Ukraine Shelter Cluster

Standard Operating Procedure for the Humanitarian Repairs of Common Spaces in Multi-Apartment Buildings

Photo credit: Damaged multi-apartment building documented by Shelter Cluster Ukraine

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UKRAINE
SHELTER CLUSTER
Coordinating Humanitarian Shelter and Settlements

1 Contents

2 Acknowledgement

This standard operating procedure (SOP) is the result of the work of the Ukraine Shelter Cluster's Technical Working Group on Humanitarian Repairs of Common Spaces in Multi-Apartment Buildings.

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3 Glossary and Key terms used in the SOP

Multi-apartment building – a residential building with three or more apartments. A multi-apartment building may also contain non-residential premises that are independent immovable property. It can be interlocking, sectional, corridor, gallery, or terrace types[1].

Common property of a multi-apartment building – common spaces/areas (including ancillary), load-bearing, enclosing, mixed structures of the building, mechanical, electrical, plumbing, and other equipment inside or outside the building that serves more than one residential or non-residential premises.

Ancillary areas – premises intended to ensure the functionality of the building and household services for its residents (stroller rooms, storerooms, garbage rooms, attics, basements, elevator shafts and machine rooms, ventilation chambers, and other utility and technical premises).

Non-residential premises – isolated premises in an apartment building that do not belong to the housing stock and are an independent immovable property object.

Current repairs – are systematic and timely maintenance procedures that prevent premature wear and tear of structures and engineering equipment. If the building is not undergoing overhaul, the current repair works must include those classified as related to overhaul (except for works involving replacement and modernization of structural elements). Current repairs must be carried out at a frequency that ensures the building or facility operates effectively from construction (overhaul) completion until the next overhaul (reconstruction)[2].

Capital repairs (overhaul) – are repairs essential for maintaining buildings. They involve replacing, restoring, and modernizing structures and equipment to improve performance and enhance the building layout and landscaping. Capital repairs do not change the dimensions of the facility. Capital repairs require the building to be shut down for the duration of the work, whether the whole building or just a part of it.

[1] Law of Ukraine 417-VIII On peculiarities of exercising the right of ownership in multi-apartment building

[2] Letter 30.04.2003 N 7/7-401 Regarding the classification of repair and construction works as capital and current repairs

4 Introduction

4.1 Objectives of the SOP

This SOP aims to establish clear guidelines and procedures for the humanitarian repair of common spaces in multi-apartment buildings damaged due to conflict-related events. It aims to ensure that the repair works carried out meet safety, quality, and regulatory standards while addressing the urgent needs of affected populations.

Compensation for the repair of damaged common property of multi-apartment buildings is not provided for by the current Ukrainian legislation, and the presence of damage to the common areas/spaces of the residential building that has not been repaired may be grounds for denial of government compensation for damage to apartments. This SOP will assist Shelter Cluster partners in supporting beneficiaries and ensuring access to relevant government programs.

The SOP seeks to streamline the process by which repair activities are planned, implemented, and monitored to optimize resource allocation and ensure timely and effective restoration of common areas.

4.2 Background

As of December 2023, there are 181,000 multi-apartment buildings in Ukraine[3].

According to DBN B.1.1-7:2016, "Fire Safety of Construction Objects. General Requirements", based on the conditional height, buildings are classified as follows:

a) Low-rise – height H ≤ 9 m.
b) Multi-storey (mid-rise) – height 9 m < *H* ≤ 26.5 m
c) Increased height – height 26.5 < *H* ≤ 47 m.
d) High-rise – height *H* > 47 m.

Impact of the Conflict on Multi-Apartment Buildings

In September 2024, the Ministry of Restoration published the number of multi-apartment buildings affected by war[4]. 22,253 multi-apartment buildings are damaged or destroyed, and 5,320 are restored.

Based on REACH's recent Shelter Response Support Assessment[5], 25% of respondents pointed out that they have barriers to accessing the eVidnovlennia program due to damaged common spaces in their buildings.

A short review of national legislation policy due to eVidnovlennia and reconstruction programs is presented in the Annex 12.1.

[3] Long-term strategy for thermal modernization of buildings for the period up to 2050
[4] Ministry for Restoration Digest, 60th Issue, September 9th, 2024
[5] Shelter Response Support Assessment, REACH, August 2024

Important: According to Resolution No. 381, the reasons for the refusal of compensation for apartment repair are the location of the damaged dwelling in an apartment building in which the common areas are damaged (unless the damage to the common areas has been repaired at the time of the application or a decision has been made to restore them at the expense of other sources) and/or that are subject to capital repairs. For the Shelter Cluster, the conditional equivalent of capital repairs is heavy (structural) repairs.

Limitations

The humanitarian repairs of common spaces are limited to buildings with increased height – buildings up to 16 storeys (floors).

Heavy repairs to structurally damaged multi-apartment buildings (including the apartments themselves) are considered to be beyond the scope of the humanitarian response. At the same time, the repair of damaged isolated structural elements of buildings and structures could be part of the humanitarian repairs if it stays within the Shelter Cluster's recommended budgets and unlocks other types of responses/support to the people or building. According to Resolution No. 406[6], such construction works, aimed at eliminating the consequences of emergencies and resuming the functionality of facilities designated to ensure the population's livelihoods without altering their geometric dimensions, do not require permits for their execution, and after their completion, the object does not require commissioning.

Important: There are some restrictions for repair work of **cultural heritage sites** damaged due to hostilities in Resolution No. 1342[7]. According to Resolution, the current ("humanitarian non-structural" according to the Shelter Cluster terminology) repairs of cultural heritage sites include works aimed at replacing and strengthening partially damaged elements and parts of a building or structure of a cultural heritage site that are not authentic and do not belong to the subject of protection (sections of roofing, parts of gutters, glazing of window fillings of windows and doors, window frames, floor sections, wall sections, lighting elements), other repair works that do not affect the subject of protection and do not change or deteriorate the condition of authentic structures, materials, architectural elements of a cultural heritage site.

[6] Resolution No. 406
[7] Resolution No. 1342

5 Targeting and Vulnerability Criteria

In June 2024, the Shelter Cluster developed the "Targeting, Prioritization & Vulnerabilities" chapter in the HNRP Activities Handbook. For operational purposes and as a guideline and recommendation for the partners, Shelter Cluster outlines the recommended principles for targeting and prioritization in this chapter and provides the following additional sections within each activity: "Preconditions" and "Activity-Specific Vulnerabilities."

5.1 Geographical Context

A variety of geographical factors can affect the prioritization. For example, limited access, proximity to conflict zones, or onset emergencies following attacks can all impact the process. When prioritizing one area over another, Shelter Cluster strongly recommends coordinating with Shelter Cluster sub-national coordinators and engaging with the affected community and local authorities. This collaborative approach ensures that emergency assistance is directed to the most vulnerable areas.

The execution of repair works in high-risk areas can create a false sense of security and promote the stay or return of affected individuals. The principles of preventing and "do no harm" should be applied. Any repair beyond emergency essentials should be avoided within 30 kilometers of the frontlines and 20 kilometers from the border.

5.2 Targeting and Vulnerability Criteria

Organizations are advised to assess vulnerabilities by incorporating gender analysis and regular reviews to adapt to changing conditions and ensure a protection-focused response tailored to the diverse needs of the affected population. For this purpose, the Shelter Cluster refers to the Protection Cluster Tool. In particular, for persons with disabilities, please follow the Washington Group Short Set questions on Functioning to identify them if the certificate of medical and social expertise has not been provided.

6 HLP, Documentation, and Authorization

Specific terms:

HCC – housing and construction cooperative. A form of collective ownership where members jointly finance the construction or acquisition of a residential building. Members become co-owners and share responsibilities for the maintenance and management of the property.

HMO (JKH/JEK) – housing and maintenance office. A local or municipal office manages housing-related services, such as multi-apartment building maintenance, utilities, and repairs. It often serves as the operational entity for residential infrastructure.

ACAB (OSBB[8]) – association of co-owners of an apartment building. A legal entity formed by the owners of apartments and/or non-residential premises in a multi-apartment building. It handles collective decision-making regarding the maintenance, repair, and management of common spaces and private property and represents owners' interests in dealings with service providers.

According to the International Finance Corporation Analytical Report[9] in November 2020, only about 20% (32,000) of all apartment buildings were ACAB. HCCs exist on special occasions. HMOs are available as an option for hiring as a managing organization.

Nowadays, co-owners of a new apartment building must choose whether to register the ACAB or hire a managing company, or the local administration will assign it to HMO or via state tender. For more information, see Chapter 2 of the abovementioned IFC report.

Managing entities play a crucial role in maintaining and operating residential buildings, ensuring the functionality of common spaces and utilities.

The following scheme provides guidance on where to verify entities' legitimacy and the essential documentation required for effective collaboration during building repairs and management processes:

[8] Law of Ukraine 417-VIII On peculiarities of exercising the right of ownership in multi-apartment building

[9] The current state of management of multi-apartment buildings in Ukraine, IFC, 2020

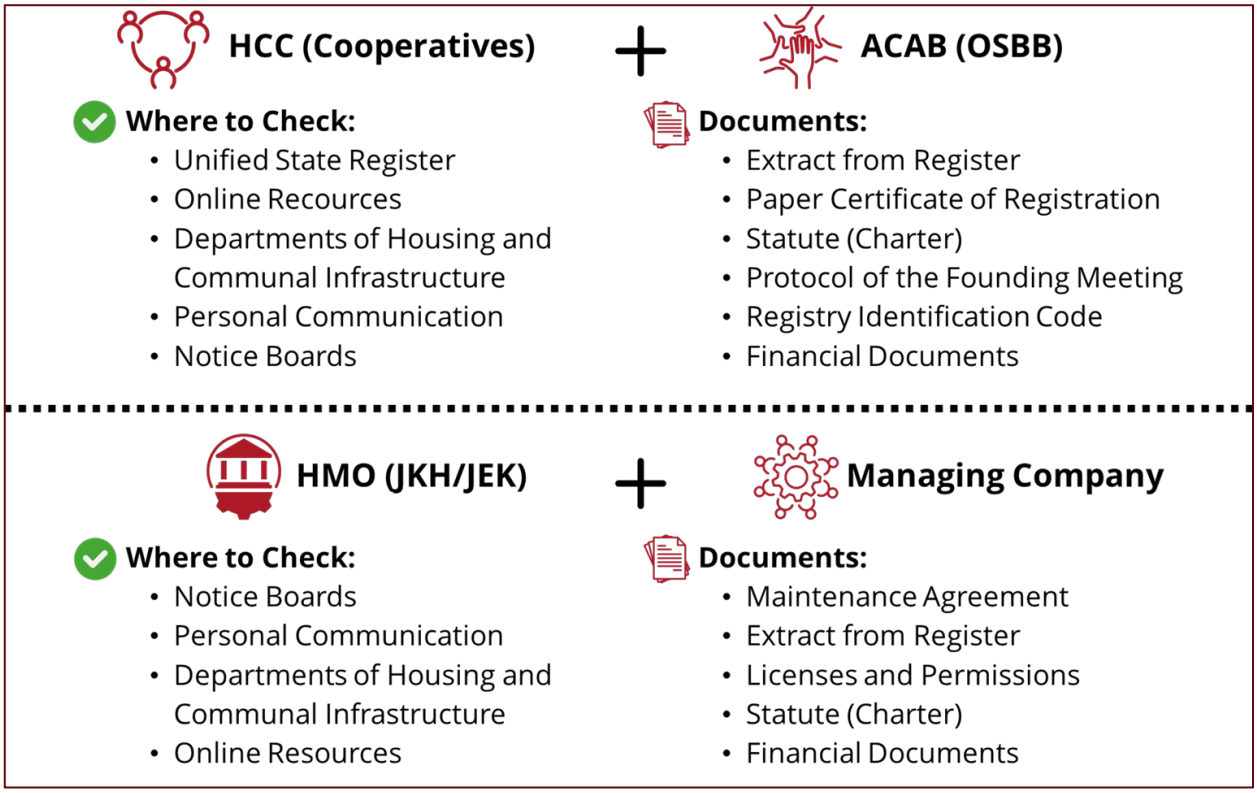


Figure 1 – Managing Entities

For a roadmap and procedures for engaging managing entities, please refer to the Annex 12.2. The procedure for establishing or transforming an ACAB (OSBB) is presented in the Annex 12.3. For more information, see the Law of Ukraine 417-VIII.

There are no significant differences in the procedures for repairing common areas in multi-apartment buildings formed through the privatization of rooms in a dormitory compared to standard ones.

7 Categorization of Damage

Important: The first action partners should implement when identifying the type of damage to a multi-apartment building is asking the managing entity or local authorities for the act of commission inspection and technical inspection report (if any), which are the documents confirming the fact of damage or destruction of immovable property. These documents are created according to the requirements of Resolution 473[10], which contains the procedure for conducting the technical inspection. The Resolution sets out requirements for assessing structures damaged due to emergencies or military action, which is carried out after completing a series of preparatory measures as part of urgent work to eliminate the consequences of emergencies.

For a detailed understanding of damage assessment and categorization, partners should refer to the Annex 12.4.

If there is no technical inspection report, the formal letter from the multi-apartment building managing entity or local authorities with the following statement will guarantee that the current intervention aligns with Shelter Cluster recommendations: “The building has no structural damage that would prevent its continued safe operation and is not in an emergency condition.”

[10] Resolution No. 473

8 Scope of Work

8.1 Minimum Quality Standards for Repair Works

The "build back better" approach is outside the scope of current activities. Nevertheless, the repair intervention represents a non-temporary long-term solution to common spaces.

The repair of structural damage in multi-apartment buildings goes beyond the scope of the Humanitarian Shelter Cluster response.

The deteriorated physical condition of the housing stock does not fall within the scope of activities of the Shelter Cluster. Long-term structural issues or general maintenance of housing stock are considered developmental or municipal responsibilities outside the mandate of the Shelter Cluster.

Humanitarian repairs of common spaces in multi-apartment buildings – although limited in scope by definition – must always create minimum sufficient conditions that enable residents to utilize their homes fully and become eligible for state compensation for damaged apartments. Partial repairs that fail to address damage in common areas or leave the building in a condition that prevents access to compensation mechanisms are technically "failed" interventions, as they hinder beneficiaries from accessing government and other support. To mitigate this risk, partners shall liaise with local government commissions to agree on a minimum level of repairs to ensure the compensation mechanism can be unblocked. This coordination is fundamental because the current legislation does not clarify a clear checklist or guidelines for minimum needed repair, and different commissions might have different perspectives. Repairs of common spaces activity is considered failed if government compensation is not unblocked. Partners are encouraged to share all such cases (if any) with Shelter Cluster Sub-national coordinators.

8.2 Roof Repair

The roof of a multi-apartment building is communal, and the beneficiary is not one family but potentially all the families living under the section of the roof that the partner decides to repair.

Humanitarian repair of roofs should ensure the restoration of the thermal envelope and prevent precipitation from entering the building or the attic.

Types of roofs

For multi-apartment buildings, there are two common types of roofs:

1) Non-flat (pitched, hipped, etc.) – this type is typically found on multi-apartment buildings with 2-5 floors.
2) Flat – this type is common in buildings ranging from 2 to 16 floors.

Types of damage

Damage to roofs from hostilities can vary in severity and nature, as well as direct or non-direct hits. Debris from munitions and blast waves more frequently damage roofs of low-rise and multi-storey buildings with 2-5 floors, while roofs of 9-story buildings and higher are less commonly affected.

Depending on the type of exposure, the following main types of damage are distinguished – see Table “Types of damage and repair practice”.

Figure 2 – The damaged hipped (non-flat) roof of the multi-storey building, Kramatorsk, credit https://www.kramatorskpost.com/

Figure 3 – The damaged flat roof of the multi-storey building (with partial destruction of parapet), Kharkiv, credit https://dream.gov.ua/

Table 1 - Types of damage and repair practice

Type of the roof	Damage type and nature	Repair activities
Non-flat roof	**Damage to the roof covering:** - A blast wave can damage the roofing (such as slate, metal profiles, etc.), causing deformation, shifting, cracking, or breaking of covering material, roof elements (apexes, valleys, etc.), waterproofing layer, and lathing. - Damage or lack of slate (or other roofing materials) can allow access to the internal part of the roof. During the blast wave that lifts the roof, exposed fasteners appear, and nails or other fasteners can come out of the roof, weakening the structure and increasing the risk of further damage. - Rainwater drainage systems can be damaged by the blast wave.	- Partial or complete replacement of roofing material is needed. - Repair or replacement of the lathing. - Damaged roofing material containing asbestos must be replaced with a safe material: asbestos-free slates, bituminous sheets (onduline), metal profile, etc. For more information, see the Section “Environmental Considerations.”
	Damage to the roof structural elements: Rafter system: partial displacement, deformation, or significant damage to the rafter system may occur due to the strong blast wave. Debris can also affect rafters, as it may damage or split rafters. Damage to the roofing membrane can also lead to long-term deterioration of the structural elements due to precipitation and infiltration, compromising the structural integrity of the rafters and beams.	- If the rafters are partially damaged, local replacement or repair is possible. - Significant damage to the rafter system indicates the need for capital repairs.

Type of the roof	Damage type and nature	Repair activities
Flat roof	**Damage to the roof covering:** - The debris of munitions can tear, or puncture rolled materials (e.g., roofing felt/rubberoid or membranes), which disrupts the roof's airtightness. If the debris gets into the roof, it not only destroys the layers of the roofing but also burns through due to the temperature of the metal (debris). - Debris from munitions can penetrate the layers of a soft roof, causing significant damage to the screed underneath. Such impacts often result in cracks, fragmentation, or complete destruction of the screed, compromising the structural integrity and waterproofing of the roof system. - Parapets at the roof's edges, which usually serve as wind protection and provide water drainage, can be damaged or destroyed by debris or strong blast waves. - Rainwater drainage funnels or external drainage systems can be damaged by the blast wave.	- Roofing felt needs to be replaced in damaged areas. Before laying a new layer, the old one is usually completely removed. - PVC membranes are usually repaired by applying patches of the same material or by welding the damaged areas with hot air. - Repair or replacement of the screed. - In cases of damage to the existing roof thermal insulation, only the damaged areas are repaired using similar materials. **Important:** Thermal insulation improvement is not a part of humanitarian repairs of common spaces.
	Damage to the structural elements: A direct hit by munitions can cause holes or destruction of the concrete slabs that form the basis of a flat roof. This impairs the roof's resistance to weather conditions and creates a risk of further collapse of parts of the structure.	This type of damage requires a detailed technical survey to determine whether localized repairs are sufficient or whether capital repairs are needed to restore the load-bearing elements of the roof.

8.3 Windows and Doors

Windows Replacement

Transparent enclosing structures, such as windows, are among the most vulnerable elements of a building due to explosions and blast waves. The impact of a blast wave is sufficient to cause their destruction.

Windows can also be damaged due to debris from missile strikes or other munition. The main types of damage may include cracks in glazing (if PVC windows), broken or damaged frames (metal-plastic or wooden), and destroyed seals that compromise the thermal envelope.

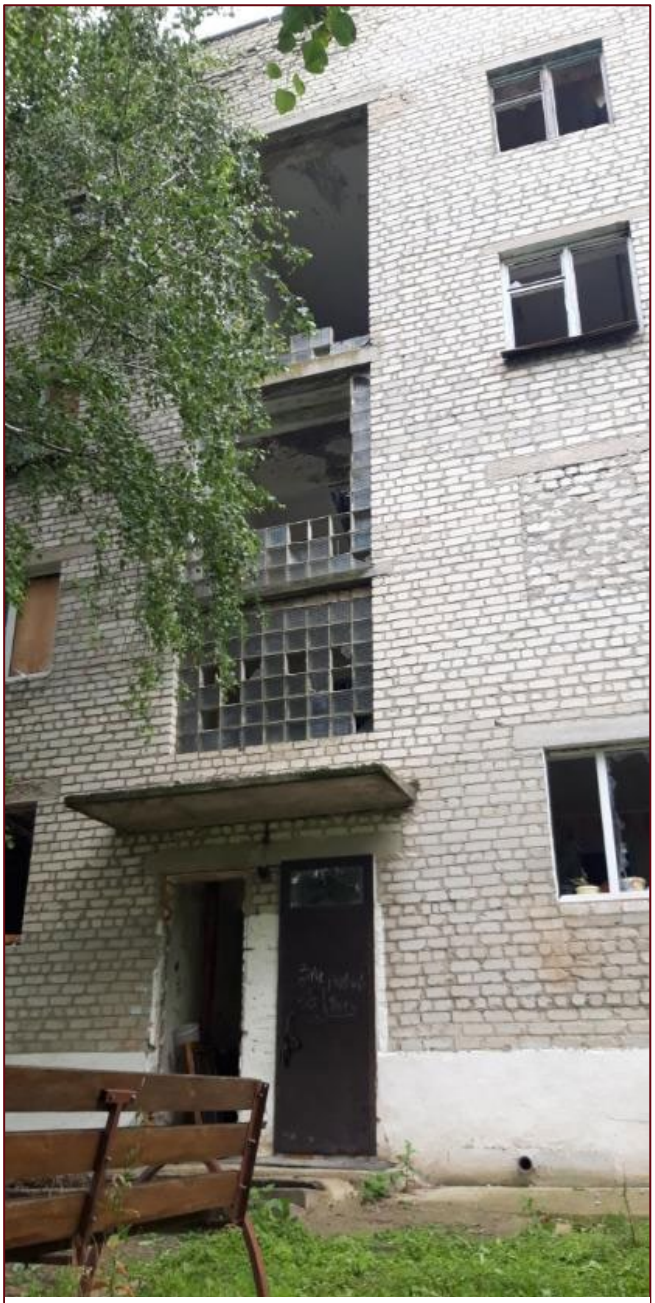


Figure 4 – Damaged windows in common space, Kharkivska oblast, credit https://dream.gov.ua/

Repair work to replace windows in common spaces should ensure that the building's thermal envelope is restored (heat loss is reduced, and protection is provided against the penetration of precipitation).

Requirements of DBN B.2.6-31:2021 “Thermal Insulation and Energy Efficiency of Buildings" do not apply to construction works on the restoration of individual building structures to eliminate the consequences of emergencies (clause 1.4, section "Scope of use").

In other words, the DBN requirements for the thermal resistance coefficient do not cover the translucent enclosing structures damaged by hostilities, and the Shelter Cluster recommends double-glazing (single chamber) PVC windows (at least 4 mm glass thick).

When replacing windows, it is recommended to use prefabricated window units. Each unit includes a frame, glazing, and an inner and outer sill. The distance between the panes should be at least 16 mm, and it is recommended that the chambers be filled with air or inert gas

to improve thermal insulation properties. The frame profile should be at least 60 mm wide and have at least four chambers, which helps to reduce heat loss.

Window slopes should also be restored, as this eliminates thermal bridges, prevents cold air from entering the room, and reduces heat loss. In addition, the correct restoration of slopes ensures airtightness and protection against moisture accumulation, which is important for the durability of the window structure and prevents the formation of fungus and mold on the internal surfaces.

External Doors of Entrance Group Repair

Damage to entrance group doors is often caused by the impact of blast waves and fragments from explosives. This can result in deformation, breakage of door frames, and damage to locking mechanisms and hinges, compromising both the security and accessibility of the building.

Entrance doors should be metal, insulated, weather-resistant, and equipped with a handle and lock. The design must ensure durability, stability, and suitability for outdoor use without additional protective measures.

Door jambs (reveals) must also be repaired if the doors are being entirely replaced.

In terms of accessibility, please see the “Accessible Construction and Disability-Inclusive Shelter Programming” Section.

Figure 5 – Damaged windows and external doors of entrance group, Kyiv, credit https://rubryka.com/

8.4 Interior Repairs

All interior finishing works should be carried out only if the destruction of these elements was caused by hostilities or if the interior finishing works are part of the complex of works aimed at restoring the thermal envelope that was damaged due to hostilities.

Table 2 – Interior Repairs

Stairwell element	Repair activities	Example of materials
Stairwell ceiling	It is necessary to eliminate cracks and damage, soot, concrete delamination, and putty on the ceiling surface caused by hostilities. Restoring the associated part of the geometric shape of the ceiling and performing putty and painting.	Deep penetrating primer. Antifungal primer. Starting putty. Finishing putty. Repair compound for concrete (if required). Reinforcing tape (mesh tape). Paint for the ceiling.
Stairwell walls	It is necessary to repair cracks and damage on the interior walls, as well as restore the associated part of the plastering and putty and painting caused by hostilities in accordance with existing construction norms.	Deep penetrating primer. Antifungal primer. Sand cement plaster or gypsum plaster. Starting putty. Finishing putty. Reinforcing tape (mesh tape). Repair compound for cracks. Reinforcement mesh is used to reinforce plaster and putty compounds. Interior water-dispersion or acrylic paint.

Stairwell element	Repair activities	Example of materials
Corridor flooring	If necessary, the floor should be repaired in case of damage caused by hostilities, reinforced with concrete, and restored to its geometric shape. Tiling will be carried out if necessary.	**For leveling the surface:** Cement-sand mixture. Self-leveling compound. Primer. Metal mesh. **For reinforcement with concrete and repair:** Cement and sand. Expanded clay aggregate. Fittings, metal mesh. **For floor tiling:** Tile adhesive. Tiles for floors (with anti-slip coating). Grout for joints.
Internal doors	If there are holes or punctures caused by hostilities in the stairwell doors, they must be repaired with the material used to make the doors. The structure should be cleaned, putty, primed (depending on the material), and painted if necessary. If the door cannot be repaired, it must be replaced with a new one.	Patching material (wood or metal, depending on the door material). Wood or metal putty (depending on the door material). Primer for wood or metal (depending on the door material). Exterior paint (suitable for the material). Anti-corrosion agent (for metal doors, in case of rust). Hinges (appropriate size). Lock (mechanism compatible with the construction). Screws or bolts for fastening.

8.5 Restoring Core Functionality of MEP Systems

There can be various reasons for the damage of mechanical, electrical, and plumbing (MEP) systems, but more often (if there was no direct hit) they are damaged due to fires caused by the impact of munitions or their fragments.

Figure 6 - Electrical panels with clear signs of heat and fire damage, multi-apartment buildings, Kharkiv (left), credit https://dream.gov.ua/, Kyiv (right), Photo by Mykola Tymchenko (credit https://rubryka.com/)

Electrical wiring, corridor lighting

During the repair of electrical wiring, copper wires with a cross-section of at least 2.5 mm² for power outlets and 1.5 mm² for lighting are used, in accordance with DBN B.2.5-23:2010. All wire connections must be made in junction boxes with proper insulation to prevent the electricity supply from short-circuit.

Heating system

In the process of repairing heating systems in common spaces (as a rule, in stairwell areas), steel or polypropylene pipes with a diameter of 25-32 mm for risers and 16-20 mm for radiator connections are used to maintain optimal pressure and heat transfer.

Rainwater drainage

Corrosion-resistant materials should be used to repair the stormwater system. The configuration and parameters of the rainwater drainage system depend on the catchment area and the type of roof (flat or non-flat), building height, and other features. The roofs considered in this activity can have internal (flat roofs) or

external drainage (non-flat and flat roofs). The installation of horizontal pipelines from drainage funnels and gutters should be carried out with a slope in the direction of a downpipe in accordance with the requirements of DBN B.2.5-75:2013 to ensure effective rainwater drainage.

Gas supply system

Given the legislative and organizational regulation of gas supply systems, intervention in such systems is not recommended. Humanitarian actors can report on the completion of other Common Spaces works to local authorities and gas system balance holders for further advocacy to accelerate the repair of such systems.

Plumbing system

During the repair of pipelines, use plastic or metal pipes with a diameter of at least 25 mm for cold water and 32 mm for hot water. Connections should be made by welding or using sealing gaskets made of materials that comply with DBN B.2.5-64:2012.

Ventilation

During the repair of ventilation ducts, it is necessary to ensure the separation of exhaust shafts for each apartment, in accordance with DBN B.2.5-28:2015, to avoid airflow between apartments. Ventilation ducts should be made of non-combustible materials and have connections made of flexible or plastic pipes no longer than 2 m for exhaust from kitchens.

Important: All repair works on utility networks in multi-apartment buildings should be carried out exclusively for systems upstream from the utility meters located in apartments or common areas of the building. Repair works on the networks located downstream from the utility meters are performed by the operators of the respective municipal or private companies that provide electricity, gas, heat, and water supply. Before starting repair works in Common Spaces, obtaining a written signed confirmation from the local authorities or the operator is important, as it will contain a guarantee for the repair with a clear definition of the terms of execution.

8.6 Facade repairs

Facades as common spaces may be addressed in damage that compromises the building's thermal envelope (e.g., isolated impacts from shell fragments).

Common causes of war-related damage to facade:

- Direct explosions and shelling.
- Heat from fires.
- Fragment impacts.
- Shockwaves.

Nature of damage:

- Penetration hole through the facade.
- Cracks and deformation in walls.
- Loss of plaster, paint, and insulation materials.

Figure 7 – The damage caused by the direct strike of a projectile, such as shell fragments or debris from an explosion, Pokrovske (left) and Kharkiv (right), credit https://dream.gov.ua/

If damage doesn’t prevent the building from continued safe operation and the building is not in an emergency condition, common practices can be used to repair such damage.

If only the facade insulation is damaged, the replacement of facade insulation falls outside the scope of humanitarian repairs of common spaces.

8.7 Accessible Construction and Disability-Inclusive Shelter Programming

Important: The 10% top-up for accessibility improvements is calculated as a percentage of the estimated (based on activity reference cost) repair cost for a section[11] of the building. **It is not included as part of the activity reference cost.** The donor makes the decision to utilize this top-up based on the available budget within the specific project framework.

When improving common spaces in multi-apartment residential buildings, it is recommended to use the Methodological Recommendations[12] and, above all, the recommendations in the Annex 12.5.

[11] The building section/unit with its own entrance.
[12] Methodological Recommendations, November 2024, Kyiv Regional State Administration.

8.8 Activity Reference Cost

The activity reference cost is calculated at the household level based on the number of floors in a multi-apartment building:
USD 3,150 per household for buildings 2-3 floors.
USD 915 per household for buildings 4-5 floors.
USD 560 per household for buildings with 6 floors or more. Up to 16 floors (included).
The reference cost per household represents an average guideline and should be considered as a basis for planning the whole project. These values serve as average estimates and may vary depending on the building configuration and the required repair work, but the aggregated average should be consistent with the reference figure.
The weighted average[13]: (3,150 x 0.27) + (915 x 0.4) + (560 x 0.33) ≈ USD 1,400

Important:
Partners should adhere to the following rules:

- Partners count only households whose inhabitants are currently in place or plan to return to the apartment for permanent accommodation after repairs[14]. The following households should not be counted when calculating the actual cost per household: arrested, ownerless, and bank-owned/foreclosed property.
- The Shelter Cluster considers unique beneficiaries only, not the addition of beneficiaries of each intervention. Households benefiting from individual repairs in their apartments should be counted only once.
- The level of damage, while not an absolute upper threshold for intervention, should be considered in the context of structural integrity and safety.

The calculation method is based on the damaged building elements (components) of common spaces within the building section[15].

For example, if the roof is damaged, partners count and report all households in the building section under the damaged roof. The same approach for:

- Windows – all HHs in section(s) with damaged window(s).
- External doors (entrance group) - all HHs in section(s) with damaged doors.
- Staircase platforms (including ceilings, flooring, and walls) – all HHs in section(s) with damaged platforms.
- MEP systems – all HHs in section(s) with damaged MEP system(s) in common spaces. For detailed calculation, see the Annex 12.6.

[13] Based on the portion of each group of damaged buildings in SIDAR.
[14] As confirmed by signature or direct communication with persons not living in the building at the time of the project implementation.
[15] The building section/unit with its own entrance.

9 Modalities of Assistance

Given the communal nature of the spaces to be repaired, a clear, responsible party must manage the funds for cash modality. If the situation is not clear, cash assistance is not recommended. In-kind / contractor-driven interventions are recommended in most of the cases. The choice to assist in cash does not exempt agencies from their responsibility to provide technical support to ensure the proper execution of the works.

For 2025, the Shelter Cluster is considering four types of modalities of assistance for the humanitarian repair of common spaces:

- In-Kind.
- Cash.
- Voucher.
- Mixed.

Regardless of who will carry out the repair work: contractors from partner organizations, local authorities, or beneficiaries themselves, the reference cost calculated using the method presented in section 8.8 is the same for all modalities of assistance.

10 Coordination and Reporting Mechanism

10.1 Coordination

In the initial stage of the development of their programs, shelter partners are recommended to consult with the Shelter/NFI Cluster (at both national and sub-national levels) coordinators and then with the local authorities (at the oblast and municipal levels). It's important to coordinate with the local commissions in charge of assessing the cases in the area. They can highlight their area of responsibility where common spaces are blocking the applications and can explain their local checklist and priorities in repairs.

Accountability to Affected Populations

To ensure effective support and respect for those impacted, several key principles and practices are outlined below:

1) Providing consultations: conduct initial meetings, surveys, or focus groups before the intervention to gather input and understand the concerns, needs, and expectations of the affected populations.
2) Transparent communication and information sharing: providing clear and accessible information about the selection criteria, nature of the repairs, timelines, potential disruptions, and required documentation. This can be done through community meetings, flyers distribution, noticeboards etc.
3) Feedback mechanisms: establishing channels for residents to voice their concerns, such as suggestion boxes, hotline phone numbers and email addresses, and dedicated meetings. Ensuring residents know how to access these channels. Incorporating feedback in planning: using the feedback gathered to adapt repair plans where feasible. This could involve adjusting repair schedules to minimize disruption or addressing specific resident concerns.
4) Considering diverse needs: ensuring that communication and engagement methods are accessible to all residents, including those with disabilities and language barriers. This may involve providing materials in multiple languages or using visual aids.
5) Referrals: If, despite the rehabilitation of common spaces, residents are still facing barriers to accessing the eVidnovlennia program, the partner should try to support or refer them through the Services Advisor portal to other organizations who could help.

10.2 Monitoring and Evaluation

Post-distribution monitoring

In the case of humanitarian repairs of common spaces, this activity should be intended as "post-handover monitoring." Shelter Cluster partners are highly recommended to include PDM in their programs, to organize the collection of

feedback and inputs that will be used to evaluate the impact and the beneficiary's satisfaction, and to adjust the program approach. PDM reports are an important part of lessons learned. They capture feedback and experiences to improve future projects and ensure that the voices of affected communities are included in future planning and repairs.

A few examples of indicators that can be used during PDM:

– satisfaction with repairs.
– awareness of the feedback system.
– the success rate of eVidnovlennia program registration.
– progress of work under eVidnovlennia funding.
– barriers to accessing and using eVidnovlennia funding.

10.3 Reporting

Activity Info

For Activity Info, flexibility is provided during planning to account for the lack of precise target data in the initial stages. The reporting phase must prioritize accuracy, with allowances made for averages and estimates only in cases where direct data collection is impractical.

Reporting is required at both household and individual levels. It is mandatory to reflect the actual disaggregated figure of assisted individuals, SADDD.[16] Exceptionally, the generic disaggregation and household size ratios can only be accepted with a clear justification. In such exceptional cases, reporting should be 50% Men (18-59) and 50% Women (18-59) so that it is clear that these are estimates and not real disaggregation.

Important:
Reporting on the completion of works is ideally done in the month following the completion of repairs.

SIDAR

To avoid overlaps in assistance, it is mandatory to register the individual assistance in the deduplication platform "Shelter Information Damage Assessment and Response" (SIDAR).

SIDAR allows partners to add a damaged common area together with damaged apartments when assessing a new address and marking all damaged elements.

[16] Sex, Age, and Disabilities Disaggregated Data

11 Environmental Considerations

Approximately 75% of roofs in Ukraine are covered with asbestos-cement slate.

All forms of asbestos, including chrysotile, are carcinogenic to humans. Systematic review evidence indicates that a substantial proportion of manual workers in the construction industry globally are exposed to asbestos.

Globally, more than 200,000 deaths are estimated to be caused by occupational exposure to asbestos, accounting for more than 70% of all deaths from work-related cancers.

The use of asbestos has been prohibited in more than 50 WHO Member States.[17] In Ukraine, asbestos-containing materials in construction have only recently been prohibited by the 2022 Law of Ukraine on Public Health System.

Most recent information on government regulations and mechanisms for disposal of construction debris, including asbestos, is presented in the Annex 12.7.

[17] Asbestos. WHO, September 2024

12 Annexes

12.1 National Legislation for Property Repair and Reconstruction

eVidnovlennia (eRecovery) program

The Cabinet of Ministers of Ukraine approved Resolution No. 381[18] on 21 April 2023. Resolution No. 381 is a by-law for Law No. 2923-IX and contains information on the operational processes for applying for and receiving compensation (assistance) to repair damaged property only.

Broadly, Resolution No. 381 sets forth information on 1) categories of real estate that qualify, 2) definitions of 'damaged objects,' 3) who can be a recipient and who is disqualified from compensation, 4) priority groups for compensation, and 5) how compensation shall be used. Resolution No. 381 also sets forth the operational processes for applying for and receiving compensation for damaged property.

Sources of Funding for Reconstruction

Key sources of reconstruction funding in Ukraine include the Fund for Elimination of the Consequences of Armed Aggression, international partners, and international banks. However, reconstruction funding is also carried out through regional and local budgets, businesses, partner countries' funds, and other state, international, and private initiatives.

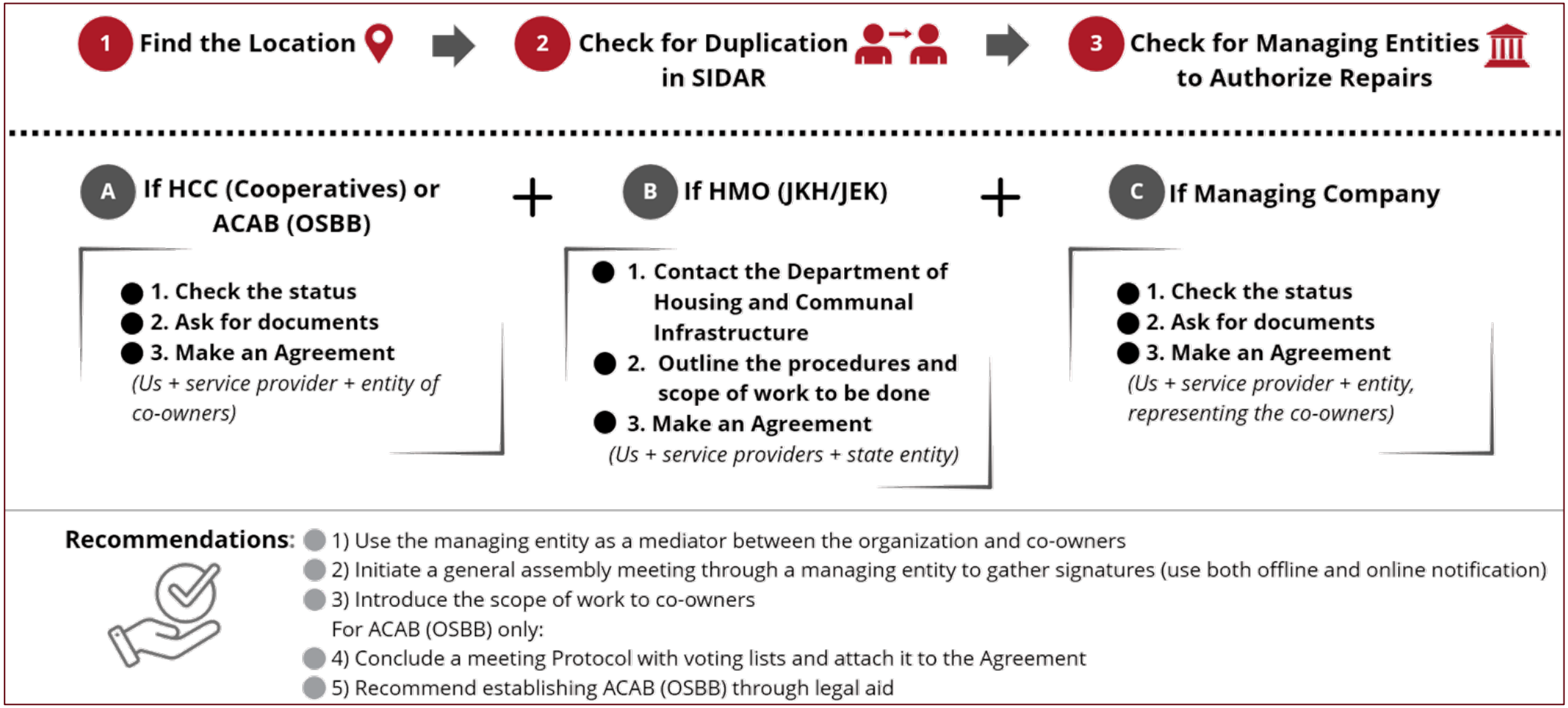
Paragraph 9^9 of Section V "Final Provisions" of the Law of Ukraine "On Regulation of Urban Development" stipulates that the procuring entity for construction (except for new construction) related to the restoration of damaged immovable property that is not in the communal ownership of the respective territorial hromadas may be the executive authority of a village, town, or city council.

Mechanisms for the rehabilitation of residential multi-apartment buildings are provided in the Procedure for the use of funds from the Fund for Elimination of the Consequences of Armed Aggression, approved by Resolution of the Cabinet of Ministers of Ukraine No. 118 of 10.02.2023, or in the Procedure for the use of funds from the account 'Fund for the Restoration of Destroyed Property and Infrastructure', approved by Resolution of the Cabinet of Ministers of Ukraine No. 879 of 29.07.2022.

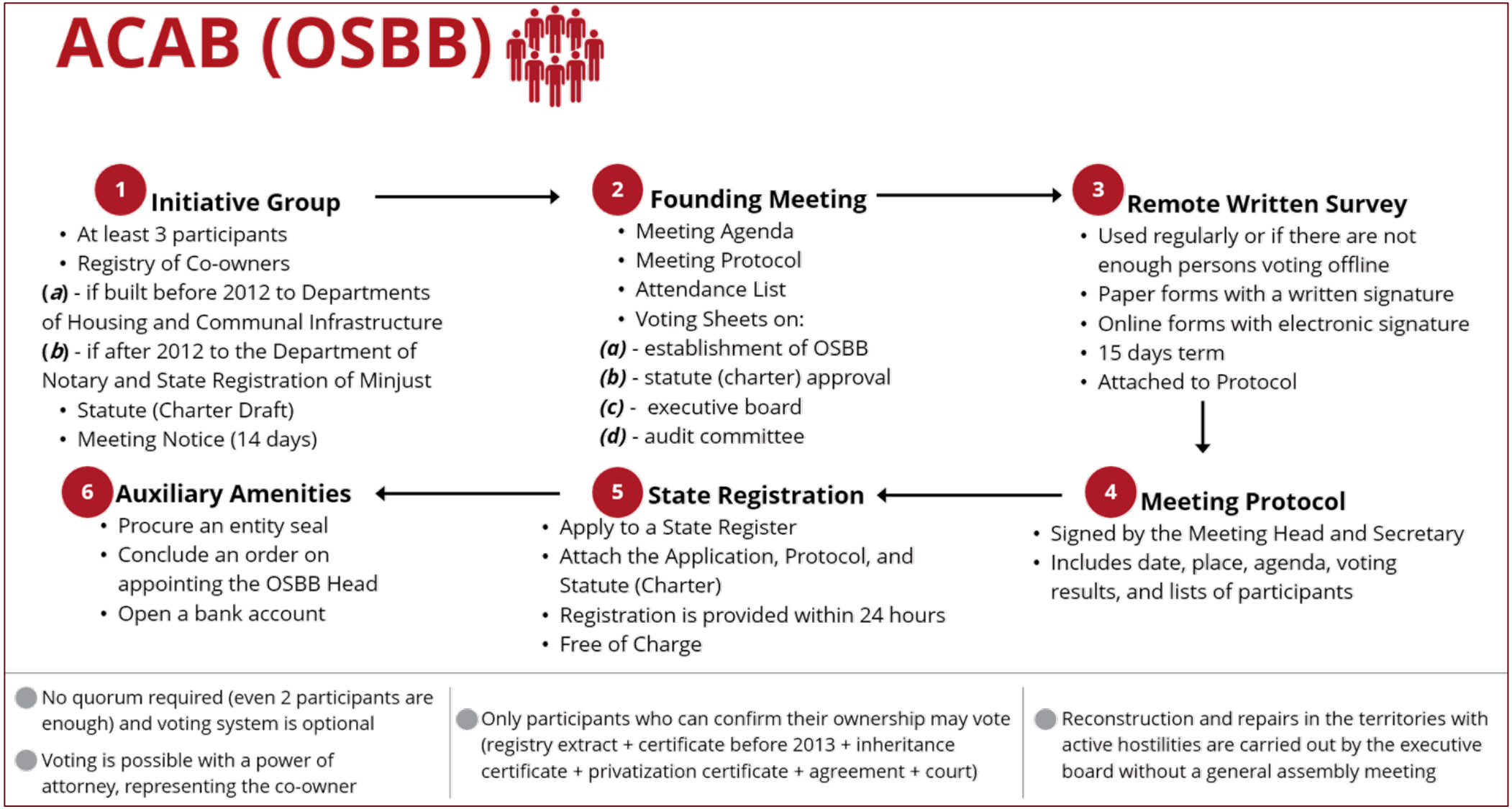
The Fund for the Elimination of the Consequences of Armed Aggression is one of the sources of financing for the eVidnovlennia program.

[18] Resolution No. 381

12.2 Roadmap and Procedures for Engaging Managing Entities



12.3 Procedure for Establishing or Transforming an ACAB (OSBB)



12.4 Assessment and Classification of Damaged Structures

In September, the DSTU 9273:2024, "Guidelines for the inspection of buildings and structures to determine and assess their technical condition. Mechanical resistance and stability," came into force. Chapter 11 of the standard introduces a description of the specific requirements for conducting assessments of emergency structures damaged due to non-design impacts.

The common situation that causes heavy (structural) damage is a direct hit by shells, missiles, drones, etc. Direct hits to a building lead to damage or destruction of load-bearing structures, often compromising mechanical resistance and stability.

In the event of a hit near a building, the structures of the lower floors would be more damaged by the blast wave.

The primary tasks of assessing structures damaged as a result of non-design impacts are as follows:

- Identifying spatial and structural parameters and the construction scheme of the object, as well as the materials of its load-bearing and enclosing structures.
- Determining the overall condition of structural elements and joints.
- Preparing data to evaluate the load-bearing capacity of the object as a whole and its individual structural elements under explosive loads, including the strength characteristics of materials.
- Assessing the load-bearing capacity of structural components and the object as a whole under explosive loads.

The methodology for detecting defects in structures and joints and their overall condition does not have fundamental differences based on the type of damage.

Different levels of destruction in similar structural elements under identical loads can be explained by the stochastic nature of material strength characteristics, inconsistent quality of manufacturing and installation works, operational conditions, degree of wear, and other factors. The extent of damage or destruction also depends on the condition of the supporting elements and their interactions, which may lead to more significant consequences. Given the deteriorated physical condition of the housing stock in Ukraine, it is essential to account for this factor when assessing buildings damaged due to military actions. Standard SOU ZhKG 75.11-35077234. 0015:2009 provides an understanding of inspection methods for the physical deterioration level of residential buildings.

Based on the inspection results of a damaged structure, in addition to determining the technical condition of structural elements, utility networks, and the structure as a whole, with the aim of further planning for its restoration or making decisions regarding its demolition, the category of damage to the structure is determined. This categorization should be based on the **classification criteria**

provided in Order No. 144[19], which can be refined considering the sector-specific characteristics of the structure.

The technical condition of the construction object and isolated building structure is characterized by one of the following four categories (DSTU 9273:2024):

a) "1" — Normal (functional).

b) "2" — Satisfactory (operational).

c) "3" — Unfit for normal operation (limited operational).

d) "4" — Emergency condition.

Important: If necessary and with proper justification, the inspection and assessment of the technical condition can be conducted for specific parts of the object, distinguished by functional or structural features.
A specific part of the object may belong to a worse category of technical condition than the object as a whole. This category may not be extended to other parts of the object, provided that there is no threat of reduced reliability and safety of their use.

[19] Order of the Ministry of Communities and Territories Development of Ukraine dated August 6, 2022, No. 144 "On the Approval of the Methodology for Inspection and Documentation of Its Results"

12.5 Accessible Construction and Disability-Inclusive Shelter Programming

In ensuring an accessible environment, it is necessary to prioritize creating conditions that enable all population groups (including persons with disabilities and other people with limited mobility) to navigate spaces independently, without external assistance. This includes:

- Physical accessibility and ease of entry and movement within the facility.
- Physical safety during entry and movement within the facility.
- The ability to navigate freely within the premises.

Below are additional (specific) guidelines and recommendations related to the elements of common spaces.

Doors

The width of door clearances must be at least 0.9 m. For double-leaf doors, one active leaf must have a clearance width of no less than 0.9 m.

Doors should be installed without thresholds. If thresholds are necessary (e.g., for fire-rated doors), the height of any threshold element must not exceed 0.02 m. In such cases, ramps/slopes must be provided with a maximum length of 0.3 m and a slope not exceeding 8% (1:12). All thresholds must be clearly marked with contrasting colors.

Doors should be equipped with single-action hinges and door closers with a hold-open mechanism to keep the doors in the "open" position. The maximum force required to open any door must not exceed 3 kg.

Stairs

In the absence of natural (standard) color differentiation, steps must be marked with color.

A contrast stripe should be applied to the first and last steps of a staircase along the edge, covering the entire width of the step. The horizontal surface of the step should be marked with a stripe at least 0.1 m wide, and the vertical surface should be marked with a stripe at least 0.05 m high.

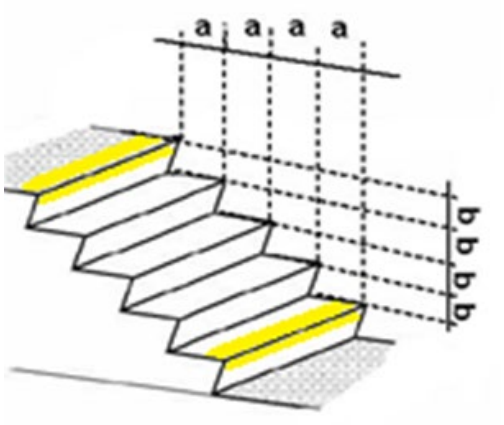


Figure A.1 – Stair color marking

Stripes should also be applied to other steps if the width, depth, or height of the steps differ from one another.

This color marking can be implemented either by applying paint or using tiles of different colors.

Railings

The height of railings for external staircases, platforms, balconies, loggias, terraces, and areas with hazardous level differences must be at least 1.2 m.

Internal staircases and platforms must have railings with handrails at a height of no less than 0.9 m.

Handrails for Stairs and Ramps

Stairs and ramps must have handrails on both sides at heights of 0.7 m and 0.9 m.

The distance between the handrail and the side wall should be at least 0.04 m at the points where the handrail is attached. The handrail pipe diameter should range between 0.035 m and 0.045 m.

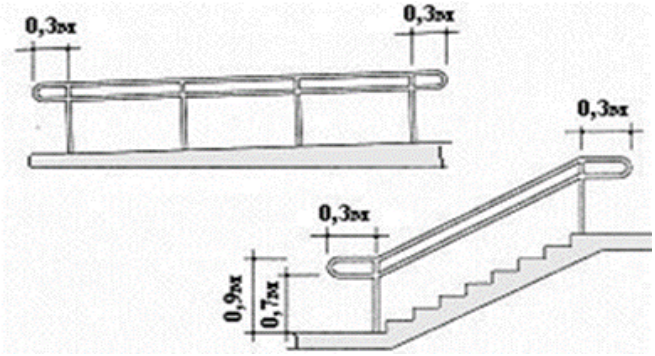


Figure A.2 – Handrails parameters

For stairs with a width of 2.5 m or more, additional dividing handrails must be installed.

The ends of handrails must extend horizontally by 0.3 m both at the top and bottom.

Ramps, Lifting Devices, and Elevators

Where possible, in addition to stairs, provisions should be made for ramps, elevators, lifting platforms, vertical/inclined lifts, or other mobility devices.

Requirements for ramps, elevators, and lifting devices are outlined in DBN B.2.2-40:2018 "Inclusivity of Buildings and Structures. General Provisions".

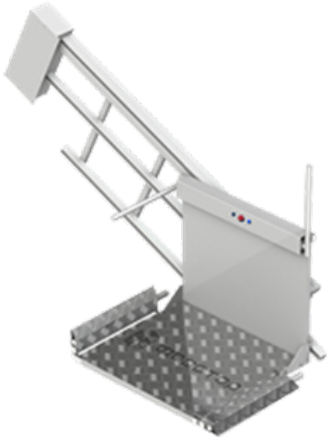


Figure A.3 – Lifting device

Informational Signs, Indicators, and Pointers

It is recommended to organize a comprehensive navigation (orientation) system that would ensure the availability of continuous information about the routes of movement (including evacuation routes) and the purpose of functional elements.

Signs indicating the direction of movement to the relevant objects should be in the visibility zone in relation to each other and should be illuminated as much as possible. The content of directional and navigation signs should be clear and concise. The color ratio of fonts and graphic symbols relative to the background should be contrasting. In addition, the background of the informational signs, indicators, and pointers, on which fonts or graphic symbols are applied, should be matte, and

reflections and glare are not allowed. The informational signs, indicators, and pointers should be illuminated from all sides.

All informational signs, stands, displays, and any text or graphic information at the facility must be in a font size appropriate to the norms.

Figure A.4 – Examples of informational signs, indicators, and pointers

It is advisable to place informational signs, indicators, and pointers at a height that is convenient for easy visual perception: from 1.2 to 1.6 meters. If informational signs, indicators, and pointers are placed at a level above 2 m or more, the recommended symbol sizes should be increased by 25% (in this case, Braille and Tactile Signages are no longer applicable).

Floor number signs are placed opposite each elevator exit (so that it is clear which floor you are on without leaving the elevator).

Lighting

Adequate lighting should be ensured in common areas. For regular lighting (not emergency lighting), it is desirable to use automatic light switching on by motion.

Emergency lighting should ensure the safe exit of people from the premises in the event of an emergency, for example, failure of regular lighting, fire, etc.

Exit signs are installed above the doors of emergency exits at a height of 2.1-2.2 m from the floor level.

Enclosed spaces in a building where a person may be left alone (elevators, fireproof zones) should have emergency lighting.

12.6 Activity Reference Cost Calculation

The calculation below demonstrates the mechanism for calculating the average cost of repairs per household, considering both the total cost per house and the average value across the project.

General Information:

- Three 5-story buildings with four sections[20] each.
- Each building contains 80 apartments (4 apartments per floor).

Table A.1 – Example of Calculation

Building identifier	Level of damage (non-structural) to **common spaces,** %			Number of residents (households)*	Actual total cost, USD	Actual cost per HH, USD
	Roof	Windows	Entrance doors			
A	50**	-	-	35***	43,000	43,000/35 = **1,229**
B	100	100	100	56	81,000	81,000/56 = **1,446**
C	-	100	100	80	10,000	10,000/80 = **125**

*Residents of apartments within damaged building sections who are expected to return to the building after repairs[21].
**Damaged roof over two out of four building sections.
***35 from 40 apartments in two sections under damaged roof.

The average cost per household across all buildings:

$$\frac{A+B+C}{3} = \frac{1{,}229+1{,}446+125}{3} = 933 \text{ USD / HH},$$

which is in line with the Shelter Cluster recommendations: the reference cost for 5 floor buildings is 915 USD / HH.

[20] The building section/unit with its own entrance.
[21] Per signatures collected or direct communication with the beneficiaries during project implementation

12.7 Regulatory Framework and Best Practices for Managing Asbestos in Construction and Demolition in Ukraine

Key Laws and Regulations on Asbestos in Ukraine

There are now several regulations in place addressing asbestos and asbestos-containing materials/products, addressing working conditions, preventing exposure to workers, and asbestos as hazardous waste management:

- State Sanitary Norms and Rules "On Safety and Protection of Workers from Harmful Effects of Asbestos and Materials and Products Containing Asbestos" - Order of the Ministry of Health of Ukraine No. 1013 dated June 05, 2023.
- Law of Ukraine No. 2573-IX "On the Public Health System" - Adopted by the Verkhovna Rada of Ukraine on September 06, 2022, entered into force on October 01, 2023.
- Order of the State Committee of Ukraine on Industrial Safety, Labor Protection and Mining Supervision dated April 16, 2009 No. 62 - "Norms for the Free Provision of Special Clothing, Special Footwear, and Other Personal Protective Equipment to Employees of General Professions in Various Industries."
- Order of the Ministry of Social Policy of Ukraine dated November 29, 2018 No. 1804 - Minimum Safety and Health Requirements for the Use of Personal Protective Equipment by Employees in the Workplace.
- Law of Ukraine "On the Legal Regime of Martial Law" - Regulates the legal regime of martial law and actions during its operation.
- Resolution of the Cabinet of Ministers of Ukraine dated September 27, 2022 No. 1073 - "Procedure for Waste Management Generated in Connection with Damage (Destruction) of Buildings and Structures as a Result of Hostilities, Terrorist Acts, Sabotage, or Works to Eliminate Their Consequences."
- Law of Ukraine "On Waste Management" - Entered into force on July 9, 2023, establishes a new procedure for waste classification.
- Resolution of the Cabinet of Ministers of Ukraine No. 1102 dated October 20, 2023 - Approves the new National Waste List and the Waste Classification Procedure.

For more information, please refer to the documents on Shelter Cluster Ukraine website.

Disposal of construction debris, including asbestos

When planning projects and at the stage of assessment of facilities with damaged roofs made of asbestos-cement materials, it is important to contact and engage local authorities for cooperation:

- Obtain information on the nearest landfills that accept asbestos waste.

- Agree with local authorities on who will be responsible for the removal and disposal of asbestos materials at the expense of local authorities or as part of humanitarian aid.
- When signing the Memorandum of Cooperation, it is advisable to specify the area of responsibility in case of dismantling of materials.
- Include additional costs in the budget for the removal and disposal of asbestos materials if this is to be done as part of humanitarian aid.

After collection and proper packaging, asbestos-cement materials are taken to a landfill. Partners can check the list of organizations licensed to remove and dispose of asbestos on the website. Currently, according to the Register of Hazardous Waste Management Licensees, only one organization has obtained a license (Licence Order No. 119 dated 02.02.2024.) to conduct hazardous waste management business activities and has permission from the Ministry of Environmental Protection and Natural Resources of Ukraine to carry out waste treatment operations at the production. According to the classifier codes, licensed organizations can carry out the following operations:

- D13: Preliminary operations with waste (sorting, crushing, compacting, granulating, drying, grinding, conditioning or separation).
- D15: Storage prior to operations.
- D10: Incineration on land,

or other operations to be selected according to the classifier.

Approximate costs for the removal and disposal of asbestos materials can be found in the table below. The cost of loading asbestos materials and weight control (weighing of the cargo) is not included in the prices.

Table A.2 – Asbestos Utilization Cost

№	Waste name and operation code	Code according to the National Waste List	Unit of measurement	Price per 1 unit including 20% VAT, USD
1	Waste from asbestos-cement production containing asbestos (D13, D15, D10)	10 13 09	metric ton	130.00
2	Waste transportation service (vehicles with a carrying capacity of up to 22 tons and a volume of up to 86 cubic meters) to Odesa	–	service	870.00

13 Revision History

Version	Status	Date	Description	Comments
1.0	Published	13.01.2025	Approved by SC SAG	