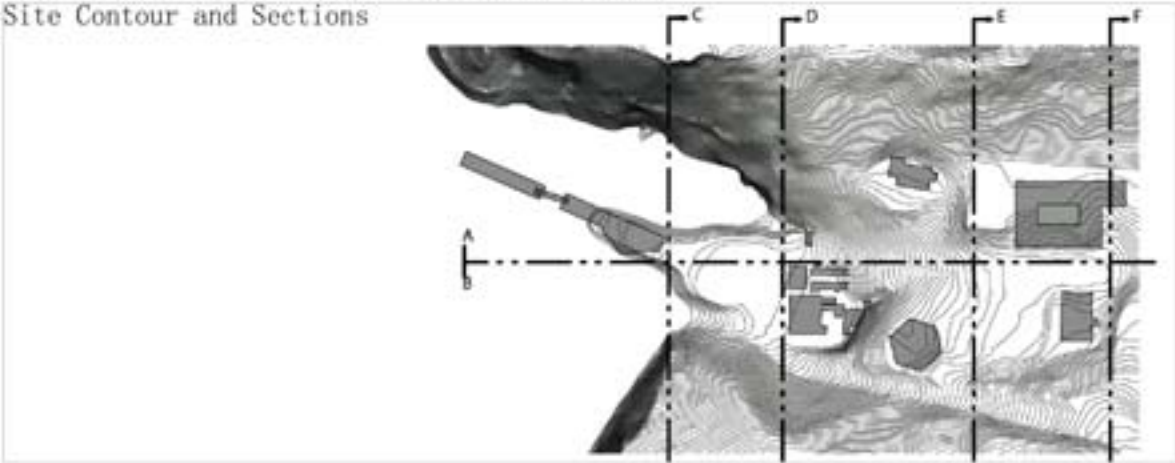
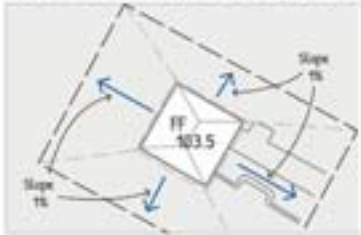


# Earthworks // Above Ground // Grading

Site Contour and Sections



## Site Grading Strategies



Building at higher level



Drainage swales direct water from back to front street



Catch Basing in combination with swales

#TAG // #TAG // #TAG

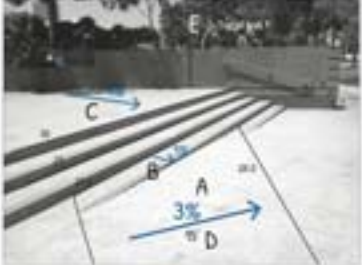
## Walkway, Entrance & Seating Grading Strategies



Diagram of a sloping walkway at Grand Park in LA. The walk has a primary 4 percent slope and was designed with a cross slope to ease surface water to the planting area.

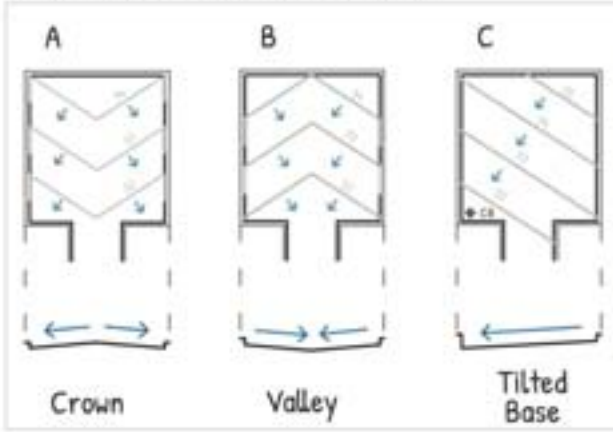


Paved forecourt and access to public building at Grand Park in LA



Seating area with contours

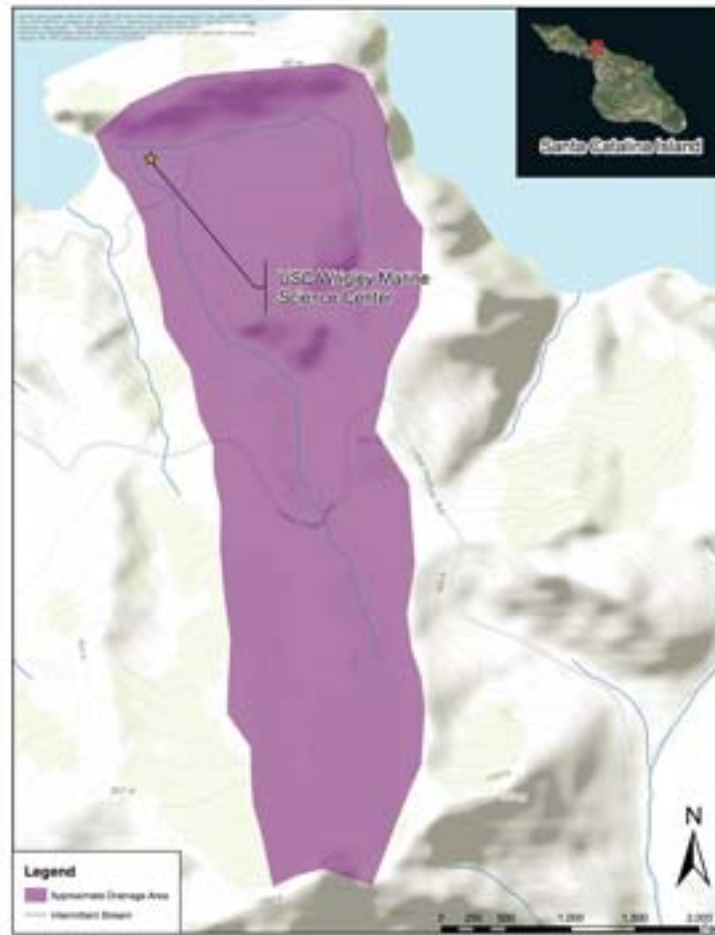
## Parking lot Grading Strategies



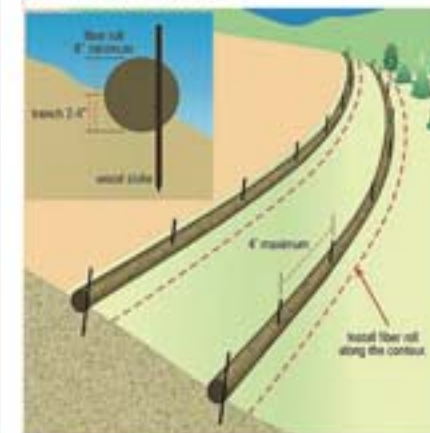
# Earthworks // Above Ground // Water Issue

## Precipitation and Drainage Area

Annual Precipitation: 12.8 in/yr  
 Drainage Area of the Site: ~230 acres  
 Rainfall Amount per year: 3,000,000 Gallons



## Erosion Control



### FIBER ROLL

A fiber roll is a temporary erosion control and sediment control device used on construction sites to protect water quality in nearby streams, rivers, lakes and seas from sediment erosion. It is made of straw, coconut fiber or similar material formed into a tubular roll.



### GABION

A gabion is a cage, cylinder, or box filled with rocks, concrete, or sometimes sand and soil for use in civil engineering, road building, military applications and landscaping. For erosion control, caged riprap is used. For dams or in foundation construction, cylindrical metal structures are used. In a military context, earth- or sand-filled gabions are used to protect artillery crews from enemy fire.



### MULCH

A mulch is a layer of material applied to the surface of an area of soil. Its purpose is any or all of the following:

- to conserve moisture
- to improve the fertility and health of the soil
- to reduce weed growth
- to enhance the visual appeal of the area

A mulch is usually but not exclusively organic in nature. It may be permanent (e.g. plastic sheeting) or temporary (e.g. bark chips). It may be applied to bare soil, or around existing plants. Mulches of manure or compost will be incorporated naturally into the soil by the activity of worms and other organisms. The process is used both in commercial crop production and in gardening, and when applied correctly can dramatically improve soil productivity.[1]

