



## DuPage County Building & Zoning Department

### Building Division

## SWIMMING POOLS/SPAS/HOT TUBS



The following are guidelines and requirements to assist when installing a **swimming pool, spa or hot tub**. This information is provided to identify minimal requirements in the County's adopted Building Code and Zoning Ordinance. These guidelines are not all inclusive, but cover the most critical requirements involved in this type of project. Feel free to contact our department if you have further questions.

The information below applies to those pools/spas/hot tubs which are:

- Twenty-four inches (24") deep or greater
- and/or 250 square feet of surface area or greater
- and/or equipped with a water-recirculating system

**Requirements to submit:** (must be submitted in person) approximate review time – 8-15 business days

1. Application for accessory structures - Type I
2. Non-refundable application fee
3. Plat of Survey
4. Construction plans
5. Trust Disclosure form for properties in a trust

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1. The [Type I application](#) form shall be filled out completely. The owner's name, address and phone number, site address if different, cost of proposed work, whether the property is on water/sewer or well/septic, contractor's name and registration number (all contractors doing work in the unincorporated areas of DuPage County must be registered with our department prior to permit issuance), signature of owner.
  2. A non-refundable application fee will be required – this portion of the fee is credited toward the final permit fee (reference the [Schedule of Fees](#) for specifics), a Drainage Review fee and a Health fee if the property is on well and/or septic. If payment is by check a separate check will be necessary to pay the Health review fee portion. We accept exact cash, checks or Master Card and Visa.
  3. Provide 6 copies of the scalable Plat of Survey with the pool/spa/hot tub drawn to scale in the exact proposed location with dimensions and dimensions to the nearest lot lines. The survey must show all existing structures with the Illinois Licensed Land Surveyor's seal and signature visible. According to the Building Code the scales accepted are 1"=10', 1"=20' or 1"=30'. Reduced/enlarged copies **WILL NOT** be accepted.
  4. Provide 2 complete sets of plans. These plans do not have to be architecturally stamped. Plans must include size, depth, equipment specifications and fencing requirements. Testing agency approval from manufacturer for all electrical and gas-fueled equipment must be included. Above

ground pools, spas and hot tubs require a brochure on the structure as well as a brochure on the pump (the brochure needs to state the pump is U.L. listed or shows the U.L. symbol). Heated pools shall be equipped with a vapor-retardant pool cover on or at the water surface. Pools/spas/hot tubs heated to more than 90 degrees F (32 degrees C) shall have a pool cover with a minimum insulation value of R-12.

5. For any property that is in a trust (bank or trust company) will need a notarized [Trust Disclosure](#) form **completed by the trust company** stating the beneficiary of the trust.

**Requirements at permit issuance:**

6. Owner Authorization form if applicable
7. Entrance permit
8. Fees
9. Performance Bond
10. Contractor registration

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6. A notarized [Owner Authorization](#) form is required if the owner of the property has not signed the application form.
  7. Prior to permit issuance an [Entrance Permit](#)/bond receipt from whoever maintains the roadway (Township Highway Commissioner, Du Page County Department of Transportation, Illinois Department of Transportation or municipality).
  8. [Permit fees](#) are due at time of issuance. We accept exact cash, check or Master Card and Visa. (The building application fee will have been credited toward the final permit fee).
  9. The [Performance Bond](#) insures code compliance and is included in your permit fee. This portion of the fee is fully refunded once the final inspection has been approved.
  10. All [contractors](#) working on the project are required to be registered with DuPage County Regulatory Services Division and must be current when the permit is issued.

**Zoning Requirements:** Single Family: (Ordinance Sections: R-1: 37-701, R-2: 37-702, R-3: 37-703, R-4: 37-704):

Size: No limitation

Setbacks:

- R-1 Zone:
  - Front: 40 feet.
  - Rear: 50 feet
  - Corner side: 40 feet
  - Interior Side: 20 feet
- In R-2, R-3 and R-4 Zones:
  - Front: 30 feet
  - Rear: 10 feet
  - Corner side: 30 feet
  - Interior Side: 10% of lot width or 10 feet whichever is less.
  - Interior Side Exception: If a lot is 20,000 sq. ft. in size or less: 3 feet

Multi-Family Construction: (Ordinance Sections R-5: 37-705, R-6: 37-706, R-7: 37-707: Please contact the Zoning Section at 630-407-6700)

## **Drainage Requirements:**

Provide location on plat of survey. Proposed structures cannot have a negative impact on the existing drainage for the neighboring properties. **Disclaimer:** If there are any special management areas (including any of the following; floodplain, wetland and wetland buffer) on the property additional permit requirements may be needed. See Sec.8-128.2 of the County's Building Code for Minimum Plan Requirements.

- Pursuant to 8-128.2.E of the Building Code, any development in the floodplain must obtain an Elevation Certificate. Where a development, structure or property has substantial damage, has or will have substantial improvement or is the subject of repetitive loss regulations, the development, structure or property shall comply with the requirements of the Building Code and the DuPage County Countywide Stormwater And Flood Plain Ordinance, which includes the need to obtain an Elevation Certificate. (Ord. No. DC-O-0030-15, 8-11-2015)
- The FEMA 2015 Elevation Certificate is available from FEMA (<https://www.fema.gov/media-library/assets/documents/160> ). It is a fillable PDF form.

## **Minimum Building Code Requirements:**

Overhead electric power lines to be a minimum of ten feet (10') from the inside wall of the pool, underground electric power lines to be no closer than five feet (5') from the edge of the pool.

Receptacles are to be a minimum of ten feet (10') from the edge of the pool.

All underground exterior wiring to be in intermediate or rigid metallic conduit buried six inches (6") below grade or direct burial type UF cable buried twenty-four inches (24") below grade. Intermediate or rigid conduit is required where coverage is less than twenty-four inches (24"). Rigid PVC conduit is approved for exterior underground use with a minimum burial depth of twenty-four inches (24").

Pool circuits to be twenty (20) amp circuits/GFI protected circuits

A forty-eight inch (48") high non-climbable fence must be installed around the pool area or yard with self-closing, self-latching gates. If the pool walls are forty-eight inches (48") above grade at all points a removable, lock-up ladder is required/rigid locking cover for hot tubs.

**Inspections:** (a minimum of 24 hours advance notice required for inspection scheduling)

Please contact the Building Division at 630-407-6700 to schedule inspections.

(Where no work has been started within 90 days after the issuance of a permit, or when more than 90 days lapses between required inspections, such permit shall be void. No work shall commence prior to issuance of permit).

Feel free to contact our office if you have any questions regarding the permit or inspection process at 630-407-6700. The office location is 421 N. County Farm Road, Wheaton, IL 60187. You can visit our web site at [www.dupageco.org/building](http://www.dupageco.org/building).

**CALL BEFORE YOU DIG – CONTACT [J.U.L.I.E.](http://www.julie.com) - 1-800-892-0123 FOR UNDERGROUND UTILITY LOCATIONS**

**Please reference the revised code requirements on the 2015 International Building Code and 2014 National Electrical Code requirements below:**

## IBC 2009 CODE FOR SWIMMING POOLS

### Section 3109 SWIMMING POOL ENCLOSURES AND SAFETY DEVICES

**3109.1 General.** Swimming pools shall comply with the requirements of this section and other applicable sections of this code.

**3109.2 Definition.** The following word and term shall, for the purposes of this section and as used elsewhere in this code, have the meaning shown herein.

**SWIMMING POOLS.** Any structure intended for swimming, recreational bathing or wading that contains water over 24 inches (610 mm) deep. This includes in-ground, above ground and on-ground pools; hot tubs; spas and fixed-in-place wading pools.

**3109.3 Public swimming pools.** Public swimming pools shall be completely enclosed by a fence at least 4 feet (1290 mm) in height or a screen enclosure. Openings in the fence shall not permit the passage of a 4-inch-diameter (102 mm) sphere. The fence or screen enclosure shall be equipped with self-closing and self-latching gates.

**3109.4 Residential swimming pools.** Residential swimming pools shall comply with Sections 3109.4.1 through 3109.4.3.

**Exception:** A spa with a safety cover complying with ASTM F 1346.

**3109.4.1 Barrier height and clearances.** The top of the barrier shall be at least 48 inches (1219 mm) above grade measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).

**3109.4.1.1 Openings.** Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.

**3109.4.1.2 Solid barrier surfaces.** Solid barriers which do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.

**3109.4.1.3 Closely spaced horizontal members.** Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

**3109.4.1.4 Widely spaced horizontal members.** Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

**3109.4.1.5 Chain link dimensions.** Maximum mesh size for chain link fences shall be a 2.25 inch square (57 mm square) unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to no more than 1.75 inches (44 mm).

**3109.4.1.6 Diagonal members.** Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be no more than 1.75 inches (44 mm).

**3109.4.1.7 Gates.** Access gates shall comply with the requirements of Sections 3109.4.1.1 through 3109.4.1.6 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Release mechanisms shall be in accordance with Sections 1008.1.8 and 1109.13. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and the gate and barrier shall have no opening greater than 0.5 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

**3109.4.1.8 Dwelling wall as a barrier.** Where a wall of a dwelling serves as part of the barrier, one of the following shall apply:

1. Doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. The audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds after the door and/or its screen, if present, are opened and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm shall be equipped with a manual means, such as touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. In dwellings not required to be Accessible, Type A or Type B units, the deactivation switch shall be located 54 inches (1372 mm) above the threshold of the door. In dwellings required to be Accessible, Type A or Type B units, the deactivation switch(es) shall be located at 54 inches (1372 mm) maximum and 48 inches minimum above the threshold of the door.
2. The pool shall be equipped with a power safety cover which complies with ASTM F 1346.
3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the administrative authority, shall be accepted so long as the degree of protection afforded is not less than the protection afforded by Section 3109.4.1.8, Item 1 or 2.

**3109.4.1.9 Pool structure as barrier.** Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure, and the means of access is a ladder or steps, then the ladder or steps either shall be capable of being secured, locked or removed to prevent access, or the ladder or steps shall be surrounded by a barrier which meets the requirements of Sections 3109.4.1.1 through 3109.4.1.8. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

**3109.4.2 Indoor swimming pools.** Walls surrounding indoor swimming pools shall not be required to comply with Section 3109.4.1.8.

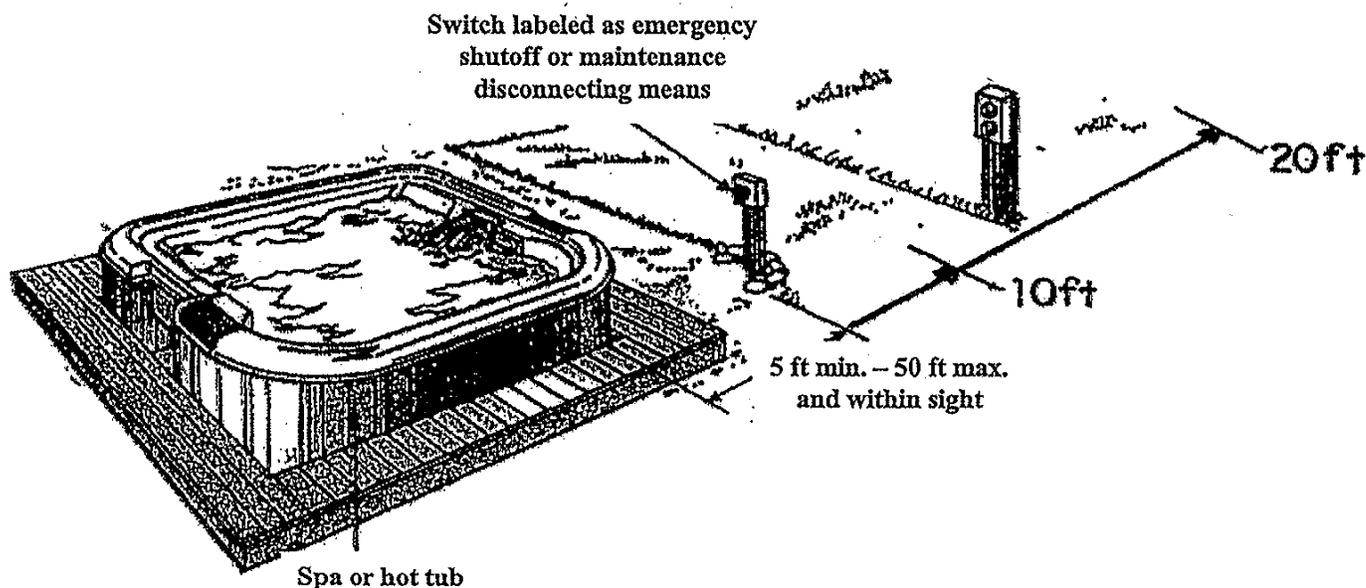
**3109.4.3 Prohibited locations.** Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb the barriers.

## DuPage County

### OUTDOOR SPA/HOT TUB ELECTRICAL REQUIREMENTS

NEC Article 680, Section 680.42 governs spa/hot tub outdoor installations; "A spa or hot tub installed outdoors shall comply with the provisions of Parts I and II of this article (Article 680), except as permitted in 680.42(B), that would otherwise apply to pools installed outdoors." In addition the following requirements shall be met:

- NEC 680.12 requires a "Maintenance Disconnecting Means", located within sight and within fifty (50) feet but not closer than five (5) feet from the spa/hot tub.
- NEC 680.22(A)(3) and (A)(5) require a receptacle within ten (10) feet but not closer than six (6) feet nor farther than twenty (20) feet from spa/hot tub and GFCI protected. UL listed "in use" cover required. All receptacles within twenty (20) feet of spa/hot tub on site shall be GFCI protected.
- Liquid tight flexible metal conduit six (6) feet in length or less with a #10AWG copper equipment grounding conductor may be used to provide power to a listed packaged spa/hot tub. Cord and plug connections are allowed where listed and cord is no longer than fifteen (15) feet and protected by a GFCI.
- A #8 AWG SOLID copper bonding conductor is required to connect all metal surfaces within five (5) feet of spa/hot tub inner wall, per NEC 680.26. Bonding by metal to metal mounting on a common frame or base shall be permitted.
- Underground conduit shall be:
  - a) RMC or IMC minimum cover depth six (6) inches.
  - b) May be Schd 80RNC (electrical PVC) minimum cover depth eighteen (18) inches, with RMC or IMC stub ups; all conduits require an equipment grounding conductor sized per Article 250.122, but not smaller than 12 AWG copper.
- Boxes shall be supported or attached per NEC.
- Switching devices shall be located at least five (5) feet horizontally from inside wall of the spa/hot tub.
- Circuit breakers shall be listed for use in the panel, usually of the same manufacturer.
- The use of Extension Cords is not permitted.



**Du Page County**  
**Basic Above Ground Pool Electrical Requirements**  
**Based on NEC 2008 Edition Article 680**

1. Listed swimming pool pump motor with minimum 12/3 AWG cord not longer than thirty-six (36) inches in length
2. Receptacles on property shall be located a minimum of ten (10) feet from inside walls of pool. All receptacles within twenty (20) feet shall be GFCI protected.
  - a. A GFCI protected receptacle of a single twist lock type would be permitted between six (6) to ten (10) feet from inside wall of pool for pump use only.
  - b. A GFCI protected convenience receptacle shall be located a minimum of ten (10) feet and not more than twenty (20) feet from inside walls of pool.
  - c. Boxes shall be supported and not rely on raceway pipes alone unless as at 2b below.
3. Listed wet location "In-Use" covers for all receptacles.
4. UNDERGROUND RACEWAYS.
  - a. Intermediate metal conduit or rigid metal conduit, six (6) inch minimum burial below grade.
  - b. Rigid non-metallic conduit, Schedule 80, eighteen (18) inch minimum burial below grade with rigid or IMC elbows.
5. Branch circuit conductors shall be 20 amp rated, minimum, but sized to meet the equipment requirements.
  - a. An insulated copper equipment grounding conductor, green in color, shall be installed in any wiring method used, minimum size 12 AWG or as required by Table 250.122.
6. A solid 8 AWG copper equipotential bonding conductor to connect all pool equipment and all metal surfaces located within five (5) feet horizontally of inside walls of pool.
  - a. Equipotential bonding connectors or "Lugs" to be suitable for the purpose and of stainless steel, brass, copper or copper alloy.
  - b. Perimeter surface bonding conductor (#8 SOLID COPPER) eighteen inches (18") to twenty-four inches (24") from inside wall of pool, four inches (4") to six inches (6") below subgrade following contour of the pool.
7. Circuit breakers to match panel manufacturer.
8. Extension cords are not permitted.
9. Optional pool light; power will be from general convenience receptacle, ten (10) feet or more from inside walls of pool; listed for application with GFCI protection.
10. Optional natural gas pool water heater; gas line will be polyethylene yellow in color with a yellow size 12 AWG tracer wire, minimum of eighteen (18) inches below grade. All gas piping above grade shall be rigid steel piping with coatings to protect it from the elements. Steel piping shall transition to polyethylene one (1) foot below grade.

