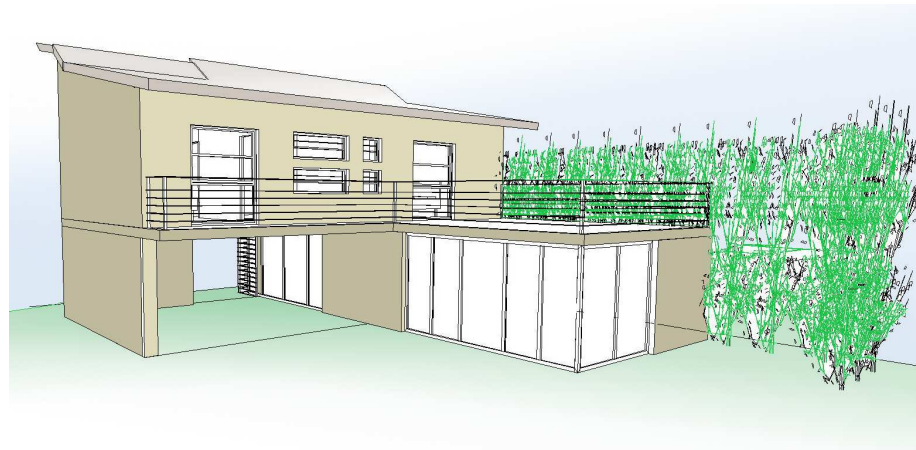
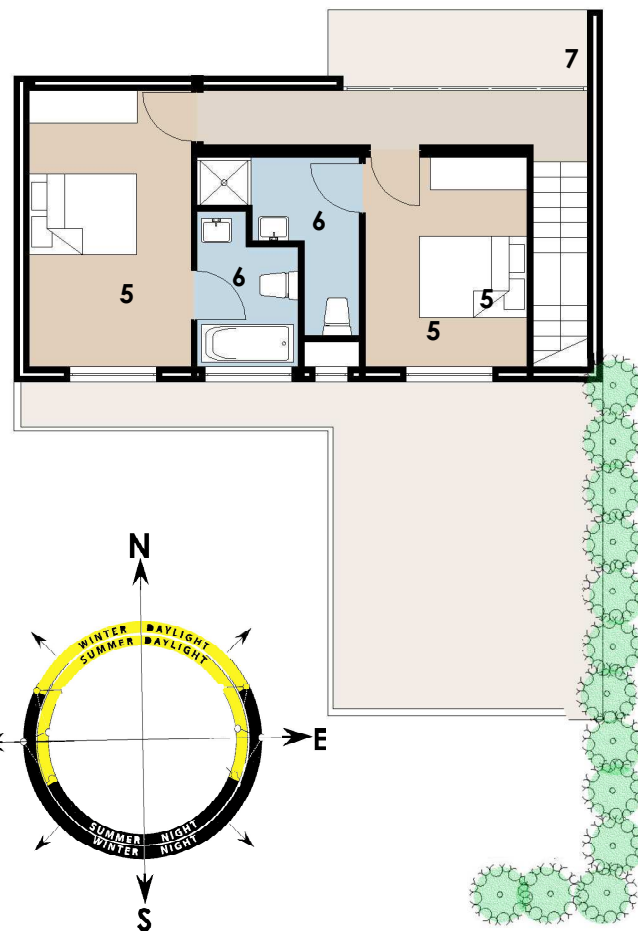


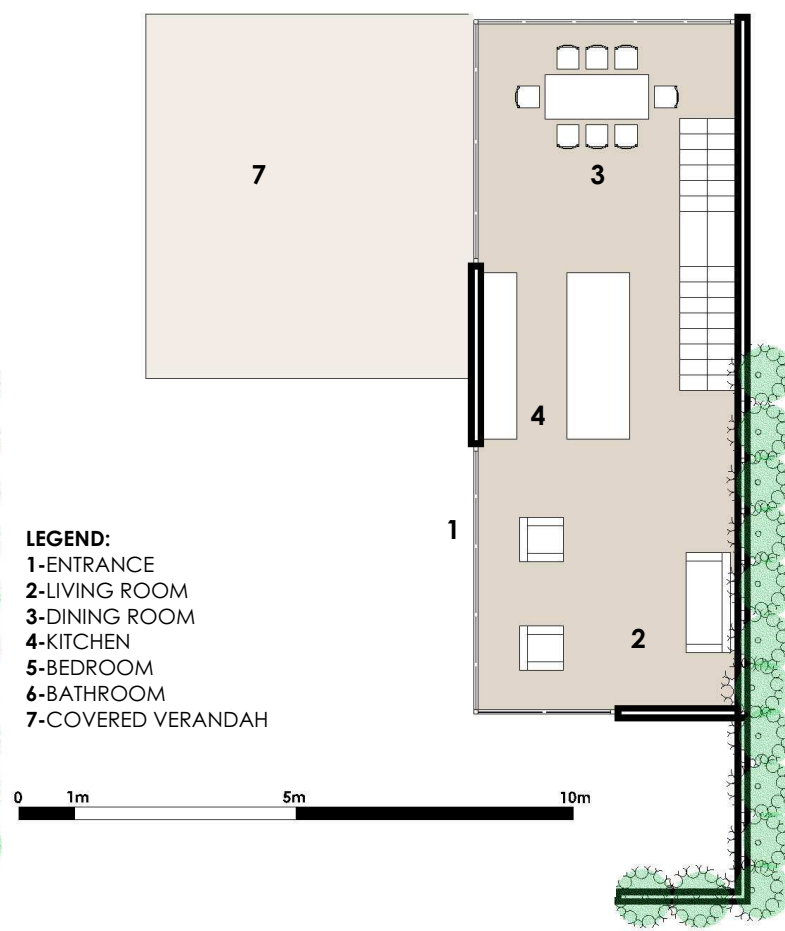
NORTH PERSPECTIVE



SOUTH PERSPECTIVE



SKETCH FIRST FLOOR PLAN



SKETCH GROUND FLOOR PLAN

**LEGEND:**  
1-ENTRANCE  
2-LIVING ROOM  
3-DINING ROOM  
4-KITCHEN  
5-BEDROOM  
6-BATHROOM  
7-COVERED VERANDAH

0 1m 5m 10m

## CLIMATIC ZONE 4: TEMPERATE COASTAL

Cape Town; Port Elizabeth

Data referenced  
HOLM Mediterranean; Garden Route  
NAPIER Mediterranean; Temperate Coast  
VAN LINGEN Temperate Zone

### CLIMATE = DESIGN PRINCIPLES

•**HUMIDITY** : Low in summer in mediterranean zone ; moderate to high humidity in winter = alleviated by heating

•**RAIN**: High rainfall in winter = protect entrances and walls and drainage of rainwater away from building imperative

•**EQ window** = 21% of floor area or 14% for double glazing

•**TEMPERATURES**: Cold winters = thermal mass effective- cavity walls effective for both cold and damp winters;

•**Sun** captured to dry out structure due to damp and rain

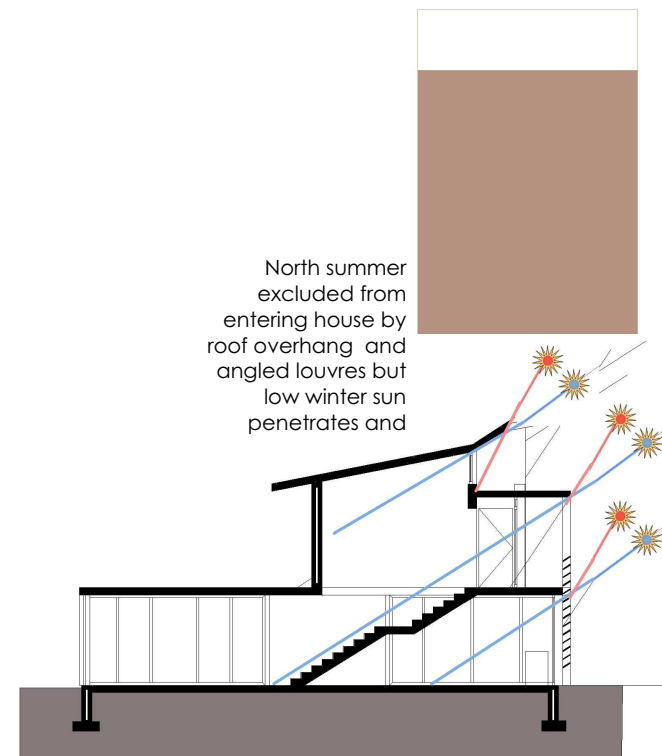
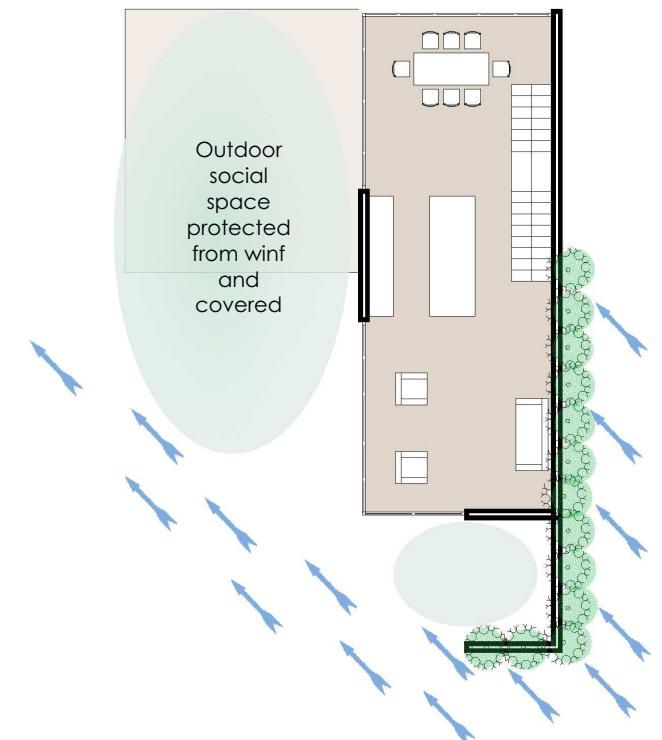
•**WIND**: Summer = SE and Winter= NW predominantly; Protection from often gale force winds required for external social spaces; Summer night ventilation effective for cooling

•**LANDSCAPING**: Existing vegetation is profuse due to higher rainfall. Planted screens ideal to screen winds as dissipate wind rather than causing wind tunnel effects

### DESIGN APPLICATION

The primary need in this region, especially in the Mediterranean zone (around Cape Town) is to screen from prevailing winds. The house is designed with a green planted wall/ screen on the western side which dissipates the SE often gale force winds and creates a sheltered external space off the living area. This area is covered by the bedroom block above thereby providing a relatively rain and wind proof external social space.

Being along the coast with views of the ocean often to the south also creates a dilemma as the house faces south but requires north facing EQ windows for winter warming. Thus the roof is designed to open up clerestory EQ windows to the north and shade the south facing view windows. These south windows need to be closed in winter at night with insulating blinds, curtains or shutters to prevent heat loss.



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