



Middlesex Township
Customer Assistance Guide

Building Permit Application Submittal
Requirements for the
Construction of a Swimming Pool, Spa, or Hot Tub



**CUSTOMER ASSISTANCE GUIDE
BUILDING PERMIT APPLICATION SUBMITTAL REQUIREMENTS**

**SWIMMING POOLS (IN-GROUND OR ABOVE-GROUND),
SPAS AND HOT TUBS (CONTAINS WATER OVER 24 INCHES DEEP)**

- Please read all of the following information.
- The following is a check list. You must have a “checkmark” in all the sections listed below prior to submitting your application.

_____ “Affidavit of Exemption” (See attached form) If you are hiring a contractor to construct your pool, and they have workers’ compensation, have the contractor or their insurance carrier provide us with a “Certificate of Insurance” showing proof of such. If the homeowner or a contractor without workers’ compensation is constructing the pool, the attached form must be completed and notarized.

_____ A site plan showing the proposed pool, hot tub or spa location including the distances in feet, to the front, sides and rear property lines.

_____ Three (3) sets of complete construction documents that show in detail code compliance for all of the work proposed to include but not limited to the following information;

_____ Safety barrier – show type for your specific pool installation, (fence, walls, etc.) including height. (Barrier requirements attached).

_____ If installing deck at pool – take submittal requirements for deck also.

_____ Electrical service (pump, filter, receptacles, etc.) show location and type of wiring method. (Electrical requirements attached).

_____ Completed building permit application.

MDIA will review plans submitted to determine code compliance. If the minimum submittal requirements are not met, we will ask the applicant to supply additional information. If the minimum requirements are met, the plans will be marked “approved”. A building permit will be issued and the applicant will be notified of the inspection fees and when they can pick-up the permit at the Municipal Building. All fees shall be paid prior to the issuance of the permit. Then use the inspection procedures provided to have all of the required inspections performed.

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 town house 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 3/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 3/4 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 3/4 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 3/4 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 3/4 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 F1346; 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, shall be exempt from the provisions of this appendix.

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 A1 12.19.8M, or an 18 inch x 23inch(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 A1 12.19.17; or
2. An approved gravity drainage system.

AG106.4 Dual drain separation. Single or multiple pump circulation systems have 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).

**SECTION AG107
ABBREVIATIONS**

AG107.1 General.

ANSI—American National Standards
Institute

11 West 42nd Street, New York, NY 10036

ASME—American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990

ASTM—ASTM International
100 Barr Harbor Drive, West Conshohocken, PA 19428

NSPI—National Spa and Pool Institute
2111 Eisenhower Avenue, Alexandria, VA 22314

UL—Underwriters Laboratories,
Inc.
333 Pfingsten Road
Northbrook, Illinois 60062-2096

**SECTION
AG108
STANDARDS**

AG108.1 General.

ANSI/NSPI

ANSI/NSPI-3-99 Standard for Permanently Installed
Residential Spas AG104.1

ANSI/NSPI-4-99 Standard for Above-ground/On-ground
Residential Swimming Pools AG103.2

ANSI/NSPI-5-99 Standard for Residential In-ground
Swimming Pools AG103.1

ANSI/NSPI-6-99 Standard for Residential
Portable Spas AG104.2

ANSI/NSPI-5-2003 Standard for Residential
In-ground Swimming Pools AG103.1

ANSI/ASME A112.19.8M-1987 (R1996) Suction
Fittings for Use in Swimming Pools,
Wading Pools, Spas, Hot Tubs and
Whirlpool Bathing Appliances AG106.2

ASTM

ASTM F 1346-91 (2003) Performance Specification
for Safety Covers and Labeling Requirements for
All Covers for Swimming Pools, Spas and
Hot Tubs AG105.2, AG105.5

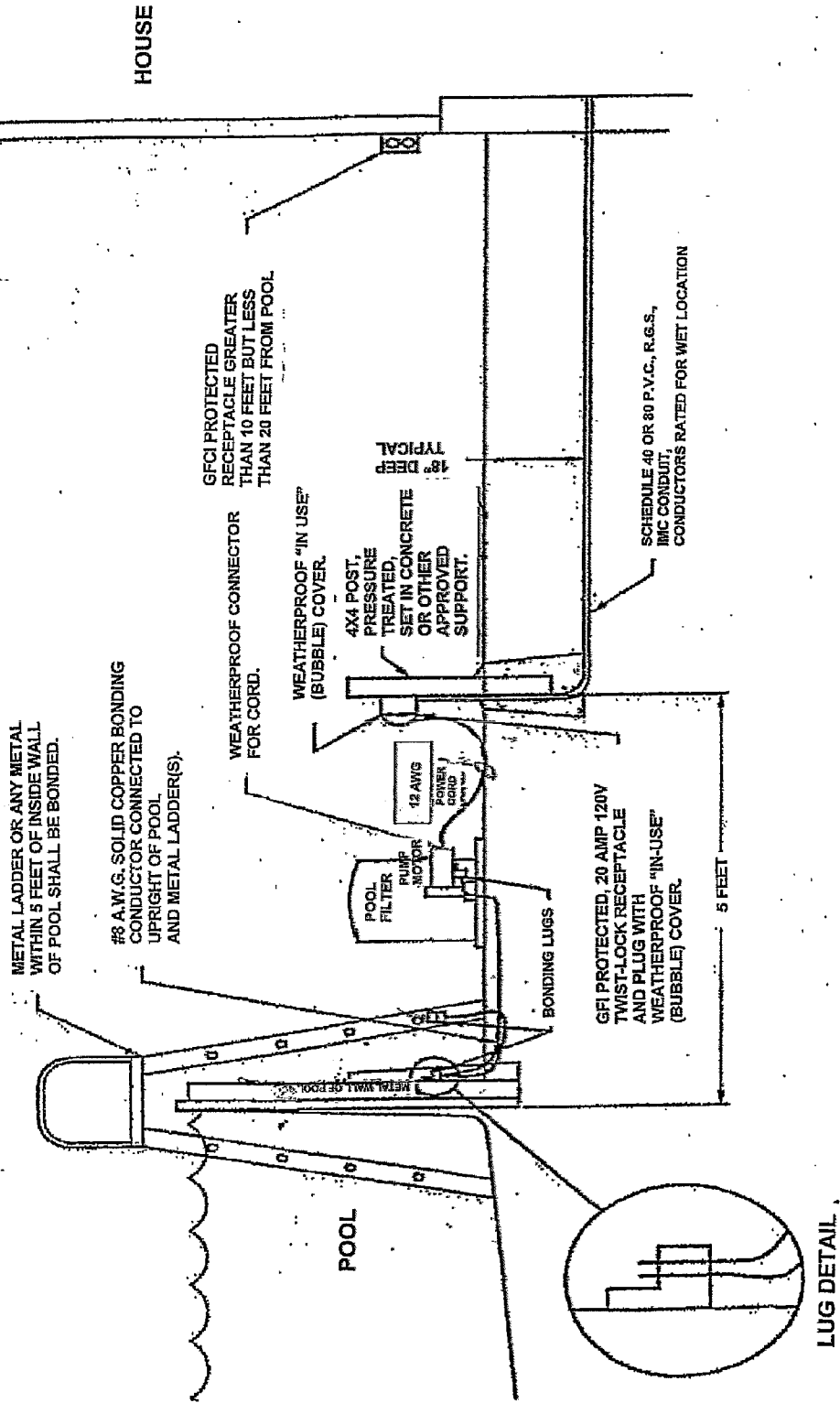
ASME

ASME A112.19.17 Manufacturers Safety Vacuum
Release Systems (SVRS) for Residential and
Commercial Swimming Pool, Spa, Hot Tub and
Wading Pool AG106.3

UL

UL2017-2000 Standard for General-purpose
Signaling Devices & Systems-with Revisions
Through June 2004 AG105.2

TYPICAL WIRING DIAGRAM FOR AN ABOVE-GROUND POOL SHOWING CODE REQUIRED METHODS AND EQUIPMENT



ELECTRICAL REQUIREMENTS FOR ABOVE-GROUND POOLS**

(Some requirements mentioned below do not apply to above-ground pools with maximum depth of 42 inches, or pools made from molded polymeric, non-metallic or inflatable walls regardless of dimensions.)

A UNDERGROUND WIRING

Pool wiring shall be installed in any one of the following methods at the following depths below finished grade:

- | | | |
|----|---|-----------|
| a. | Schedule 40 or 80 PVC conduit: | 18 inches |
| b. | Rigid metal conduit (galvanized steel): | 6 inches |
| c. | Intermediate metal conduit: | 6 inches |

- ***Type UF Cabling or EMT is not allowed.***
- ***Pump receptacle wiring must have an insulated grounding conductor (Type THHN/THWN)***
- ***Refer to NEC Table 30-5 for further information.***

B POOL FILTER PUMP MOTOR

1. 125 Volt 20 Amp locking-type receptacle (twist lock) with "in-use" (bubble) weatherproof cover. Rubber cord (no longer than 3 feet in length) must be 12/3 type SJ or equivalent.
2. Locking-type receptacle shall be GFI protected.
3. Pump motor receptacle shall be located greater than 5 feet and less than 10 feet from inside wall of pool.
4. Receptacle to be mounted on 4 x 4 pressure treated lumber post, set in concrete or other approved method.

C POOL BONDING

1. #8 solid copper wire from lug on pool filter pump to metal pool upright. Wire must be buried underground.
2. Metal pool ladder or any metal (shed, fence, etc) within five (5) feet of inside wall of pool to be connected to grounding lug on pool filter pump motor with #8 solid copper wire.

ELECTRICAL REQUIREMENTS FOR ABOVE-GROUND POOLS**

(Continued)

D MISCELLANEOUS

GFI protected convenience receptacle shall be located greater than 10 feet but less than 20 feet from pool.

E ELECTRICAL INSPECTIONS

1. Rough: Underground wiring and bonding
2. Final: Water in pool and filter operating

**** This list of items (A through E) is for informational purposes only.**

**** It does not include all applicable rules of the National Electrical Code; nor is it to be used as a design guide.**

**** If questions arise, please consult a licensed Electrical Contractor.**

THIS FORM REQUIRES A NOTARY SEAL

AFFIDAVIT OF EXEMPTION

The undersigned affirm that he/she is not required to provide workers compensation insurance under the provisions of Pennsylvania's Workers' Compensation Law for one of the following reasons, as indicated:

_____ Property owner performing own work. If property owner does hire contractor to perform any work pursuant to building permit, contractor must provide proof of workers' compensation insurance to the municipality. Homeowner assumes liability for contractor compliance with this requirement.

_____ contractor has no employees. Contractor prohibited by law from employing any individual to perform work pursuant to this building permit unless contractor provides proof of insurance to the municipality.

_____ Religious exemption under the Workers' Compensation Law. All employees of contractor are exempt from workers' compensation insurance (attach copies of religious exemption letter for all employees).

Signature of Applicant

County of _____

Municipality of _____

Subscribed, sworn to and
acknowledged before me by the above
_____ this _____ Day
of _____
20 _____.

SEAL

Notary Public