INTERIOR FLOOR:
- 30 mm Loam mortar divided by 100 x 100 mm timber grid
- 90 mm Mineral lightweight loam
- 80 mm Rigid insulation board
- 150 mm Cast-in-place concrete

PUBLIC PAVEMENT CONSTRUCTION:
- Brick flooring
- Sand
- 250 mm Cast-in-place concrete
- 100 mm Gravel
- Bituminous layer

ROOF DETAIL:
- Concrete scupper

INTERIOR CEILING:
- 200 mm Cast-in-place concrete
- 200 mm Batt insulation between 200x30 mm wooden battens
- Vapor permeable membrane
- 25 mm Gypsum board

ROOF CONSTRUCTION:
- 30 mm Roofing membrane
- Waterproof layer
- 120 mm Rigid insulation board
- 200 mm Cast-in-place concrete

CEILING:
- 200 mm Cast-in-place concrete
- Metallic sheet
- Bituminous layer
- 600 mm Cast-in-place concrete plinth

EXTERIOR WALL CONSTRUCTION:
- 180 mm Cast-in-place concrete
- 80 mm Rigid insulation board
- 100 x 30 mm Timber battens
- 25 mm Gypsum board

STRUCTURAL WALL CONSTRUCTION:
- 600 mm Rammed Earth mixed with cement wall with 80 mm Rigid insulation board
- Metallic sheet
- Bituminous layer
- 600 mm Cast-in-place concrete plinth
OVERHANGS:
- Casablanca has a mediterranean climate in which solar heat gain should be prevented.
- the use of overhangs keeps the dwellings sheltered from the sun and reduces the solar heat gain.

SOLAR PANELS:
- Residents gain electricity from solar panels on the roof.

LOCAL MATERIALS
- preparation, transport and handling of local material reduces needed energy and limits environmental pollution.
- simple construction methods promotes local labour and generates work.

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STRUCTURAL DIAGRAMS
Apartments

CONSTRUCTION PRINCIPLE:
The building’s structural scheme is based on column and beam principles with some part supported by 60 cm cement mixed rammed earth walls. The apartments are lifted up one storey in order to give more space for public use which also continues up to the upper level of the apartments. An open-air gallery in the middle would create a compact and practical structure.

CONSTRUCTION PRINCIPLE:
The building’s structural scheme is based on the idea of structural tube. The continuous C-shape reinforced concrete superstructure would span across the sunken train tracks and landed on the roller bearings on one side and sliding bearings on the other side.

OVERALL CONSTRUCTION:
- C-shape reinforced concrete as a continuous structural tube with maximum width of 10 m. and 9 m. height.
- On the opposite side would be more open with double-glazed glass facade.

INSULATED LIVING ZONES:
- the living zones are all insulated separately from the structure to provide the right indoor climate in Casablanca’s hot and cold days.

CROSS VENTILATION:
- all dwellings have double orientation and thus can make perfect use of natural cross ventilation to ventilate the spaces.

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