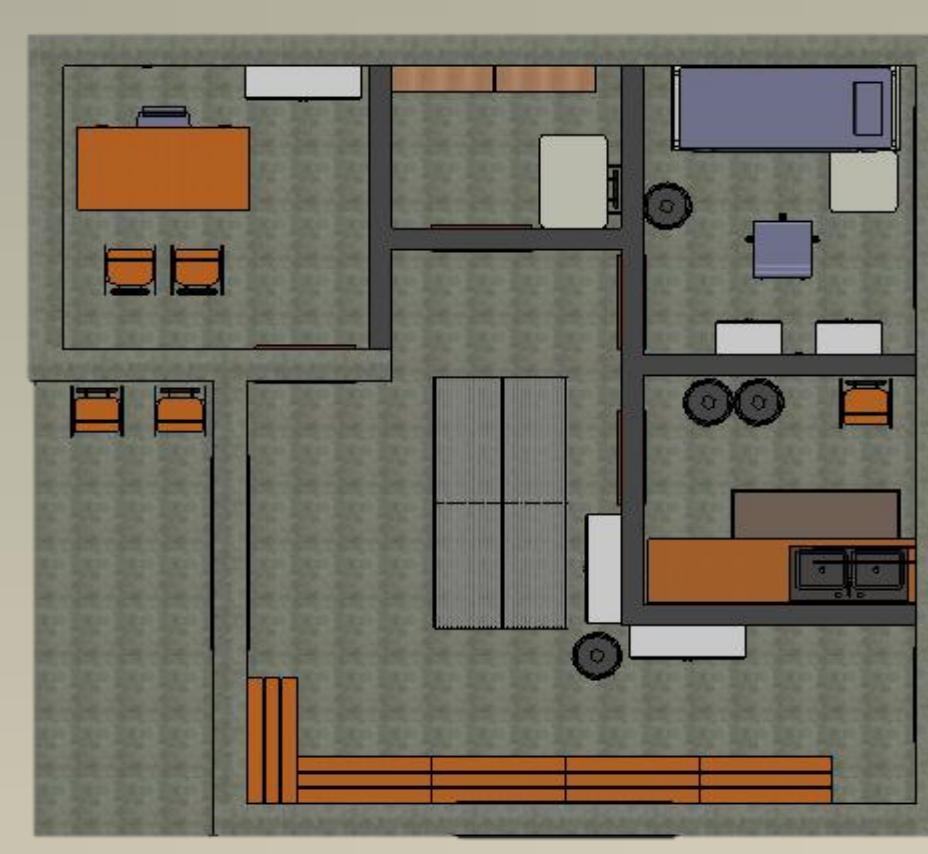


Waiting



Sterilization



Floor Plan Overview



Store

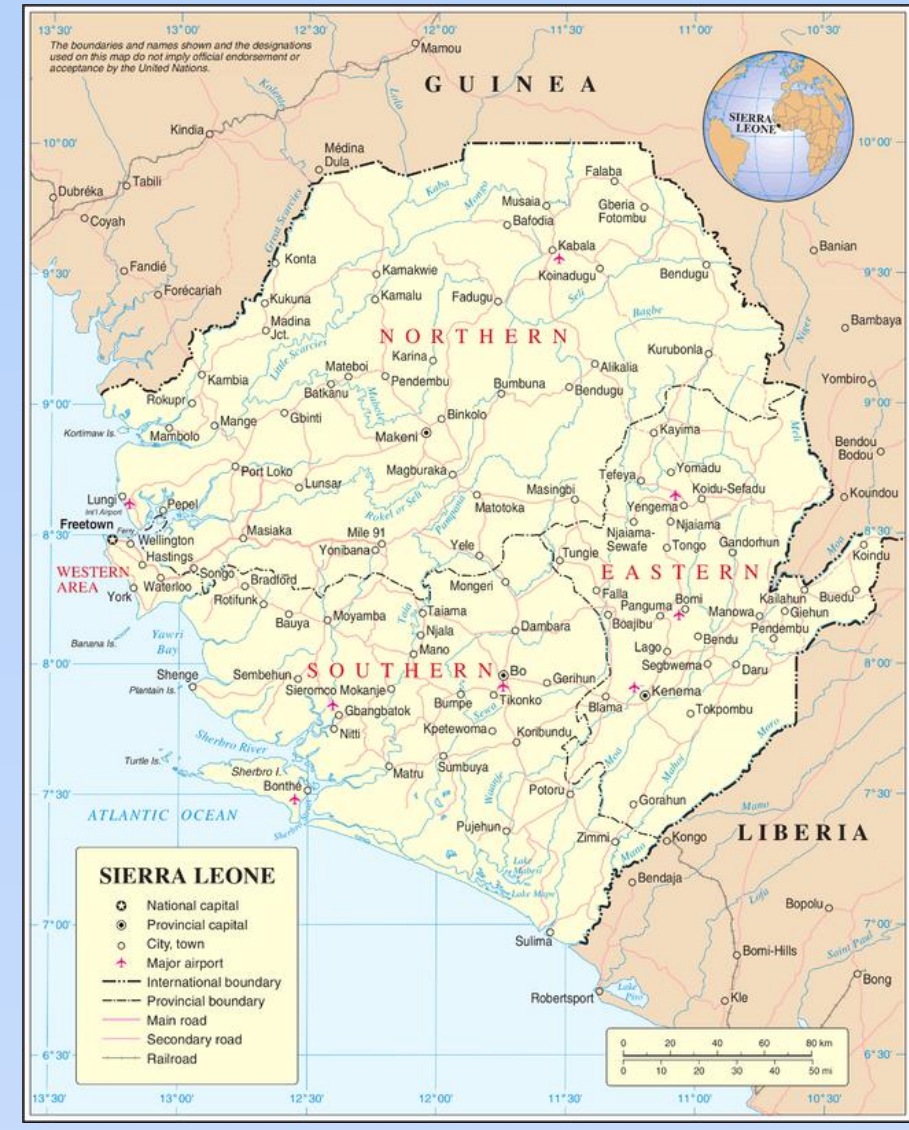


Consultation



Observation

## Project Overview



Basic Map of Sierra Leone

### Site Description

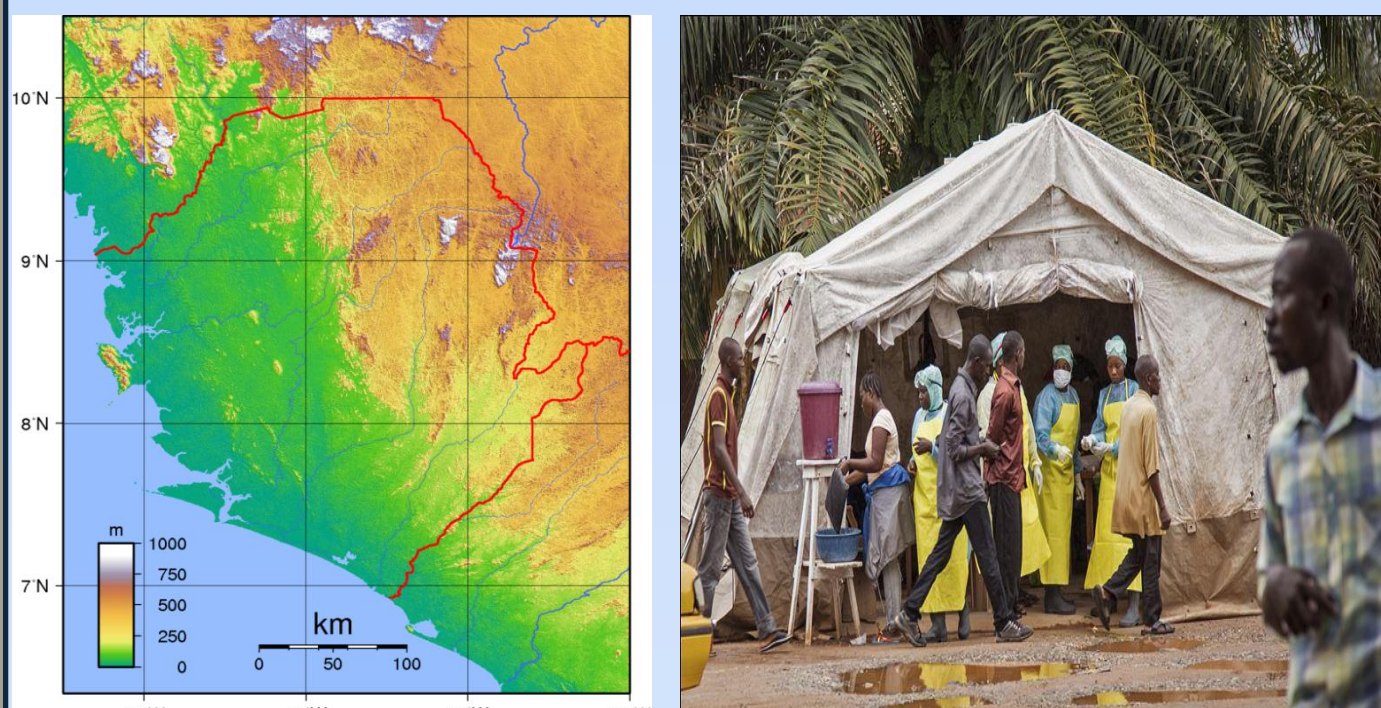
- Sierra Leone is located on the west coast of Africa and has a land area of 71,620 km<sup>2</sup>
- 50 treatment centers a tropical climate with rainy and dry seasons
- The geography varies with mountains, plateaus and coastal regions
- Centers should be strategically placed to utilize natural resources

### 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



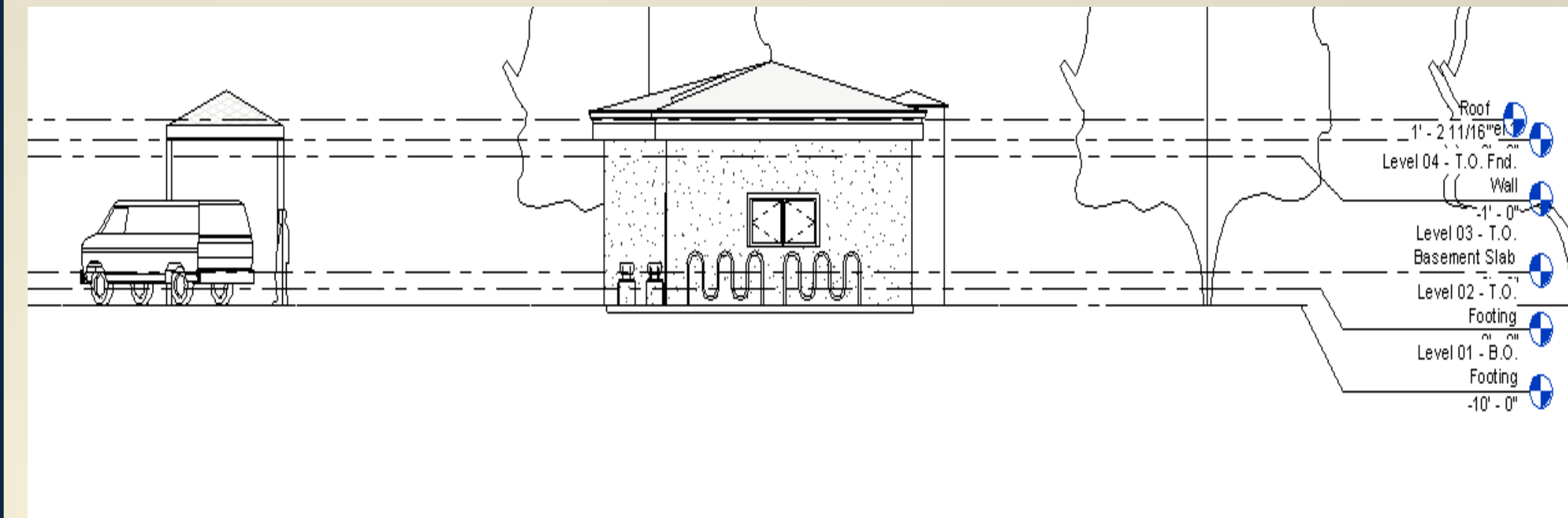
Topography Map

Village Huts

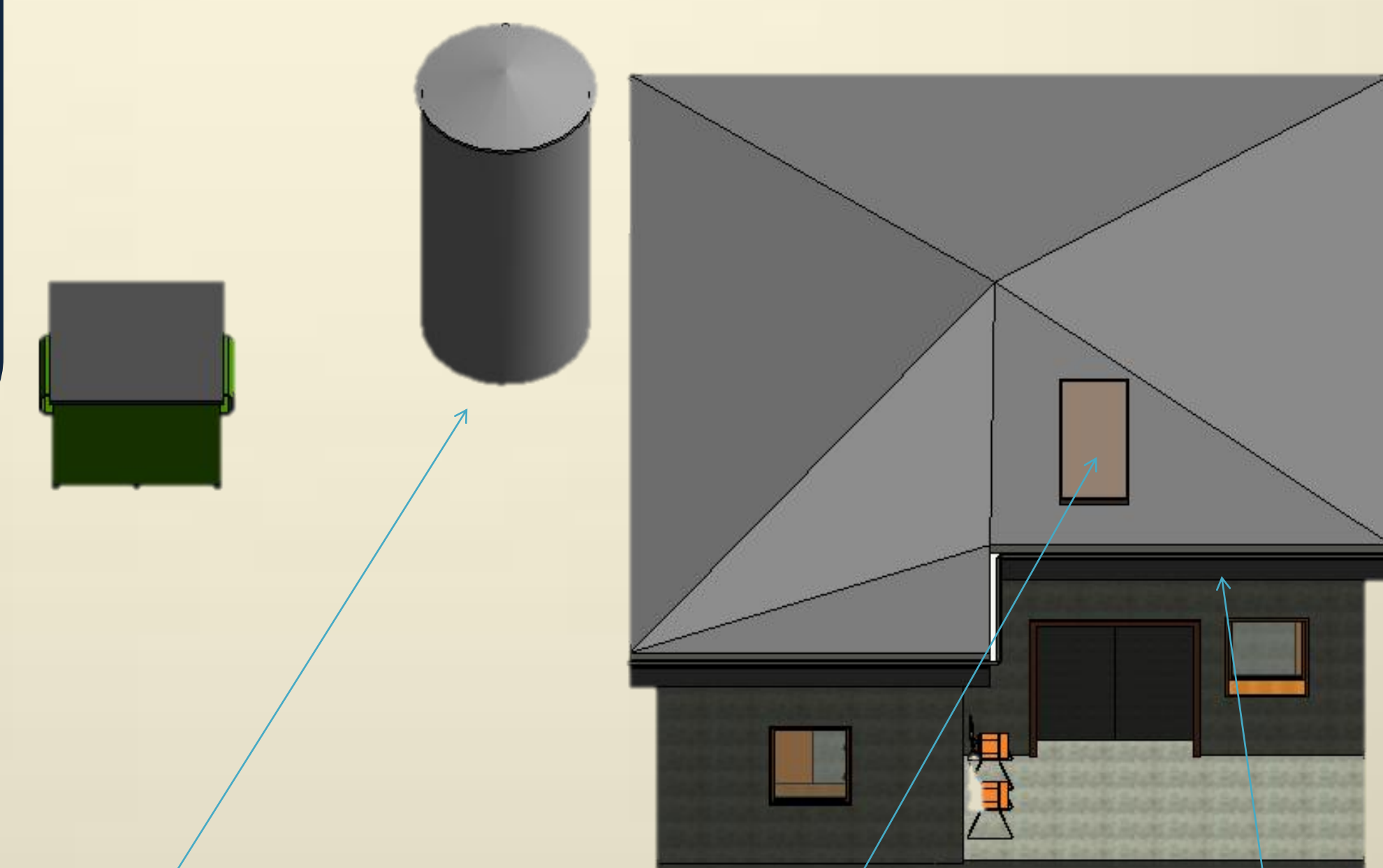


Aerial View

### East View With Elevations



### Site View Focusing on Treatment Center



## Design Specifications

### General Guidelines

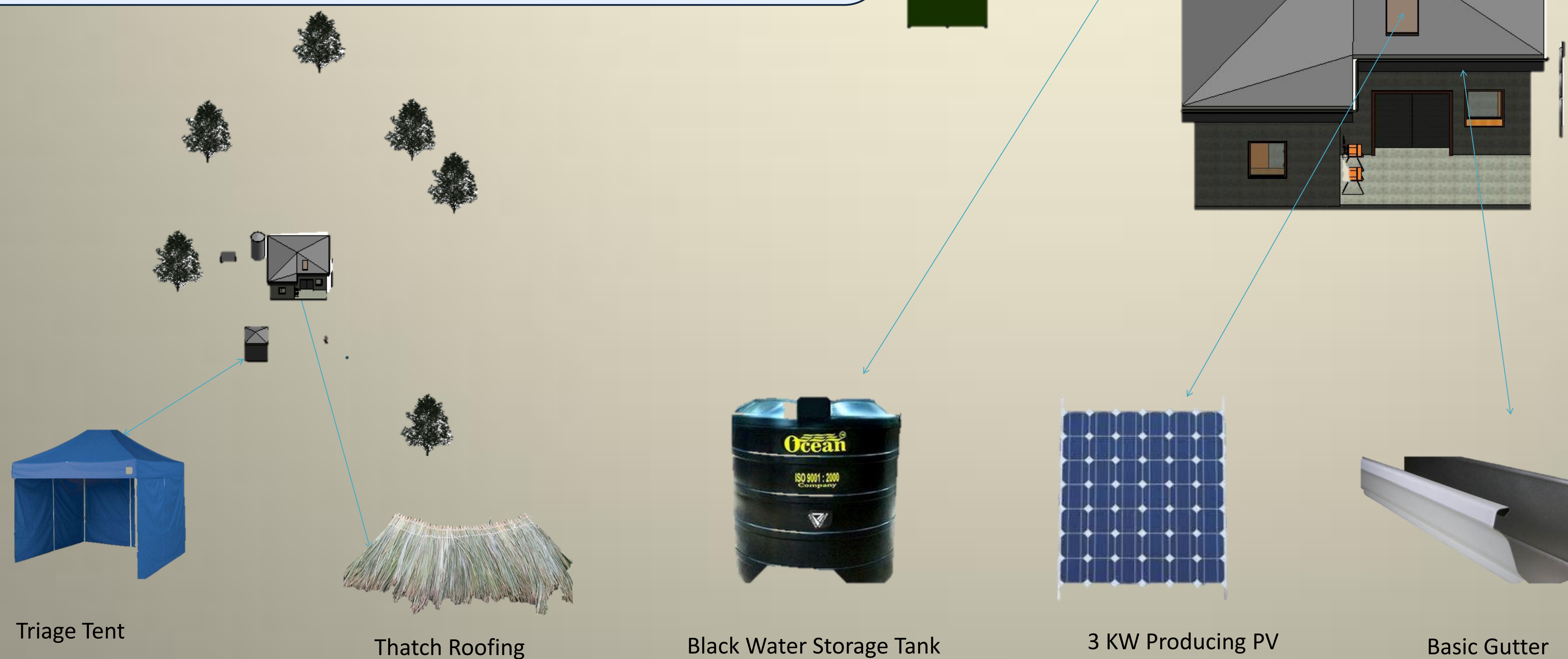
- Corrugated steel roofs lined with basic gutters
- Basic doors and windows that open to allow optimum ventilation
- Medical equipment suitable for basic primary care
- 3 Kilowatt photovoltaic system
- Limited use of resources: natural and man made
- Sinks accompanied by a drainage system

### 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

Andres Hartman, Eric Borkowicz, Luke Yanek



Triage Tent

Thatch Roofing

Black Water Storage Tank

3 KW Producing PV

Basic Gutter