

# City of Crystal Lake

## Community Development Department

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100 W. Woodstock Street  
Crystal Lake, IL 60014  
[www.crystallake.org](http://www.crystallake.org)



Phone (815) 356-3605  
Fax (815) 479-1647  
[building@crystallake.org](mailto:building@crystallake.org)

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## ABOVE GROUND SWIMMING POOL

Please provide the following information when applying for a permit:

- **[Building Permit Application](#)**  
Applications are available at City Hall or online at the City's website, [www.crystallake.org](http://www.crystallake.org).
- Two copies of a current Plat of Survey showing all proposed work in accordance with the attached Pool Location Template.
- Two sets of the building plans for any decks or fences that will be constructed with the pool.
- Submit pool manufacturer's specifications for all equipment.
- Contact J.U.L.I.E. for the location of the utilities.
  - Distance from electric lines to the edge of the pool must be indicated on the plat of survey.
- Homeowners Association approval may be required.

### Inspections

Please schedule all inspections by 4:00 P.M. the day before the inspection.

The following inspections are required for an above ground swimming pool:

- Underground electric, plumbing, or gas (prior to backfilling trench)
- Fence post holes (if applicable)
- Grading and drainage
- Final inspection

The following items are needed when requesting inspection:

- Inspection type
- Address
- Date and time frame (am or pm)
- Permit number
- Name and telephone number of homeowner or contractor requesting inspection

### Above Ground Swimming Pool Installation Requirements:

- **Setbacks:** Above ground swimming pools, pool equipment and pool heaters must be located in an approved location on the lot.
  - The above ground pool, pool equipment and pool heater must be at least 5 feet from any adjacent structure, such as a house, garage.
  - Pools and pool equipment cannot be located in an easement or in a zoning setback.

**Note:** See the attached Pool Location Templates for additional information.

- **Heaters:** Pool heaters must be installed in accordance with the manufacturer’s installation instructions.
  - Gas lines serving the pool heater shall be buried a minimum of 8 inches.
  - A yellow tracer wire shall be installed in the same trench as non-metallic gas lines.
  - A shutoff valve shall be installed within 6 feet of the pool heater.
  - Pool heaters shall comply with the International Energy Code.
- **Decks and Platforms:** If decks or platforms are utilized as entry barriers, they must comply with the City of Crystal Lake Swimming Pool Ordinance requirements.
- **Plumbing:** Exterior water supply used to fill the pool must have a vacuum breaker device to prevent any cross-connection contamination.
- **Drainage:** The pool and its equipment must not change, alter, or affect the existing approved grading and drainage of the property. Pools and equipment may be required to comply with the Stormwater Ordinance and a Stormwater Management permit may also be required.

**Note:** The Engineering Division conducts an evaluation to determine if a Stormwater Management permit is necessary during the building permit review process.

### Electrical Requirements:

- Underground wiring shall not be permitted under the pool unless the wiring is necessary to supply the pool equipment permitted by the 2017 NEC.
- Overhead conductors must be more than 10 feet measured horizontally from the pool wall.
- The pool pump motor cord cannot be longer than 3 feet.
- Pool pump motor must be plugged into a GFCI receptacle located a minimum of 6 feet from the pool wall.
- The pool pump receptacle must be rated for the amperage rating of the pump motor.
- An “In-Use” type receptacle cover is required for the pool pump receptacle.
- A minimum of one 125-volt, 15- or 20-ampere receptacle on a general purpose branch circuit shall be located not less than 6 feet from, and not more than 20 feet from the inside of the pool wall.
- The pump motor disconnecting switch must be located at least 5 feet from the pool wall.
  - **Note:** See the attached Pool Electrical Installation Setbacks for additional information.
- Raceway conduit must be rigid heavy wall metal conduit, intermediate conduit or rigid nonmetallic conduit (PVC) and listed for burial and electrical use.
  - RMC and IMC raceway conduit must be buried at a minimum depth of 6 inches.
  - Nonmetallic conduit must be buried at a minimum depth of 18 inches.
- A minimum #12 AWG wire with green insulation must be installed in the raceway conduit. Equipment grounding shall be achieved with a conductor, not conduit.
- The grounding conductor must bond all junction boxes, light fixtures, pump motors, transformer enclosures, and devices such as switches, outlets, etc.
- An equipotential bonding grid must be installed. The bonding wire must be a solid #8 AWG copper wire, which can be bare. The wire must be bonded to the upper and lower frame of the pool, the metal panel where the hose fittings are affixed, the pool pump motor bonding lug, the pool heater bonding lug, the RMC/IMC conduit, and to any metallic parts within 5 feet of the pool.
  - **Note:** Bonding clamps must be corrosion resistant.

## Barrier Requirements:

- **Fence:** Must be at least 48 inches in height and have a self-closing and self-latching gate(s) that swings away from the pool.
  - When a cyclone fence is used as the required barrier, there is a maximum mesh size of 1 3/4 inch square unless the fence is provided with slats fastened at the top or the bottom, which reduce the openings to no more than 1 3/4 inch.
  - The latch must be a minimum of 54 inches above grade; or the latch must be located on the pool side of the gate, 2 to 3 inches below the top of the gate, and there must be an 18 inch radius around the latch release that has no opening greater than 1/2 inch.  
**Note:** An existing fence shall comply with the current pool barrier specifications, or shall be modified to comply with the pool barrier specifications.
- **Adjacent Deck or Platform:** If a deck or platform adjacent to the pool is intended to be utilized as the required barrier, the portion of a deck or platform adjacent to the pool must be constructed to meet all barrier requirements.
- **Pool Wall:** A 48-inch high pool wall may be considered a pool barrier when the access to the pool meets the above requirements.

**Note:** Please see the attached diagrams for more information about pool barriers

## Energy Code Compliance:

- Pool heaters shall be equipped with a readily accessible on-off switch to allow shutting off the heater without adjusting the thermostat setting.
- Pool heaters fired by natural gas shall not have continuously burning pilot lights.
- Time switches that can automatically turn off and on heaters and pumps according to a preset schedule shall be installed on swimming pool heaters and pumps.  
**Exception:** Where pumps are required to operate solar and waste-heat recovery pool heating systems.
- Heated pools shall be equipped with a vapor retardant pool cover on or at the water surface.

Please note that 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) 356-3605, or via email at [building@crystallake.org](mailto:building@crystallake.org).