City of WOOD DALE
404 N Wood Dale Road | Wood Dale, Illinois 60191
http://www.wooddale.com/permits | (630) 766-5133

RESIDENTIAL DECK PERMIT REQUIREMENTS

This handout is for a typical residential deck. Custom decks that are multi-level, adjacent to a pool, or contain a hot tub, built-in seating or privacy screening may require additional information. Be advised that review times for permit submittals are a minimum of 10 working days. The applicant will be notified via email or phone once the review has been completed. Registration may be required for the contractor, please see Contractor Registration Information to determine if this applies to your project.

REQUIRED SUBMITTALS

The following items must be received in order for the Community Development Department to process the permit application. Incomplete applications will not be accepted.

ITEM	**COMMUNITY DEVELOPMENT DEPARTMENT**
1. Completed Building Permit Application	☐
2. 2 Copies of Current Plat of Survey (If plat of survey is within 1 year see below) *****	☐
3. 2 Copies of Detailed Construction Plans	☐
4. Copy of the Proposal or Contract that is signed by the Property Owner (if a contractor is to do the work)	☐
5. Signed letter from the townhome or condominium association that indicates their approval (if applicable).	☐

****** *Plat of Survey that is older than one year but still accurate can be submitted with a signed Survey Affidavit available at the Community Development Department but only if the project is replacing an existing deck with the same footprint, or the project adds less than 50 square feet of new surface.*

DECK PLAN REQUIREMENTS

Minimum required information to be provided on the submittals.

Plat of Survey

- Provide a site plan to scale with the location of the deck clearly shown. Indicate the location of any stairs and landings.
- Indicate the overall dimensions of the deck and the distance from the framing to the adjacent lot lines and any accessory structures.
- Indicate the location of any basement windows located on the side of the house where the deck is proposed. Basement escape windows may not be blocked by the deck.
- Indicate the location of any doors from the house that will exit directly onto the deck.
- Indicate if the electrical service to the house is above or below ground. If above ground, indicate its location on the plan.

Deck Construction Plans

- Provide fully dimensioned plans showing the size of the deck and all structural elements.
- Indicate the type of material to be used such as pressure treated lumber, cedar, composite boards or other material. If the deck is to be combination of materials such as pressure treated structure with a composite decking and rails, indicate this as well.
- If using PVC decking and railings, provide manufacture's specifications for the product.
- Indicate the location of all piers (post holes) including their overall depth and diameter. Include dimensions to indicate the distances between the piers and to the building.
- Indicate the size of the support posts (such as a 4x4 or 6x6) and note a post base anchor will be used.
- Indicate the size of the ledger board. The ledger is the board that is bolted into the house framing for support of the deck. Indicate the ledger bolt size, bolt type, size and spacing. Indicate that flashing will be installed.
- Indicate the location of the beams, their sizes and overall spans.
- Provide a detail of how the beams will be attached to the vertical support posts.
- Provide information on the floor joists size and their on-center maximum spacing. Indicate the direction that the joists will be installed. If they are to be cantilevered over the beams, indicate the distance of the cantilever on the plans.
- Indicate the location of lateral load devices (minimum of two) and any cross bracing or bridging to be installed.
- Provide a detail for the stairs including their overall width, the location of the stair stringers and the location of the concrete piers that will support the stairs. Indicate the height and depth of the risers and treads to be installed.
- Provide a detail for the handrail and guardrail to be installed.

SIGNIFICANT CODE REQUIREMENTS

ZONING REQUIREMENTS

General

- Deck is a level, unenclosed platform without a roof, located above the finished grade, and typically attached to a building.
- Attached decks shall comply with the required side yards for the principal structure but may encroach into the required rear yard. Sec.17.602.B.1 of City Code.
- Detached decks may not be located less than ten feet (10') from the principal structure and shall be located at least five feet (5') from any side or rear lot line, or ten feet (10') from the centerline of the adjacent alley, if one exists. Sec.17.602.B.2 of City Code.
- In no case shall a deck or an accessory structure be permitted in any public utility or drainage or access easement, or floodplain. Sec.17.602.B.2 of City Code.

BUILDING REQUIREMENTS

General

- All new residential decks to follow the 2012 International Residential Code as amended by the City of Wood Dale.
- Decks are required to be designed to a minimum of 40 PSF live load and a 10 PSF dead load. 2012 IRC Table R301.5.
- Electrical service wires (Com Ed) are required to be minimum of 10 feet above the decks walking surface. All other overhead wires are to be a minimum of 8 feet above. 2011 NEC 230.24(B).
- Call JULIE (#811) prior to the start of any digging project to verify the location of underground utilities.

Materials

- Decks shall be constructed of pressure treated lumber, cedar or other approved decay-resistant material.
- All fasteners, flashing and other metal hardware must be of hot dipped galvanized metal for all treated lumber unless otherwise indicated on the manufacture's specifications. Aluminum shall not be used as flashing material when in contact with pressure treated lumber, concrete or any other corrosive material.
- Any materials that will be in contact with the ground will be noted as approved for ground contact per the manufacture's product specifications. Pressure treated lumber is not always rated for ground contact.
- For decks installed on attached townhomes, a minimum of 5 feet of open space must be provided between the deck and the property line or common fire wall. If fire resistant construction is provided, this number may be reduced. 2012 IRC Table R302.1(1).

Concrete Piers

- Concrete piers shall be a minimum of 42" below grade, supported by undisturbed soil that is capable of conveying all imposed loads. 2012 IRC Table R301.2 (1). Decks not supported by a dwelling unit need not have piers supported below frost level. 2012 IRC R403.1.4.1.
- Concrete pier diameter shall be sized in accordance to the 2012 IRC Table R403.1. but in no case shall be less than 10" in diameter.
- Concrete piers are required to be installed under stair stringers for support when there are two or more risers.

Structural Framing

- Decks shall be attached into the primary building structure. Attachment to non-structural masonry veneer or a cantilevered bay is not allowed. The existing band board must be of 2x material and not an engineered joist. 2012 IRC R507.1.
- Attachment of a deck by the use of toe nailing or nails subject to withdrawal is not allowed. 2012 IRC R507.1.
- Exterior siding is to be removed for attachment of the ledger board and continuous flashing installed. Corrosion-resistant flashing is required to be installed to prevent water from entering the building wall cavity. 2012 IRC R703.8.1.5.
- The ledger board shall be equal or greater in depth than the floor joists, but shall never be less than 2x8 dimensional lumber. 2012 IRC Figure R507.2.1 (1).
- The ledger board shall be attached to the building structure with ½" lag screws or bolts with washers and shall be spaced based on the length of the ledger board, and staggered in two rows. 2012 IRC R507.2.
- Beam sizing and spacing to be determined by the length of the beam and the distance between the supports. See the attached chart at the end of this handout.
- Beams shall be mechanically attached to the posts to resist vertical uplift. Beams can be placed flush on top of the post with the use of a post cap connection, or thru-bolted with the addition of 2x supports installed from the bottom of the beam to the pier.
- Floor joist sizing and spacing to be determined by the length of the joist and the distance between the supports. See the attached chart at the end of this handout.
- Floor joists shall not overhang their supporting beams by more than 24".
- Decks shall be positively anchored and designed for both vertical and horizontal loads. Hold down devices shall be installed in not less than two locations. 2012 IRC R507.2.3.

Stairs

- A floor or landing is required outside for an exterior door. The landing on the exterior shall not be more than 7 ¾" below the top of the door threshold. 2012 IRC R311.3.
- Stair shall have a minimum clear width of 36". Handrails are allowed to be installed within the minimum clear width as long as they do not project more than 4 ½" into the stairway. 2012 IRC R311.7.1.
- Stairs over 36" in with are required to have more than two stringer boards for support.
- The maximum riser height (vertical portion of the step) shall be 7 ¾" high. There is no minimum height for residential stairs. The tallest riser within a stair cannot deviate in height from the shortest riser by more than 3/8". 2012 IRC R311.7.5.1.
- Risers that are more than 30" above the adjacent grade shall be required to have riser boards installed so that any gaps or spaces in the riser will be less than 4". 2012 IRC R312.1. See guardrail requirements below.
- The minimum tread depth (horizontal portion) is to be 10" deep. The largest tread within the stair cannot deviate in height from the shortest riser by more than 3/8". 2012 IRC R311.7.5.2.
- Winder treads shall have a minimum depth of 10" in the area typically used for walking, but shall not have a depth less than 6" at any point within the clear stair width. 2012 IRC R311.7.5.2.1.
- Nosings shall project not less than ¾" from the stair tread, but not more than 1 ¼". Stair treads that are 11" deep or greater are not required to have a nosing. 2012 IRC R311.7.5.3.
- A landing is required to be installed at the top and bottom of all stairs. The minimum size of a landing is to be 36" square. The landing at the bottom of a deck stair must be concrete, paver stones or other solid material. Grass or mulch are not acceptable. 2012 IRC R311.7.6.

Handrails and Guardrails

- Handrails shall be provided on at least one side of the stairs where there are four or more risers. Handrails shall be installed at a height of between 34" and 38" from the top of the stair nosing. 2012 IRC R311.7.8.
- Handrails shall be continuous from a point above the nosing of the bottom riser to a point above the nosing of the top riser and have the ends returned into a post or wall. There shall be a minimum of a 1 ½" space between the handrail and the wall. 2012 IRC R311.7.8.2.
- Handrails shall be graspable, and shall have a circular cross section of at least 1 ¼" but not larger than 2". Premade handrails with graspable finger recess areas on both sides of the profile are also acceptable. 2012 IRC R311.7.8.3.
- Guardrails are required when the walking surface of the deck is 30" or more above the adjacent grade and shall be a minimum of 36" in height. 2012 IRC R312.1.2.
- Guardrails shall not have any spaces or openings that would allow the passage of a 4" diameter sphere. Balusters or other infill components must be placed less than 4" apart. 2012 IRC R312.1.3.
- Guardrails on stairways only are allowed to be reduced to 34" in height, and may have gaps or spaces at the triangular openings located at the bottom (by the tread) that will not allow the passage of a 6" diameter sphere.
- Guardrails shall be designed to withstand a minimum of 200 PSF force applied in any direction. Infill components such as balusters are required to resist a minimum of 50 PSF. 2012 IRC Table R301.5.

REQUIRED INSPECTIONS

1. **PIERS** - once holes have been excavated but prior to pouring concrete. All water and loose material must be removed from the hole prior to inspection
2. **ROUGH FRAMING** - once all framing and required flashing and fasteners have been installed but prior to covering with decking material.
3. **FINAL BUILDING** - upon completion of the deck including the installation of all handrails and guard rails, and all construction debris removed from site.