

FEATURES OF SPATIAL PLANNING AND STRUCTURAL SOLUTIONS OF BUILDINGS IN PERMAFROST AREAS.

Abdusamatova Lola Xudoynaarovna

Teacher of Jizakh Polytechnic Institute

Nurullayeva Marjona

student of Jizakh Polytechnic Institute

Abstract: *In modern construction, depending on geological, hydro-geological and climatic conditions, the construction of buildings in permafrost areas is carried out using the following methods.*

Key words: *ethe outer wall, mineral cotton, mineral plates.*

Аннотация.: *в этой статье представлена информация о текущем спросе на энергоэффективное строительство. Обсуждался отказ от заготовок на стенах для снижения потребления тепла. Приведена информация о типах наружных стеновых панелей.*

Ключевые слова: *Эт наружная стена, минеральная вата, минеральные плиты.*

1. Construction of buildings in the usual ways. This method is used when the base is rock or semi-rock that does not have significant cracks filled with ice or frozen ground. Here, permafrost has no practical significance.

If the depth of such foundations is up to 3 m, then the foundations are arranged as usual; if the depth is 3...4 m — iron-concrete columnar or pile, and if the depth is more than 4 m — pile with the penetration of piles into the thickness of the undisturbed structure by drilling wells.

When building on fractured frozen bedrock, the strength of the foundation is enhanced by drilling wells and injecting them under steam pressure to thaw the ice and heat the soil thickness to 50 °C. After that, cement mortar is immediately injected into the cracks under pressure, which hardens until the soil

thickness cools. The same method is used for construction on taliks of sufficient capacity in the absence of permafrost inclusions.

2. Preservation of the foundation soil in a permafrost state. This method is used on subsidence and other weak ice-saturated soils with a thickness of at least 15 m with a stable temperature regime.

If the building is heated, then the base is reliably protected from thawing by installing a cold underground with a height depending on the width of the building in the range from 0.5 to 1.0 m or more (Fig. 1).

To ventilate the underground space, air vents are arranged in the basement, allowing you to regulate the air supply depending on the time of year. Covering over the underground is carried out taking into account the heat and technical calculation.

3. Thawing of the ground at the base. This method is used for construction on soils that do not have a large precipitation during thawing. In order to ensure a slow and uniform thawing of the soil, it is recommended to take the depth of the deposit as minimal (but no less constructive) if the active layer does not consist of heaving soils, and also to replace the active layer of soil if it consists of heaving soils.

This method ensures the overall rigidity of the building (by installing continuous reinforced concrete belts, masticated joints, etc.).

4. Pre-thawing of the soil and its compaction in the base. This method is applicable for heated buildings, when the restoration of the frozen state of thawed soils is excluded.

The choice of any of the listed methods is made as a result of a comprehensive technical and economic analysis.

When designing industrial buildings, preference should be given to blocking them into single buildings. It is most appropriate to build large-scale buildings

with equipment placed on shelves that are not connected to the building frame.-
летные здания с размещением оборудования на этажерках, которые не
связаны с каркасом здания.

Для ограждающих конструкций примеLayered elements made of light
efficient materials are used for enclosing structures. Special attention is paid to
the airtightness of structures (at the junctionsof elements, at the joints of panels,
etc.).

Bibliography;

1. Sharipova, Y. O., & Abdusamatova, L. X. (2020). ANALYSIS OF ARCHITECTURAL AND COMPOSITIONAL SOLUTIONS OF THE ORIGINAL BUILDINGS AND STRUCTURES BUILT AROUND SAMARKAND AND BUKHARA. In Colloquiumjournal (No. 24-1, pp. 4-5). Голопристанський міськрайонний центр зайнятості Голопристанский районный центр занятости.
2. Qizi, S. Y. O., & Xudoynazarovna, A. L. (2020). Analysis of architectural and compositional solutions of the original buildings and structures built around Samarkand and Bukhara. In Colloquium-journal (No. 24 (76), pp. 5-6). Голопристанський міськрайонний центр зайнятості.
3. XUDOYNAZAROVNA, A. L. Analysis of Architectural and Town planning Features of Samarkand That Have a Historical Background. JournalNX, 6(09), 217-220.
4. Холиқов, С. Р. (2021). Марказий Осиё архитектура ёдгорликлари гумбазларининг турлари. INTERNATIONAL JOURNAL OF DISCOURSE ON INNOVATION, INTEGRATION AND EDUCATION, 2(2), 40-
5. Mamadiyor o'g'li, A. A. (2022). LANDSCAPE PLANTS IN PRE-SCHOOL EDUCATION BUILDINGS. *Spectrum Journal of Innovation, Reforms and Development*, 9, 80-83.