Project Overview

Site Description
- Sierra Leone is located on the west coast of Africa and has a land area of 71,620 km²
- 50 treatment centers with a tropical climate with rainy and dry seasons
- The geography varies with mountains, plateaus and coastal regions
- Centers should be strategically placed to utilize natural resources

General Restrictions
- Materials are lifted by hand: No cranes
- Limited varieties of concrete, masonry, lumber, tin roofing sheets and Steel (pins and rods)

Human and Environmental Interests
- Screen all patients for EBOLA in triage tent and redirect them to EBOLA center if necessary
- To treat patients without EBOLA
- Bicycle facility and rainwater management
- Maximum use of daylight with minimum natural heating

Design Specifications

General Guidelines
- Corrugated steel roofs lined with basic gutters
- Basic doors and windows that open to allow optimum ventilation
- Medical equipment suitable for basic primary care
- 3 Kilowatt photovoltaic system
- Limited use of resources: natural and man made
- Sinks accompanied by a drainage system

Key Design Specifications
- No ceiling - save material. A steel roof with a thatched roof 1 foot above for natural ventilation
- Rainwater collection system with black storage tank and passive solar cover
- Small water heater powered by PV which heats the rain basin water
- Wooden benches and plastic chairs, which are easy to sterilize
- Large washable plastic mats in the center of the waiting room to be used for occupational/physical therapy
- 10ft by 10ft tent placed far and not directly in front of center

Proposed Design of Primary Care Facility in Sierra Leone
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