



## Technology Of Elimination Of Injuries And Deformations In Tam Coverages, Floor Replacement

**Mirzaakhmedov Abdukhalim Takhirovich**

Candidate Of Technical Sciences, Associate Professor Of The Department Of Construction Of Buildings And Structures, Faculty Of Construction, Fergana Polytechnic Institute, Fergana City, Republic Of Uzbekistan

**Copyright:** Original content from this work may be used under the terms of the creative commons attributes 4.0 licence.

### ABSTRACT

The article presents the main reasons for the replacement of structural elements of buildings, their operation in different conditions and materials to increase the long-term durability of construction materials.

### KEYWORDS

Replacement of structural elements, long-term durability, wrapping structures, testing of elements, overhaul, reconstruction, modernization, special reinforced concrete slabs, cast reinforced concrete structures, service life.

### INTRODUCTION

The main reasons for the replacement of structural elements of buildings are their operation in different conditions and the different durability of construction materials.

For example, partitions and coverings made of wood will need to be replaced after a certain

period of time. Currently, the roofing and roofing structures are made of reinforced concrete, which corresponds to the service life [1]. In some countries, the replacement of structures with different long-term durability is treated differently. In Germany, for example, the method of "overturning" wooden beams is

used. In this case, the wood veneer is completely removed, the elements are sorted, the useless ones are replaced and replaced in their place. As a result, the beams and flooring will have a building rise, and the floorboards will have an unbroken surface. As a result, the service life of the oracle is extended to about 30 years.

In almost all types of buildings, structures are replaced, but the rate of replacement varies. Roofing, doors and windows, floors, decoration, engineering equipment will be replaced in any building. In traditional buildings, partitions, roof coverings and sometimes stair elements are also replaced. Since the enclosures are internal constructions, other structural elements have to be replaced when replacing them. In general, the gaps are partially or completely replaced [2].

Partial replacement of coatings is carried out primarily in rooms with high humidity. In most cases, only the attics above the attic and basement are replaced. In addition, in the redevelopment of the building, when the location of sanitary rooms is changed, when new sanitary nodes are built, when individual rooms or the full function of the building is changed, the partitions are partially replaced. When the building is completely reconstructed, the spacers will be completely replaced, making it necessary to ensure that the service of all the basic elements is approximately the same.

Complete replacement of sheets is justified when the workload is large, the weight of unusable sections is high, as well as when the main structural elements of the sheets are eroded.

Replacing rafters can be of two types, taking into account the development of construction methods and structures over time: a complete replacement of rafters made only of wood and partial replacement, leaving metal beams. In both cases, a number of other structures in the building will be replaced together.

Replacing structures is a more complex process. Differences in the size of structures, the narrowness of the workplace, the difficulty of organizing work, the complexity of the transfer of structures to the project site, the difficulty of using machinery and other factors have a significant impact.

The structural elements used in the replacement of spacers can be divided into three groups: small-sized or lightweight; medium-sized; large size or heavy.

Table 1 below shows the main characteristics of the structures of the enclosures and the types of mechanisms used in their installation [3].

In the practice of reconstruction, the replacement of wooden structures with reinforced concrete structures with high durability is becoming a mostly traditional method.

At the same time, it was found that in the 50s and 60s of the XX century, small-sized prefabricated concrete structures were used, but now it is advisable to replace them with large-sized (large) structures. Abroad, in more European countries, in the reconstruction of buildings, mainly girder-concrete structures are used more in the form of prefabricated castings. Lightweight metal profile constructions are also common. They serve as the basis for cast beams [4].

Cast iron plays a special role in the overhaul, reconstruction and modernization of buildings and structures. In most cases, the work is carried out in areas protected from external influences, which is very convenient for the use

of cast-in-place concrete. The use of cast concrete in capital repairs, reconstruction fully justifies itself in terms of labor costs, time and cost.

1 – table.

Characteristics of the reconstruction of pavements	Small size	Medium size	Large size
The mass of the object	0.2 t. until	0,2-0,5 t.	0,5t. more than
Types of lifting mechanisms	Cast-in-place lifts instead of cranes and door-windows		Tower cranes
Method of transmission to the installation site	Manual	Removable beams	Tower cranes
Type of wrap replacement	Partly	Partial and complete	Exactly
Types of constructions	Cash beams	beams	Mattresses
The basis of the floor	Provided in some species	-	Intended
Construction characteristic	Prefabricated, prefabricated	-	Assembly
Basic materials	Reinforced concrete, wood	-	Reinforced concrete

When reconstructing buildings, roofs are replaced in several cases:

1) replacement of roofing material with modern materials (roofing, replacement of roofing materials with slate, tile, etc. materials according to urban planning and other conditions). In many cases, the roof slope is changed, wooden rafters are strengthened, the drainage system is

upgraded, and so on. In some cases, sloping wooden-tin roofs are replaced by sloping reinforced concrete elements.

2) In the construction of radically different roofs, small sloping roofs are made of modern reinforced concrete structures. There are several options for this:

- Combined roof with unheated cold attic;
- Combined roof with heated attic or technical floor;

- c) A combined roof with or without a cold attic for low-rise buildings [5].

Such roofs use special reinforced concrete panels. It is advisable to build used roofs in areas where buildings are dense. In doing so, many old buildings will be preserved and demolition of existing buildings will not be allowed. On the roofs used, it will be possible to build greenery, flower beds, small trees and shrubs can be grown in pots and boxes. Used roofs can create recreation areas, various cafes and service outlets, parks.

Floor constructions are replaced when their technical condition is unsatisfactory or when the structures of the floor coverings are partially or completely replaced. In addition, the floors will be replaced in case the building is re-planned [6,7].

In living rooms and other rooms, when the humidity is normal, wooden floors are used. Lags under the floor are installed at a distance of 400-500mm. In this case, the thickness of the lags depends on the distance (distance) between the supports: if the distance is 0.8-0.9m, the thickness of the lags is 40mm, at 1.0-1.1m -50mm and at 1.2-1.3m -60mm.

When wooden slats are installed on metal or reinforced concrete beams, a waterproofing gasket made of wire or ruberoid should be placed between them.

## CONCLUSION

In all living and working rooms, when laying the floor over the lags, a shed is provided for sound insulation on the lags. If the floor is laid on slabs, a layer of sand is poured under the lags for sound insulation.

In the sanitary rooms, the floor is laid on special reinforced concrete slabs in beamed structures and, of course, a waterproofing layer is provided. The floor level of the sanitary rooms should be 20mm lower than the adjoining rooms.

## REFERENCES

1. KMK 1.03.03-97. Instructions on the composition, procedure for the development, coordination and approval of design and estimate documentation for the overhaul of residential and public buildings and structures. - T: 1996, - 30 p.
2. Abdukhmalimjohnovna M. U. Failure Mechanism Of Bending Reinforced Concrete Elements Under The Action Of Transverse Forces //The American Journal of Applied sciences. – 2020. – T. 2. – №. 12. – C. 36-43.
3. Mirzaahmedov A. T. et al. Accounting For Non-Linear Work Of Reinforced Concrete In The Algorithms Of Calculation And Design Of Structures //The American Journal of Engineering and Technology. – 2020. – T. 2. – №. 11. – C. 54-66.
4. Mirzaakhmedov A. T., Mirzaakhmedova U. A. Prestressed losses from shrinkage and nonlinear creep of concrete of reinforced concrete rod systems //EPRA International journal of research and development (IJRD). – 2020. – T. 5. – №. 5. – C. 588-593.
5. Mirzaakhmedov A. T., Mirzaakhmedova U. A. Algorithm of calculation of ferro-concrete beams of rectangular cross-section with one-sided compressed shelf //Problems of modern science and education. Scientific and methodical journal. – 2019. – №. 12. – C. 145.
6. Makhkamov Yu.M., Mirzababaeva S.M. "Temperature bending of reinforced

---

concrete beams under conditions of technological temperatures influence”. Problems of modern science and education. Scientific and methodical journal. № 11-1 (144), 2019. Part 1. Moscow. P.p.51 – 54.

7. YM Mahkamov - The American Journal of Engineering and Technology, 2020 Design Model Of Bending Reinforced Concrete Elements Under Action Of Transverse Forces Under Conditions Of Increased And High Temperatures