

Village of Vernon Hills
Community Development Department
290 Evergreen Drive, Vernon Hills, IL 60061
Phone 847-367-3700 - Fax 847-367-2541 www.vernonhills.org/permit

SWIMMING POOLS, SPAS & HOT TUBS

This hand out is for **REFERENCE ONLY**. For more details see specific code sections. *Application on last 2 pages.*

Discharge pool water may be drained or pumped into a paved area to flow directly into the storm sewer only after the discharge water has been tested for residual chlorine. The test is required so that the discharged water will not harm the environment. Pool water should not be discharged in the sanitary sewer system.

TO APPLY FOR A PERMIT:

1. Read the handout entirely and complete a permit application on the last 2 pages.

Note: If a fence, patio, deck, or gazebo is going to be installed at the same time as the pool or hot tub, then only one permit application will need to be completed and submitted for all of the proposed work. In this case, please use only the attached Pool/Hot Tub Application. However, make sure to reference the specific handouts for fences, decks & patios to ensure you are providing all of the required construction documents that each of those permit types require also.

2. Submit two (2) copies of the plat of survey of the property showing the required information listed under the Construction Documents/Plans section listed below.

Note: If a fence, patio, deck, or gazebo is going to be installed with the pool or hot tub, then along with showing the location of the pool or hot tub, also show the location of the fence, deck, patio, or gazebo on the same plats, but while making sure to still include the information on each plat that is required for fences, decks, and patios along with the pool or hot tub.

3. Submit equipment specs/brochures on the pool/hot tub, fencing/barriers (if applicable), and coverings.
4. Submit a copy of the Homeowner's Association Approval Letter, if applicable.
5. Submit a written and signed copy of the contract between the homeowner and contractor, if applicable.
6. Submit a copy of the electrical contractor's license.
7. Submit a plan review fee which is calculated by multiplying the total cost of construction by .002 and rounded to the nearest dollar, with a minimum of \$25, cash or check.

Once your application and plans have been reviewed and approved, you will be asked to call **J.U.L.I.E.** (Utility Locate Service) at 1-800-892-0123 to locate underground utilities and to obtain a dig number. The permit will not be issued without a dig number. The plan review will be completed within ten (10) business days or sooner.

CONSTRUCTION DOCUMENTS/PLANS:

Submit two (2) current copies of a Plat of Survey indicating the following:

1. Show on the survey the size and location of the proposed pool, pool deck/walkway, equipment pad (drawn to scale).
2. **Indicate the distance from the proposed pool, pool deck/walkway and equipment pad to all property lines and distance from the pool to the house (drawn to scale).**
3. Show existing and proposed finished grade elevations of the swimming pool and surrounding deck.
4. **Indicate on the survey the distance from the pool to underground (5' minimum) and overhead electric wires (10' minimum). (Call J.U.L.I.E. (utility locate service) at 1-800-892-0123).**
5. Show location of the 4' barrier with gate requirements on survey. Provide a drawing of the fence indicating the spacing between pickets, spacing of horizontal rails, and height of fence.
6. **Show the location and height of all proposed retaining walls.**
7. Show pool alarm on house door(s) if required (house security alarm does not satisfy code).
8. **Show location of pool cover switch and distance to pool.**
9. Show location of pool electric disconnect switch and distance to pool.
10. **Show location/distance of req'd GFI protected outlet not less than 10' nor more than 20' from pool wall.**

11. Provide a note that all spoils shall be removed from site.
12. **Provide cut sheets on all pool components (pump, filter, skimmer, heater, lights, pool wall construction, pool steps, pool cover, etc.) Include U.L. listing number.**
13. Provide barrier and gate design as well as gate locking mechanism specifications.

An in-ground pool will require a current Plat of Survey and grading plan, prepared by an Illinois Licensed Engineer, showing the existing and proposed finished grade elevations, top of pool and walkway elevations, as well as the above items. The location of the pool must be STAKED by the Surveyor.

LOCATION REQUIREMENTS:

1. An aboveground or in-ground swimming pool, spa or hot tub, and associated equipment are permitted only in the rear yard.
2. **A pool, spa or hot tub and associated equipment may not be located on any existing easement.**
3. A pool, spa or hot tub must be located at least five (5) feet away from any underground electrical wires and at least ten (10) feet from any overhead electrical wires.
4. **In GREGG’S LANDING the fence around a pool, spa or hot tub must be located at least ten (10) feet from side and rear property lines. Elsewhere in the Village, the inside wall of a pool, spa or hot tub must be located at least ten (10) feet from side and rear property lines.**
5. In GREGG’S LANDING an aboveground pool may not extend more than 24" above existing grade.
6. **The walkway around a pool, spa or hot tub must be located at least seven (7) feet from the side and rear property lines.**
7. The equipment pad must be located in the rear yard and no closer to the side and rear property lines than the building setback line.
8. **The lot coverage of the required rear yard cannot exceed 40%.**
9. Swimming pools, decks, and equipment must be installed in accordance with the plan approved by the Village. *The location and elevations must be strictly followed.*

ENCLOSURE REQUIREMENTS:

1. A pool, spa or hot tub must be completely surrounded by a 4’ barrier (fence), which complies with the requirements of the zoning ordinance (see fence handout) and Appendix G of the 2018 International Residential Code (attached). If a fence is used as the barrier it must be located within one (1) foot of the property line.
2. Spas or hot tubs with a safety cover, which complies with ASTM F 1346, shall be exempt from the 4’ barrier requirement.

ENCLOSURE REQUIREMENTS IN GREGG’S LANDING:

1. A pool, spa or hot tub must be completely surrounded by a 4’ barrier (fence). The barrier (fence) shall be installed around the pool, spa or hot tub area only, subject to a maximum enclosed area of 40% of the rear yard. “No fence shall be closer than 10’ to the property line. No swimming pool extending more than 24 inches above ground shall be constructed on any lot. No fence surrounding any pool shall be a chain link fence. Any fence so constructed shall be required to be decorated metal, or if wood, be at least 50% open.” Resolution No. 98-07, Section 3 Paragraph 2.
2. The barrier must also comply with the requirements of the zoning ordinance for fences (see fence handout) and Appendix G of the 2018 International Residential Code (see attached).
3. Spas or hot tubs with a safety cover, which complies with ASTM F 1346, shall be exempt from the 4’ barrier requirement.

CONSTRUCTION REQUIREMENTS:

1. Existing grade should not be altered. Excavated spoils will need to be removed from site.
2. **At a minimum, all in-ground swimming pools must be staked and a plat of survey approved prior to the pool permit being issued.**
3. During construction, any water encountered must be filtered to be free of sediment before being drained or pumped into a paved area to flow directly into the storm sewer.
4. **Barrier gates shall open outward away from the pool and be self-closing and shall have a self-latching**

device. The gate shall not swing over a stairway. If a gate must swing towards a stairway then a 3'x 3' minimum landing must be provided on the stairway side of the gate.

5. Pool equipment utilizing electricity must be installed in accordance with the requirements for permanently installed or storable swimming pools, depending on which category a given pool falls into, as outlined in the 2017 edition of the National Electrical Code (NEC) as amended. Some of the common requirements are part of this handout. For more specific requirements see Article 680 of the NEC.
6. **At no time shall equipment or construction materials be stored within the Village Right-of- Way.**
7. Extreme care is to be taken to protect the existing utilities, pavement, curbs, and sidewalks. Pavement, curbs, and sidewalks should be ramped or planked to avoid damage. Damage to the Village Right-of-Way will be restored to the satisfaction of the Village Engineer. The Village will perform a pre-construction and post-construction inspection to identify any damage.
8. **Working hours: -Monday through Friday 7:00 a.m. to 7:00 p.m. -Saturday 8:30 a.m. to 5:00 p.m.**
-No work is to be performed on Sundays or Holidays.

ELECTRIC INSTALLATION FOR PERMANENT SWIMMING POOL

A permanent swimming pool is a pool with a wall height greater than forty-two (42) inches and which cannot be readily disassembled for storage.

1. **Pump must be listed by an approved agency (UL, CSA, ETL, etc.) for permanent outdoor pool installation.**
2. Electrical receptacles must be located at least ten (10) feet from inside wall of the pool, except a single locking type receptacle protected by ground-fault circuit interrupter is permitted to be installed between five (5) and ten (10) feet from the inside wall of the pool to provide power to the pump.
3. **At least one convenience receptacle must be located not closer than ten (10) feet and not farther than twenty (20) feet from the pool. This receptacle shall be located not more than six (6) feet above the floor, platform, or grade above the pool.**
4. ALL receptacles (outdoor only) located within twenty (20) feet of a pool must be protected by ground-fault circuit interrupter.
5. **Electric lights located within ten (10) feet of the pool shall be at least five (5) feet above the maximum water level, shall be rigidly attached to the structure and shall be ground-fault protected.**
6. A receptacle not attached to the dwelling must be installed as follows:
Current carrying conductors and an insulated conductor for equipment grounding purposes must be run in corrosion resistant rigid metal conduit, which must be buried at least six (6) inches below grade.
7. **A disconnecting means shall be accessible, located within sight of the pool, spa, or hot tub, and shall be located at least 5 feet horizontally from the inside walls of pool, spa, or hot tub.**
8. All conduits installed on the exterior of any building shall be rigid galvanized metal conduit, galvanized intermediate metal conduit or rigid aluminum conduit. However, rigid aluminum conduit shall not be used where exposed to mechanical damage.
9. **All metallic parts of the pool structure and all metal within five (5) feet horizontally and twelve (12) feet above the pool shall be bonded to a common bonding grid with minimum #8 solid copper wire.**
10. Spa and hot tub electrical requirements are the same as for a pool.

ENGINEER REQUIREMENTS:

1. The proposed pool plan is to be shown. Please include proposed and existing grades.
2. Plan must show in detail how the pool and hard surface around the pool will drain.
3. Plan must show the lowest elevation point of opening to structure/back of house.
(e.g., sliding door, window, window well).
4. Connection of the pool system to the village storm sewer is not permitted.

REQUIRED INSPECTIONS:

The permit holder is responsible for scheduling inspections. To request an inspection, contact the Building Division at 847-367-3704 between the hours of 8:30 a.m. and 3:30 p.m. Monday through Friday, at least one working day in advance with the permit number ready.

A pre-construction site inspection by the engineering division is required prior to the start of construction to identify any existing damage to the Village Right of Way.

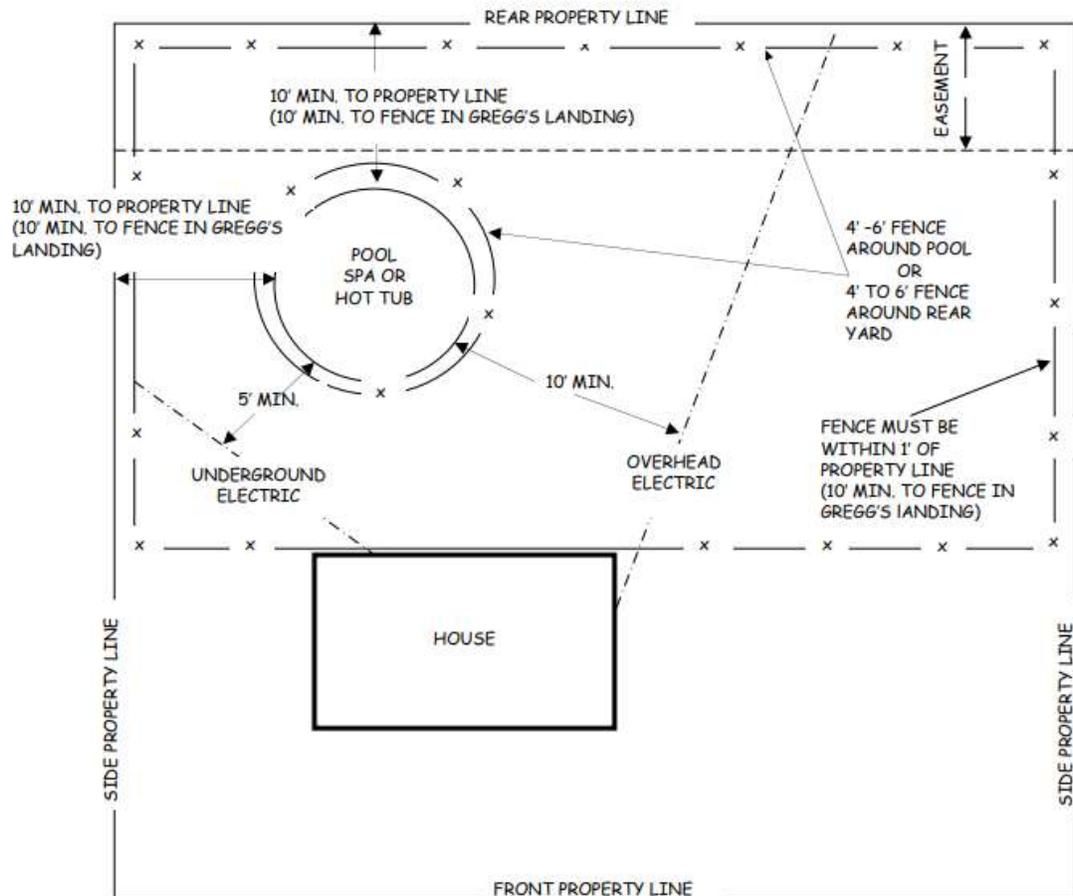
Above-ground pool, spa and hot tub:

1. All underground work must be left exposed for a rough underground electrical inspection.
2. A final inspection for electric and building is required when the pool or hot tub is installed, pump is connected and barrier is completed. **Note:** No swimming pool shall be filled with water until a Village of Vernon Hills Building Inspector has provided authorization.
3. A fence post hole inspection, if applicable.
4. A final engineering division post site inspection for Village Right of Way damage.

In-ground pool: (Also see attached inspection chart)

1. Pre-construction site inspection by an engineering and building division inspector.
2. Pre-pour concrete footing around base of pool.
3. Underground electric and/or plumbing- All underground piping (pvc, gas, electric).
4. All bonding of metal components prior to placing of concrete.
5. Base Inspection- Gravel base under walkway around pool.
6. Post Hole Inspection- Fence post holes, if applicable.
7. Final fence inspection.
8. Final building, electric, plumbing (if applicable), and engineering inspections.
9. Additional inspections may be required depending on site and project conditions.

POOL LOCATION EXAMPLE



VERNON HILLS SWIMMING POOL INSPECTION CHECKLIST

This checklist shall be posted and accessible on job site at all time.

No swimming pool shall be filled with water until a Village of Vernon Hills Building Inspector has provided authorization.

Approved	Not Approved	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Staking Of Pool Location & Plat Of Survey
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Overhead/Underground Electrical Clearances
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Underground Plumbing Inspection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Underground Electrical Inspection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	As-Built Survey Showing Pool Location
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre-Pour: Pool Concrete Footing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre-Pour: Pool & Light Bonding
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre-Pour: Mechanical Pad (Location & Gravel Base) Bonding
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre-Pour: Fence Post Holes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre-Pour: Pool Concrete Walkway Inspection/Electrical Bonding
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Deck Drain(s) Discharge
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final Electrical Inspection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final Plumbing Inspection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final Fence & Pool Inspection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final Grading/Landscaping
 <input type="checkbox"/>	 <input type="checkbox"/>		 SWIMMING POOL APPROVED FOR FILLING
			Signature: _____
 <input type="checkbox"/>	 <input type="checkbox"/>		 SWIMMING POOL APPROVED FOR USE
			Signature: _____

**TO SCHEDULE AN INSPECTION CONTACT:
Village of Vernon Hills Community Development Department at (847) 367-3704**

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 that contains 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 AG107.

AG103.2 Above-ground and on-ground pools. Aboveground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section AG107.

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 AG107.

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 AG107.

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.
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 (44mm) in width.
6. Maximum mesh size for chain link fences shall be a 1.25-inch (32 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 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 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 (1372mm) 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 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 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 ABBREVIATIONS

AG106.1 General.

ANSI—American National Standards Institute
11 West 42nd Street, New York, NY 10036
ASTM—American Society for Testing and Materials
1916 Race Street, Philadelphia, PA 19103
NSPI—National Spa and Pool Institute
2111 Eisenhower Avenue, Alexandria, VA 22314

SECTION AG107 STANDARDS

AG107.1 General.

ANSI/NSPI

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

ANSI/NSPI-4 Standard for Above-ground/

On-ground Residential Swimming Pools AG103.2

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

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

ASTM

ASTM F 1346-91 Standard Performance Specifications for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot
Tubs AG105.2, AG105.5

**Village of Vernon Hills
Community Development Department
290 Evergreen Drive, Vernon Hills, IL 60061
Phone 847-367-3700 - Fax 847-367-2541 http:// www.vernonhills.org**

POOL/ HOT TUB PERMIT APPLICATION

(PLEASE PRINT)

Homeowner's Name: _____

Project Address: _____

Phone: _____ **E-Mail:** _____

Applicant's Name: _____

(If different from above)

Phone: _____ **E-Mail:** _____

Please submit the following (see handout also):

- Two (2) copies of the Plat of Survey (see construction documents)
(In-ground pools require NEW Plat of Survey and grading plan)
- Cut Sheets on all pool components (include UL Listing)
- Fence/enclosure specifications
- If also installing patio, deck, gazebo, etc. at the same time, include all required documentation (see specific handouts for each permit type)
- Homeowner's Association Approval Letter (if applicable)
- Completed Contractors List
- Plan Review Fee (cash or check)

Once a review has been approved, you will need to supply us with a dig number from JULIE (1800-892-0123)

Installing (check one): Hot Tub Above-Ground Pool In-Ground Pool

Along with (check all that apply): Electrical Fence Patio Deck Other _____

Total Estimated Value of Construction (Labor & Materials) \$ _____

Answer the following (if applicable):

Pool/ Hot Tub Length _____ **ft.** **Pool/ Hot Tub Width** _____ **ft.**

New Fence Length _____ **ft.** **New Fence Width** _____ **ft.**

New Patio/Deck Length _____ **ft.** **New Patio/Deck Length** _____ **ft.**

FOR OFFICIAL USE:

PLAN REVIEW: \$ _____

PERMIT: \$ _____

BOND: \$ _____

TOTAL: \$ _____

VILLAGE OF VERNON HILLS - 290 EVERGREEN DRIVE - VERNON HILLS, IL 60061

CONTRACTORS LIST

PROJECT NAME: _____

SITE ADDRESS: _____

				OFFICE USE
TRADE	NAME	PHONE	ADDRESS, CITY, STATE, ZIP (Post Office Boxes are Unacceptable)	LICENSE
Alarm				
Carpenter				
Concrete				
Drywall				
Electrician				
Excavator				
Fence				
Fire Sprinkler				
General				
Glass (Struct)				
HVAC				
Insulator				
Iron Work				
Irrigation				
Low Voltage				
Mason				
Plumber				
Roofer				
Sewer				
Sign				
Telephone				

- Electrician must furnish a copy of registration in municipality administering a test.
- Plumber must furnish a copy of Illinois state plumber license and contractor registration.
- Roofing contractor must provide copy of Illinois state license.
- For projects with a value of \$100,000 or more, the general contractor must furnish a copy of a Certificate of Liability Insurance covering the property with General Liability and Workman's Compensation assigning the Village of Vernon Hills as additionally insured and certificate holder.
- All of the above information including bonds and copies of licenses are to be provided with the permit application, but in no case later than 2 days before permit is issued.