

Transitional and Progressive Shelter Guidelines

This document focuses on recovery shelter support via transitional shelter and progressive core house, though it makes reference to permanent housing requirements. All programs and designs should be carried out through assessments and consultation with beneficiaries as well as coordinated with Local Government Units (LGUs).

Shelter Design Brief

Organisations may wish to add programmatic issues to this technical brief for their own use such as targeting, support for the most vulnerable recipients, and messaging. This design brief should not contradict relevant building codes.

Key Indicators	Transitional Shelter	Progressive Core House	Permanent House	Remarks
Life span	2-5 years	Minimum 10 years	Minimum 20 years (tbc.)	Lifespan is often dependent on maintenance and termite treatment.
Key Feature	Possible to dismantle and reuse material for permanent construction.	Designed to be expandable and upgradable by beneficiaries.	Building code compliant for permanent housing	Program to include trainings on expansion and upgrade without increasing structural risks
Cost	30,000 – 50,000 PHP	30,000 – 50,000 PHP	80,000 – 120,000 PHP	Cost may be adjusted upwards by 10% over the life of the programme due to market fluctuations.
	Price range is including labour, excluding transport, land, taxes, and project management costs. May vary according to available salvaged material and inputs from beneficiaries.			
Covered Living Space	Minimum 3.5m ² per person Maximum 5m ² per person.	Minimum of 12m ² floor space	Minimum 3.5m ² per person Maximum 5m ² per person	Considerations should be made for very large families of more than 10 people. Average house size in affected areas falls within the 18-20m ² range. Excluding space for WASH and cooking.
	Or 18m ² for a family of up to 5 people and 20m ² for a family of 6 and above.	(Target families able to expand within 12 months. Close monitoring and allocation of contingency fund.)	Or 18m ² for a family of up to 5 people and 20m ² for a family of 6 and above.	
Head height	A minimum of 7ft from the floor to the eaves, and a minimum of 8ft from the floor to the ceiling in the centre of the house. This minimum height for progressive shelters will need to be higher to allow expansion.			

Plot Size	Where possible, shelter/house should be situated on 60m ² plots, as stated in DSWD guidelines (“Omnibus of Shelter Assistance”).	This may not be possible when building on beneficiaries’ own land.
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Hazard Resilient Construction		
Rains and Floods	Cladding material should be sufficiently durable even when frequently wet.	In typhoon-prone areas, roof overhang should be limited to no more than 30-45cm.
Wind and storms	<p>Foundations must secure the shelter to the ground in strong winds.</p> <p>The roof must be fixed securely to be resistant to storms, and must be designed with adequate strength for proposed roofing material.</p> <p>Frame members must be big enough for the loads, joints must be appropriately arranged to transfer the loads in the best way and fixings must be strong enough to take the loads. Where appropriate: Metal strapping is strongly advised to protect against cyclone and earthquake.</p>	<p>A pitch of 25°- 30° for 2-pitched roofs is optimum to resist strong winds. Wherever possible, hipped roofs, should be promoted.</p> <p>Design wind speed should be selected from the National Structural Code of the Philippines.</p> <p>Wide roof spans are to be avoided as they weaken the structure in strong wind.</p>
Earthquake	<p>Seismic resistance techniques must be incorporated into the shelter. Agencies should be aware that nearly all areas of the Philippines are of significant seismic risk.</p> <p>Concrete hollow block construction should comply to National Structural Code of the Philippines. Timber structures should incorporate good seismic resilient measures.</p>	<p>Special attention to locations of doors and windows, foundations, bracing and ring beam connections.</p> <p>Hazard maps produced by Mines and Geoscience Bureau (MGB) are available online at http://gdis.denr.gov.ph/mgbviewer/</p>

Design Principles		
Hazard resilient learning	Shelters should provide practical learning examples of principles of good construction (e.g. openings such as doors should be away from the corners of the structure).	To promote good earthquake, cyclone and flood resilient practice.
Ventilation and thermal comfort	<p>Where possible, promote openings on two sides of the shelter to allow for cross ventilation without affecting its structural integrity.</p> <p>Allow for adequate ventilation and design to minimise internal temperatures.</p>	Take in consideration possible future extension or re-use of the unit/shelter.
Privacy	The design should allow addition of at least one internal division to ensure privacy.	Pre-typhoon houses commonly have at least two rooms with soft divisions for sleeping areas.

	The shelter should provide a flexible space.	
Security	Buildings should be lockable as this may reduce crime and assault and provides a greater sense of security for the occupants.	Placement of buildings and lightings should also consider security aspects.
Culturally appropriate	Shelter layouts, materials and construction techniques are familiar or easy to understand by the beneficiaries.	
Access	Shelters should take into account access by persons with reduced mobility, wherever possible. Agencies should also consider any works necessary between the road and the house plot where possible.	2% is the average additional cost when accessibility is taken into account right from the start ¹

Site and Services

Tenure	Security of tenure should be provided for a minimum of two years. Different forms of tenure security should be considered – for example formal and informal processes, lease agreements, certificates to occupy. Local legal advice should be sought so as to ensure contextual appropriateness and beneficiary understanding.	Shelters' design and lifespan considerations should take into account longer tenure periods.
Location	In principle, the location of the shelter should support the choice made by the shelter owners themselves. Where possible, shelter should be constructed at, or near to the existing homestead. Shelters should not be built next to dangerous buildings or structures, on land liable to flood, or in locations that expose the occupants to other hazards. Shelters should be built in locations that help occupants maintain access to livelihoods, basic social services/community infrastructure.	
Plot preparation	Sites need to be cleared of any physical dangers.	
Water and Sanitation	Adequate water supply and sanitation facilities. WASH facilities should be per family with rare exceptions. Adequate site drainage is provided to minimise the risk of flooding. Each shelters must be connected to site drainage solution.	Construction must be coordinated with WASH. Agencies providing shelter should also include WASH whether directly or with partner agencies.

¹ Handicap International, Inclusion Checklist in Emergency Context, coordo.inclusion.phi@hi-urgence.org