

UDC 37.246.16:347.161

A. NADYARNAYA, O. KAPINUS

Donbas National Academy of Civil Engineering and Architecture

PRINCIPLES AND METHODS OF UNIVERSITY ADAPTATION TO THE NEEDS OF THE YOUNG PEOPLE WITH LIMITED PHYSICAL ABILITIES

The article deals with the principles and methods of university adaptation to the needs of the young people with limited physical abilities. The main preconditions and factors, which cause the necessity of adaptation of higher educational establishments to the needs of disabled students, have been determined. Principles and methods of planning decisions for adaptation of higher educational establishments considering the specific needs of young people with limited physical abilities and a universal model of higher educational establishment for young people with limited physical abilities are the expected outcome of the study.

principle, method, adaptation, people with limited physical abilities, educational establishments, building, special, disabled

INTRODUCTION

Lately there has been a growing interest in architecture for groups of population having limited mobile abilities. This process is explained, first of all, by social changes happening in our country, and changes in our attitude toward invalids [1]. The necessity of including invalids into all spheres of life of the society is one of the main tasks of a modern architect.

Research tasks of project are the following:

- 1. To study basic pre-conditions and factors stipulating the necessity of adaptation of higher educational establishments to the needs of young people with limited physical abilities.
- 2. On the basis of having these pre-conditions and factors to set forth the basic groups of requirements as for adaptation of higher educational establishments to the necessities of young people with limited physical abilities.
- 3. To work out principles and methods of higher educational adaptation to the necessities of young people with limited physical abilities.

The supposed results are:

Principles and methods of adaptation of design decisions of higher educational establishments, taking into account the specific necessities of young people with limited physical abilities, and to suggest a universal model of a higher educational establishment for young people with limited physical abilities.

Examples of planning adaptation of educational establishments in foreign practice

Foreign specialized educational establishments can be systematized, mainly, by the nature of students' diseases. They include educational establishments for the blind, deaf, mentally retarded and invalids with locomotorium problems. There are also specialized complexes uniting two, and sometimes three types of such educational establishments.

Learning Spring School (Spring school)

Architects: Platt ByardDovell, White Architects

The 8-storeyed building is located on the north-western corner of $20^{\rm th}$ street and 2d avenue in Manhattan (pic. 1). The area of school is located within municipal development, which provides a good transport and pedestrian accessibility. Planting of area is minimal, because the building is located in the dense municipal development.

© A. Nadyarnaya, O. Kapinus, 2014



Picture 1 – Learning Spring School.

Vocational Education Center

Architects: Durisch + NolliArchitetti

Building represents one volume consisting of successive reiteration of simple elements (pic. 2). Here a traditional typology is characterized by raising the building on a platform higher of than the earth level.



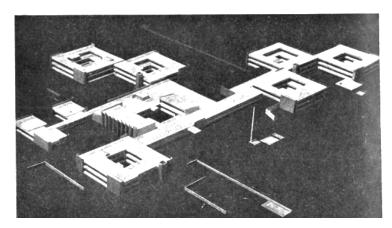
Picture 2 – Vocational Education Center.

Home practice of adaptation of educational establishments

The specialized educational establishments in Ukraine are one of the links of the national system of educational, curative and health establishments and are supported by public funds.

A model project of children's establishment house of curative and schooling type

A symmetric scheme is also taking as a basis of the project (pic. 3). One of the benefits of the project is its organization of comfortable enough connections between the basic groups of accommodation – educational and bedroom ones [2].



Picture 3 – A model project of children's establishment house of curative and schooling type.

BASIC MATERIAL

My master work will be devoted to adaptation of the main public zones of Donbas National Academy of Civil Engineering and Architecture. Thanks to construction of ramps there will be a possibility to enter the educational buildings for physically disabled people, which will also be also reflected on appearance of buildings (pic. 4).



Picture 4 - The appearance of educational building.

Adaptation of the area of the academy will happen due to building ramps in the entrance zones, having a special covering for fixing wheelchairs, borders of the increased height and a tactile tile for simplification of orientation for blind people, lighting lamps, plantings sharply smelling flowers for zone definition and construction of canopies (pic. 5).



Picture 5 – Adaptation of the area of the academy.

Academy interiors will also be changed taking into account needs of the disabled people (pic. 6). For example in corridors it is planned to arrange a handrail along all walls for convenience of movement. Contrast colors, various invoices and materials, and light filtration will be applied as key elements of the project for creation of the environment promoting training of students with sight problems. All materials used in finishing have to be pleasant by touch and in case of falling down won't cause traumatism [3].



Picture 6 – Contrast colors in the academy interiors.

CONCLUSION

Measures concerning their possibility of education are especially important for disabled people. After all it is one of the most effective ways of involving the person with special needs into society life. Higher educational establishments have to represent environment, which is optimal for difficult processes of formation of young specialists with limited physical abilities: education, study, life, public work, creativity, physical

development, cultural improvement. These are the main aspects of higher school adaptation to the needs of disabled students.

REFERENCES

- 1. Sundberg, N. I. Unesco and the International Year of Disabled Persons [Текст] / N. I. Sundberg // Курьер ЮНЕСКО. 1981. С. 27
- 2. Степанов, В. Специальные школы [Текст] / В. Степанов. Москва: Стройиздат, 1973. 152 с.
- 3. Степанов, В. К. Среда обитания для людей с недостатками зрения [Текст] / В. К. Степанов, В. К. Шарапенко. М.: ШНТИ. 1982. 50 с.
- 4. Douglas, J. Building Adaptation [Текст] / J. Douglas. 2nd Edition. Oxford : Routledge, 2006. 680 р.

Получено 07.06.2014

А. Є. НАД'ЯРНА, О. Л. КАПІНУС ПРИНЦИПИ ТА ПРИЙОМИ АДАПТАЦІЇ ВИЩИХ НАВЧАЛЬНИХ ЗАКЛАДІВ ДО ПОТРЕБ МОЛОДІ З ОБМЕЖЕНИМИ ФІЗИЧНИМИ МОЖЛИВОСТЯМИ

Донбаська національна академія будівництва і архітектури

У статті розглядаються принципи і прийоми адаптації вищих навчальних закладів до потреб молоді з обмеженими фізичними можливостями. Виявлено й обгрунтовано основні передумови та фактори, що обумовлюють необхідність адаптації вищих навчальних закладів до потреб студентів-інвалідів. Передбачуваним результатом дослідження є принципи і прийоми адаптації планувальних рішень вищих навчальних закладів, що враховують специфічні потреби студентів-інвалідів, та пропонування універсальної моделі вищого навчального закладу для молоді з обмеженими фізичними можливостями. принцип, метод, адаптація, люди з обмеженими фізичними можливостями, навчальні заклади, будівля, спеціальний, інвалід

А. Е. НАДЬЯРНАЯ, Е. Л. КАПИНУС ПРИНЦИПЫ И ПРИЕМЫ АДАПТАЦИИ ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЙ К ПОТРЕБНОСТЯМ МОЛОДЕЖИ С ОГРАНИЧЕННЫМИ ФИЗИЧЕСКИМИ ВОЗМОЖНОСТЯМИ

Донбасская национальная академия строительства и архитектуры

В статье рассматриваются принципы и приемы адаптации высших учебных заведений к потребностям молодежи с ограниченными физическими возможностями. Выявлены и обоснованы основные предпосылки и факторы, обусловливающие необходимость адаптации высших учебных заведений к потребностям студентов-инвалидов. Предполагаемым результатом исследования являются принципы и приемы адаптации планировочных решений высших учебных заведений, учитывающие специфические потребности студентов-инвалидов, и предложение универсальной модели высшего учебного заведения для молодежи с ограниченными физическими возможностями.

принцип, метод, адаптация, люди с ограниченными физическими возможностями, учебные заведения, здания, специальный, инвалид