

RECONSTRUCTION OF BUILDINGS AND CONSTRUCTIONS

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Abstract

Reconstruction is necessary to improve the conditions of buildings and structures. Reconstruction includes certain stages. This article describes in detail reconstruction, its stages, and this process in general.

Keywords: Reconstruction, utility, foundation, project, waterproofing, reconstruction, insulation, engineering, feasibility, residential.

Аннотация:

Реконструкция необходима для улучшения состояния зданий и сооружений. Реконструкция включает в себя определенные этапы. В этой статье подробно описывается реконструкция, ее этапы и этот процесс в целом.

Ключевые слова: реконструкция, инженерное обеспечение, фундамент, проект, гидроизоляция, реконструкция, изоляция, инженерия, технико-экономическое обоснование, жилой.

Reconstruction is necessary to improve the conditions of the building. As a result, technical and economic characteristics change. During reconstruction, you can change the number of floors, the area of the building, etc.

When carrying out such work in large industrial facilities, changes may occur not only in one building, but also in the entire complex of structures located in the neighboring area.

Reconstruction of the building is a complete or partial change of purpose, reconstruction for the improvement and development of the area, installation of new equipment that meets modern standards. Many people confuse the concepts of "overhaul" and "reconstruction".

Such reconstruction may mean the general reconstruction of the entire area, cultural institutions or residential complex. During reconstruction, it is necessary to take into account the future prospects of the building and the entire area. If you take into account only interests at the moment, then after a few years it will lead to the

impossibility of a new reconstruction. All work should be done with the possibility of further reconstruction.

When working in residential buildings, the technical and economic indicators change: the construction size and area of the building, the quality and number of apartments, the throughput, the height of the buildings, etc. increase.

Reconstruction includes the following works: addition and addition, partial dismantling, change of layout, replacement of engineering equipment and improvement of architectural expressiveness.

There are two types of reconstruction for industrial buildings: technical re-equipment and replacement. In the first, the equipment is replaced with a more modern one. During the conversion, the building and equipment will change. Extensions, additions, etc. can be built.

Reconstruction of buildings and structures is related to:

- reconstruction and increase the height of the room;
- partial dismantling and replacement of structures;
- strengthening of structures;
- strengthening the foundation.
- strengthening the foundation or soil;
- experts can perform heat treatment, cementation, installation of pressure piles, bituminization, etc.;
- extension of the building;
- the upper structure of the building;
- improvement of the facade of the building: plastering and painting, insulation and painting, adding door and window openings;
- capital construction;
- replacement of utility services;
- object reorganization.
- performing roofing work and, if necessary, creating an attic;
- replacement of waterproofing material, additional insulation or complete replacement of insulation.

In addition, an additional roof slope or reinforcement can be installed. Roller material or metal profile sheets are usually used as roofing material.

Depending on the condition of the building, a survey is conducted and a decision is made on the type of reconstruction, the list of works is approved.

There are two types of reconstruction: full (complex) and small (partial).

Complex reconstruction increases the capital of the building, increases the living and usable area, and also improves the landscaping of not only buildings, but also areas.

It provides reconstruction inside the building without thoroughly replacing the walls and replacing the floor. For buildings with minor physical wear and tear, this type of repair may be appropriate.

Preparation: planning, documentation and coordination

The restoration plan includes information on the execution of all construction and installation works, documents on the state of use of the building, design and calculation of changes to be made in engineering and communication systems.

In the project organization, specialists draw up a plan taking into account all requirements and standards.

Project documents :

- Architectural-historical and technical-economic justification;
- Project sketch;
- Project;
- Working documents.

After designing and preparing all the necessary documents, you can start coordination. This should be done in the relevant government agencies. The process usually takes a long time. Reconstruction of objects of cultural and historical importance includes the following, especially obtaining a permit for work is not easy.

Some buildings can be rebuilt while maintaining their original appearance.

You can start work after getting permission from government agencies.

Reconstruction includes the following tasks and stages:

The pre-project stage consists of the same activities as the new construction of buildings and structures.

Organization of work on the study of objects and foundations of reconstruction. Engineering studies are mandatory before starting any work on new construction. The difference between this stage and research is the broader scope of the investigation. For example, the condition of underground and underground structures is evaluated, as well as the possibility of strengthening, loading and using them in new condition. Any small items should be recorded and photographed when inspecting buildings. If necessary, then some elements are opened and all nuances are noted. After that, all samples of soil or materials are analyzed. Then a report is drawn up showing all the materials and methods of the work.

Reconstruction project. By definition, it is similar to a project for a new building, but with fewer documents. The project includes the following elements: an estimate, an architectural and construction part, a technological part, a work organization project and an explanatory letter.

Implementation of the project. This includes construction work, as well as installation of technological equipment. The designer must agree on the sequence of construction and assembly works and the terms of their integration with the operation of production areas. In the project organization, a scheme for dividing the enterprise into nodes and the sequence of their introduction is drawn up. In these parts, equipment adjustment, installation and construction work is carried out independently of other units. In a production enterprise, such work is carried out taking into account the

following actions: inter-nodal reserves are created, spare equipment and spare sites are used, and the workshop switches to another work scheme for a certain period of time.

Commissioning is carried out after all construction and assembly works and other works. The types of work are the same as in the construction of a new building.

Building regulations must be followed during reconstruction. The work is carried out in the shortest possible time with minimal costs for the production of enterprise products.

There are several concepts related to reconstruction, which we will understand in more detail.

Capital construction and reconstruction of buildings are very similar. Such processes are complex and require construction and assembly work with great responsibility and coordination. The work should be done by qualified specialists.

All necessary documents for reconstruction and capital construction must be prepared. Work stages include: installation of the foundation, replacement of utilities, excavation and installation work.

Reconstruction is not possible without repair. First, the dimensions of the building are changed, the buildings are built or attached, the reconstruction is changed and the finishing is done.

Reconstruction of the building is usually carried out when the structures are worn out and the soil condition has changed. During reconstruction, even in winter conditions, various works and repairs of structures are carried out.

During reconstruction, reconstruction or restoration of the condition of the building is carried out. Such work is carried out in the construction of public and residential buildings and structures, as well as in architecture.

With the moral aging of the object, its modernization is carried out. For example, thermal insulation, security level has deteriorated or engineering communications are outdated.

Modernization of engineering and transport communications, buildings and structures - a complex of works on improving the quality of buildings, their elements, communications, equalization of existing dimensions to modern requirements. Thus, modernization can be related to the type of reconstruction carried out in the volume of already existing buildings and structures, communications.

Types of work: sound insulation, insulation, filling of engineering equipment, replacement of elements of supporting structures, organization of internal rooms for garbage cans, stairs and elevators, as well as installation of loggias and balconies.

Technical restoration differs from reconstruction because the building must preserve its architectural data. It is difficult to get permission for the reconstruction of some buildings, because they are architectural works.

When restoring outdated elements, the new appearance should not be different from the old one, and some elements that do not pose a risk and do not allow for restoration at all.

Thus, a qualitatively reconstructed building and structure is considered ready for operation. After that, he will be able to complete his task.

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