

Decks and Balconies



*This handout is for informational purposes only it should not be viewed as comprehensive.
The provisions of the City's adopted codes prevail.*

Document Submittal List

- Permit Application.
- One electronic PDF copy of plans, drawn to scale (1/4-inch equals 1 foot preferred), including a plan view, elevation details, and materials list. Drawings should clearly indicate the following:
 - Overall dimensions and height above grade
 - Tributary area load information
 - Depth, diameter, and layout of piers
 - Post size and height
 - Size and span of beams and girders
 - Size and span of joists
 - Decking detail
 - Guardrail, handrail detail
 - Stair detail
 - Schedule of materials
 - Other details as needed
- Copy of a recent plat of survey (to scale) showing the location and dimensions of all existing structures/improvements on the property and markings indicating the location of the proposed deck and the location of the electric meter.
- Copy of signed contract. (not required if homeowner is completing the work).
- Complete detailed scope of work

Failure to provide any of the above documents may result in processing delays.

General Information and Fees

- A permit is required for the construction or alteration of all decks or balconies.
- The application review period averages 3 weeks. Applicants are contacted via email when the permit is ready for payment and issuance.
- If work commences prior to permit issuance, the permit fee shall be doubled.

- A list of required inspections is provided at the time of permit issuance. Inspections can be scheduled at least one day prior to the desired inspection date by calling the Warrenville Community Development Department (630-393-9050) or online [here](#).
- A permit may become invalid if work does not begin within 180 days of issuance, or if construction has been halted and not resumed for a period of 180 consecutive days.
- Homeowner Association (HOA) approval may be required before commencing work. The issuance of a permit does not exempt HOA rules and regulations.
- It is the homeowner/contractor's responsibility to have underground utilities located not less than 48 hours before digging commences by calling J.U.L.I.E (811).
- Fees: \$150.00
- All work performed shall comply with the 2021 International Residential Code and all local amendments.
- Approved construction documents shall always be available on site.
- Alterations to the approved plans must be submitted to the Building Department in writing for review and approval prior to construction.

Engineering Requirements

The City of Warrenville adopted the [DuPage County Stormwater and Floodplain Ordinance](#) and administers its requirements in the review of permits. The requirements below may apply to your permit and a [Stormwater Management Certification Application](#) may be required.

- Generally decks are considered pervious (allow for stormwater to pass through) unless they have pavement or plastic underneath them, in which case they are considered impervious. If they are considered impervious, the requirements below may apply to your project.
 - If 2,500 square feet or more of net new impervious area has been constructed on your property since 2013, a Post Construction Best Management Practice for stormwater (examples include dry wells, rain gardens, bioswales) will most likely need to be installed as part of your project.
 - A licensed professional engineer/land surveyor or other design professional may be required to create a site plan and BMP design.
 - An as-built plan/final survey may also be required as part of the project.
- If your property contains **floodway, floodplain, wetlands or buffers**, contact engineering staff for requirements involving deck construction at The Community Development Department 630-393-3050.

Zoning Ordinance Requirements

- Location is regulated based on whether or not they are "open" or "enclosed" (with a roof) and if they are attached to the principal structure (home) or not. See [Table 10B: Permitted Obstructions of Required Yards](#) and [Table 4A: Residential District Requirements](#) for encroachment and setback regulations. Decks are not permitted in any type of easement.
- Size is regulated through lot coverage and yard coverage requirements. Lot coverage requirements may be found in [Table 4A: Residential District Requirements](#). Yard coverage requirements are found in [Table 10A: Standards for Accessory Structures](#). Lot and yard

coverage requirements are specific to each property. Do not hesitate to contact the Community Development with questions regarding lot or yard coverage.

Lot size	Maximum Lot coverage, whichever is greater
>= 30,000 sf.	28% or 9,599 sq. ft.
>= 14,000 sf. and < 30,000 sf.	32% or 5,039 sq. ft.
>= 10,000 sf. and < 14,000 sf.	36% or 3,999 sq. ft.
>= 7,000 sf. and < 10,000 sf.	40% or 3,080 sq. ft.
< 7,000 sf.	44% without limitation on the number of sq. ft.

Lot coverage measures the cumulative ground coverage of all non-permeable surfaces on a lot (driveways, house, shed, patio, deck, etc.). Planned Unit Developments and subdivisions may have specific lot coverage requirements.

Building Code Requirements

- Decks and balconies shall be constructed in accordance with Chapter 5 of the 2021 International Residential Code, local amendments and any other applicable code.
- Piers and/or footings are required of any deck attached to any building, porch or structure that has a permanent foundation. Footing depth is 42 inches measured from existing grade to the bottom of the footing or pier.
- Minimum pier size is 8 inches diameter, based on Table R507.3.1 of the 2021 IRC. See *table below*

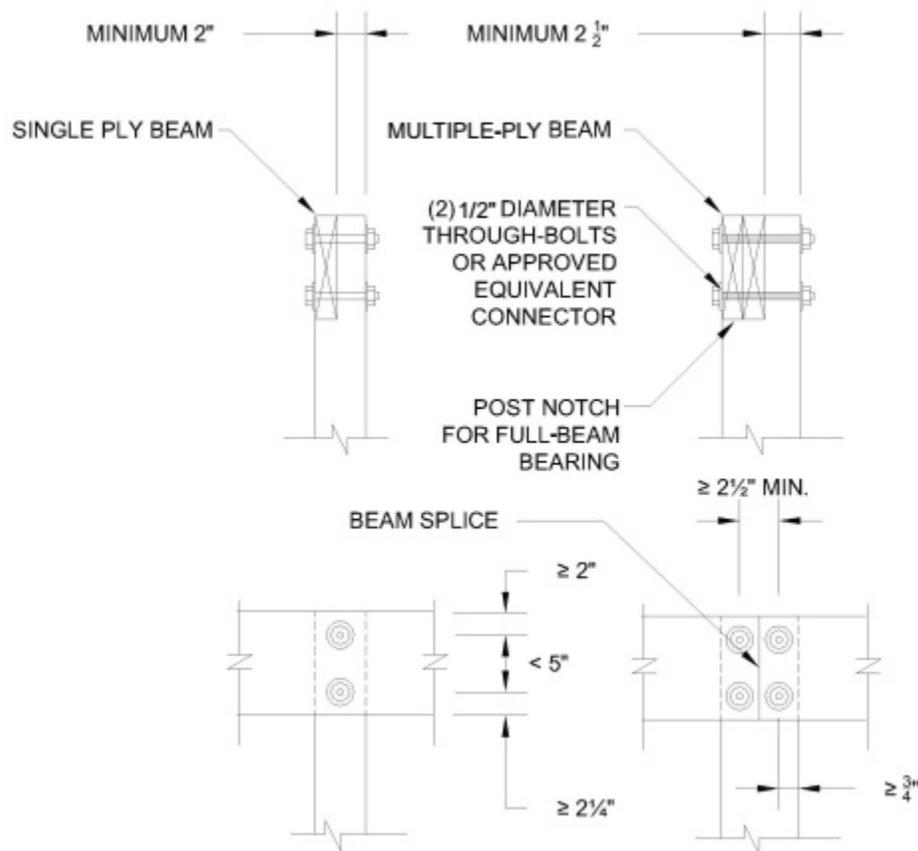
TABLE R507.3.1 MINIMUM FOOTING SIZE FOR DECKS



LIVE OR GROUND SNOW LOAD ^b (psf)	TRIBUTARY AREA (ft ²)	LOAD-BEARING VALUE OF SOILS ^{a, c, d} (psf)								
		1,500 ^e			2,000 ^e			≥ 3,000 ^e		
		Side of a square footing (inches)	Diameter of a round footing (inches)	Thickness (inches) ^f	Side of a square footing (inches)	Diameter of a round footing (inches)	Thickness (inches) ^f	Side of a square footing (inches)	Diameter of a round footing (inches)	Thickness (inches) ^f
40	5	7	8	6	7	8	6	7	8	6
	20	10	12	6	9	9	6	7	8	6
	40	14	16	6	12	14	6	10	12	6
	60	17	19	6	15	17	6	12	14	6
	80	20	22	7	17	19	6	14	16	6
	100	22	25	8	19	21	6	15	17	6
	120	24	27	9	21	23	7	17	19	6
	140	26	29	10	22	25	8	18	21	6
160	28	31	11	24	27	9	20	22	7	

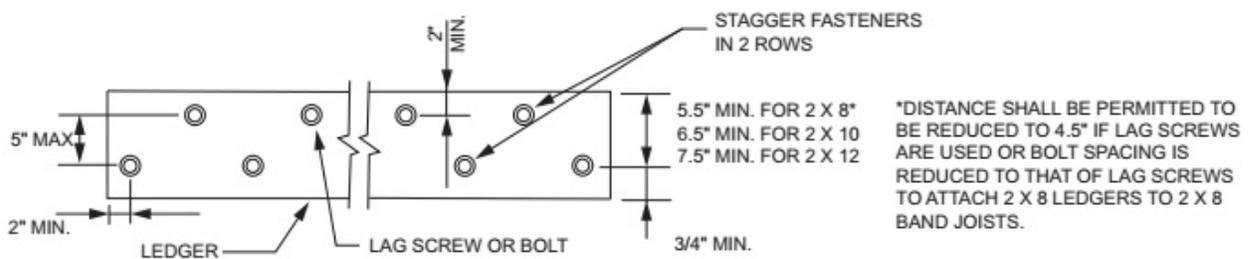
- All loose fill, water, and material to be removed from pier/footing hole prior to filling.
- Live Loads – Decks and balconies shall be constructed to meet the minimum live load of 40 PSF.
- Decks, balconies, and porches located more than 30 inches above grade or lower floor surface shall have a guardrail not less than 36 inches in height installed.

- Open side of stairs with a total rise more than 30 inches shall have a guardrail not less than 34 inches in height installed.
- Guardrails shall be constructed of a design to prevent the passage of a 4-inch sphere.
- Joists shall not cantilever (overhang beams) by more than two (2) feet.
- Beams shall not cantilever (overhang posts) by more than one (1) foot unless a special design is approved.
- All connections between the deck and dwelling shall be weatherproof. Any cuts in exterior finish shall be flashed. Aluminum shall not be used as a flashing material when in contact with preservative treated lumber, concrete, or any other corrosive materials.
- Beams and girders shall have a positive attachment to the posts to resist vertical uplifts as required.

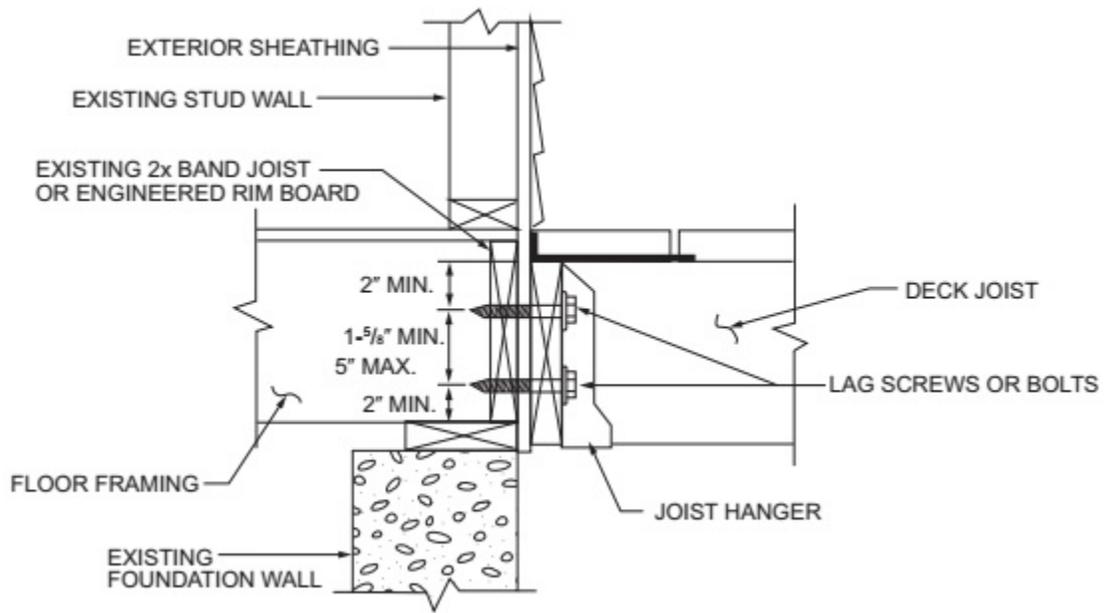


- Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure. Attachment shall not be accomplished using nails subject to withdrawal. The preferred method is through bolts or properly sized lag bolts into the band or rim joists. Exterior siding shall be removed to facilitate attachment. The deck shall not be attached to nonstructural masonry veneer. Where positive connection to the primary structure cannot be verified during inspection, decks shall be self-supporting.

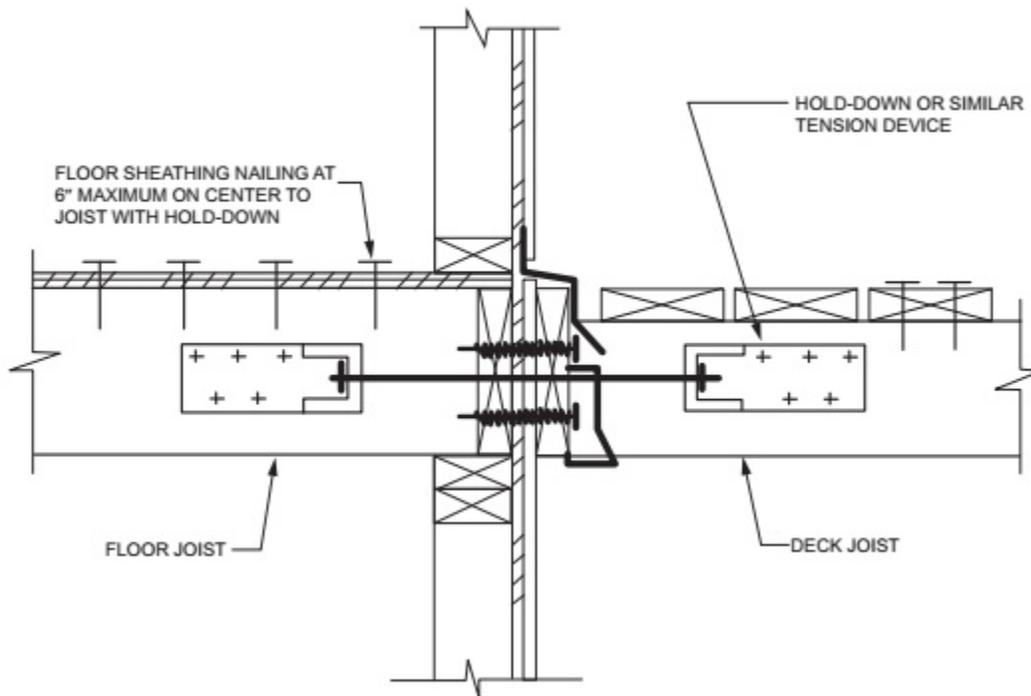
- Header beams and joists that frame into ledgers or beams shall be supported by approved joist hangers of a type compatible with the selected wood species or preservative treatment. All nails and screws shall be of a type shown to be compatible with the selected wood species or preservative treatment.
- All exposed wood used in construction of decks is required to be approved wood of natural decay resistance or approved preservative treated material. Materials embedded in concrete or direct ground contact shall be pressure treated preservative suitable for direct ground contact.
- All cuts, notches and drilled holes of preservative-treated wood members shall be treated in the field in accordance with AWPA M4.
- The minimum stair width is 36 inches with a 7-3/4 inch maximum rise and a 10-inch minimum run measured nose to nose. The maximum variance between riser heights is 3/8 inch over a run of stairs. Closed risers are required if the deck height is over 30 inches. Piers are required under stringers with three or more risers.
- Handrails are required on all stairs with four or more risers. Handrail height shall be 34 inches minimum to 38 inches maximum. Handrails shall be continuous the full length of the stairs from a point directly above the top riser to a point above the lowest riser. Grip size 1-1/4 inch minimum and 2-5/8 inch maximum.
- Deck ledger boards shall be a minimum 2-inch by 8-inch nominal, pressure-preservative-treated Southern pine, incised pressure-preservative-treated hem-fir, or *approved*, naturally durable, No. 2 grade or better lumber. Deck ledgers shall not support concentrated loads from beams or girders. Deck ledgers shall not be supported on stone or masonry veneer.



PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS



PLACEMENT OF LAG SCREWS AND BOLTS IN BAND JOISTS



DECK ATTACHMENT FOR LATERAL LOADS