up the number of disabled people (Anonymous 2016 n).

2 MATERIALS and METHODS

2.1. Materials

Research material consists of map sections and data on the relevant site obtained from Selçuklu Municipality; related studies on the research topic and area retrieved upon literature review; national (TSE) and international (ADA) design standards issued to build disabled-friendly structures in physical designs.

2.2. Methods

Sizes and dimensions (entrances, pavements, pedestrian roads, car parks, staircases, floorings) of the design components that would meet the diversified needs of disabled visitors in Butterflies Valley have been determined via in-situ measurements. These components were drawn, photographed and existing physical characteristics were thus determined.

3. FINDINGS OF THE RESEARCH

Location of Butterflies Valley Park: Butterflies Valley Theme Park forging the research site of this paper is located in Selçuklu Town, Parsana Quarter, İsmail Kaya Street postal address. Butterflies Valley Park extends to a total area of 385.000 m² and is renowned as one of the largest parks in the city of Konya (Selçuklu Municipality- Oral Interview).

Butterflies Valley has been constructed by Selçuklu Municipality and the site includes Kelebek (Butterfly) Museum that has the largest free-butterfly zone in Europe, picnic site, pond, one amphitheatre, one cafe, open sport courts (tennis court –basketball court – football pitch), kids playground, running track, view terrace and adventure island.

Park Entrance: Butterflies Valley has 8 parks, 4 entrance gates for the picnic area.

Walking trails: Walking trails enable the wheel chairs, strollers, kids and toy cars and other wheel vehicles such as bicycles to move across the lanes. As stipulated by TS 12576, sidewalks must be minimum 150 cm for the pedestrians to move freely and must have a slight slope of 1:12. It must be furnished with resistant surface that allows easy

walking and safety concurrently. There must be a parking space of 1m*1m for the wheel chair users nearby the equipments and transition points.

There must be minimum 180 cm width of the stairs. Near the stairs there must be water evacuation gutters. The width of the stairs must be minimum 30 cm.

There cannot be any difference of height between the stair groups and all stairs must be leveled at equal height. In the event that the difference of height is above 180 cm (or one in each 8 - 10 stairs forward) due to the topographic structure of the land in stair roads moving to the same direction, there must be minimum 150 x 150 cm platform between these stairs. If the staircase changes direction on the platform, platform space must be minimum 180 cm x 180 cm (TS 2012; 21)

To let sight- disabled pedestrians detect and accurately sense the staircases, warning surfaces must be harnessed. Warning surfaces must be available alongside the width of staircase on the points of each single platform of the staircase as well as start and end points of the stairs. Warning surface applications must be compatible with ISO 23599 Standard. Stairs must be made up of solid, non-slippery and opaque materials and once lightened artificially or naturally, it must not blind the eyes due to flashing or reflection. Stair ends must be free from any bumps to prevent tripping. At each stair end, there must be 2,5 cm -wide anti-slip details or bands. These bands must be selected from a color that contrasts with the staircase, preferably yellow. If need arises, surface of the staircase must be fully covered against adverse weather conditions (TS 2012; 22-24).

Railings must be erected on both sides of the staircases that have empty spaces and if the empty space is on one side alone, railings must be erected only on this side with an empty space. Handrails must also be erected on the wall sections of the staircases. A maximum 45-cm high safety anchor must be positioned between the handrail and stair ground and adequate quantities of rail must be integrated (TS 2012; 22-24).

To guarantee safety handrails must continue minimum 30 cm afterward the start and end point of the staircase. Head points of these extensions in the handrails must coil up downward in a semilunar shape to prevent any potential accidents (TS 2012; 22-24).

Railings must be selected and erected as per TS 9111 standards. To minimize the hazard of falling it should be avoided to design stairs with open and ribbed ends. In the center of staircases wider than 300 cm, extra railing should never be mounted (TS 2012; 22-24).

Seating components: Rest areas and banks must be located outside pavement walking area and should match with the width of pavement. Besides, they must not block pedestrian flow and allow free movement of all pedestrians, including those with restricted mobility. Rest areas and banks that will be positioned on the pavements in the parks and trade-frequent zones must be intermittently spaced. The height of any rest bank from the ground level should preferably be 45 cm (41 cm to 46 cm). Back sitting support must be available in rest banks (TS 2012; 39).

Lightning components: Their height must be 3-4 m on pedestrian roads; 4,5-6 m on the streets; 7,5-9 m on the throughways and 10-12 m on the main road (highway). In the parks and gardens maximum height of low-lightning components must be 100 cm; maximum height of high-lightning components must be 240 cm (Anonymous 2016)

Bins: Bins must be selected from anti-injury materials and should display contrast colors. Bins must be structured by a safe material against any potential injuries and should also be operable with one hand only. Bins must be located in pedestrian emergency lane and be sized around 90-120 cm (TS 2012; 44).

Ramps: Ramps must be built so as to minimize the differences of level on pedestrian road. If level difference is between 6 mm - 13 mm it is required to bevel the surface and if

the level difference is above 13 mm it is then required to build a ramp. Ramps must have sufficient ratio of slope to enable all pedestrians, including those with restricted mobility, to move freely, and must be of sufficient width level and also warrant safety and continuity (TS 2012; 14)

Provided that there exist stairs alongside the pedestrian route, in this place, there must be a stair ramp with minimum 100 cm width and maximum 5% slope ramp for the comfort of handicapped people with a wheel chair (TS 2012; 17)

4. CONCLUSION AND SUGGESTIONS

Located in almost all cities, open-green areas are the kind of sites in which town dwellers get engaged in relaxing, entertaining, socializing and recreation activities. Parks, as another component of urban green areas, are also tremendously significant for town dwellers by virtue of their psycho-social effects. Hence it is of great importance to ensure that parks are accessible by all citizens to make them livable environments. At the end of this study, it was concluded that in Butterflies Valley Park which is one of the largest parks in Konya and highly popular among city dwellers, independent movement of disabled citizens inside the park and free access to certain areas are restricted due to several incorrect and nonstandard practices.

Although the racetrack built in Butterflies Valley Park meets the standards, nonstandard surface treatments can yet limit the free mobility. Choosing a stabilized surface would provide better mobility. Additionally the roads on the park are largely devoid of sensitive surfaces that can pre-warn sight disabled people and there are quite limited numbers of walking lanes which in effect pose problems against frequent use of the area by sight-disabled visitors. The system is operated only on the ramp in museum entrance but the ramp is too sloping hence providing ease for sight-disabled visitors whilst posing problems for wheel-chair users.

Car park zone on both entrances of the park fails to be compatible with the size of the entire park zone. Widths of car parks are in appropriate sizes but although there is one disabled-only parking space in one of the car parks there exists none in the second one. Besides there is neither an international sign for the disabled on the ground nor any signs and directions that would guide disabled visitors.

In research site the height and width of staircases demonstrate differences within themselves in particular zones. There is not any warning surface for the sight-disabled users at the start and end points of staircases.

The majority of seating components in the park are sufficiently high but since their supports stay oblique, they pose threat not only for disabled people but even for healthy people alike. In addition there are no spaces reserved for the visitors who could stand on their wheel chair next to the seating components while waiting.

In the park area there is uniform lightning and two types of bins which fall short in number. With respect to standards set for parks, lightning components are high in quality but low in quantity. Bins match with the standards, and they do not narrow the space since they are positioned on the corners to free the roads and are deemed to be appropriate for use. Nevertheless they lack the essential difference of tissue or color to let the sight-disabled users detect the exact position of the fittings.

Though few in number, there are a still some information plates in the park area.

Park entrances are not deemed to be appropriate for wheel chair users. Ramp solution was designed by a slope near the staircases, but since slopes are above the standard measurements, they eventually pose problems. There are not any scented plants that would orient the sight-disabled visitors throughout the park.

Kids' playgrounds match with the standards but there is only one hammock tool for disabled kids. There are virtually not any play groups for disabled kids which dissuade them from visiting the park.

In the total park area the number of toilets and sinks is adequate but poor in quality to ensure the access of disabled users.

By taking all these weak points into consideration, below-listed suggestions have been developed to correct the commonly-witnessed problems in research site:

The material used in the racetracks must be substituted with standard materials and yellow walking bands particularly should be designed on pedestrian roads to assist sight-disabled people.

Staircases must be readjusted to meet the standards with respect to height and width.

Information and orientation plates must be redesigned to meet the standards and be raised in quantity.

A disabled-only car zone must be embedded in the car parks to provide comfortable use for disabled drivers. A notification sign for disabled drivers must be placed inside these disabled-alone car zones or must be indicated on the ground level by a standard park sign for the disabled driver.

In the research site there must be toilets and sinks that can meet the standard criteria for disabled people and disabled needs.

Next to seating areas there must be spaces which allow wheel chair users to stand by the seating components.

Non-standard urban fitting components must be readjusted to meet the standard criteria.

A number of thorny plants and branched plants scattered alongside the walking trails inside the park must be periodically pruned and tended to keep sight-disabled visitors safe.

Inside the park area, there are ponds with large water surfaces. However the surrounding area of the pond is unsafe thus must be surrounded either by fences or plants. They pose danger in this current position.

To ensure that sight-disabled visitors can easily access urban fitting components and are easily recognizable, floor coverings around the fitting components must be rearranged in a different tissue or color.

For wheel chair users slopes of the ramps must be readjusted.

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BIOGRAPHY

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