

Arch 463
ECS
Fall 2017

Name _____

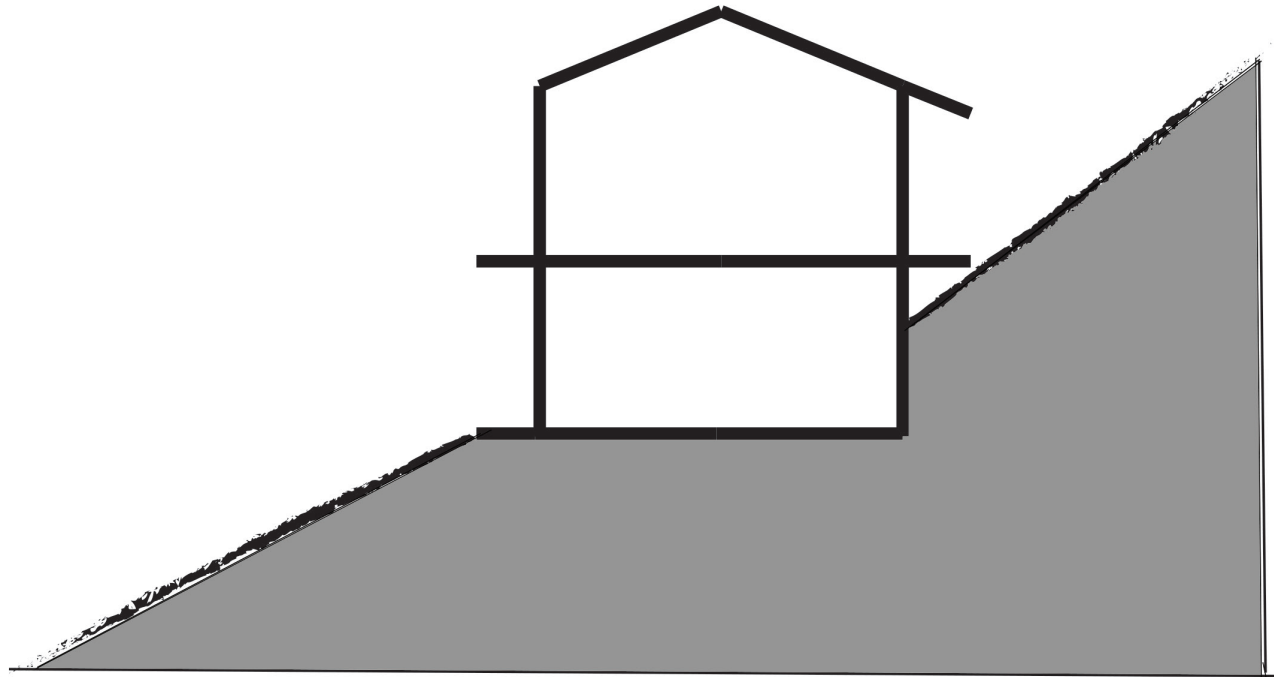
Quiz #1

"Is Albuquerque Quirky, Climatically?"

For this problem you are the site and climate consultant for a soon-to-be new home owner. The home will be sited on a south-facing hillside in Albuquerque, NM.

Climate Context. Annual Temperature Range and summer and winter wind wheels are given in this quiz.

Modular Design. The two-story home will be rectilinear with an upper porch on the north side and a lower porch on the south side. A horizontal shading device extends above each porch.

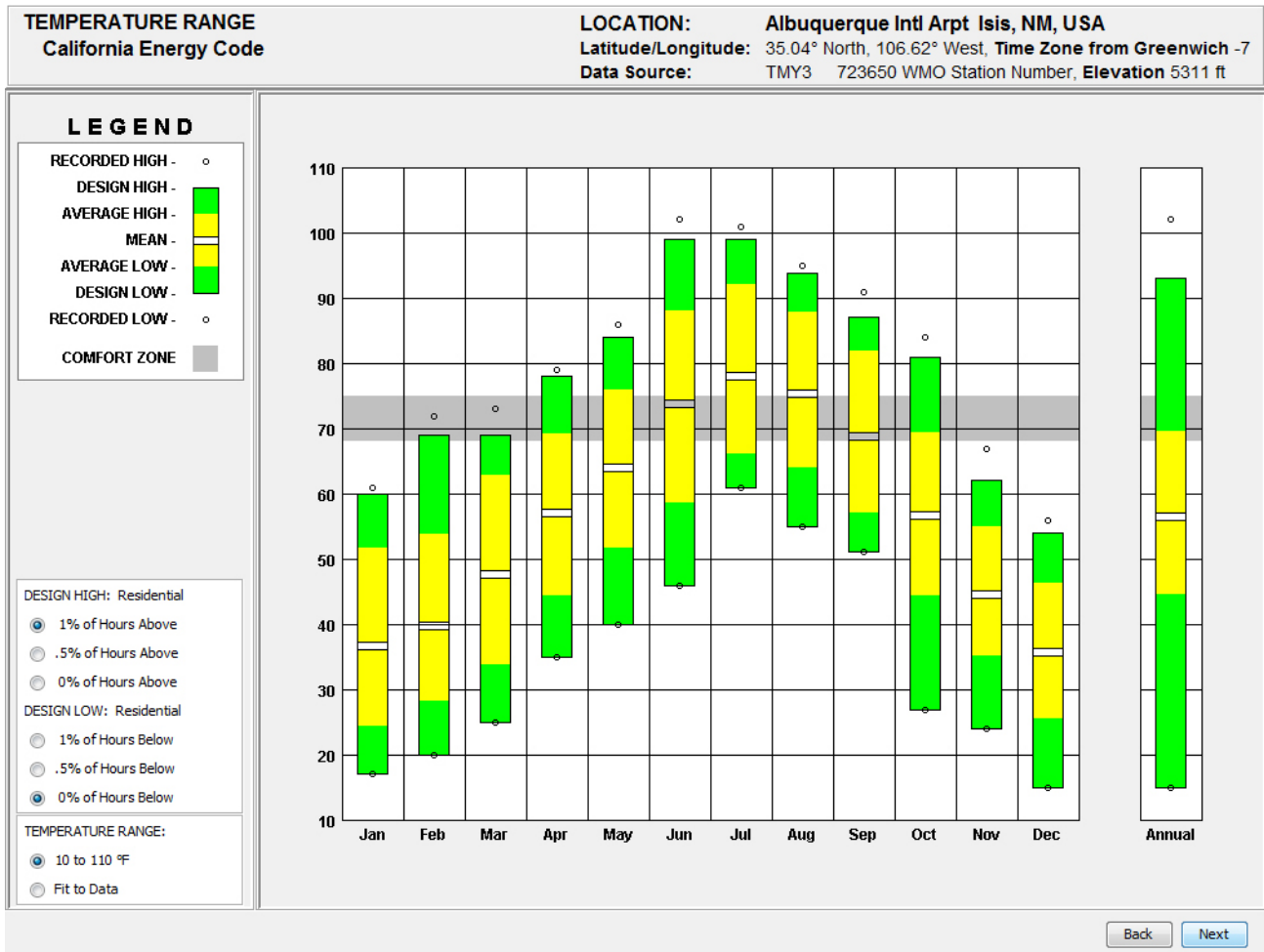


Homeowner's Goal. The home owner wants advice on siting his home on the sloped lot and which porch to occupy in comfort and how it may be modified to enhance comfort during the crucial summer and winter months.

4 points

Analysis

1. This is the temperature range chart for Albuquerque, New Mexico. On the chart indicate which months comprise each season and explain why below.



Winter Months:

Spring Months:

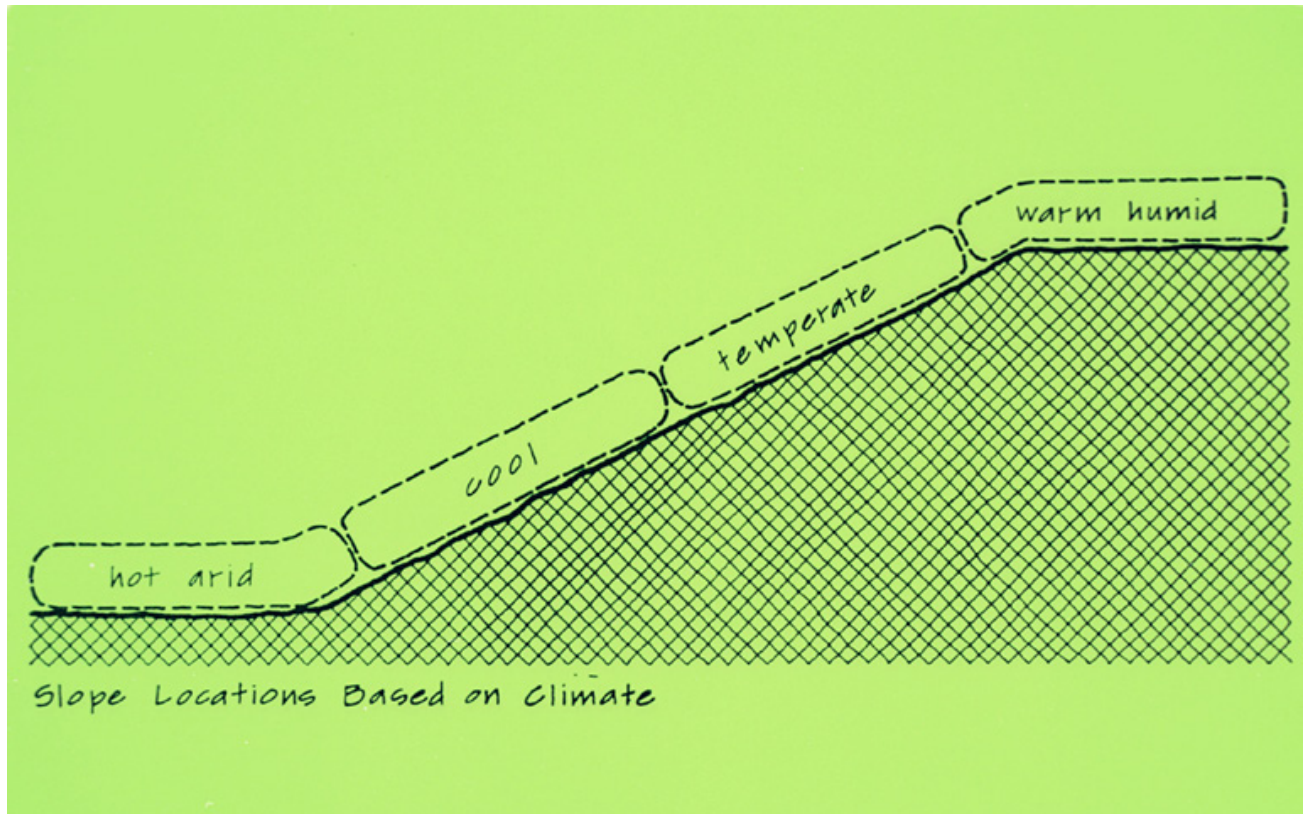
Summer Months:

Autumn Months:

2 points

Seasonal Migration Strategy

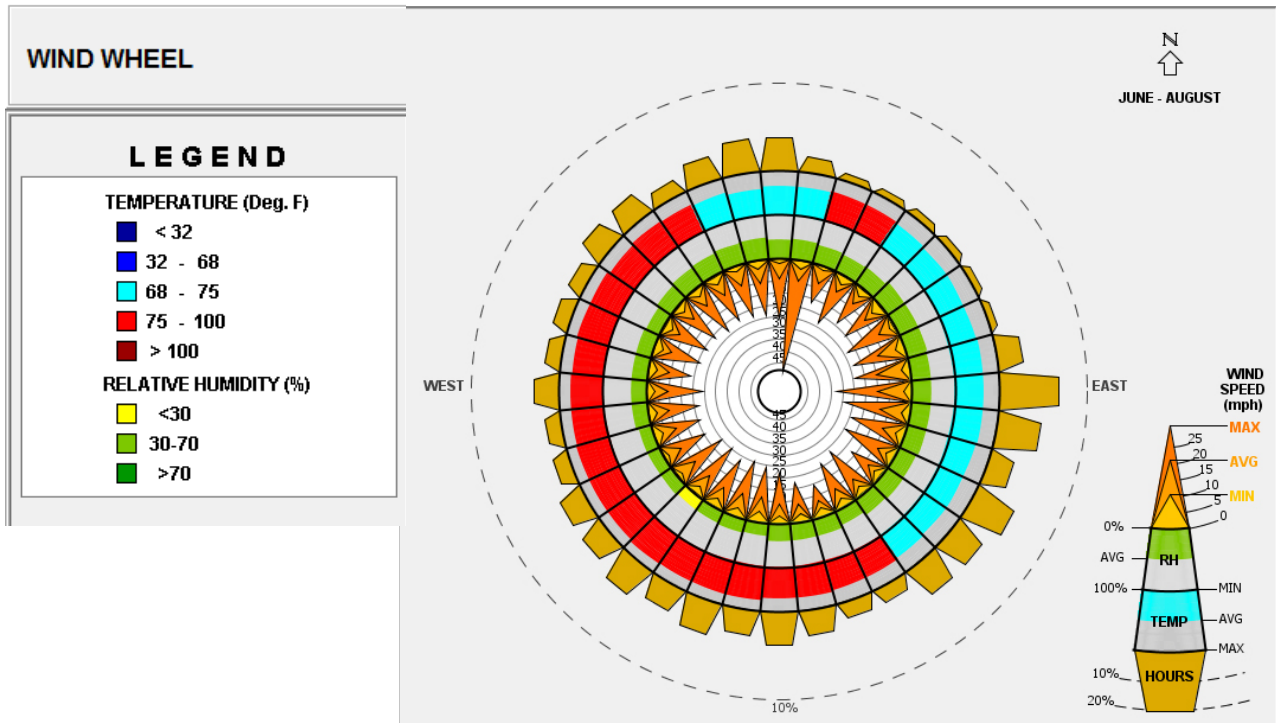
2. Indicate on the site section below by sketching the house and porches where to place the house. Give the climatic and microclimatic reasons for why you have chosen the building location.



2 points

Summer Porch Strategy

3. Sketch a design for the summer porch (north or south?) to occupy in comfort in the summer. You may add **one** architectural barrier, filter, or swith. **Explain** your design and why the new architectural feature makes it ideal for summer occupancy.



2 points

Winter Porch Strategy

4. Sketch a design for the winter porch (north or south?) to occupy in comfort in the winter. You may add **one** architectural barrier, filter, or swith. **Explain** your design and why the new architectural feature makes it ideal for winter occupancy.

