

**REQUIREMENTS FOR BUILDING PERMIT
FOR
SWIMMING POOLS**

*Installations are based on the 2018 International Residential Code
And the 2020 NEC*

1. Any swimming pool, hot tub, or spa with a water depth of or greater than 24" is required to obtain a building permit and is required to be surrounded by a barrier at least 48" high.
2. Swimming pools, hot tubs or spas may be located in the rear yard only and must maintain a proper setback from the rear and side lot lines, based on the zoning district.
3. If the property is located within the historic district, a Certificate of Appropriateness issued by the Ste. Genevieve Heritage Commission must be obtained prior to obtaining the building permit.
4. If the property is located within the floodplain, a Floodplain Development Permit may be required. See Floodplain Administrator for details.

In order to obtain a building permit, the following items must be submitted to the Community Development office:

1. Completed and signed building permit application.
2. Site plan showing setbacks, proposed pool placement, all existing buildings, outbuildings, easements, utilities, etc.
5. Construction Plans with the following information:
 1. Size of proposed pool – depth, width, length, circumference, etc.
 2. Type of construction material used*
 3. Electrical receptacles for proposed pool, with locations shown, type of connection, materials used, etc.
 4. Locations of any other electrical receptacles or equipment in rear yard.
 5. Location and size of required barrier with gate and ladder and type of locking mechanism (if required).

Construction plans must be submitted on 8 ½" x 10" paper or larger.

Permit Fee

Above-Ground Pools - \$20.00 / In-Ground Pools - \$30.00

****Provide manufacturer's recommendations for installation if provided with purchase of pool.***

INSTALLATION REQUIREMENTS FOR IN GROUND SWIMMING POOLS

In-ground swimming pools shall be designed and constructed in conformance with Section R326 and Section 42 of the 2018 International Residential Building Code.

- Completed building permit application with required set of plans*
- Site plan of property with location of proposed pool and fencing reflecting proper setbacks, existing and proposed structures
- Construction plans for barriers and access gates that comply with the requirements of Section 305 of the 2018 International Swimming Pool and Spa Code per Section R326 of the 2018 International Residential Code.
- Provide electrical information on construction plans. Electrical connections must comply with the 2020 NEC .
- Provide plumbing and drain information on construction plans. Plumbing must comply with the 2018 IPC

****Include Manufacturer's Installation Guide and Recommendations if provided with purchase of pool***

**Luminaires, lighting outlets and ceiling suspended paddle fans shall not be installed over the pool or over the area extending five feet horizontally from the inside wall of the pool*

**Underground wiring shall not be installed under or within the area extending 5' horizontally from the inside walls of pools except where the wiring is installed to supply the pool equipment. Where installed within 5 feet, the wiring method shall be rigid metal conduit, intermediate metal conduit or a nonmetallic raceway system. Metal conduit shall be corrosion resistant and suitable for the location.*

- Equipment to be grounded:
 1. Wet niche, dry niche and no niche underwater luminaires.
 2. All electrical equipment located with 5' of the inside wall of the pool.
 3. All electrical equipment associated with the recirculating system of the pool.
 4. Junction boxes.
 5. Transformer enclosures.
 6. Ground-fault circuit-interrupters.
 7. Panel boards that are not part of the service equipment and that supply any electrical equipment associated with the pool.

INSTALLATION REQUIREMENTS FOR ABOVE GROUND SWIMMING POOLS

*Swimming Pools with a depth of 24" or greater require a Building Permit.
Above-ground swimming pools shall be designed and constructed in conformance with
Chapter 42 of the 2018 International Residential Building Code.*

- Completed building permit application with required set of plans*
- Site plan of property with location of proposed pool and proper setbacks
- Construction plans with size and depth of pool

****Include Manufacturer's Installation Guide and Recommendations if provided with purchase of pool***

Provide electrical information on construction plans. Requirements for electrical connection include but are not limited to:

- Receptacles providing power to water-pump motors shall be permitted to be located between 6 and 20 feet from the inside walls of pools and where so located shall be single and of the locking and grounding type and shall be protected by ground-fault circuit interrupters.
- No other receptacles may be located closer than 6 feet from the inside walls of the pool.
- All 125 volt receptacles located within 20 feet of the inside of pools shall be protected by a ground fault circuit interrupter.

**Luminaires, lighting outlets and ceiling suspended paddle fans shall not be installed over the pool or over the area extending five feet horizontally from the inside wall of the pool*

**Underground wiring shall not be installed under or within the area extending 5' horizontally from the inside walls of pools except where the wiring is installed to supply the pool equipment. Where installed within 5 feet the wiring method shall be rigid metal conduit, intermediate metal conduit or a nonmetallic raceway system. Metal conduit shall be corrosion resistant and suitable for the location.*

- The following parts shall be bonded together:
 1. All metallic parts of pool.
 2. All forming shells and mounting brackets of no-niche luminaires.
 3. All metal fittings within or attached to the pool.
 4. Metal parts of electrical equipment associated with pool including pump motors and metal part of equipment associated with pool covers, including electric motors.
 5. Metal sheathed cables and raceways, metal piping and all fixed metal parts that were within 5' horizontally of the inside walls of the pool and within 12' above the maximum water level of the pool.
- Equipment to be grounded:
 1. Wet niche, dry niche and no niche underwater luminaires.
 2. All electrical equipment located with 5' of the inside wall of the pool.
 3. All electrical equipment associated with the recirculating system of the pool.
 4. Junction boxes.
 5. Transformer enclosures.
 6. Ground-fault circuit-interrupters.
 7. Panel boards that are not part of the service equipment and that supply any electrical equipment associated with the pool.

STORABLE SWIMMING POOLS:

- A cord connected pool filter pump for use with storable pools shall incorporate an approved system of double insulation or its equivalent and shall be provided with means for grounding only the internal and inaccessible noncurrent-carrying metal parts of the appliance.
- Means for grounding shall be an equipment grounding conductor run with the power supply conductors in a flexible cord that is properly terminated in a grounding-type attachment plug having a fixed grounding contact.
- Electrical equipment including power-supply cords, used with storable pools shall be protected by a GFCI.
- Luminaires: All luminaires shall meet the requirements of Section E4107.3.1 and E4017.3.2. and:
 1. *Shall not have exposed metal parts and shall be listed for the purpose as an assembly.*
 2. *When installed on a wall of a storable pool shall be part of a cord and plug connected lighting assembly. The assembly shall operate a lamp of 15 volts or less, be impact-resistant and have a transformer enclosure.*

FENCING REQUIRED:

- All sources of water having a depth of 24" or more shall be surrounded by a fence or barrier at least 48" in height above the finished ground level measured on the side of the barrier away from the pool.
- Gates and doors in such barriers shall be self-closing and self-latching.
- All fences and barriers must meet the requirements of Section 303.7 and 304.2 of the 2018 International Property Maintenance Code
- A removable ladder or steps may be substituted for the required fencing, provided that:
 1. The ladder or steps are capable of being secured, locked or removed to prevent access.

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

2018 ISPSC POOL BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable safety cover complying with ASTM F1346 and swimming pools are equipped with a powered safety cover that complies with ASTM F1346, the areas where those spas, hot tubs or pools are located shall not be required to comply with Sections 305.2 through 305.7.

305.2 Outdoor swimming pools and spas. Outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.7.

305.2.1 Barrier height and clearances. Barrier heights and clearances shall be in accordance with all of the following:

1. The top of the barrier shall be not less than 48 inches above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet measured horizontally from the outside of the required barrier.
2. The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.
3. The vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier shall not exceed 4 inches where measured on the side of the required barrier that faces away from the pool or spa.
4. Where the top of the pool or spa structure is above grade, the barrier shall be installed on grade or shall be mounted on top of the pool or spa structure. Where the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier shall not exceed 4 inches.

305.2.2 Openings. Openings in the barrier shall not allow passage of a 4-inch-diameter sphere. 305.2.3 Solid barrier surfaces. Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and footholds, except for normal construction tolerances and tooled masonry joints.

305.2.4 Mesh fence as a barrier. Mesh fences, other than chain link fences in accordance with Section 305.2.7, shall be installed in accordance with the manufacturer's instructions and shall comply with the following:

1. The bottom of the mesh fence shall be not more than 1 inch above the deck or installed surface or grade.
2. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit the fence to be lifted more than 4 inches from grade or decking.
3. The fence shall be designed and constructed so that it does not allow passage of a 4-inch sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall be not greater than 4 inches from grade or decking.
4. An attachment device shall attach each barrier section at a height not lower than 45 inches above grade. Common attachment devices include, but are not limited to, devices that provide the security equal to or greater than that of a hook-and-eye type latch incorporating a spring-actuated retaining lever such as a safety gate hook.
5. Where a hinged gate is used with a mesh fence, the gate shall comply with Section 305.3.
6. Patio deck sleeves such as vertical post receptacles that are placed inside the patio surface shall be of a nonconductive material.
7. Mesh fences shall not be installed on top of on ground residential pools.

305.2.5 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 the horizontal members shall be located on the pool or spa side of the fence. Spacing between vertical members shall not exceed 1 3/4 inches in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 3/4 inches in width.

305.2.6 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 or more, spacing between vertical members shall not exceed 4 inches. Where there are decorative cutouts within vertical members, the interior width of the cutouts shall not exceed 1 3/4 inches.

305.2.7 Chain link dimensions. The maximum opening formed by a chain link fence shall be not more than 1 3/4 inches. Where the fence is provided with slats fastened at the top and bottom that reduce the openings, such openings shall be not greater than 1 3/4 inches.

305.2.8 Diagonal members. Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be not greater than 1 3/4

inches. The angle of diagonal members shall be not greater than 45 degrees (0.79 rad) from vertical.

305.2.9 Clear zone. There shall be a clear zone of not less than 36 inches (914 mm) between the exterior of the barrier and any permanent structures or equipment such as pumps, filters and heaters that can be used to climb the barrier.

305.2.10 Poolside barrier setbacks. The pool or spa side of the required barrier shall be not less than 20 inches from the water's edge.

305.3 Gates. Access gates shall comply with the requirements of Sections 305.3.1 through 305.3.3 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool or spa, shall be self-closing and shall have a self-latching device.

305.3.1 Utility or service gates. Gates not intended for pedestrian use, such as utility or service gates, shall remain locked when not in use.

305.3.2 Double or multiple gates. Double gates or multiple gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-latching device. The gate and barrier shall not have openings larger than 1/2 inch within 18 inches of the latch release mechanism. The self-latching device shall comply with the requirements of Section 305.3.3.

305.3.3 Latches. Where the release mechanism of the self-latching device is located less than 54 inches from grade, the release mechanism shall be located on the pool or spa 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 1/2 inch within 18 inches of the release mechanism.

305.5 On ground residential pool structure as a barrier. An on ground residential pool wall structure or a barrier mounted on top of an on ground residential pool wall structure shall serve as a barrier where all of the following conditions are present:

1. Where only the pool wall serves as the barrier, the bottom of the wall is on grade, the top of the wall is not less than 48 inches above grade for the entire perimeter of the pool, the wall complies with the requirements of Section 305.2 and the pool manufacturer allows the wall to serve as a barrier.
2. Where a barrier is mounted on top of the pool wall, the top of the barrier is not less than 48 inches above grade for the entire perimeter of the pool, and the wall and the barrier on top of the wall comply with the requirements of Section 305.2.

3. Ladders or steps used as means of access to the pool are capable of being secured, locked or removed to prevent access except where the ladder or steps are surrounded by a barrier that meets the requirements of Section 305.

4. Openings created by the securing, locking or removal of ladders and steps do not allow the passage of a 4- inch diameter sphere.

5. Barriers that are mounted on top of on ground residential pool walls are installed in accordance with the pool manufacturer's instructions.