



SWIMMING POOL GUIDE



IS IT A POOL?



NEW YORK STATE BUILDING CODE DEFINITION

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



CITY OF BATAVIA MUNICIPAL CODE -CHAPTER 190-ZONING ORDINANCE CLASSIFIES SWIMMING POOLS AS ACCESSORY STRUCTURES.

PROCESS FOR A BUILDING PERMIT

COMPLIANCE WITH ZONING ORDINANCE AND NYS BUILDING CODES

1. IS DEPTH OF WATER OVER 24 INCHES?

(THIS INCLUDES POOLS THAT HAVE POTENTIAL OF ACHIEVING WATER DEPTHS OVER 24 INCHES)

2. YES - NEED TO OBTAIN BUILDING PERMIT, NO- NO PERMIT REQUIRED

3. ZONING COMPLIANCE

- ✓ VERIFICATION THAT SWIMMING POOL IS **LOCATED IN THE REAR YARD.**
THE REAR YARD IS THE AREA FROM THE REAR ROOFED PORTION OF THE HOUSE TO THE REAR PROPERTY LINE AND FROM SIDE PROPERTY LINE TO SIDE PROPERTY LINE.
- ✓ VERIFICATION THAT AREA OF THE SWIMMING POOL, PLUS THE AREA OF ANY EXISTING ACCESSORY STRUCTURES (DETACHED GARAGES, STORAGE BUILDINGS, GAZEBOS, ETC.) **DOES NOT EXCEED 40% COVERAGE OF THE REAR YARD .**
- ✓ ILLUSTRATION ATTACHED HIGHLIGHTING ZONING ORDINANCE REQUIREMENTS.

4. **BUILDING CODE COMPLIANCE**

● **DISTANCE FROM PROPERTY LINES**

VERIFICATION THAT THE SWIMMING POOL (EDGE OF WATER) IS A MINIMUM OF FIVE (5) FEET FROM ALL PROPERTY LINES. THIS IS BASED UPON THE NATIONAL ELECTRICAL CODE, A REFERENCE SANDARD OF THE NEW YORK STATE BUILDING CODE.

● **OVERHEAD POWER LINES**

NATIONAL GRID WILL VERIFY THAT NO OVERHEAD ELECTRIC POWER LINES ARE PRESENT OR IF PRESENT THAT THE PROPER CLEARANCES ARE MAINTAINED. THE APPLICANT IS RESPONSIBLE TO CONTACT NATIONAL GRID. SURVEY IS REQUIRED.

● **ACCESS TO POOL**

VERIFICATION THAT THE POOL IS PROVIDED WITH A **BARRIER** THAT IS IN COMPLIANCE WITH THE NEW YORK STATE BUILDING CODE.

● **BUILDING CODE**

APPENDIX G OF THE NEW YORK STATE RESIDENTIAL CODE, **SWIMMING POOLS, SPAS, AND HOT TUBS**, PAGES 545, 546, AND 547 ATTACHED.

5. **ELECTRICAL INSPECTION OF THE POOL**

PUMP/FILTER AND OTHER DEVICES AS REQUIRED BY AN AUTHORIZED THIRD PARTY ELECTRICAL AGENCY:

INDEPENDENT ELECTRICAL INSPECTION AGENCY, INC.

1-800-422-0672

(315) 735-5233 ... Thomas J. Morosco

MIDDLE DEPARTMENT INSPECTION AGENCY

(585) 964-3488 or 1-800-432-5191 ... Kurt Kronenberg

NEW YORK - ATLANTIC INLAND

(607) 753-7118

EMPIRE INSPECTIONS, LLC

(585) 798-1849.....Tim Enderby

NECI

(716) 912-3647.....William Briggs

NEW YORK ELECTRICAL INSPECTION AGENCY

(585) 436-4460 or (585) 230-4186.....Fritz Gunther

THE BASIC ELECTRICAL REQUIREMENTS ARE HIGHLIGHTED ON THE ATTACHED "POOLSEYE".

6. **FINAL INSPECTION** BY THE CITY OF BATAVIA BUREAU OF INSPECTION .

7. **CERTIFICATE OF COMPLIANCE** ISSUED UPON COMPLETION.

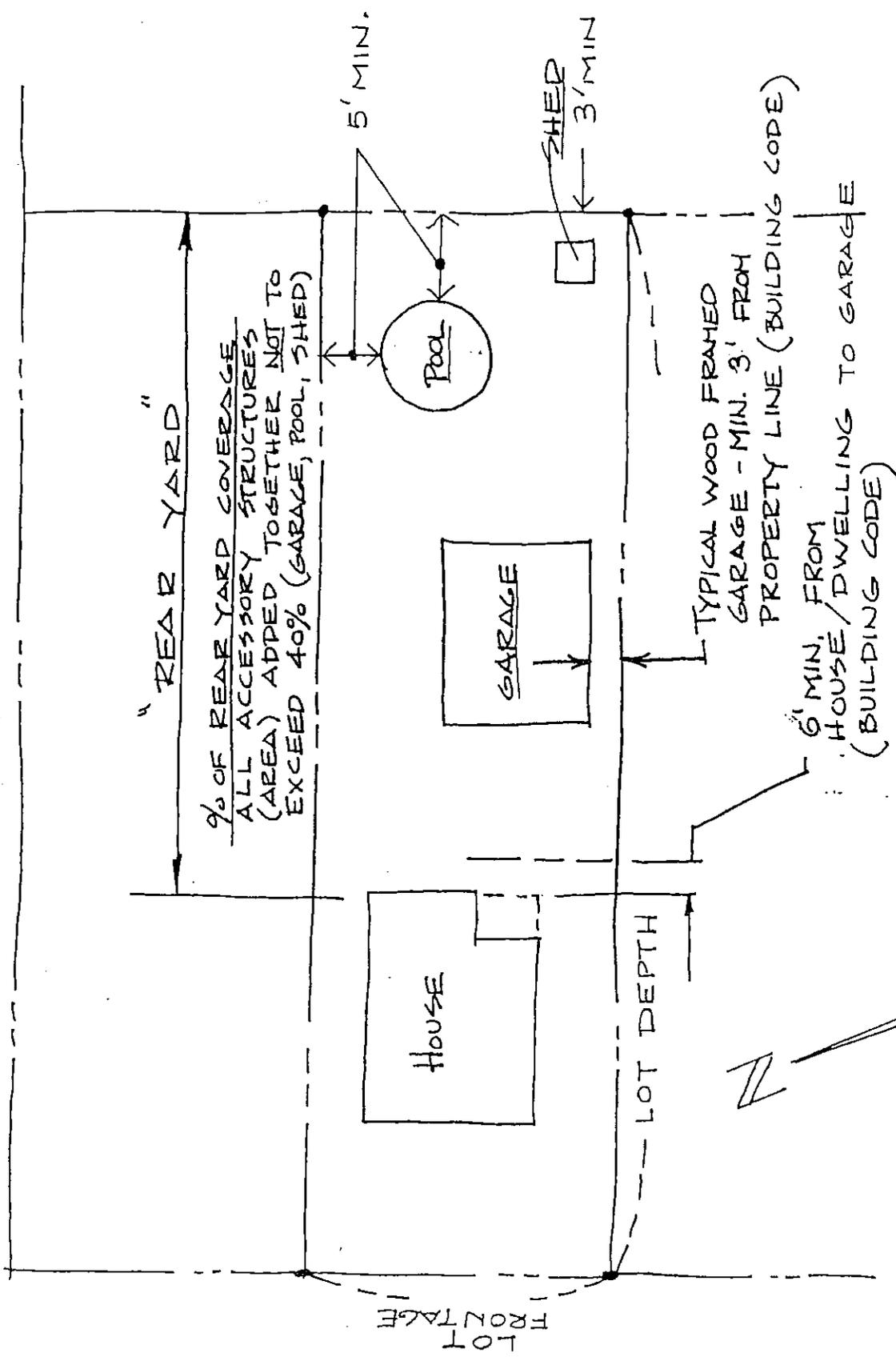
THE POOL SHALL NOT BE USED UNTIL ISSUANCE OF THIS DOCUMENT

ANY WHERE STREET

STREET

ANY WHERE

POOL GUIDE



ACCESSORY STRUCTURES

REVISED	3-28-05
REVISED	4-18-97

120 ANY WHERE ST. 11.1.96
 M.D. 11.1.96

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- and 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 capable of containing water over 24 inches (610 mm) deep. This includes in-ground, aboveground 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 walls of said 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, aboveground or on-ground pool, hot tub or spa shall be provided with 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 aboveground 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 1.75 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.

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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 1.75 inches (44 mm) in width.
6. Maximum mesh size for chain link fences shall be a 2.25-inch (57 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 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 1.75 inches (44 mm).
8. Access gates shall comply with the requirements of Section AG105.2, Items 1 through 7, and shall be securely locked with a key, combination or other child-proof lock sufficient to prevent access to the swimming pool through such gate when the swimming pool is not in use or supervised. 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 greater than 0.5 inch (12.7 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. All 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 its screen, if present, are opened. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is 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 touchpad or switch, to temporarily deactivate the alarm for a single opening. Such 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, 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 aboveground 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, then:
 - 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. All walls surrounding an indoor swimming pool shall comply with Section AG105.2, Item 9.

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

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 other such multiple suction outlets whether isolated by valves or otherwise shall be protected against user entrapment.

AG106.2 Suction fittings. All Pool and Spa suction outlets shall be provided with a cover that conforms with ANSI/ASME A112.19.8M, or a 12" × 12" drain grate or larger, or an approved channel drain system.

Exception: Surface skimmers

AG106.3 Atmospheric vacuum relief system required. All 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. Such vacuum relief systems 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 (2) suction outlets of the approved type. A minimum horizontal or vertical distance of three (3) feet shall separate such 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 posi-

tion(s) at least (6) inches and not greater than twelve (12) inches 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

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

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

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

ASTM

ASTM F 1346-91 (1996) Performance Specification
for Safety Covers and Labeling Requirements for
All Covers for Swimming Pools, Spas and
Hot Tubs AG105.2, AG105.5

ASME

ASME A112.19.17-2002 Manufacturers Safety Vacuum
Release Systems (SVRS) for Residential and
Commercial Swimming Pool, Spa, Hot Tub and
Wading Pool AG106.3

PERMANENTLY INSTALLED SWIMMING POOLS

ELECTRICAL WIRING REQUIREMENTS

2008 National Electrical Code / 2010 Residential Code of New York State

www.iaei-rochester.com

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 Ground Fault Circuit Interrupter (GFCI) protected.
- b. Receptacle must have a weatherproof cover that can be closed when the cord is plugged in. (In-use type cover)
- c. An Automatic Timer (Time Switch) must be installed on swimming pool pumps.
- d. The circuit line for the pump motor must be a continuous line going directly to the panel box, and is to be isolated from all other receptacles.
- e. Wire for the pump motor shall not be less than #12 AWG insulated copper grounded wire, and must be in conduit. (except when entering a building the wire can change to NM) (Cannot use NM wire in conduit)
- f. Conduit
 - i. PVC – All PVC conduit* must be buried at least 18" deep (12" if GFCI protected)
 - ii. Metal – All Rigid Metal Conduit* must be at least 6" deep

* Wires used in conduit must be single strand wires (ex: THWN, etc - NO NM or UF CABLE in Conduit)

2) Convenience Receptacle (Outlet) and Wiring Method

- a. At least one (1) 15- or 20-ampere convenience receptacle must be located not closer than 6' but not further than 20' from the outside pool wall (Can be existing and/or wired with any approved wiring method)
- b. Convenience receptacle must be Ground Fault Circuit Interrupter (GFCI) protected.
- c. Must have a weatherproof cover where exposed to the weather (In-use type cover required on used, unattended, receptacles in wet locations)
- d. Must be separate from the pool pump receptacle wiring.
- e. Wiring
 - i. UF cable if buried must be at least 24" deep
 - ii. PVC – All PVC conduit* must be buried at least 18" deep (12" if GFCI protected)
 - iii. Metal – All Rigid Metal Conduit* must be at least 6" deep

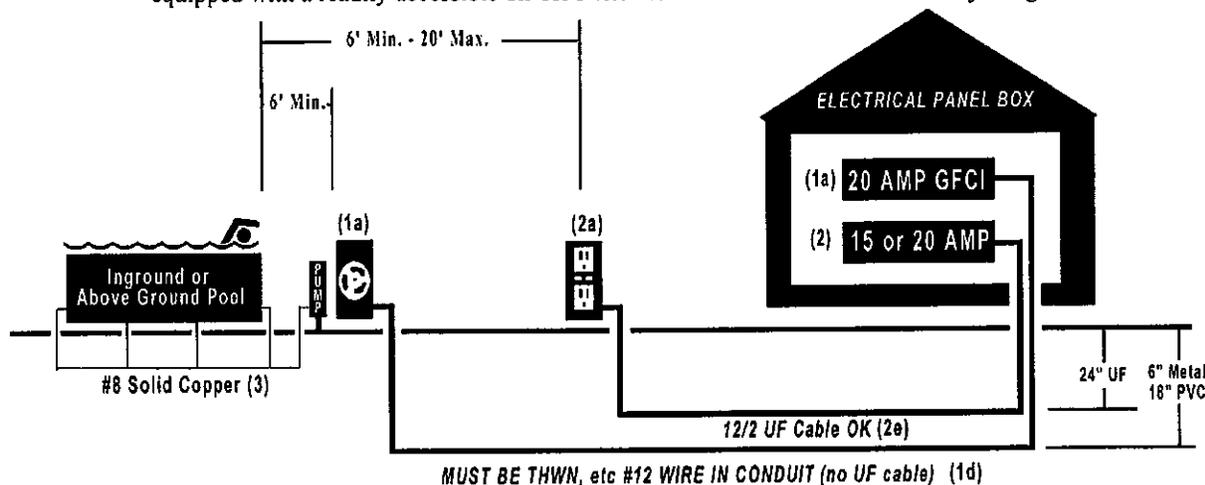
* Wires used in conduit must be single strand wires (ex: THWN, etc - NO NM or UF CABLE in Conduit)

3) Bonding The Pool

- a. All metal parts must be bonded together using a #8 (or larger) solid copper wire.
- b. Must use non-corrosive clamps.
- c. Conductive pool shells must be bonded in a minimum of four (4) equal points uniformly spaced around the pool
- d. Nonconductive pool shells must have a #8 (or larger) solid, bare copper wire 18"-24" from the inside pool wall under the perimeter surface 4"-6" below the final grade.
- e. A minimum of nine (9) square inches of metal must be in the water to bond the water

4) Other

- a. Building Permits are required. Secure a Building Permit prior to beginning work from your municipality
- b. Pool Alarms are required (Check with your local Building Department for additional information)
- c. If a Pool Heater is present, an Automatic Timer (Time Switch) must be installed on the pool heater and must be equipped with a readily accessible on-off switch to shut off the heater without adjusting the thermostat setting.



PLEASE CONTACT YOUR LOCAL INSPECTOR IF YOU HAVE ANY QUESTIONS

www.iaei-rochester.com

~ 2011 ~

Storable Swimming Pools

Electrical Wiring Requirements

Residential Code of NYS E4107

SECTION E4107 STORABLE SWIMMING POOLS

4107.1 Pumps. A cord and plug-connected pool filter pump for use with storable pools shall incorporate an approved system of double insulation or its equivalent and shall be provided with means for grounding only the internal and nonaccessible noncurrent-carrying metal parts of the appliance.

The means for grounding shall be an equipment grounding conductor run with the power-supply conductors in a flexible cord that is properly terminated in a grounding-type attachment plug having a fixed grounding contact. Cord and plug-connected pool filter pumps shall be provided with a ground-fault circuit interrupter that is an integral part of the attachment plug or located in the power supply cord within 12 inches (305 mm) of the attachment plug.

E4107.2 Ground-fault circuit-interrupters required. Electrical equipment, including power-supply cords, used with storable pools shall be protected by ground-fault circuit-interrupters. All 125-volt receptacles located within 20 feet (6096 mm) of the inside walls of a storable pool shall be protected by a ground-fault circuit interrupter. In determining these dimensions, the distance to be measured shall be the shortest path that the supply cord of an appliance connected to the receptacle would follow without passing through a floor, wall, ceiling, doorway with hinged or sliding door, window opening, or other effective permanent barrier.

E4107.3 Luminaires. Luminaires for storable pools shall not have exposed metal parts and shall be listed for the purpose as an assembly. In addition, luminaires for storable pools shall comply with the requirements of Section E4107.3.1 or E4107.3.2.

E4107.3.1 Fifteen volts or less. A luminaire installed in or on the wall of a storable pool shall be part of a cord and plug-connected lighting assembly. The assembly shall:

1. Have a luminaire lamp that operates at 15 volts or less;
2. Have an impact-resistant polymeric lens, luminaire body, and transformer enclosure;
3. Have a transformer meeting the requirements of section E4106.1 with a primary rating not over 150 volts; and
4. Have no exposed metal parts.

E4107.3.2 Not over 150 volts. A lighting assembly without a transformer, and with the luminaire lamp(s) operating at not over 150 volts, shall be permitted to be cord and plug-connected where the assembly is listed as an assembly for the purpose and complies with all of the following:

1. It has an impact-resistant polymeric lens and luminaire body.
2. A ground-fault circuit interrupter with open neutral conductor protection is provided as an integral part of the assembly.
3. The luminaire lamp is permanently connected to the ground-fault circuit interrupter with open-neutral protection.
4. It complies with the requirements of Section E4106.4.
5. It has no exposed metal parts.

E4107.4 Receptacle locations. Receptacles shall be located not less than 6 feet (1829 mm) from the inside walls of a pool. In determining these dimensions, the distance to be measured shall be the shortest path that the supply cord of an appliance connected to the receptacle would follow without passing through a floor, wall, ceiling, doorway with hinged or sliding door, window opening, or other effective permanent barrier.

APPLICATION FOR SWIMMING POOL SEWER EXEMPTION

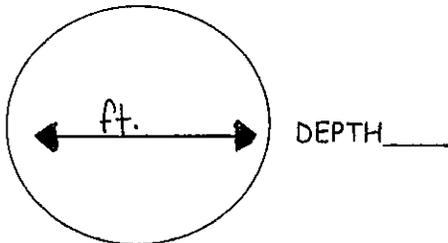
IN ACCORDANCE WITH THE CITY OF BATAVIA MUNICIPAL CODE, CHAPTER 147-47.4 A MINIMUM OF 10,000 GALLONS IS REQUIRED TO BE ELIGIBLE FOR A SEWER EXEMPTION ON WATER USED TO FILL A SWIMMING POOL. THIS EXEMPTION IS AVAILABLE ONE TIME PER YEAR.

ACCOUNT # _____

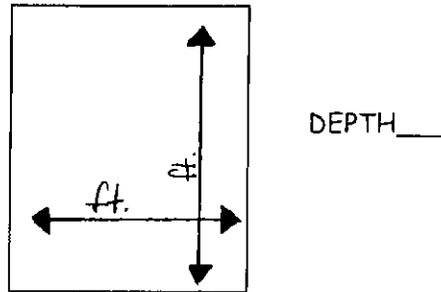
NAME: _____

ADDRESS: _____

PHONE: _____ DATE OF POOL FILL: _____



$$\frac{(D^2 \times 3.14) \times \text{DEPTH} \times 7.48}{4} = \text{GAL}$$



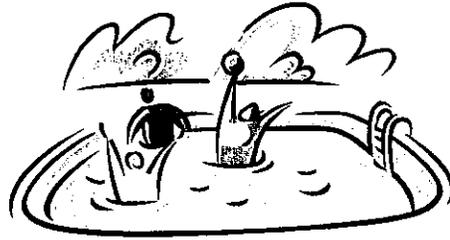
$$L \times W \times \text{DEPTH} \times 7.48 = \text{GAL}$$

___ I COMPLETELY FILLED MY EMPTY SWIMMING POOL

___ I ADDED ___ FEET OF WATER TO MY SWIMMING POOL

SIGNATURE OF OWNER/DATE

QUESTIONS? PLEASE CONTACT:
TERI/BUREAU OF WATER AND WASTEWATER
345-6318



NATIONAL GRID INFO

In order to secure a Building Permit for the installation of a swimming pool of any type, please contact National Grid Power Corporation, Consumer Relations Dept., 5100 East Main Street, Batavia, NY 14020 at 1-800-260-0054

When contacting National Grid, you will need to provide your address and state that you need a "start order for a pool permit".

National Grid Power Corporation will review the proposed pool location for compliance of required clearance of its overhead* electric conductors and these documents will need to be brought to the Inspection Bureau before the permit will be issued.

*Please notify Underground Facilities Protective Organization (UFPO) at 1-800-962-7962 prior to any excavation.

City of Batavia Bureau of Inspection contacts:

Douglas Randall, Code Enforcement Officer	345-6327
Ronald Panek, Code Enforcement Officer	345-6326