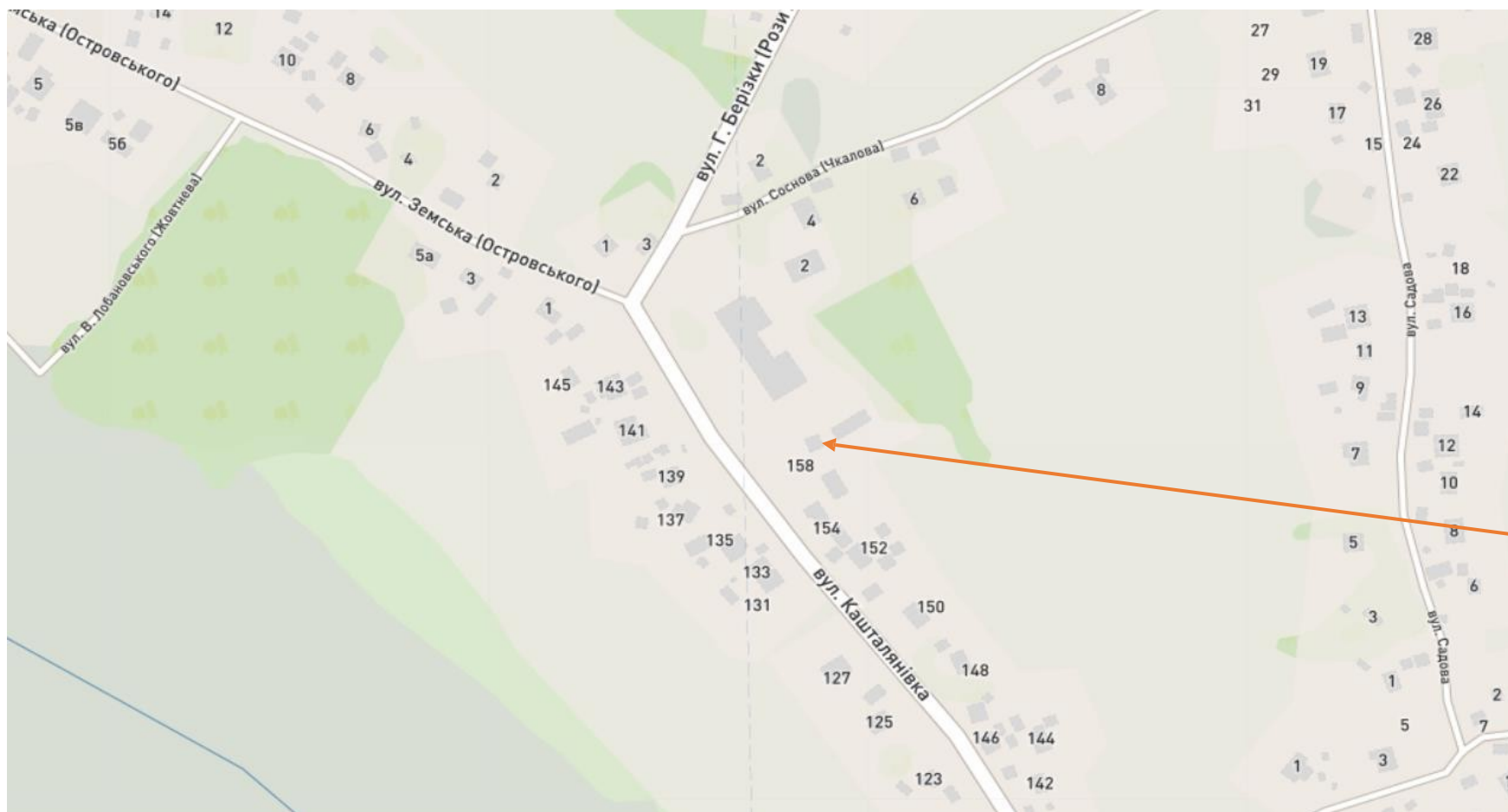


Preliminary examination of project documentation

For the project: "New construction of a dual-purpose facility (with protective properties of a radiation shelter) with a capacity of 100 people for the Kobizhchansky ZDO "Lesnaya Skazka" Bobrovitsky City Council at the address: 158 Kashtalyanivka St., Kobizhcha village, Nizhyn district Chernihiv region"

Location: 158 Kashtalianivka St., Kobyzhcha village, Nizhyn district, Chernihiv region



Task for the expert:

1. Verification of compliance *with standards*. When analyzing the project, pay primary attention to those decisions that may contradict current building codes, standards, and fire safety requirements.
2. Identify logical inconsistencies and risks *of increased workloads*. Be sure to highlight all key points in the documentation that may lead to additional work or require *adjustments* during project implementation.
3. Assessment of *weak or poor-quality decisions*. Pay particular attention to decisions that may require changes during construction and could complicate the implementation of the project at various stages.

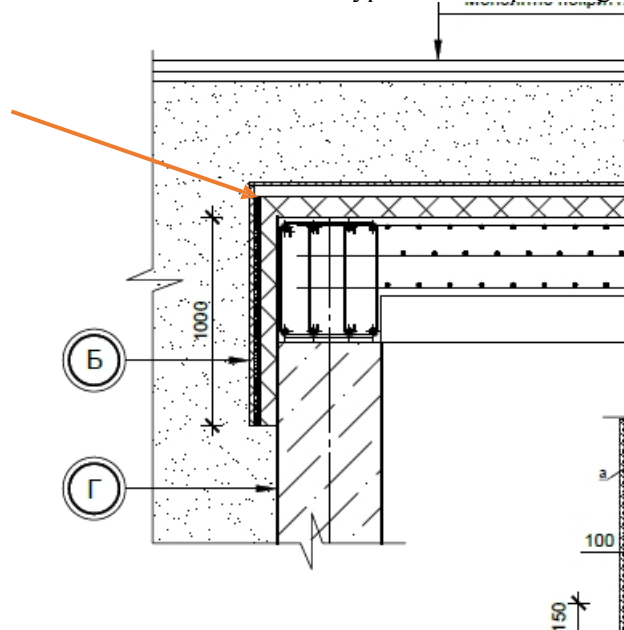
SECTION 1

Overall assessment of project quality:

1. The project has been compiled in accordance with DBN A.2.2-3:2014 "Composition and content of project documentation for construction."
 2. The drawings are prepared in accordance with DSTU 9243.4:2023, DSTU 9243.7:2023, DSTU B A.2.4-13:2009, DSTU B A.2.4-11:2009
 3. The project corresponds to the RP stage.
 4. The project can be put into operation in its current form.
 5. However, drawings and working solutions, the use of materials and technology require careful analysis to ensure their effective use in construction conditions. Some solutions are too expensive and can be replaced with cheaper alternatives. The project reflects the teamwork of all the designer's departments, but the different sections are not always linked to each other (the work of the GIP).
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1. The project documentation has been developed in accordance with the requirements of DBN A.2.2-3:2014 "Composition and content of project documentation for construction" and DSTU 9243.4:2023 "Project documentation system for construction." The project documentation for construction complies with the provisions of legislation, the requirements of urban planning documentation, building codes, rules, and regulatory documents, the mandatory use of which is established by law.
 2. According to DBN A.2.2-3:2014 Appendix D, D1, a general explanatory note must be developed as part of the RP stage project, which is missing in this project.

3. According to the letter "STATE SCIENTIFIC RESEARCH AND DESIGN AND SURVEY INSTITUTE "NDI PROJECT RECONSTRUCTION" (the letter does not specify the date and lacks the signature and seal of the director) the project is not subject to environmental impact assessment. However, the project includes (developed) an EIA section.
4. The project's section ZP, page 21, contains incorrect DBN references. Namely, DBN V. 1.2-9, DBN V.1.2-14, DBN A.3.1 -5. The full name of this DBN requires the year to be indicated at the end of each DBN code. The Technical Regulations for appliances operating on gas fuel, approved by Resolution of the Cabinet of Ministers of Ukraine No. 814 dated July 4, 2018. However, the project itself does not provide for the use of devices operating on gas fuel. Section PZ.AR, sheet 1, refers to the inactive DBN A.3.2-2-2009.
5. According to DBN V.2.2-5:2023, p.7.2.2.2, the project does not provide for the following mandatory premises: a sanitary post area. Also, the main premises do not provide for a separate area for persons with disabilities.
6. The GP (general plan) section incorrectly shows the treatment facilities and has a reinforced concrete foundation. These drawings are developed in the VK and KB sections. Similarly, a canopy over the diesel generator is shown, as well as metal structures and a foundation base, which are also developed in another section, KM and KB.
7. The GP section does not show the boundaries of the construction site. At the same time, the boundaries of the improvement are shown extending beyond the drawing field, so it is unclear what the final boundaries of the improvement are, and it is impossible for the contractor to perform the work. Similarly, the boundaries of the site are shown extending beyond the drawing field, which also makes the structures shown in the drawing unclear.
8. The project includes TECHNICAL SPECIFICATIONS for engineering and geodetic surveys. These specify the need to prepare a technical report. Currently, there is no technical report. In addition, the explanatory note includes a Control and Correction Act dated 04.06.2025—all documents specified in this clause are not executed in accordance with the law (they do not have signatures and seals).
9. The technical conclusion on engineering and geological surveys does not have the signature of the director of the design organization in accordance with ORDER No. 45 of 16.05.2011 of the MINISTRY OF REGIONAL DEVELOPMENT, CONSTRUCTION AND HOUSING AND COMMUNAL OF UKRAINE. The attached certificate of the responsible contractor, S.O. Kutaiwin, was issued on 03.12.2015 and is currently expired in accordance with the provisions of the legislation on the frequency of qualification confirmation.
10. The estimates provided are sufficiently comprehensive: consolidated estimate, object estimates, local estimates, material resource information. However, none of them are drawn up in the form required by law. They have not been approved by the customer.
11. In section AR, sheet 5, section 1-1, the monolithic foundation slab design incorrectly shows an IZOLIT fishbone drainage membrane. However, this solution will not work, as a drainage layer of 10-30 mm crushed stone has already been installed under the foundation slab. In addition, I suggest using 20-40 mm crushed stone as a drainage layer, as it is a more drainage material.
12. The sections of AR sheets 5-6 do not show the joints between the floor structures and walls, the joints between the support slab and walls, or the joints between the parapet covers. The insulation structure of the external walls and basement, and the junction of the blind area to the wall are not shown. At the same time, individual junctions are shown on sheet 11 (A, B, C, D, E), but they are absent on the sections and it is not possible to determine where they are located.

13. In section AR, sheet 6, a different waterproofing design is shown on the outer surface of the walls than that shown in section KB on the outer walls of the ventilation shafts, sheets 35-36.
14. Section AR, sheet 7, notes on partition reinforcement state: "Partitions with a thickness of 120 mm and 250 mm shall be made of ceramic bricks KRPv-1NF-M100-1650-F-25-1 according to DSTU BV.2.7-61:2008 on M50 mortar. Reinforce with Ø5 BP-1 100/100 mesh every 4 rows of masonry." However, it is ineffective and incorrect to reinforce 120 mm thick partitions with 100/100 mm mesh with a diameter of 5 mm. Usually, 50/50 mm mesh with a diameter of 3-4 mm is used for this purpose.
15. In section AR, sheet 11, node B does not show the connection of different types of insulation for floors and walls in non-corner areas. For example, how to connect two different types of waterproofing: Ceresit CP43 XPRESS and Ceresit CR 66.



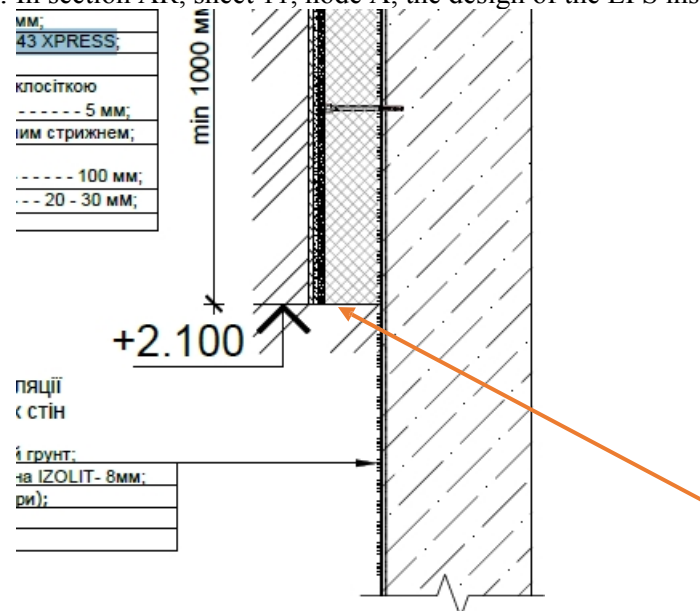
16. In section AR, sheet 11, node B shows two types of adhesive for protecting EPS ST-83 and ST-85 insulation, with ST-85 being a universal material that can both bond and protect the insulation.

<div>Б</div>	
- Засипання місцевим ґрунтом;	min 1000 мм
- Шар піску дрібнозернистого;	
- Шиповидна дренажна мембрана IZOLIT- 8мм;	
- Бітумна гідроізоляційна мастика Ceresit CP 43 XPRESS;	
- Гідроізоляція Ceresit CR 66;	
- Захисний шар Ceresit CT 85, армований склосіткою Ceresit CT 325, $\gamma \geq 160 \text{ г/м}^2$ ----- 5 мм;	
- Дюбель Ø10x140 мм пластиковий з стальним стрижнем;	
- Утеплювач - екструзійний пінополістерол, CARBON PROF RF(Г1) ----- 100 мм;	
- Клей Ceresit CT 83 ----- 20 - 30 мм;	
- Монолітна з/б стіна	

17. Section AR, sheet 11, node B shows two layers of waterproofing: Ceresit CR 66 and Ceresit CP 43 XPRESS mastic. These are applied one after the other. Ceresit CR 66 two-component polymer waterproofing is completely sufficient to ensure a high level of waterproofing. The use and cost of the structure are unclear.

<div>Б</div>	
- Засипання місцевим ґрунтом;	min 1000 мм
- Шар піску дрібнозернистого;	
- Шиповидна дренажна мембрана IZOLIT- 8мм;	
- Бітумна гідроізоляційна мастика Ceresit CP 43 XPRESS;	
- Гідроізоляція Ceresit CR 66;	
- Захисний шар Ceresit CT 85, армований склосіткою Ceresit CT 325, $\gamma \geq 160 \text{ г/м}^2$ ----- 5 мм;	
- Дюбель Ø10x140 мм пластиковий з стальним стрижнем;	
- Утеплювач - екструзійний пінополістерол, CARBON PROF RF(Г1) ----- 100 мм;	
- Клей Ceresit CT 83 ----- 20 - 30 мм;	
- Монолітна з/б стіна	

18. In section AR, sheet 11, node A, the design of the EPS insulation protection from the bottom to the end face is incorrectly shown.



19. In section AR, sheet 11, node A, the ST-15 primer is mistakenly shown instead of ST-16 under the decorative plaster finish.

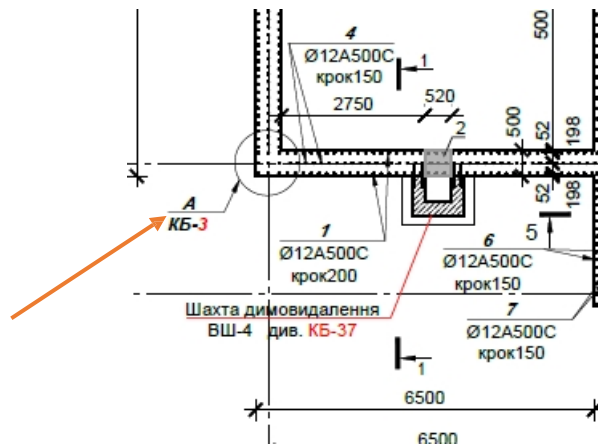


Теплоізол

- Фарбування - фарба силікатна Ceresit CT 54;
- Грунтування Ceresit CT 15;
- Штукатурка Ceresit CT34 декоративна Гладка;
- Грунтування Ceresit CT 15;
- Захисний шар Ceresit CT 190 суміш МВ, армований склосіткою Ceresit CT 325 ----- 5 мм;
- Дюбель Ø10x160 мм пластиковий з сталевим стрижнем;
- Утеплювач "Izovat" $\gamma=135 \text{ кг/м}^3$ ----- 100 мм;
- Клей Ceresit CT 190 суміш МВ ----- 10 - 20 мм;
- Стіна, силікатна цегла

To

In addition, to avoid additional work on priming the base for painting, you can order decorative plaster with paint already added.



29. Section KB, sheet 13 shows the foundation slab material not taken into account in the design in section AR: bitumen mastic.



- Конструкція підлоги;
- Монолітна фундаментна плита
- Підкладковий руберойд Акваізол ПЕ-3,0-ГР;
- Підготовка з бетону кл.В 10
- Шиповидна дренажна мембрана IZOLIT

30. Section KB, sheet 15 shows a different design of the same node shown on sheet 11 of section AR.



- Засипання місцевим ґрунтом;
- Шар піску дрібнозернистого;
- Шпигвидна дренажна мембрана IZOLIT- 8мм;
- Битумна гідроізоляція мастка Ceresit CP 43 XPRESS;
- Гідроізоляція Ceresit CR 66;
- Захисний шар Ceresit CT 85, армований склосіткою Ceresit CT 325, $\gamma \geq 160 \text{ r/m}^2$ ----- 5 мм;
- Дюбель Ø10x140 мм пластиковий з сталевим стрижнем;
- Утеплювач - екструзійний пінополістерол, CARBON PROF RF(Г1) ----- 100 мм;
- Клей Ceresit CT 83 ----- 20 - 30 мм;
- Монолітна з/б стіна

min 1000 MM

Зворотня засипка-уцільнений ґрунт
Ціпковидна дренажна мембрана IZOLIT-0,8мм
Гідроізоляція Ceresit CP43(2шари)
Ґрунтовока Ceresit CP41
Клейова суміш Ceresit CT85 -2мм
Армуюча склосітка лугостійка
Клейова суміш Ceresit CT85 -2мм
кструзійний пінополістирол,CARBON PROF RF(Г1) -100мм
Клейова суміш Ceresit CT85 -2мм
Гідроізоляція Ceresit CP43(2шари)
Ґрунтовока Ceresit CP41
Монолітна з/б стіна t=400мм

$$\begin{array}{r} +3.160 \\ \hline 132,55 \end{array}$$
$$35 \times 150 = 5250$$
 $34 \times 150 = 5100$

	5
крок 600х600	

