

The Investigation of Municipal Buildings' Environments with regard to Turkish Standards: Mersin Province Sample

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ABSTRACT

In 2005, with the law no 5378 and the provision that public buildings to be made accessible in 7 years, was reserved one more year on 4/7/2012. Today, in all structures we have used, all municipality buildings which are the subject of investigation are due to be accessible. In this context, from central districts of province Mersin, Mezitli municipality building, an older structure (1977- 1980); however, in which the facilities have been built for disabled, and more recently built (2003) Akdeniz municipality buildings were chosen and the states of implementations of indoor and outdoor arrangements with regard to TS 9111 was detected in five points such as material, implementation, measurement, signage, instant availability and endurance. The objective of this study is to reveal that the necessity to be in all areas of equality can also be provided for disabled and to bring suggestions about accessibility to buildings used intensively by increasing awareness. All users should be able to reach places and also meet all their needs without help. Within the scope of this study, in addition to extensive research, photography and observation methods, and forms were applied under TS 9111. In the article, environmental approach to the buildings and interior entrances will be studied. Applications made in these places and at which point they need editing will be determined.

Key Words: Architecture, Accessibility, Municipality Buildings, Universal Design

1. INTRODUCTION

The laws and regulations established under the concept of equality in our constitution is a condition provided by country managers. Therefore, different studies are carried on both in social and physical fields. These studies are sometimes inadequate in practice. The aim of this study is to increase the awareness for the disabled who are unable to do the routines of life. The objective of the study is, despite being compelled by law, to support disabled who aren't evaluated equally by managers and people, being able to move without help. That we do not see many disabled in the society doesn't

mean the number of them is less, but since they are able to use or access the facilities.

In the article of Erkiş, when viewed through the historical development of the concept of disability, he stated that he had defined an approach that was effected by the break of the concept of disability with 'medical perspective' and 'universalizing' process. Similarly, based on the viewpoint of framework, it can be said that 'social model' and 'minority groups model' that advocate the factors, which create disability, are environmental rather than individual lack of ability, have affected the conceptual formation of universal design[1].

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The operation time of my thesis titled 'The investigation of public buildings and their environments with regard to Turkish standards related accessibility example of Mersin', carried out between 2014-2016 and in which examination of 1 old and 1 recently built building took place and in case of new buildings to be constructed, the state of the increase of awareness in difficulties that disabled face are considered. In this article, environmental and main entrance accessibility of those municipality buildings will be evaluated. The failure of accessing the buildings, no matter how accessible the interior spaces are, decreases the value of accessibility. "Restricted equity" is not equal [2].

According to Dişyapar, accessibility may be considered as "necessary" in private properties and is important that all houses and residential areas are accessible to people with disabilities. But when it comes to services provided by the government in public buildings and public spaces, it must be considered as an "obligation" to be fully accessible. In the design of public buildings and public spaces, the need for full and equal enjoyment of fundamental freedoms, of the people with disabilities must be taken into consideration [3].

To sum up the historical process, with the declaration of the year 1981 as 'Decade of Disabled' by the General Assembly of the United Nations', under the chairmanship of ministry of labor and social security, 'Disability Protection of National Protection Board' was founded in our country. In 1983, being converted to a sustainable board, it carried on its studies until 1997 and by the foundation of Board of Administration for disabled, its commission was expired. Board of administration for disabled carried on its studies until 2011, on 08/06/2011 by the foundation of Ministry of Family and Social Policies; it was reconstructed as The General Directory of Service for Disabled and Elderly. On 03/05/2013 the General Directory was renamed as General Directory of Service for Disabled and Elderly [4]. As a result of observations and investigations, the changes in our country have been seen on social fields and except for the academic studies; adequate studies and related applications haven't been observed for physical environment. Sustainability has not been able to provide. The reason for choosing the municipality buildings, since the users have the chance to elect the mayors, is getting the users to adopt their own constructed environment and think they have right to speak more. They have known the existence of municipalities is for servicing the voter. They comment more on parks, roads, paving, garbage collecting, cleaning, and taxes etc. which they are concerned about. They intensively let the administrations of municipalities know about their concerns during the day. The use in the buildings has become distinct even according to the units on the floors.

Although the buildings of Mezitli and Akdeniz Municipalities were built at different times, both main structures were built in accordance with the function. The accessibility to interior spaces in two buildings, starting from the environments' of

them, according to TS 9111, Form-1 which is under the titles of accessible routes, accessibility from parking zone, mass transportation zone, on sidewalks, alternative routes, ramps and rescue zone was evaluated in 14 questions. Form-2 which is under the titles of near environment landscaping, outdoor parking connection, evaluation of disabled parking, the route to the building, the solution of level differences was evaluated in 26 questions. Related with the arrangement of main entrance sections, Form-3 which is under the titles of main entrance of buildings, room for maneuver, level differences in the entrance, ramps, materials and entrance doors, was evaluated in 22 questions. Forms will be available when the thesis is completed.

Turkey Disabled Research was carried on by Turkish Statistical Institute and it was determined that 12,99% of the population is disabled [5]. Considering the population of Mersin, 1745221, in 2015, disabled population is able to be expected as 209 426. In line with the data, as a result of population and housing survey, which is registered in the database of the Directory of Disabled and Elderly, it is observed that the population distribution of at least one disabled for Mersin is %7 in total [6]. As we consider the population distribution of Mersin in 2015, 122 165 people out of 1 745 221 are expected to have at least one handicap.

As the time, given for the buildings to be accessible, expired in 2005, with the expiration of additional one year, the conditions of the structures expected to be accessible in the period, will be presented informing the identified deficiencies. The study will show the positive sides of recycling by removing the limitations in moving around of disabled in districts and subsequently cities by determinations gained by studies to be presented to the administrators, and by the adjustments to be made.

Arıkan, 2002, in his article, he shows that all those studies need to be done. Because, they take the attention for the importance of the study to be done on social fields, and unlike the medical handicap, it determines the unawareness, in social model, creates problems of disabled [7].

2. METHODOLOGY

The method used in this study was also used in my thesis titled 'The investigation of public buildings and their environments with regard to Turkish standards related accessibility example of Mersin and the same evaluation items were used in the study. The study, done by observations and instant availability will show the state of adoption of Turkish Standards. It determines the treated and untreated objectives that provide Access to all public institutions which need to be accessible in the right time for disabled. The accuracy of the implementations will be determined by the specified objectives. In case of application, according to the standards, determination of accuracy will be evaluated under the title of material, implementation, measurement, signage, instant availability and endurance. Titles can be specified

according to standards. As a result of determinations,the places will be identified to be interfered.

Karasar, stated that,gathering data by observing has a large field,alive or dead all objects and people are natural sources for gathering data and in the same time with the criterion set for observation and the qualifications of observers to implement,are stated as

two main factors that affect the outcome directly[8]. The objectives identified in the places where implementations applied,and the criterion set for the observation both have a very important role being related with the implementation.

Shows a simple example of form in the following chart. It is a typical example of the form piece.

CHART 1. Observation Form Question Sample Chart [9].

NUMBER	FORM 2- CONSTRUCTION OF NEAR SURROUNDINGS OF BUILDINGS(PARKING PEDESRTRIAN ROADS-GARDEN PEDESTRIAN)	YES	NO	MATERIAL	IMPLEMENTATION	MEASUREMENT	SIGNAGE	INSTANT AVAILABILITY	ENDURANCE
1	Disabled parking shouldn't be more than 30m. away from the building entrance, it should be as near as possible and should have enough space for getting on and off the car and should be integrated with the roads to the entrance.	% 60+		% 20	% 20	% 20	% 20	% 20	

The state of being applicated to all the indicated criterion and standards given in the chart(material,implementation,measurement,signage,ins tantavailability,endurance) is calculated %100 for 'YES' and %1 for 'NO'. The value of '%100' is distributed evenly divided accordingly in what criterion of material,implementation, measurement, signage, instant availability, endurance applicated standard is examined. Correct application section is indicated in yellow and the incorrect application section is indicated in red. Total of 'yellow' is indicated in 'YES' section. In the chart above it is seen that the implementation is not fully correct and that the measurement and instant availability aren't available and some points need to be interfered. Each incorrect and unapplied implementation will be seen in graphics. Accessibility of disabled can be examined under many subtitles and standards. Within the scope of study,the articles that will vary to places,of TS 9111 will define the borders of the study.

3. FIELD STUDY

In this article,environmental approach and the accessibility of the entrance of the two municipality buildings were examined. The analysis of the surroundings of the selected two buildings was carried out by photography method.

Mezitli Municipality

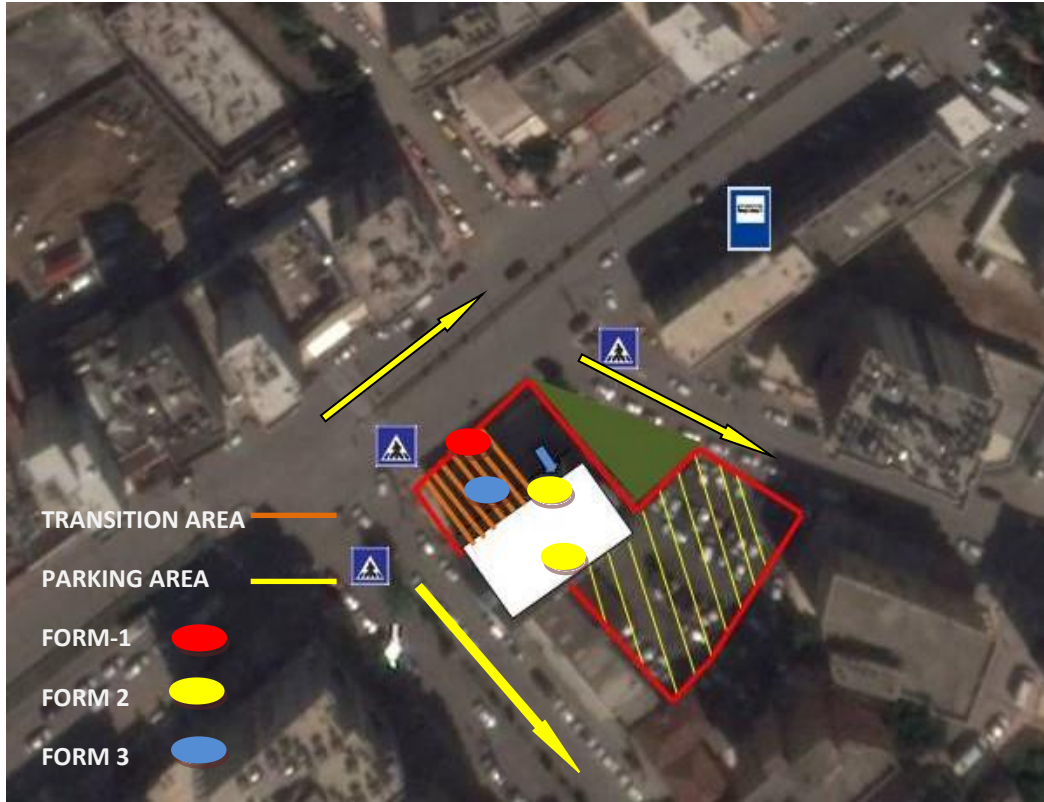


Photo 1. Mezitli Municipality Location

On three sides of the main building,roadways are located. Since it is located on the main street,it is gotten accessed from the bus stop. The implementation of

accessible route cannot be integrated with the bus stop. At the present time,the route to the bus stop is closed by some objects.



Photo 2. Mezitli Municipality Accessible Route Application (Photo: Arzu BİTİGEN SAYLAM, May 2015)

In order to provide a route to the main entrance of the municipality,an alternative, parallel route tried to be added,however it needs to be interfered in terms of

material,implementation,measurement,signage and endurance.

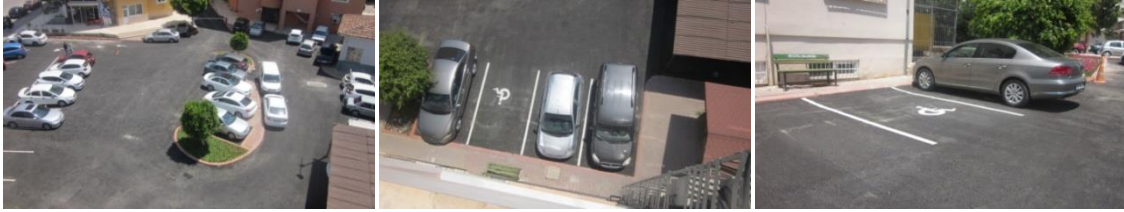


Photo3. Mezitli Municipality Disabled Parking Arrangement (Photo: Arzu BİTİGEN SAYLAM, May 2015)

Implementation of disabled parking was carried out. However, in terms of measurement and instant

availability it was evaluated negatively. Other vehicles have been parked instead of disabled vehicles.

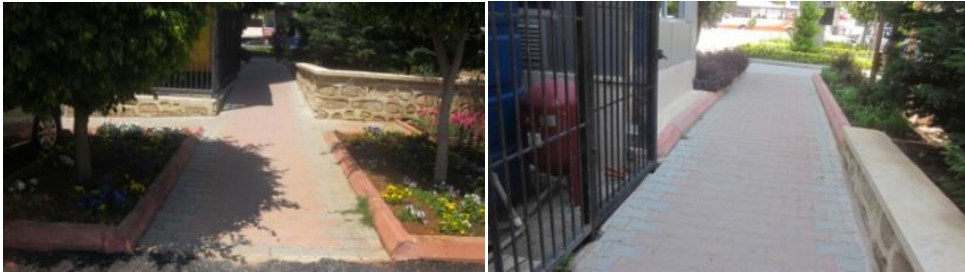


Photo 4. Mezitli Municipality Parking Access Road (Photo: Arzu BİTİGEN SAYLAM, May 2015)

The road, links the parking zone to the main entrance of the municipality, is in unsuitable slope and criteria and

was constructed using improper materials. The one aims to go to the entrance from parking zone needs to get help.



Photo 5. Mezitli Municipality's main entrance and alternative disabled (Photo: Arzu BİTİGEN SAYLAM, May 2015)

Various arrangements have been made in the main entrance of the building for disabled. However the mistakes of measurements and signage have not kept up the sustainability. Disabled entrance takes place alternatively to the main entrance. There are some points to be interfered in terms of slope of ramp, material and implementation.

The state of providing accessibility to the entrance of the municipality was examined in terms of the accessible route and rules take place in TS 9111, about the close environmental planning and organizing the sections of the main entrance.

For Mezitli Municipality; Form-1 some evaluations were made on the route in terms of being accessible, starting from the entrance and linking to the main entrance, being parallel to the main street and being partial partaking. Form-2 the linking route from car parking to the entrance was evaluated related with environmental planning of the building. Form-3 the state of being accessible of the main entrance was evaluated in terms of arranging the sections of main entrance.

Akdeniz Municipality

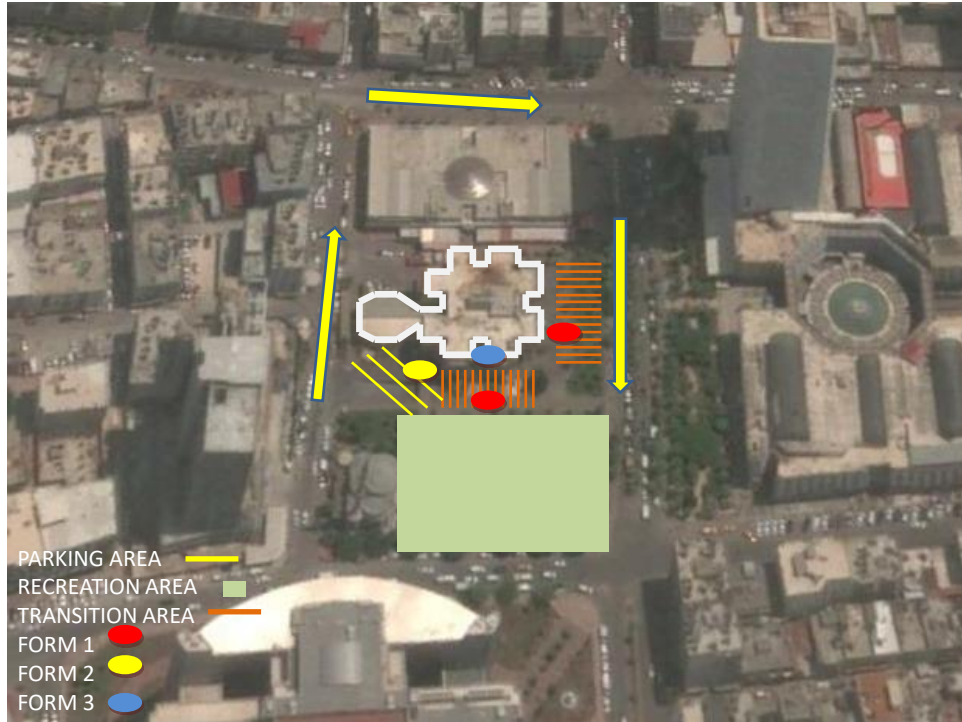


Photo 6. Akdeniz Municipality location (Photo: Arzu BİTİGEN SAYLAM, February 2016)

It is located in the city center. That a 52-storeyed high building, a courthouse and a mosque take place in the vicinity of it, has increased the density of the area. Since there is a shortage of parking in the area, users actively

use the mass transportation alternatives. The town hall with a large square, doesn't include arrangements for disabled, however, after the study, there is a layout that let the implementations to be made the easy way.

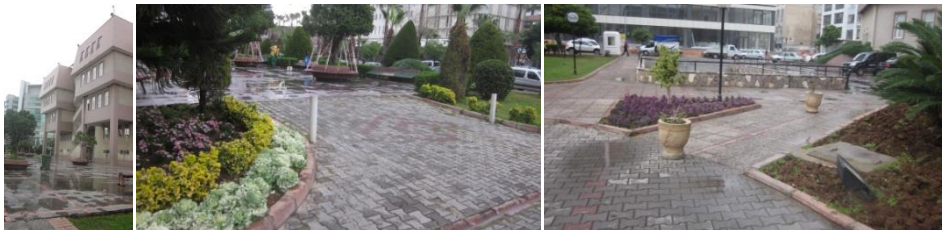


Photo 7. Akdeniz Municipality approach (Photo: Arzu BİTİGEN SAYLAM, February 2015)

There aren't any routes from the sidewalks around the hall to the transition area and from transition area to the entrance. There aren't any routes nearby to navigate or

to provide the disabled move without help. Fixed pots are located in the area which can be positioned as an open car parking for disabled.



Photo8. Akdeniz Municipality main entrance approaches (Photo: Arzu BİTİGEN SAYLAM, February2016)

One can reach to the main entrance though a multi-step stair. It is almost impossible for the disadvantageous group. Although an elevator is integrated to the main entrance,since its doors are closed in terms of instant availability, it is unable to be used without help. As a result, an accessible route to the entrance can be followed.

4. CONCLUSION

With the end of the statutory period for buildings to be accessible, arrangements are seen to have been made in many intuitions and private structures that were surveyed using the observational data. In TS 9111,how the implementations should be made is stated explicitly. In order for all users to be able to do the arrangements with the same sensitivity,academic studies are prepared and needs to be forwarded to the relevant implementers. The objective of the study is to provide accessible places and environments in which all people residing in the city can perform their daily activities without help and on equal terms. The method that was used as part of my thesis titled ‘The investigation of public buildings and their environments with regard to Turkish standards related accessibility example of Mersin’was also used in this study. The questions prepared under TS 9111,were evaluated in terms of the outcome of the observations in place and the places that need to be arranged were identified.

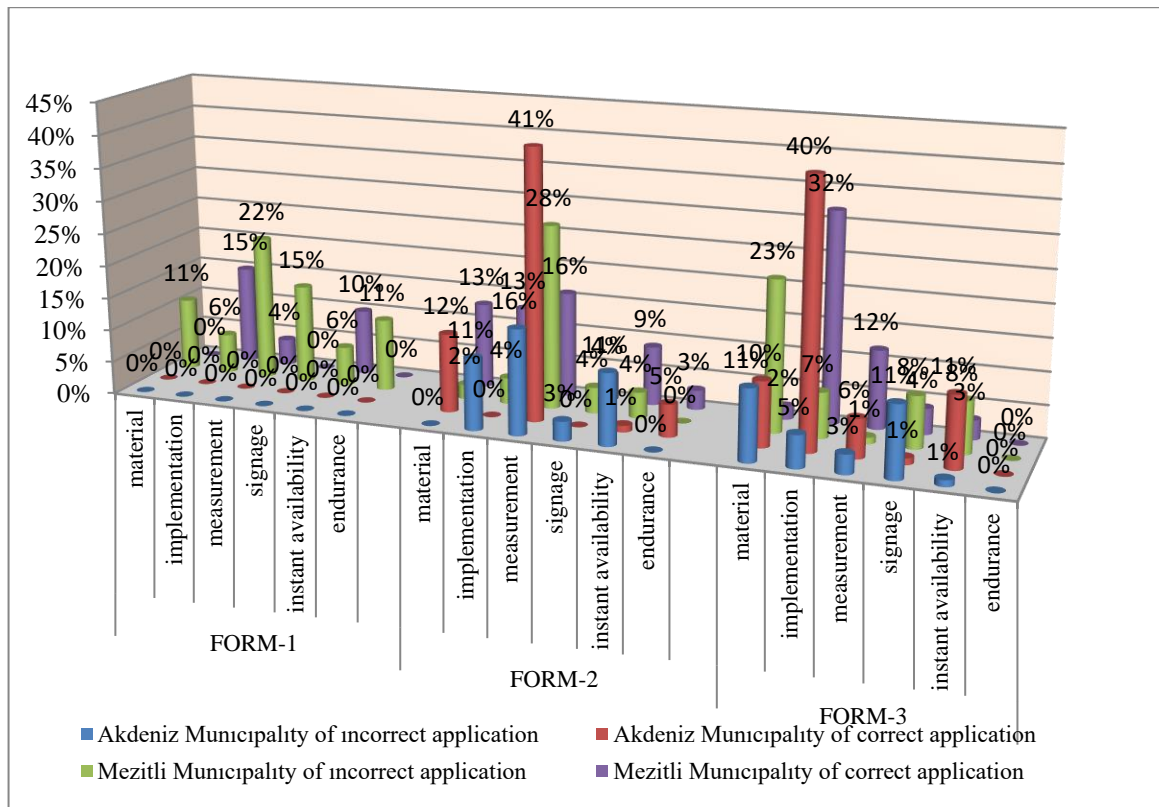
Accessibility should not be a set of regulations imposed up on existing buildings due to legal regulations but should be considered as a primary design principle in the design process by the architect and city planners [10].

	IMPLEMENTATION HAS BEEN MADE	IMPLEMENTATION HAS NOT BEEN MADE
FORM 1	43/0	57/100
FORM 2	58/19	42/81
FORM 3	82/68	18/32

CHART-2: Form 1-2-3 implementation status (1st value shows Mezitli Municipality , 2nd value shows Akdeniz Municipality as %)

	Right	False	Right	False	Right	False
Material	0/0	11/0	13/12	2/0	2/10	23/11
Implementation	15/0	6/0	13/0	4/11	32/40	7/5
Measurement	4/0	22/0	16/41	28/16	12/6	1/3
Signage	0/0	15/0	4/0	4/3	4/1	8/11
Instant availability	10/0	6/0	9/0	4/11	3/11	8/1
Endurance	0/0	11/0	3/5	0/0	0/0	0/0
TOTAL	29/0	71/0	58/58	42/42	53/69	47/31
	FORM 1		FORM 2		FORM 3	

CHART-3 : Form 1-2-3 Comparative Implementation Reviews in Mezitli and Akdeniz Municipalities(1st value shows Mezitli Municipality , 2nd value shows Akdeniz Municipality as %)



Graphic-1: Graphical presentation of chart-3

Status of implementations that were made through 3 evaluated forms, are seen in a higher rate in Mezitli Municipality. Having an accessible route, a disabled parking space in parking zone and an alternative disabled entrance increase the value of implementations.

Form-1 Evaluation of accessible routes

In Mezitli Municipality, accessibility from parking zone, accessible route, ramps and rescue zone reviewed in form 1, are seen to have been implemented in the rate of %43 however, %71 of them has been implemented incorrectly. Since it doesn't have sustainability in terms

of material and endurance, as it stated in TS 9111-Section 4.3.5, the surface of accessible routes should be safe and suitable qualified for the people using wheel chair and having difficulty in walking. Through the accessible routes, the surface of the floor should be with the suitable quality of hard, fixed, steady, and durable and non-slip (dry- wet).

In Akdeniz municipality, in Form-1 it is seen that implementations haven't been made. As result of having no accessible route, that the other sections are even accessible, doesn't provide the sustainability, it doesn't take place in the accessible building class. As it is stated in TS 9111, accessible route for parking

zone,passenger get on-off area, bus-stops,streets or from sidewalks, accessible routes should take place linking to

the building entrances.

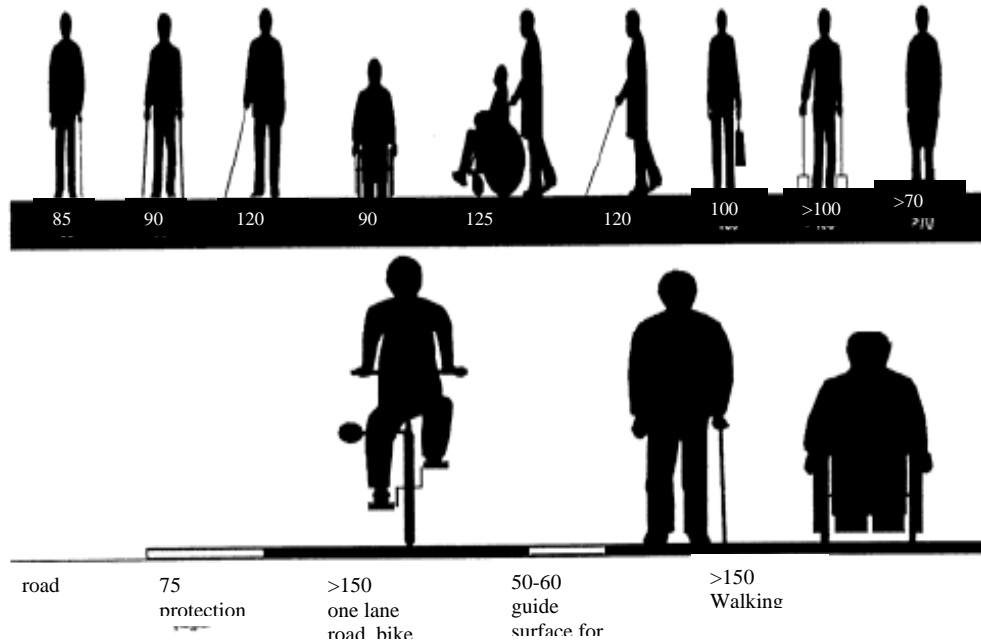


Photo 9. Overall dimensions of accessible route (It has been revised from TS 9111-section 4.3.3)

Height should be at least 220 cm at the head of the entire circulation route (TS 9111-section 4.3.4). Inclined at an accessible route 1: 20 (5%). It should not be steeper (TS 9111-section 4.3.7). The ramp slope and landings are issues that need to be addressed in terms of an accessible route(TS 9111-section 4.3.9)

Form-2 The evaluation of building surroundings arrangement.

In Mezitli municipality, in Form-2 the implementations that were made in terms of outer space connection route to the parking zone, evaluation of disabled parking, solution of level differences are in the rate of %58 and the %58 of it is seen to be suitable. In TS 9111 for open parking zones it is stated that equal accessibility to the buildings for everyone, for example assigned parking spaces,step less and accessible paths separated from vehicle and bike lanes, short distance to the parking zone and mass transportation,good signage and lighting and contrasting coloring should be done. In Mezitli Municipality, although there is a disabled parking in the open parking zone,the implementation is not fully correct. It should be rearranged according to TS 9111.

In Akdeniz Municipality evaluation, it is seen that the rate of implementations is %19 and %58 of it is seen to have been made suitable. Even the rate of suitability is seen the same in the two municipality buildings, the rate of implementation in Mezitli Municipality is %58. Disabled parking doesn't take place around Akdeniz Municipality. It should be rearranged with an accessible route according to TS 9111.

As disabled parking areas shouldn't not be farther than 30m from building entrance, it also should permit enough space for getting off and getting on the car. It should be integrated to a safe access road of the building. If there is only one parking area for disabled people, it should be 400 cm wide and 600 cm long (TS 9111-section 4.4.1).Entrance path of the building should be min. 200 cm wide or 300 cm by choice (TS 9111-section 4.4.2.)Garden paths should be min. 200 cm wide and they shouldn't be covered with slippery and non-rigid materials like pebbles(TS 9111-section 4.4.2.2)the slope of the ramps on pedestrian way should be max. 5% (1/20)(TS 9111-section 4.4.3.2).

Form-3 The evaluation of arrangements of the main entrance sections of the buildings.

In Mezitli Municipality Form-3 the accessibility of the building after the travel to the building is evaluated. The main entrance, room for maneuver and level differences, ramps and entrance doors have been evaluated. The rate of implementation is %82 and the %53 of it is suitable. In Akdeniz Municipality the rate of implementation is %68 and the %69 of it is suitable.The main entrance of the building is the last destination in the inner space through the travel to the building. Level differences, signage, lighting, shelf protected from the weather conditions that were identified in TS 911, should be arranged as it was identified in TS 9111.

Equipment, color or light differences are useful in terms of easily recognizable at the entrance of building.

Entrance of the building should be made by hard nonslip (wet/dry) and unpolished materials and also comfortable and safe entering should be arranged with weather condition protected platform. The doorstep area should be at least 150 cm*150 cm dimension and to be able to allow for the wheel chair person in that area (**TS 9111-section 4.5**).

The doormat and its top surface should be hard covered and in the same level with the surface level (**TS 9111-section 4.5.2**). The entrance door shall be same level with the wall. There should be chosen sensor lighting at the entrance (**TS 9111-section 4.5.3**).

Comprehensive proposal will be presented as well as the proposals when the thesis is completed .

The evaluations show that the rate of the implementations in Mezitli Municipality is higher than the implementations in Akdeniz Municipality. That Mezitli Municipality main building being older doesn't affect the accessibility of the building negatively. Even though Akdeniz Municipality building was built recently, it is seen that a low rate of implementation has been made.

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