

VILLAGE OF NEW HAVEN

RESIDENTIAL POOL & SPA REQUIREMENTS

A building permit is required if the swimming pool or spa contains 24 inches or more of water at any point. An electrical permit is required if there is a filter. A mechanical permit is required if there is a heater. A building bond is also required for compliance. This document only serves as a general overview and a basic guide.

REQUIREMENTS

1. A distance of not less than 10 feet between the outside of the pool wall and any building including the main structure. **Note:** Spas on decks may be located anywhere on an approved deck permit which meets all live and dead load requirements.
2. A distance of not less than 6 feet between the outside of the pool wall and all property lines.
3. A swimming pool must be located at least 1 foot off any easement or 6 feet off the rear lot line.
4. Must submit pool dimensions, depths, volume in gallons, plus type of filter system and size of pool when applying for a permit.
5. Call **Miss Dig (1-800-482-7171)** to make sure that there are no electrical wires already in the ground prior to any excavation. **A pool or spa shall not be located over any such service and can not be located within 10 feet of any overhead wires.**
6. **All pools** less than 48 inches in height from grade shall be completely enclosed by a fence or barrier not less than 4 feet in height for protection of the general public. The gates shall swing away from pool area and have a self-closing and self-locking device with latches placed 54 inches above grade on the outside of the gate.
7. Spas shall be equipped with a lockable cover.
8. All doors with direct access to the pool shall be equipped with an alarm which produces an audible warning when the door and its screen, if present, are opened. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened, and the sound of the alarm shall be distinctive from other household sounds such as smoke alarms, telephone, and door bells. Such deactivation shall last for not more than 15 seconds. The deactivation touch pads or switches shall be located at least 54 inches above the threshold of the door.
9. Pools may be equipped with an approved power safety cover – submit all supporting documentation.
10. Where an above ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure and a means of access is a fixed or removable ladder or steps, the ladder or steps shall be surrounded by a barrier which includes requirements of 1 through 9. A removable ladder shall not constitute an acceptable alternative to enclosure requirements.

ELECTRICAL REQUIREMENTS

Electrical permits are required for swimming pools and spas. Electrical work shall conform to the Michigan Residential Code and the work is to be done by an electrical contractor or the homeowner. Ground fault interrupters (GFCI) shall be required. Only one twist lock receptacle is allowed within 5 feet of the edge of the pool wall. Overhead electrical conductors, pools – including diving structures, observation stand (decks included), towers and platforms shall be located at least 10 feet measured horizontally from any service drop or any other overhead wiring. Underground wires shall maintain a 5 foot distance from edge of pool wall. All conductors that supply motor circuit shall be installed in either non-metallic (PVC) or Rigid metallic conduit. If install is PVC, burial depth is 18 inches. If Rigid conduit is used, burial depth is 6 inches (do not use EMT electrical metallic tubing). Black, White, and Green #12 THHN conductors shall be installed in conduit. Do not install NM non-metallic-sheathed cable such as Romex in conduit.

All metal fences, enclosures or railings near or adjacent to a swimming pool or spa which may become electrically charged **shall be bonded**. Trenched underground leads shall be a minimum of 18 inches below grade. In accordance with Michigan Residential Code Section E4104.2 and E4104.4, a #8 solid copper conductor shall be used. Non corrosive lugs with stainless steel screws shall be used to bond. Bonding conductors shall remain separate from the grounding conductor.

MECHANICAL REQUIREMENTS

All gas line and pool and spa heater installations must comply with the following: Michigan Mechanical Code, International Fuel Gas Code, manufacturer's installation specifications, and local ordinances.

GAS PIPING INSTALLATION

1. The minimum burial depth shall be 12 inches.
2. An appliance shutoff valve is required, and must be installed within 6 feet of the heater.
3. All gas piping shall be properly sized by the load demand, type of material used, and the total length of piping to be installed.

The piping materials listed below are approved, providing that all conditions and limitations are followed.

Steel – (Schedule 40) Metallic piping and fittings above ground and exposed to the elements must be weather proofed with a protective coating. Metallic piping installed underground is required to be wrapped/coated, but must be approved and applied by the manufacturer.

Copper – (Type K or L) A protective sleeve is recommended at the point at which the tubing enters and exits the ground.

Plastic – (ASTM D2513) For outside underground use only. Cannot be installed under a slab, must terminate above ground with a anodeless riser or service head. A minimum 18 awg yellow tracer wire is also required.

Corrugated Stainless Tubing – (ansi/aga) Tubing must be sleeved passing thru any foundation wall. Must be installed within a conduit, sealed at both ends, and installed 18 inches underground.

POOL HEATERS

1. All heaters must be equipped with a pressure/temperature relief valve.
2. Where an integral bypass is not provided as a part of the heater, a bypass shall be installed.
3. Heaters shall not be installed under decks.
4. A minimum distance of 5 feet must be maintained from the inside wall of a pool, unless separated by a barrier.
5. Heaters must maintain a minimum of 4 feet from any window or fresh air intake, and 3 feet from a clothes dryer vent.

Requirements are in most manufacturers installation spec's

REQUIRED INSPECTIONS

1. Inground Pool = Open Hole or Steel
2. Trench For Electrical & Heating (Conduit Installed)
3. Final For Electrical & Heating
4. Final Building Permit

APPLICATION FOR POOL PERMITS

1. Homeowner = Complete an application as homeowner and sign.
Licensed Contractor = Complete application and sign, submit a copy of contractors license and drivers license.
2. Submit 2 copies of plot plan (mortgage survey) showing reference to pool or spa location, distances to property lines and all structures.
3. Show all easements on plot plan.
4. Show location of overhead and underground cables and distances to pool.
5. Show enclosures (fences) and details of fence openings. Note: all gate openings shall open away from pool areas.
6. Indicate the location of electrical and pump filter.
7. Show location of well and septic systems if applicable.

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