

PROPOSED NYONYESHA HUBS

NIKO GREEN: Endelevu Design Challenge

GROUP: Hub

CONCEPT

The Nyonyesha Hub was inspired by the extension of a kids playscape that resulted into an overarching form above the nursing/ sleeping space provided for the babies. Thus creating more space for play and additional elements I.e, climbing towers, sculptures and an adventure tunnel. The earth used in the extended playscape naturally stores energy that warms the space below. Additional space for the hub was provided by two 12m freight containers found on site, housing an office, indoor playing spaces, washing centre, a kitchen, laundry area and a tuck shop. On each of the freight contains, roof gardens have been designed with space also capable for housing solar panels. On the periphery of the Hub, an organic garden has been proposed including a green wall on the existing perimeter wall and gardenia planter holders to maximize on kitchen gardening and nursery trees.

STRATEGIES:

Various elements of design informed the design outcome, including the available materials on site, existing activities on and around the site, functions and water recycling.

Material recycling and reuse

The main materials found on site include, freight containers, bamboo, rubber tires, gravel aggregates, scrap-wood, broken porcelain and abandoned steel chairs. The two freight containers, 12m in length were entirely used with an additional 3m of freight container, with the top creating space for a roof garden. Timber cladding was recommended for the exterior surface and plywood finish for the interior surface to create a natural woody feeling. The good bamboo was used as columns and beams while the split stems are used for the fascia boards in form of bamboo shingles and roof garden railings. The rubber tires have been used in the design of the foundation and playscape elements such as swings, sea-saws, climbing towers and obstacles. The extra gravel is vastly used in the creation of planter cells and compacting in the rubber tires during rubber Tyre foundation design. Scrap-wood is recycled as floor boards. Broken porcelain is used in the manufacture of Poticrete, a mixture of cement, sand and broken porcelain. The abandoned steel chairs have been reclaimed for the design of portable planter cells for temporary partitioning of outdoor spaces.

Recycling of gray water

Planter cells to the south of the Hub have water filtration materials that aid in cleaning gray water for recycling. Water from kitchen sinks, laundry sinks and wash hand basins is directed to the planter cell. The water moisturizes a 300mm layer of soil, leaving nutrients. The water gets filtered through a filter cloth into a 300mm layer of Gravel, then through another filter cloth into a 300mm layer of sand and finally through a

filter cloth into a temporary water storage cistern where the water is pumped to the toilets for flushing. From where the black-water is channeled to the main sewer system.

Activities

Existing activities on site included photography, hair salons and basking. A common garden was designed to the east of the site, with seats to accommodate these activities. More so, a green system ramp has been designed leading into a roof garden to enhance views and activities.