

Section 02. Geotechnical Systems Stability

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«Modeling for construction»

In the design process, it is impossible to display and take into account all the errors and problems that can be encountered in the construction. To date, there is simply not enough just a 3D model of the building to implement it effectively in the design position. Therefore, it makes sense to search for and implement more detailed solutions that can more effectively transfer the model to real construction. The results of the research done in this area and some considerations are shared in this paper.

Not all models representing buildings can be considered as models of BIM. For example, models that contain only visual 3D data, but not attributes of objects or models that allow you to resize on a single view, but do not automatically reflect these changes on other views, are not BIM models.

Information Modeling of Buildings, with sufficient accuracy and detail, allows all construction parties to ensure that a building or structure can be effectively built - in terms of both time and money: an information-rich model makes it possible to identify possible problems before commencing operations on the site and operating. Full-scale models allow to minimize costly troubles, and thus increase the profitability of construction.

The BIM (Building Information Modeling) technology involves building one or more accurate virtual building models in a digital form. Using models facilitates the design process at all its stages, providing more thorough analysis and control. Being completed, these computer models contain the exact geometry of the structure and all the necessary data for the procurement of materials, construction and construction.

Prefabricated housing construction is becoming increasingly popular. Even large elements, such as roof structures and bathroom units, arrive on the site in ready form for immediate installation. Naturally, each such element must be exactly placed in its place without breaking the schedule.

To organize such a process, accurate, up-to-date information is needed, which is easy to find. It is this information that contains the technological models of BIM.