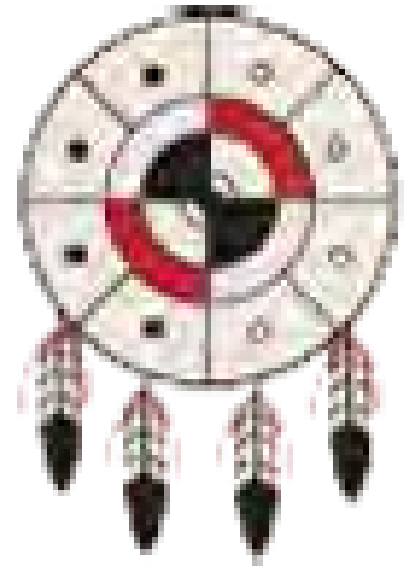


ENTRANCES & DECKS

**CHRIS PRICE
TECHNICAL SERVICES OFFICER
BIMOSE TRIBAL COUNCIL**



ENTRANCES & DECKS

ONTARIO BUILDING CODE

- **Used as a guide for advisory services**
- **Housing under Part 9**
- **Capable of supporting intended loads**
- **Sometimes “rules are grey”**
- **Allows for owner authority**
- **Discuss with your Tribal Council**

ENTRANCES & DECKS

ONTARIO BUILDING CODE

http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_120332_e.htm

ENTRANCES & DECKS

HOUSING TYPE

**THE TYPE OF ENTRANCE IS
PRIMARILY DEPENDENT ON THE
STYLE OR TYPE OF HOME**

ENTRANCES & DECKS



ENTRANCES & DECKS

**WILL THE ENTRANCE BE
CONNECTED TO THE HOUSE??**

FLOATING vs. CONNECTED

ENTRANCES & DECKS FLOATING

- **Ledger board is NOT connected to the house**
- **Will move with seasonal frost heave**
- **For smaller decks that are not accessible**
- **For level sites**

ENTRANCES & DECKS



ENTRANCES & DECKS

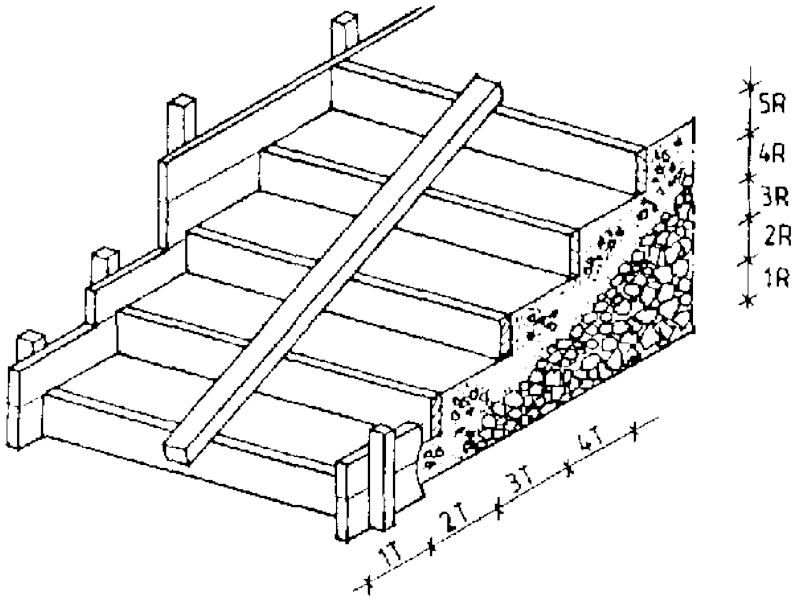
CONNECTED TO HOUSE

- **Must have footing below frost**
- **Ledger board connection based on location, foundation and siding material**

ENTRANCES & DECKS

ENTRANCES TO HOMES

Concrete, cast in place or precast



TREAD (T) = 250 - 300 mm.
RISER (R) = 150 - 220 mm.



ENTRANCES & DECKS

ENTRANCES TO HOMES

Steel



ENTRANCES & DECKS

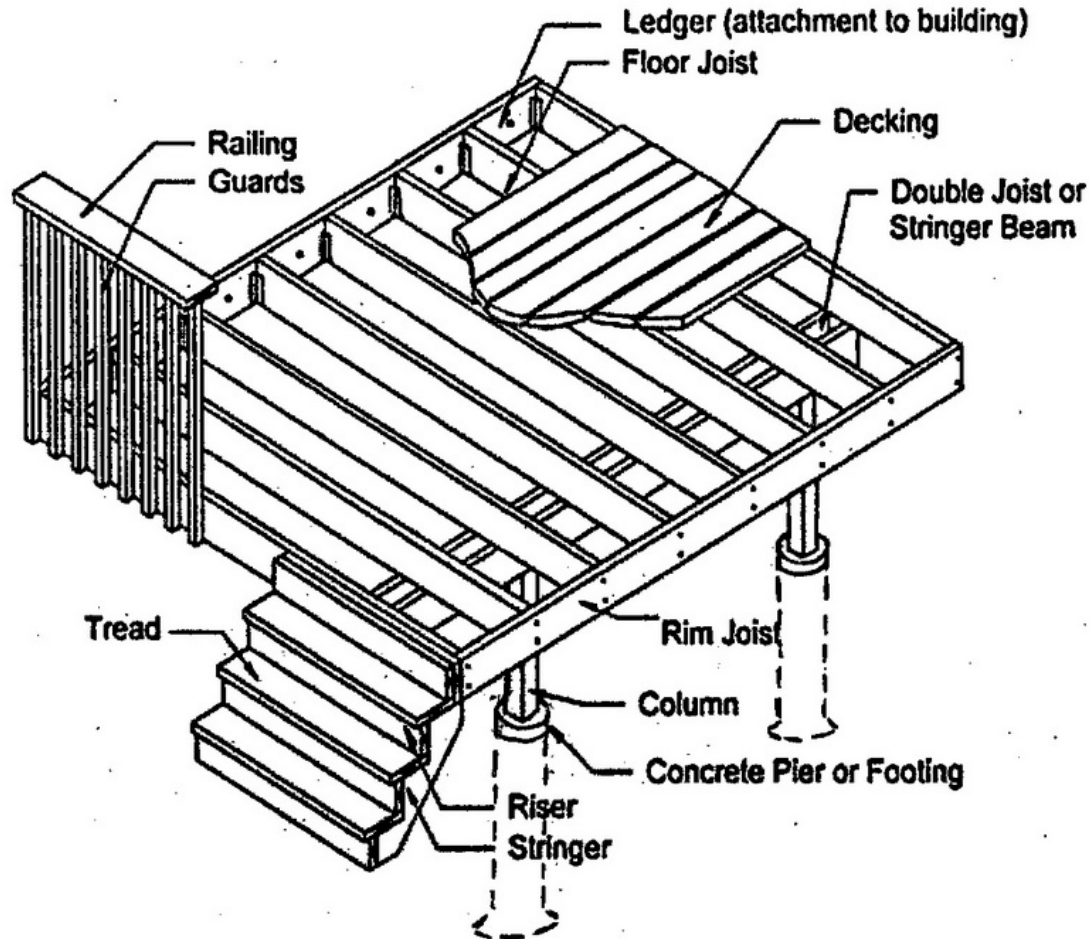
ENTRANCES TO HOMES

Wood



ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES



ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

Decks are built from the ground up

BUT

Designed from top down

[http://www.oshawa.ca/documents/BLDG_Guide
Deck_Construction.pdf](http://www.oshawa.ca/documents/BLDG_Guide_Deck_Construction.pdf)

ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

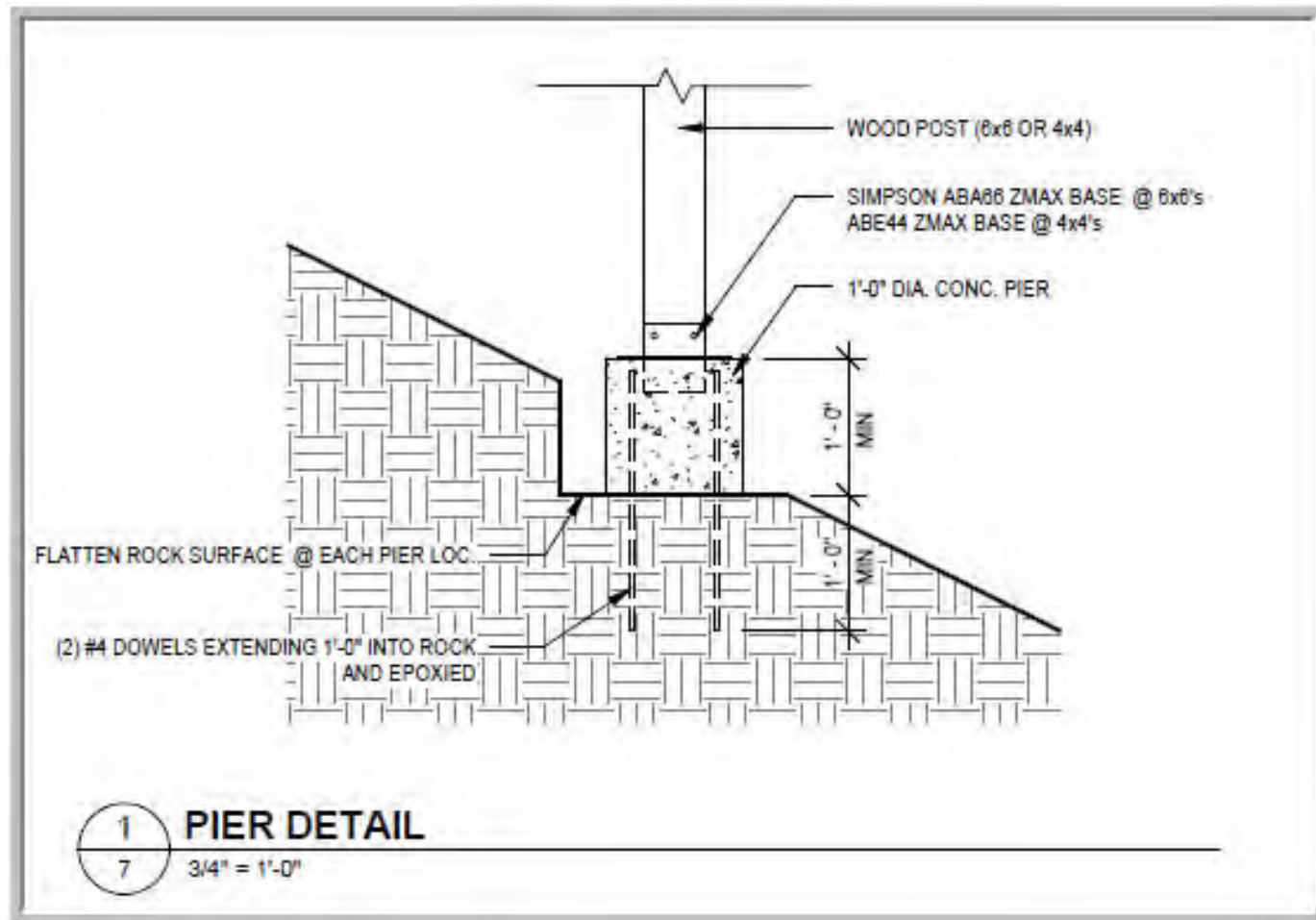
Foundations – Deck Blocks



ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

Foundations – Bedrock



ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

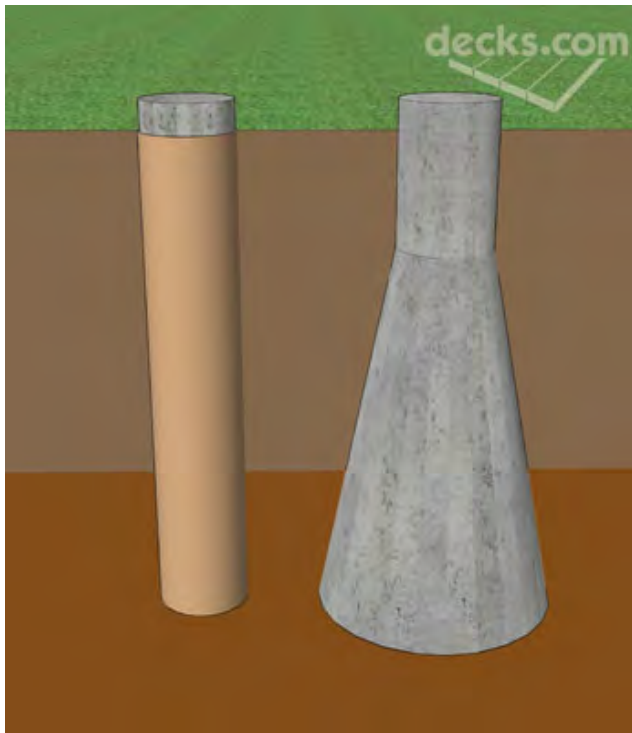
Foundations – Below Frost



ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

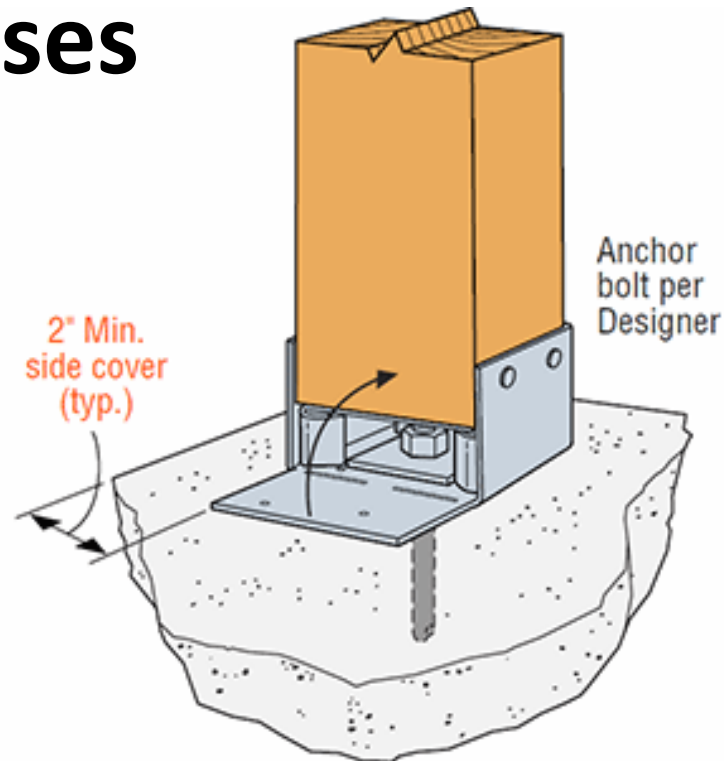
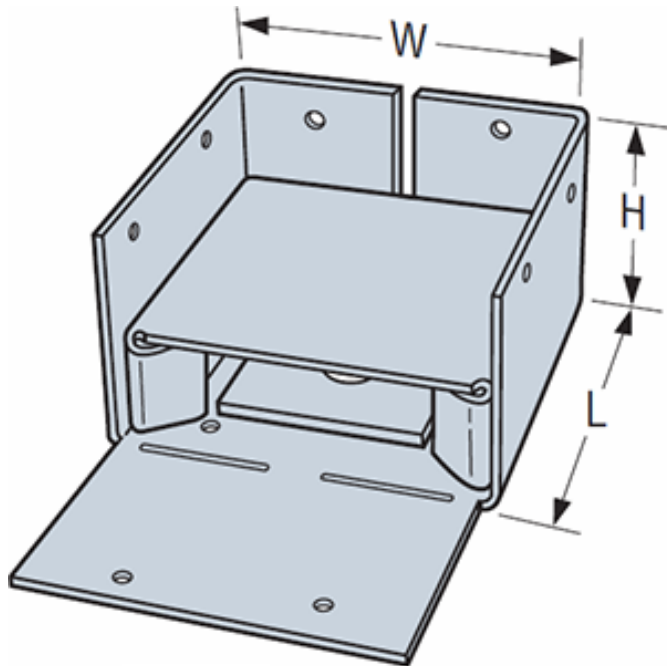
Foundations – Below Frost



ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

Concrete to post connection – post bases

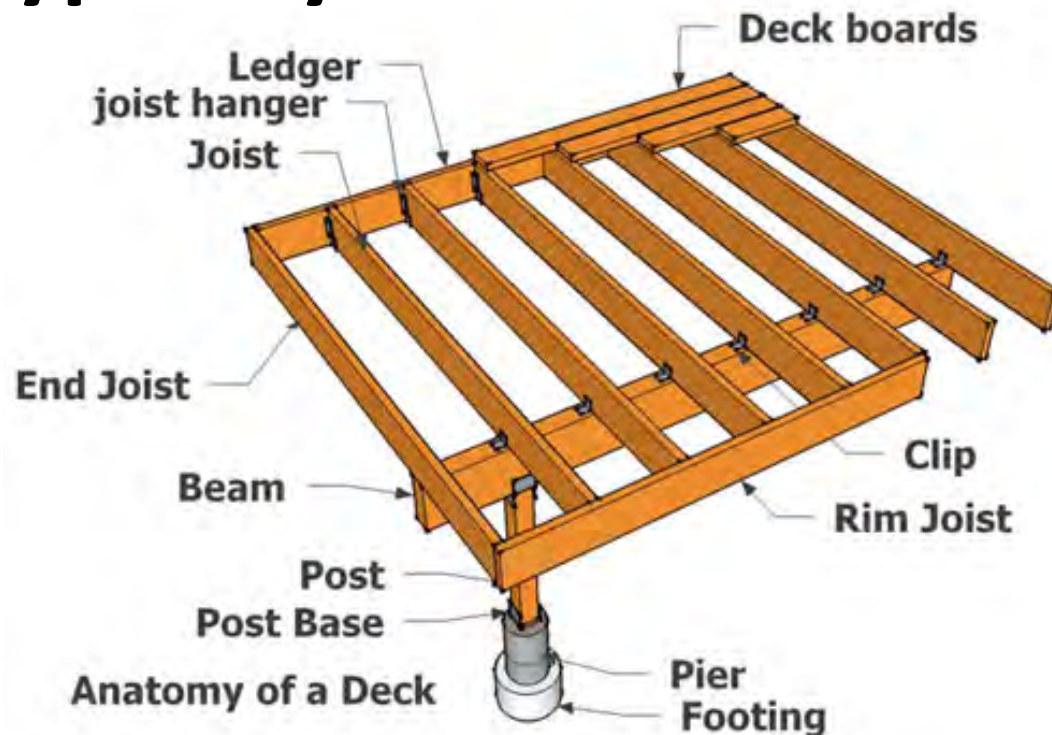


ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

Wood Framing – Structure OBC 9.23

Typically Pressure Treated



ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

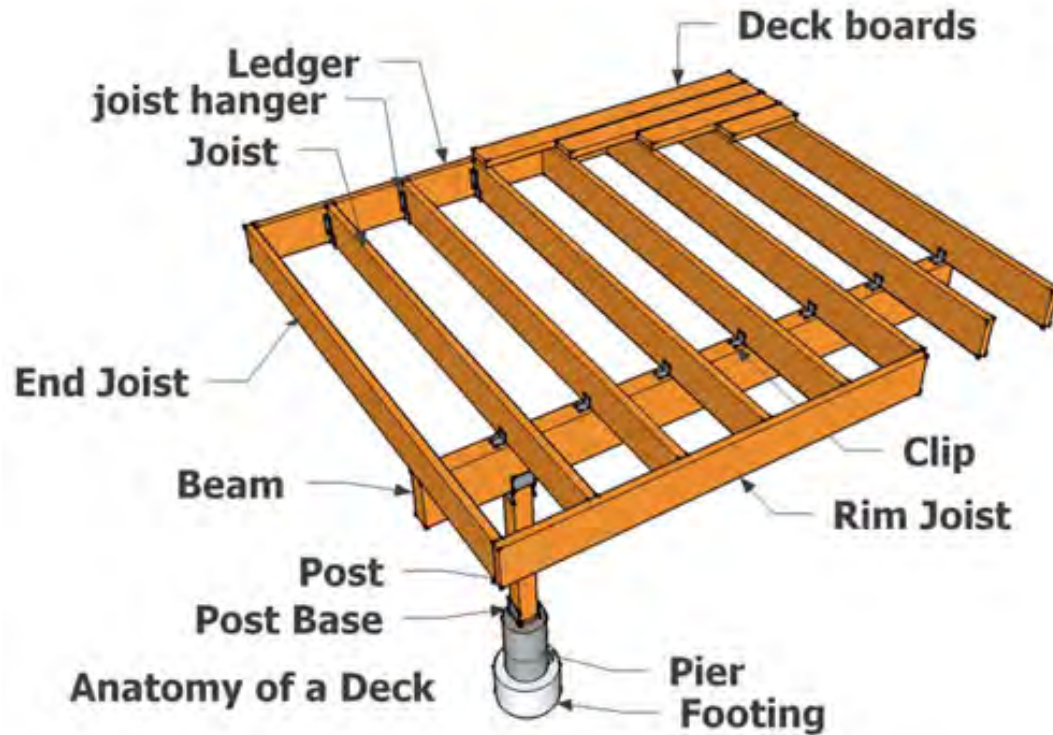


ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

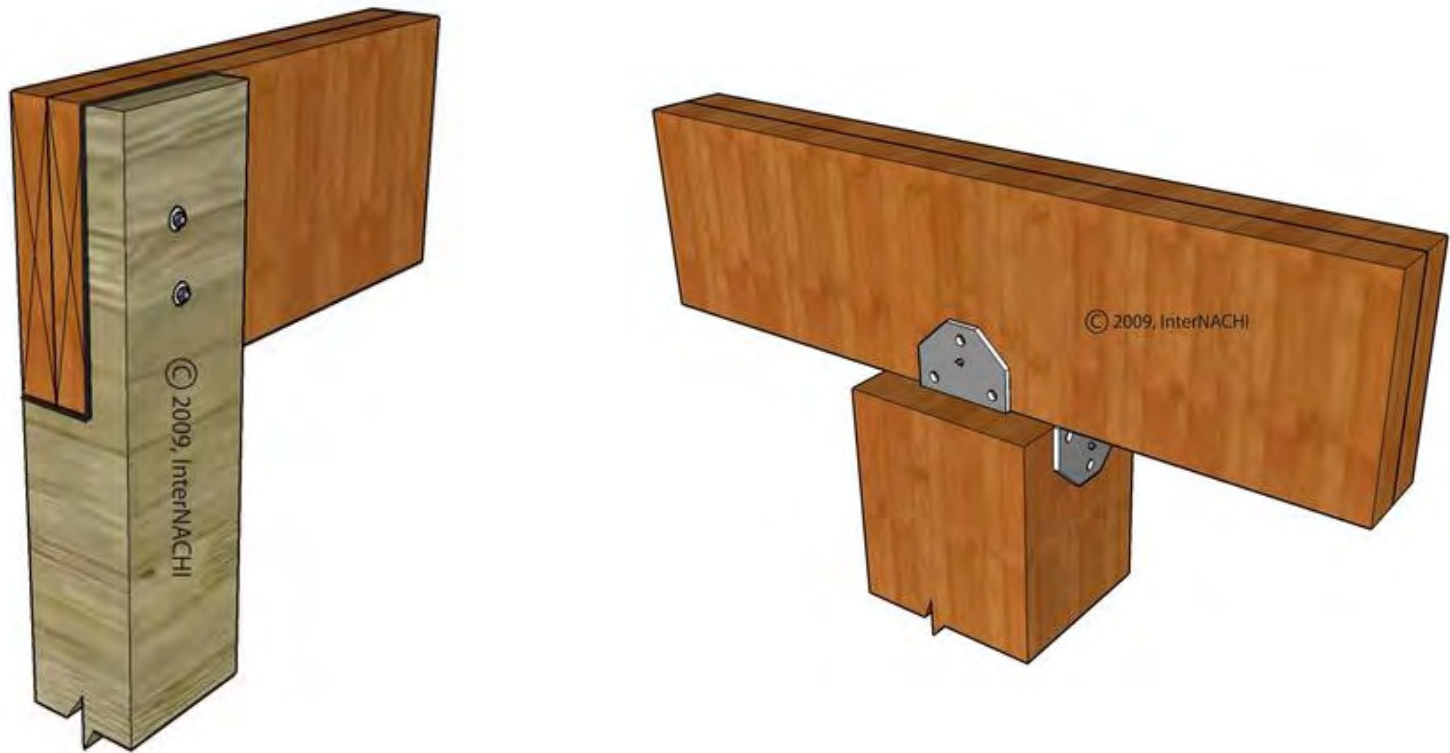


ENTRANCES & DECKS



Posts – 4"x4", 6"x6" ...etc

ENTRANCES & DECKS



Posts – Beam Connections

ENTRANCES & DECKS

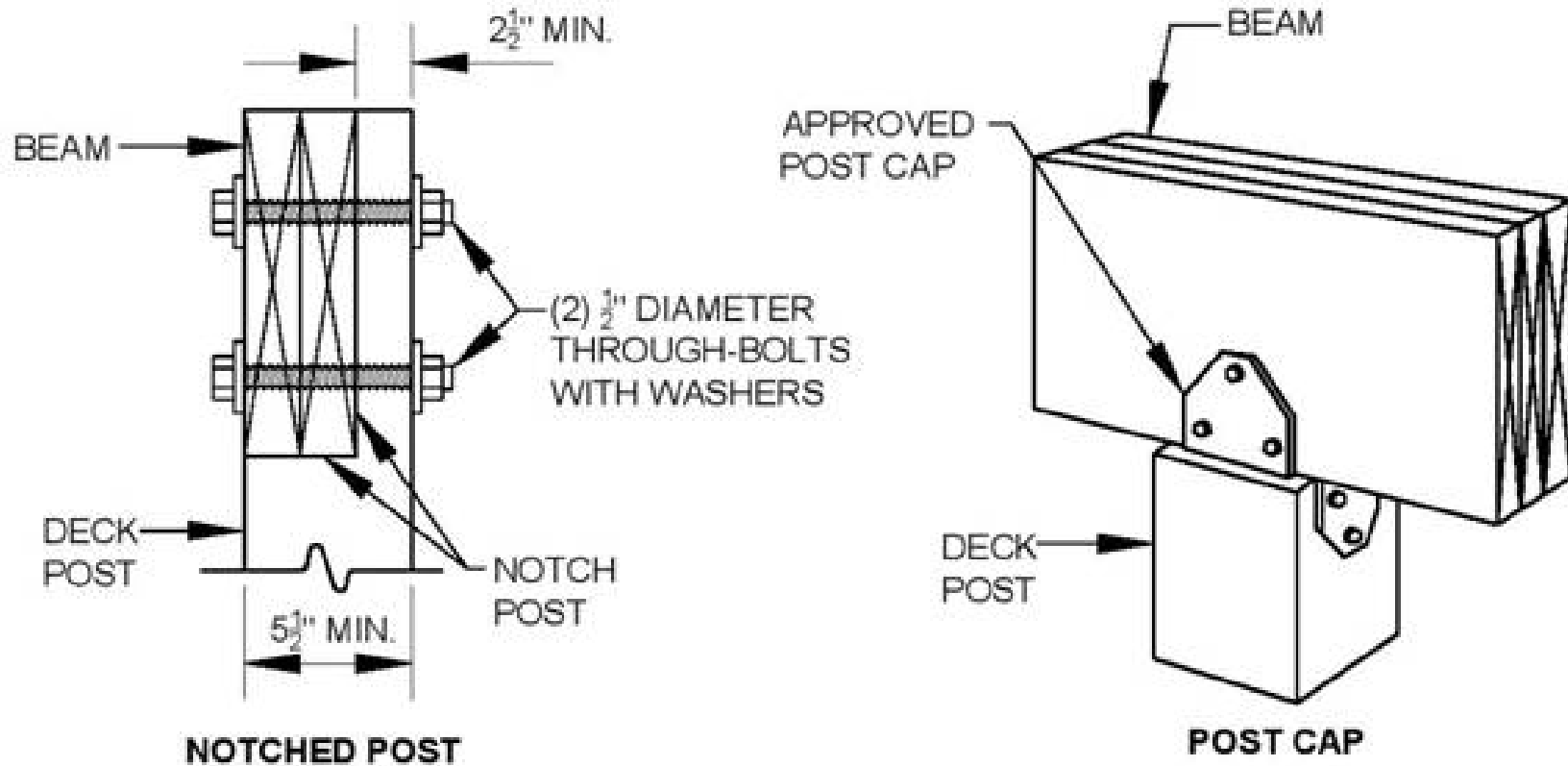
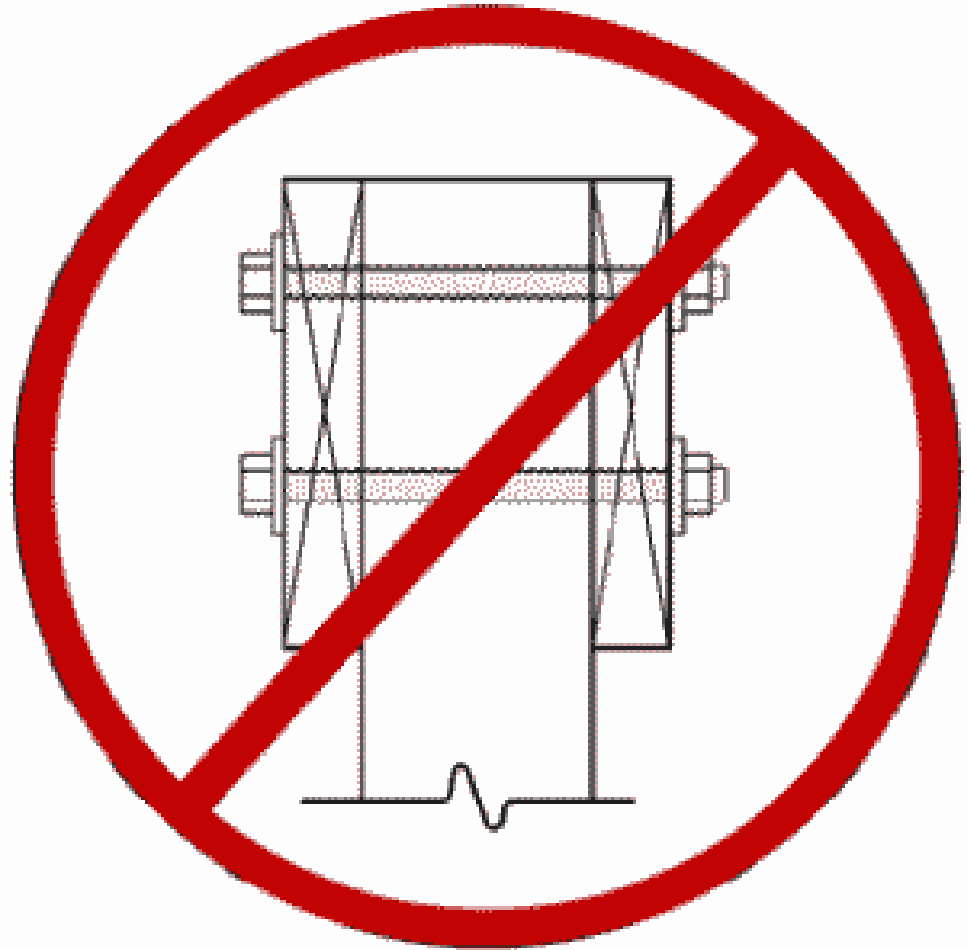
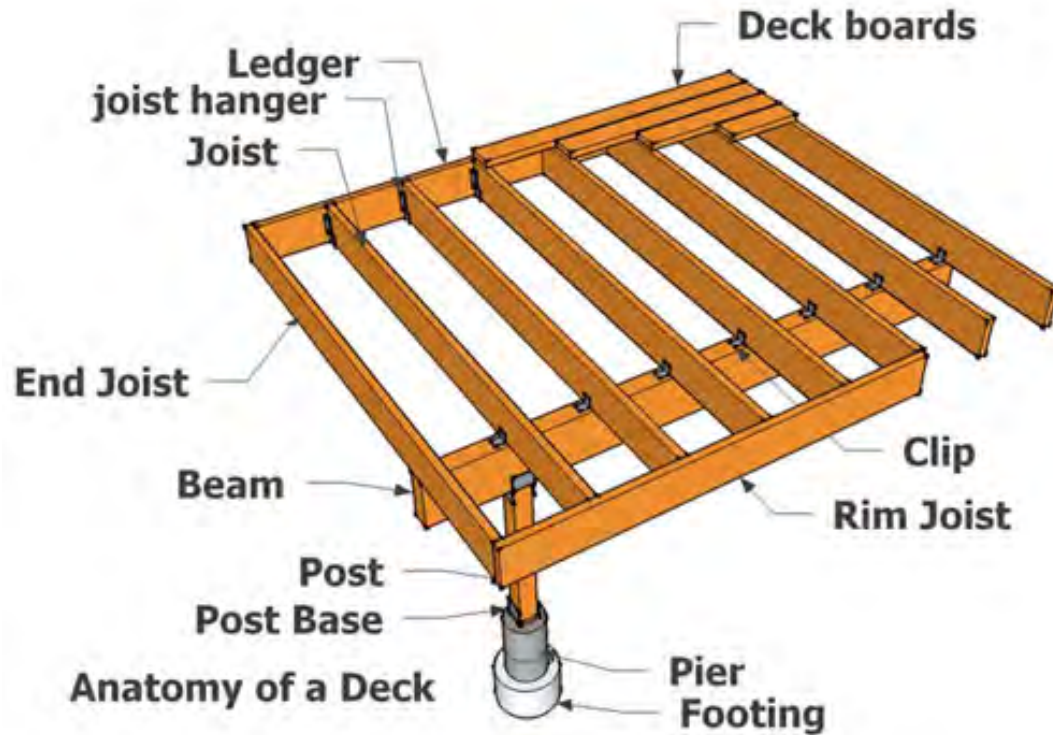


FIGURE R507.7.1
DECK BEAM TO DECK POST

ENTRANCES & DECKS



ENTRANCES & DECKS



Built up Wood Beams OBC 9.23.8.3

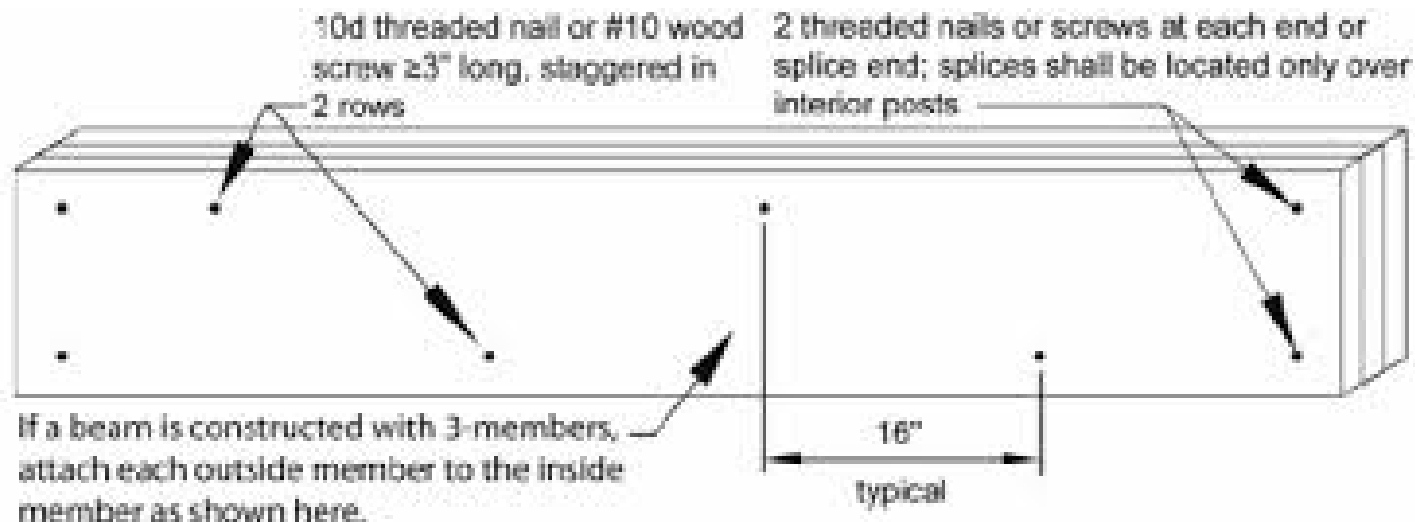
ENTRANCES & DECKS

Built up Wood Beams OBC 9.23.8.3

- **Joint shall occur over a support & shall not occur in adjacent members**
- **Shall be nailed together with a double row of nails not less than 89 mm in length, spaced not more than 450 mm apart in each row with the end nails located 100 mm to 150 mm from the end of each piece**
- **Allowed to be bolted too.**

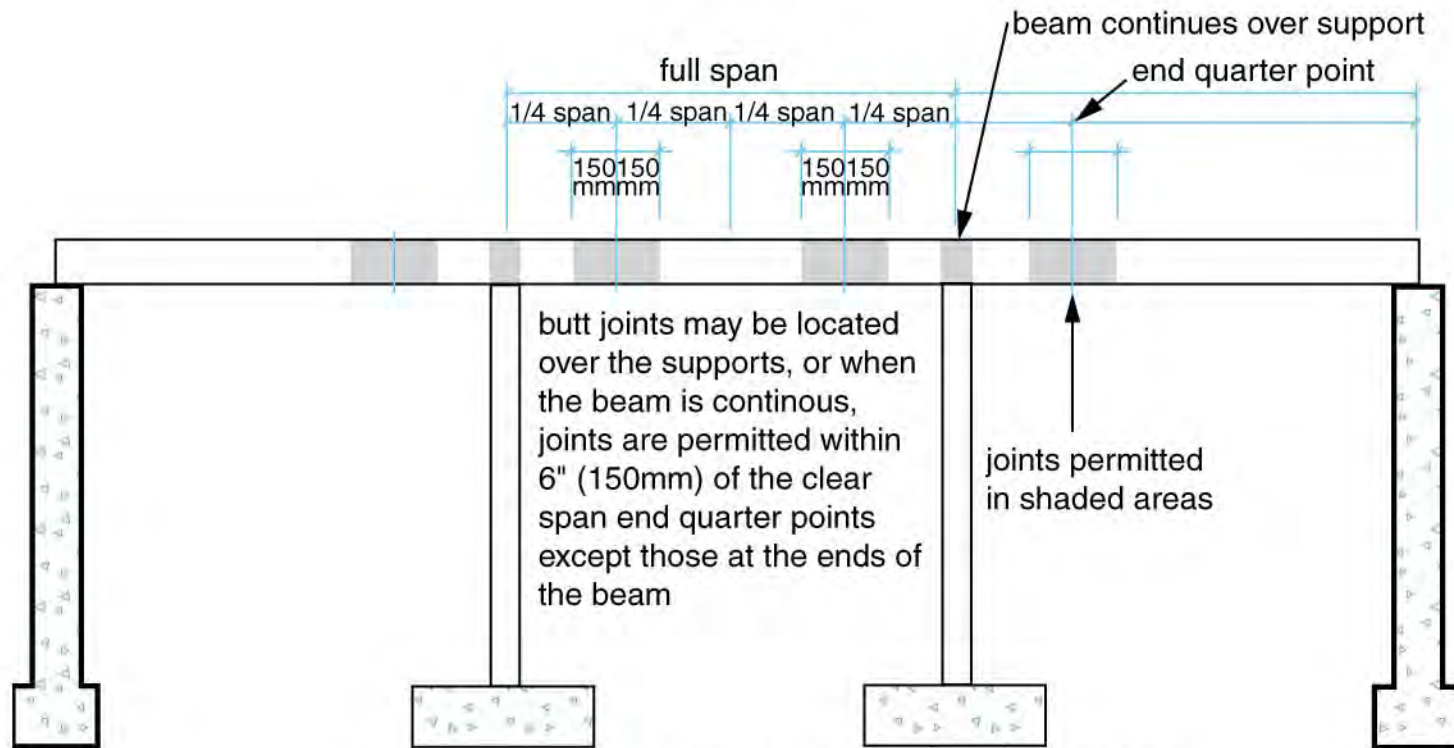
ENTRANCES & DECKS

Built up Wood Beams OBC 9.23.8.3



ENTRANCES & DECKS

Built up Wood Beams OBC 9.23.8.3

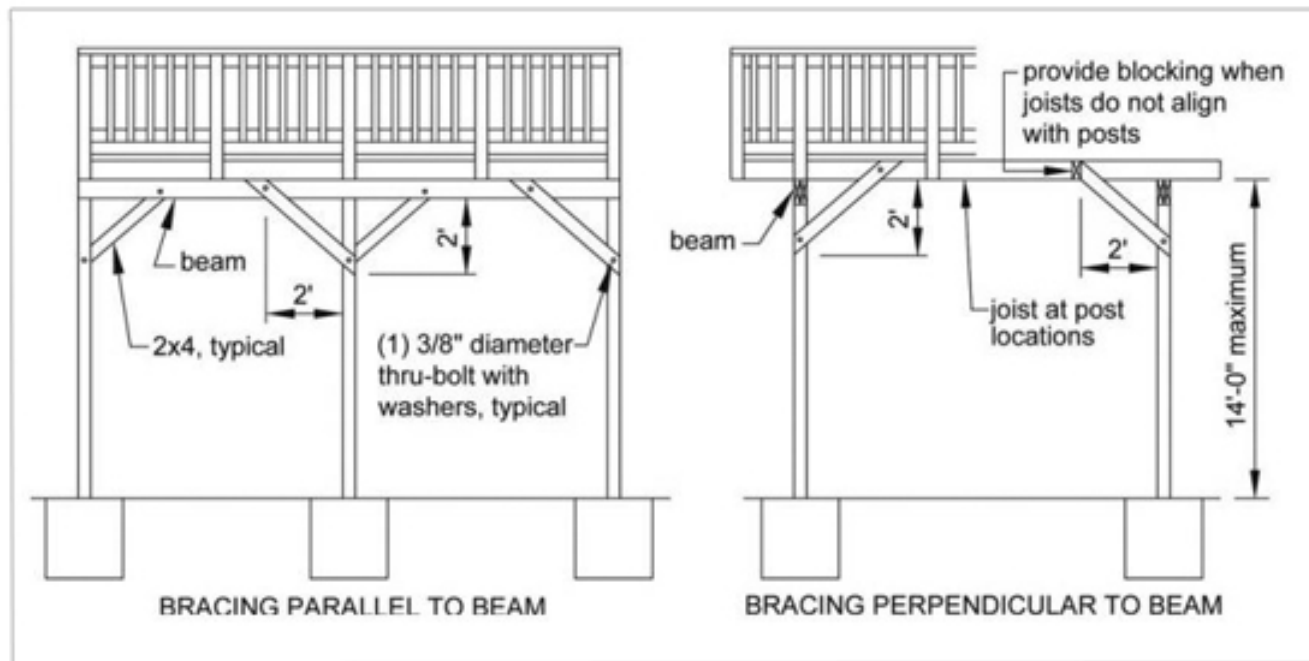


PERMISSIBLE JOINT LOCATIONS IN BUILT-UP BEAMS

ENTRANCES & DECKS

Cross Bracing

Diagonal Deck Bracing Requirements



Source: Prescriptive Residential Deck Construction Guide Based on the 2006 IRC American Wood Council

ENTRANCES & DECKS

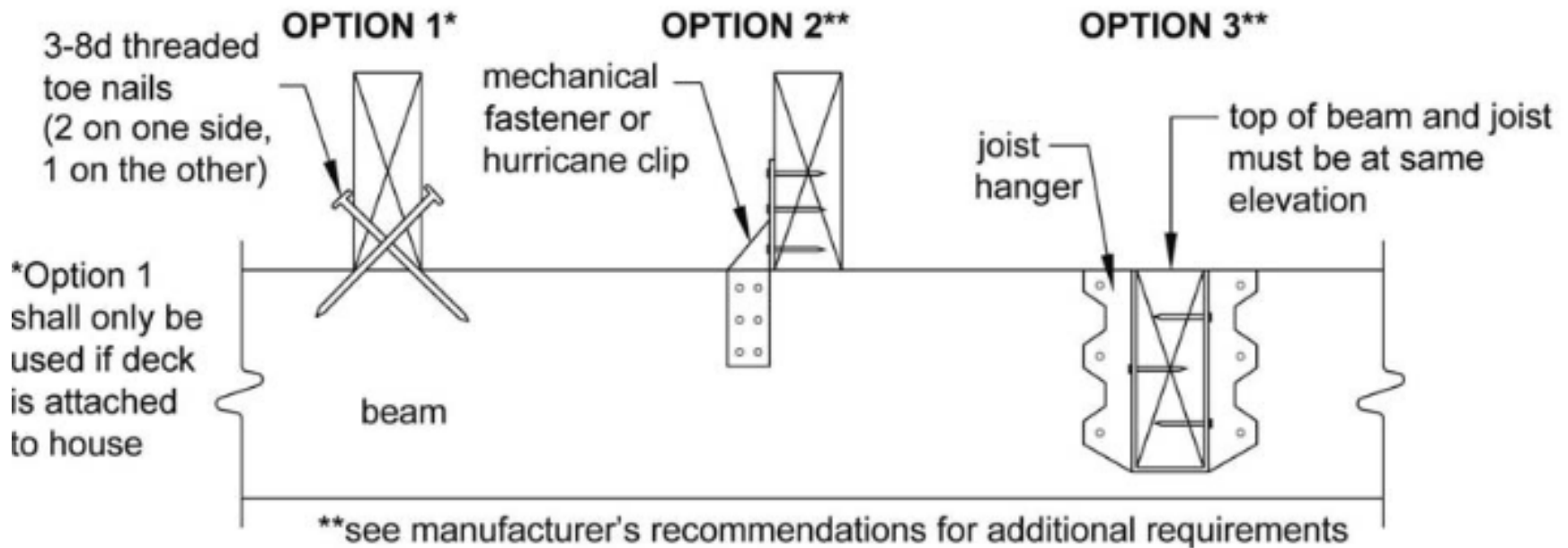
Joists OBC 9.23.8.3

- Floor joists may be supported on the tops of beams
- When framed into the side of a wood beam, joists shall be supported on joist hangers

ENTRANCES & DECKS

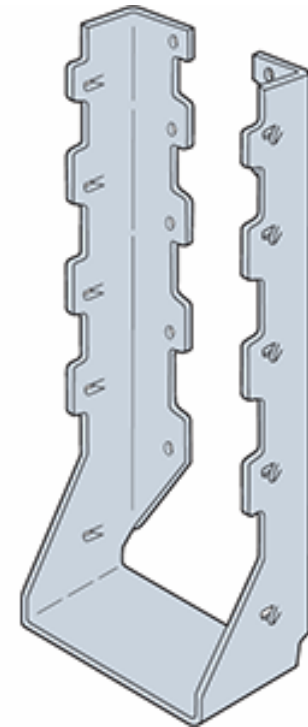
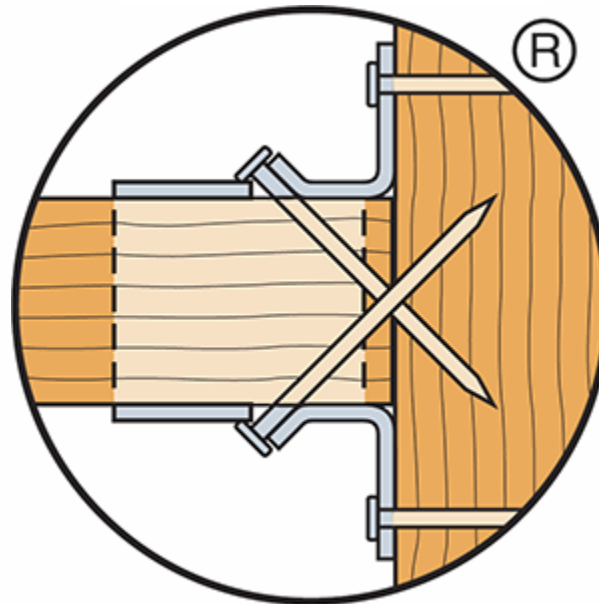
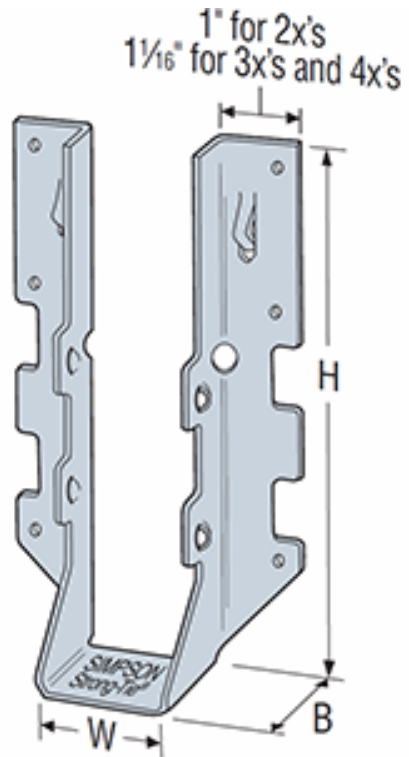
Joists OBC 9.23.8.3

Figure 6: Joist-to-Beam Detail



ENTRANCES & DECKS

Joists OBC 9.23.8.3



ENTRANCES & DECKS

Joist Protection



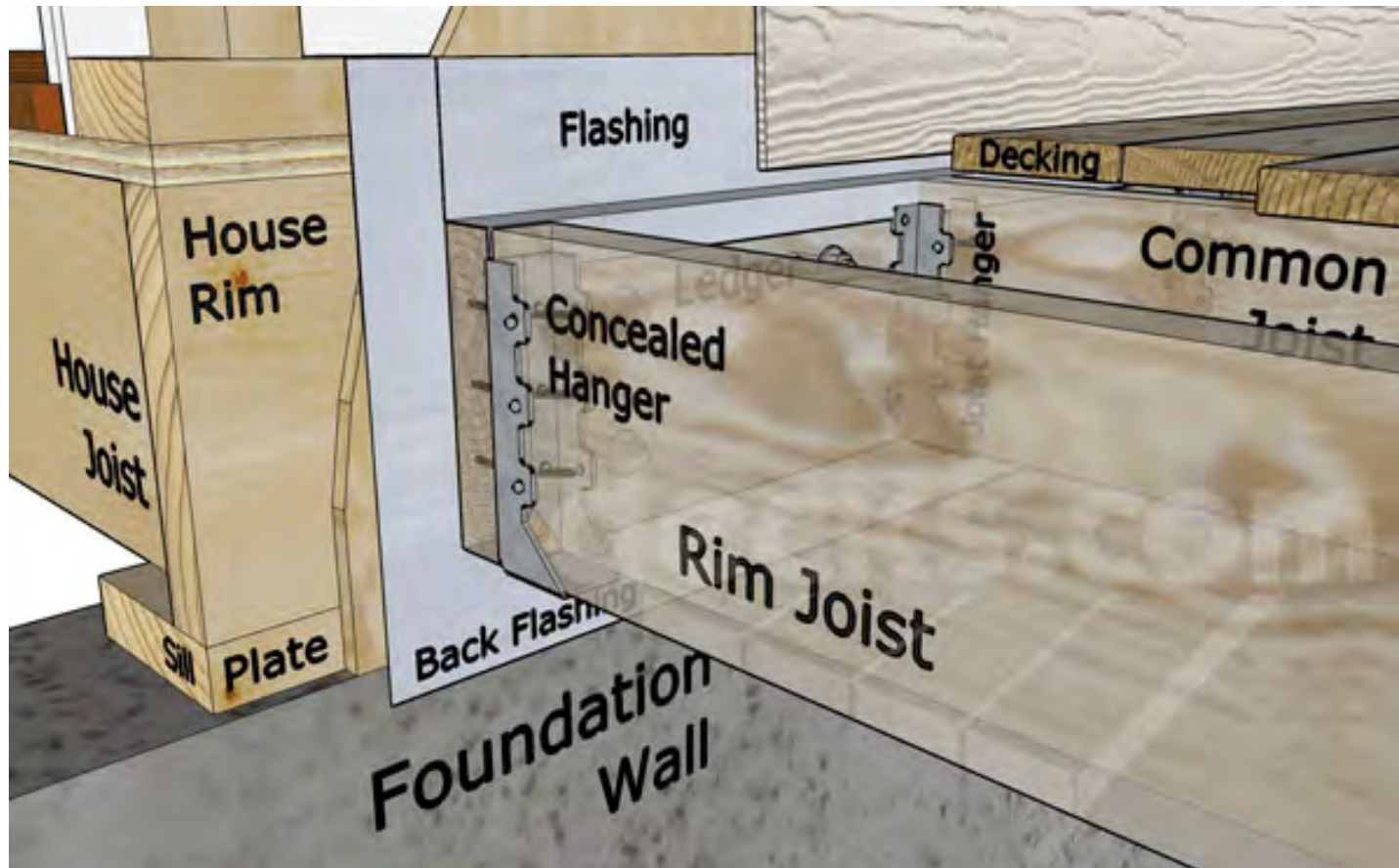
ENTRANCES & DECKS

Ledger Connections

- **Dependent on foundation type, siding type and where in elevation it is located on the exterior**

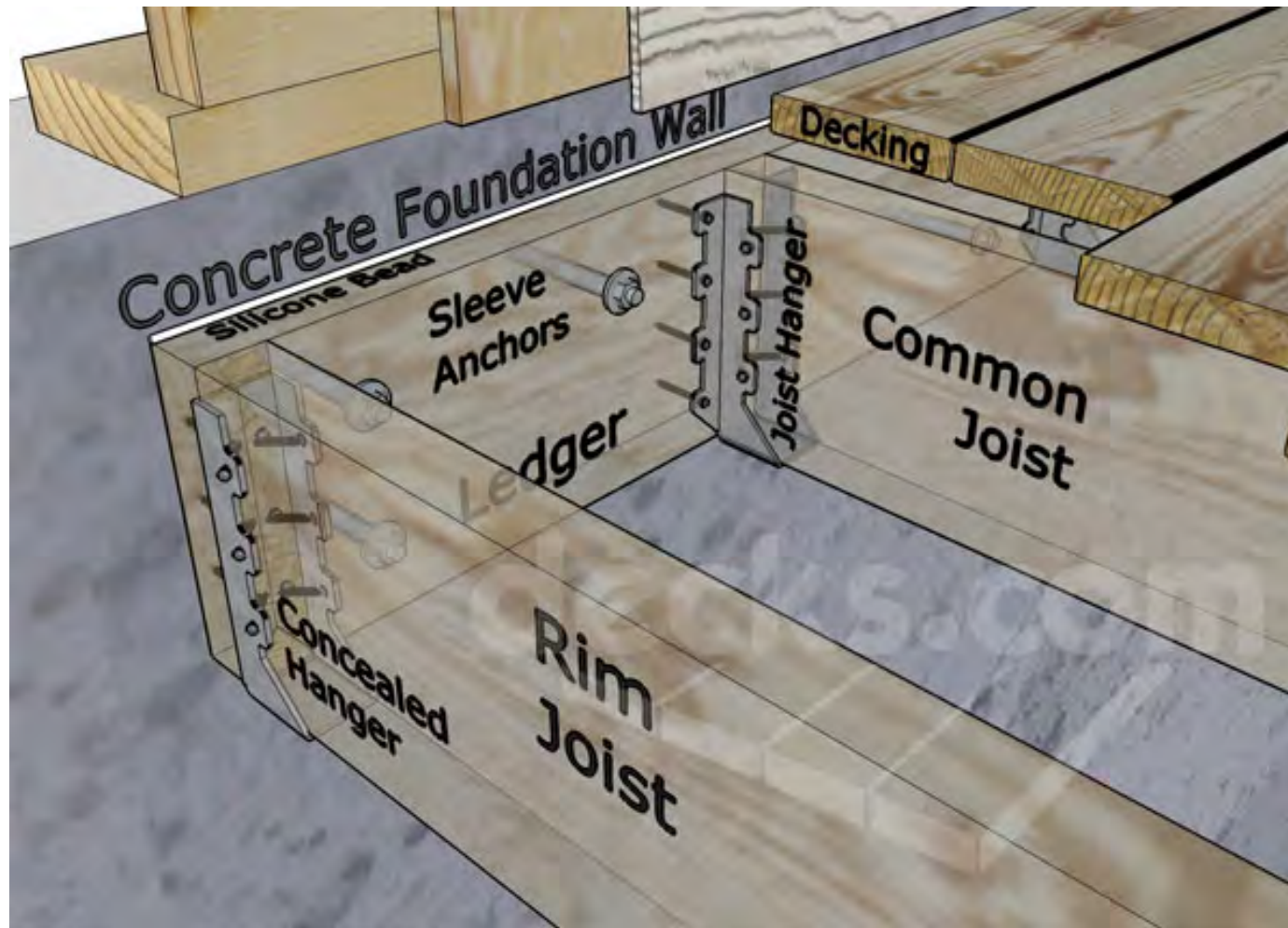
ENTRANCES & DECKS

Ledger Connections



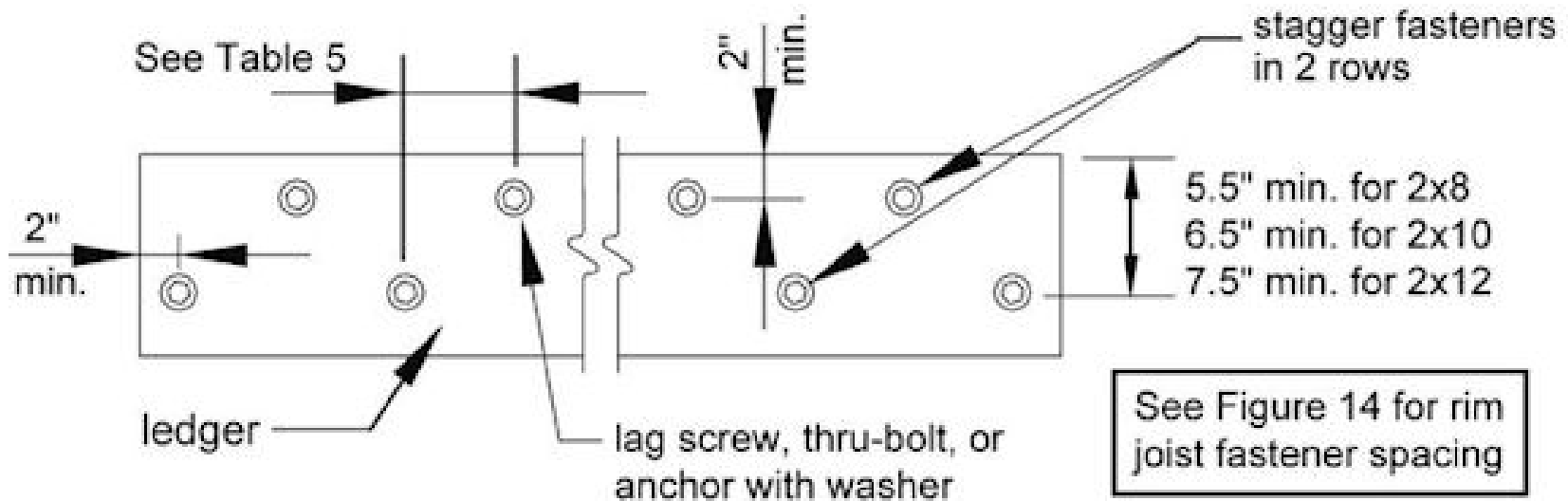
ENTRANCES & DECKS

Ledger Connections



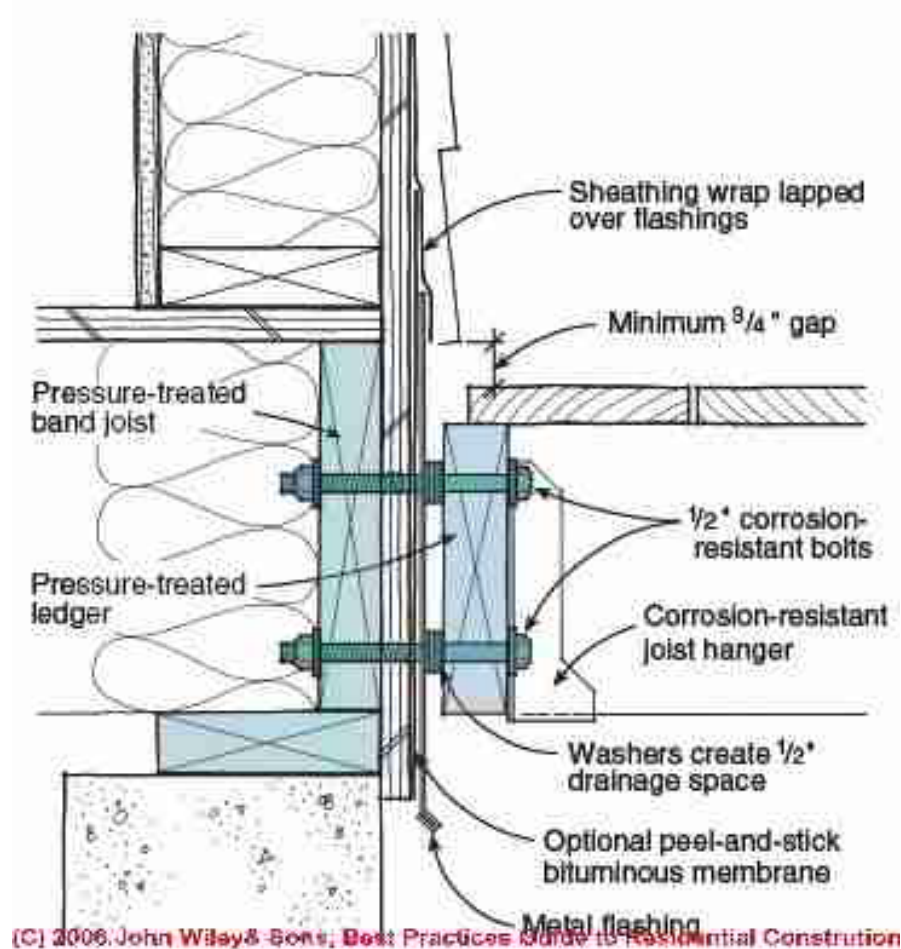
ENTRANCES & DECKS

Ledger Bolt Pattern



ENTRANCES & DECKS

Ledger Connections – Drainage Space



ENTRANCES & DECKS

Ledger Connections – Drainage Space



ENTRANCES & DECKS

Ledger Connections – Drainage Space



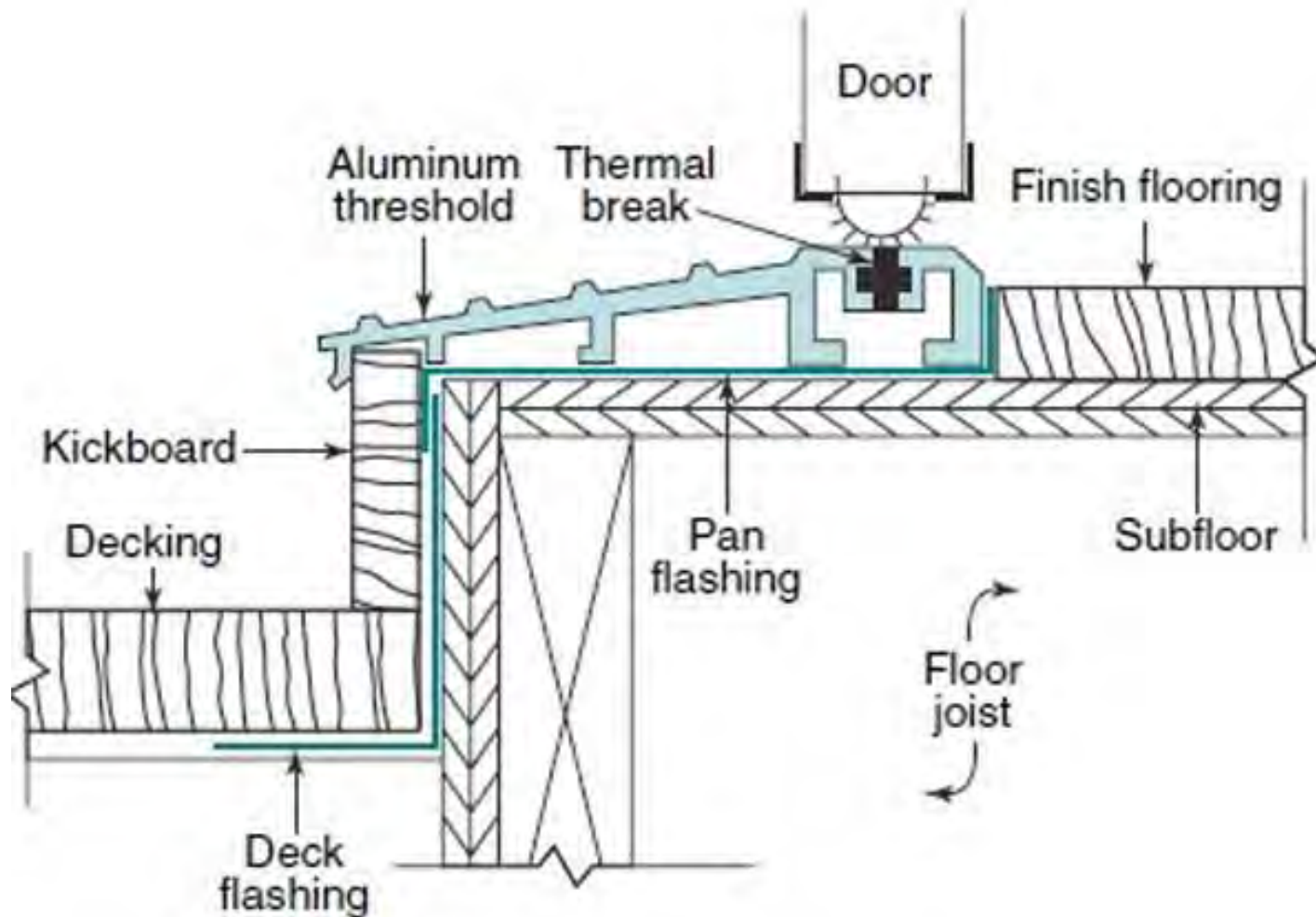
ENTRANCES & DECKS

Door Detail



ENTRANCES & DECKS

Door Detail



ENTRANCES & DECKS

WOOD ENTRANCES TO HOMES

Decking Options

- **\$ Pressure Treated**
- **\$\$ Cedar – Western Red**
- **\$\$\$ Composites - Plastics**
- **\$\$\$\$ Exotic/Tropical Woods:
teak, ipe, iron wood**

ENTRANCES & DECKS

STAIRS – OBC 9.8.2

- exterior stairs and required exit stairs serving a single dwelling unit, shall have a width of not less than 2'-9 3/4"
- Rise: Maximum 7 7/8", Minimum 4 15/16"
- Run: Maximum 13 15/16", Minimum 8 1/4"
- uniform height in any one flight with a maximum tolerance of 3/16" between adjacent treads

ENTRANCES & DECKS

STAIRS – OBC 9.8.2



Stair throat minimum is 3-1/2" for a 2"x10"

ENTRANCES & DECKS

HANDRAILS – OBC 9.8.7

- **at least one required handrail shall be continuous throughout the length of the stair**
- **height of handrails on stairs and ramps shall be, not less than 34” and not more than 38”**

ENTRANCES & DECKS

GUARDS – OBC 9.8.7

- a guard is required on each side that is not protected by a wall for the length, where, there is a difference in elevation of more than 23 5/8” between the walking surface and the adjacent surface

ENTRANCES & DECKS

GUARDS – OBC 9.8.7

- Height shall be not less than 35 7/16” high when the difference between adjacent surfaces is less than 6’.
- Height shall be not less than 42” high when the difference between adjacent surfaces is greater than 6’.

ENTRANCES & DECKS

GUARDS – OBC 9.8.7

- shall be designed so that no member, attachment or opening located between 5 ½” and 35 7/16” above the floor or walking surface protected by the guard will facilitate climbing.

ENTRANCES & DECKS

GUARDS – OBC 9.8.7

- **openings through any guard that is required by Article 9.8.8.1. shall be of a size that will prevent the passage of a spherical object having a diameter of 3 15/16”**

ENTRANCES & DECKS GUARDS



ENTRANCES & DECKS

GUARDS

