

TABLE R507.2
FASTENER SPACING FOR A SOUTHERN PINE OR HEM-FIR DECK LEDGER AND A 2-INCH-NOMINAL SOLID-SAWN SPRUCE-PINE-FIR BAND JOIST^{0, 1, g}
(Deck live load = 40 psf. deck dead load = 10 psf)

| (Deck live load = 40 psr, deck dead load = 10 psr) | | | | | | | | | | |
|---|--|------------|-------------|--------------|--------------|--------------|--------------|--|--|--|
| 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 details | On-center spacing of fasteners ^{d, e} | | | | | | | | | |
| 1/2 inch diameter lag screw with 15/32 inch maximum sheathing* | 30 | 23 | 18 | 15 | 13 | 11 | 10 | | | |
| ¹ / ₂ inch diameter bolt with ¹⁵ / ₃₂ inch maximum sheathing | 36 | 36 | 34 | 29 | 24 | 21 | 19 | | | |
| ¹ / ₂ inch diameter bolt with ¹⁵ / ₃₂ inch maximum sheathing and ¹ / ₂ inch stacked washers ^{b, h} | 36 | 36 | 29 | 24 | 21 | 81 | 16 | | | |

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm. 1 pound per square foot = 0.0479 kPa. a. The tip of the lag screw shall fully extend beyond the inside face of the band joist.

b. The maximum gap between the face of the ledger board and face of the wall sheathing shall be 1/2 inch.

c. Ledgers shall be flashed to prevent water from contacting the house band joist. d. Lag screws and bolts shall be staggered in accordance with Section R507.2.1.

e. Deck ledger shall be minimum 2 x 8 pressure-preservative-treated No. 2 grade lumber, or other approved materials as established by standard engineering

f. When solid-sawn pressure-preservative-treated deck ledgers are attached to a minimum 1-inch-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 practice. g. A minimum 1 × 9¹/₂ Douglas Fir laminated veneer lumber rimboard shall be permitted in lieu of the 2-inch nominal band joist.

h. Wood structural panel sheathing, gypsum board sheathing or foam sheathing not exceeding 1 inch 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 inch.

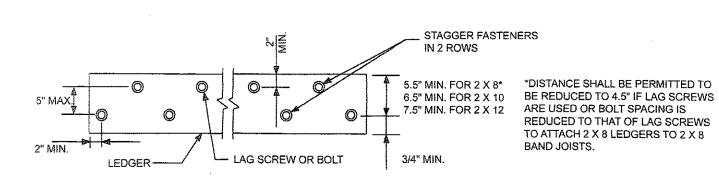
TABLE 507.2.1

| 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 | | | |
| _edger ^a | 2 inches ^d | 1/4 inch | 2 inches ^b | 1 ⁵ / ₈ inches ^b | | | |
| Band Joist ^e | ³/₄ inch | 2 inches | 2 inches ^b | 1 ⁵ / ₈ inches ^b | | | |

a. Lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figure R507.2.1(1). b. Maximum 5 inches.

c. For engineered rim joists, the manufacturer's recommendations shall govern.

d. The minimum distance from bottom row of lag screws or bolts to the top edge of the ledger shall be in accordance with Figure R507.2.1(1).



For SI: 1 inch = 25.4 mm.

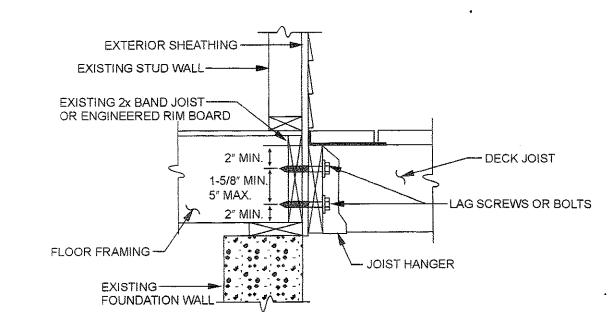
FIGURE R507.2.1(1) PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS

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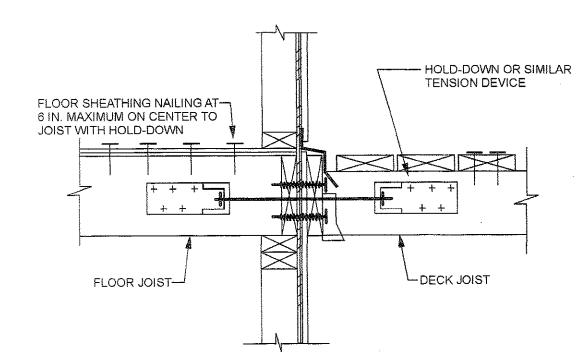
R507.3 Wood/plastic composites. Wood/plastic composites used in exterior deck boards, stair treads, handrails and guardrail systems shall bear a label indicating the required performance levels and demonstrating compliance with the provisions of ASTM D 7032.

R507.3.1 Installation of wood/plastic composites. Wood/plastic composites shall be installed in accordance with the manufacturer's instructions.



For SI: 1 inch = 25.4 mm.

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



For SI: 1 inch = 25.4 mm.

FIGURE 507.2.3 DECK ATTACHMENT FOR LATERAL LOADS

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GENERAL NOTES

FLOORS

- 1. ALL WORK SHALL CONFORM TO LOCAL AND STATE LAWS, ORDINANCES, AND PREVAILING EDITIONS OF ADOPTED BUILDING CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS.
- 2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING THE WORK AND REPORT ANY DISCREANCIES TO THE ARCHITECT. CONTRACTOR SHALL PROCEED WITH THE WORK ONLY AFTER THE ARCHITECT HAS RESOLVED THE DISCREPANCY. CONTRACTOR SHALL REVIEW AND VERIFY EXISTING CONDITIONS PRIOR TO STARTING THE WORK IN ANY GIVEN AREA.
- 3. WORK WITH GIVEN DIMENSIONS AND LARGE SCALE DRAWINGS. DO NOT SCALE THE DRAWINGS AS THE REPRODUCTIVE PROCESS TENDS TO CAUSE SLIGHT DISCREPANCIES IN SCALE ACCURACY.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION ACTIVITIES, WHICH SHALL BE PERFORMED IN A NEAT, CLEAN, AND SAFE MANNER.

FOUNDATION NOTES

- 1. ALL CONCRETE SHALL BE 3000 PSI AT VERTICAL WALLS AND INTERIOR SLABS. EXTERIOR SLABS EXPOSED TO WEATHER SHALL BE 3500 PSI.
- 2. DO NOT PLACE CONCRETE IN WET CONDITIONS OR ON FROZEN SUBSTRATE.
- 3. SOIL BEARING PRESSURE IS ASSUMED TO BE 3000 PSF. CONTRACTOR SHALL NOTIFY ARCHITECT OF UNSUITABLE SOILS CONDITIONS PRIOR TO FORMING FOUNDATION.
- 4. FOOTINGS, WALLS, AND SONOTUBES SHALL HAVE CONTINUOUS STEEL REBAR
- REINFORCING AS INDICATED ON THE DRAWINGS. 5. FOUNDATION WALLS SHALL BE KEYED INTO CONTINUOUS FOOTING WITH BEVELED 2X4 PROFILE OR WITH 8" LONG #4 REBAR DOWELS AT 48" ON CENTER.
- 6. FULL FOUNDATION WALLS SHALL RECEIVE CONTINUOUS ASPHALTIC EMULSION MOISTUREPROOF COMPOUND APPLEID TO THE EXTERIOR SURFACES BELOW FINISH
- 7. FULL FOUNDATIONS SHALL HAVE CONTINUOUS SILT PROOF DRAINAGE PIPE EACH SIDE OF FOOTING AND SHALL DRAIN TO DAYLIGHT AT A LOWER ELEVATION THAN THE BOTTOM OF FOOTING. MINIMUM DRAINAGE PIPE PITCH SHALL SLOPE 1/8" PER LINEAR FOOT.

FRAMING NOTES

- 1. THE LOCATION OF ALL DOOR JAMBS NOT DIMENSIONS SHALL BE 6" FROM THE PERPENDICULAR WALL.
- 2. ALL FRAMING LUMBER SHALL BE KILN-DRIED, NUMBER 1 GRADE SPF OR BETTER. MOISTURE CONTENT SHALL NOT EXCEED 15%. ALL EXTERIOR WOOD TRIM SHALL BE AZEK, UNLESS INDICATED OTHERWISE. ALL JOINTS SHALL BE SEALED PRIOR TO PAINTING.
- 3. ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE-PRESERVATIVE TREATED.
- 4. HEADERS AND BEAMS SHALL BE COMPOSED OF ALTERNATE 2X AND ½" CDX PLYWOOD IN THE SIZE INDICATEDON THE DRAWINGS, UNLESS INDICATED OTHERWISE. STRUCTURAL HEADERS AND BEAMS SHALL HAVE A MINIMUM BEARING OF 3" AT EACH END, UNLESS OTHERWISE NOTED.

SPANS UP TO 3'-6" 3-2X8'S SPANS 3'-6" TO 5'-6" 3-2X10'S 3-2X12" SPANS 5'-6" TO 8-6"

- SPANS OVER 8'-6" 5. ALL TRUSSES AND LAMINATED TYPE BEAMS SHALL BE INSTALLED IN ACCORDANCE WITH
- THE MANUFACTURERS' WRITTEN INSTRUCTIONS. 6. ALL EXTERIOR WALLS SHALL BE FRAMED WITH 2X6 STUDS AT 16" O.C. ALL INTERIOR WALLS SHALL BE FRAMED WITH 2X4 STUDS AT 16" O.C., EXCEPT 2X6 STUDS AT 16" O.C. AT PLUMBING STACKS AND LOCATIONS NOTED ON THE DRAWINGS.

AS NOTED

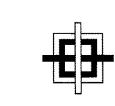
- 7. ALL GANG-NAILED COLUMNS SHALL BE SIZED AS INDICATED ON THE DRAWINGS.
- 8. STEEL BEAMS SHALL HAVE A MINIMUM BEARING OF 3" AT EACH SUPPORT POINT, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

<u>ENERGY CRITERIA – ZONE 6A PER 2009 IECC</u>

- 1. FROST WALL FOUNDATION INSULATION VALUE SHALL BE R-15 EXTRUDED POLYSTYRENE
- VERTICAL WALL TO A DEPTH OF 4'-0" MINIMUM BELOW GRADE. 2. HORIZONTAL PERIMETER INSULATION VALUE SHALL BE R-10 EXTRUDED POLYSTYRENE AT CONCRETE SLABS, UNLESS UNDICATED OTHERWISE.
- 3. FLOOR FRAMING PERIMETER CONDITIONS SHALL HAVE R-21 BATT INSULATION BLOCKERS CONTINUOUS AT ALL EXTERIOR EXPOSURES.
- 4. EXTERIOR WALLS SHALL HAVE R-21 BATT INSULATION CONTINUOUS AT ALL EXTERIOR EXPOSURES. 5. ATTIC CEILINGS SHALL HAVE R-49 BATT INSULATION AT CAP CONDITION; R-38 BATT
- INSULATION AT SLOPED ROOF FRAMING (CATHEDRAL CEILING) CONDITIONS WITH AIR VENT BAFFLES (PROPAVENT).
- 6. EXTERIOR DOORS SHALL HAVE R-10 INSULATION VALUE AND FULL WEATHERSTRIPPING.
- 7. EXTERIOR WINDOWS SHALL BE MINIMUM U=0.35.
- 8. FULL BASEMENT WALL INSULATION VALUE SHALL BE R-19 IF INSULATION IS LOCATED AT THE INTERIOR FACE OF THE FOUNDATION WALL IN LIEU OF THE EXTERIOR FACE (INDICATED IN #1 ABOVE).

FIRE SAFETY CRITERIA

- 1. ALL SLEEPING ROOMS SHALL HAVE HARD-WIRED SMOKE DETECTORS WITH BATTERY
- 2. ALL STAIRWELLS SHALL HAVE HARD-WIRED SMOKE DETECTORS WITH BATTERY BACK-UP
- AT THE UPPER LANDING OF EACH RUN. 3. ALL LIVING ROOMS/GREAT ROOMS SHALL HAVE A HARD-WIRED SMOKE DETECTOR WITH BATTERY BACK-UP.
- 4. ALL WINDOWS ADJACENT TO A STAIR SHALL HAVE TEMPERED GLASS.
- 5. ALL WINDOWS WITHIN 36" OF A TUB/SHOWER SHALL HAVE TEMPERED GLASS.
- 6. ALL SECOND FLOOR BEDROOMS (IF APPLICABLE) SHALL HAVE AT LEAST ONE WINDOW MEETING EGRESS WIDTH/HEIGHT/AREA REQUIREMENTS (DESIGNATED WITH AN "E").
- 7. EACH LEVEL SHALL HAVE A CARBON MONOXIDE DETECTOR. DETECTOR CAN BE DUAL CARBON MONOXIDE/SMOKE DETECTOR, IF APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION.



GRANT HAY ASSOCIATES

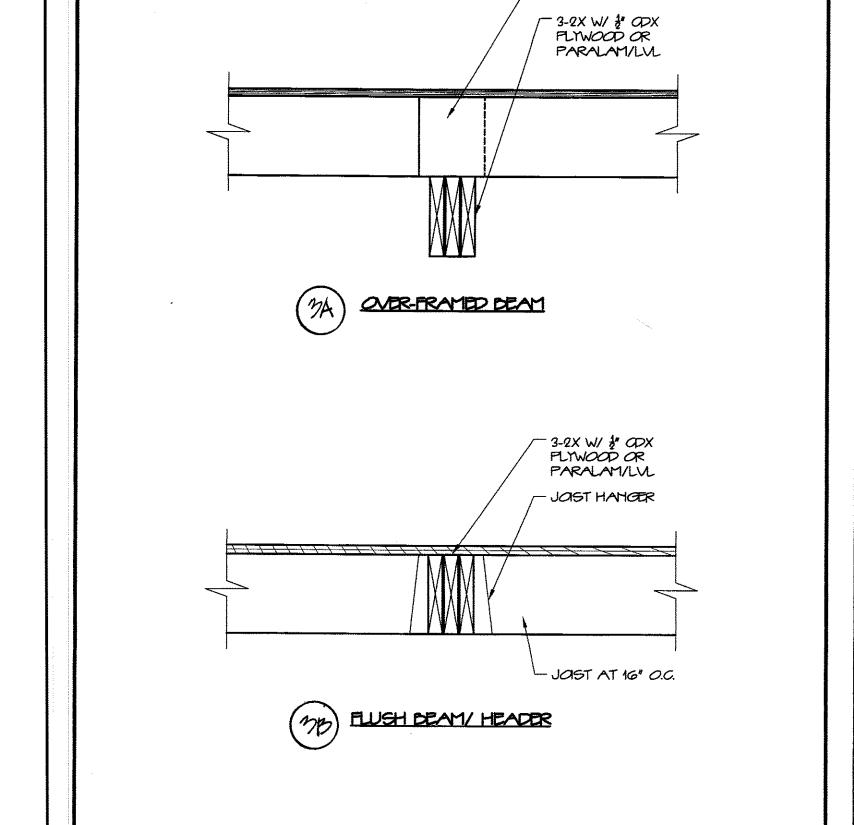
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- JOIST AT 16" O.C.

WITH OVERLAP

