

BLUMFIELD TOWNSHIP • FRANKENMUTH CITY • FRANKENMUTH TOWNSHIP
CONSTRUCTION CODES
SWIMMING POOL BULLETIN

AUGUST 2008

General Notes: Prior to installing a swimming pool:

- []Determine the exact location of your property lines.
- []Check subdivision [deed] restrictions, if applicable.
- []Check for underground utilities by contacting MISS DIG (800-482-7171) at least 72 hours prior to excavating.

Zoning District: Residential. Contact the Zoning Administrator for questions or information on other use districts as follows:

Blumfield Township at (989) 652-8720 or email billsfam4@airadvantage.net.

Frankenmuth City at (989) 652-3430, x111.

Frankenmuth Township at (989)239-2979 or email dale.klein@laphamassoc.com.

Setbacks (Minimums):

Blumfield Township.

Contact Zoning Administrator.

Frankenmuth City

Front. Not Applicable. Pools shall not project into the front yard.

Side. *Interior Lots.* 8 ft. (including walks, decks, paved areas or an accessory structure).

Corner Lots. 25 ft. (including walks, decks, paved areas or an accessory structure).

Rear. 8 ft. (including walks, decks, paved areas or an accessory structure).

Frankenmuth Township.

Contact Zoning Administrator.

Barrier Requirements

The 2006 Residential Building Code defines a swimming pool as any structure intended for swimming or recreational bathing that contains water over 24 inches deep. This includes in-ground, on-ground and aboveground swimming pools, hot tubs, or spas.

If the swimming pool meets the definition the following conditions apply.

1. The pool must be provided with a barrier which complies with the following:
 - a. The top of the barrier shall be at least 48 inches (no higher than 60 inches above grade within the Frankenmuth City limits).
 - b. Access gates shall be self-closing and self-latching.
 - c. Where the wall of the dwelling serves as part of the barrier one of the following conditions shall be met:
 - i. The pool shall be equipped with a power safety cover; or

- ii. All doors with direct access to the pool through that wall shall be equipped with an alarm;
 - iii. The Construction Code Group may approve other means of protection such as self-closing doors with self-latching devices.
 - d. If an aboveground pool structure is used as the barrier, or where the barrier is mounted on top of the pool, the means of access ladder or steps must meet one of the following conditions:
 - i. The ladder or steps must be capable of being secured, locked or removed to prevent access, or
 - ii. The ladder or steps must be surrounded by a compliant barrier.
- 2. A compliant barrier must be in place prior to the swimming pool being filled with water.

Building & Electrical Permits/Inspections: Building and electrical permits are required and the cost of the permits is based on value of the installation and/or the electrical items installed. Inspections are required prior to covering any and all work. For building inspections call (989) 652-3430, x250 and for electrical inspections call (989) 652-3430, x251 and leave a voice mail message.

Property Assessment Value: Real estate value is based on size and construction for tax purposes.

Applicable Building Code Sections for Pools (see Attachment A): See the attached information from the 2003 edition of the Michigan Building Code, Appendix G.

Applicable Electrical Code Sections for Pools (see Attachments B-1 thru B-3): See the 2002 Edition of the National Electrical Code, Article 680.

Applicable Zoning Code Sections for Pools:

Blumfield Township.

Contact Zoning Administrator.

Frankenmuth City

5.22(4) Private swimming pools. A private swimming pool, as regulated herein, shall be any pool, pond, lake or open tank, not located within a completely enclosed building and containing or normally capable of containing water to a depth at any point greater than 24 inches. No such swimming pool shall be allowed in any District except as an accessory use and unless it complies with the following conditions and requirements:

- (a) The pool is intended and is to be used solely for the enjoyment of the occupants of the principal use of the property on which it is located.
- (b) It may not be located, including any walks or paved areas or accessory structures adjacent thereto, closer than eight (8) feet to any property line of the property on which it is located.

Frankenmuth Township.

Contact Zoning Administrator.

Attachment A

APPENDIX G

SWIMMING POOLS, SPAS AND HOT TUBS

SECTION AG101 GENERAL

AG101.1 General. The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- or two-family dwelling.

SECTION AG102 DEFINITIONS

AG102.1 General. For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool."

BARRIER. A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water over 24 inches (610 mm) deep. This includes in-ground, above-ground and on-ground swimming pools, hot tubs and spas.

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by the walls of the enclosing structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

SECTION AG103 SWIMMING POOLS

AG103.1 In-ground pools. In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Section AG108.

AG103.2 Above-ground and on-ground pools. Above-ground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section AG108.

SECTION AG104 SPAS AND HOT TUBS

AG104.1 Permanently installed spas and hot tubs. Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Section AG108.

AG104.2 Portable spas and hot tubs. Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6 as listed in Section AG108.

SECTION AG105 BARRIER REQUIREMENTS

AG105.1 Application. The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

AG105.2 Outdoor swimming pool. An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be surrounded by a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above-ground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. 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 swimming pool side of the fence. Spacing between vertical members shall not exceed 1 1/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 1/4 inches (44 mm) in width.

5. 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 1/4 inches (44 mm) in width.

6. Maximum mesh size for chain link fences shall be a 2 1/4-inch (57 mm) square unless the fence has slats fastened at the top or the bottom which reduce the openings to not more than 1 1/4 inches (44 mm).

7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1 1/4 inches (44 mm).

8. Access gates shall comply with the requirements of Section AG105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:

8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate; and

8.2. The gate and barrier shall have no opening larger than 1/2 inch (13 mm) within 18 inches (457 mm) of the release mechanism.

9. Where a wall of a dwelling serves as part of the barrier, one of the following conditions shall be met:

9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F 1346; or

9.2. 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/or its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. The audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds after the door and/or its screen, if present, are opened and be capable of being heard throughout the house during normal household activities. 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. Deactivation shall last for not more than 15 seconds. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or

9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded

is not less than the protection afforded by Item 9.1 or 9.2 described above.

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 the means of access is a ladder or steps:

10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access; or

10.2. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

AG105.3 Indoor swimming pool. Walls surrounding an indoor swimming pool shall comply with Section AG105.2, Item 9.

AG105.4 Prohibited locations. Barriers shall be located to prohibit permanent structures, equipment or similar objects from being used to climb them.

AG105.5 Barrier exceptions. Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in section AG107 of the code, shall be exempt from the provisions of sections AG105.2, AG105.3, and AG105.4 of the code.

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SECTION AG106 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

AG106.1 General. Suction outlets shall be designed to produce circulation throughout the pool or spa. Single-outlet systems, such as automatic vacuum cleaner systems, or multiple suction outlets, whether isolated by valves or otherwise, shall be protected against user entrapment.

AG106.2 Suction fittings. Pool and spa suction outlets shall have a cover that conforms to ANSI/ASME A112.19.8M, or an 18 inch x 23 inch (457 mm by 584 mm) drain grate or larger, or an approved channel drain system.

Exception: Surface skimmers

AG106.3 Atmospheric vacuum relief system required. Pool and spa single- or multiple-outlet circulation systems shall be equipped with atmospheric vacuum relief should grate covers located therein become missing or broken. This vacuum relief system shall include at least one approved or engineered method of the type specified herein, as follows:

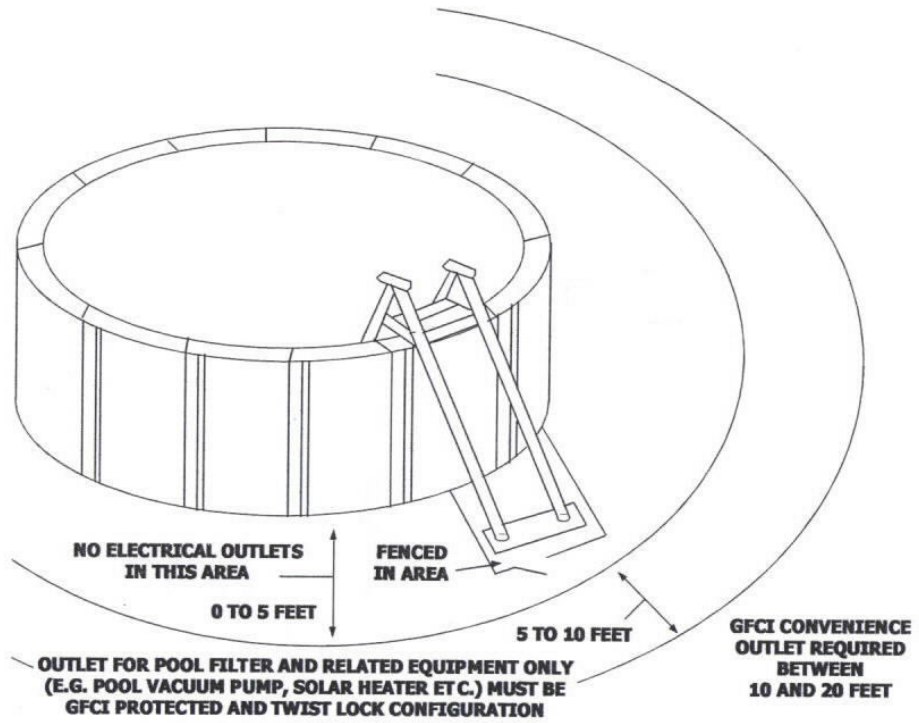
1. Safety vacuum release system conforming to ASME A112.19.17; or

2. An approved gravity drainage system.

AG106.4 Dual drain separation. Single or multiple pump circulation systems shall be provided with a minimum of two suction outlets of the approved type. A minimum horizontal or vertical distance of 3 feet (914 mm) 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.

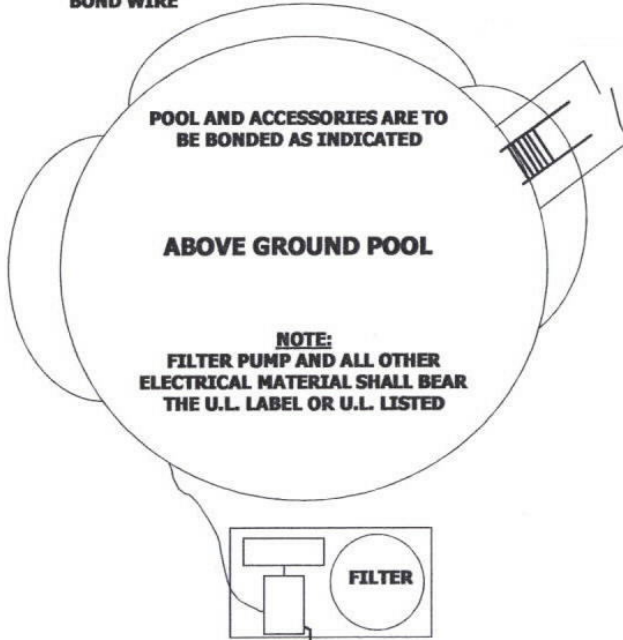
AG106.5 Pool cleaner fittings. Where provided, vacuum or pressure cleaner fitting(s) shall be located in an accessible position(s) at least 6 inches (152 mm) and not more than 12 inches (305 mm) below the minimum operational water level or as an attachment to the skimmer(s).

Attachment B-1



Attachment B-2

**#8 SOLID BARE COPPER
BOND WIRE**



**POOL FILTER TO BE NO CLOSER
THAN 4 FEET FROM POOL**

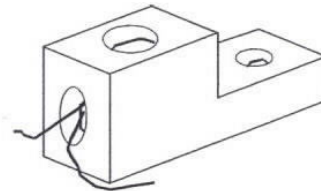
**FILTER OUTLET NO CLOSER THAN 5
FEET FROM POOL**

ITEMS TO BE BONDED:

- POOL FRAME**
- METAL LADDER**
- METAL FENCING**
- POOL PUMP**
- DIVING BOARD**
- STAIR RAILS**
- ANY METAL WITHIN 5 FEET
OF THE POOL**

TYPICAL BONDING LUG

**BOND WIRE SHALL BE AN UNBROKEN
LOOP OR RUN THROUGH THE LUG**



**A GROUND ROD OR RETURN OF THE #8 BOND
WIRE TO THE PANEL IS NOT REQUIRED**

Attachment B-3

