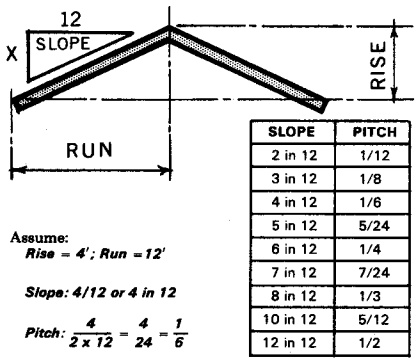
FIG. 3 Slope and Pitch.



SLOPE	PITCH
2 in 12	1/12
3 in 12	1/8
4 in 12	1/6
5 in 12	5/24
6 in 12	1/4
7 in 12	7/24
8 in 12	1/3
10 in 12	5/12
12 in 12	1/2

$$Slope = \frac{Rise}{Run;} \qquad Pitch = \frac{Rise}{2 \times Run}$$

Slope and Pitch These terms are often incorrectly used synonymously when referring to the incline of a sloped roof. Both are defined below and in Figure 3, which also compares some common roof slopes to corresponding roof pitches. Roof *slope* is the term used throughout this text.

Slope indicates the incline of a roof as a ratio of vertical rise to horizontal run. It is expressed sometimes as a fraction but typically as "X" in 12. For example, a roof that rises at the rate of 4″ for each foot (12″) of run, is designated as having a *4 in 12* slope. The triangular symbol above the roof in Figure 3 conveys this information.

Pitch indicates the incline of a roof as a ratio of the vertical rise to *twice* the horizontal run. It is expressed as a fraction. For example, if the rise of a roof is 4′ and the run 12′, the roof is designated as having a pitch of 1/6.

Roofing Terminology

Many terms peculiar to shingle roofing are illustrated and defined as follows:

Square Roofing is estimated and sold by the square. A square of roofing is the amount required to cover 100 sq. ft. of roof surface.

Coverage This term indicates the amount of weather protection provided by the overlapping of shingles. Depending on the kind of shingle and method of application, shingles may furnish one (single coverage), two (double coverage), or three (triple coverage) thicknesses of material over the surface of the roof.

Shingles providing single coverage are suitable for reroofing over existing roofs, in effect providing a new surface for an old roof that is still serviceable except for isolated trouble spots. Shingles providing double and triple coverage are used for new construction, both having increased weather resistance and a longer service life.

Exposure: The shortest distance in inches between exposed edges of overlapping shingles (Fig. 4).

Toplap: The shortest distance in inches from the lower edge of an overlapping shingle or sheet to the upper edge of the lapped unit in the first course below (that is, the width of the shingle minus the exposure) (Fig. 4).

Headlap The shortest distance in inches from the lower edges of an overlapping shingle or sheet, to the upper edge of the unit in the second course below (Fig. 4).

Side- or Endlap: The shortest distance in inches which adjacent shingles or sheets horizontally overlap each other (Fig. 4).

Shingle Butt: The lower exposed edge of the shingle.

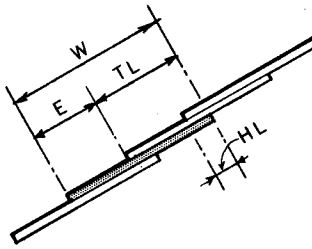
Underlayment: See page 411-5.

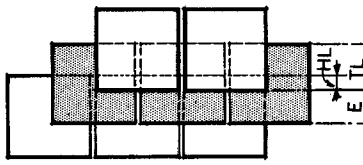
Flashing: See page 411-6.

Eaves Flashing: See page 411-7.

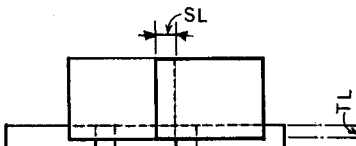
FIG. 4 Roofing Terminology

E = Exposure
TL = Toplap
HL = Headlap
SL = Sidelap
W = Width for Strip Shingles or Length for Individual Sh





AMERICAN METHOD



DUTCH LAP METHOD

ROOF FRAMING AND SHEATHING

Suitable performance of shingle roofing is dependent on the entire roof structure. Roof joists, rafters and other supports should be adequately sized and spaced to carry the necessary superimposed loads over the required spans (see Work File, page Wood WF201-1, for Tables of Maximum Allowable Spans for Joists and Rafters).

Roof sheathing should be smooth, securely attached to supports and should provide an adequate base to receive roofing nails and fasteners. All types of shingles are applied over *solid* sheathing composed of wood boards or plywood. Wood shingles and hand-split wood shakes are also ap over *spaced* sheathing.

Lumber Sheathing

Solid sheathing of boards sh be seasoned to moisture cor shown in Figure W8, page W 201-6. Boards should preferabl tongue-and-grooved (T&G) she ing, nominal 1″ thickness usually not over 6″ nominal w to minimize shrinkage. The bo should be tightly matched an curely face- and edge-nailed two 2-1/8″ x 0.109″ (7d) annu threaded or 2-1/2″ x 0.131″ common wire nails at each fra member. Maximum spacing of ports for nominal 1″ lumber bo is 24″ on center (o.c.).