

**CODE OF THE TOWNSHIP OF WARWICK, PENNSYLVANIA, v6 Updated  
11-15-2007 / PART II GENERAL LEGISLATION / Chapter 195, ZONING / ARTICLE  
XXIV, Administration / § 195-128. Permit applications.**

- (2) All plot plans for new residential construction, new nonresidential construction and new nonresidential additions shall contain the following criteria:
- (a) A plot plan drawn at a scale of one inch equals 20 feet, 30 feet, 40 feet or 50 feet, with all elevations established by the builder or owner's engineer or land survey drawn in accordance with an accurate boundary line survey.
  - (b) A depiction of the size and location of all new construction.
  - (c) A depiction of the location of all existing structures.
  - (d) Setback distances between buildings, property lines and the established street rights-of-way and grades from all sides of the proposed new construction.
  - (e) The location of property showing the nearest intersection street and distance in feet and decimal parts thereof of property therefrom, together with a North point.
  - (f) Dimensions, bearings and lot numbers as delineated on the final recorded subdivision and land development plan or record.
  - (g) The plot plan shall indicate whether property is monumented and the composition of the monuments.
  - (h) The lot area, in square feet, is to be shown on the plot plan.
  - (i) The building area, in square feet, is to be shown on the plot plan.
  - (j) The location, site arrangement and capacity of areas to be used for motor vehicle access, off-street parking and provisions are to be made for lighting such areas, if applicable.
  - (k) All drainage and utility easements, restrictions, deed-restricted open space, utility structures, existing structures, natural land features and surrounding properties shall be identified on the plot plan.
  - (l) Topographical site information, at a contour interval of no less than two feet, shall be provided.
  - (m) The location dimensions and arrangements of open spaces, yards and buffer yards, including methods to be employed for screening, where applicable.

- (n) The type of zoning is to be marked on the plot plan such as indicated by the applicable zoning ordinance or map or any other Township zoning regulation now or hereafter established.
- (o) Proper zoning restriction lines are to be marked on the plan indicating the front yard, side yards and rear yard. On a corner lot, the property front yard setback shall be shown as provided by this chapter.
- (p) Streets, rights-of-way, etc., shall be properly marked with dimensions according to plans of record.
- (q) Plot plans shall have indicated thereon the proposed method for discharge of stormwater runoff and surface waters from the premises, including proposed grading, whether generated by the improvements themselves or by water passing through the property from other sources, as referenced in Chapter 163, Subdivision and Land Development, § 163-48A(2).
- (r) Plot plans shall show proposed basement, garage and first floor elevations. Additionally, certification must be presented by the surveyor attesting to the fact that the first floor elevation of the structure will be constructed equal to or higher than the contour shown on the grading plan for the individual development or individual building lot. The first floor elevation shall be set in a proper relationship to the existing elevations on the surrounding lots.

## CHAPTER 5 FLOORS

### SECTION R501 GENERAL

**R501.1 Application.** The provisions of this chapter shall control the design and construction of the floors for all buildings including the floors of *attic* spaces used to house mechanical or plumbing fixtures and *equipment*.

**R501.2 Requirements.** Floor construction shall be capable of accommodating all loads according to Section R301 and of transmitting the resulting loads to the supporting structural elements.

### SECTION R502 WOOD FLOOR FRAMING

**R502.1 Identification.** Load-bearing dimension lumber for joists, beams and girders shall be identified by a *grade mark* of a lumber grading or inspection agency that has been *approved* by an accreditation body that complies with DOC PS 20. In lieu of a *grade mark*, a certificate of inspection issued by a lumber grading or inspection agency meeting the requirements of this section shall be accepted.

**R502.1.1 Preservative-treated lumber.** Preservative treated dimension lumber shall also be identified as required by Section R319.1.

**R502.1.2 Blocking and subflooring.** Blocking shall be a minimum of utility grade lumber. Subflooring may be a minimum of utility grade lumber or No. 4 common grade boards.

**R502.1.3 End-jointed lumber.** *Approved* end-jointed lumber identified by a *grade mark* conforming to Section R502.1 may be used interchangeably with solid-sawn members of the same species and grade.

**R502.1.4 Prefabricated wood I-joists.** Structural capacities and design provisions for prefabricated wood I-joists shall be established and monitored in accordance with ASTM D 5055.

**R502.1.5 Structural glued laminated timbers.** Glued laminated timbers shall be manufactured and identified as required in ANSI/AITC A190.1 and ASTM D 3737.

**R502.1.6 Structural log members.** Stress grading of structural log members of nonrectangular shape, as typically used in log buildings, shall be in accordance with ASTM D 3957. Such structural log members shall be identified by the *grade mark* of an *approved* lumber grading or inspection agency. In lieu of a *grade mark* on the material, a certificate of inspection as to species and grade issued by a lumber-grading or inspection agency meeting the requirements of this section shall be permitted to be accepted.

**R502.1.7 Exterior wood/plastic composite deck boards.** Wood/plastic composites used in exterior deck boards shall comply with the provisions of Section R317.4.

**R502.2 Design and construction.** Floors shall be designed and constructed in accordance with the provisions of this chap-

ter, Figure R502.2 and Sections R317 and R318 or in accordance with AF&PA/NDS.

**R502.2.1 Framing at braced wall lines.** A load path for lateral forces shall be provided between floor framing and *braced wall panels* located above or below a floor, as specified in Section R602.10.6.

→ **R502.2.2 Decks.** Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self-supporting. For decks with cantilevered framing members, connections to exterior walls or other framing members, shall be designed and constructed to resist uplift resulting from the full live load specified in Table R301.5 acting on the cantilevered portion of the deck.

**R502.2.2.1 Deck ledger connection to band joist.** For decks supporting a total design load of 50 pounds per square foot (2394 Pa) [40 pounds per square foot (1915 Pa) live load plus 10 pounds per square foot (479 Pa) dead load], the connection between a deck ledger of pressure-preservative-treated Southern Pine, incised pressure-preservative-treated Hem-Fir or *approved* decay-resistant species, and a 2-inch (51 mm) nominal lumber band joist bearing on a sill plate or wall plate shall be constructed with 1/2-inch (12.7 mm) lag screws or bolts with washers in accordance with Table R502.2.2.1. Lag screws, bolts and washers shall be hot-dipped galvanized or stainless steel.

**R502.2.2.1.1 Placement of lag screws or bolts in deck ledgers.** The lag screws or bolts shall be placed 2 inches (51 mm) in from the bottom or top of the deck ledgers and between 2 and 5 inches (51 and 127 mm) in from the ends. The lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger.

**R502.2.2.2 Alternate deck ledger connections.** Deck ledger connections not conforming to Table R502.2.2.1 shall be designed in accordance with accepted engineering practice. Girders supporting deck joists shall not be supported on deck ledgers or band joists. Deck ledgers shall not be supported on stone or masonry veneer.

→ **R502.2.2.3 Deck lateral load connection.** The lateral load connection required by Section R502.2.2 shall be permitted to be in accordance with Figure R502.2.2.3. Hold-down tension devices shall be installed in not less than two locations per deck, and each device shall have an allowable stress design capacity of not less than 1500 pounds (6672 N).

**R502.2.2.4 Exterior wood/plastic composite deck boards.** Wood/plastic composite deck boards shall be installed in accordance with the manufacturer's instructions.

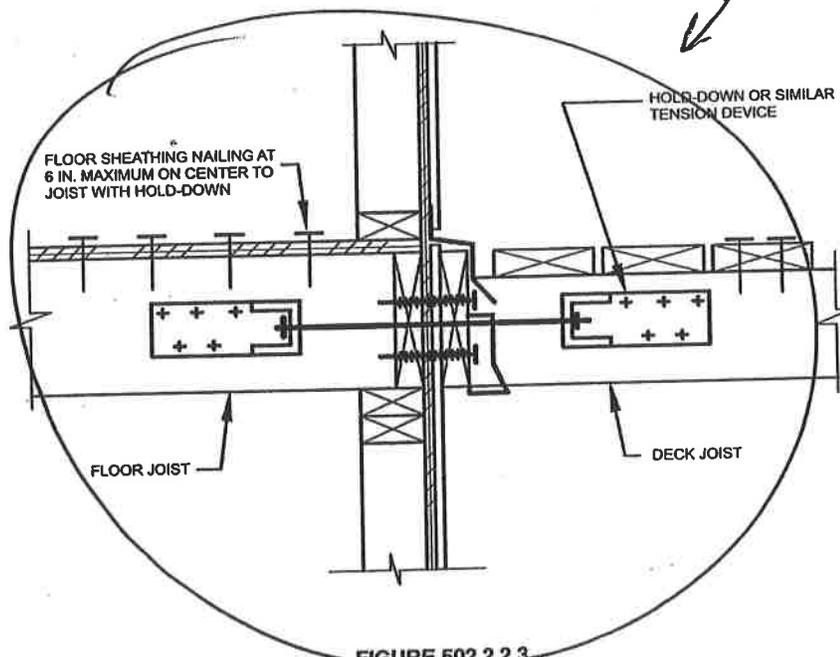
**TABLE R502.2.2.1**  
**FASTENER SPACING FOR A SOUTHERN PINE OR HEM-FIR DECK LEDGER**  
**AND A 2-INCH NOMINAL SOLID-SAWN SPRUCE-PINE-FIR BAND JOIST<sup>5, 9</sup>**  
 (Deck live load = 40 psf, deck dead load = 10 psf)

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'
On-center spacing of fasteners <sup>5, 9</sup>							
1/2 inch diameter lag screw with 15/32 inch maximum sheathing <sup>a</sup>	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 <sup>b, h</sup>	36	36	29	24	21	18	16

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm. 1 pound per square foot = 0.0479kPa.

- 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".
- 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 R502.2.2.1.1.
- 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 practice.
- 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 x 9 1/2 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.

*Required BY CODE.*



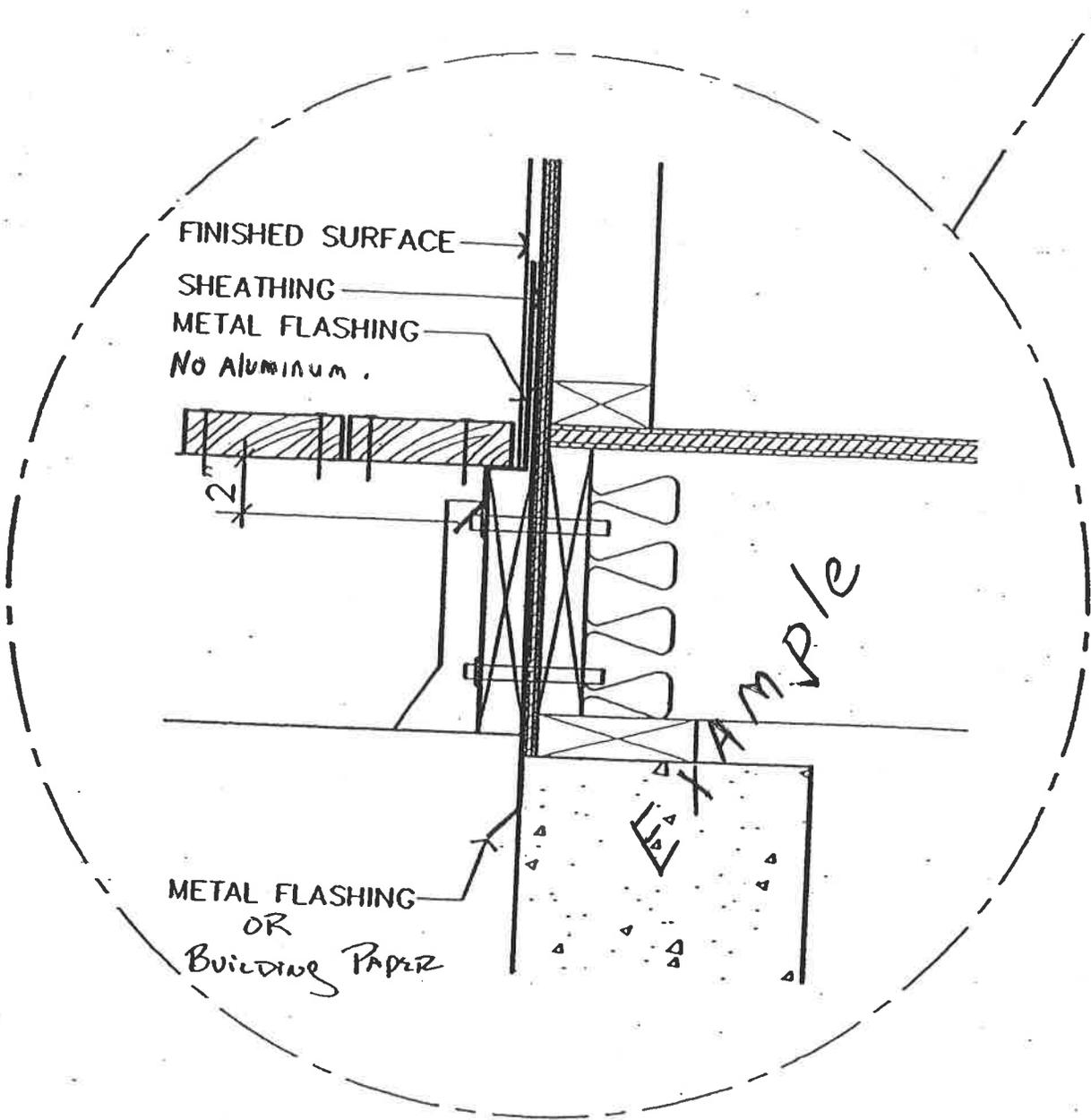
**FIGURE 502.2.2.3**  
**DECK ATTACHMENT FOR LATERAL LOADS**

For SI: 1 inch = 25.4 mm.

**R502.3 Allowable joist spans.** Spans for floor joists shall be in accordance with Tables R502.3.1(1) and R502.3.1(2). For other grades and species and for other loading conditions, refer to the AF&PA Span Tables for Joists and Rafters.

**R502.3.1 Sleeping areas and attic joists.** Table R502.3.1(1) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and

attics that are accessed by means of a fixed stairway in accordance with Section R311.7 provided that the design live load does not exceed 30 pounds per square foot (1.44 kPa) and the design dead load does not exceed 20 pounds per square foot (0.96 kPa). The allowable span of ceiling joists that support attics used for limited storage or no storage shall be determined in accordance with Section R802.4.

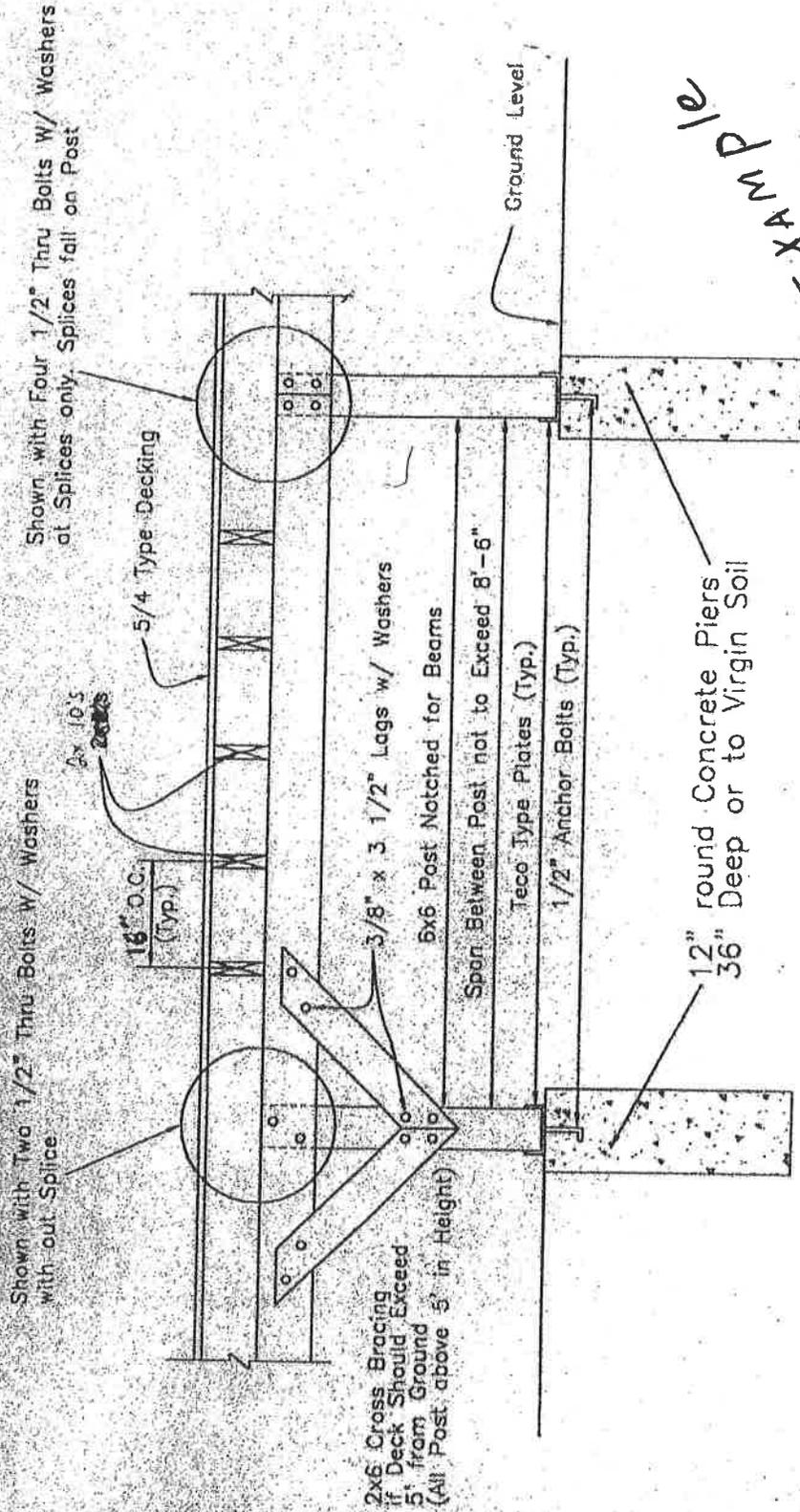


# FLASHING DETAIL

SCALE" 1/2" = 1'-0"

2/5/03

# Front Elevation With Cross Bracing



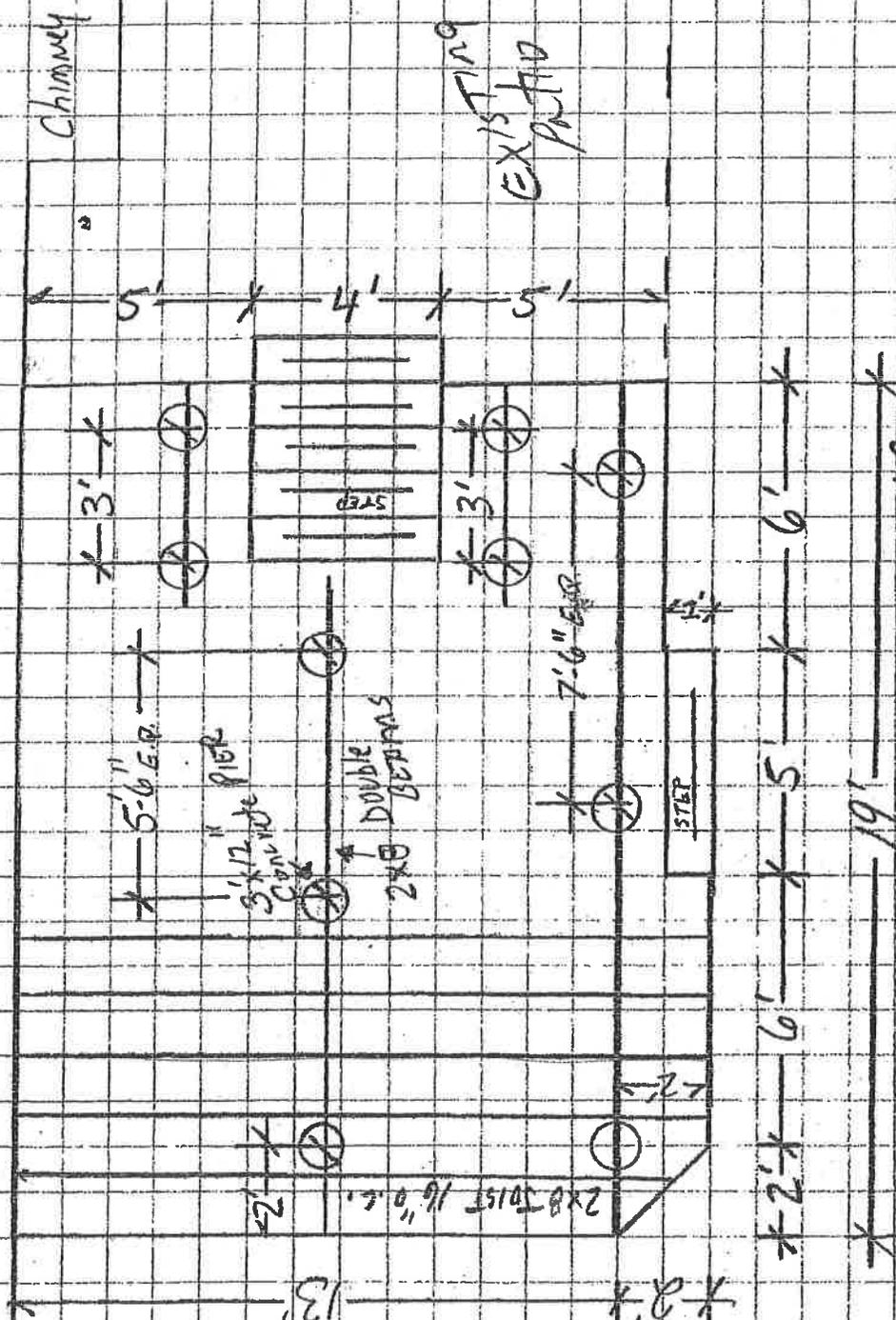
EXAMPLE

Note:

- All Concrete to be at Least 3000 Mix
- All Joist, Bracing, Post & Beams to be #2 or Better Grade Wood P.T.

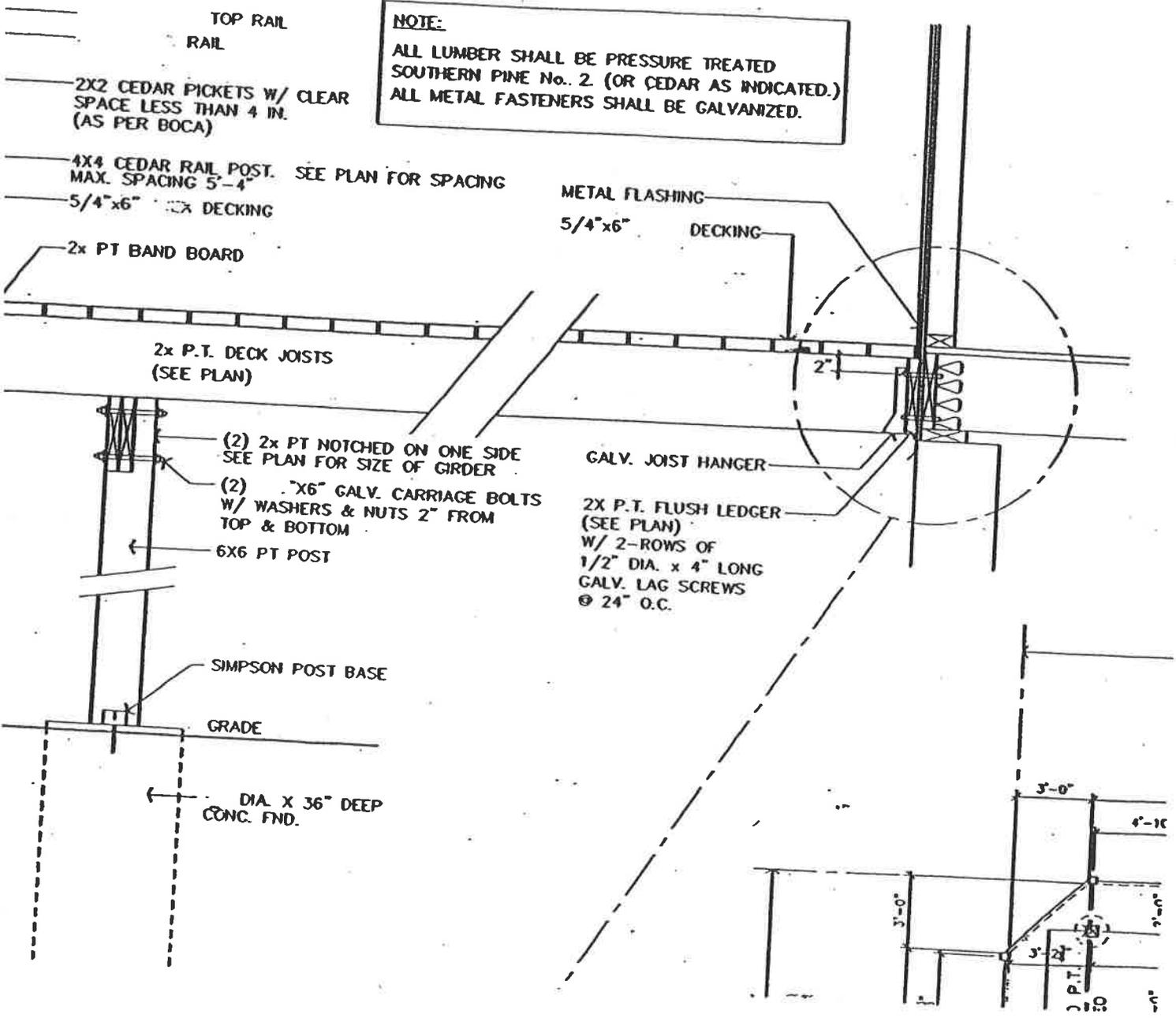
SCALE 1/4" = 2'

PLAN



EXAMPLE





**NOTE:**  
 ALL LUMBER SHALL BE PRESSURE TREATED  
 SOUTHERN PINE No. 2 (OR CEDAR AS INDICATED.)  
 ALL METAL FASTENERS SHALL BE GALVANIZED.

TOP RAIL  
 RAIL  
 2X2 CEDAR PICKETS W/ CLEAR  
 SPACE LESS THAN 4 IN.  
 (AS PER BOCA)

4X4 CEDAR RAIL POST. SEE PLAN FOR SPACING  
 MAX. SPACING 5'-4"  
 5/4"x6" DECKING

METAL FLASHING  
 5/4"x6" DECKING

2x PT BAND BOARD

2x P.T. DECK JOISTS  
 (SEE PLAN)

(2) 2x PT NOTCHED ON ONE SIDE  
 SEE PLAN FOR SIZE OF GIRDER  
 (2) 1/2"x6" GALV. CARRIAGE BOLTS  
 W/ WASHERS & NUTS 2" FROM  
 TOP & BOTTOM  
 6X6 PT POST

GALV. JOIST HANGER  
 2X P.T. FLUSH LEDGER  
 (SEE PLAN)  
 W/ 2-ROWS OF  
 1/2" DIA. x 4" LONG  
 GALV. LAG SCREWS  
 @ 24" O.C.

SIMPSON POST BASE

GRADE

DIA. X 36" DEEP  
 CONC. FND.

Sample