

**2020 DECKS single level only R507****LaGrange County Building Department****(260 ) 499-6305**

- . free standing decks w/o footers & supported on grade the entire length, less than 12" above grade and the footprint of all improvements is less than 40% of the lot (house/garage/deck/pavement etc.) only require a zoning compliance certificate. Properties in the lake zone have additional requirements.
- . multi-level decks & multi-level decks w/ roofs require engineered drawings

**FOOTINGS**

- . all decks shall be supported on concrete footings or other approved structural systems. (except free standing decks directly supported on grade for the entire length and NOT attached to the house)
- . all pre-cast concrete masonry units shall be 6" thick and 2" greater on all sides of the post
- . minimum poured square footing is 12" x 12", minimum round footing is 14", both 6" thick
- . free standing decks on precast piers w/o post or beam support & under 200 s.f. less than 20" above grade do not require a frost free footing

**POSTS**

- . deck post heights are limited on single level decks (measured from underside of beam to grade level)  
4x4 to 6'-9", 4x6 to 8'-0", 6x6 & 8x8 to 14'-0" Multi level decks w/ roofs require engineering.
- . post to footing connections shall be by one of the following:
  - a.) manufactured connection    b.) post embedment in a minimum of 12" concrete and uplift resistance w/cleats, ½" through bolts in both directions or manufactured connector.(Simpson StrongTie product or similar) Posts on precast piers require diagonal bracing.

**BEAMS**

- . multiple board beams shall be nailed together with 2 rows of 3" nails @16" o.c. along each edge
- . multiple board beams shall have full bearing on the post
- . beams are allowed to cantilever ¼ of the allowable span at each end
- . beam ends shall rest on not less than 1-1/2 "of the post and not less than 3" of concrete
- . beams shall support vertical loads and resist horizontal displacement
- . beams shall be connected to the support post by through bolting with ½" dia. bolts, washers under both ends or a properly sized manufactured post to beam connector (like Simpson StrongTie or similar)

**JOISTS**

- . joist spacing is usually 16" o.c. for decking running perpendicular or 12" for decking run on the diagonal
- . joists maximum cantilever is ¼ of the span at each end
- . cantilevered joists shall be blocked above the beam to resist lateral loads w/ inverted hangers @ ledger
- . deck boards shall be attached twice to each supporting member or w/ other recognized fasteners

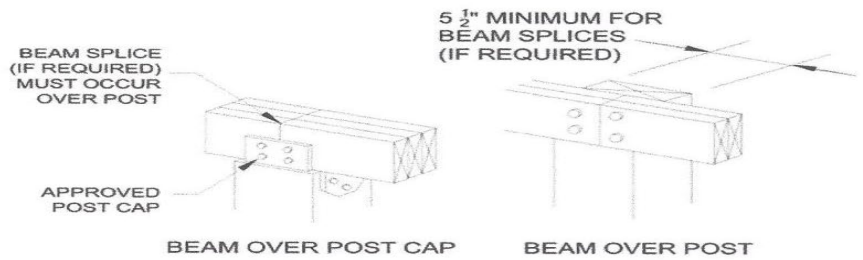
**LEDGERS (for decks attached to the house)**

- . minimum size is a 2"x 8" pressure treated #2 or better lumber and can't support concentrated beam or girder loads. Ledgers can NOT be supported on stone or masonry veneer.
- . ledgers attached to primary structure @ the top of the foundation wall shall be w/ galvanized or stainless ½" lag screws and protrude through the band joist to the inside
- . ledger connections shall be staggered ½" diameter lag bolts no closer than 2" to any edge spaced a maximum 5" apart from the row above or below and properly flashed to protect the band joist and spaced at varied distances depending on joist span
- . ledgers attached to the primary structure @ upper floors need hold down or similar tension devices

**GUARD RAILS R312**

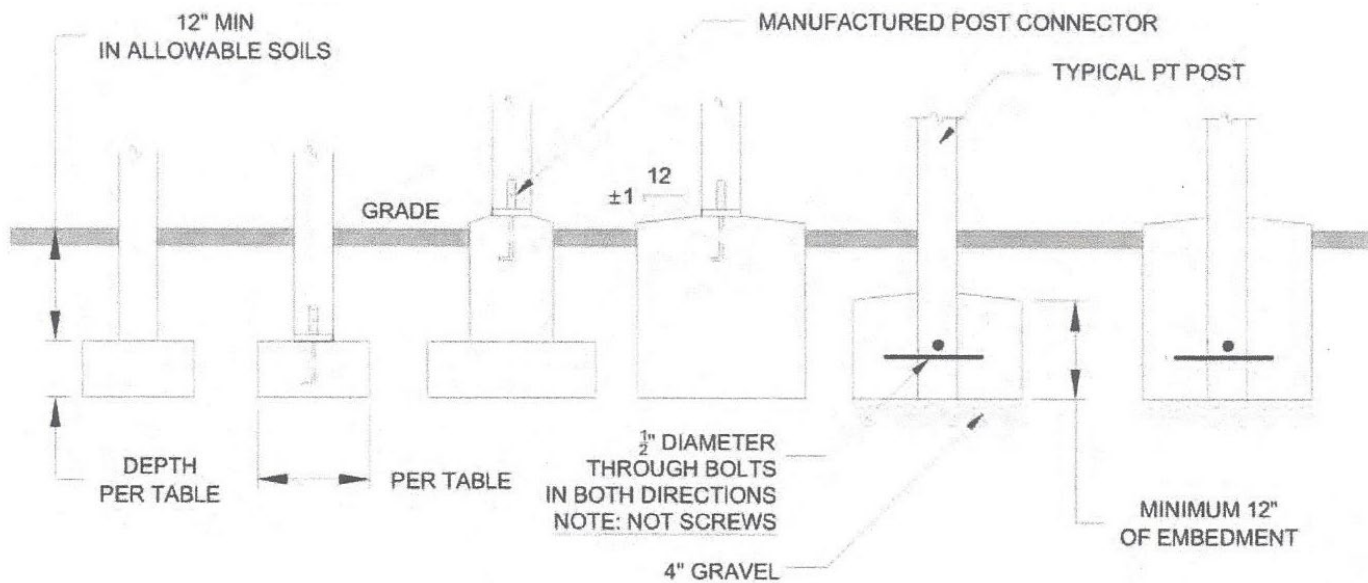
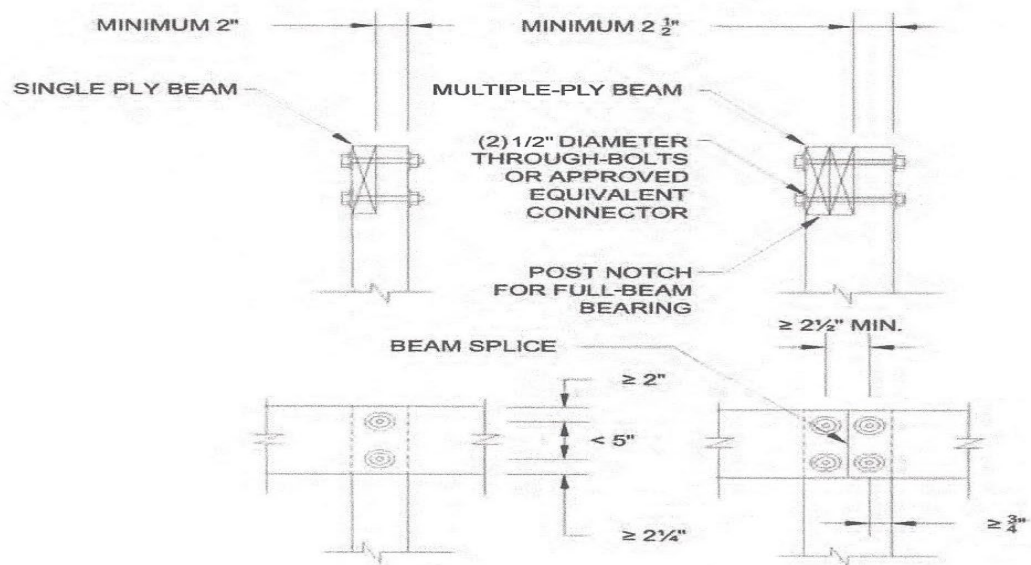
- . required when walking surface is 30" or more above grade AND when grade is more than 30" below when measured horizontally 36" from the edge of any open side.
- . height shall not be less than 36" above the walking surface of the deck
- . height on stairs shall not be less than 34" above the tread nosing
- . if used as a handrail on stairs not less than 34" or more than 38"
- . spindle spacing must be less than 4", insect screen is NOT a guard

rev51820ms



For SI: 1 inch = 25.4 mm.

**FIGURE R507.5.1(1)**  
**DECK BEAM TO DECK POST**



NOTE:  
POSTS MUST BE CENTERED ON OR IN FOOTING

For SI: 1 inch = 25.4 mm.

**FIGURE R507.3**  
**DECK POSTS TO DECK FOOTING CONNECTION**