TOWN OF GLASTONBURY

SWIMMING POOL INSTRUCTION SHEET

The following is a list of requirements for Inground and Above Ground Swimming Pools that must be completed before a Certificate of Use can be issued.

INGROUND POOLS;

1. Building Permit **– IF TAKEN OUT BY OTHER THAN THE HOMEOWNER AND THE FENCE IS NOT BEEING DONE BY THE GENERAL CONTRACTOR/POOL INSTALLER THEN THE HOMEOWNER WILL HAVE TO SIGN PERMIT**
2. Plot plan with pool and fence location
3. Sign offs from Health Dept. and Environmental Planner
4. Electrical Permit
5. Inspection of Electrical Wiring and bonding of the pool before back filling around pool.
6. Installation of proper enclosure;

   Fence: Minimum of four feet (4) high with Self-closing and self-latching gates. See Pool info pack for typical fence and enclosures details.

7. Final Inspection

ABOVE GROUND POOLS:

1. Building Permit - **IF TAKEN OUT BY OTHER THAN THE HOMEOWNER AND THE FENCE IS NOT BEEING DONE BY THE GENERAL CONTRACTOR/POOL INSTALLER THEN THE HOMEOWNER WILL HAVE TO SIGN PERMIT**
2. Plot plan with pool and fence location
3. Sign offs from Health Dept. and Environmental Planner
4. Electrical Permit
5. Inspection of Electrical Wiring and bonding of the pool before back filling around pool.
6. Installation of proper enclosure;

   Fence; Minimum of four feet (4) high with Self-closing and self-latching gates. See Pool info pack for typical fence and enclosures details.

7. Final Inspection

The above inspections and requirements must be completed before a CERTIFICATE OF USE can be issued by the Building Department.

It is the responsibility of the owner to make sure these inspections and requirements are met.

.TOWN OF GLASTONBURY

OFFICE OF THE BUILDING OFFICIAL

652-7521

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 there of 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, 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. Above-ground 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, the horizontal members shall be located on the swimming pool side of the barrier. Spacing between vertical members shall not exceed 1¾ inches in width. Where there are decorative cutouts within vertical or horizontal members, spacing within the cutouts shall not exceed 1¾ inches 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 or more, spacing between vertical members shall not allow passage of a 4-inch diameter sphere. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1¾ inches in width.

6. Maximum mesh size for chain link fences shall be 2 ¼ inches square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1 ¾ inches.

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 1¾ inches.

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 from the bottom of the gate, the release mechanism and surrounding openings shall comply with the following: The release mechanism shall be located on the pool side of the gate at least 3 inches below the top of the gate and the gate and barrier shall have no opening greater than ½ inch within 18 inches of the release mechanism.

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

9.1. The pool shall be equipped with a power safety cover in compliance with ASTM F1346-91; 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 within 7 seconds after the door and its screen, if present, are opened and be capable of being heard throughout the house during normal activities. The alarm shall automatically reset under all conditions. The alarm shall be equipped with a manual means, such as a touchpad or switch, to temporarily deactivate the alarm for a single opening. Such deactivation shall last for not more than 15 seconds. The deactivation device(s) shall be located at least 54 inches above the threshold of the door; or

9.3. All doors with direct access to the pool through that wall shall be equipped with a self-closing and self-latching device with the release mechanism located a minimum of 54 inches above the door threshold. Swinging doors shall open away from the pool area.

10. Where an above-ground or on-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, then the ladder or steps shall be surrounded by a barrier which meets the requirements of section AG105.2, Items 1 through 9.

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.

(Add) **AG105.6 Temporary enclosure.** A temporary enclosure shall be installed prior to the commencement of the installation of any in-ground swimming pool unless the permanent barrier specified in Section AG105.2 is in place prior to the commencement of the installation. The temporary enclosure shall be a minimum of 4 feet in height, shall have no openings that will allow passage of a 4-inch sphere and shall be equipped with a positive latching device on any openings.

(Add) **AG105.7 Pool alarm.** No building permit shall be issued for the construction or substantial alteration of a swimming pool at a residence occupied by, or being built for, one or more families unless a pool alarm is installed with the swimming pool. As used in this section, "pool alarm" means a device which emits a sound of at least 50 decibels when a person or an object weighing 15 pounds or more enters the water in a swimming pool.

Exception: Hot tubs and portable spas shall be exempt from this requirement.

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/AS ME A112.19.8M, or a 12" x 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 positions) 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—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 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

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

Exception No. 3.' *Conductors on the load side of a ground-fault circuit-interrupter shall be permitted to occupy conduit, boxes, or enclosures containing only conductors protecteid by ground-fault circuit-interrupters.*

680-6. Receptacles, Lighting Fixtures, Lighting Outlets and Switching Devices.

(a) Receptacles.

(1) Receptacles on the property shall be located at least 10 feet (3.05 m) from the inside walls of a pool.

Exception: Receptacle(s) that provide power for water-pump motor(s) for a permantntly installed pool, as permitted in Siction 680-7, shall be permitted between 5 and 10 feet (1.52 and 3.05 m) from the inside walls of the pool, and where so located shall he single and of the locking and grounding type and shall be protected by ground-fault circuit-inlerrupter(s).

(2) Where a permanently installed pool is installed at a dwelling unit(s), at least one 125-volts convenience receptacle shall be located a minimum of 10 feet (3.05 m) from and not more than 20 feet (6.08 m) from the inside wall of the pool.

(3) All 125-volt receptacles located within 20 feet (6.08 m) of the inside walls of a pool shall be protected by a ground-fault circuit-interrupter. See Section 210-8(a)(3).

Section 680-6(a) makes it clear that a locking- and grounding-type receptacle used for a recirculating pump motor is permitted where it will be not less than 5 (from the inside walls of the pool and is protected by a GFCI. This requirement also makes it clear that all receptacles located within 20 ft of a permanently installed pool (outdoors or indoors, for dwelling unit or commerical use) are, required to be protected by GFCIs. This distance of 20 ft is intended to provide for location of receptacles beyond a pool deck. If located within (the perimeter of a pool deck, the receptacle installation is likely to create a tripping hazard when the receptacle is in use.

See Figure 680-2.

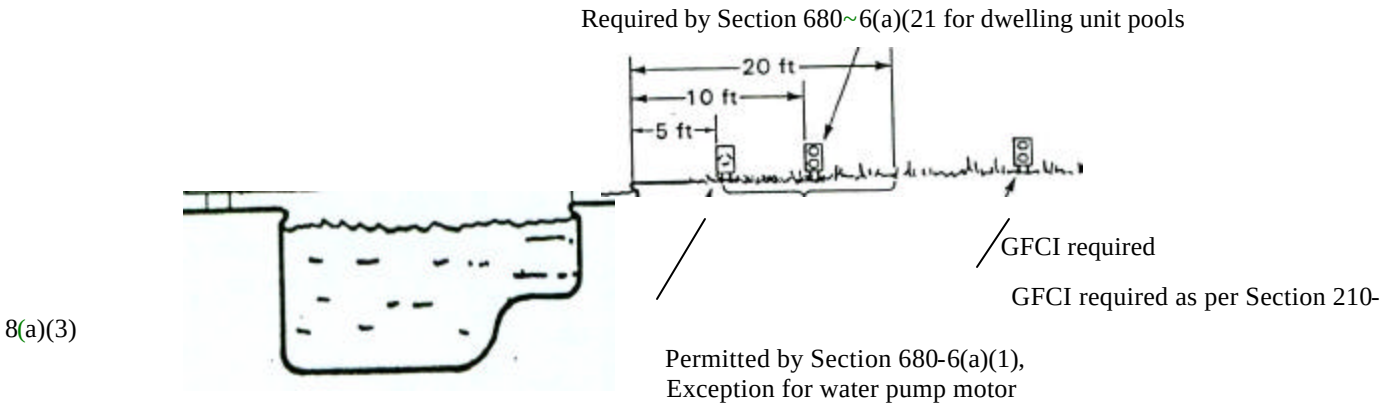


Figure 680-2. For permanently installed pools at dwelling unit(s), it is mandatory to insult a 125-Vl receptacle between 10 and 20 ft from the inside wall of the pool.

(FPN): In determining the above dimensions, (he distance to be measured is the shortest path the cord of an appliance connected to the receptacle would follow without piercing a floor, wall, ceiling, doors with hinged or sliding door, window opening, or other effective permanent barrier.

See Figures 680-3 and 680-4.

680-22. Bonding.

(FPN): It is not the intent of this subsection to require that the No. 8 or larger solid copper bonding conductor be extended or attached to any remote panelboard, service equipment, or any electrode, but only that it be employed to eliminate *volt-age* gradients in the pool area as prescribed.

(a) Bonded Parts. The following parts shall be bonded together:

(1) All metallic parts of the pool structure, including the reinforcing metal of the pool shell, coping stones, and deck.

(2) All forming shells and mounting brackets of a no-niche fixture.

(3) All metal fittings within or attached to the pool structure.

(4) Metal parts of electric equipment associated with the pool water circulating system, including pump motors.

(5) Metal parts of equipment associated with pool covers, including electric motors.

(6) Metal-sheathed cables and raceways, metal piping, and all fixed metal parts that are within 5 feet (1.52 m) horizontally of the inside walls of the pool, and within 12 feet (3.66 m) above the maximum water level of the pool, or any observation stands, towers, or platforms, or from any diving structures, and that are not separated from the pool by a permanent barrier.

Exception No. 1: The usual steel tie wires shall be considered suitable for bonding the reinforcing steel together, and welding or special clamping shall not be required. These tie wires shall be made tight.

Exception No. 2: Isolated parts that are not over 4 inches (102 mm) in any dimension and do not penetrate into the pool structure more than 1 inch (25.4 mm) shall not require bonding.

Exception No. 3: Structural reinforcing steel or the walls of bolted or welded metal pool structures shall be permitted as a common bonding grid for nonelectrical parts where connections can be made in accordance with Section 250-113. . . • :

(b) Common Bonding Grid. These parts shall be connected to a common bonding grid with a solid, copper conductor, insulated, covered, or bare, not smaller than No. 8. Connection shall be made by pressure connectors or clamps of stainless steel, brass, copper, or copper alloy. The common bonding grid shall be permitted to be any of the following:

(1) The structural reinforcing steel of a concrete pool where the reinforcing rods are bonded together by the usual steel tie wires or the equivalent; or

(2) The wall of a bolted or welded metal pool; or

(3) A solid, copper conductor, insulated, covered, or bare, not smaller than No. 8.

(c) Pool Water Heaters. For pool water heaters rated at more than 50 amperes that have specific instructions regarding bonding and grounding, only those parts designated to be bonded shall be bonded, and only those parts designated to be grounded shall be grounded.

Model Energy Code 1995 Edition

504.5 Swimming pools.

504.5.1. All pool heaters shall be equipped with an ON-OFF switch mounted for easy access to allow shutting off the operation of the heater without adjusting the thermostat setting and to allow restarting without relighting the pilot light.

504.5.2 Pool covers. Heated swimming pools shall be equipped with a pool cover.

> **Exception:** Outdoor pools deriving over 20 percent of the energy for heating from renewable sources (computed over an operating season) are exempt from this requirement.

504.5.3 Time clocks. Time clocks shall be installed so that the pump can be set to run in the off-peak electric demand period and can be set for the minimum time necessary to maintain the water in a clear and sanitary condition in keeping with applicable health standards

Substitute House Bill No. 5070

Public Act No. 99-140 An Act Concerning Alarms for New swimming Pools.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

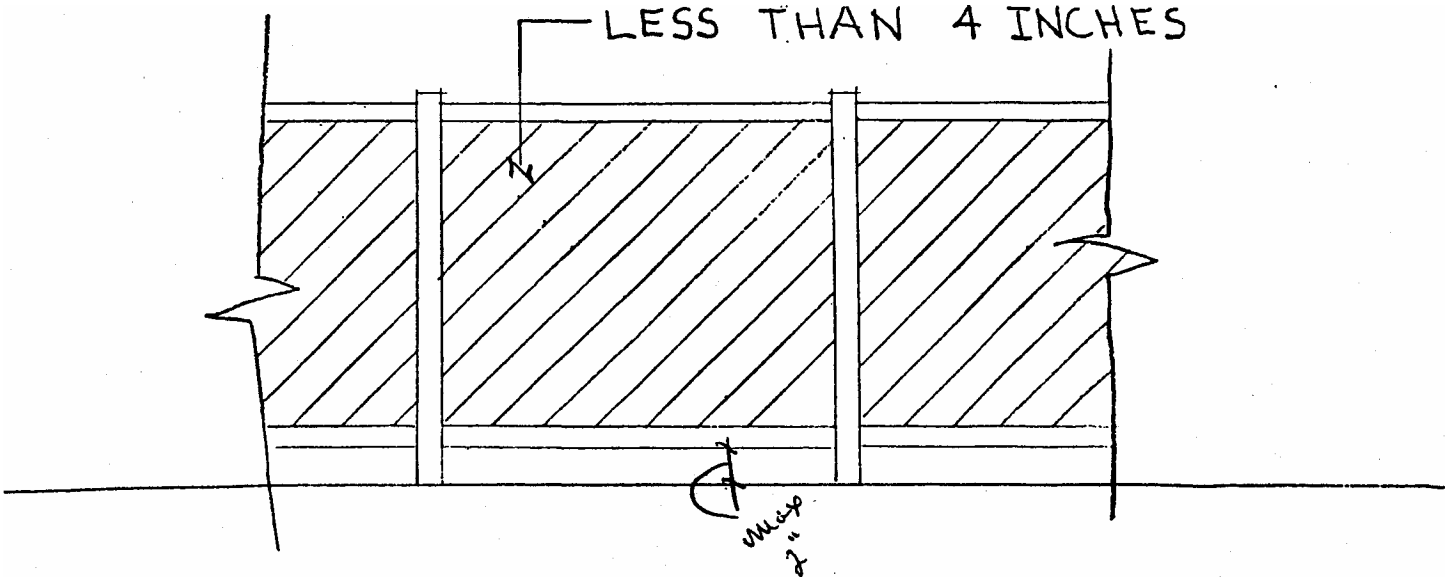
(NEW) (a) As used in this section, "pool alarm" means a device which emits a sound of at least fifty decibels when a person or an object weighing fifteen pounds or more enters the water in a swimming pool.

(b) No building permit shall be issued for the construction or substantial alteration of a swimming pool at a residence occupied by, or being built for, one or more families unless a pool alarm is installed with the swimming pool.

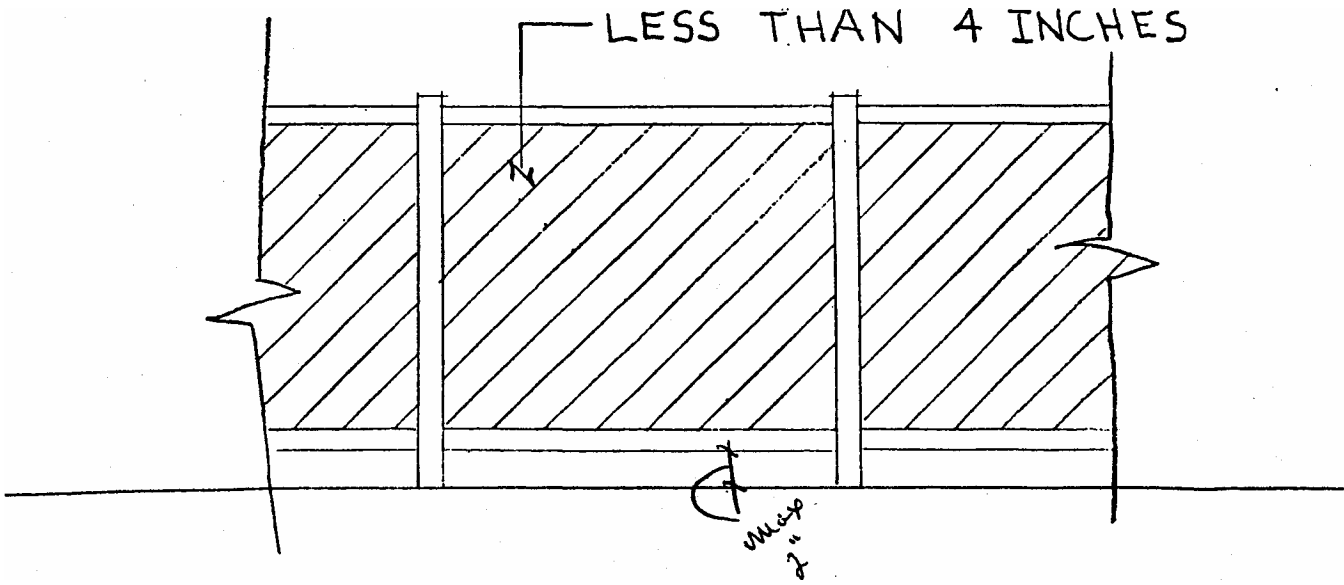
INSIDE POOL AREA ONLY

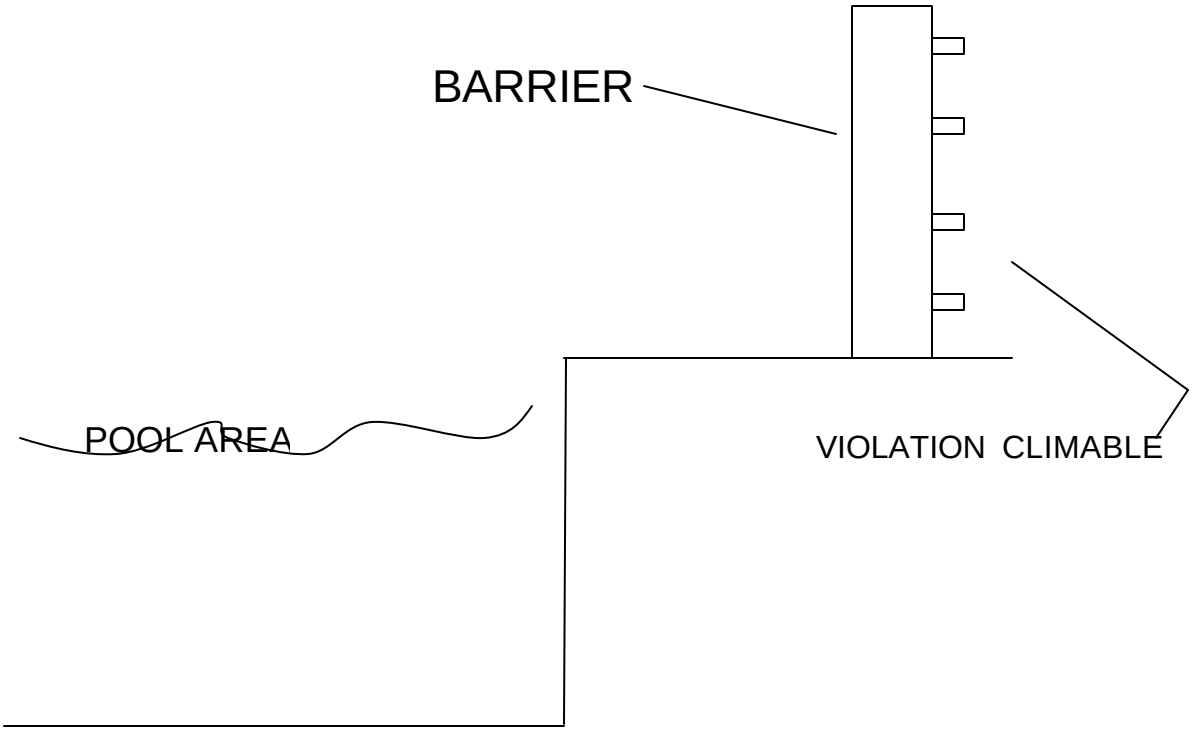
SECTION AG105.2, ITEM 1 & 2

ELEVATION



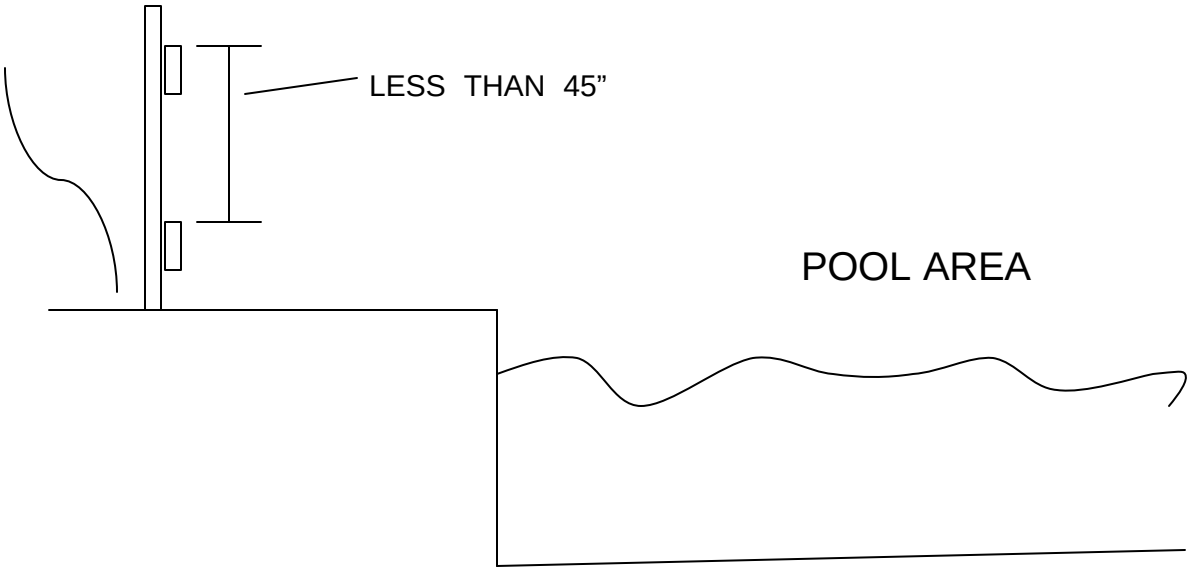
SECTION AG105.2 ITEM 1&2





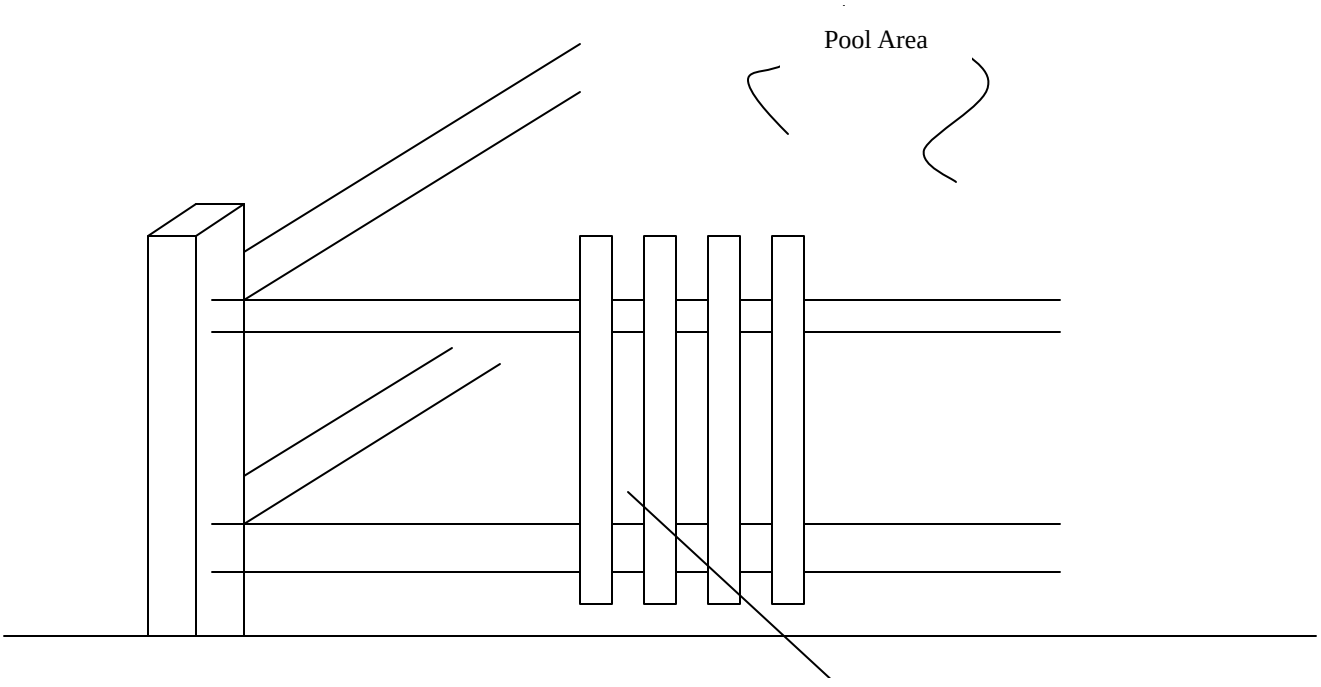
SECTION AG105.2, ITEM 3

CROSS SECTION

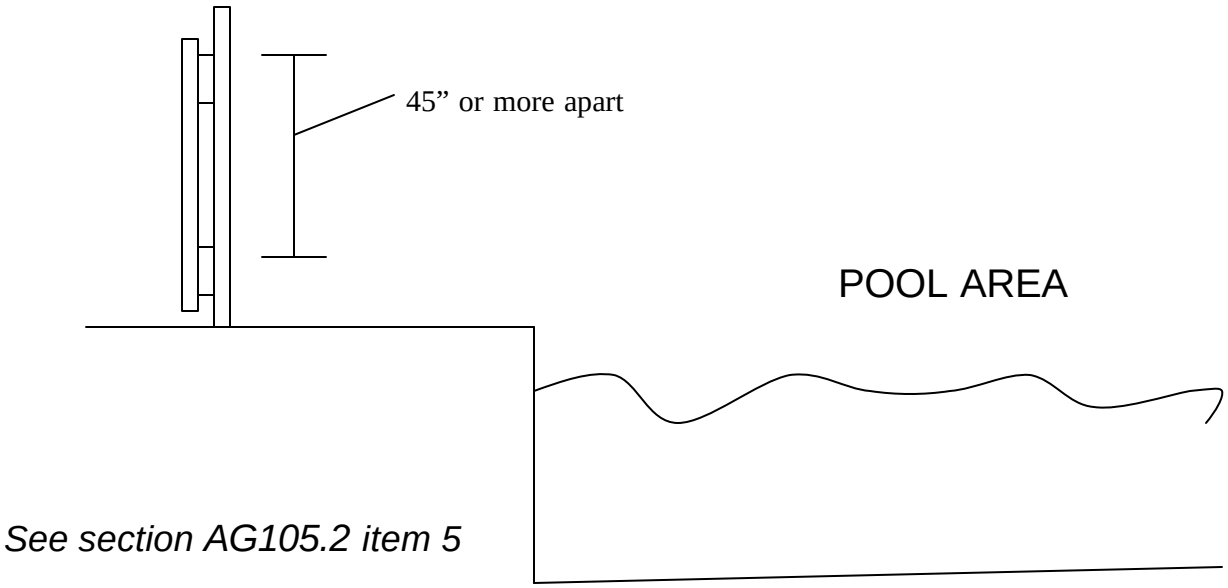


SECTION AG105.2 ITEM 4

SECTION AG105.2 ITEM 4



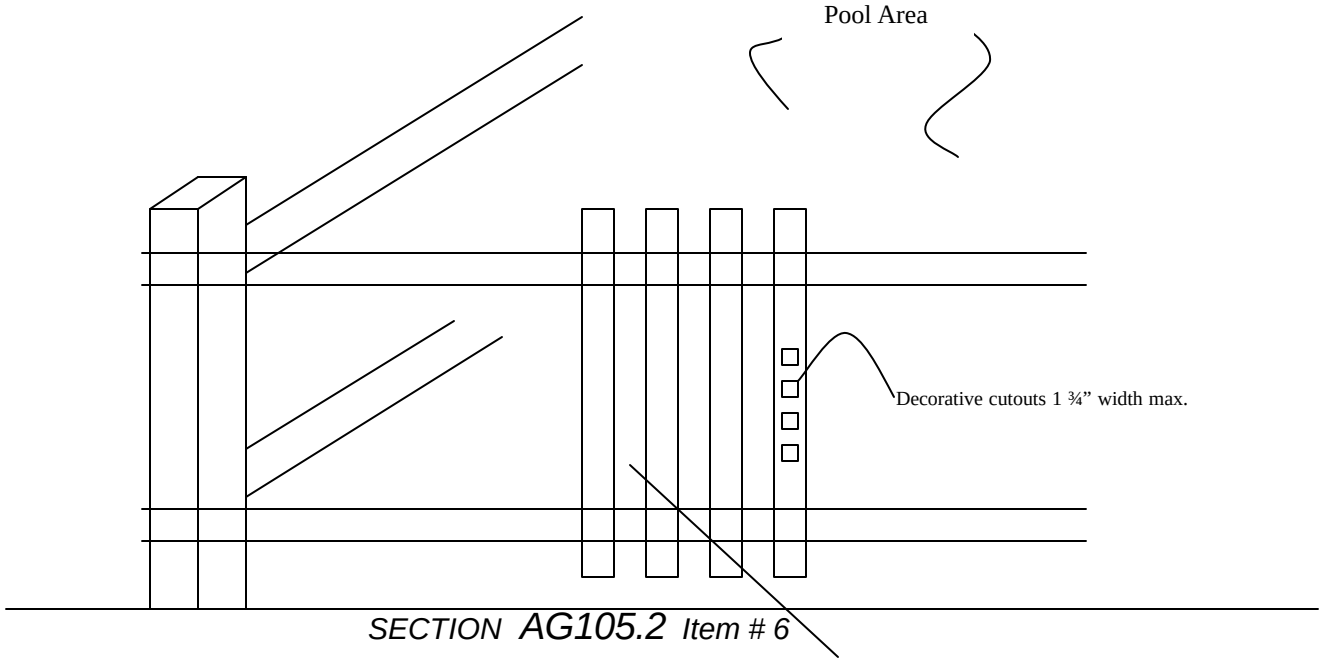
If horizontal members are less then 45” apart the max. spacing is 1 ¾” – per sect.AG105.2 , item 4



See section AG105.2 item 5

Cross section

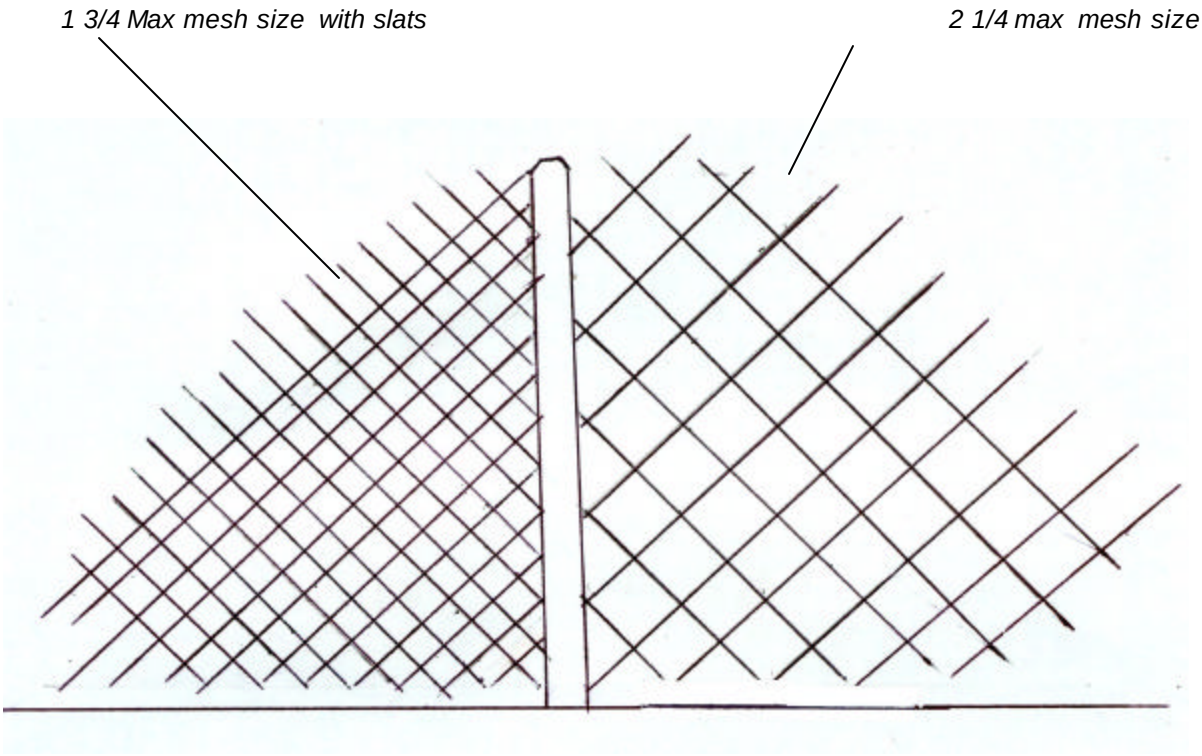
See section *AG105.2* item 5



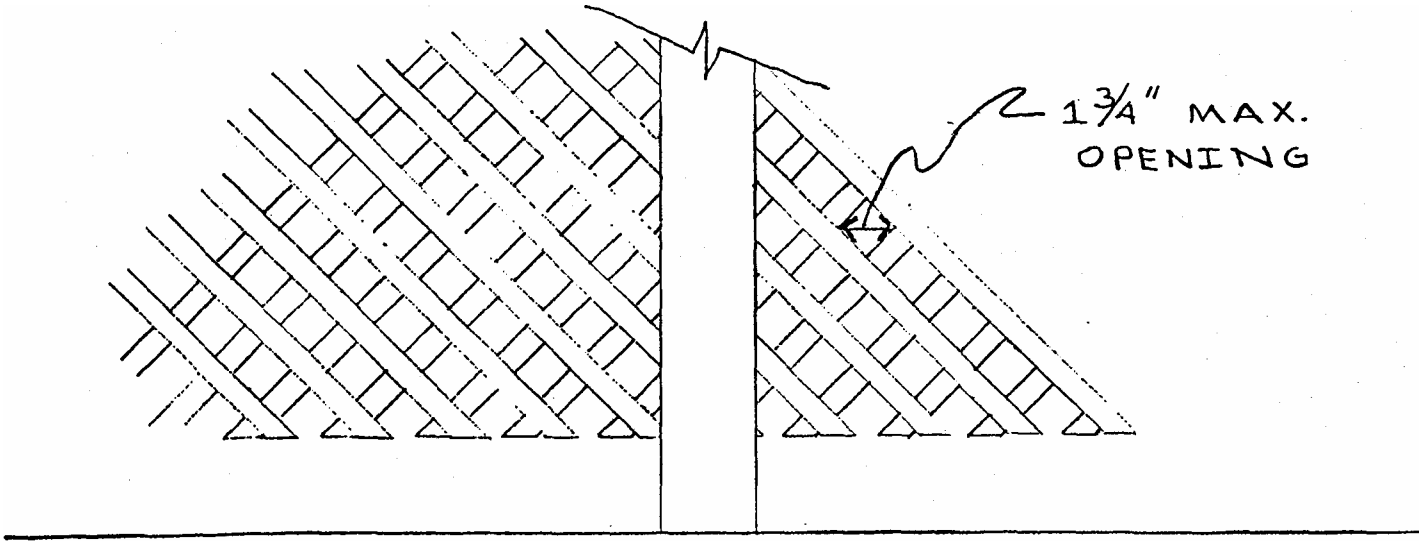
SECTION AG105.2 Item # 6

If horizontal members are greater then 45” apart the max. spacing is less than 4” per sect. AG105.2, item 5

CHAIN LINK FENCE

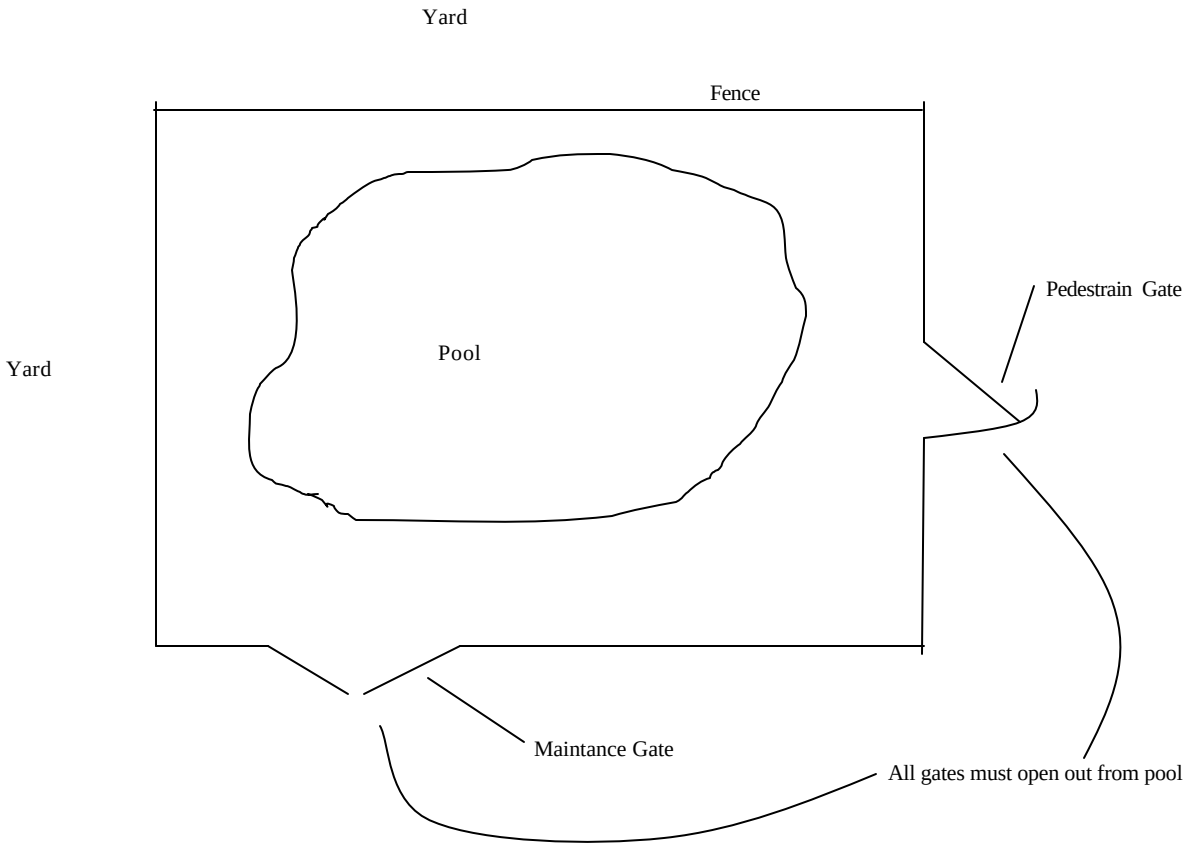


LATTICE FENCE



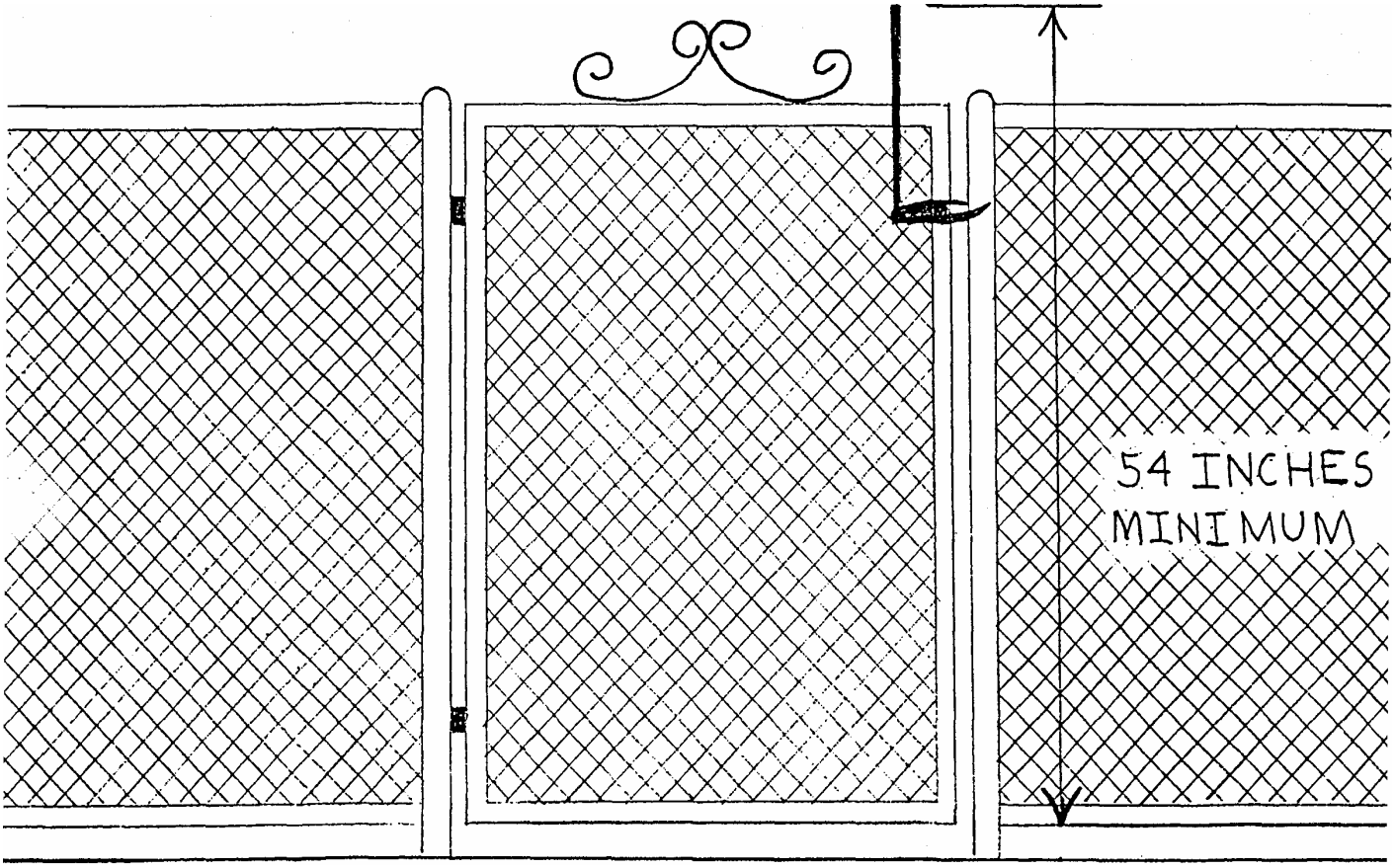
SECTION *AG105.2* Item # 7

Pool/Fence Site Plan



Section AG 105.2 Item# 8

ACCESS GATE OR PEDESTRIAN ACCESS GATE



INSIDE OR OUTSIDE POOL AREA

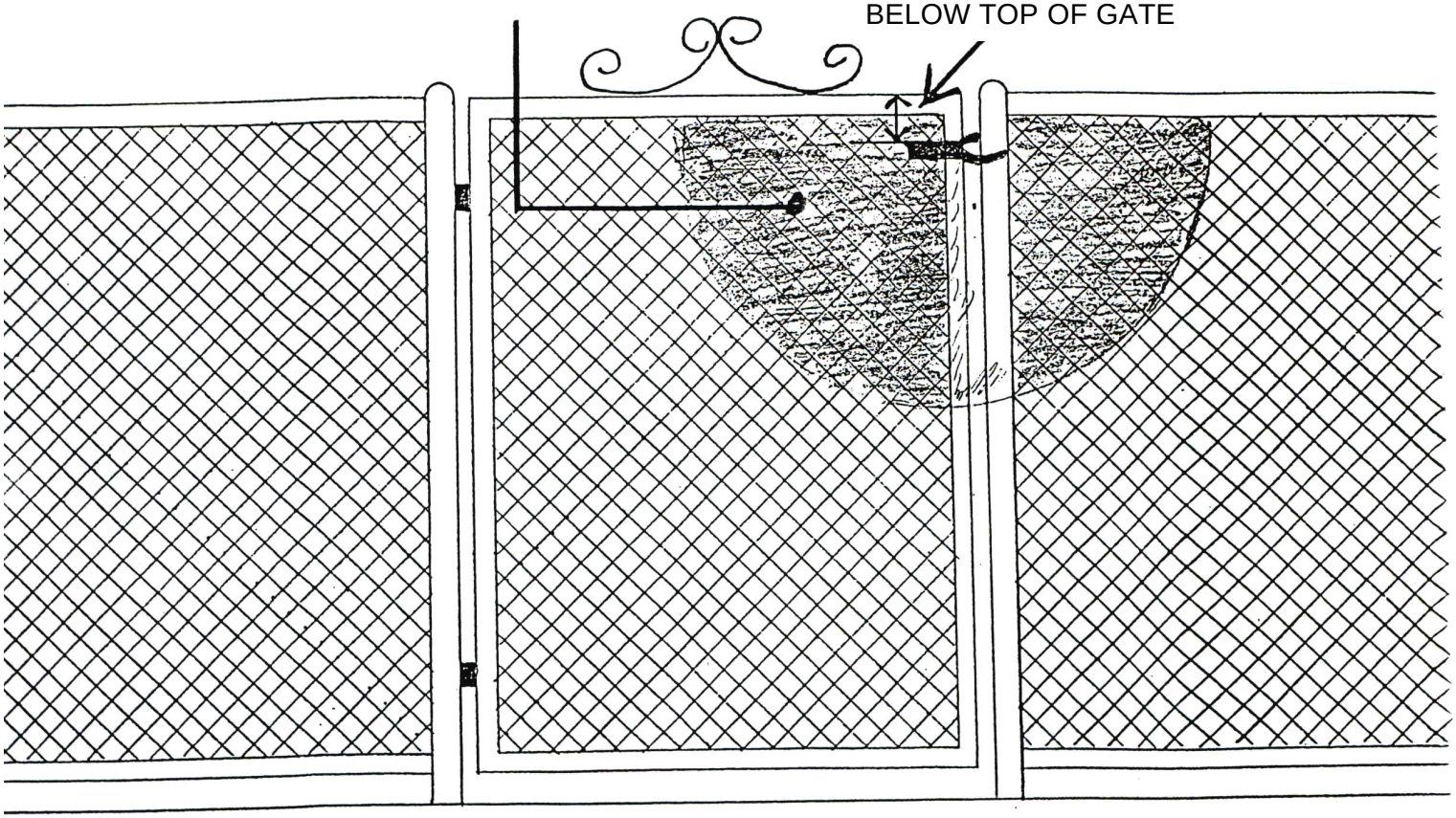
SECTION AG105.2 ITEM #8

ELEVATION

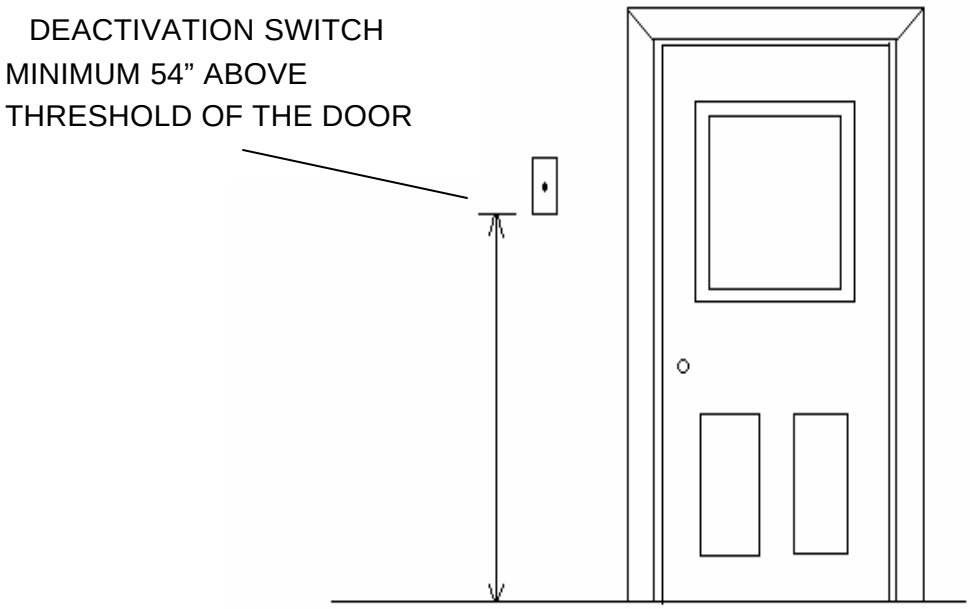
ACCESS GATE OR PEDESTRIAN ACCESS GATE:

½” MAXIMUM OPENING WITHIN 18” OF THE RELEASE MECHANISM

LATCH LOCATED 3” MINIMUM BELOW TOP OF GATE



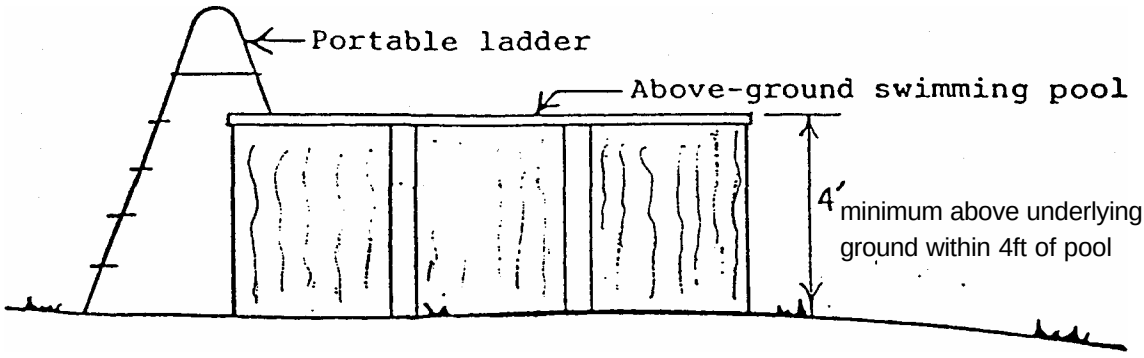
SECTION AG105.2 ITEMS # 9.2



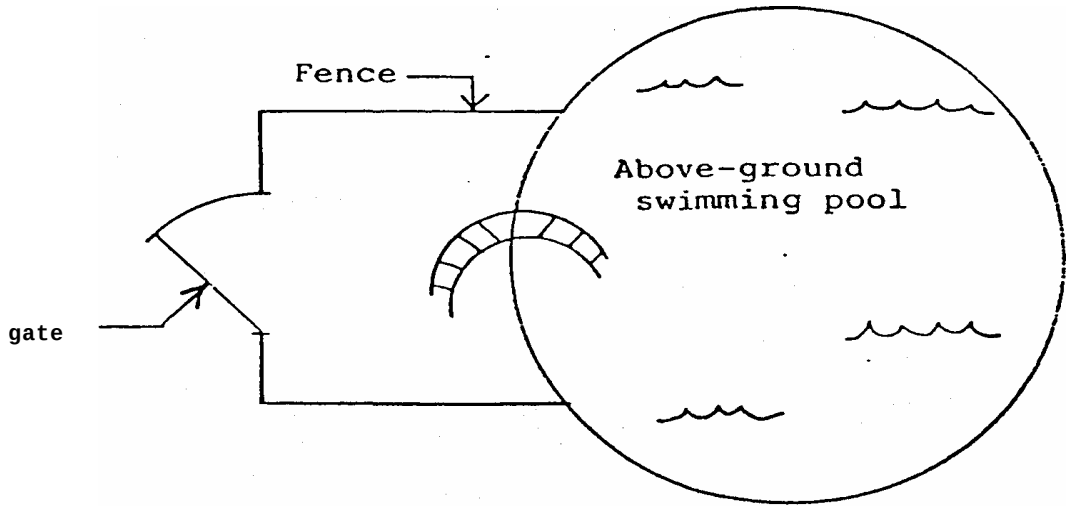
ELEVATION

SECTION AG105.2 ITEM# 10 & Items 1 through 9

Removable ladder not permitted

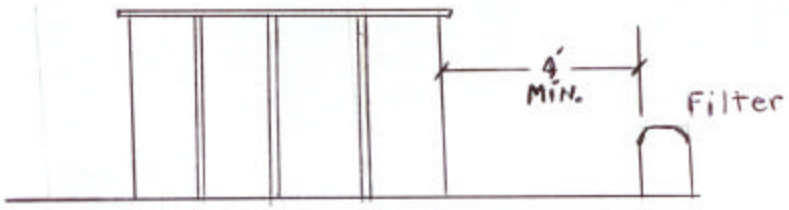


ELEVATION



SITE PLAN

ABOVE GROUND
SWIMING POOL



SECTION
AG105.4 PROHIBITED
LOCATION