



# Residential Landscape Design Part 1: Inventory & Analysis

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# Hello!



# Today's goal



Chanticleer Gardens, PA

- ▶ Learn about sustainable residential landscape design
  - ▶ Preparation
    - ▶ Getting to know the site
  - ▶ Designing
    - ▶ Basic design guidelines

# Two part presentation

## Part 1: Site inventory & analysis

- ▶ Importance
- ▶ Elements to note:
  - ▶ Environmental conditions
  - ▶ The built environment
  - ▶ Other assessments
- ▶ How to record

## Part 2: The design process

- ▶ General considerations
  - ▶ Siting on the land
  - ▶ Seasons of interest
- ▶ Complementing the house
  - ▶ Creating a setting with design principles
  - ▶ Using the architecture as a basis
- ▶ Landscape design guidance
  - ▶ Formal or informal
  - ▶ Entryway – guiding the way in
  - ▶ General planting bed design

# Part 1: Inventory & analysis

UNDERSTANDING YOUR SITE

# Why inventory & analysis?

- ▶ DETERMINE A SITES POTENTIAL **and/or** CONSTRAINTS
  - ▶ Improved function of the proposed land use
  - ▶ Greater convenience for the site's users
  - ▶ **Enhanced aesthetics**
  - ▶ **Fewer negative environmental impacts**
  - ▶ **Reduced construction, operation and maintenance costs**





# Environmental Conditions

IMPORTANT IN PLANT  
SELECTION



# Site environmental conditions

- ▶ Solar orientation
- ▶ Prevailing winds
- ▶ Soils
- ▶ Slopes / topography
- ▶ Climate
- ▶ Existing plants
- ▶ Water features



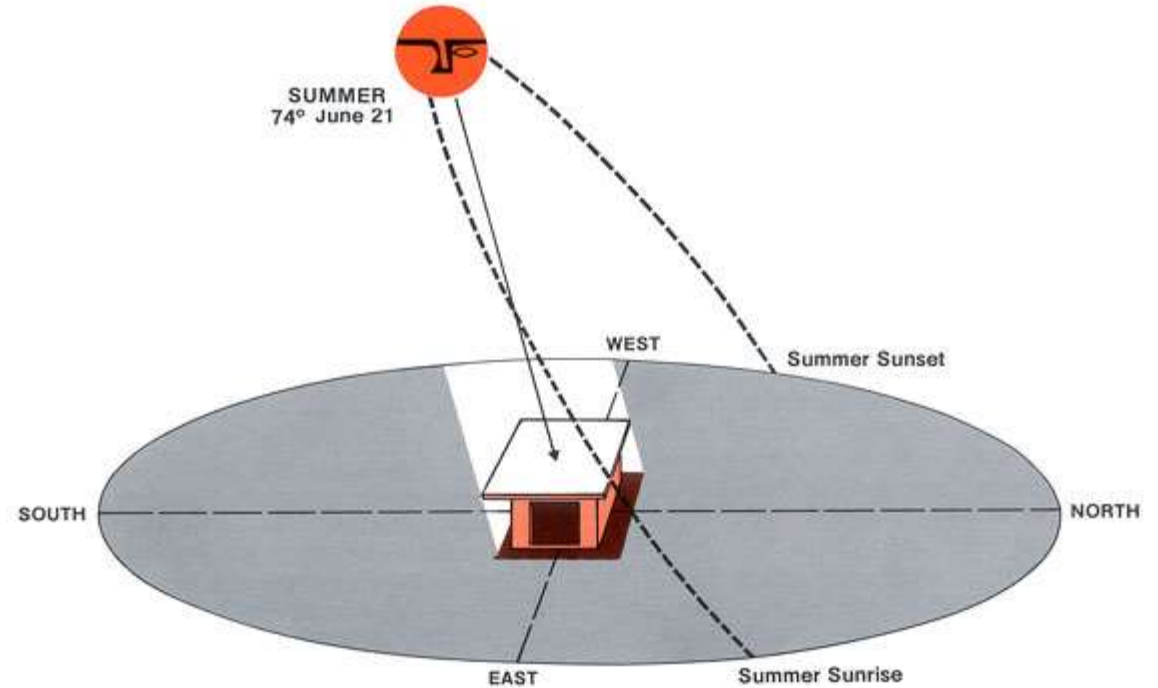
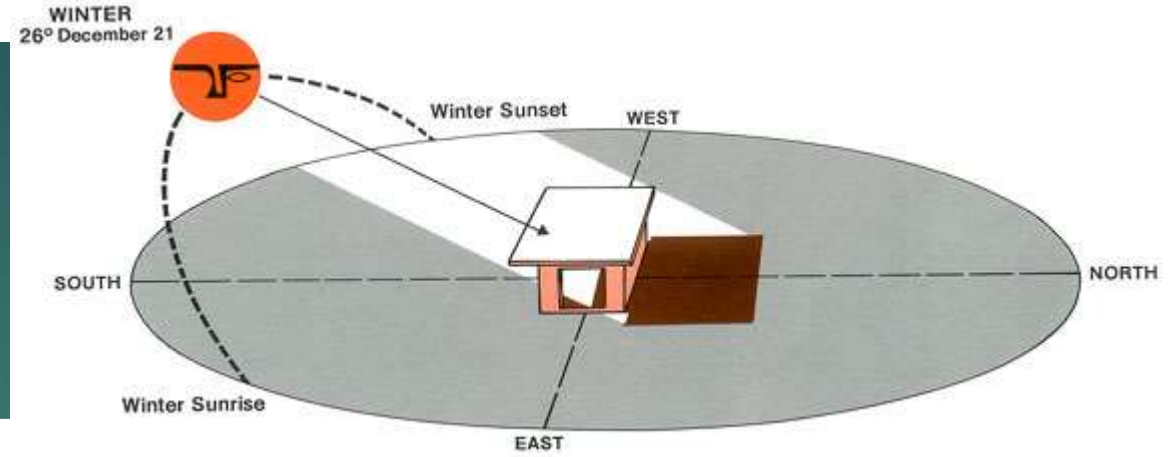
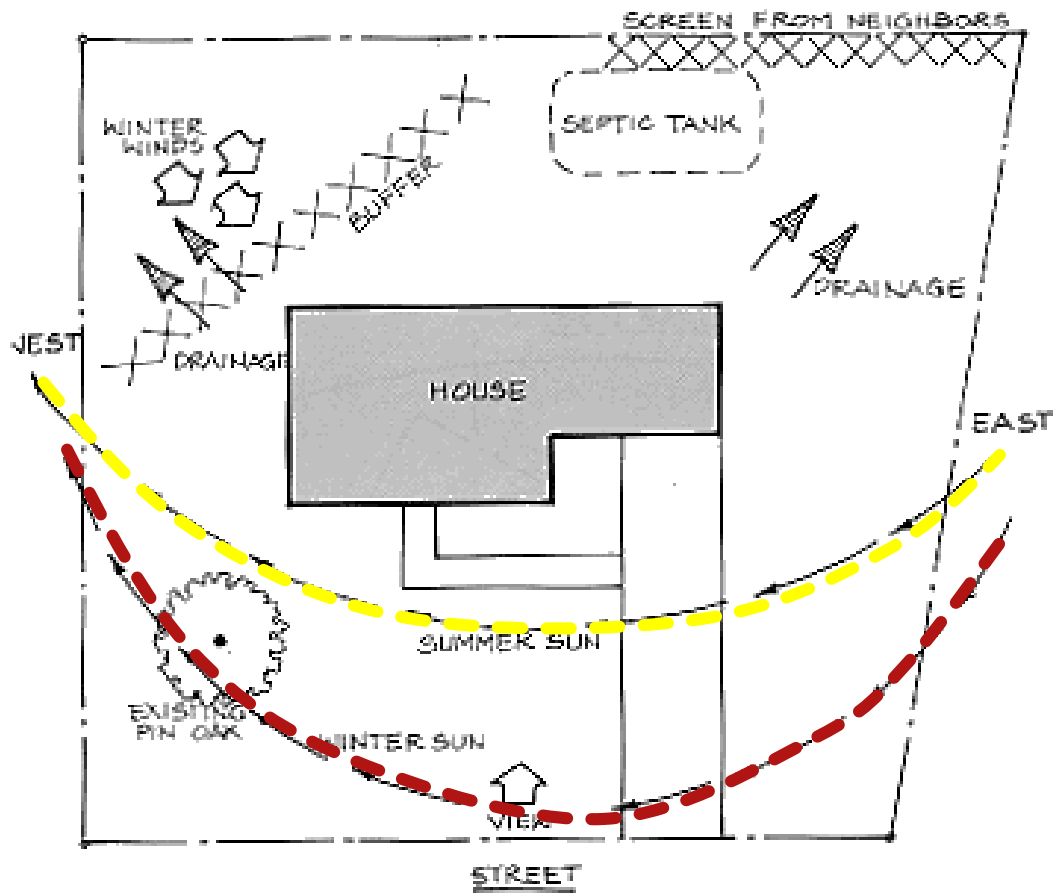
# Basis for plant selection:

- ▶ Healthier plants
  - ▶ Fewer pests
  - ▶ Greater productivity
- ▶ Lower inputs
  - ▶ Less pesticides
  - ▶ Less labor



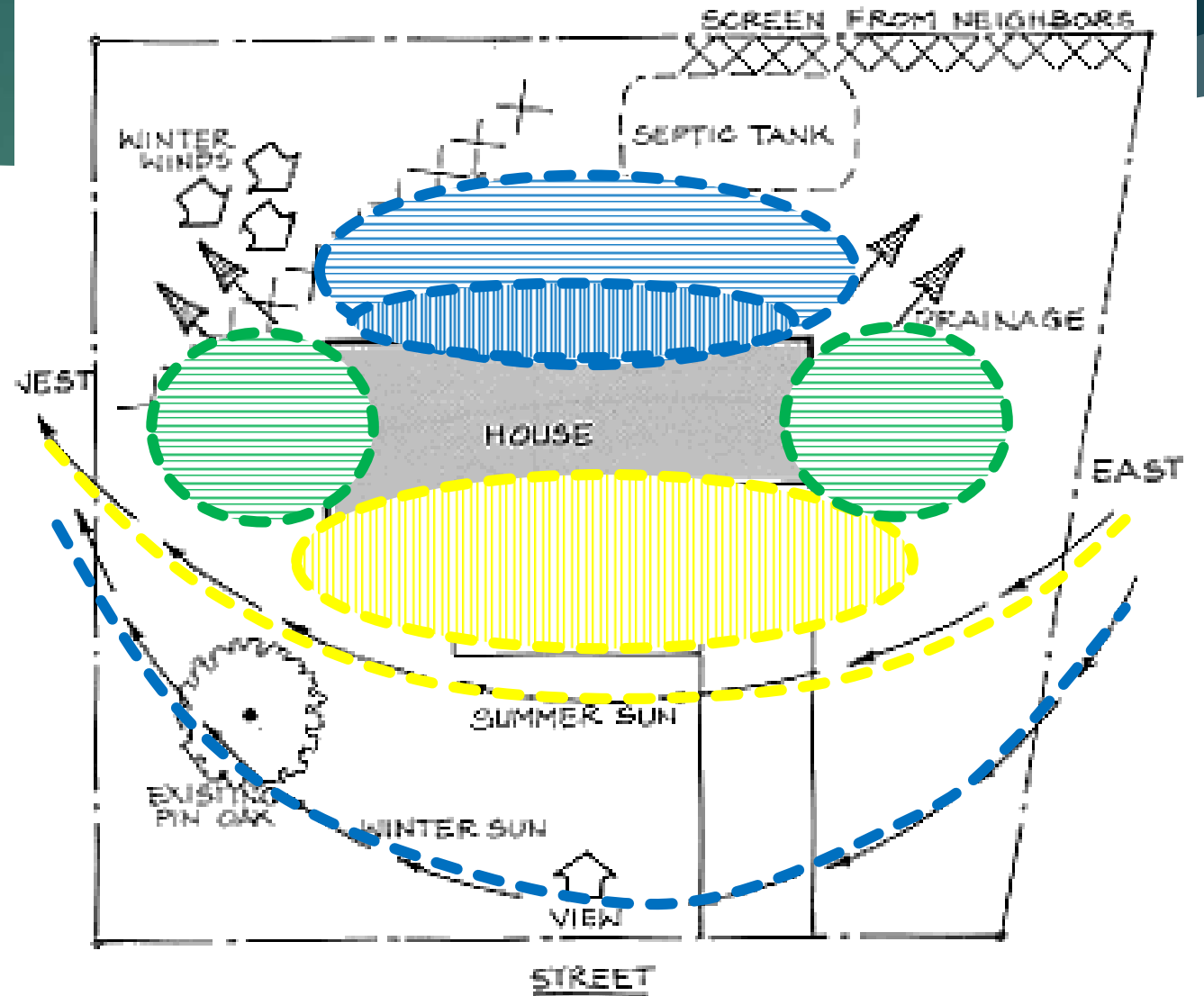
*Sustainable  
Practices*

# Solar Orientation



# Plant light requirements: seasonal changes

- ▶ Sun
- ▶ Part sun
- ▶ Shade

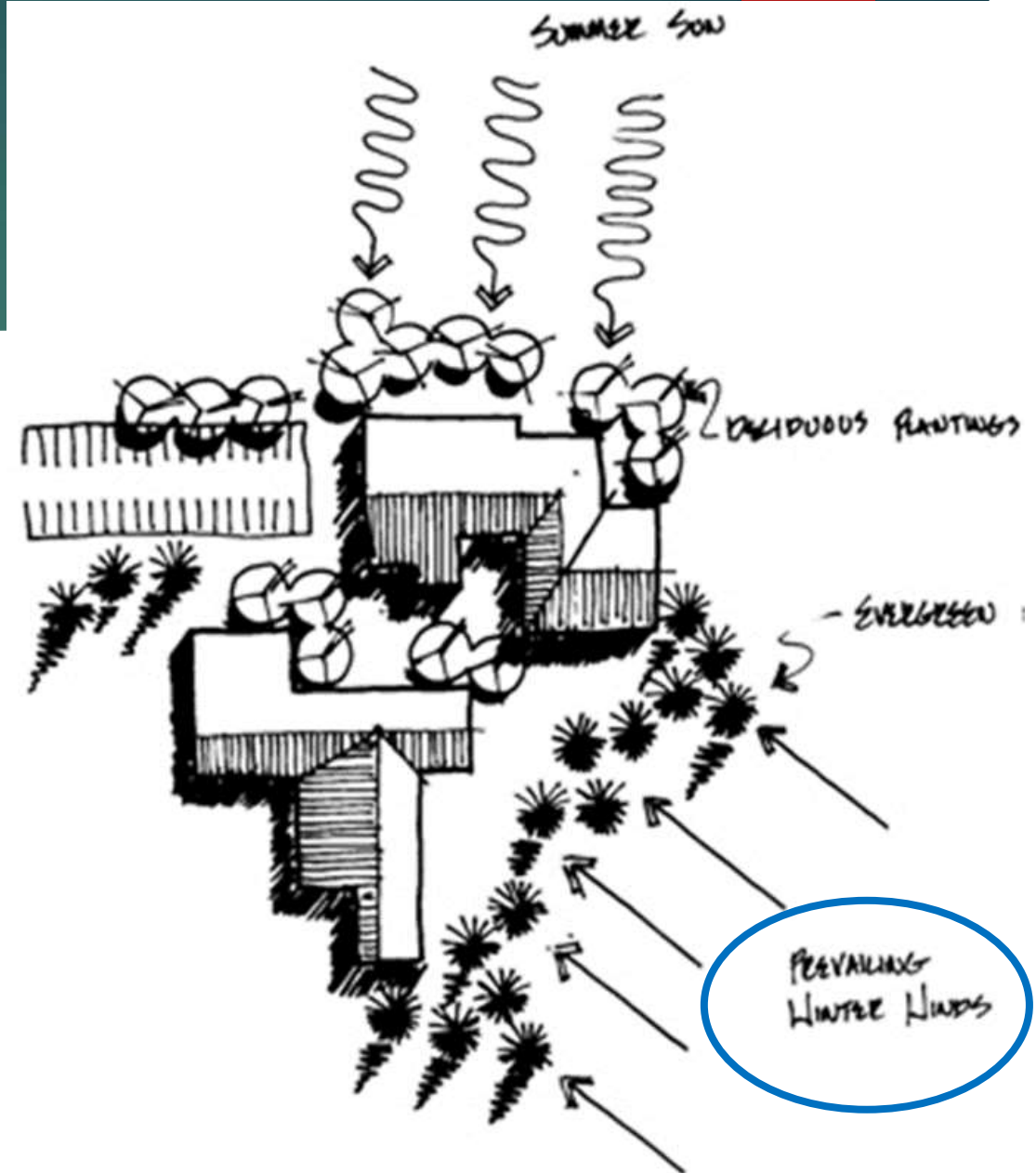


# Prevailing wind patterns

▶ Summer breezes

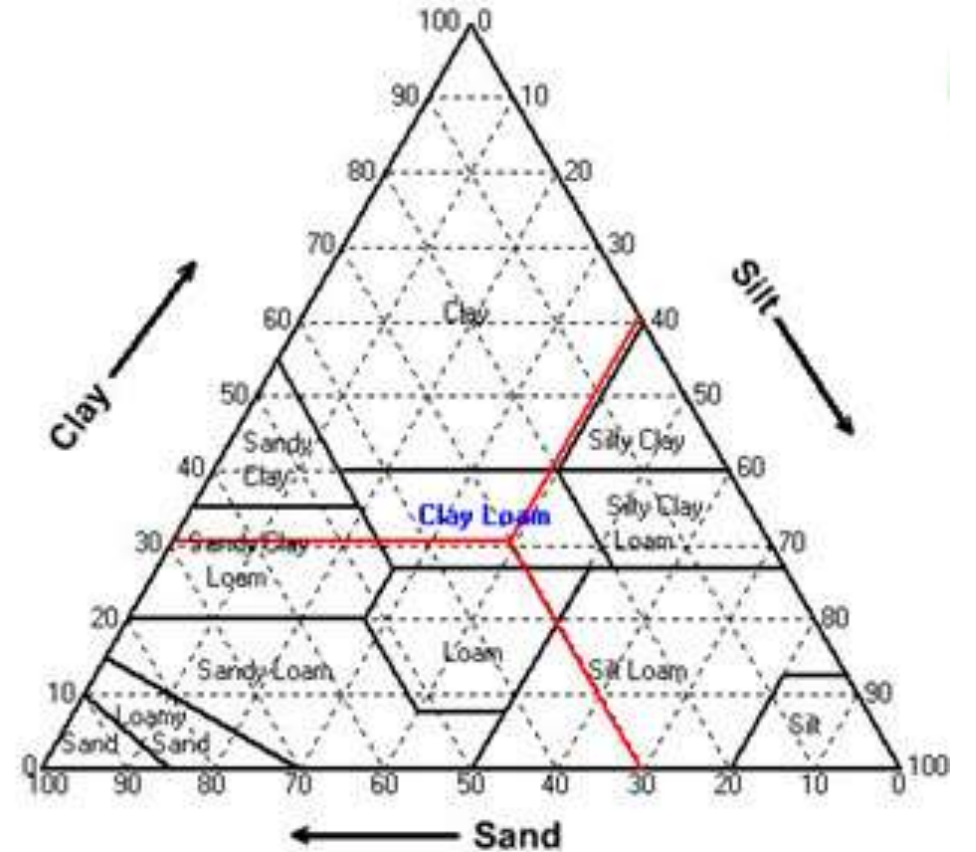
OR

▶ Winter winds

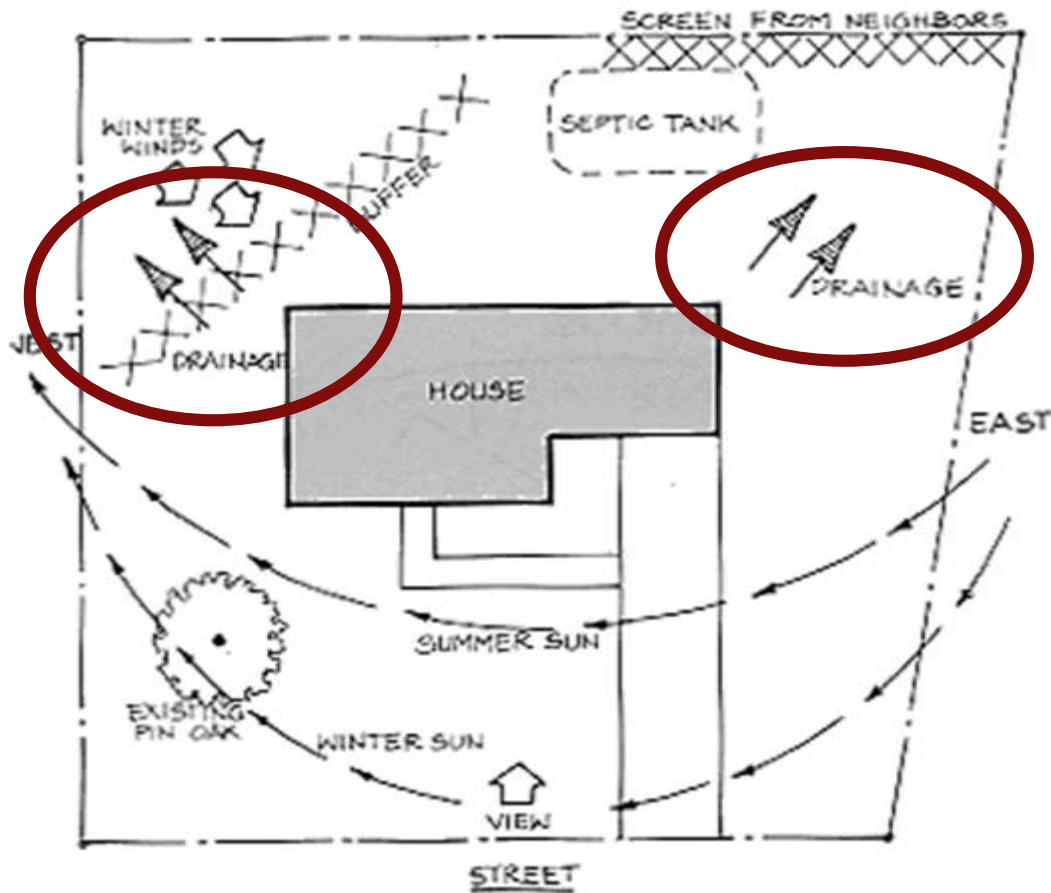


# Soil

- ▶ Soil types
  - ▶ Structure & drainage
  - ▶ pH



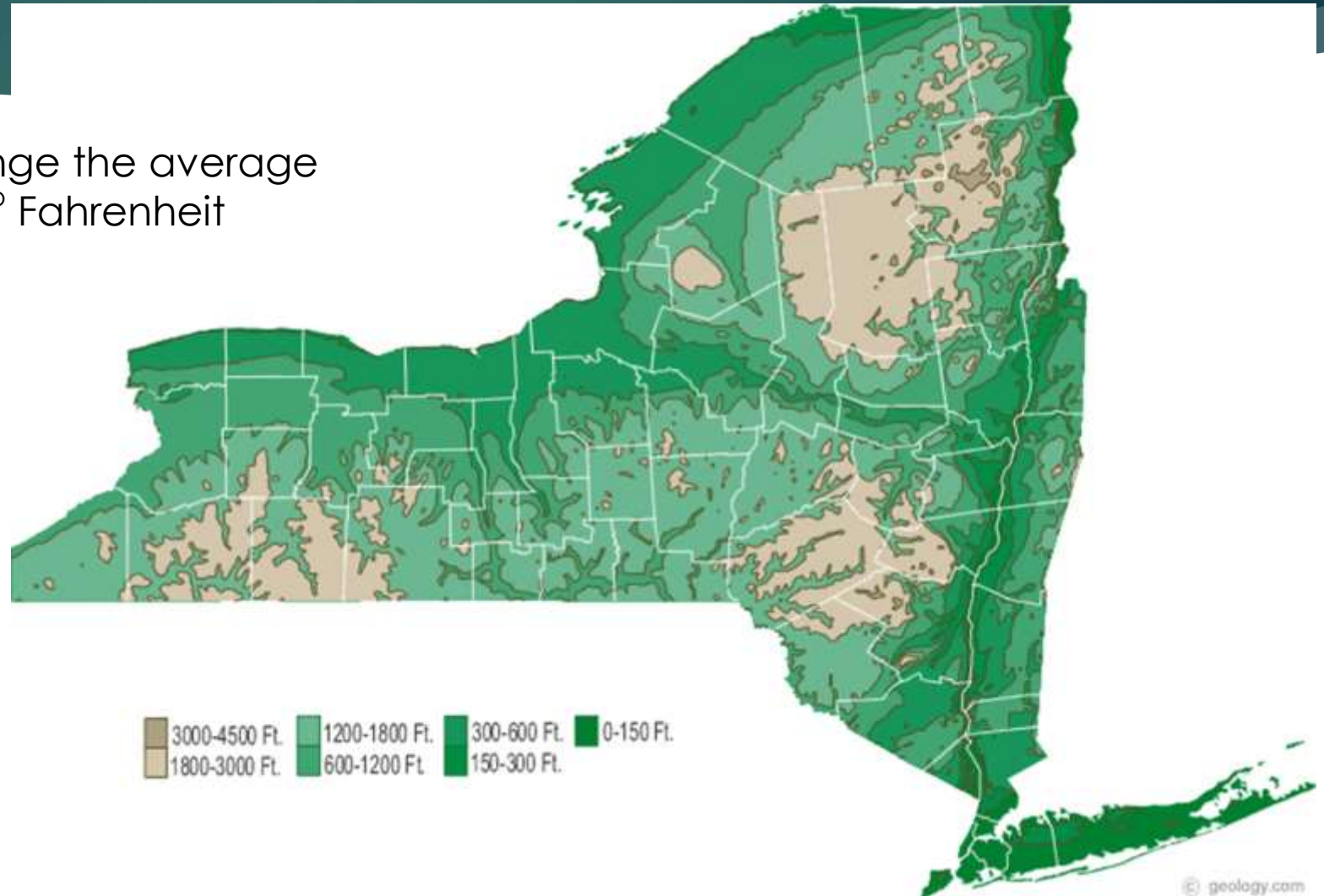
# Slopes/topography



- ▶ Standing water / poor drainage
- ▶ Excess of 10%
- ▶ Greater than 25%

# Topography / Elevation

For every 300' elevation change the average Temperature decreases by 1° Fahrenheit

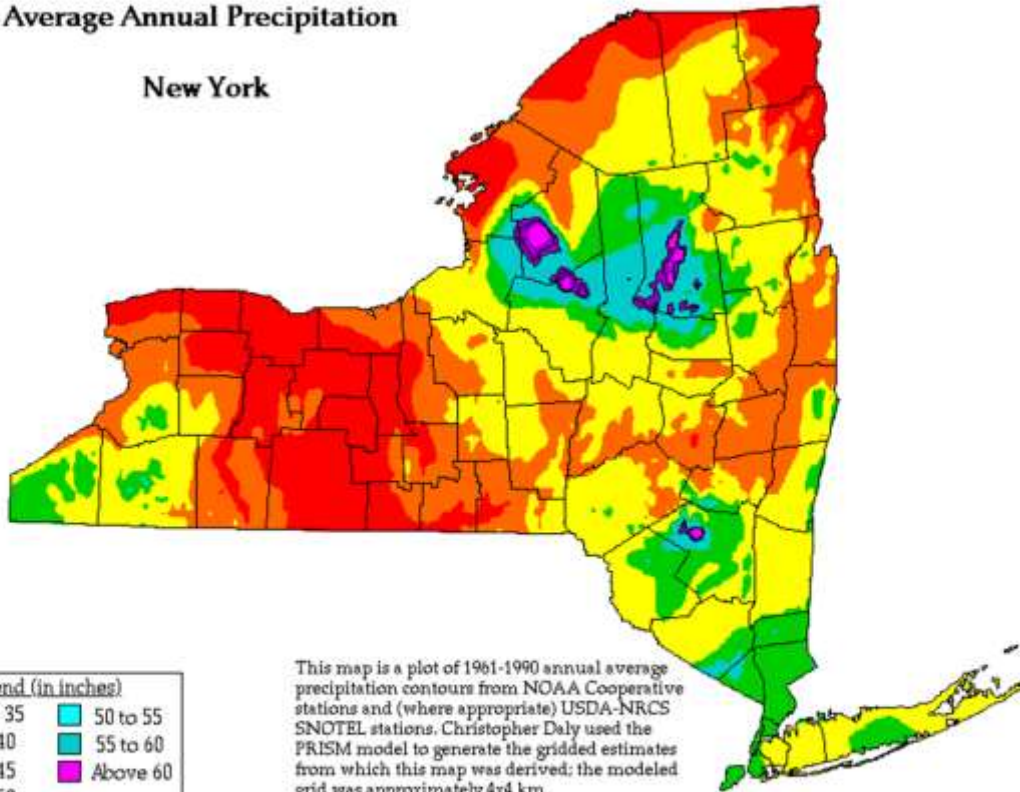




# Climate

## Average Annual Precipitation

### New York



Legend (in inches)

Under 35	50 to 55
35 to 40	55 to 60
40 to 45	Above 60
45 to 50	

Period: 1961-1990

This map is a plot of 1961-1990 annual average precipitation contours from NOAA Cooperative stations and (where appropriate) USDA-NRCS SNOTEL stations. Christopher Daly used the PRISM model to generate the gridded estimates from which this map was derived; the modeled grid was approximately 4x4 km latitude/longitude, and was resampled to 2x2 km using a Gaussian filter. Mapping was performed by Jenny Weisburg. Funding was provided by USDA-NRCS National Water and Climate Center.

- ▶ Plant hardiness zone
- ▶ Precipitation amounts
- ▶ Microclimates

# Existing plants



- ▶ State of health
- ▶ Size
- ▶ Varieties
- ▶ What can plants tell us?

# Water features

- ▶ Bodies of water
- ▶ Water runoff / drainage
- ▶ Other...



# The built environment

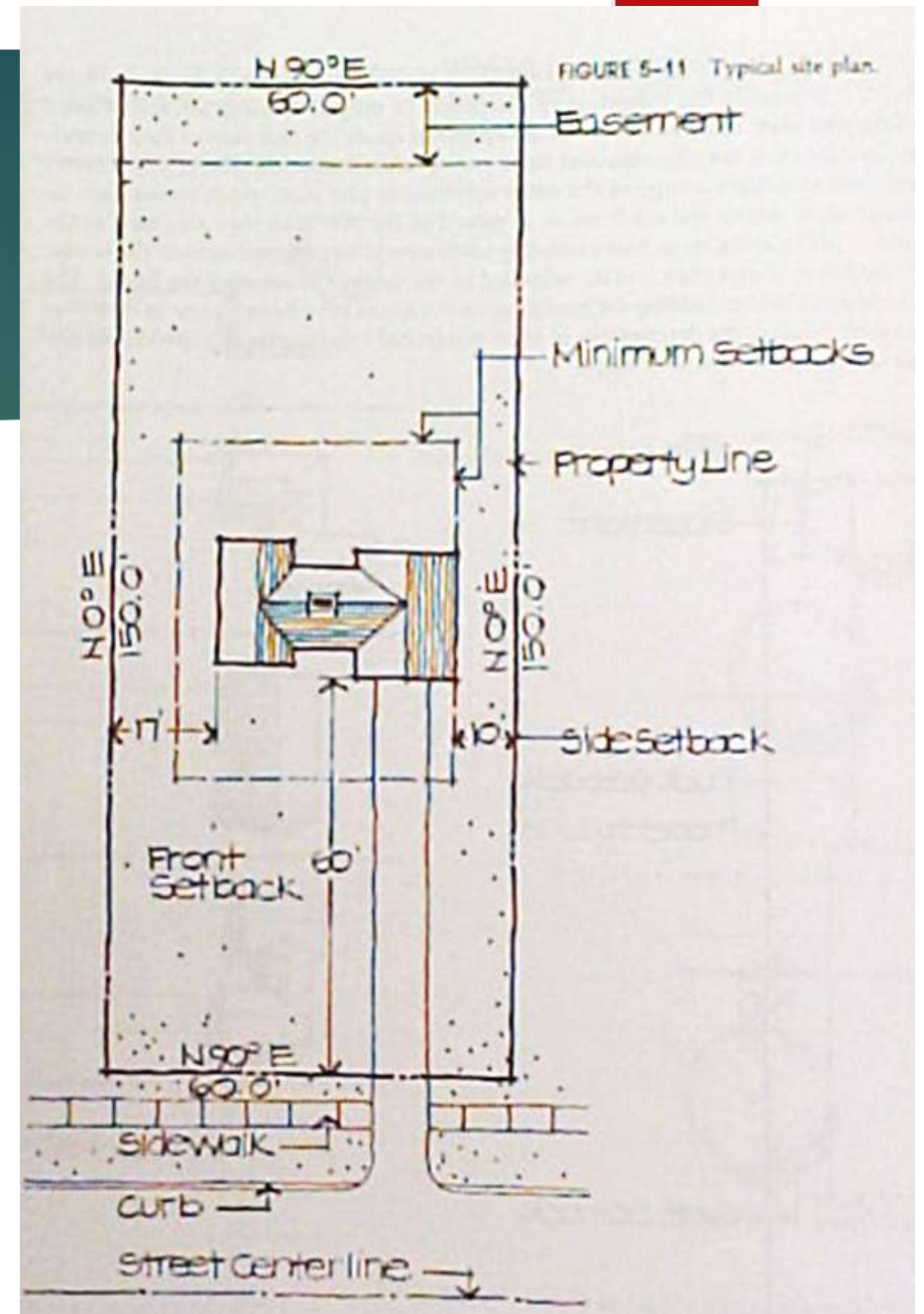
PHYSICAL ATTRIBUTES

# The built environment: visual conditions

- ▶ Architectural style of house and neighborhood
  - ▶ Existing building style
  - ▶ Context within the existing neighborhood
  - ▶ Local landscape styles

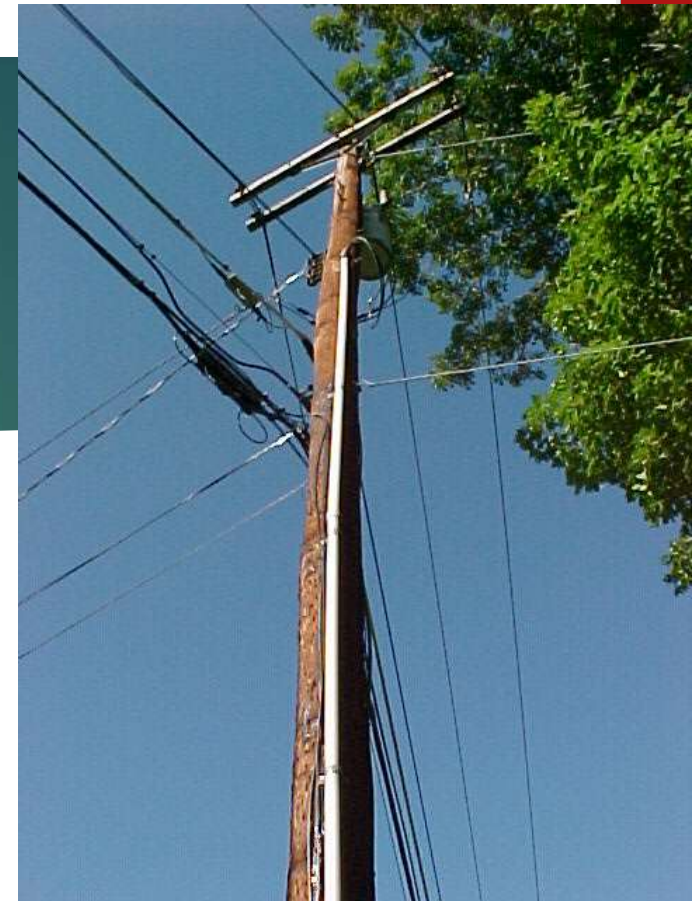


# The built environment: legal boundaries



# Existing conditions

- ▶ Utilities
  - ▶ Overhead
  - ▶ Underground
- ▶ Pavements
  - ▶ Types
  - ▶ Condition



# Other items to inventory:

- ▶ Important views *on and off* property
- ▶ Specialty gardens
  - ▶ Water gardens
  - ▶ Vegetable garden
- ▶ Maintenance Issues





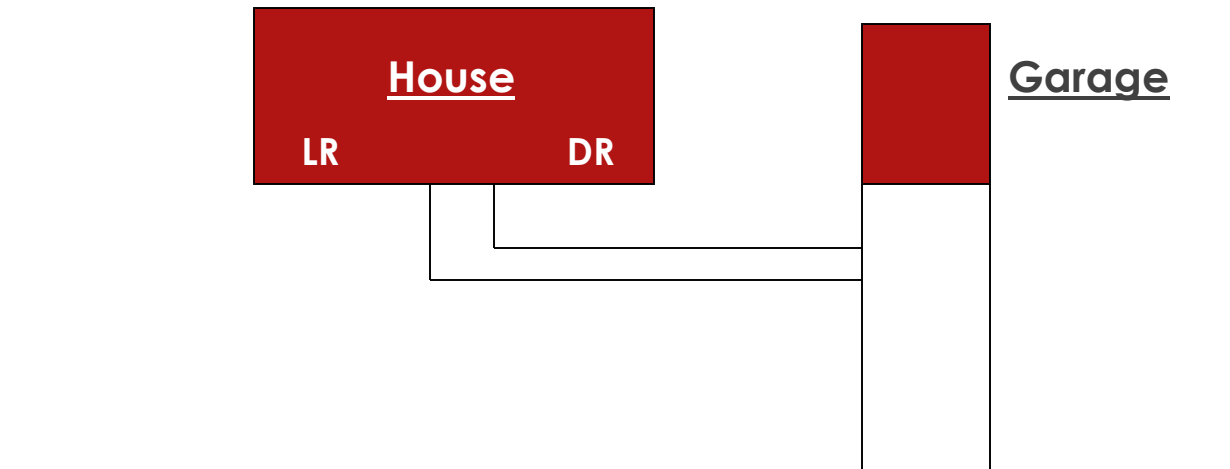
# Client needs / preferences:

- ▶ Foundation plantings
- ▶ Screen plantings
- ▶ Vegetable and/or flower gardens
- ▶ Color preferences or dislikes
- ▶ Plant preferences or dislikes



# Interior – exterior spaces:

- ▶ Identify interior spaces of house, i.e. family room or dining room, etc.
  - ▶ Create views OR provide privacy OR add shade

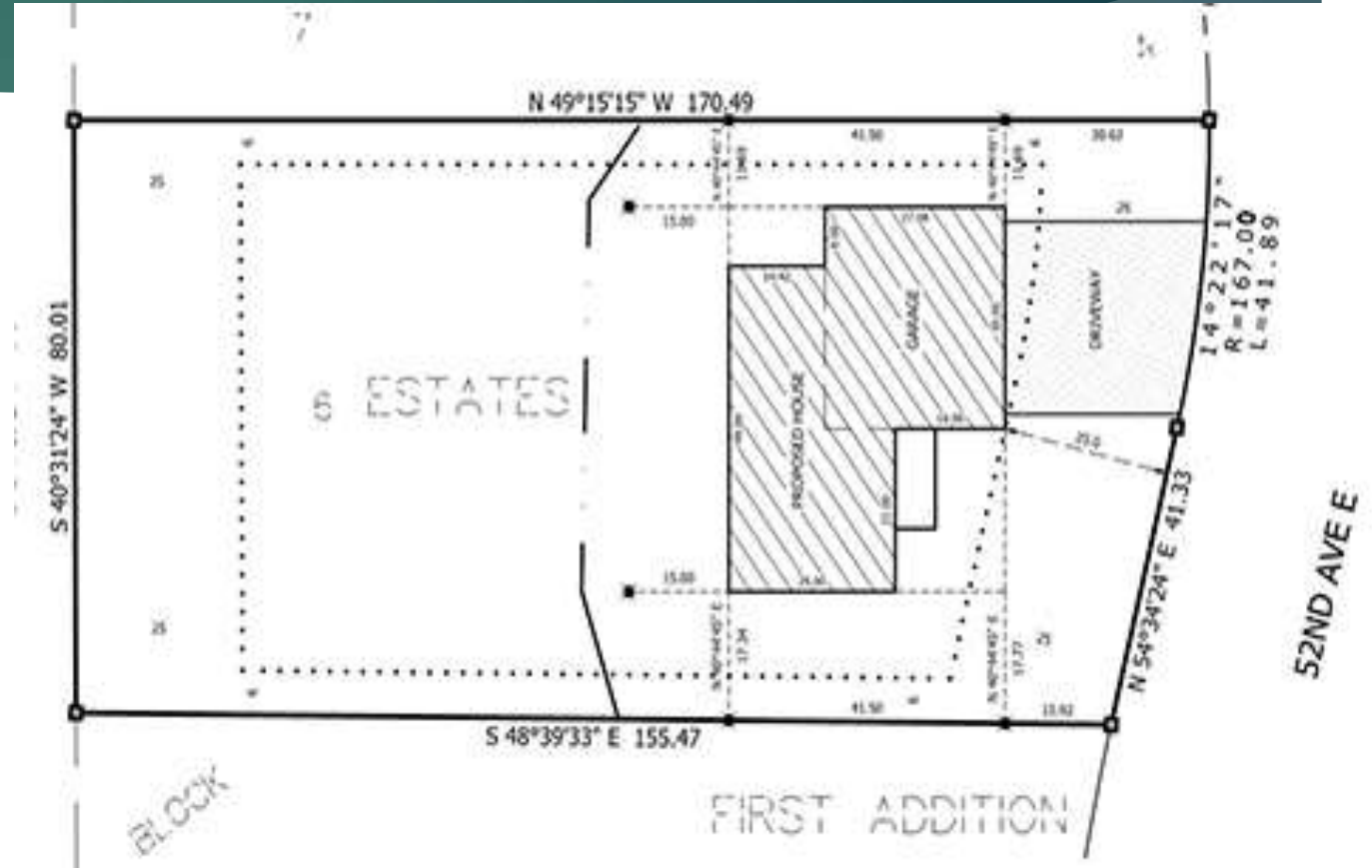


# Inventory & Analysis Plan

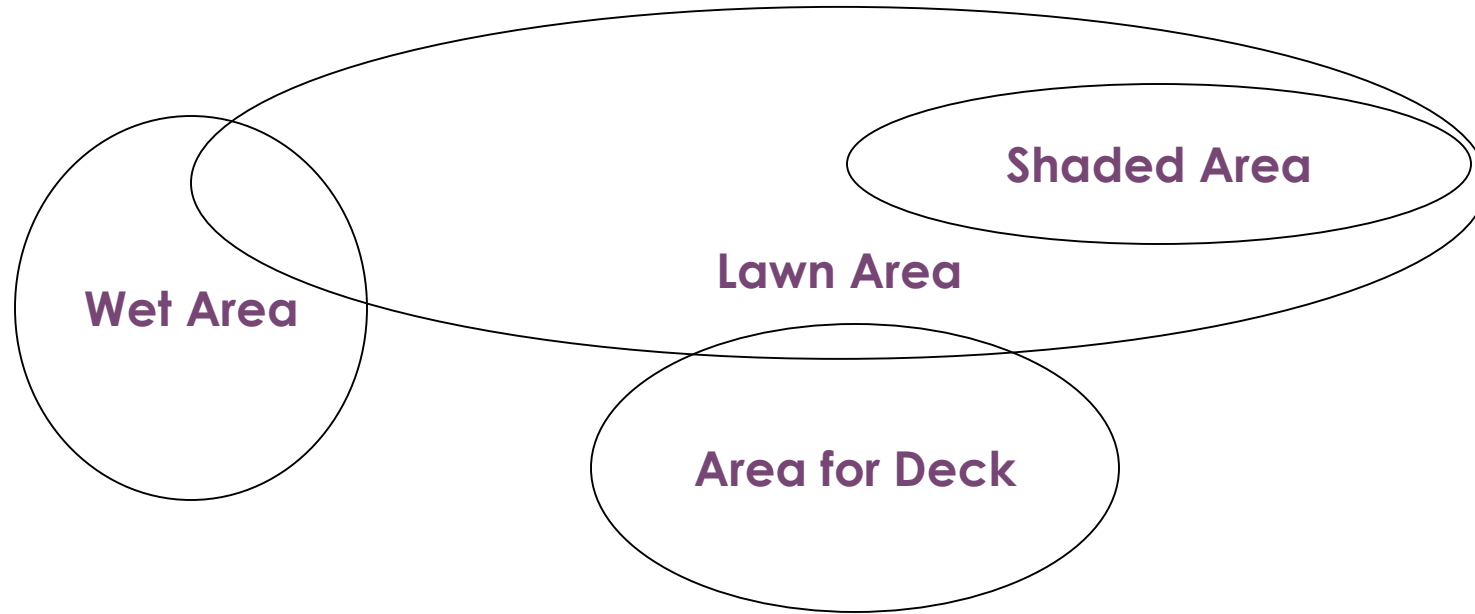
A WAY IN WHICH TO  
VISUALLY RECORD  
INFORMATION

# Preparation of a Site Inventory Plan

- ▶ On a copy of a survey
- ▶ On lined paper with notes
- ▶ Over black & white photocopies of property photographs

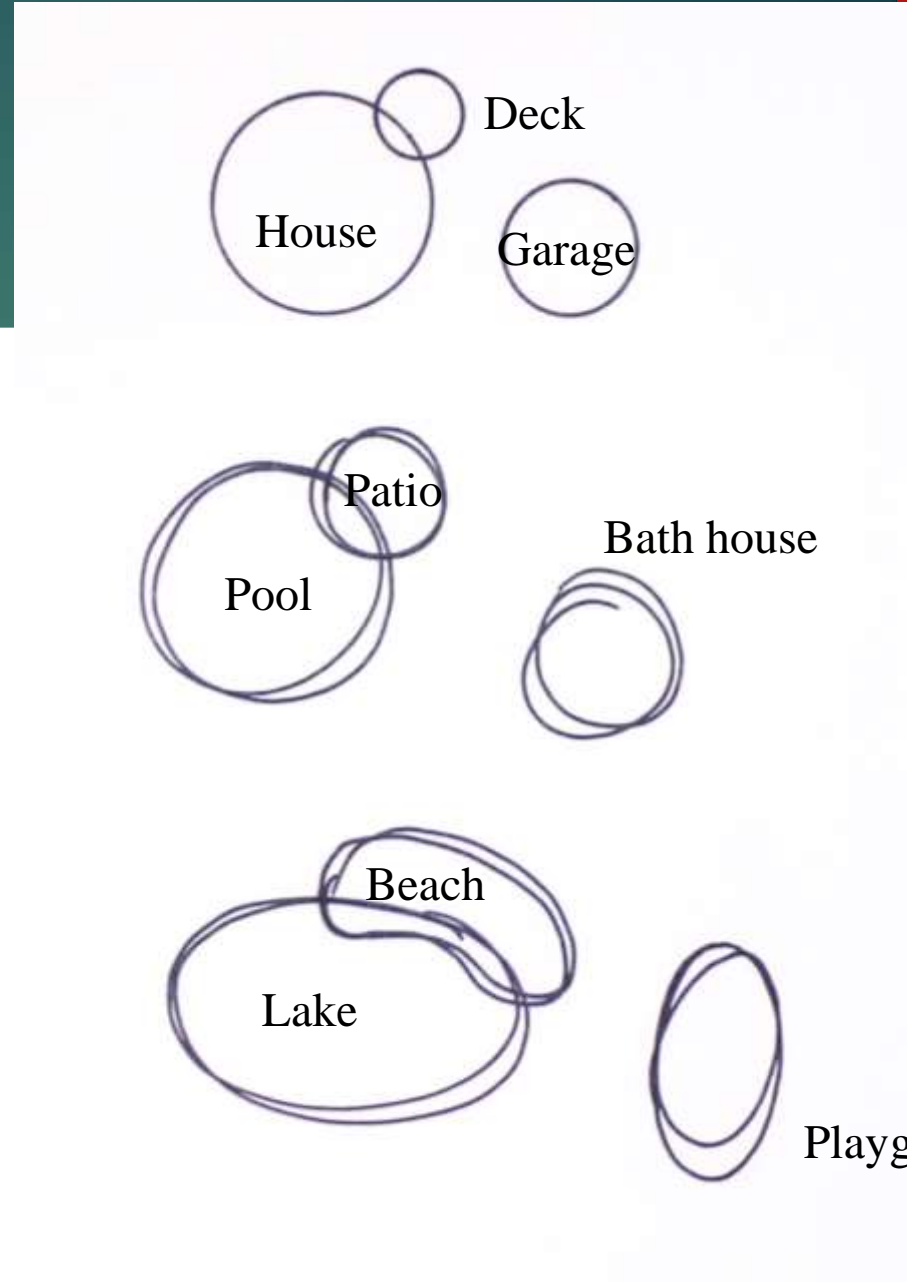


# Bubbles = Areas



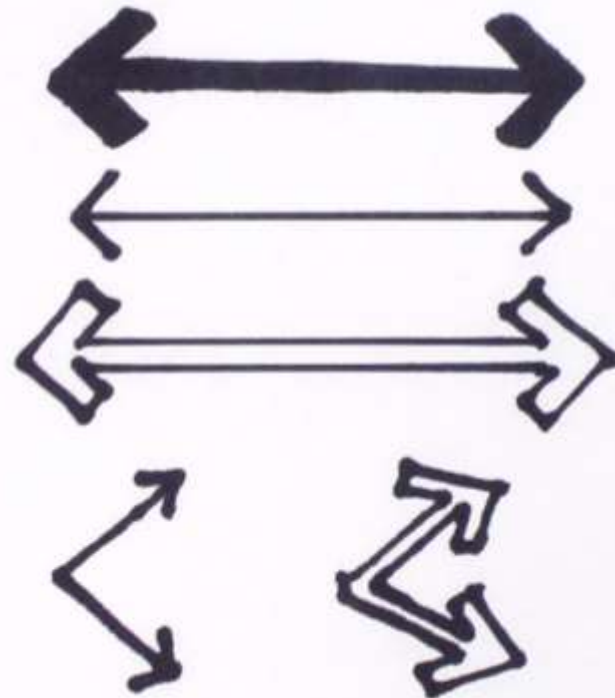
# BUBBLES = AREAS

- ▶ Circle template
- ▶ Freehand
- ▶ Organic shapes

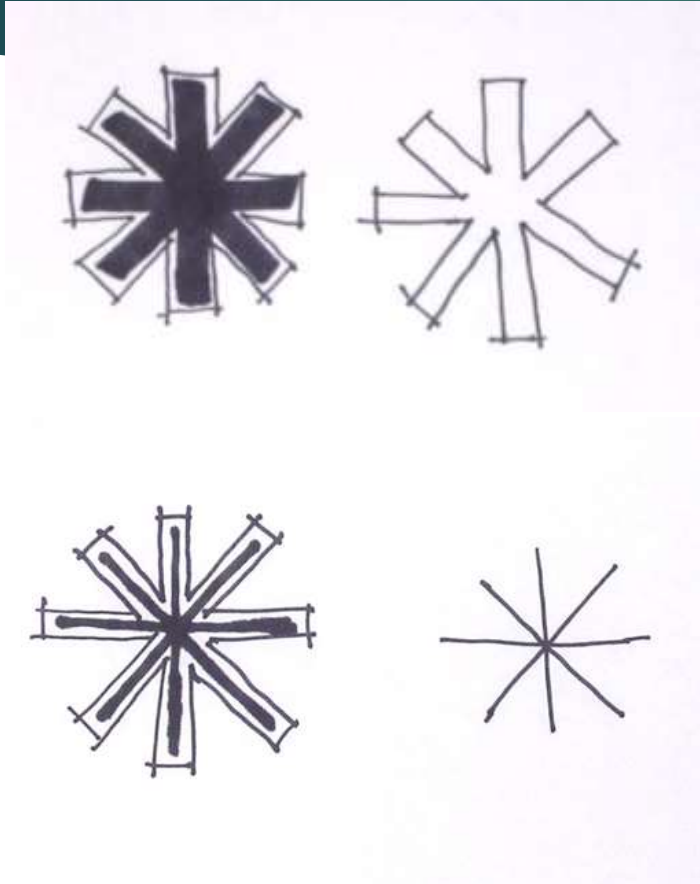


# ARROWS = MOVEMENT

- ▶ Bold or light line weights
- ▶ One way
- ▶ Two way
- ▶ Views



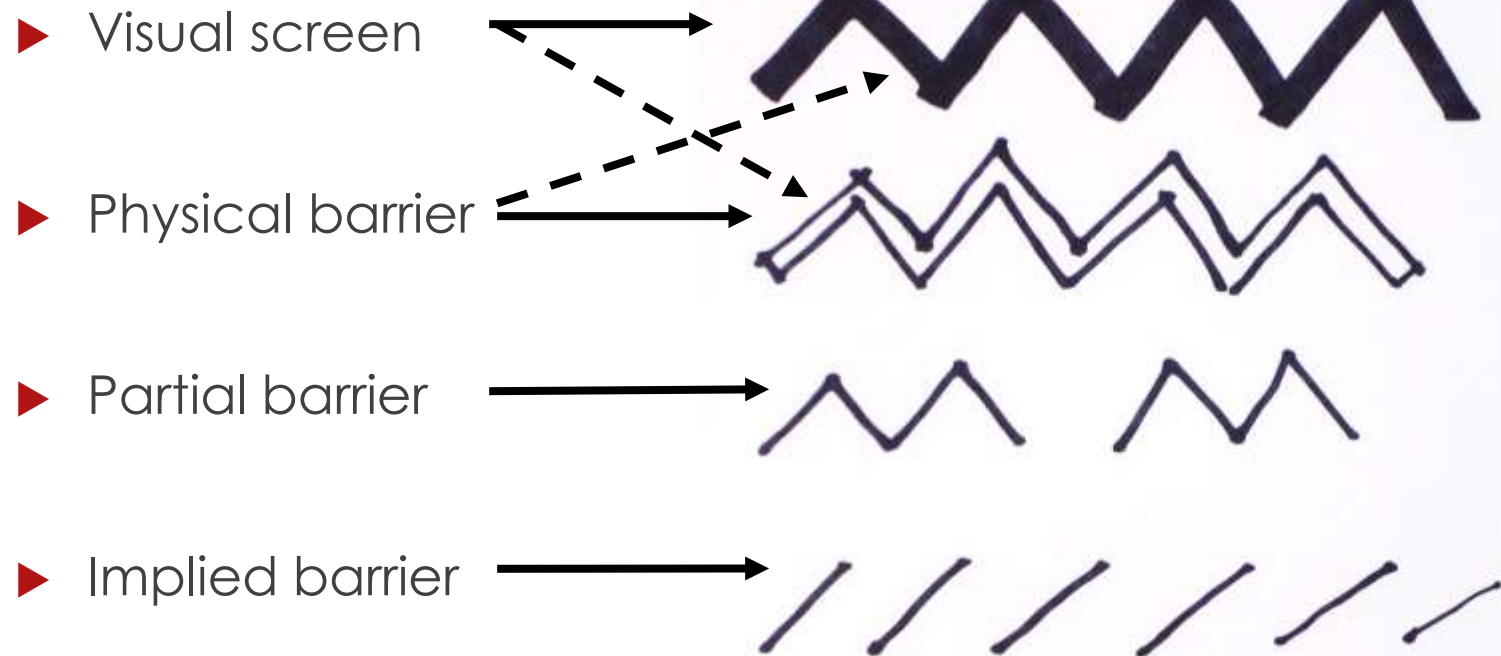
# Star/asterisk = Important point / location



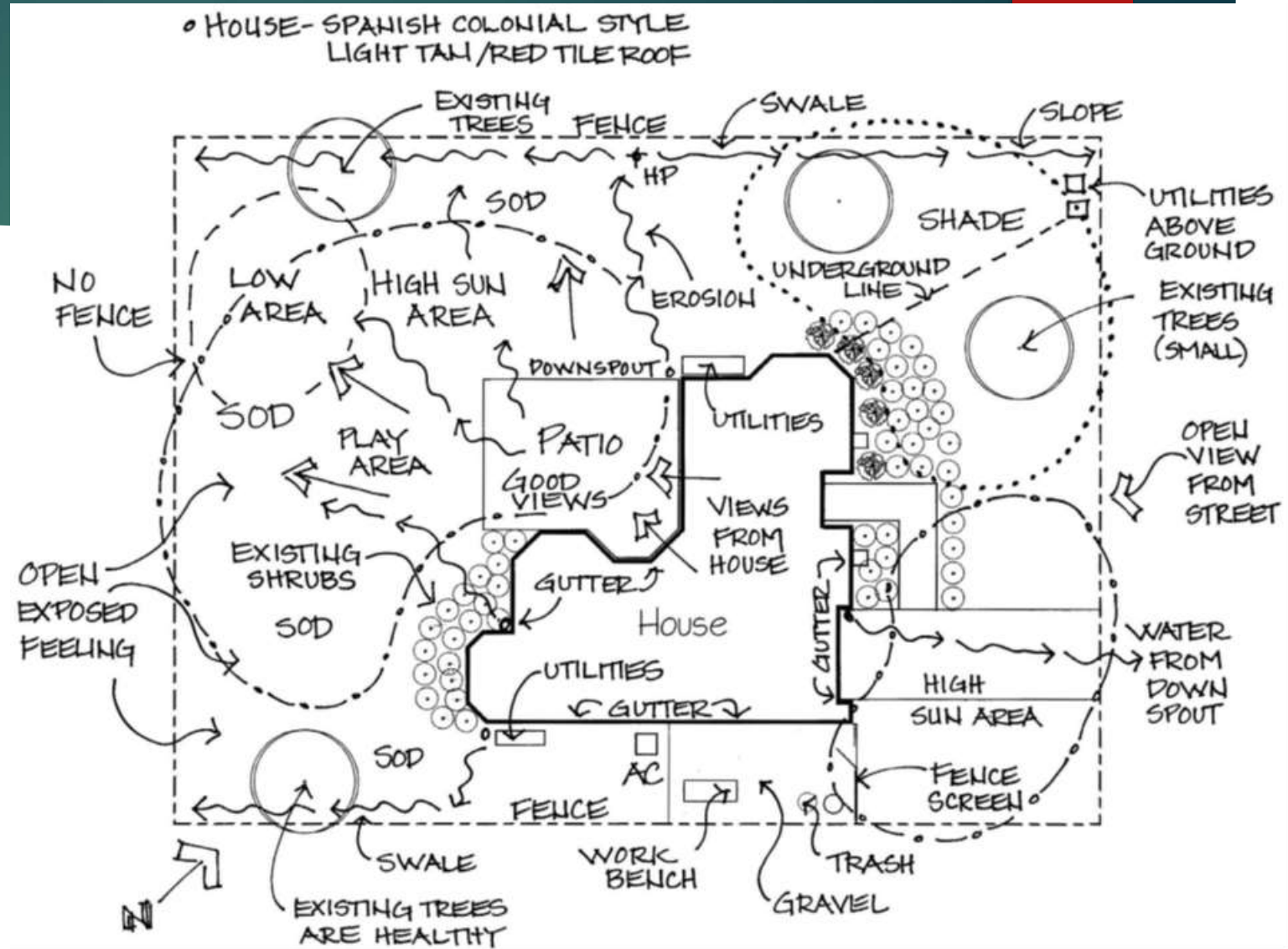
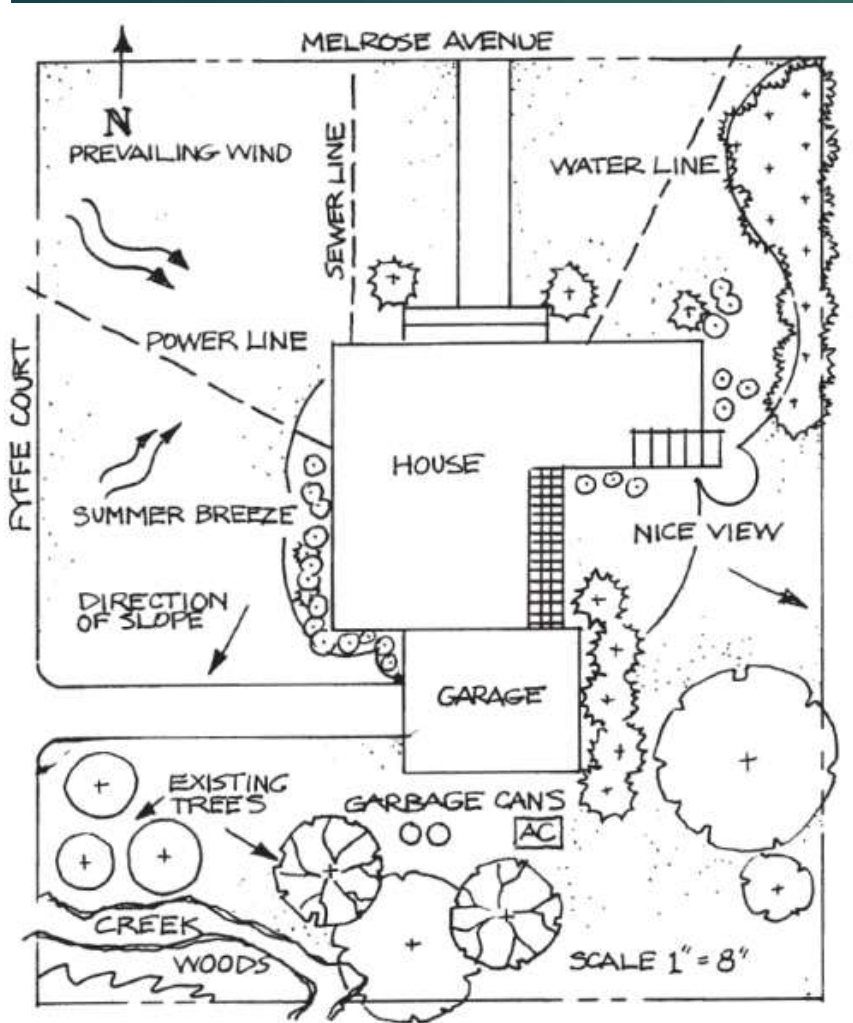
- ▶ Specific item or area of interest
- ▶ Item to direct attention
- ▶ A point which is the hub or “front door” of the project area



# Zig Zags = Barriers or visual screening



# Examples:



# Other means of recording site information:

- ▶ Photographs
  - ▶ Digital
  - ▶ Panoramic views
- ▶ Google Earth
- ▶ Video
  - ▶ Records sounds
  - ▶ Records movement through landscape

