ROOF FRAMING PLANS
ARCHITECTURAL ROOF STYLE IDENTIFICATION
ROOF FRAMING MATERIAL CALCULATIONS FROM PLANS
Roof Design

• Roof design is a major feature of a house’s architectural style.
• The plan reader should be familiar with roof styles and the rafter components of these designs to calculate roof framing materials and framing labor.
• Example: Would the framing labor and material for a steep pitch Victorian roof be similar to a Colonial roof house, both with the same floor area?
• Many residential house plans do not provide the roof framing plan.
Typical roof rafter plan
Overhang / Gutter

Exterior Wall

Jack rafter

Hip rafter

Cricket

Common rafter

ML Hip?

Plan provides rafter part size and spacing

Ridge
Valley rafters

Vent

Rafter direction

Valley rafters
Shed Roof
Gambrel Roof
Gambrel with Dormers
Intersecting Gable Roof
Dormer Roof
Hip Roof
Dutch Hip Roof
Jerkinhead Roof
Mansard Roof
Victorian Roof
Georgian Colonial Roof
Engineered Roof Truss
Parts of a Gable Roof

- Ridge
- Barge rafter
- Gable end studs
- Out look barge support
- Common rafters
- Bird blocks
- Ceiling joists
- Fascia board
- Brace
Parts of a Hip Roof

- Hip rafter
- Hip jack rafters
Parts of a Valley Roof

- Valley rafter
- Valley Jacks
Parts of a Gambrel Roof
California Roof Over

Attic Access

Blind Valley
Calculating Roof Material From Rafter Plans

- The roof plan shows the rafter direction and spacing but not the rafter length.
- Calculate the ratio of the rafters horizontal run to its slope length.
- Add all the common and jack rafter horizontal run lengths then multiply by the factor.
- Ridge horizontal = ridge length
- Hip/Valley rafters have a different factor!