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**Abstract:** *The issues of application of several methods of vertical planning in solving problems related to land works arising in the process of reconstruction and reconstruction of cities are presented.*

**Key Words:** *natural disasters, man-made accidents, relief, vertical plan, project, horizontals, atmospheric precipitation, normative slope.*

A number of Central Asian countries and the territory of the Republic of Uzbekistan are prone to natural disasters (earthquakes, landslides, floods, strong winds, etc.), man-made accidents and ecological imbalances.

As a result of the above cases, the following damage is observed in the regions:

- unusability of land and networks of urban and rural population used for existing economic purposes;
- Degradation and erosion of historical sites of high material and spiritual significance;
- accumulation of atmospheric precipitation on existing streets and roads in the regions;
- filling of basements of existing residential houses, public buildings, buildings of service enterprises and institutions with rainwater;
- landslides on the slopes of street and road lifts and carvings;
- damage such as violation of sanitary and hygienic conditions in the areas.

One of the important issues of urban planning is the protection of existing material resources and nature in the regions from natural disasters, man-made accidents and ecological imbalances and the effects of damage, rescue and urgent rehabilitation in the affected areas.

Only as a result of an in-depth analysis of natural disasters, industrial accidents and environmental situations that characterize the region of Uzbekistan in the solution of damage problems in the regions (study the causes, strength, scope, impact on people, the environment) convenient measures are prescribed so that the scale of both material and moral losses in any emergency can be reduced to such an extent.

It is recommended to use several methods of vertical planning when adjusting the relief of the areas, ie bringing them to the normative slope.

The 3 main methods of vertical planning that are recommended are as follows:

- ✓ *longitudinal and transverse profiles (red profile) method of vertical planning;*
- ✓ *method of project horizons (red horizons) of vertical planning;*
- ✓ *grapho-analytical method of vertical planning.*

*The method of longitudinal and transverse profiles (red profile)*-is divided into nets, passing straight lines in different directions from the characteristic places of the projected relief. Separate shear-profiles are constructed for each straight line in the grid. The greater the number of profiles, the more accurate information about the location is collected. The scales of the space and profile are selected depending on the purpose for which the ground level is used. The side of the squares is taken as 20-40 or 50 m for small areas and 100-120 m for large areas. When working on a vertical plan of a city or district area, the profile is drawn along the axes of the street. Building a street profile is considered a special case of this method. In this case, the main axis of the road and separate transverse profiles are built for each picket (a certain interval).

*The horizontal method of the project* - this method is useful in the design of micro-district areas, green areas and roads. The convenience of this method is that it is possible to mark the relief mark formed by the project or red horizontal lines.

*Grapho-analytical method* - allows you to plan the amount of initial work in the implementation of projects. This method adds good precision to a Vertical Plan project, especially when it comes to Vertical Planning of Streets and a Specific Area and Quarters, whether they are on a flat surface or in a complex location. In this method, clear marks are placed everywhere, i.e., the natural mark of the relief (black mark) and the project mark (red mark).

Using the proposed vertical planning methods, it is possible to perform the following main tasks in the reconstruction of cities, land reclamation and engineering preparatory work:

- *organization of open discharge of snow and rainwater or ensuring its inflow into the underground pipeline;*
- *providing irrigation of trees and lawns;*
- *provision of transverse and longitudinal slopes, ensuring comfortable and safe movement of vehicles and pedestrians;*

- *modification and adjustment of the relief in accordance with the requirements of housing construction (leveling the ground);*
- *Laying of underground pipes and equipment, creation of the corresponding natural slope;*
- *Optimal in planning and construction of urban infrastructure*
- *a special solution - to preserve the landscape in such a way as to reveal the beautiful architectural views of buildings and structures*

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