



# Residential Swimming Pools, Hot Tubs and Spas

## Definitions

**Swimming Pool-** Any structure intended for swimming or recreational bathing that contains water over 24 inches deep. This includes in-ground, above-ground and on-ground swimming pools, hot tubs and spas.

**Storable Swimming or Wading Pools-** Those that are constructed on or above the ground and are capable of holding water with a maximum depth of 42 inches, or a pool with nonmetallic, molded polymeric walls or inflatable fabric walls regardless of dimension.

## Permits

A building permit is required for the construction or placement of all swimming pools that are 24 inches or greater in depth or any swimming pool with a filter system, heater or electrical lighting.

- Permit fee --the permit fee is calculated at .19 cents per square foot (pool surface) and .24 cents per square foot (deck area) with a minimum fee of \$30.00.
- Plan review fee --a plan review of 15% of pool permit fee is charged for residential pools. 30% of pool permit fee is charged for commercial pools. The plan review fee is in addition to the permit fee. **(No fee permits will be issued for storable swimming pools).**

**Note:** *The pool/spa permit includes the required fence enclosure as part of the pool/spa permit. Separate permits will not be issued.*

## Plans

A complete set of plans must be submitted to the Building Codes Division, 1225 S. Hamilton Circle, to obtain a building permit.

Provide a plot plan showing the following:

- Proposed pool or spa location - show distances to property lines.
- House and adjacent structures.
- Septic system tanks and lateral lines for lots without public sewers.
- Location of overhead or underground electric lines (provide dimensions from pool or spa).
- Fence or other pool enclosure.
- Provide a deck-framing plan where decks constructed of wood are used for walkways or supporting spas or hot tubs (see *Residential Deck Handout* for requirements).
- Setbacks of deck or pool patio from property lines.

**Note:** *For one- & two- family dwellings, the city can provide a copy of the plot plan if on file – call 913) 971-9875 for plot plan assistance.*

## Pumps and Filter

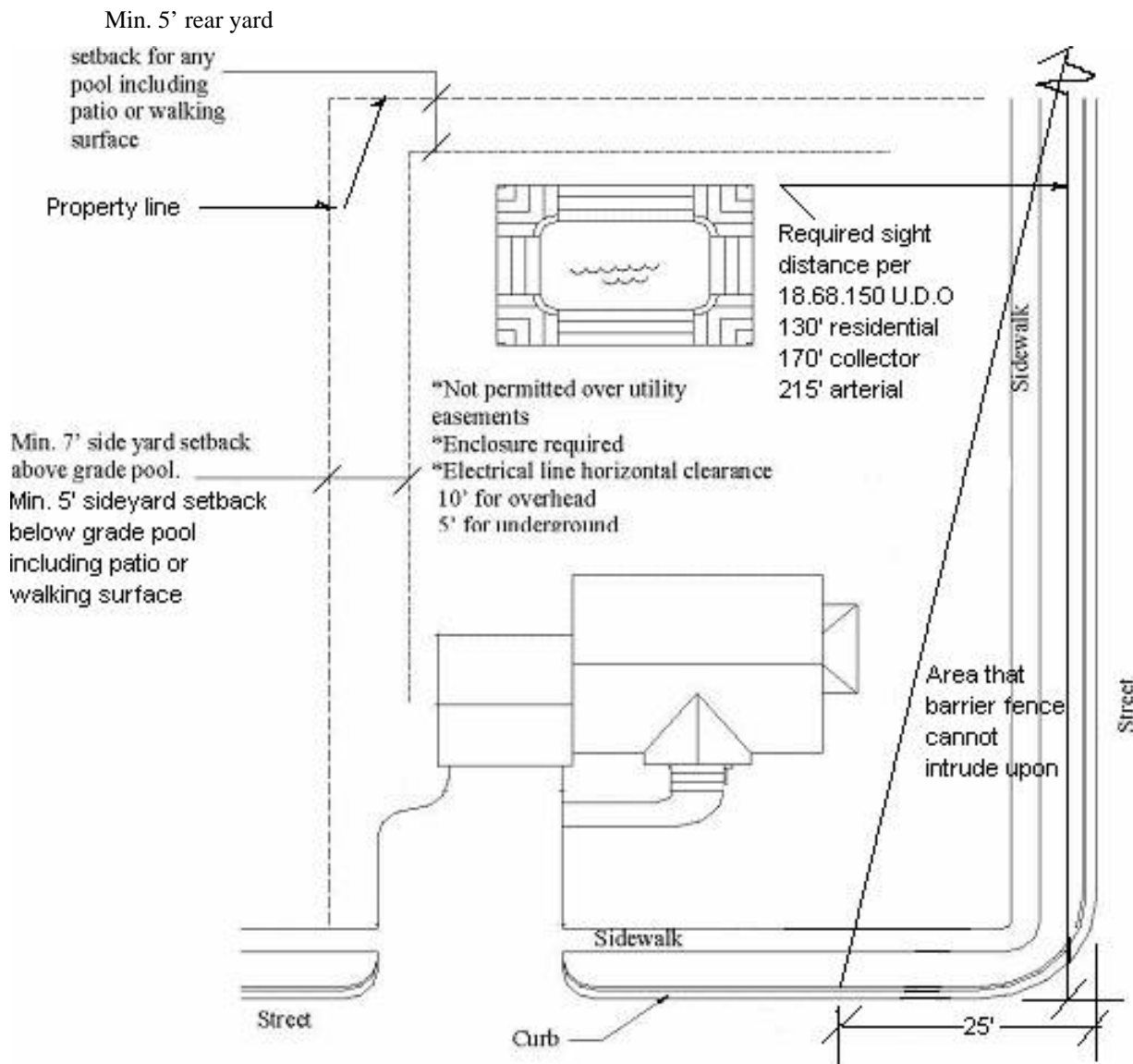
- Pool pump shall be sized to provide a turnover of the pool water at least once every twelve hours.
- Pool and spa pumps shall be listed by a nationally approved testing laboratory. Pumps less than 3 HP shall comply with ANSI/UL 1081, “*Standard for Swimming Pool Pumps, Filters and Chlorinators.*”
- Filters shall be capable of maintaining water clarity.

**Inspections – (call 971-9875)**

All work, especially if underground, needs to be inspected prior to coverage or concealment. A 4-hour advanced notice is required for inspection. To receive an inspection the following workday, you must schedule an inspection before 4 p.m. Monday through Friday. Call 971-9875, if you have questions regarding inspections. Depending on the type of pool or spa, all of the inspections listed below may not be applicable. **All installations will require a final inspection.**

- A bonding inspection is required prior to pouring concrete to verify that all metallic parts of the pool are electrically bonded (connected together) including reinforcing bars in the concrete for the pool walls, bottom and deck; diving boards, ladders, handrails, fixtures for pool lights, electrical conduits and metal fences.
- A gas line inspection is required for any relocated or added gas line. The line must be inspected and tested prior to covering.
- A wet or dry niche light electrical grounding inspection should be performed prior to filling the pool with water.
- A final inspection must be performed after all work is complete.

**Note:** *Certificate of Compliance* will be sent to the permit applicant to certify completion of the project and compliance with city code requirements when all work is inspected and approved.



**Setbacks - location on the property**

The following setbacks for pools and fences apply to pools constructed in the R-1 and RP-1 Zoning Districts. Check with the Planning and Development Department at 913-971-8750 regarding setback requirements in other zoning districts.

- o Pool/deck setbacks include any decking or walkway around the pool/spa.
- o Front yard pools/spas are **not permitted**.
- o Side yard
  - a) Patios, pools or similar structures, which are at or below grade, shall have a minimum 5-foot setback for interior side yards including the edge of patio. Decks, spas and pools above grade shall maintain a minimum 7-foot setback.
  - b) Corner lot side yards to maintain intersection sight distance per 18.68.150 U.D.O.
- o Rear yard
- o 5-foot setback for deck surfaces, patios, and pools
- o Easements - pool/spa and deck shall not be located over a utility easement and cannot be placed in a platted landscape easement.

**Accessory structures**

Solid or membrane covers including shade structures shall meet the setback requirements for accessory structures – separate plans are required.

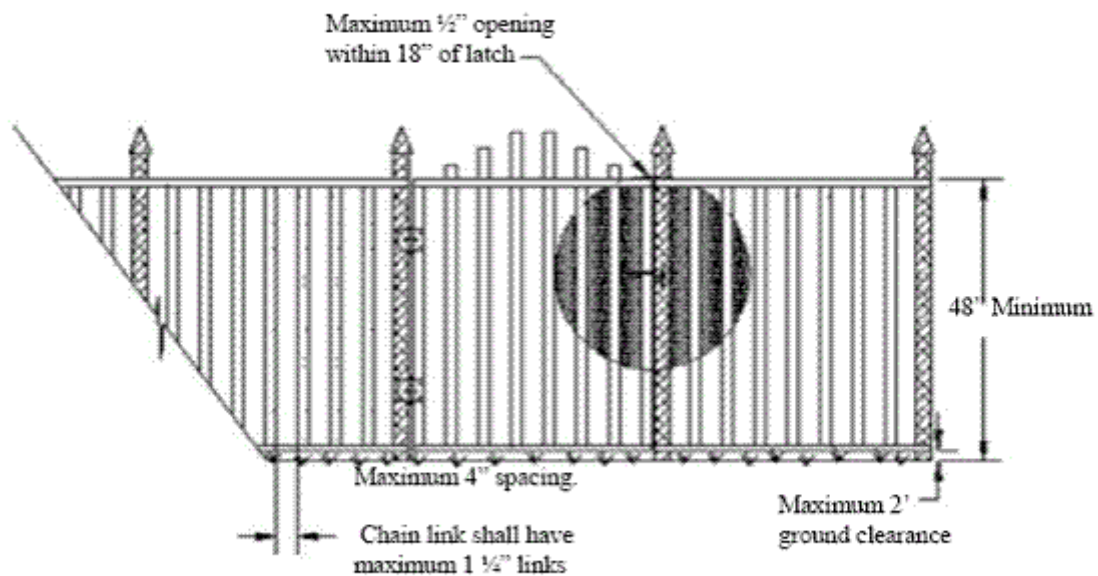
**Enclosures**

To restrict access by children to the pool, spa or hot tub, a barrier must be constructed to surround the pool, spa or hot tub.

Barrier options – any one or combination barriers			
*Barrier type	Spa/hot tub	Pools	Comments
Fence enclosure	X	X	Minimum height 4-foot; special construction for fence and gates
Dwelling wall as part of barrier	X	X	Special alarm requirements for doors in walls serving as part of the wall barrier.
Spa/hot tub covers	X		Labeled cover – lockable and cover can support weight of 250#
Above ground pools			Pool walls must meet requirements for fence enclosure; access must be enclosed by fence enclosure or have retractable ladder

- o Fence
  - a) The height of the fence must be at least 4 feet (measured from the adjacent ground level to the top of the fence on the side that faces away from the pool) - maximum height 6 feet.
  - b) Ground clearance between the fence and finished ground level shall not exceed 2 inches.
  - c) Openings in the fence shall not allow passage of a 4-inch diameter sphere.
  - d) Where the fence 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 1-3/4 inches width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1-3/4 inches width.

- e) Where the fence 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.
- f) Fence enclosures shall also comply with the city requirements for fences
- g) Some homes associations have special requirements or covenants regarding fence locations and materials. You may wish to check with your homes association prior to selecting a fence design.
- o Gates
  - a) Gates in the enclosure must swing away from the pool area and be self-closing and self-latching.
  - b) Where the release mechanism is located less than 54 inches from the bottom of the gate, the release mechanism and opening shall comply with the following:
  - c) The release mechanism shall be located on the poolside of the gate at least 3 inches below the top of the gate.
- o The gate and barrier shall have no opening greater than 1/2 inch within 18 inches of the release mechanism.



Maximum 2' Chain link shall have ground clearance maximum 1 1/4" links

- o A dwelling unit wall that serves, as part of the barrier shall comply with one of the following:
- o All 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 its screen are opened. The alarm shall sound for a minimum of 30 seconds immediately after the door is opened and shall be heard throughout the house. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as touch pad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The deactivation switch (es) shall be located at least 54 inches above the threshold of the door; or

- o Other means of equivalent protection, such as self-closing doors with self-latching devices, which are approved by the City of Olathe. Exceptions:
  - a) Ladder - a ladder on aboveground pools is considered as complying with the gate requirements for restriction of access if it is lockable or removable.
  - b) Spa and hot tub cover - spa and hot tub covers that comply with *ASTM F 1346*, as listed in *Section AG108*, shall be exempt from the barrier requirements listed above
  - c) The pool/spa shall be equipped with a powered safety cover complying with *ASTM F1346*

### Building codes

The pool/spa or hot tub must be constructed in accordance with *Chapter 41* and *Appendix G* of the *2006 International Residential Code (IRC)*:

- o In-ground pools shall be designed and constructed in conformance with *ANSI/NSPI-5*.
- o Above-ground pools shall be designed and constructed in conformance with *ANSI/NSPI-4*.
- o Permanently installed spas and hot tubs shall be designed and constructed in conformance with *ANSI/NSPI-3*.
- o Portable spas and hot tubs shall be designed and constructed in conformance with *ANSI/NSPI-6*.
- o Decks and elevated walking surfaces - decks for one- and two- family dwellings shall be designed to support a minimum 40 pounds per square foot live load (see *Residential Decks* for design information). Decks supporting spas or hot tubs shall be designed to support the weight recommended by the manufacturer plus a 40-pound per square foot live load on adjacent deck areas. A plan of the deck is required to verify that adequate support is provided.
- o Electrical installations
  - a) All electrical wiring for the pool must be in accordance with *Section Chapter 41 and Appendix G of the 2006 IRC*.
  - b) Clearance from services - residential pools/spas/hot tubs must be located so that there is at least a 10-foot horizontal clearance from the edge of the pool to any overhead power line and at least a 5-foot horizontal clearance from the edge of the pool to any underground electrical wiring.
- o Receptacles
  - a) Receptacles that provide power for water-pump motors or other loads directly related to the circulation and sanitation system **shall be permitted** to be located between 5 feet and 10 feet from the inside walls of pools, outdoor spas and hot tubs and, where so located, shall be single and of the locking and grounding type and shall be GFCI-protected.
  - b) At least one 125-volt, 15- or 20-ampere receptacle supplied by a general-purpose branch circuit shall be located a minimum of 10 feet from, but not more than 20 feet, from the inside walls of pools, outdoor spas and hot tubs. This receptacle shall be located not more than 5 feet, 6 inches above the floor, platform or grade level serving the pool, spa or hot tub.
  - c) All 125-volt receptacles located within 20 feet of the inside walls of pools and outdoor spas and hot tubs shall be GFCI-protected.
- o Underground utility lines - care should be taken when excavating to minimize potential problems with buried gas, water, sewer, and underground electrical lines. Applicants may obtain assistance regarding the location of underground utilities by calling 1-800-DIG-SAFE (1-800-344-7233).

### Entrapment protection

- o Suction outlets must be designed to produce circulation throughout the pool or spa.
- o Single outlet systems, such as automatic vacuum cleaner systems, or multiple suction outlets, whether isolated by valves or other means, shall be protected to not allow entrapment.
- o Suction outlets must have a cover that meets the requirements of ANSI/ASME, or an 18 inch X 23 inch drain grate or larger, or an approved channel drain system; **Exception:** Surface skimmers.
- o Pool and spa single or multiple outlet circulation systems shall be equipped with atmospheric vacuum relief grate covers should outlet covers become missing or broken. This vacuum relief system shall include at least one approved or engineered method as follows.
  - a) Safety vacuum release system conforming to ASME A 112.19.17.
  - b) An approved gravity drainage system.
- o Single or multiple pump circulations systems have a minimum of two suction outlets of the approved type. A minimum horizontal or vertical distance of 3 feet shall separate the outlets.

These suction outlets shall be piped so that water is drawn through them simultaneously through a vacuum relief protected line to the pump or pumps.

- Where pool cleaning fitting(s) are provided they shall be located in an accessible position(s) at least 6 inches and not more than 12 inches below the minimum operational water level or as an attachment to the skimmer(s).

Please contact the Building Code Division permitting section at 913-971-9875 for questions regarding residential swimming pools. Thank you.

REVISED JANUARY 2011



## **SWIMMING POOL ENCLOSURE AFFIDAVIT**

All swimming pools installed must comply with City of Olathe Municipal Code Chapter 15.01 adopting the 2000 International Residential Code, Appendix G (Swimming Pools, Spas and Hot Tubs).

**SWIMMING POOLS – DEFINED AS:** 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.

As a resident living at: \_\_\_\_\_, Olathe KS, I understand and will comply with the installation of a code compliant enclosure to accommodate my swimming pool. I understand that my pool permit will not receive final approval unless this enclosure is in place and meets all code definitions set forth in Appendix G).

\_\_\_\_\_  
Print Full Name

\_\_\_\_\_  
Signature of Responsible  
Party

\_\_\_\_\_  
Date