# CITY OF	
Wich	IGAN HE

BUILDING PERMIT APPLICATION

ation SPRINKLED Y / N
none:
of New Structure:
Lot Size:
State/Zip:

Estimated Cost of Construction: By Applicant: \$_____

Plan review fees must be paid before review can begin. Final review fees may be higher based on confirmation of the construction cost. Cancelled plan reviews will not be refunded.

Requirements:

A copy of your insurance must be on file for all contractors doing work in our city.

Residential: One (1) 11x17 set of plans, minimum size 8 1/2 x 11 inch paper. **New Home Residential:** Two (2) sets of plans (one (1) set of plans to be 11x17) **Commercial:** Two (2) sets of plans (one (1) set to be 11x17), sealed by a Licensed Architect or Engineer in accordance with 1980, PA299.

AND

PDF (300 dpi or higher) of plans are required to be submitted to: building@berkleymi.gov

I agree to repair any damage done to public or private property.

"This permit is granted on the express condition that the said construction shall, in all respects, conform to the ordinances of this jurisdiction including the zoning ordinance, regulating the construction and use of buildings, and may be revoked at any time upon violation of any provisions of said ordinances."

Signature

Print Name

Refund Policy: Upon request, all cancelled permits with no inspections will be refunded at 50% of the permit costs with a minimum refund of \$25.00. Permit fees will not be refunded after inspections have been completed.

Department use only: USE GROUP	CONST. TYPE	Value by Department: <u>\$</u>
Approved	Not Approved	Date Fee:
Permit Number:		Inspections: Bond:
Stipulations:		Registration: Plan Review: Total:
Received by	Date	

CONTRACTOR PERMITS

Company Name:		
Street Address:		
City:	State:	Zip:
License Number:	Expiration Date:_	
Drivers License Number:		DOB:
Federal Employer ID Number or Reason for Exemption:		
Workers Comp Insurance Carrier or Reason for Exemption:		
MESC Employer Number or Reason for Exemption:		
"Section 23a of the state construction codes 125.1523a of the Michigan Compiled Laws, pr requirements of this state relating to person Violations of section 23a are subjected to civ	rohibits a person from c who perform work on re	conspiring to circumvent the licensing
A copy of your certificate of insurance must I	be on file with the buildin	ng division before any permits will be issued

Signature of Contractor

Date signed

HOMEOWNER PERMITS

Name:		
Street Address:		
City:	State:	Zip:
Drivers License Number:		DOB:
Telephone Number:	Email:	

Section 23a of the state construction codes act of 1972, Act. No. 230 of Public Acts of 1972, being section 125.1523a of the Michigan Compiled Laws, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to person who perform work on residential building or a residential structure. Violations of section 23a are subjected to civil fines."

Homeowner guarantees that work is being done by homeowner or immediate family and will not be contracted out; also this will not be a rented property.

Signature of Homeowner



KLEY CITY OF BERKLEY, MICHIGAN

Community Development 3338 Coolidge Hwy. Berkley, MI 48072 248-658-3320 Fax: 248-658-3321

CODE OF ORDINANCES

CHAPTER 138, ARTICLE 9 GENERAL PROVISIONS SECTION 9.09 I SWIMMING POOLS

Definitions: Accessory building and structures shall be classified as herein defined and, unless otherwise provided in this Chapter, shall be subject to the following regulations.

a. By their definition and nature, accessory buildings and structures shall be secondary and clearly incidental to the principal building on a parcel of land. Such building or structures shall therefore not be permitted as the only building or structure on a parcel of land.

Swimming Pools: For private residential use only, means a swimming pool and the apparatus and equipment pertaining to the swimming pool maintained by an individual for the sole use of is household and quests without charge for admission and not for the purpose of profit or in connection with any business operated for profit, located on a lot as an accessory use to a residence. This includes hot tubs and Jacuzzi's as installed outside and accessory to the main residence.

A wall of a swimming pool shall not be located less than 6 feet from any rear or side property line. Swimming pools shall be erected in the rear yard.

A wall of a swimming pool that has a capacity greater than 600 gallons shall not be located less than 6 feet from the main building or other accessory building or structure. Swimming pools that have a capacity of 600 or fewer gallons may be excepted from this setback requirement.

Construction shall require a site plan, building permit, and all applicable electrical heating and plumbing permits. All pools, which contain 24 inches (610 mm) or more of water in depth at any point, shall have erected an adequate enclosure in accordance with the city's current building codes and Grading Ordinance. Electrical service conductors and other **overhead wires shall be located a minimum of 10 feet from the pool's edge or a minimum** of 22 feet above the pool surface. A ground fault interrupter shall be required for the circuit from the electrical panel to the receptacle for filtration. Pool heaters shall be installed according to the current adopted city code. All swimming pools shall be provided with a recirculating skimming device. The water of all swimming pools shall be sanitized.

Zoning Board of Appeals: When a detached accessory building or structure other than as defined in Chapter 138, construction or placement of the accessory building or structure shall be subject to the approval of the Zoning Board of Appeals.

CITY OF BERKLEY, MICHIGAN FREQUENTLY ASKED QUESTIONS SWIMMING POOLS, SPAS AND HOT TUBS

Q: Are Permits required for the installation of a swimming pool, spa, or hot tub?

A: Yes. A Building Permit is required for the installation of any swimming pool spa, or hot tub that contains water over 24 inches deep. All pools, spas, or hot tubs that use pumps, filters, heaters, lights, or any other electrical devices, regardless of water depth, must have an Electrical Permit.

Q: Why are these permits required?

A: For your safety. A Building Permit allows for an inspection to make sure you have the proper enclosure around your pool, spa, or hot tub, and that the structure is properly located within your property. An Electrical Permit ensures that all electrical devices serving your structure are correctly installed to guard against any chance of electrocution.

Q: What information do I need to obtain permits for my swimming pool, spa, or hot tub?

A: You will need two copies of a "site plan" that clearly shows where you want to put the structure. This plan may be hand drawn or can be a copy of a mortgage survey of your property, or any other type of drawing that clearly shows all the dimensions of your property and any buildings on it, and where you want to place the pool, spa, or hot tub. This drawing must also indicate the approximate location of any overhead wires. You will also need to supply us with a copy of your manufacturer's installation instructions for the pool, spa, or hot tub. This information must be brought in to the Building Department and attached to an application form available at our counter.

Q: Who can obtain the permits for my pool, spa, or hot tub?

A: State law allows you as the homeowner/occupant of a dwelling to obtain your own permits for the installation of a pool, spa, or hot tub. In the event that someone else is going to do the work for you, State Licensed Contractors must secure their own permits to perform the installation. Any Contractor you are considering hiring for the installation of your structure should be familiar with the permitting process.

Q: What kind of enclosure do I need around my pool, spa, or hot tub?

A: There are strict rules governing enclosures, referred to in the 2015 Michigan Residential Code/ 2012 International Swimming Pool and Spa Code, Section 305 as "barriers", around swimming pools, spas, or hot tubs. As mentioned above, these rules were designed with safety in mind. By following these provisions, you reduce the chance for accidental drowning or electrocution. The electrical requirements for swimming pools, spas, and hot tubs are outlined in Chapter 42 of the 2015 Michigan Residential Code.

Q: Can you explain the barrier requirements?

A: While the requirements are numerous and some situations may occur that require further discussion, there are basic rules. All outdoor swimming pools, including in-ground pools, spas, and hot tubs, must be completely enclosed with barriers that comply with these rules:

- Barriers (fences, etc.) surrounding the pool, spa, or hot tub must be at least 48" tall, measured on the outside of the barrier, away from the pool, spa, or hot tub. The barrier cannot have a gap between it and the ground that is any bigger than 2" anywhere. Note: This rule could affect existing stockade type fences.
- 2. The pool, spa, or hot tub itself can act as its own barrier if it is at least 48" above the ground.
- 3. If the pool, spa, or hot tub itself is not at least 48" above the ground, barriers may be installed on top of the pool, spa, or hot tub to raise the height to at least 48". If barriers (wall, etc.) are installed on top of the pool, spa, or hot tub, any gaps between the pool, spa, or hot tub and the bottom of the barrier cannot be any bigger than 4".
- 4. No openings in any barrier can be big enough to allow the passage of a 4" ball or other type of sphere.
- 5. Concrete block walls, brick walls, stone walls, etc., can be used as barrier walls as long as there aren't any projections other than normal mortar joints that could be used for climbing.
- 6. If you have a wooden fence that has top and bottom rails that are less than 45" apart from one another, then those rails must be on the poolside of the fence. Spacing between spindles or vertical slats in that barrier cannot be any more than 1 ³/₄". Any holes or other cutouts in the fence cannot be any bigger than 1 ³/₄" in any direction, regardless of the shape of the cutout.
- 7. If you have a wooden fence that has top and bottom rails that are spaced farther apart than 45" from one another, then the distance between spindles or vertical slats can be 4". Any hole or other cutouts cannot be any bigger than 1 ³/₄" as mentioned above.
- 8. The maximum mesh size for a chain link fence used as a barrier around a pool, spa, or hot tub is 1 ¹/₄". Note: This could be a problem with existing chain link fences if you are trying to use them as the barrier.
- 9. If you use lattice as part of the barrier, the openings in the lattice cannot be any bigger than $1 \frac{3}{4}$

Remember: These requirements are in place to make sure no fence, wall, or any other kind of "barrier" surrounding your pool, spa, or hot tub can be used as a ladder to get into the area. Every effort must be made to discourage any "unwanted" guests from visiting your structure and getting hurt.

Q: What about gates to the fenced-in area?

A: Any gates leading to the pool, spa, or hot tub area have to comply with all the rules stated above as far as height, spacing of members, hole size, etc., and must be built to hold a locking device. Pedestrian gates must open outward, away from the pool, spa, or hot tub, and must have self-closing and self-latching devices. In other words, when you leave the area of the pool, spa, or hot tub, the gate you walk through has to swing out and then close and latch by itself when you let go of it.

Gates other than pedestrian gates (automobile gates, etc.) must have self-latching devices. See the Code for the requirements for those kinds of devices. (Please note that it is assumed that these kinds of gates will remain closed when not in use so that the barrier is always in place around the pool, spa, or hot tub.)

Q: Can the back of my house be used as part of the barrier?

A: Yes. However, you must have one of the following: A powered cover over the pool, spa, or hot tub, that is in place when not in use, or

All doors in that wall must have an alarm that can be heard anywhere in the house and sounds for at least 30 seconds after the door has been open (this includes screen doors). This alarm has to be able to reset itself, and have some way to temporarily be shut off for no more than 15 seconds, or

All doors in that wall must be self-closing and have self-latching devices as approved by the Building Department.

Q: If the pool, spa, or hot tub is tall enough to use as its own barrier, what about the ladder?

A: If your pool, spa, or hot tub is at least 48" tall and you want to use it as its own required barrier, any ladder leading to the water must be able to be removed, secured in some fashion, or locked so it can't be used when the pool, spa, or hot tub is not being used. Or, if you want, you can permanently secure the ladder or steps and put up a barrier around the ladder or steps that matches all the barrier requirements listed above, including the rules for gates.

Remember: The idea is to make sure no one can easily get into the pool, spa, or hot tub when you are not around. Every effort must be made to make sure children don't find a way to get to the water while no one is around.

Q: I have a spa or hot tub. Do all the rules for a swimming pool apply?

A: If your spa or hot tub is equipped with a safety cover (make sure the manufacturer says it complies with ASTM F 1346), then the requirements for barriers as outlined above are not needed. Only when your spa or hot tub does not have the approved safety cover will all of the above rules apply. While the choice is yours, it may be less expensive to purchase an approved cover as a means of protection than to comply with all the barrier requirements listed above.

Q: Where can I install my pool, spa, or hot tub?

A: A wall of a swimming pool shall not be located less than 6 feet from any rear or side property line.

A wall of a swimming pool that has a capacity greater than 600 gallons shall not be located less than 6 feet from the main building or other accessory building or structure. Swimming pools that have a capacity of 600 or fewer gallons may be excepted from this setback requirement.

Q: Speaking of electricity, what do I need to know about the electrical connections for my pool, spa, or hot tub?

A: The rules that apply to the hook up of any electrical part needed for a swimming pool, spa, or hot tub are quite extensive, as outlined in the 2015 Michigan Residential Code, Chapter 42. Unless you have had a lot of experience with electrical work, you are much better off hiring a competent Electrical Contractor to install all the wiring, outlets, and devices you might need. Regardless, as mentioned above, an Electrical Permit is required for all the work involved, and final approval from the Electrical Inspector is required before the pool, spa, or hot tub is used. *International Building Code* or the *International Residential Code* shall comply with Section 304.2.1 or 304.2.2.

Exception: Aquatic vessels located in riverine flood hazard areas that are outside of designated floodways and *aquatic vessels* located in flood hazrd areas where the source of flooding is tides, storm surges or coastal storms.

304.2.1 Aquatic vessels located in designated floodways. Where *aquatic vessels* are located in designated floodways, documentation shall be submitted to the *code official* that demonstrates that the construction of the aquatic vessel will not increase the design flood elevation at any point within the jurisdiction.

304.2.2 Aquatic vessels located where floodways have not been designated. Where *aquatic vessels* are located where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed *aquatic vessel* and any associated grading and filling, will not increase the design flood elevation more than 1 foot (305 mm) at any point within the jurisdiction.

304.3 Aquatic vessels in flood hazard areas subject to high-velocity wave action. Aquatic vessels installed in flood hazard areas subject to high-velocity wave action (coastal high hazard areas) shall be designed and constructed in accordance with ASCE 24.

304.4 Protection of equipment. Equipment shall be elevated to or above the design flood elevation or be anchored to prevent flotation and protected to prevent water from entering or accumulating within the components during conditions of flooding.

304.5 GFCI protection. Electrical equipment installed below the design flood elevation shall be supplied by branch circuits that have ground-fault circuit interrupter protection for personnel.

SECTION 305 BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of *barriers* for *aquatic vessels*. These design controls are intended to provide protection against the potential drowning and near drowning by restricting access to such vessels. These requirements provide an integrated level of protection against potential drowning through the use of physical barriers and warning devices.

Exceptions:

- 1. *Spas* and hot tubs with a lockable safety cover that complies with ASTM F 1346.
- 2. Swimming pools with a *powered safety cover* that complies with ASTM F 1346.

305.2 Outdoor swimming pools and spas. All outdoor *aquatic vessels* and indoor swimming pools shall be surrounded by a *barrier* that complies with Sections 305.2.1 throu₁ 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 (1219 mm) above grade where measured on the side of the *barrier* that faces away from the *aquatic vessel*. Such height shall exist around the entire perimeter of the vessel and for a distance of 3 feet (914 mm) where measured horizontally from the required *barrier*.
- 2. The vertical clearance between grade and the bottom of the *barrier* shall not exceed 2 inches (51 mm) 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 vessel.
- 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 (102 mm) where measured on the side of the required barrier that faces away from the vessel.
- 4. Where the top of the vessel structure is above grade, the *barrier* shall be installed on grade or shall be mounted on top of the vessel structure. Where the *barrier* is mounted on the top of the vessel, the vertical clearance between the top of the vessel and the bottom of the *barrier* shall not exceed 4 inches (102 mm).

305.2.2 Openings. Openings in the *barrier* shall not allow passage of a 4 inch (102 mm) 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 restraining barrier/fence. 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 restraining fence shall be not more than 1 inch (25 mm) 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 (102 mm) from grade or decking.
- 3. The fence shall be designed and constructed so that it does not allow passage of a 4-inch (102 mm) sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not be more than 4 inches (102 mm) from grade or decking.
- 4. An attachment device shall attach each barrier section at a height not lower than 45 inches (1143 mm) above grade. Common attachment devices include, but are not limited to, devices that provide the secu-

rity equal to or greater than that of a hook-and-eyetype latch incorporating a spring-actuated retaining lever such as a safety gate hook.

- 5. Where a hinged gate is used with a mesh *barrier*, the gate shall comply with Section 305.3.
- 6. Patio deck sleeves such as vertical post receptacles which are placed inside the patio surface shall be of a nonconductive material.
- 7. Mesh fences shall not be used 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 (1143 mm), the horizontal members shall be located on the *aquatic vessel* side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) 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 (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

305.2.7 Chain link dimensions. The maximum opening formed by a chain link fence shall be not more than 1.75 inches (44 mm). Where the fence is provided with slats fastened at the top and bottom which reduces the openings, such openings shall be not more than 1.75 inches (44 mm).

305.2,8 Diagonal members. Where the *barrier* is composed of diagonal members, the maximum opening formed by the diagonal members shall be not more than 1.75 inches (44 mm). The angle of diagonal members shall not be 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) around the exterior of the *barrier* and around 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 *aquatic vessel* side of the required *barrier* shall be not less than 20 inches (508 mm) 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 vessel and shall be self-closing and 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 at least 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 $\frac{1}{2}$ inch (12.7 mm) within 18 inches (457 mm) 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 (1372 mm) from grade, the release mechanism shall be located on the vessel side of the gate at least 3 inches (76 mm) below the top of the gate, and the gate and *barrier* shall not have openings greater than $\frac{1}{2}$ inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.

305.4 Structure wall as a barrier. Where a wall of a dwelling or structure serves as part of the *barrier*, doors and operable windows with a sill height of less than 48 inches (1219 mm) that provide direct access to the *aquatic vessel* through the wall, shall be equipped with one or more of the following:

- 1. An alarm that produces an audible warning when the door or its screen or window, is opened. The alarm shall be *listed* and *labeled* as a water hazard entrance alarm in accordance with UL 2017. In dwellings or structures not required to be Accessible units, Type A units or Type B units, the deactivation switch shall be located 54 inches (1372 mm) or more above the threshold of the door. In dwellings or structures required to be Accessible units, the deactivation switch shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the threshold of the door.
- 2. A safety cover that is *listed* and *labeled* in accordance with ASTM F 1346.
- 3. An *approved* means of protection, such as self-closing doors with self-latching devices, provided that the degree of protection afforded is not less than the protection afforded by Items 1 or 2.

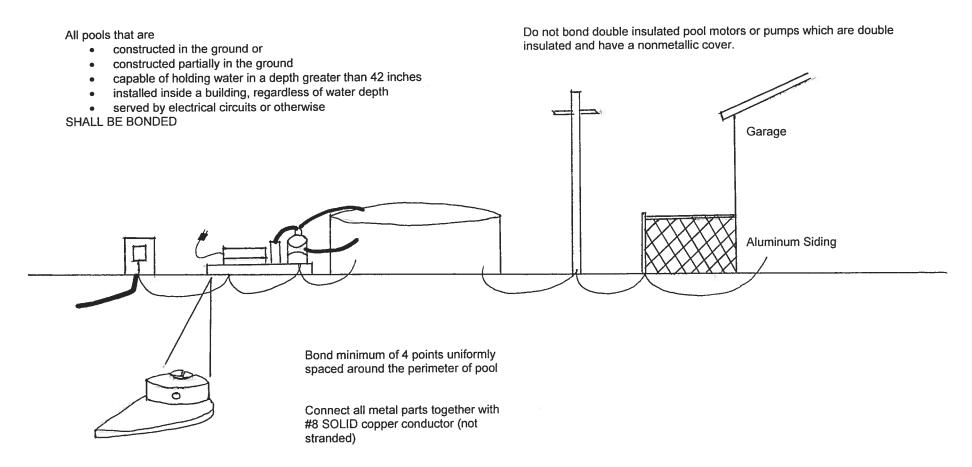
305.5 Pool structure as a barrier. Where an onground *residential pool* structure is used as a *barrier* or where the *barrier* is mounted on top of the pool structure, the following shall apply:

- 1. An onground pool wall, itself, shall be permitted to be the *barrier* where the pool structure is on grade and the wall is at least $4\hat{8}$ inches (1219 mm) above grade for the entire perimeter of the pool and complies with the requirements of Section 305.2.
- 2. 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 this section.
- 3. When the *ladder* or steps are secured, locked or removed, any opening created shall not allow the passage of a 4 inch (102 mm) diameter sphere.
- 4. The *barrier* shall be installed in accordance with the manufacturer's instructions.

305.6 Natural barriers. In the case where the vessel area abuts the edge of a lake or other natural body of water, public

REQUIREMENTS FOR PERMANENT SWIMMING POOLS - BASED ON THE 2015 MICHIGAN RESIDENTIAL CODE

Bond All Metal Parts that are within 5 Feet of the Pool

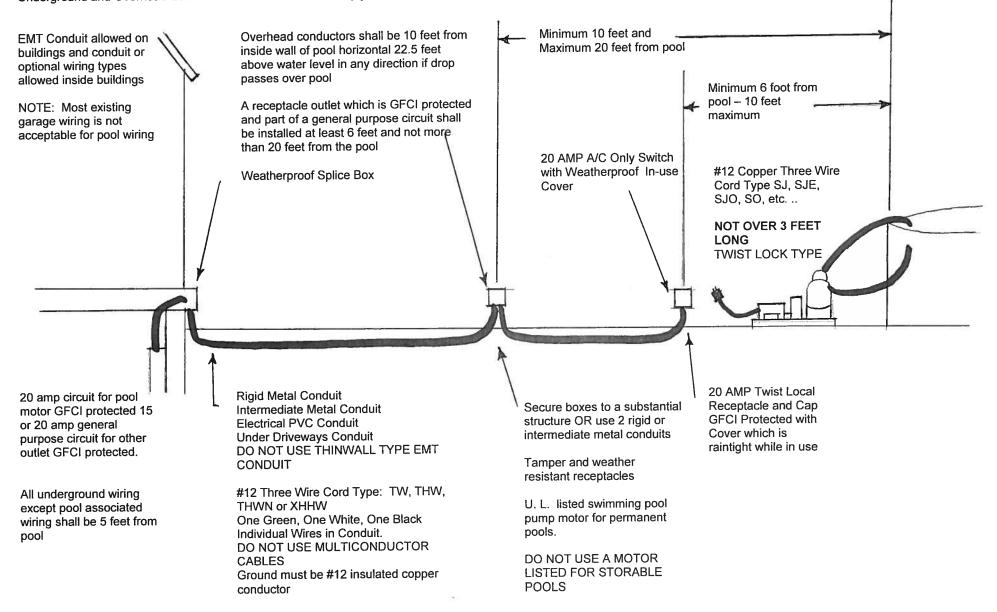


Use stainless steel, brass, copper, or copper alloy, lugs and hardware

Bond to structural reinforcing steel. The steel must be continuous around the pool by welding or bolting. If not continuous, bond to each metallic section.

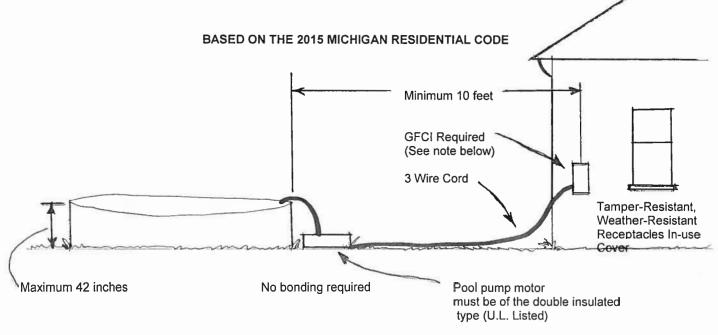
REQUIREMENTS FOR PERMANENT SWIMMING POOLS - BASED ON THE 2015 MICHIGAN RESIDENTIAL CODE

Underground and Overhead Conductors Clearances must comply with the 2015 MRC – Chapter 42



REQUIREMENTS FOR STORABLE SWIMMING POOLS

A storable swimming pool is a pool that is constructed on or above the ground and is capable of holding water to a maximum depth of 42 inches or a pool with nonmetallic, molded polymeric walls or inflatable fabric walls regardless of dimension.



The type of pump suitable for use with storable pools has a 25 foot flexible cord and attachment plug. It is marked as follows:

"This pump is for use with Storable Pools Only. – DO NOT USE with Permanently Installed Pools. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage." Cords may NOT be shortened nor shall attachment caps be changed to a different type. If a listed double insulated pump motor comes with a shorter cord, the assembly must be located so that the cord will reach an electrical outlet at least 10 feet away from the pool.

LISTING MARK. The UL Listing Mark for these products accompanies the product name "Underwater Lighting Fixture for Above Ground Storable Swimming Pool."

DOUBLE INSULATION. Pumps with a minimum 25 foot supply cord are double insulated and have inaccessible metal parts grounded with the equipment grounding conductor terminated at the attachment plug. These pumps do not have a bonding connector.

GFCI. These units are intended for connection to circuits protected by ground fault circuit interrupts and are marked, "WARNING -- Risk of electric shock. Connect only to a grounding type receptacle protected by a ground fault circuit interrupter(GFCI)."

Outlet will require a Raintite While In Use Cover. Distance from pool to receptacle shall be at least 10 feet.