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NEW CONCEPT OF PAVING IN ODESSA STATE ACADEMY OF CIVIL ENGINEERING AND ARCHITECTURE RECREATION ZONE

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Abstract. Odessa State Academy of Civil Engineering and Architecture (OSACEA) exists more than 90 years, and the need to introduce new decisions on the improvement of its territory appeared nowadays. Paving in a student recreation zone, professors and workers of the academy looks outdated. The new concept of paving from figured paving blocks (FPB) is offered in the article, designed with modern trends in the field landscaping of recreation areas.

Recently, large volumes of the construction of paths and areas are performed with figured paving blocks. Its related to its aesthetic attractiveness, in comparison with asphalt concrete blocks, and eco-friendly [1, 2]. If elements are damaged, it can be changed to new easily.

Nowadays, in our opinion, there is a need to introduce new decisions for the improvement of the territory of the Odessa State Academy of Civil Engineering and Architecture. Repairing works are being made in buildings of academy. In the last few years asphalt concrete blocks were partly changed to FPB of concrete. But the bigger part of territory still has old asphalt concrete paving. There is a new concept of paving of recreation zone for students, professors and academy workers situated near the main entrance and the fountain. Current paving of this zone looks outdated.

For the recreation zone situated on the territory of OSACEA, new decision of paving of figured paving blocks was developed (Fig. 1). The coating pattern consists of intersecting the curvilinear elements of paving, as well as individual curvilinear elements.

Diversity of little forms on this paving allows to use various color patterns on it. Rounded smooth pattern add originality to paving and focus the form of terrain.

The main background is light beige. Light color was chosen as dominant because it makes the space visually wider. Brown-beige coloring of the pattern harmonize with environment and buildings of the academy

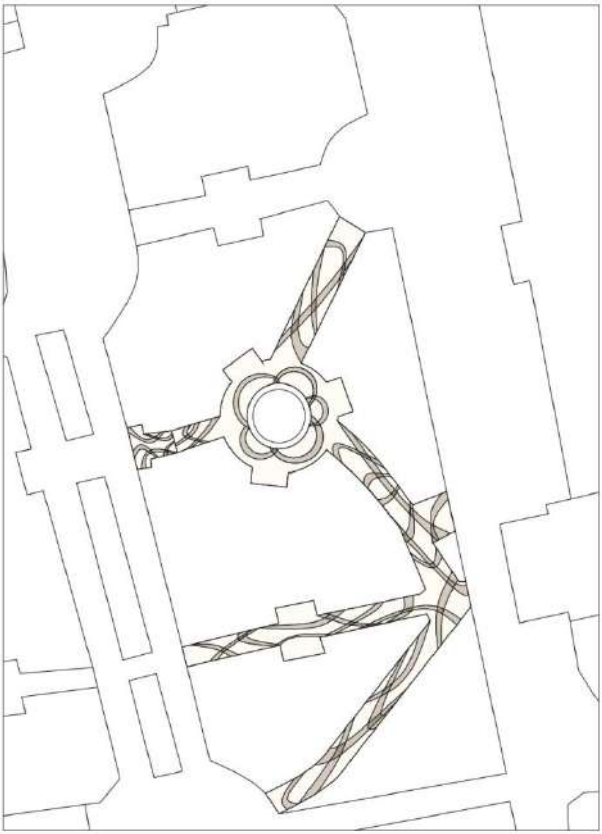

Fig. 1. The option of pattern of paving on the OSACEA recreation zone near the main entrance.

Form of figured elements of concrete can be made in two options in plan. In first option– of blocks of hexagonal, square, rectangle, triangle or trapezoid form with painting already applied on upper layer (Fig. 2, 3). In second option– every block in the place of curvilinear elements of pattern has one or more curvilinear side, but in this case surface of all paving is painted in appropriate color. The shape of the shaped element and the size depend on the cover pattern and its location in this drawing.

Making of paving, both in the first and second option won't be cheap. However, it may be an interesting experiment for developing of realization opportunities of any non-standard ideas in the preparation of paving using

the figured elements of paving. Paving, which is made according to this project, being one of a kind, will be one of distinguishing objects, dedicate OSACEA from other education institutions.

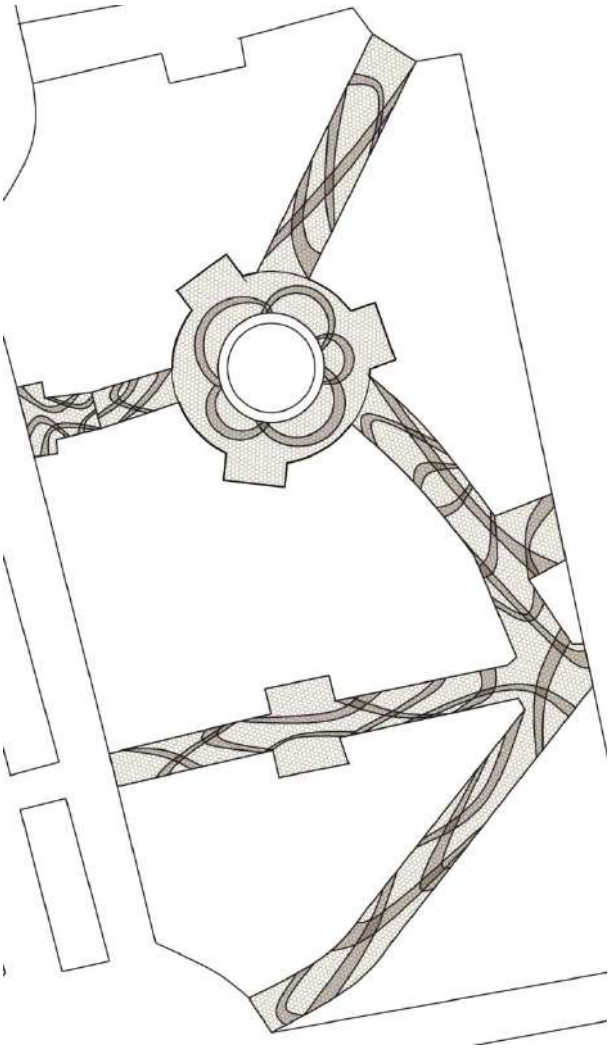

Fig. 2. First variant of figured concrete blocks.

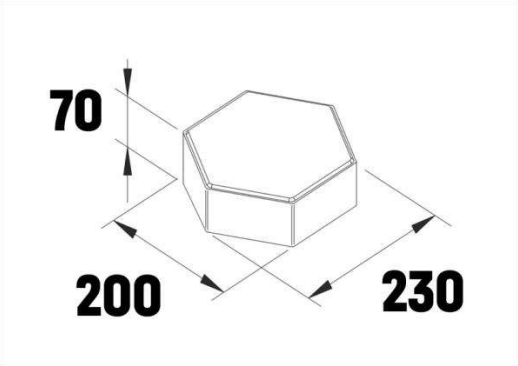

Fig. 3. Sizes of a block used in paving.

To increase the reliability and durability of the pavement during its construction, it will be possible to use concrete blocks with a modified geometric shape of the base, for example, with pyramidal elements [3]. The corrugated shape will prevent horizontal shift of the pavement. Due to the pyramidal elements, the density of the underlying base layer, for example, the sand layer, will increase, which will increase the bearing capacity of the pavement.

Conclusions and results. The new constructive decision of the paving of the OCASEA recreation zone was developed. Pattern of paving consists of combination both separate curvilinear elements of paving and intersecting with each other. To perform curved paving elements according to the proposed solution, it is necessary to develop new versions of shaped paving elements with curved lines along the contour. This solution will allow you to lay several coverings on the same territory and select different zones.

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