City of McHenry
Community Development

McHenry IL, 60050
Phone: 815-363-2170
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www.cityofmchenry.org

PERMANENT POOLS, HOT TUBS & SPAS

Permit Submittal:

- **Permit application:** Include estimated cost of construction and all contractors with their contact information listed.
- **Plat of survey:** Indicating the proposed location of the pool on the property. Provide distance from lines, house, utilities, and other accessory structures.
- **Pool information:** Pool information/ specification sheet showing pool type, size, height, and construction.
- **Barrier:** identify the type of barrier being used. (Separate Fence permit may be required)
- **Pump info/specification sheet:** IDENTIFY Pump being used, SHOWING UL number.
- **Homeowner's Association Approval:** If applicable, provide a letter of approval from your HOA.
- **Fees.** The city will contact you with an invoice when your permit is ready. Payment can be made online or in person. Cash, check, or credit/debit cards are accepted.
- Permit will be issued within 10 business days of submittal. (please note, review will not begin until ALL required information is received).

Inspections:

- 24-hour notice is required when scheduling inspections. Call 815-363-2170 to schedule.
- Inspections are schedule Monday-Friday, 9am – noon or 1pm - 4pm
    - A list of required inspections will be attached to the approved plans.

Reminder:

- State Law requires the actual person doing the digging to contact J.U.L.I.E. for location of underground utilities 48 hours before starting to dig. Call 800-892-0123 or 811.

General Requirements:

- In this handout "Pool" is defined as any permanent POOL, HOT TUB, SPA and all the APPURTENANCES. Storable Pool covered in another handout.
- A Barrier minimum 4-foot in height is required around the pool. Such height shall exist for a minimum of 3-feet measured horizontally on the side of the barrier that faces away from the pool.
- All metal parts of the pool and pool appurtenances must be properly bonded.
- The water supply used to fill a pool shall be equipped with an anti-siphon device (available at local hardware stores).
- All windows within 5 feet vertically or horizontally of the edge of a pool or hot tub shall be tempered glass.
- Pool and pool equipment shall be located within the buildable area of a lot in the rear yard. Inner wall of pool must be a minimum of 8-feet from the side property line, and a minimum of 3 feet from the rear property line or required set back per zoning of the property, whichever is greater. POOL & EQUIPMENT SHALL NOT BE LOCATED IN ANY EASEMENTS.

Barrier Requirements:

- **A BARRIER MINIMUM 4-FOOT in height is required around pool.** Such height shall exist for a minimum of 3-feet measured horizontally on the side of the barrier that faces away from the pool. ISPSC 305.2.1 Barrier shall be a minimum of 20-inches from the water's edge. ISPSC 305.2.10
- Vertical clearance between grade (which is not solid, i.e. grass or gravel) and bottom of barrier shall not exceed 2-inches. Vertical clearance between solid surface grade and bottom of barrier shall not exceed 4-inches. When barrier is mounted on top of pool wall, vertical clearance between top of pool and bottom of barrier shall not exceed 4-inches. ISPSC 305.2.1
- All barrier fence gates, or points of entry shall be self-closing and self-latching and open away from the pool. Gates other than pedestrian gates shall remain locked when not in use. ISPSC 305.3
- LATCHES, Where the release mechanism of the self-latching device is located less than 54-inches from grade, it shall be located on the pool side of the gate not less than 3-inches below the top of the gate, and the gate and barrier shall NOT have openings greater than ½-inch within 18-inches of the mechanism. ISPSC 305.3.3
- Self-closing and self-latching gates shall be maintained such that the gate will positively close and latch when released from an open position of 6-inches from the gatepost. IPMC 303.2
- Openings in Barrier Fence shall not allow passage of 4-inch diameter sphere. ISPSC 305.2.2
- Mesh fence as a barrier see ISPCS 305.2.4
- Chain Link barrier fence maximum opening NOT more than (1-3/4)-inches. ISPSC 305.2.7
- All barrier fence posts and supporting barrier fence members shall be erected so that after the barrier fence is constructed, they will face the interior of the premises for which the barrier fence permit is issued.
- 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, the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1 ¾ inches in width. Where the distance between the tops of the horizontal members are 45 inches or more, spacing between vertical members shall not exceed 4 inches. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 ¾ inches in width.
- Where the barrier is composed of diagonal members such as lattice fence, the maximum opening formed by the diagonal members shall not be more than 1 ¾ inches.
- If the pool walls are 48-inches tall or greater from grade and being used as the barrier than an approved ladder system must be used. The ladder must be capable of being secured, locked, or removed. This ladder must also be properly labeled. ISPSC 705.2
- Structure/dwelling wall if used as part of the barrier and where doors or windows provide direct access to the pool through that wall, one of the following is required. ISPSC 305.4
    - Operable Windows with sill height less than 48-inches above the indoor finished floor and DOORS, shall have audible alarm when opened.
    - A Safety Cover that is listed and labeled in accordance with ASTM F 1346
    - An Approved means of protection such as self-closing doors with self-latching devices, degree of protection equal to a or b.
- **HOT TUBS:** Hot tubs or spas may be exempt from the 48" barrier requirement if a safety cover meeting the standards of ASTM F 1346 is used. Applicant must supply information showing safety cover meets this standard.

Electrical Guidelines:

Overhead Electrical Lines:

- Utility Power lines that run over a pool or spa must be at least 22.5 feet above the water level, base of a diving platform or observation platform.
- Communications cable must be at least 10 feet above the water level, base of a diving platform or observation platform.
- NOTE: Com Ed does not permit their conductors above pools.
- **A licensed electrical contractor** installing electric needs to provide a copy of their current license. ***For these rules, the water level is defined as the highest point water can reach before it spills out of the pool or spa. It is always preferable to install a pool or spa well away from electrical lines, or vice versa.*

Underground Wiring:

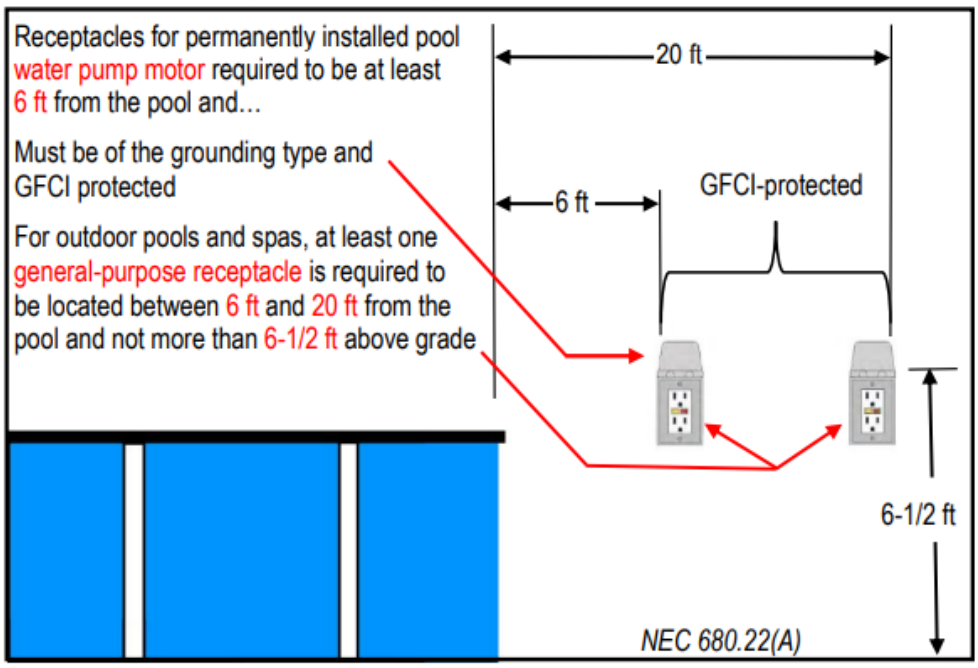
Underground wiring is not allowed under a pool or spa and can be run no closer than 5 feet from any sidewall of a pool or spa.

There are some exceptions when the wiring attaches to the pool or spa to serve equipment or lighting. When there is insufficient space in the area to maintain a 5-foot separation, wiring may be closer than 5 feet if it is installed in a complete raceway (conduit) system. Rigid metal raceway (RMC or IMC) must have at least 6 inches of cover. Nonmetallic raceway must have at least 6 inches of cover, including at least 4 inches of concrete; 18 inches minimum cover is required if the nonmetallic conduit (PVC) is listed for direct burial without concrete encasement.

Electrical Outlet Receptacles:

The rules for electrical outlets are aimed at preventing the possibility of shock:

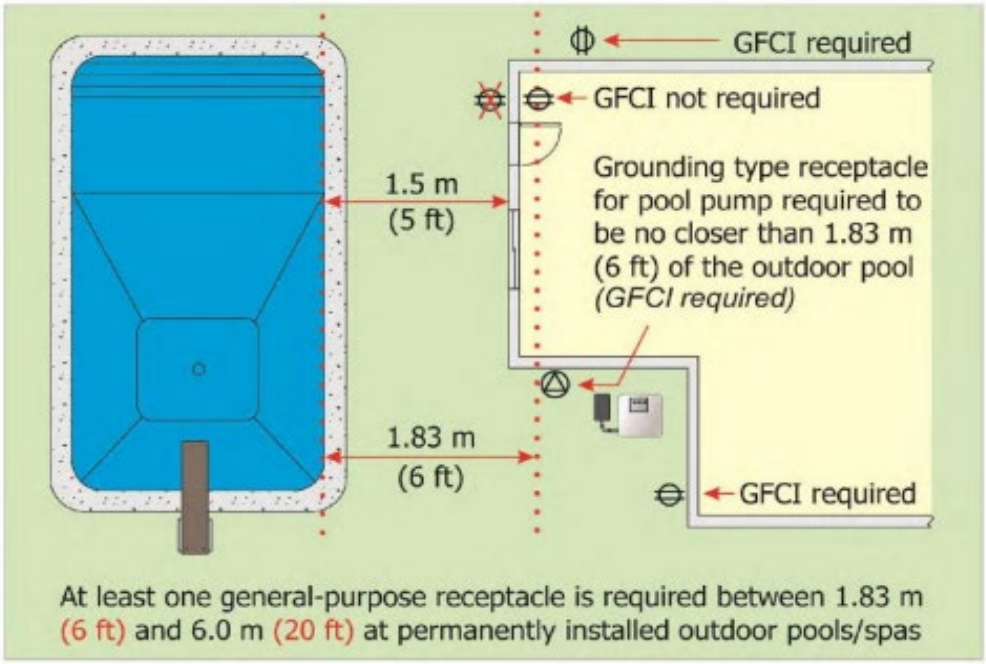
- Receptacles for pumps and motors must be located between 6 and 10 feet from the pool walls, and they must be GFCI protected and locked.
- Outlet receptacles for general use can be no closer than 20 feet from a pool or spa if they are not GFCI protected, and no closer than 6 feet away if they are GFCI protected.
- All pools MUST have at least one GFCI protected convenience outlet located between 6 feet and 20 feet from the edge of the pool.



GFCI Protection:

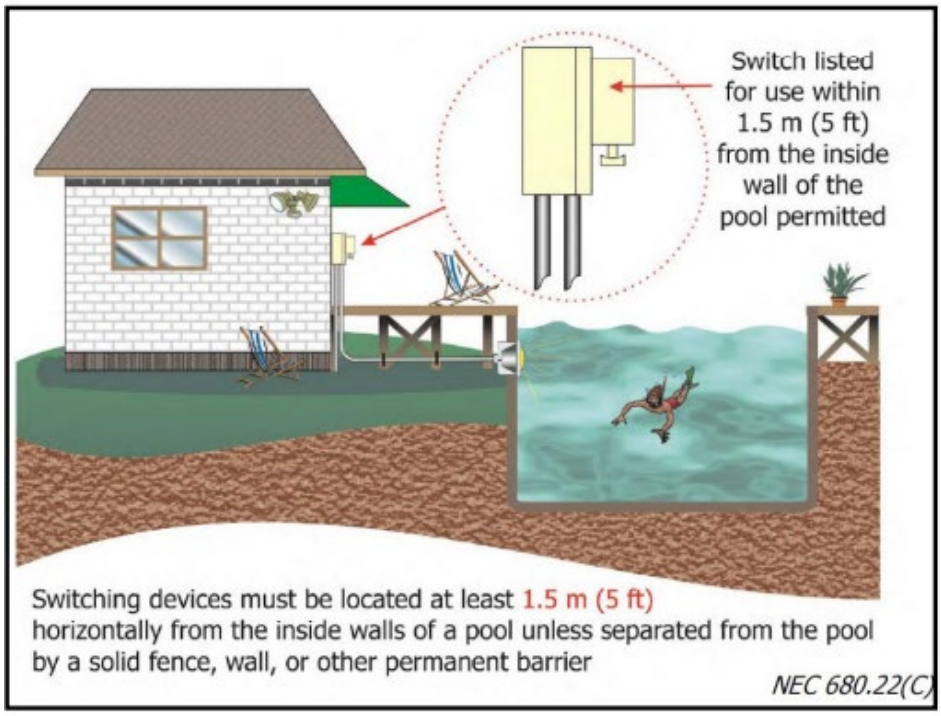
Most devices and equipment serving pools or spas and the surrounding areas must be protected by ground-fault circuit interrupter (GFCI) devices. This includes but is not limited to:

- Outlet receptacles within 20 feet of a pool or spa
- Underwater pool lights greater than 15 volts
- Motors or controls for pool covers
- Outlet receptacles for pool pump motors at all distances from the pool
- Light fixtures less than 10 feet from a pool or spa edge unless the fixture is more than 5 feet above the water level.



Maintenance Disconnect:

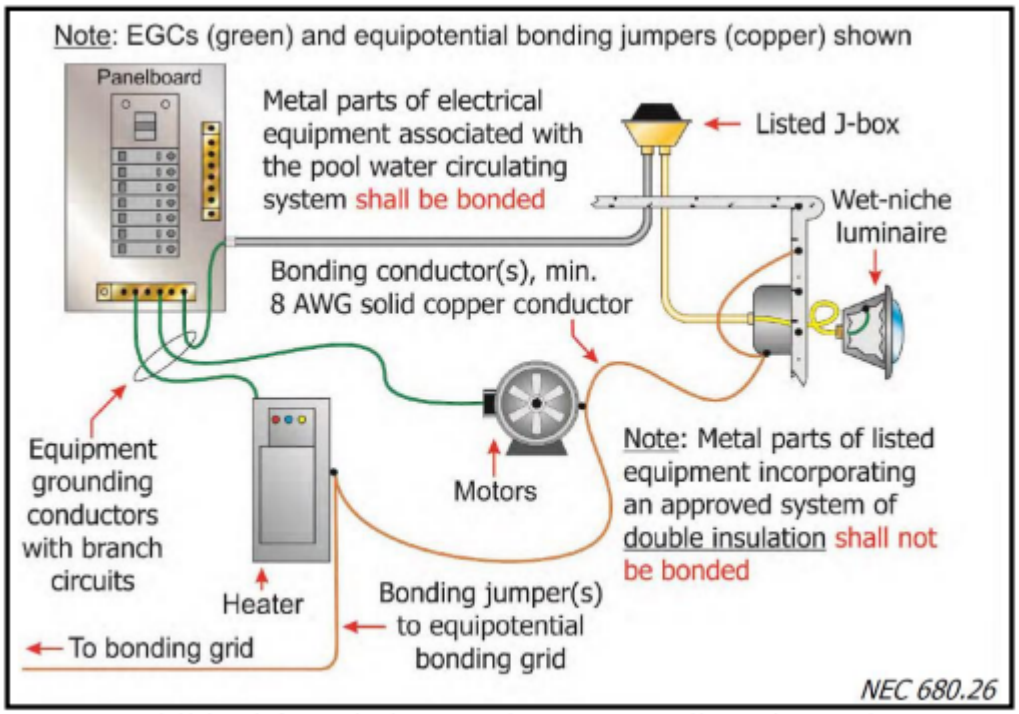
A maintenance disconnect is required for shutting off power to pool or spa pumps, filters, and other utilization equipment. The disconnect must be installed within sight of the pool or spa but can be no closer than 5 feet from the pool or spa so that you cannot turn the power on or off while leaning out of the water.



Electrical Bonding Code (NEC):

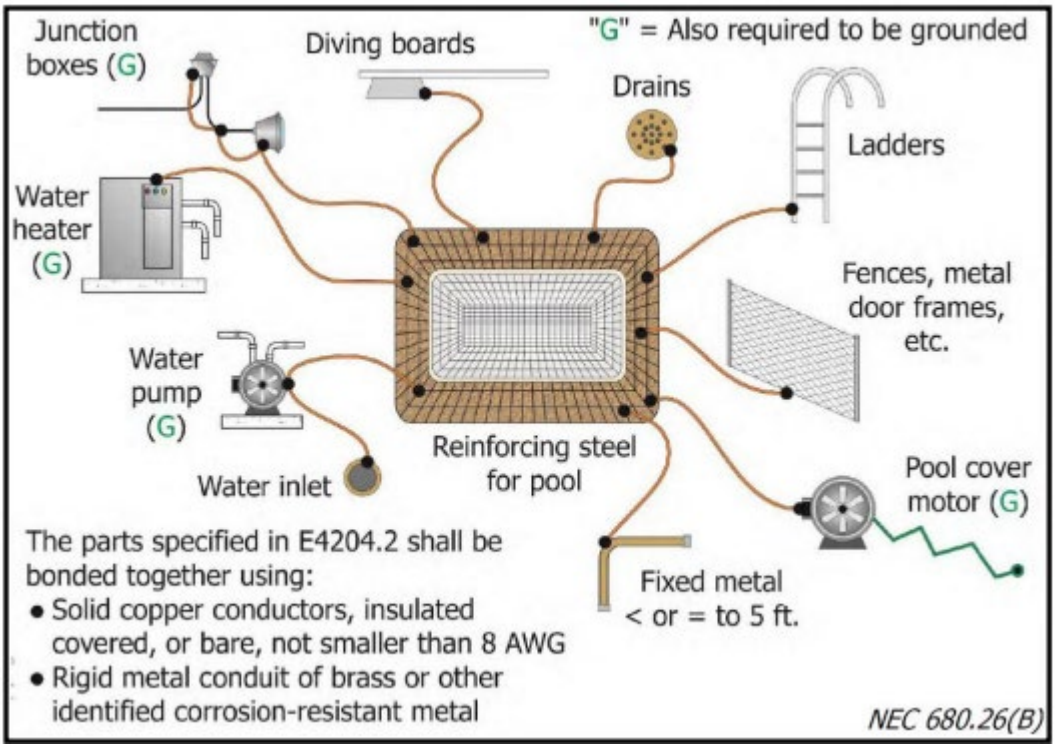
Equipotential bonding requirements of NEC 680.26 are to reduce the voltage gradients (difference of voltage potential between two conducting objects), not to create a grounding electrode system for a building or structure.

- This action essentially puts all metallic parts around and associated with the pool at the same voltage potential.
- Providing a path for ground-fault current is not the function of the equipotential bonding grid and associated bonding conductors.
- The structures and structural reinforcing steel of an in-ground swimming pool as described in NEC 680.26(B)(1) and (B)(2) are now prohibited from being used and a grounding electrode.



The equipotential bonding grid includes but is not limited to:

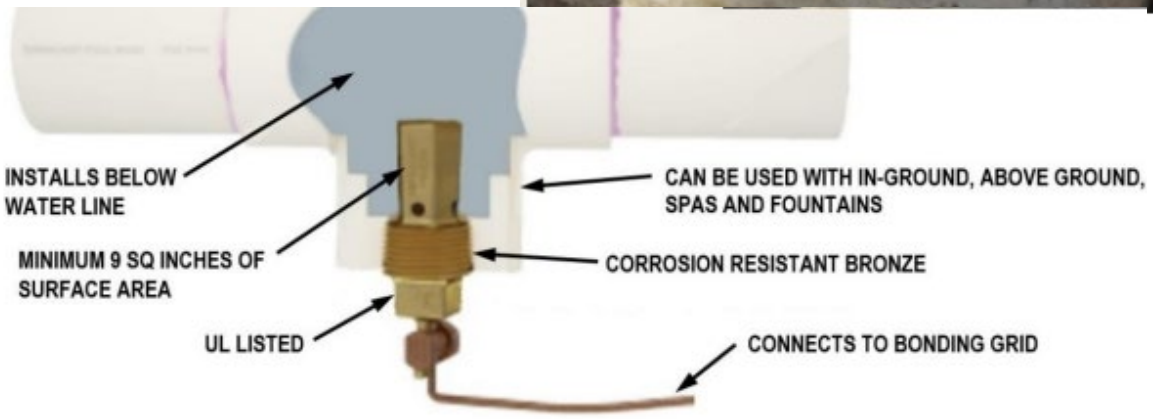
- All metallic parts of the pool including structural reinforcing steel of the pool shell and perimeter surface (tie wires are suitable for bonding of structural steel)
- All metal forming shells of underwater luminaires
- All metal fittings within or attached to the pool structure



(small parts exempted)

- Note: Isolated small parts not over 100 mm (4 inc.) do not require bonding.

If the pool water doesn't have an electrical connection to one of the bonded parts described in 680.26(B), an approved corrosion-resistant conductive surface that's at least 9 square inches must be in contact with the water. The corrosion-resistance conductive surface must be bonded in accordance with 680.26(B) and be in an area where it won't be dislodged or damaged during normal pool usage.



Please note the information provided in this handout is general in nature. If you have specific questions or need additional information, please contact a Community Development Department representative at (815) 363-2170 or ced@cityofmchenry.org