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Project proposals for the construction of the passenger terminal at the airport «VINNITSA»

The results of the elaboration of diploma «Passenger terminal at the airport «Vinnitsa» educational-qualification level «Bachelor» in the field of training of 6.060102 «Architecture». The aim of the project is to create of the expressive architectural and artistic image of the Terminal throughput capacity of 400 passengers/hour.

Development of the Vinnitsa regional municipal enterprise «The Vinnitsa Airport» - a part of the complex of tasks of the State target development program of the airports for the period till 2023 [1]. Modernization of terminal and reconstruction of airfield should increase annual dynamics of a growth of passenger transportation up to 251,2 thousand people and servicing of air vehicles in 7,39 thousand flights.

Vinnitsa airport has been in use since 1982 for local airlines [2], in 1992 has begun to fall into decay, however in 2008 the airport have provided «second wind» with large-scale reconstruction and upgrade, its capacity has increased to the 400th pass/hour. Subsequently the airport has received the «international» status, though it is very small size and serves several flights a week. It has allowed not only to open new flights for ensuring the international air transportation (fig. 1), but also to solve strategic problems for the region [3].



Fig. 1 Scheme of the organization of passenger transportations

The purpose of the diploma was the creation of the expressive architectural and artistic image of the new passenger terminal, the space-planning, design and engineering solutions which should ensure the implementation of modern technologies of passenger servicing international and domestic flights [4].

Design process was preceded by an investigation of international and domestic experience of design of the airports, and also objects with the low level of energy consumption at construction and operation [3, 5].

The airport is located in 7,5 km from a railway station Vinnitsa and in 1 km to the southwest of the settlement of Gavryshivka. It is in the center of Ukraine and has a convenient traffic intersection for transportation of passengers and cargo, both across Ukraine, and across the border.

The territory of the airport is 6,1 hectares. Transport communication with the city runs part of the highway M12 of the international importance with a separate entrance to the airport (to fig. 2, a).



Fig. 2. Vinnitsa airport:

a - the existing air terminal, b - the passenger terminal (project)

A new solution of the Terminal (fig. 2, b) envisages the following organization of the General Plan (fig. 3). According to the technological processes of passengers service, passenger terminal is divided into two parts: a zone of domestic and international flights. Each of them lets you serve streams of passengers of different categories: departure, arrival, transit and transfer.

The zone of an arrival of the international and domestic flights is situated on the first floor, the departure zone - on the second floor (fig. 4). Entrance of motor vehicles from the city is on the level of the second floor (zone of departure), it arranged a flyover from two lanes.

The project decision is characterized by bigger, than existing, territory for placement of the passenger terminal, organization of the station square and the platform. At the same time, it allows to provide more comfortable service level (availability of a parking, parking for buses, telescopic ladders, trade enterprises, etc.).



Fig. 3. Organization of the General plan

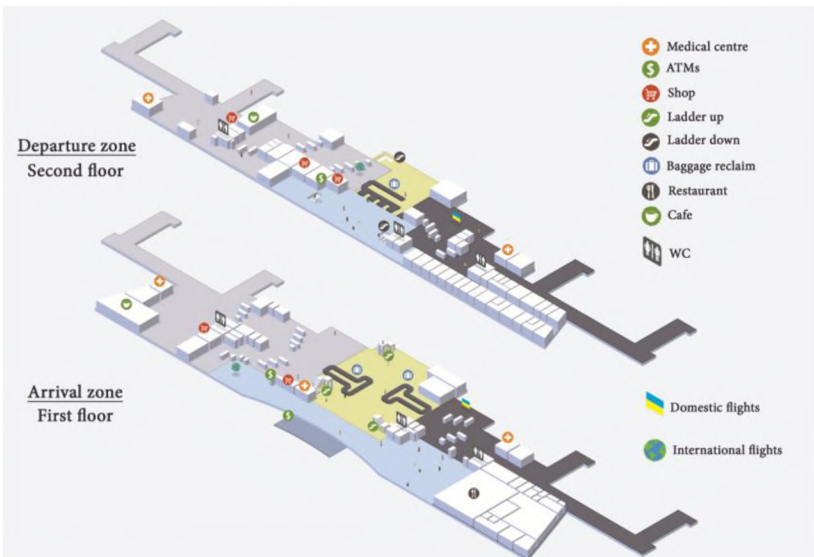


Fig. 4. Functional zoning of floors of the passenger terminal

Architecture-art image is expressed on the main facade in the form of the letter «V» is the initial letter of the name of the object's location.

Great value given to the geometry of the building plan, which ensures the integrity and efficiency of a phased construction (fig. 3), and the introduction of energy-efficient technologies [5].

Conclusions

1. The solution of perspective problems of the country on development of the regional airports and their inclusion in worlds transportation networks and requires a search of new architectural and planning solutions for buildings, including passenger terminals.

2. Solutions developed during the execution of the graduation project, reflects not only the level of acquired knowledge and skills, but also allows the soon-to-be architect to express their views on modern architecture of the domestic airports.

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