

## Main Principles of Designing of Accessibility Public Open Places in RA

Emilia Sargsyan<sup>a\*</sup>, Yerazik Martirosyan<sup>b</sup>

National University of Architecture and Construction of Armenia,  
105 Teryan Street, Yerevan, Republic of Armenia

<sup>a</sup> sargsyan.emilia@inbox.ru, <sup>b</sup> martirossianyerazik@gmail.com

**Keywords:** accessibility environment, environmental adjustment, people with disabilities, unhindered architectural environment, open space, public space, public open space.

**Abstract.** The concept of "public space" can be used in the creation of any city, the exploitation of the latter in specific socio-cultural processes taking place in the modern urban environment. Public or outdoor areas are a driving force and cornerstone for community development, as these areas belong to everyone and creating public services that are accessible to all segments of society. Social inclusion measures can improve the social inclusion of all groups in society, including people with disabilities, in urban life. Accessible public open spaces in the cities of the Republic of Armenia can play an important role in improving the involvement of all disability groups by acting as intercultural, social dialogue and exchange sites. In general, to create the necessary accessible-unobstructed "connection" between housing conditions and "open public areas" using public communication channels, it needs to be included in practical and legal urban planning. A well-designed, well-equipped accessible public space is important for the development of a healthy social society in the cities of the Republic of Armenia. Such gathering places allow for public civic gatherings on the social platform, giving everyone the opportunity to participate. In the cities of the Republic of Armenia, a number of criteria have been set for ensuring accessibility and movement safety for people with disabilities. The article also presents a method based on a four-tier system of accessibility assessment, which can be classified according to computational and descriptive data.

### Introduction

The adequate profit of public open spaces can be a basis for those who need to create a comfortable urban environment. In the case of renovation or adaptation of public open spaces, accessibility requirements, as it is impossible to meet them in full, should be followed by the principle of "reasonable accommodation" according to the Convention on the Rights of Persons with Disabilities [1].

The proposed solutions should help the people with disabilities to recognize the importance of the area, be it a square, a park, a recreation area or a green area of the roof of a public building, as well as using communication routes, crossings, paths, risk zones (Fig. 1).

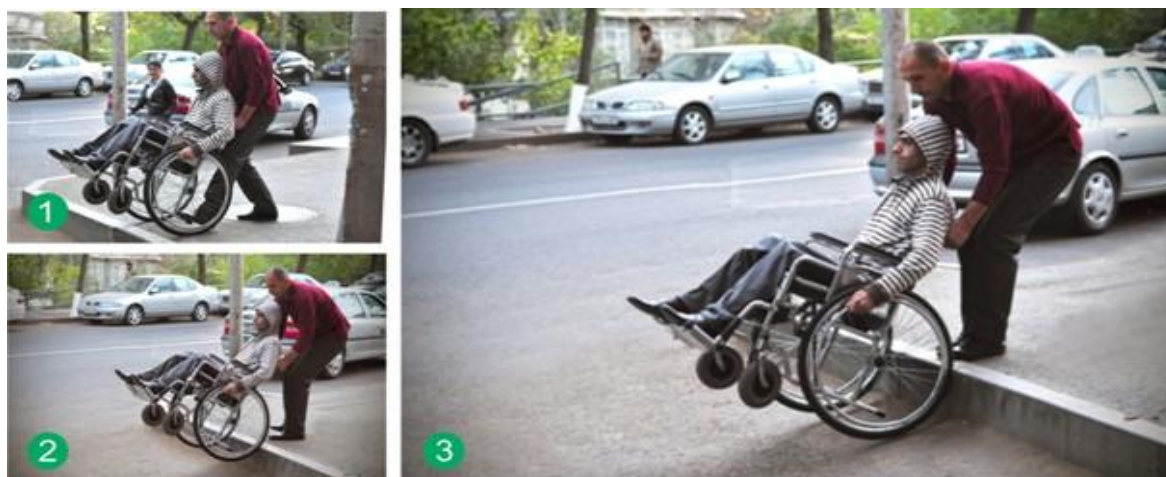


Fig. 1. Problems of people using wheelchairs or stairs

Public open spaces can be considered as areas adjacent to architectural monuments outside the city, which can also become a place where people with disabilities can spend their time.

Such places in Armenia are plenty, because our history and culture is rich in monuments created over the centuries and the open spaces that have developed around them are a wonderful public areas, whose architectural solutions - communications, furniture, demolition can be a stimulus to reach historical groups to the past [2].

### Purpose of the study

The study aims to reveal the principles of effective use of public open spaces, to give reasonable proposals for people with disabilities.

Assessing the problems of accessibility in the public open spaces of the city of Yerevan, the peculiarities of urban development, appropriate criteria are proposed, such as a method based on a developed four-point system, the application of which will contribute to the organization of the public environment of the city (Fig. 2).

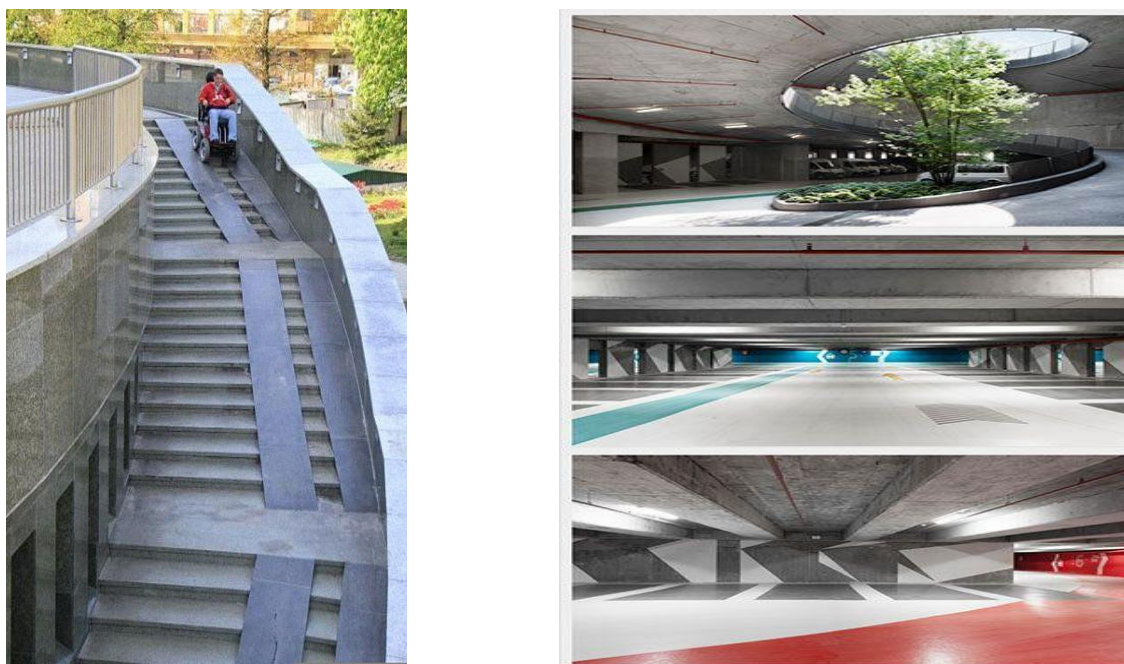


Fig. 2. Organization of common public environment

### Methodology

A method has been developed based on the relevant criteria that define the availability of open spaces for people with disabilities. The characteristics and applied domain of each standard are described. In terms of capacity, these criteria have the following sequence of priorities: 1. availability, 2. security, 3. information, 4. comfort [3].

Accessibility measurement has the following requirements: smooth movement through passages to reach the destination, and opportunities to use the relaxing and related services.

The security criteria mean creating relevant conditions for disabled people to safely go to working space. Other than that, the equipment which disabled people use during the workflow should be safe and secure.

The information provides a versatile opportunity to receive, understand and respond to lead in a timely manner.

The requirements of the information standard are the following:

- the use of information tools that meet the characteristics of consumers,
- the use of public buildings,
- recognition of historical monuments - accurate location of their places and purpose of the visit,

- the need to install information support elements and the nature of execution should be considered.

The comfort standard contains the following basic requirements:

- creating conditions for low mobility groups of the population,
- providing conditions for compensating for relocation efforts.

Convenience can be increased by reducing the time to get several services in one place, increasing the number of resorts, getting the necessary information in advance, using the necessary and ergonomic features, etc.

There is also a method based on a developed four-point system, classified according to computational and descriptive data.

The questions asked by people with disabilities who visited different facilities were summarized in the following order: *a*. Is the particular object or space available?, *b*. Is outside help required?

The facility is available for independent visits. Based on the conducted surveys, it became possible to develop the following image based on the increase in the availability range [4].

Thus, a scoring system has been developed, which is expressed in the following availability coefficients (AF). AF = 1 - not available, AF = 2 - available with outside help, AF = 3 - independently available. The area availability assessment is presented in Fig.3.

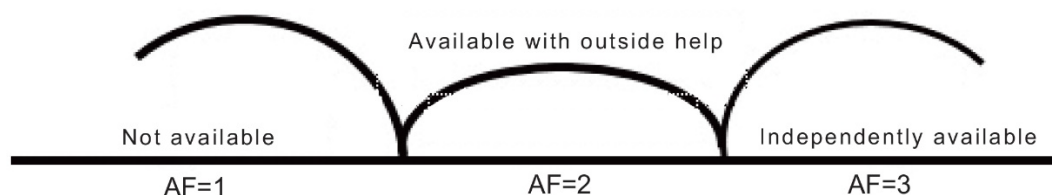


Fig. 3. Accessibility rating scale

## Results

A methodology is proposed to address the problems of accessibility of public outdoor areas, which uses a four-point evaluation system based on relevant criteria. This method makes public open spaces and facilities more accessible for people with disabilities, services become more accessible to them. To implement this idea, it is necessary to create a comfortable urban development environment, which requires the involvement of large sections of society and state sponsorship.

## Conclusion

The research substantiates that the social, urban, and cultural life of people with disabilities is quite flawed. Therefore, it is proposed to create the necessary conditions and architectural environment by analyzing individual factors and principles, enabling everyone to participate in public life.

Outdoor public areas, with free access for all, can be a means of involving people with disabilities to become full members of society.

## References

- [1] Information on [http://www.un.am/res/UN%20Treaties/III\\_15.pdf](http://www.un.am/res/UN%20Treaties/III_15.pdf)
- [2] E.Sargsyan, Ye. Martirosyan, Creating a suitable environment for the disabled in a modern setting, Bulletin of NUACA. 4-57 (2019) 25-30.
- [3] A.G. Galkin, O.R. Ilyasov, L.A. Rikova, Organization of available means for the disabled on transport, School edition. (2016) 80-97.
- [4] K.E. Safronov, Methodology for organizing transportation of people with limited mobility by urban passenger transport, Omsk. (2017) 110-120.