

## **Avoiding Common Errors in LID Design and Construction**

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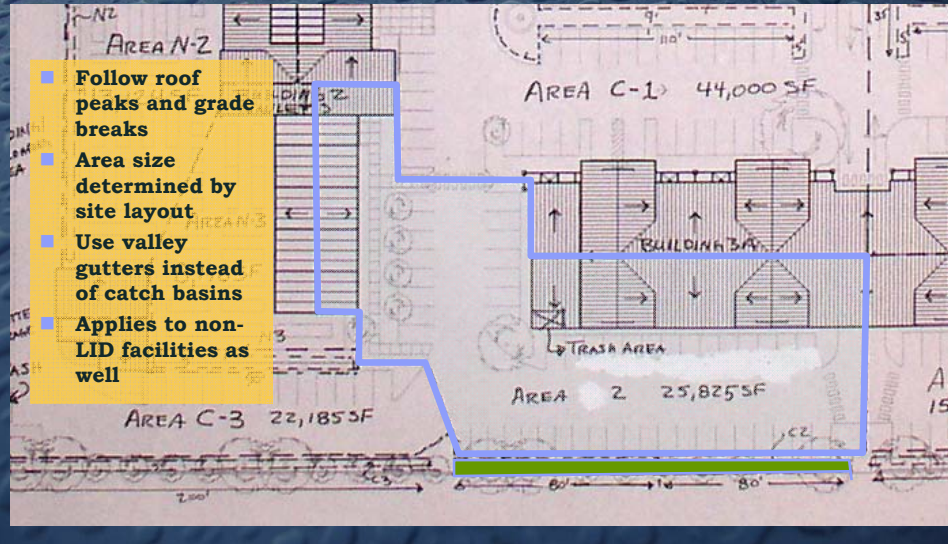


## **Key Operating Characteristics**

- Runoff from the intended tributary area must flow to the facility.
- The surface reservoir must fill to its intended volume during high inflows.
- Runoff must filter rapidly through the soil layer.
- Filtered runoff must infiltrate into the native soil to the extent possible.
- Remaining runoff must be captured and drained to daylight or a storm drain.



## Roof pitch and grade breaks



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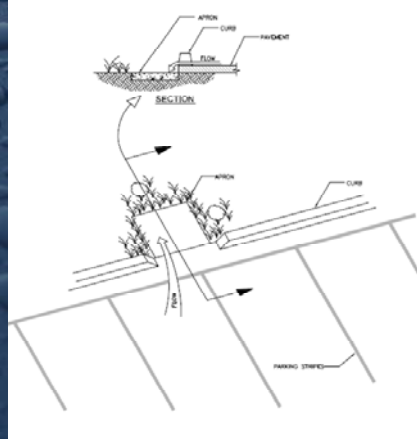
## Roof leaders



## Overflow location and height



## Specify inlet design



## Design IMPs Level



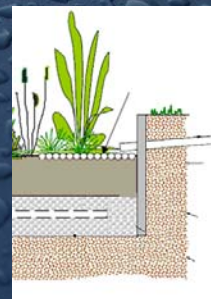
## Specify imported soil mix

- Typically no native on-site material to be used
- Imported material to be a mix of sand and organics



## Fill Materials

- Soil layer
  - “Loamy sand”
  - Infiltration rate  $\geq 5$ "/hour
  - Clay < 5%
  - Note Contra Costa soil spec
- No filter fabric between layers
- Gravel drainage layer
  - “Class 2 Permeable”
  - Caltrans Manual 68-1.025



## Common Construction Errors

- Conventional grading and paving
- Field changes to overflows
- Planting and irrigation

## Grading and Paving



## Overflow installation



## Coordinating Landscaping



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