



Macomb Township

Building Department

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Swimming Pool and Spa Requirements

A building permit and electrical permit is required for a swimming pool containing 24" inches or more of water. A mechanical permit is also required when a pool heater is installed.

APPLICATION FOR POOL PERMITS – REQUIREMENTS:

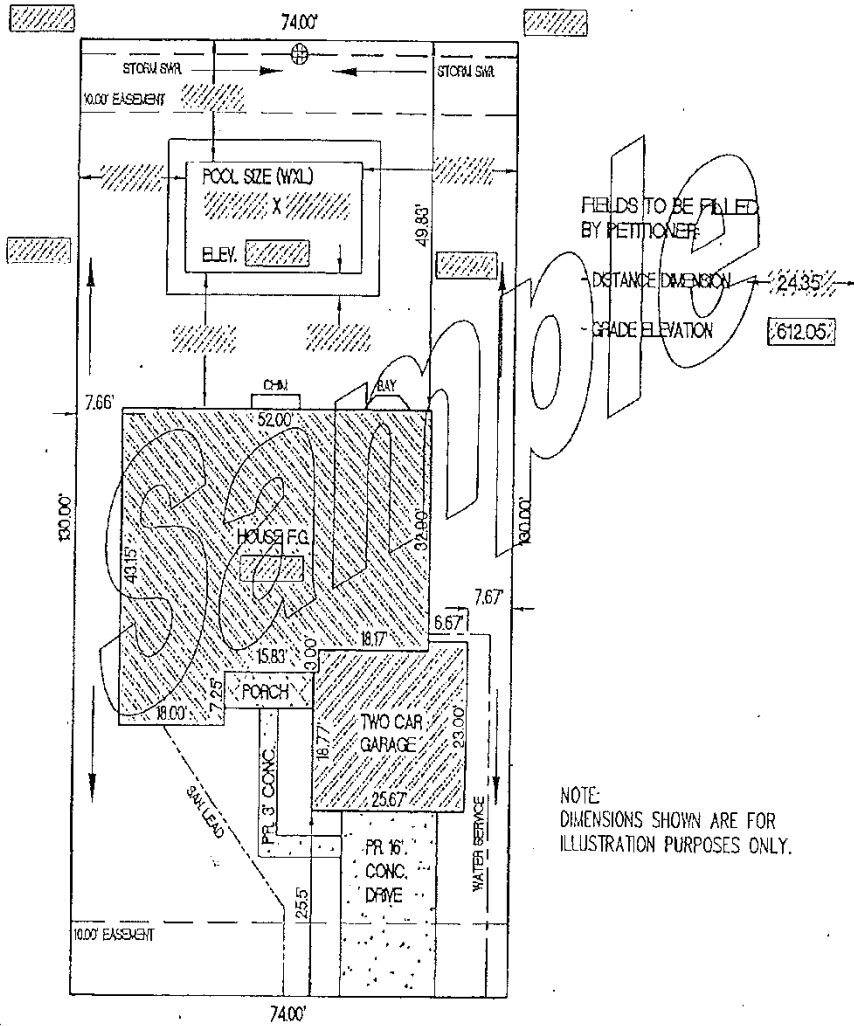
1. Complete application; if a pool company is involved have them submit the application along with a copy of their builder's license, driver's license and workman's comp & liability insurance certificates.
2. Submit two (2) copies of the plot plan (see sample) obtained from the building department, showing pool elevation, location of pool, distances to property lines, structures, **impervious surface calculations** (does not include pool) and overhead and underground cables and all easements.
3. Submit two copies of construction plans or pool brochures.
4. A bond must be posted prior to picking up the permit.
\$250.00 Above-ground pool
\$500.00 In-ground pool

LOCATION OF OUTDOOR POOLS:

1. There shall be a distance of not less than ten (10') feet between the edge of water and any building including the main structure. **NOTE:** Spas may be located not less than five (5') feet from the main structure.
2. There shall be a distance of not less than seven and one half (7'.5") feet between the edge of water and the side property line. There shall be a distance of not less than six (6') feet between the edge of water and the rear property line.
3. Call **Miss Dig (1-800-482-7171)** for reference as to the location of the underground electric prior to any excavation for pools or spas (**pools shall not be located over or within five (5') feet of any such service and cannot be located within ten (10') feet of any overhead wires**).
4. Outside faucets shall have a vacuum breaker when a yard hose is used to filling the pool. This is to prevent pool water from backing up into the water system.

5. All pools less than 48" inches in height from grade shall be completely enclosed by a fence or barrier not less than four (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" above grade on the outside of the gate to comply with locally adopted code; or may be equipped with an approved safety cover.
6. Where an above ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure and where the means of access is a ladder or steps, the ladder or steps shall be capable of being secured, locked or removed to prevent access or the ladder or steps shall be surrounded by a barrier that meets the requirements of the code. All doors with direct access to the pool shall be equipped with an alarm which produces an audible warning when the door or its screen or window, is opened.
7. Pools and pool heaters must be installed according to the manufacturer's specifications. All pools must be installed according to all applicable State of Michigan construction codes.
8. Inground pools also require grade elevations at the top of the pool, rear property corners, side yard elevations and the house elevation at the brick ledge.
9. An electrical bonding grid inspection is required prior to the sand inspection.
10. Pool and/or decking that encroach into a side or rear yard easement must have prior approval from the Water & Sewer Department.
11. A separate fence permit is required.
12. Allow **48 hrs.** for final pool inspection.

SAMPLE SITE PLAN FOR POOLS



Project Address

Setback dimensions required

ELECTRICAL WIRING REQUIREMENTS FOR SWIMMING POOLS

PERMANENTLY INSTALLED SWIMMING POOLS ARE THOSE THAT ARE CONSTRUCTED IN THE GROUND OR PARTIALLY IN THE GROUND, AND ALL OTHERS CAPABLE OF HOLDING WATER WITH A DEPTH GREATER THAN 42 INCHES (1067 MM)

1) Pool Pump Receptacle (Outlet) and Wiring Method

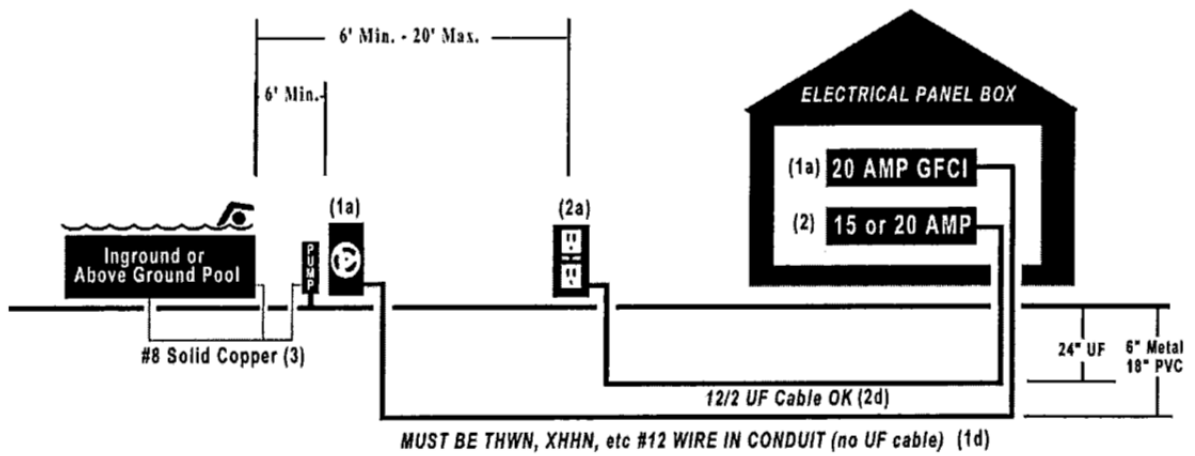
- A. If a pump motor receptacle is located between 6' – 10' from the inside pool wall, the receptacle must be a single twist-lock outlet, grounded, and GFCI protected. Maximum flexible cord length for pump is 3 ft.
- B. Receptacle must have a weatherproof cover that can be closed when the cord is plugged in. (In-use type/bubble cover)
- C. Circuit for the pump motor shall not be less than #12 AWG insulated copper grounded wire, and must be in conduit. (except when within a building the wire can change to NM (cannot use NM wire in underground conduits))
- D. Conduit
 - I. PVC – All PVC conduit must be buried at least 18" deep
 - II. Metal – All Rigid Metal conduit must be at least 6" deep

2) Convenience Receptacle (Outlet) and Wiring Method

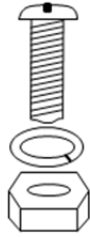
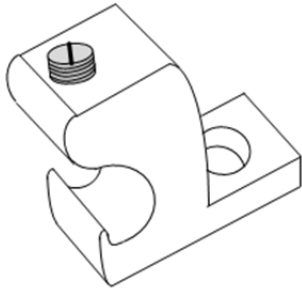
- A. At least one (1) 15 – or 20 – ampere convenience receptacle must be located not closer than 10' but not further than 20' from the outside pool wall (can be existing and/or wired with any approved wiring method)
 - I. Convenience receptacle must be Ground Fault Circuit Interrupter (GFCI) protected.
 - II. Must have a weatherproof cover where exposed to the weather (In-use type bubble cover)
 - III. Must be separate from the pool pump receptacle wiring.
- B. Burial Depths
 - I. UF cable if buried must be at least 24" deep
 - II. PVC – All PVC conduit must be buried at least 18" deep
 - III. Metal – All Rigid Metal conduit must be at least 12" deep

3) Bonding the Pool

- A. All metal parts (walls, metal, posts, ladders, etc) must be bonded together using a #8 (or larger) solid copper wire.
- B. Must use non-corrosive clamps, listed for electrical use.
- C. A minimum of nine (9) square inches of metal must be in contact with the water to bond the water (*2 most common methods are a grounded metal plate in the skimmer, or a 12" long non-corrosive metal pipe sectioned into the pump system*)

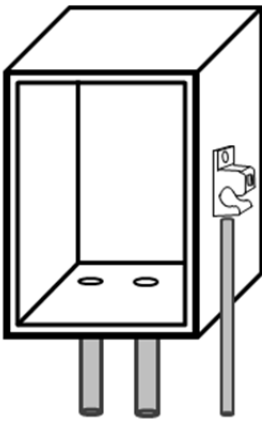
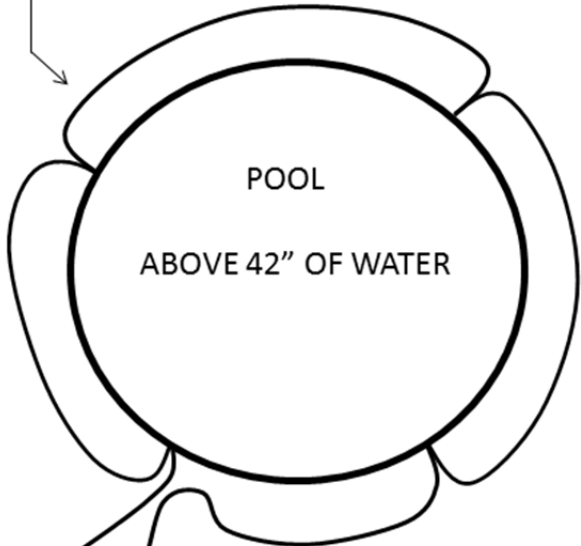


**Building Permits are Required for MOST
Swimming Pools. Please Check with Your
Municipality Before Installing a Swimming Pool.**



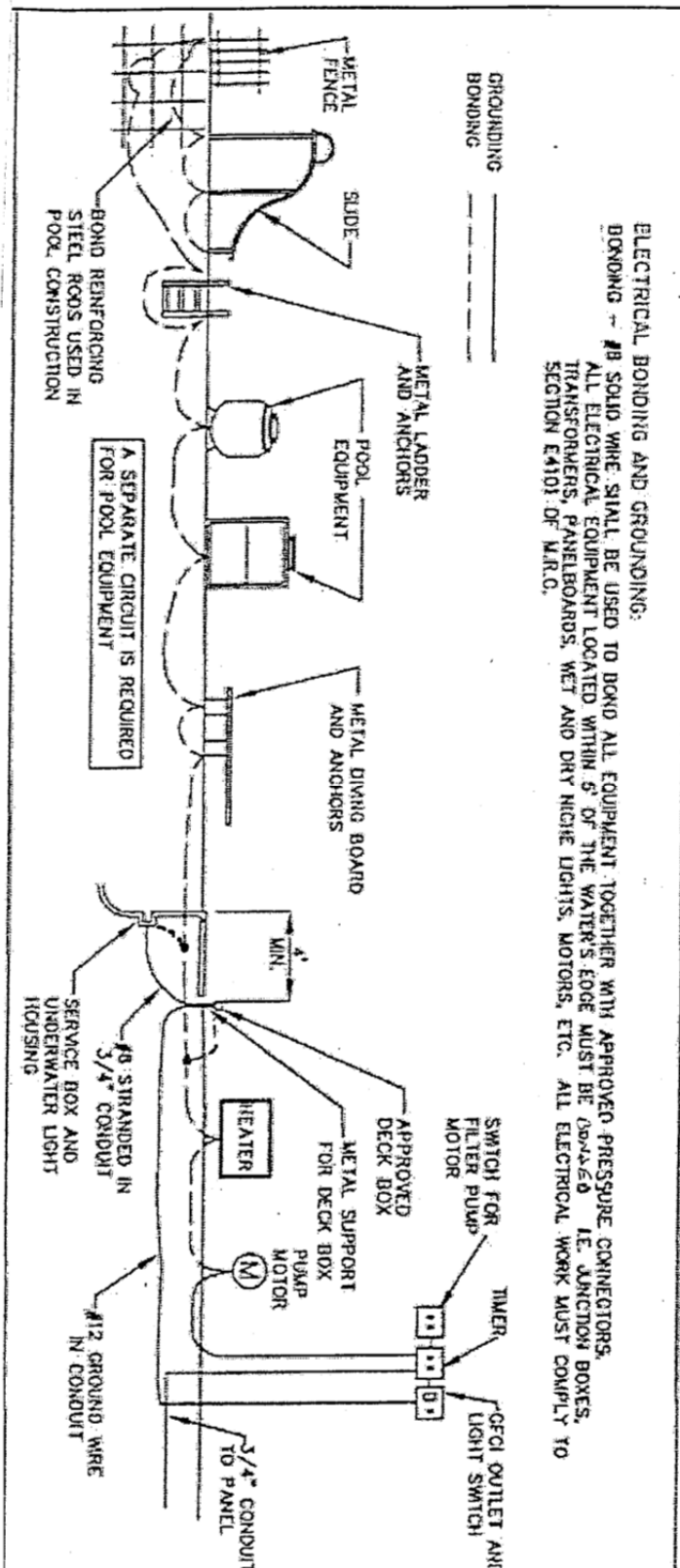
2015 MICHIGAN RESIDENTIAL CODE
PERMANENT POOL BONDING &
GROUNDING #8 SOLID BARE COPPER,
18" - 24" FROM POOL 4" - 6" DEEP
**MUST HAVE 4 POINTS OF
ATTACHMENT TO POOL STEEL**

LUGS AND HARDWARE TO BE NONFERROUS
METAL (STAINLESS STEEL, BRONZE, BRASS,
COPPPER). LUGS TO BE LISTED FOR DIRECT
BURIAL. **MACHINE SCREWS ONLY**



BOND ALL METAL WITHIN 5' OF POOL BONDING GRID

ELECTRICAL BONDING AND GROUNDING:
BONDING - #8 SOLID WIRE SHALL BE USED TO BOND ALL EQUIPMENT TOGETHER WITH APPROVED PRESSURE CONNECTORS.
 ALL ELECTRICAL EQUIPMENT LOCATED WITHIN 5' OF THE WATER'S EDGE MUST BE ~~GROUND~~ GROUNDED. IE. JUNCTION BOXES, TRANSFORMERS, PANELBOARDS, WET AND DRY NICHE LIGHTS, MOTORS, ETC. ALL ELECTRICAL WORK MUST COMPLY TO SECTION E4101 OF M.R.C.



STORABLE SWIMMING POOLS

ELECTRICAL WIRING REQUIREMENTS

Storable pools are those that are constructed on or above the ground, and are capable of holding water to a maximum depth of 42 inches (1.0 M), or a pool with non metallic, molded polymeric walls, or inflatable fabric walls regardless of dimension. (The maximum water depth of 42" does not apply to inflatable swimming pools).

1. Storable Pool Pumps

- a. A cord-connected pool filter must incorporate an approved system of double insulation or equivalent.
- b. Cord-connected pool filter pumps must be provided with a ground-fault circuit interrupter (GFCI) that is an integral part of the attached plug or located in the power supply cord within 12" of the attached plug.

2. Receptacle (Outlet) and Wiring Method for Storable Pool Pump

- a. Receptacles cannot be located within 6' of the inside wall of a storable pool.
- b. The receptacle must be grounded and must be ground fault circuit interrupter (GFCI) protected.
- c. Receptacle must have a weatherproof cover that can be closed when the cord is plugged in. (In-use type cover)

3. Luminaries (lights) for Storable Pools (if used)

- a. Luminaries cannot have exposed metal parts and must be listed for the purpose.
- b. Luminaries 15 volts or less must:
 - i. Have a luminaire lamp that operates at 15 volts or less.
 - ii. Have an impact-resistant polymeric lens, luminaire body and a transformer enclosure.
 - iii. Have a transformer listed for swimming pools with a primary rating not over 150 volts.
- c. Luminaries over 15 volts but not over 150 volts:
 - i. Have an impacted-resistant polymeric lens and luminaire body.
 - ii. Have ground fault circuit interrupter (GFCI) protect.

4. Other

- a. Building Permits are required. Secure a Building Permit prior to beginning work from the Macomb Township Building Department
- b. All receptacles located within 20' of the inside walls of a storable pool wall must be GFCI protected.

