

CONSTRUCTION OF A CYCLONE SHELTER HOME IN PATUAKHALI

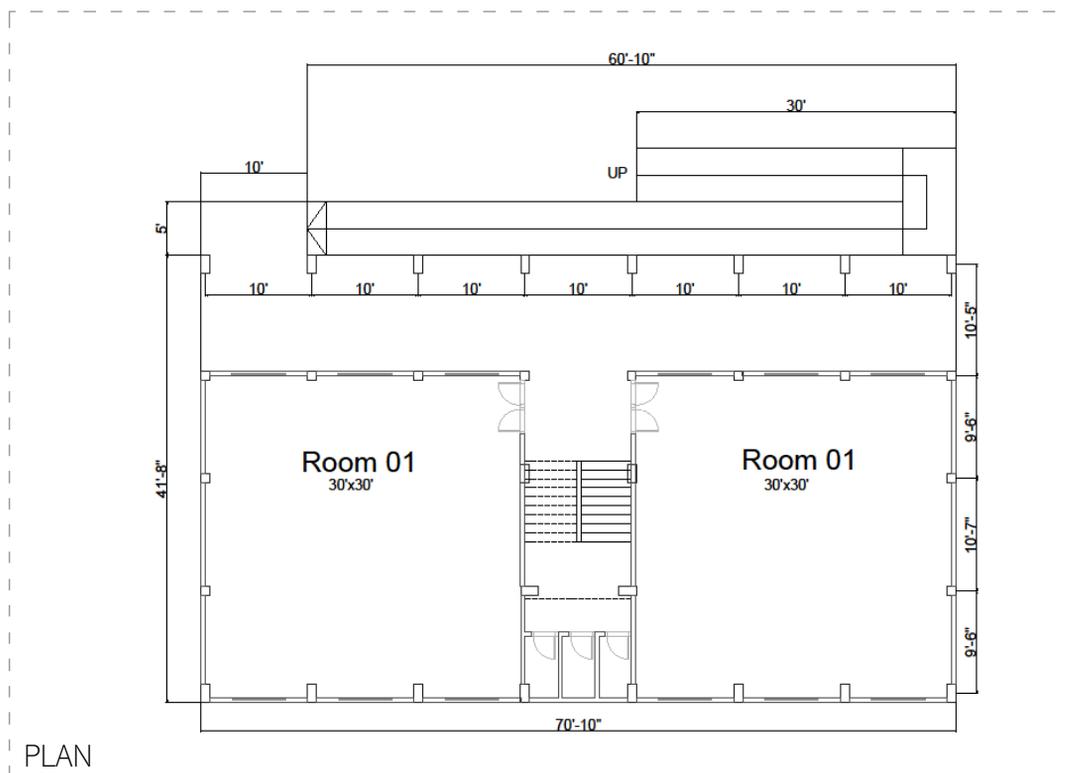
Submitted by: OBHIZATRIK Foundation

COMMUNITY RESILIENCE PROJECT

CONSTRUCTION OF A SHELTER HOME IN PATUAKHALI

The Shelter Home Project in Patuakhali aims to establish a resilient shelter that not only offers a haven during cyclones but also serves as a versatile community centre. The project emphasizes constructing elevated and wind-resistant buildings and implementing community education and support programs for vulnerable populations. By promoting sustainability and incorporating eco-friendly practices, the shelter home aims to enhance overall community safety and resilience. Collaborative efforts with local authorities ensure efficient integration of disaster response, while regular emergency drills and a robust monitoring system contribute to ongoing improvement. The project envisions reduced casualties, enhanced emergency preparedness, and active community involvement, fostering a stronger and more resilient community in the face of natural disasters.

PROJECT BRIEF	
Total Area	7200 sft
Ground Coverage	3455 sft
Total No. of Floors	2
Total No. of Rooms	3
Total Occupancy	100



DESIGN CONSIDERATIONS

Shelter design in Bangladesh must carefully balance numerous factors to ensure an appropriate response to the local context. The primary objectives of shelter design are:

1. Minimize Risk and Ensure Safety: The design phase serves as a crucial platform for integrating disaster risk reduction. Designing shelters that cater to Patuakhali's specific climate conditions enhances the building's multi-faceted performance.

2. Respond to Local Context: Shelter designs must be tailored to address the unique needs, vulnerabilities, and capacities of communities in Patuakhali. This involves adapting the design to reflect local cultural norms, practices, and available resources.

3. Community Involvement: Engaging the local community in the design process is essential to ensure socio-cultural awareness.

4. Support Vulnerable Populations: Special attention should be given to providing additional support to the most vulnerable groups to ensure the accessibility of shelters for all users. This involves considering the needs of vulnerable populations, such as the elderly, children, and persons with disabilities.

5. Utilize Local Construction Techniques and Materials: Incorporating local construction techniques and materials is crucial in Patuakhali, considering its diverse building traditions and material availability.

6. Plantation: Creating a plantation for climate resilience around a shelter home involves thoughtful planning and selection of plant species that can withstand extreme weather conditions, provide ecosystem services, and contribute to the well-being of the residents. Example: Coconut trees to withstand the wind in coastal regions.

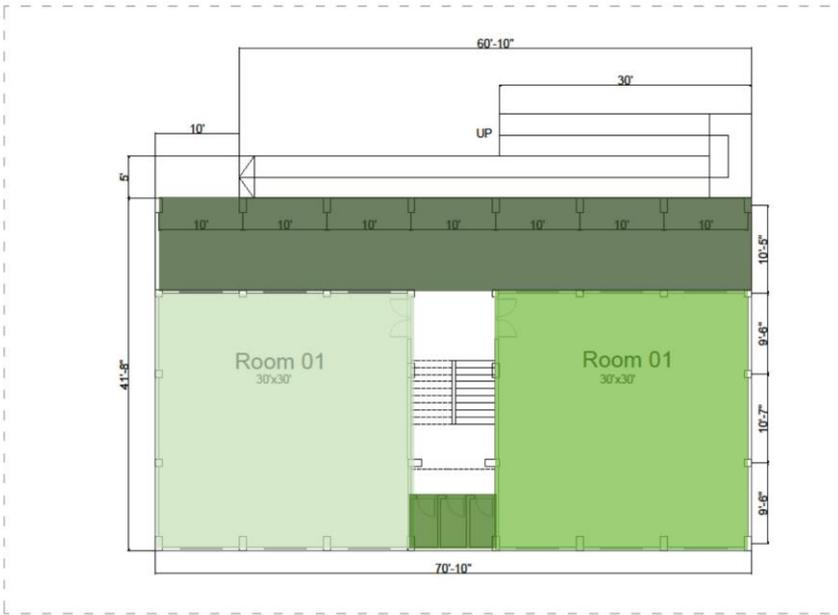
COMMUNITY RESILIENCE PROJECT



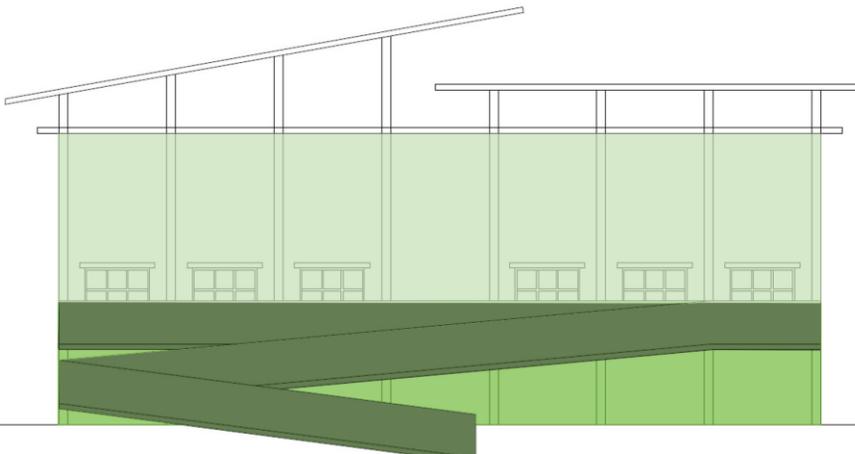
PROGRAM ANALYSIS

PROGRAM	AREA (sq.ft)
Female Room	873
Male Room	879
Toilet	56
Livestock Storage space	2950
Circulation space	767

ZONING

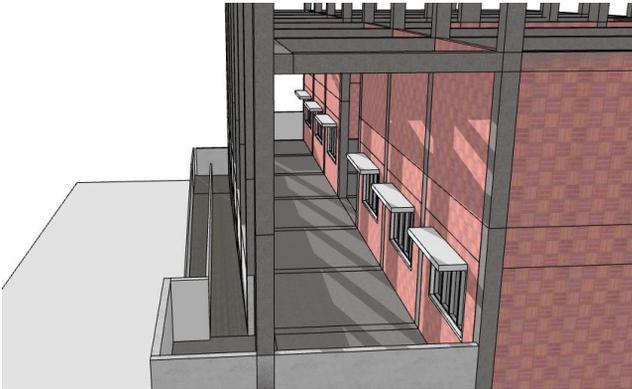


- Female Room
- Male Room
- Toilet
- Circulation space

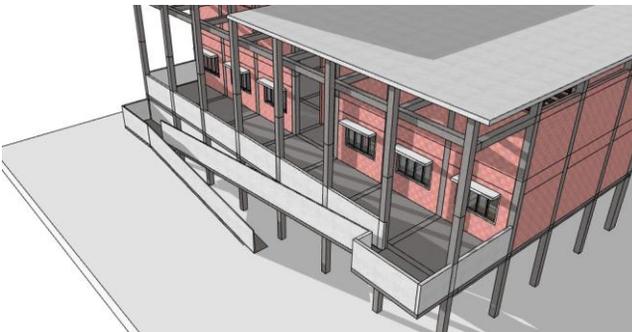


- Rooms
- Livestock
- Circulation space

STRUCTURAL RENDERS



RCC Framework: The shelter utilizes a RCC framework as the primary structural support system. RCC offers high strength-to-weight ratio, making it suitable for withstanding heavy loads and providing durability against natural forces such as wind, rain, and seismic activity.



Corrugated Galvanized Roofing: The roofing material commonly used for the shelter is corrugated galvanized steel sheets. These sheets provide excellent protection against rainwater, corrosion, and UV radiation, ensuring long-term durability and weather resistance.



Storage in shelter homes serves a crucial function in providing residents with a secure space to store personal belongings, supplies, and essential items.

Shelter homes typically store emergency supplies such as food, water, medical supplies, and hygiene kits to support residents during their stay. Adequate storage space should be allocated to store these supplies in an organized manner, ensuring easy access in case of emergencies.



COMMUNITY RESILIENCE PROJECT

CONSTRUCTION COST IDEA

Location: Chalitabunia Union, Rangabali Upazila, Patuakhali

Total Construction Area: 6910 sft

Per sft cost approximately : 1500-1700BDT

Approximately construction cost: 1,03,65,000 BDT to 1,17,47,000 BDT

Note: This budget may increase by up to 20%, depending on the product prices and transportation costs in the remote Char areas. Additionally, we will be proposing to multiple donors for the construction, led by IDLC Finance, to ensure the completion of the full project.

Additional Note: Should a complete (BOQ) be required, it will need to be prepared by the architecture firm. We can proceed with this step after receiving the initial go-ahead from IDLC.

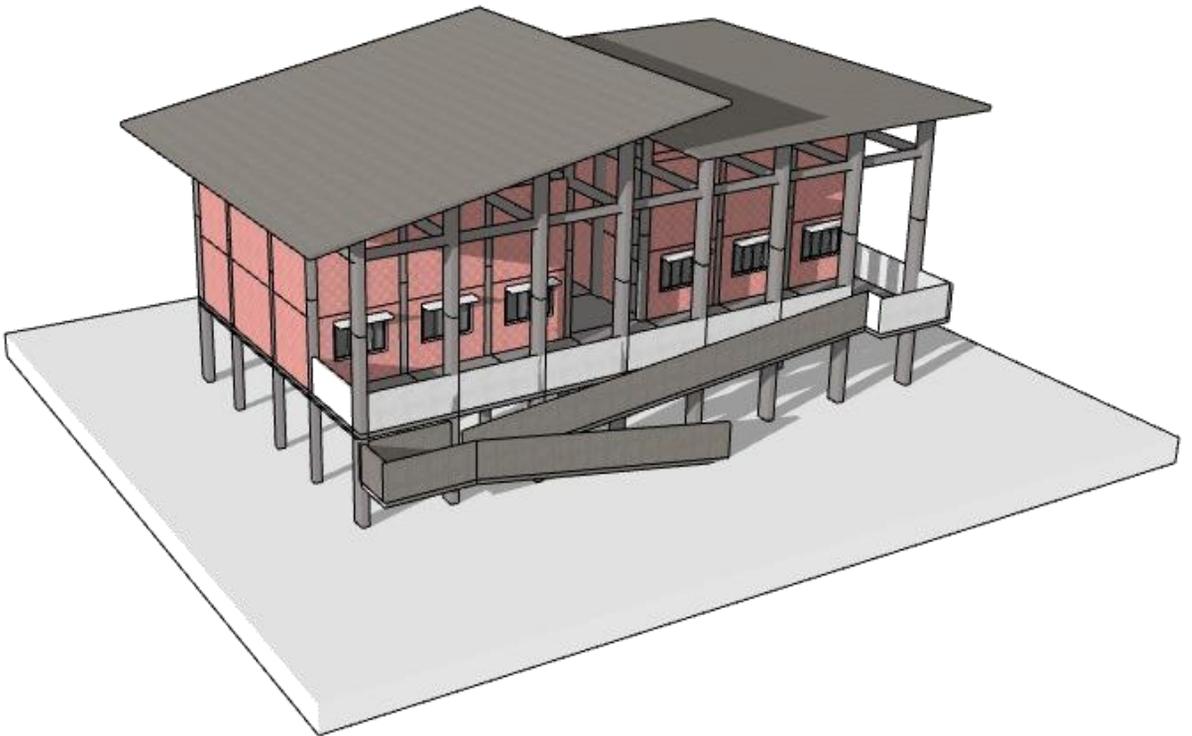
Super structure: Individual Footing (Shallow foundation)

Column Details: 10 x 20 inch RCC column-beam structure

6 inch slab casting

COMMUNITY RESILIENCE PROJECT

STRUCTURAL RENDERS



COMMUNITY RESILIENCE PROJECT

3D RENDERS

