

# Architectural Technology V

|



**ROOFING!**

## Laugier's Primitive Hut:

Human Habitation defined by a Roof...



**Modern Expressiveness:**

... and the Modern Sense of Shelter, give by the roof.



## Thatched Roofs...



## Tile Roofs...



## Shingle Roofs



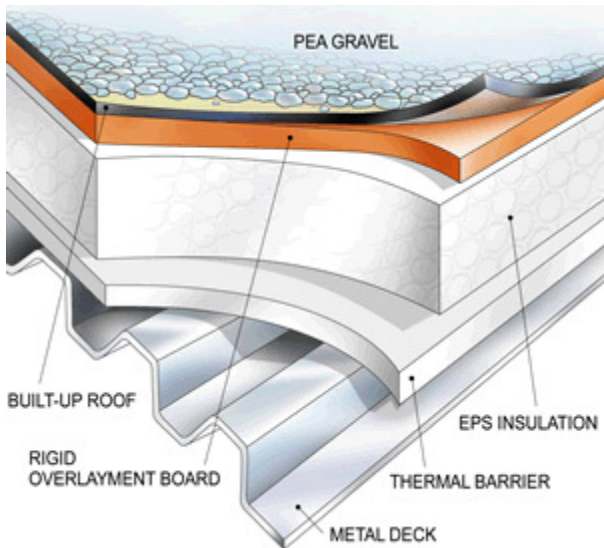
Low Slope Roofs



## Roof Decks



## Membrane Roof Systems



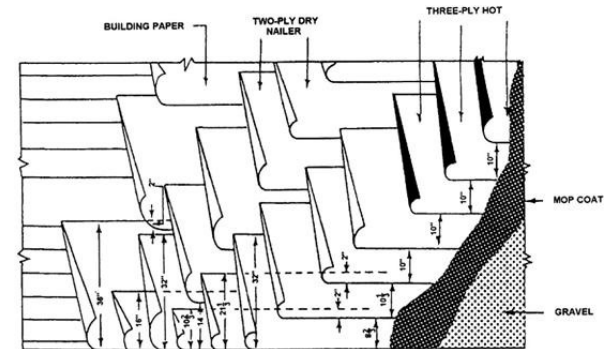
Structural Deck  
Vapor Retarder  
Thermal Barrier  
Thermal Insulation  
Overlayment  
Membrane  
Ballast

(Sloped?)



## Membrane Types

Built-up Membranes (Bituminous)



Single-Ply Roofs

PVC

Modified Bitumens

EPDM

&c.



Hybrid Membranes:

Modified Bit over Built-up Roofs

Fluid-Applied Membranes



## Membrane Accessories

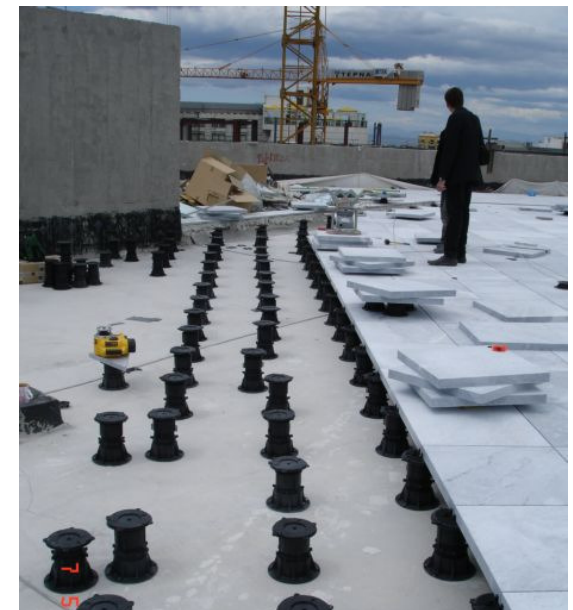
### Ballast



Ooops!



### Traffic Pavers and Decks & Paver Pedestals

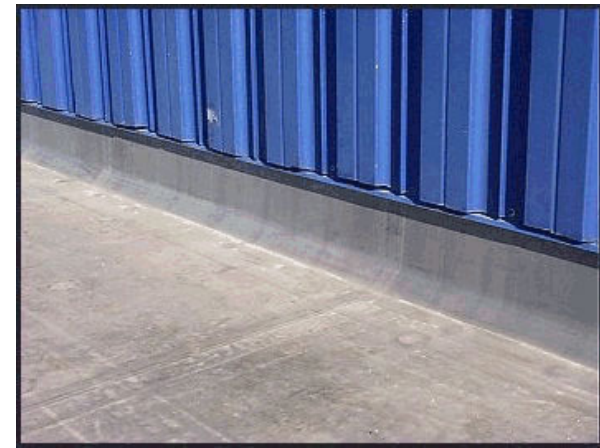
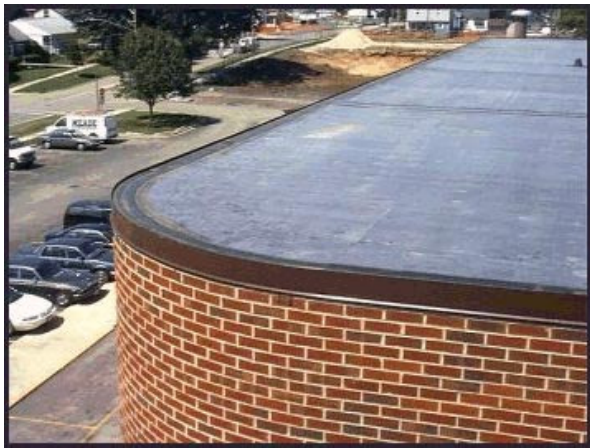


## Edge and Drainage Conditions

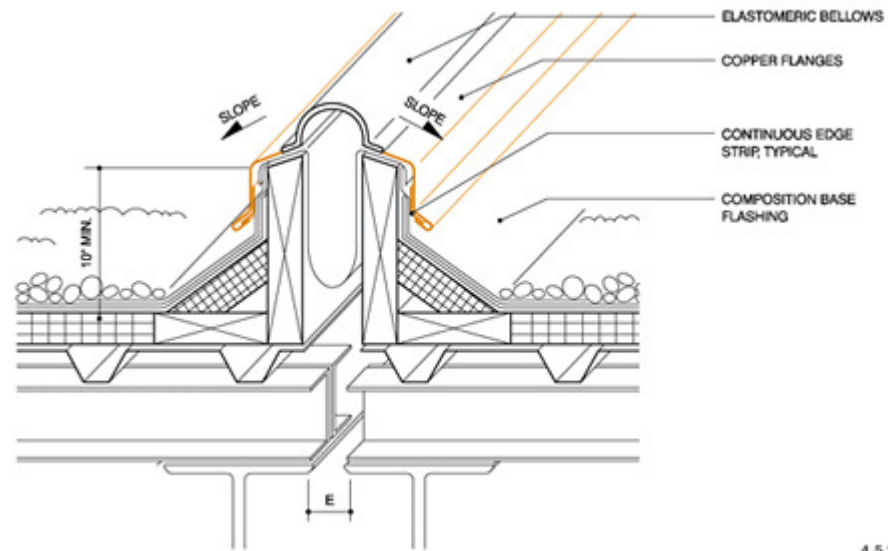
Gravel Stop & Parapets

Roofing Penetrations and Drains; Scuppers

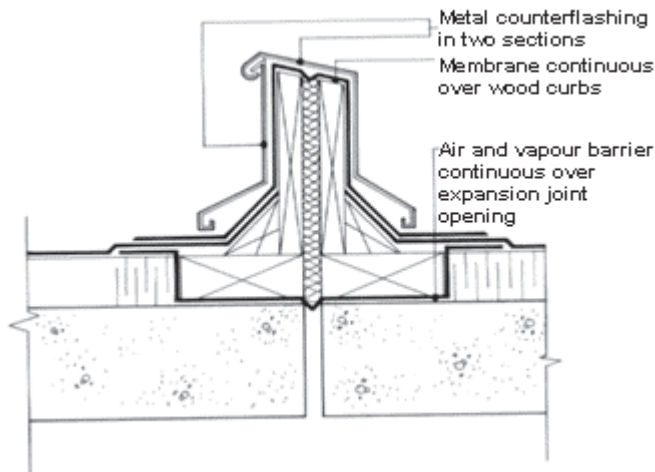
Building Separation Joints; Area Dividers



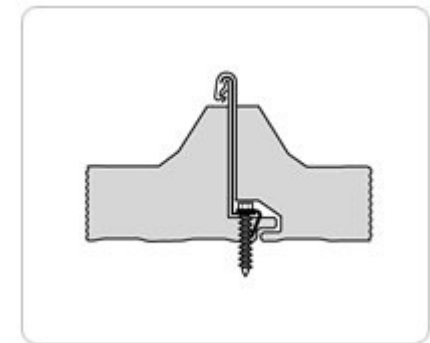
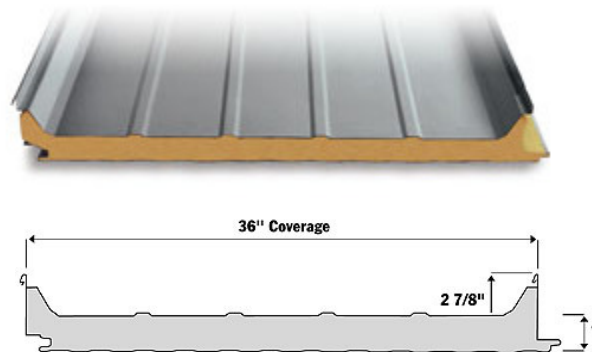
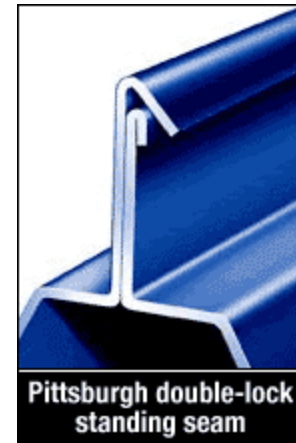
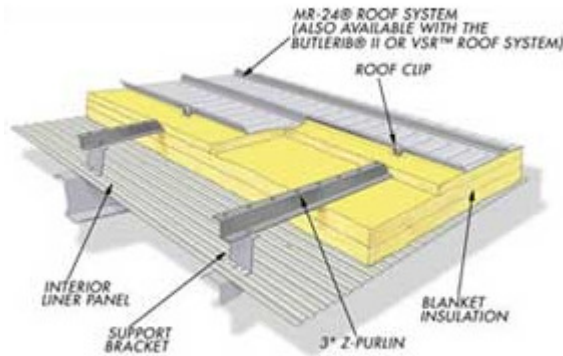
## Membrane Roof Building Separation Joint Covers



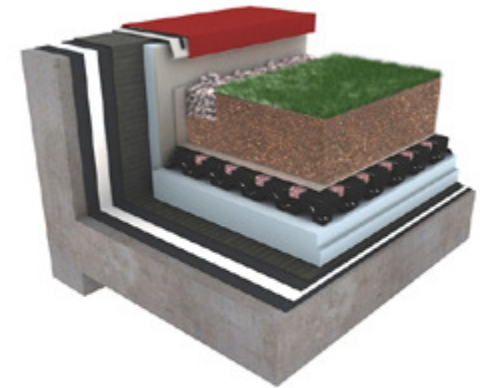
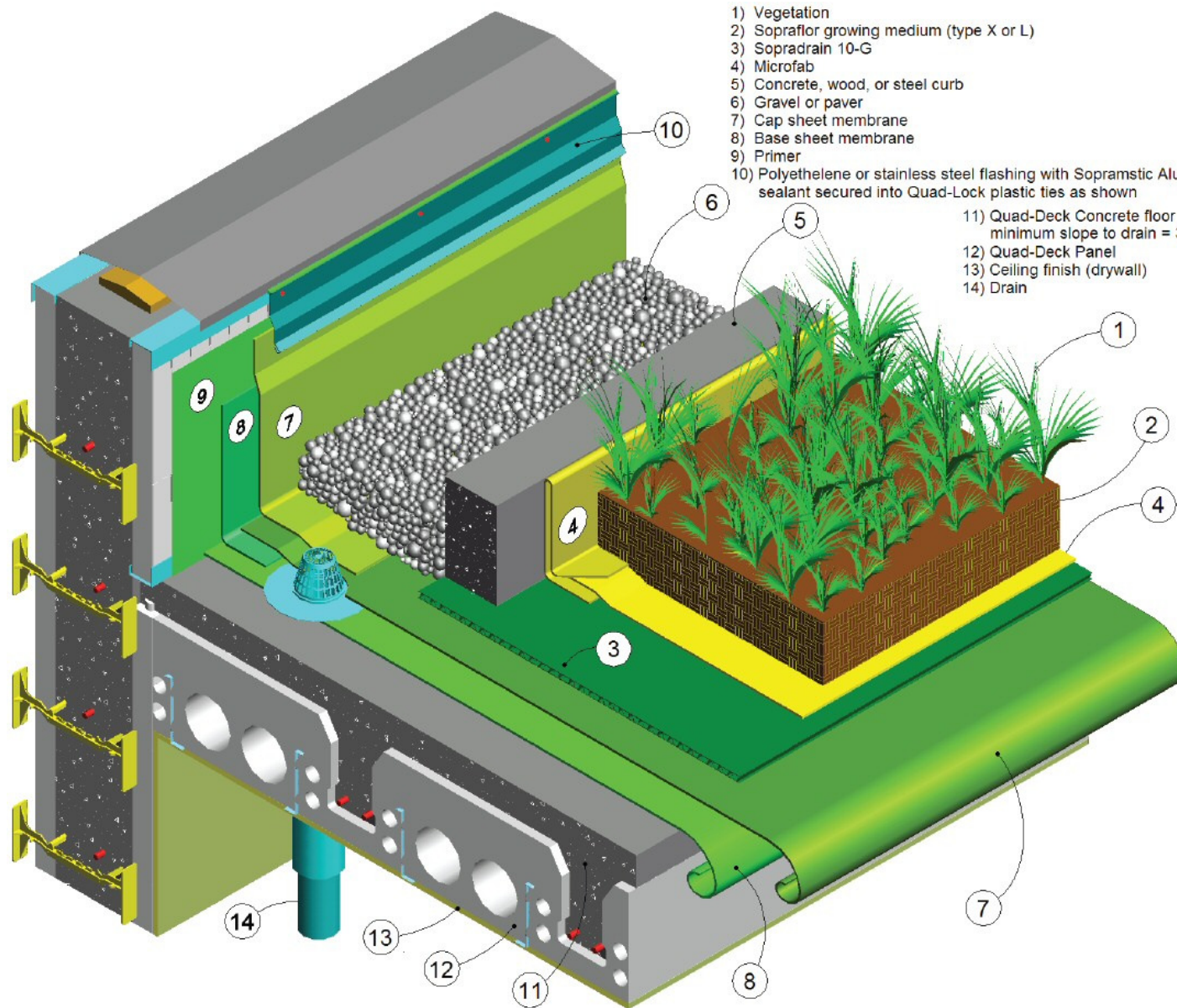
4.5.1



## Metal Panel Systems for Low-Slope Roofs



## Green Roofs



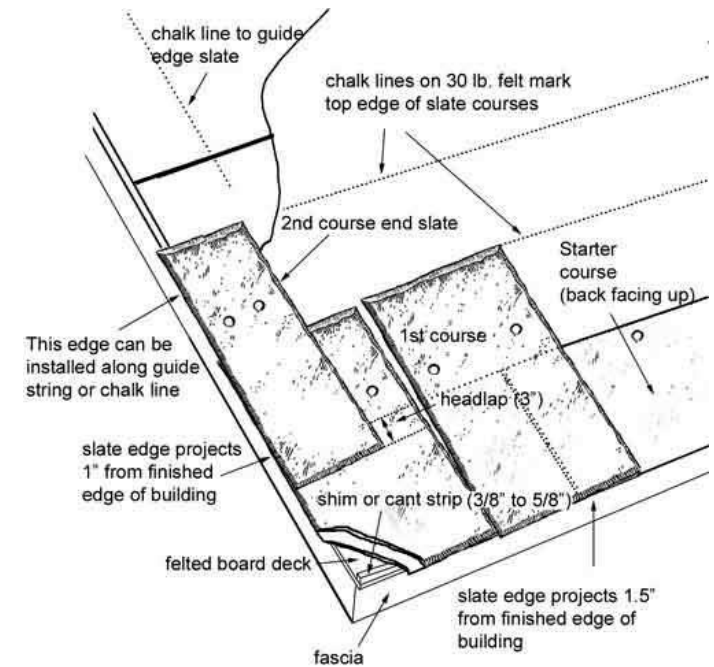
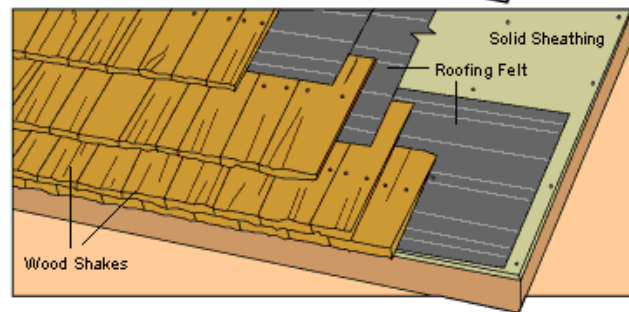
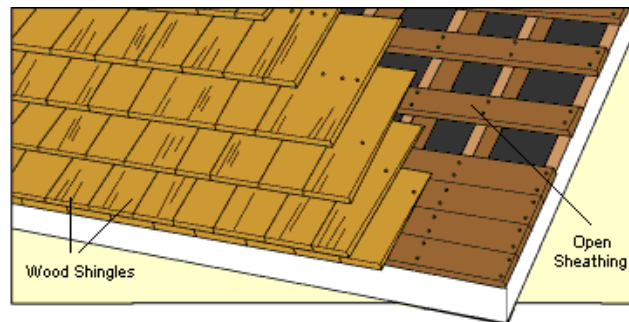
[VIEW LARGER IMAGE](#)

High-Pitch Roofs:

Thatch

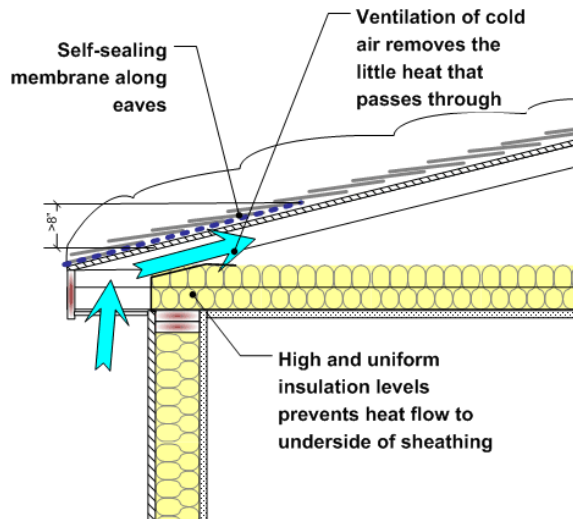
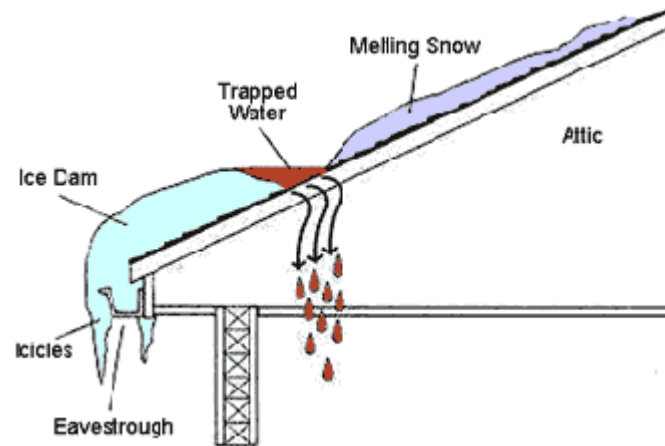


Shingles: Wood, Asphaltic, Metal, Slate, Tile.

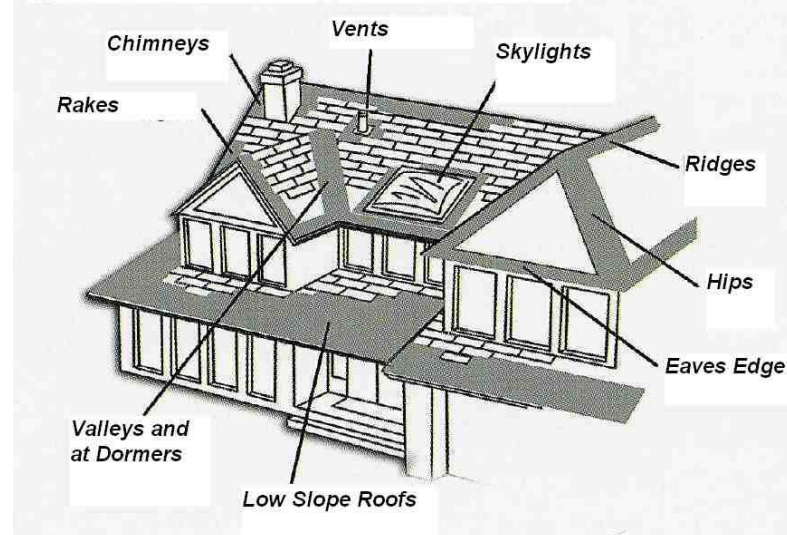


Standing Seam Metal, Membrane, ...Whatever!

Roof Vent at Ridges; Water and Ice dams at eaves/valleys.



Typical Ice & Water Shield Application





## Roofing and Building Codes

### **Class A Roof Coverings (Severe Fire Resistance)**

*Suitable for All Buildings*

Includes slate and mineral-based materials.

### **Class B Roof Coverings (Moderate Fire Resistance)**

**Suitable for Construction Types IA, IB, IIB, IIIA, IV, VA**

Includes built-up roofs

### **Class C Roof Coverings (Light Fire Resistance)**

**Suitable for Construction Types IIB, IIIB, VB**

Includes fire-retardant wood

### **Non-classified Roof Coverings**