CHEBOYGAN COUNTY
DEPT OF BUILDING SAFETY
(231) 627-8813

MICHIGAN CONSTRUCTION CODE

Public Act 230 - 1972

RESIDENTIAL
DECK
PLAN

DECK GUARDS

Guards are required if the floor is 30 inches or more off the ground. Openings shall be sized so a 4 inch sphere will not pass through.

PLEASE PROVIDE THE FOLLOWING INFORMATION:

Floor Joist Clear Span _____

Floor Joist Spacing _____

Floor Joist Size _____

Deck Floor Material _____

Carrier/Beam Size _____

Is The Deck Attached To The House?

Yes _____ No _____

Post Size _____

Post Spacing _____ Feet

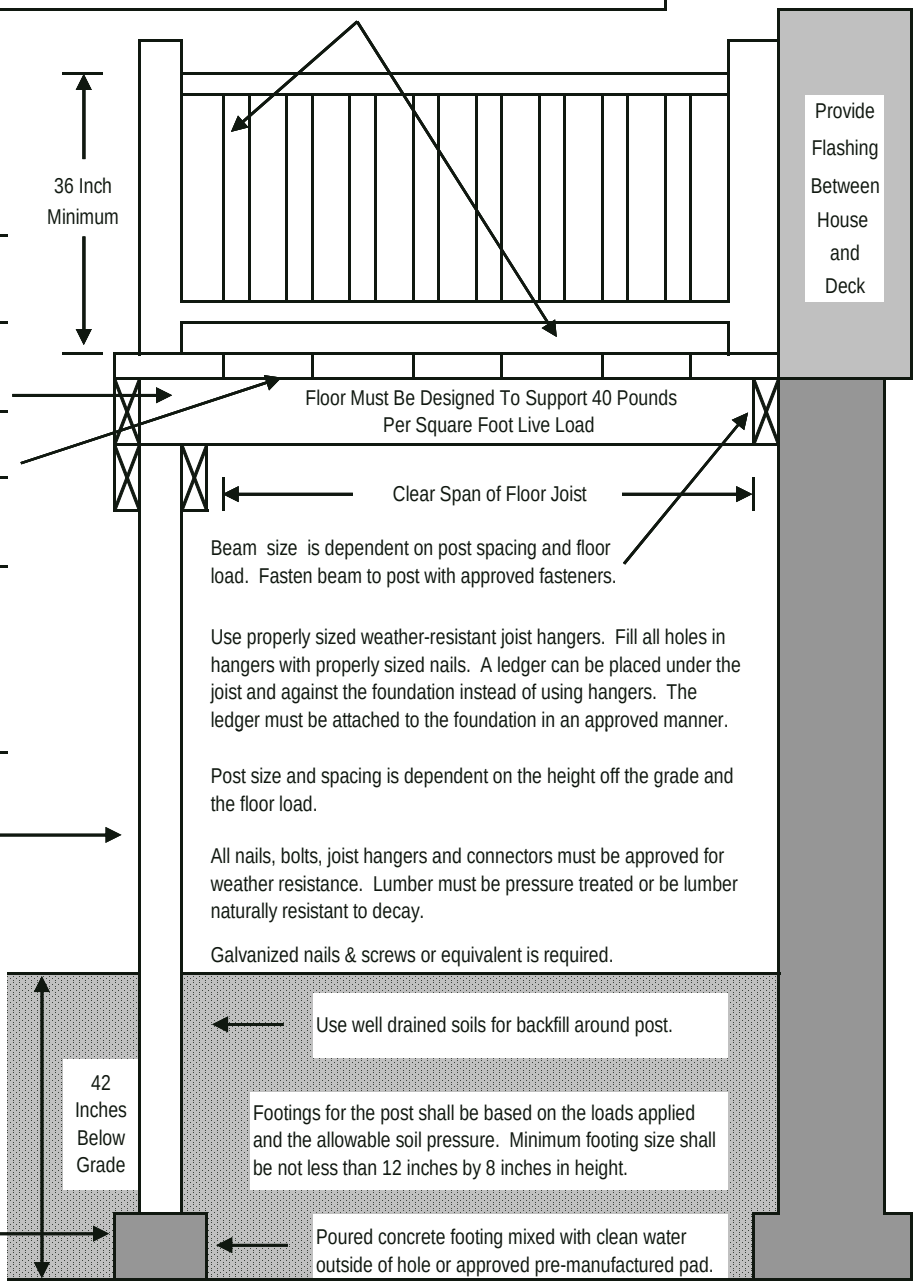
_____ Inches

Footing Depth Below Grade

_____ Inches

Footings _____ Width

_____ Height



DECK STAIRWAYS

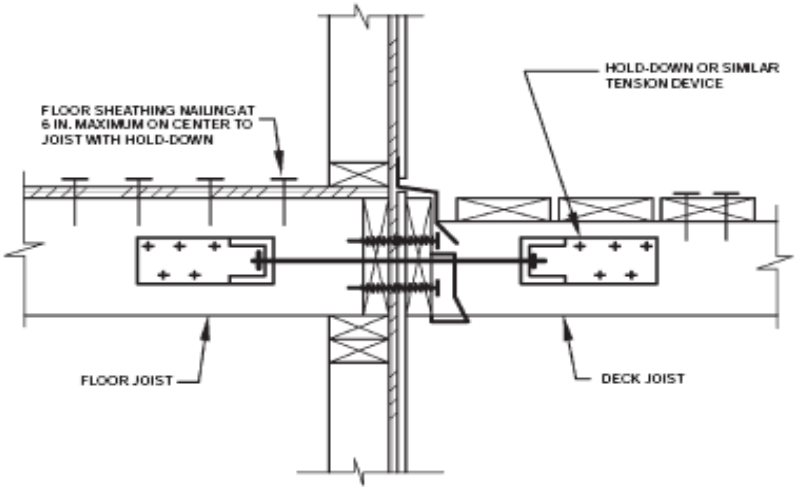
Stairways shall not be less than 36 inches in clear width. The maximum riser height shall be 8 1/4 inches and the minimum thread depth shall be 9 inches. Open risers are permtted, provided that the opening between treads does not permit the passage of a 4-inch diameter sphere. Open sides of stairs with a total rise of more than 30 inches above the floor or grade below shall have guards not less than 34 inches in height measured vertically from the nosing of the treads and shall not allow a sphere 4 3/8 inches to pass through.

DECK STAIRWAY HANDRAILS

All required handrails shall be continuous the full length of stairways with 4 or more risers on at least 1 side of stairways. Handrails shall be placed not less than 34 inches or more than 38 inches above the nosing of the treads. The handgrip portion of handrail shall have a circular cross section of 1 1/4 inches minimum to 2 inches maximum. Other handrail shapes that provide an equivalent grasping surface are permissable. The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a sphere 6 inches cannot pass through.

PLEASE SEE REVERSE SIDE FOR CODE REQUIREMENTS FOR ATTACHING DECK TO STRUCTURE

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).



For SI: 1 inch = 25.4 mm.

FIGURE R502.2.2.3
DECK ATTACHMENT FOR LATERAL LOADS

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 squre foor (1915 Pa) live load plus 10 pounds per squre foot (479 Pa) dead load], the connection between a deck ledger of pressure-preservative-treated Southern Pine, incised pressure-perservative-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 m) 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.

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[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 details	On-center spacing of fasteners[d, e]						
1/2 inch diameter lag screw with 15/32 inch maximum sheathing[a]	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	18	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″.
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 × 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 × 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.