

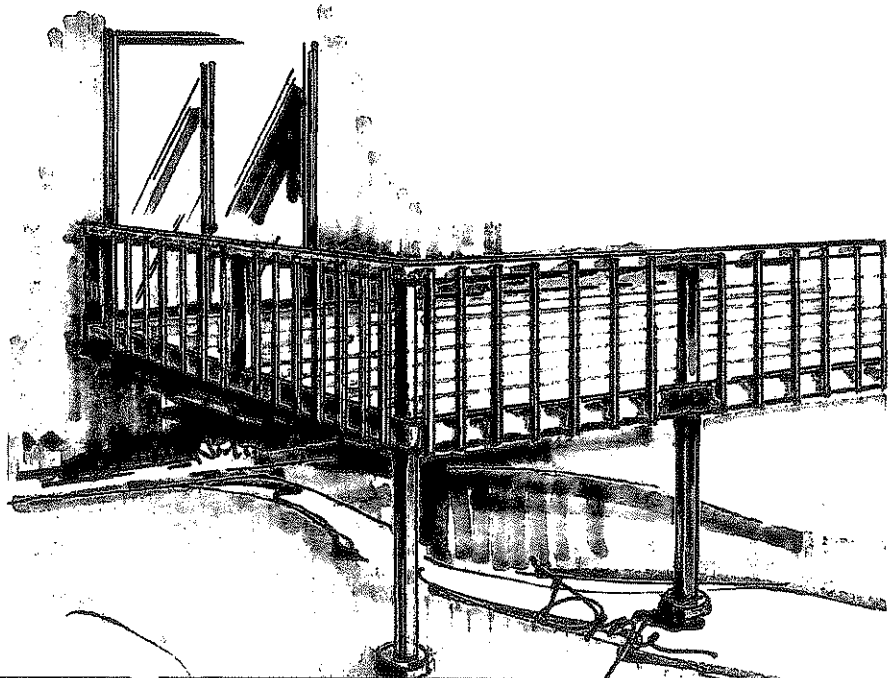
Single Family Residential Uncovered Decks and Porches

How to Use this Guide

Provide two sets of plans, drawn to scale and complete the following (*hint: use graph paper with 1/4" squares. Example: 1/4" = 1'*):

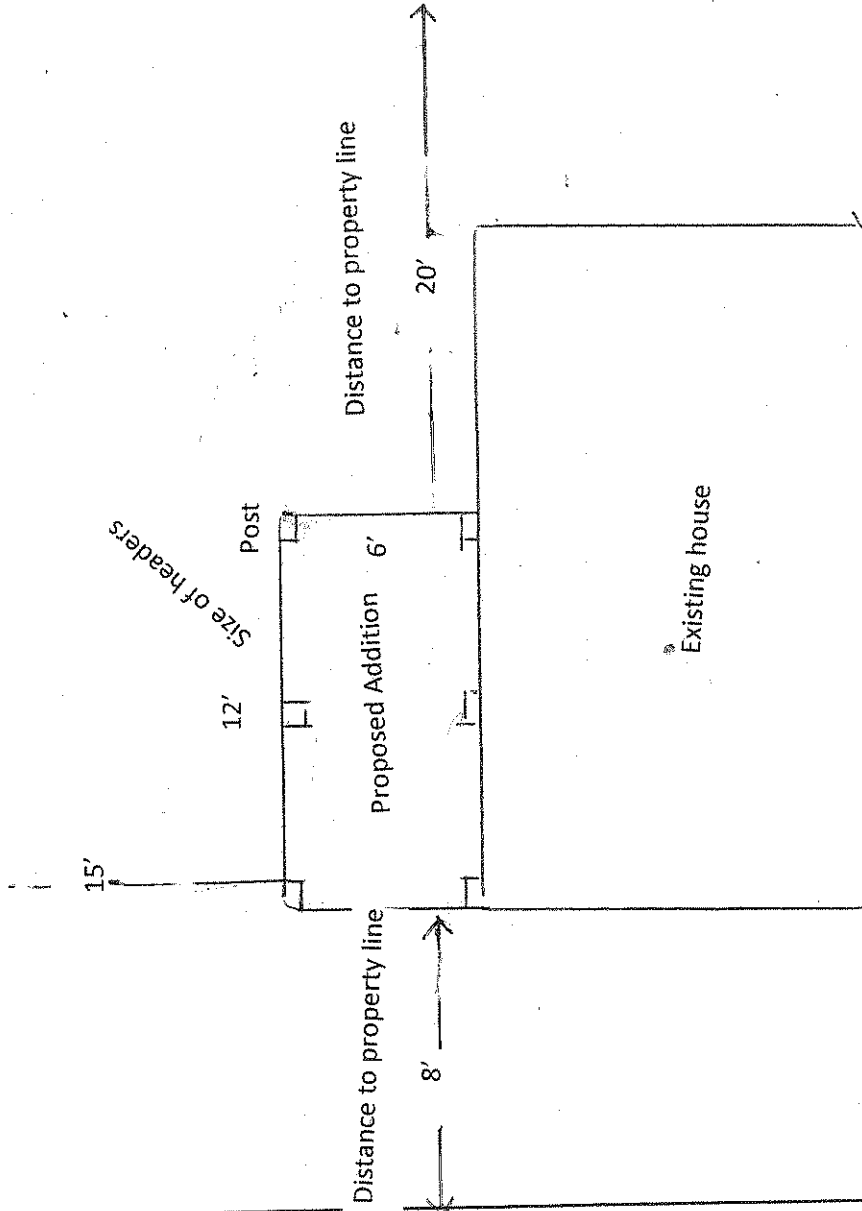
- 1. Complete this Building Guide** by filling in the blanks on page two, and indicating which construction details will be used.
- 2. Provide 2 Plot Plans** (site plan) showing dimensions of your project or addition and its relationship to existing buildings or structures on the property and the distance to existing property lines drawn to scale.
- 3. Fill out a building permit application.**

The majority of permit applications are processed with little delay. The submitted documents will help determine if the project is in compliance with building safety codes, zoning ordinances and other applicable laws.



This handout was developed as a basic plan submittal under the 2012 International Residential Code. It is not intended to cover all circumstances.

Provide a site plan showing the dimensions of your project or additions and its relationships to existing buildings or structures on the property and the distance to property lines.



On the site plan indicate details such as post locations and spacing, joist and beam spans, and any other pertinent information.

Name of Street

Single Family Residential Uncovered Decks and Porches

Directions

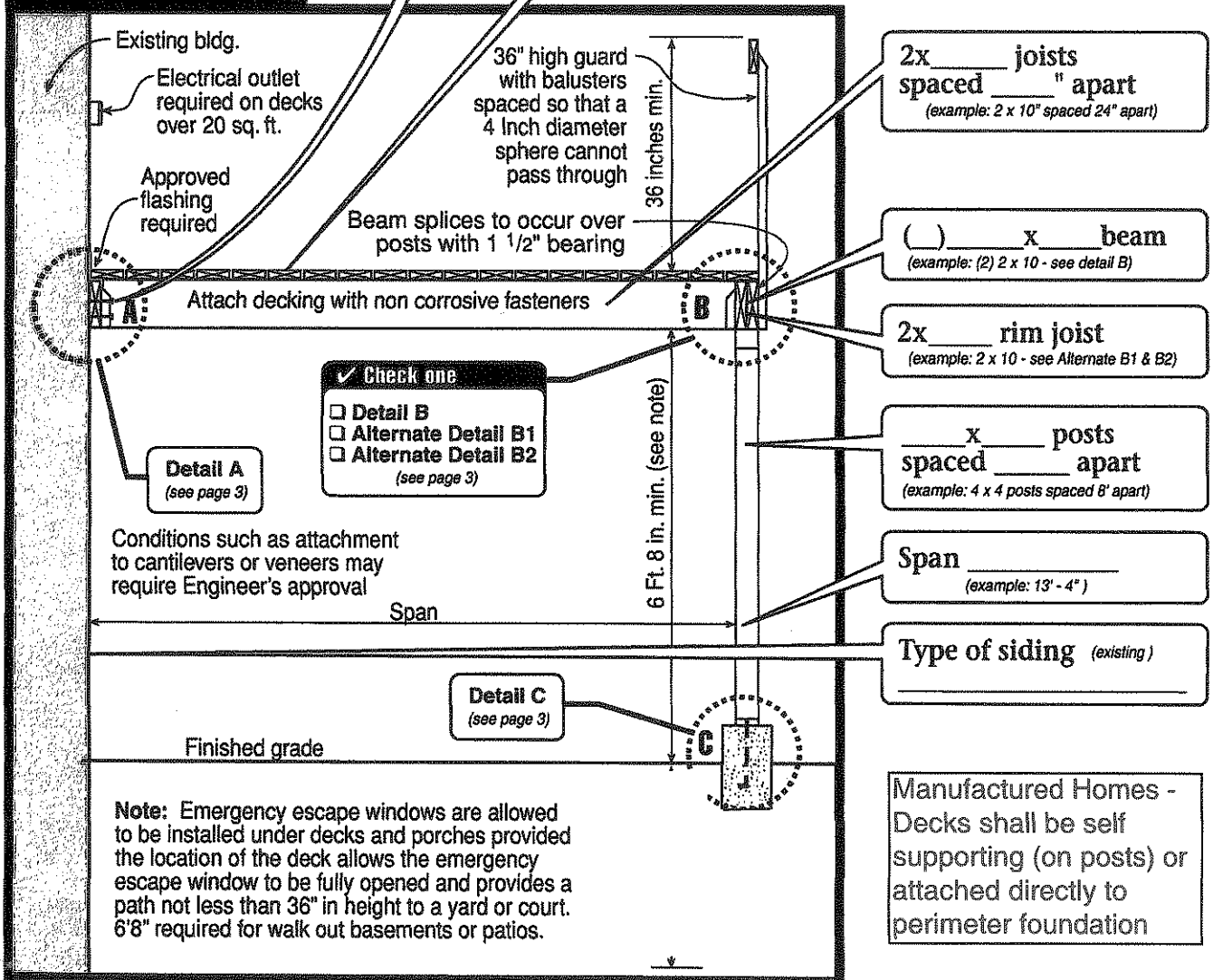
1. Fill in the blanks. Please print legibly.
2. Indicate in the check box which detail from page 3 will be used.

Address: _____

Size and Amount of Lags
 (example: Two 1/2"x 4 1/2" lags @ 16" O.C.)

Type of decking _____ x _____ -
 (example: 1 x 4 or 2 x 6 - Trex)

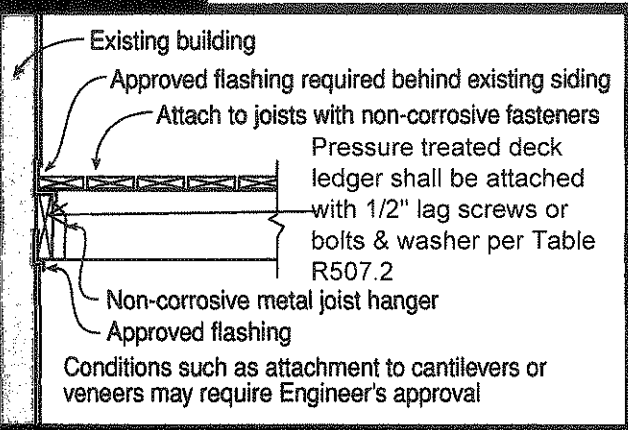
Deck Section



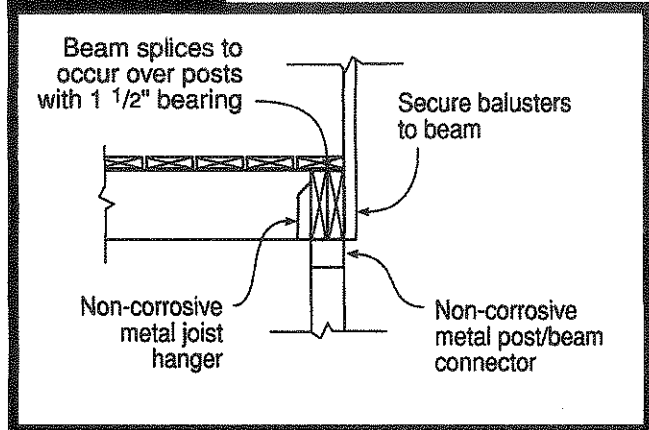
Note: A plot plan (plan view) showing the dimensions of your project or additions and its relationships to existing buildings or structures on the property must be included. In addition to project dimensions, your plot plan must also show other details such as post locations and spacing, joist and beam spans, and any other pertinent information not shown on the section drawing.

Single Family Residential Uncovered Decks and Porches

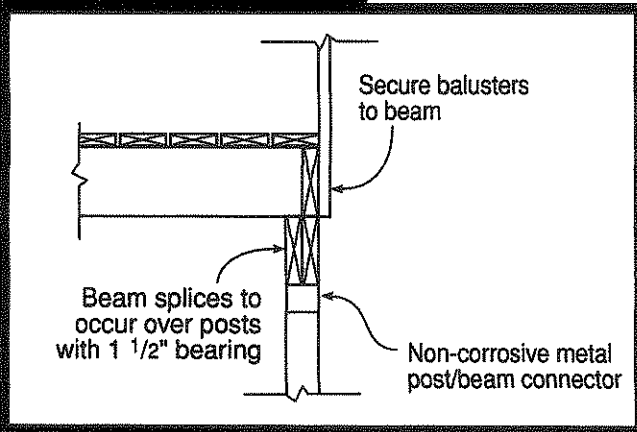
Detail A



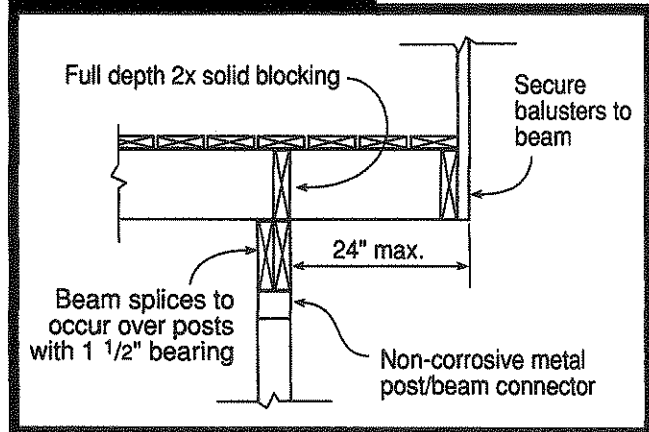
Detail B



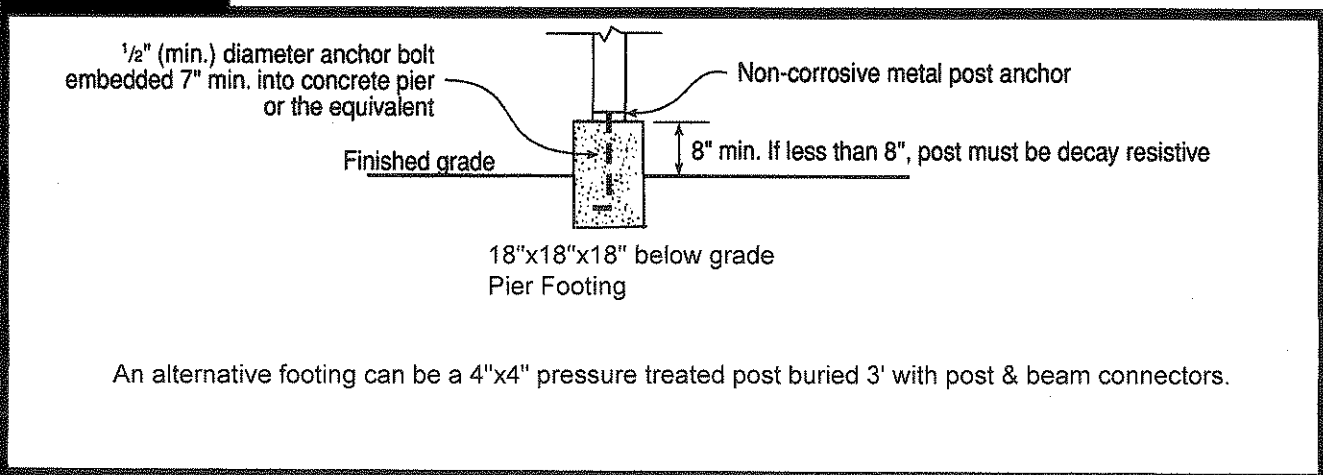
Alternate Detail B1



Alternate Detail B2

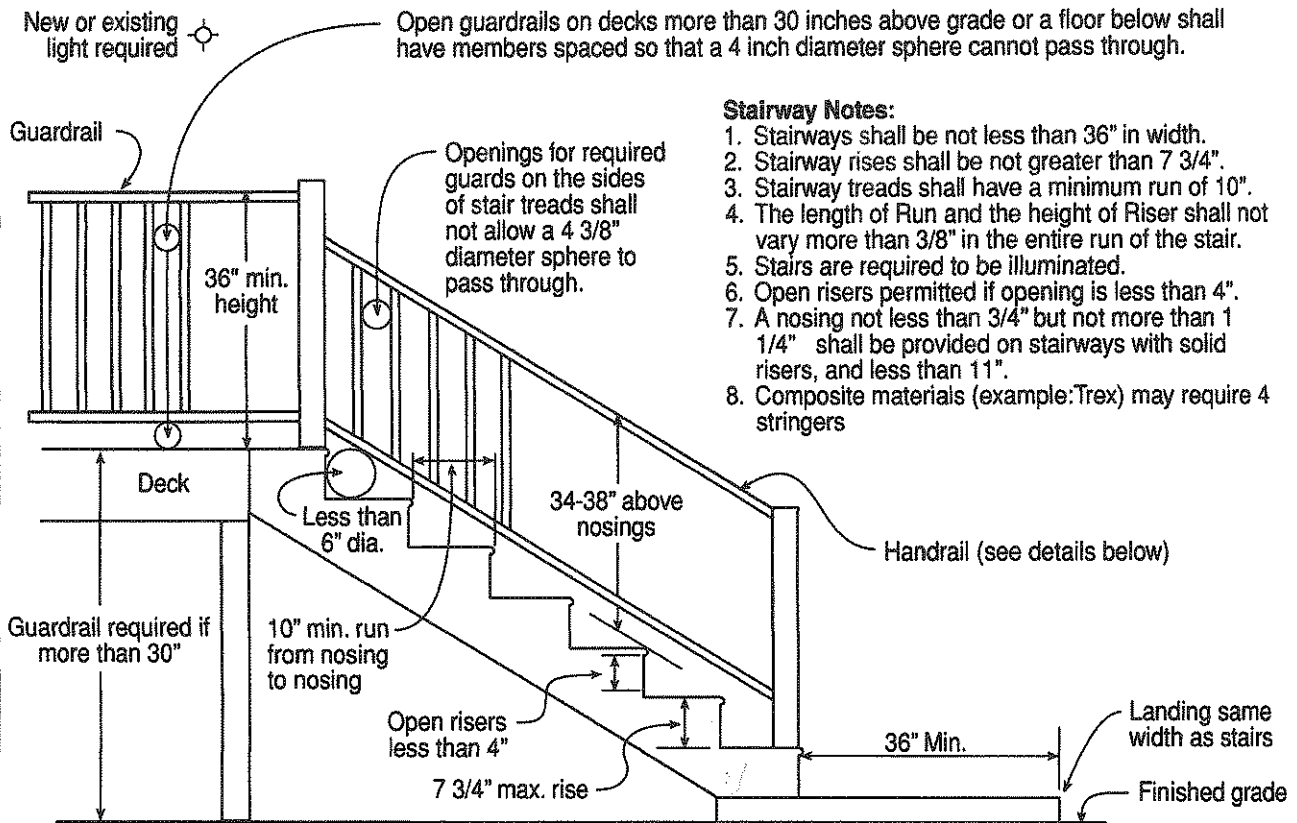


Detail C



Single Family Residential Uncovered Decks and Porches

Stair & Handrail Specifications



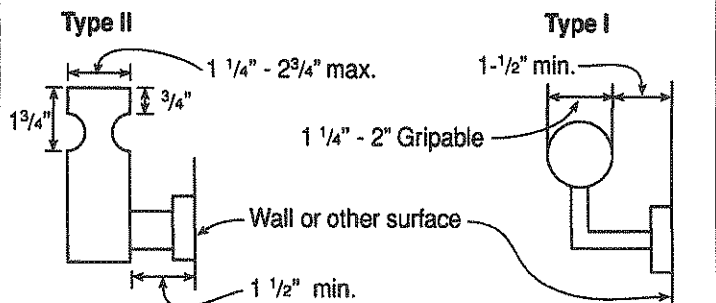
Stairway Notes:

1. Stairways shall be not less than 36" in width.
2. Stairway rises shall be not greater than 7 3/4".
3. Stairway treads shall have a minimum run of 10".
4. The length of Run and the height of Riser shall not vary more than 3/8" in the entire run of the stair.
5. Stairs are required to be illuminated.
6. Open risers permitted if opening is less than 4".
7. A nosing not less than 3/4" but not more than 1 1/4" shall be provided on stairways with solid risers, and less than 11".
8. Composite materials (example: Trex) may require 4 stringers

Handrail Notes:

1. Handrails shall be continuous on at least one side of stairs with 4 or more risers.
2. Top of the handrails shall be placed not less than 34 inches nor more than 38 inches above stair nosings.
3. The handgrip portion of handrails shall be not less than 1-1/4 inches nor more than 2 1/4 inches in cross section for non circular handrails.
4. Handrails shall be placed not less than 1-1/2 inches from any wall or other surface.
5. Handrails to be returned to wall, post or safety terminal (per 311.7.7.2 IRC)

Acceptable Handrail Details



Unacceptable Handrails

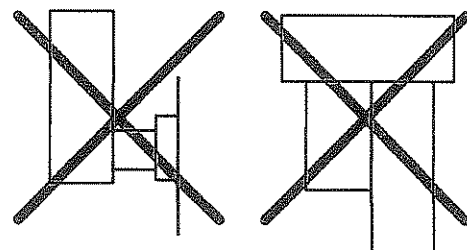


Table R507.2
Fastener Spacing for Deck Ledger (c,f,g)
(Deck live load = 40 psf, deck dead load = 10 psf)

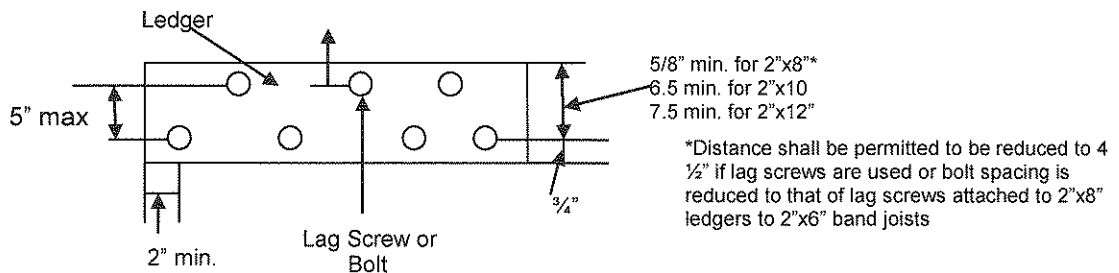
Joist Span	6' and less	6'1 to 8'	8'1" to 10'	10'1" to 12'	12'1" to 14'	14'1" to 16'	16'1" to 18"
Connection Detail	On-Center Spacing of Fasteners(d,e)						
1/2" diameter lag screw with 15/32" max. sheathing	30	23	18	15	13	11	10
1/2" diameter bolt with 15/32" max. sheathing	36	36	34	29	24	21	19
1/2" diameter bolt with 15/32" max. sheathing & 1/2" stacked washers (b,h)	36	36	29	24	21	18	16

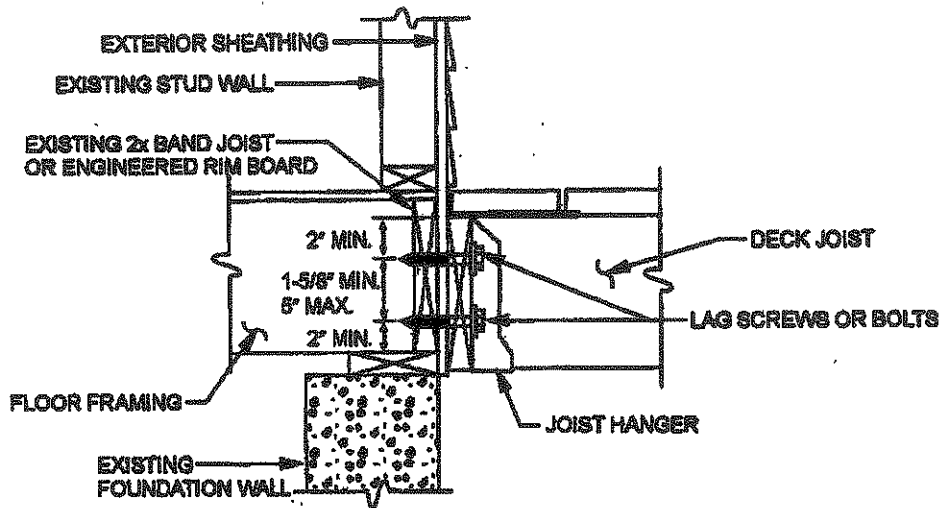
- The tip of the lag screw shall fully extend beyond the inside face of the band joist.
- The maximum gap between the face of the ledger board and the face of the wall sheathing shall be 1/2"
- Ledgers shall be flased to prevent water from contacting the house band joist.
- Lag screws and bolts shall be staggered in accordance with Section R507.2.1.
- Deck ledger shall be minimum 2x8 pressure-preservative-treated No. 2 grade lumber or other approved materials as established by standard engineering.
- When solid-sawn pressure-preservative-treated deck ledgers are attached to a minimum 1" thick engineered wood product (structural composite lumber, laminated veneer lumber or wood structural panel band joist) the ledger attachment shall be designed in accordance with accepted engineering practices.
- A minimum 1"x9 1/2" Douglas Fir laminated veneer lumber rimboard shall be permitted in lieu of the 2" nominal band joist.
- Wood structural panel sheathing or foam sheathing not exceeding 1" in thickness shall be permitted. The maximum distance between the face of the ledger board and the face of the band joist shall be 1"

Table R507.2.1
Placement of Lag Screws and Bolts in Deck Ledgers and Band Joists

Minimum End and Edge Distances and Spacing Between Rows				
	Top Edge	Bottom Edge	Ends	Row Spacing
Ledger(a)	2"(d)	1/4"	2"(b)	1 5/8"(b)
Band Joist(c)	3/4"	2"	2"(b)	1 5/8"(b)

- Lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figures R507.2(1).
- Maximum 5"
- For engineered rim joists, the manufacturer's recommendations shall govern.
- The minimum distance from bottom row of lag screws or bolts to the top edge of the ledger shall be in accordance with Figure 570.2.1(1).





Installed on concrete or masonry stemwall

FIGURE R507.2.1(2)
PLACEMENT OF LAG SCREWS AND BOLTS IN BAND JOISTS

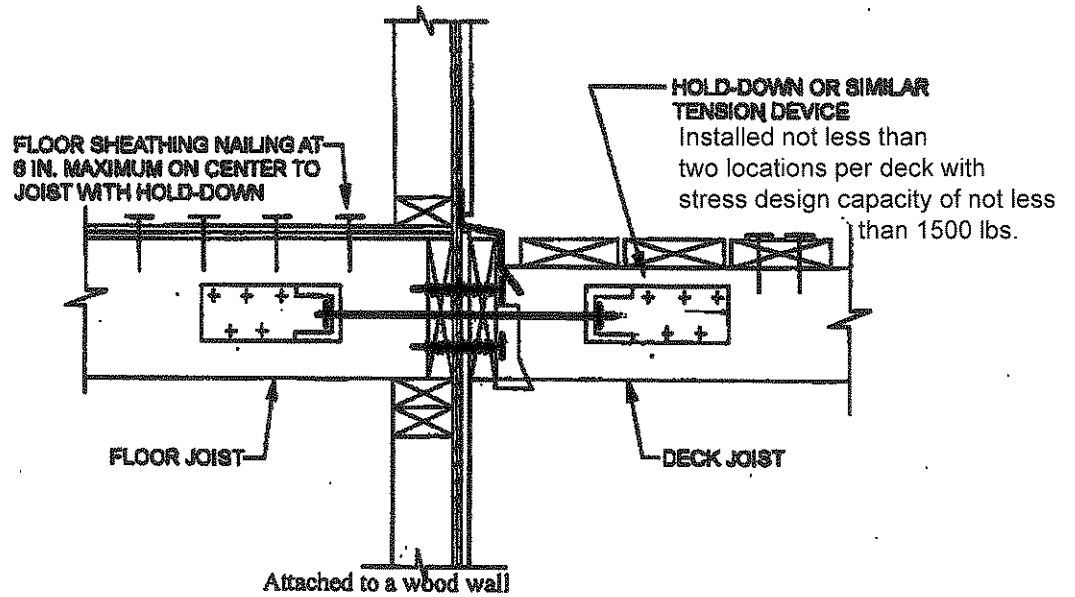


FIGURE R507.2.3
DECK ATTACHMENT FOR LATERAL LOADS

DECK FLOOR JOIST SPANS

40 psf live load

IRC Table R503.3.1(2)

JOIST SPACING	2"X6"	2"X8"	2"X10"	2"X12"
12" o.c.	10'9"	14'2"	17'9"	20'7"
16" o.c.	9'9"	12'7"	15'5"	17'10"
19.2 o.c.	9'1"	11'6"	14'1"	16'3"
24" o.c.	8'1"	10'3"	12'7"	14'7"

GIRDER SPANS (IRC TABLE R502.5(1))

BUILDING WIDTH						
Size	20'		28'		36'	
	Span	# of Jack Studs	Span	# of Jack Studs	Span	# of Jack Studs
2-2x4	3'6"	1	3'2"	1	2'10"	1
2-2x6	5'5"	1	4'8"	1	4'2"	1
2-2x8	6'10"	1	5'11"	2	5'4"	2
2-2x10	8'5"	2	7'3"	2	6'6"	2
2-2x12	9'9"	2	8'5"	2	7'6"	2
2-2x8	8'4"	1	7'5"	2	6'8"	2
3-2x10	10'6"	1	9'1"	2	8'2"	2
3-2x12	12'2"	2	10'7"	2	9'5"	2
4-2x8	9'2"	1	8'4"	1	7'8"	1
4-2x10	11'8"	1	10'6"	1	9'5"	2
4-2x12	14'1'	1	12'2"	2	10'11"	2