



**BRIAN TAYLOR**  
STATE FIRE MARSHAL

February 14, 2025

Mr. Michael Rettie  
Orange County Inspections Division  
131 West Margaret Lane  
Hillsborough, NC 27278

**RE: 2018 NCRC AV105 Barrier Requirements**

Mr. Rettie:

This letter is in response to your request for a formal interpretation from the Office of State Fire Marshal ("OSFM") dated 3/7/24 and received by OSFM the same day. This delayed formal response letter serves to complete the documentation you requested. Thank you for your patience in waiting for this formal interpretation response while our office handled other commitments over the last several months, including disaster recovery efforts in WNC. Requests are addressed below in the order in which they are posed on the next page.



**OFFICE OF STATE FIRE MARSHAL**



Stated in relevant parts:



PLANNING *and* INSPECTIONS

Cy Stober, AICP, Director | cstober@orangecountync.gov | 131 W. Margaret Lane, Hillsborough, NC 27278 | 919.245.2575

**To:** David Rittlinger, Code Interpretations Supervisor and Chief Code Consultant  
Office of State Fire Marshal, Codes  
1202 Mail Service Center  
Raleigh, NC 27699-1201

**From:** Michael Rettie  
Chief Building Official  
Orange County Inspections Division  
131 West Margaret Lane  
Hillsborough, NC 27278

**Re:** **Request Formal Interpretation:**  
Regarding Appendix V section AV105.2 of the 2018 NC Residential Code, specifically whether swimming pool barrier requirements include the acceptance of removable mesh fencing installed with an added "Perma-Lock" device intended to hold the mesh panels together, as a code compliant [permanent] inground residential swimming pool barrier?

Mr. Rittlinger,  
Orange County requests a formal interpretation from NC Department of Insurance, Office of State Fire Marshal based upon the following Code provisions and reasons:

Section AV105.1 **Application**, establishes the intent of this chapter is to control the design of barriers and identify the intent to protect against potential drownings by restricting access to the pool.

Section AV105.2 addresses the prescriptive Residential Code provisions for this required protective barrier. The first 7 items address dimensions and element specifications for various configurations and styles of barriers. Item 8 addresses access points through gate requirements and item 9 deals with access protections when the pool area is accessed directly from the dwelling.

2018 NC Administrative and Policy Code section 105.1 **Alternative material, design or methods**, provides the path for acceptance of innovative or different options for compliance "... where the code enforcement official finds that the proposed alternative material, design or method of construction complies with the intent and provisions of the technical codes."

The attached email correspondence involving Curtis McLaughlin and pool contractor Ricardo Valea, seems to suggest Mr. McLaughlin has a familiarity with this barrier material and a device (Perma-Lock) that can be installed for which Mr. McLaughlin appears to claim makes the barrier "permanent".



Orange County had reviewed the product information provided through the GLI pool products website <http://www.glipoolproducts.com/Safety-Fence/>. Significant concerns are raised that are not satisfied for a permanent barrier installation by simply installing the "Perma-Lock" device to the fence posts of this system. Please note that the "Perma-Lock" device is proprietary to mesh fence systems developed by Life saver's Pool Fence DIY System.

In reading the warranty information regarding this barrier product the Company only references the "Inground removable safety fence" and warrants for five years against manufacture defects.

The product manuals nor literature referenced, from GLI pool products addressed modifications to create a "permanent" installed barrier system.

Mr. McLaughlin's statement to the Pool Contractor, ambiguously stated that "builders" have used the "Perma-Lock" to make the barrier "permanent" citing that "special tool" must be used to remove (a screwdriver and wrench are needed). No supporting evidence is provided to support how this device converts the installation of this "removable fence" into a "permanent" barrier. What criteria was used by the Jurisdiction(s) to specifically approve this assembly as such was absent.

These panel systems relies upon tension to hold in the sleeves through the concrete as the means of support from withdrawal and overturning. The fence posts are composite aluminum with 1/2" steel rods that fit into the 5/8" plastic sleeves in the concrete. This method of support does not appear equivalent to the Code prescriptive barrier requirements.

The mesh is potentially subject to degradation and failure before the life of the pool itself, requiring replacement. Such product has greater risk for damage from sharp objects and abuse than prescriptive barrier materials. The longevity of this material to withstand the elements of year-round exposure and availability of verifiable criteria for the Code Enforcement Official to evaluate this product as alternative material, per section 105.1 NC AC is insufficient.

Orange County is not in support of acceptance of this product as an alternative to the prescriptive materials provided, given the continued ease of disassembly (required as warranty condition) and lack of verifiable compliance with industry standards supporting equivalency of protects to the provisions of Appendix V of the 2018 NC Residential Code.

Since Mr. McLaughlin appears to recognize this as an equivalent and safe alternative to the prescriptive permanent swimming pool barrier, Orange County is requesting NC DOI document a formal interpretation for this assembly.

Thank you for your attention to this request.

  
Michael Rettie  
Chief Building Official,  
Orange County Inspections Division.

#### Remarks:

Attachment A is comprised of the request for formal interpretation as well as all supporting information submitted with the request, including the proposed pool barrier product information. Code sections noted in this letter are referring to the 2018 edition of the NC Residential Code (NCRC) unless otherwise noted.

#### Code Analysis:

2018 NCRC Section AV102 Definitions states in part:

**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.

....

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



2018 NCRC Section AV105.1 Application states in part:

**AV105.1 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.

*Comments: The installation of barriers around swimming pools, spas and hot tubs is intended to restrict access and provide protection against potential drownings and near drownings. This includes in-ground, above-ground and on-ground swimming pools, hot tubs and spas.*

2018 NCRC Section AV105.2 Outdoor swimming pool states in part:

**AV105.2 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) or 4 inches (102 mm) where concrete or fixed solid material is used 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 that 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 that 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 AV105.2, 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 (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. Doors with direct access to the pool through that wall shall be equipped with an alarm that produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed and labeled in accordance with UL 2017. 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 as 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 that meets the requirements of Section AV105.2, 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.

*Comments: The section notes that barriers are required. The ten sets of criteria in the section list various dimensional heights, spacings, openings and widths for the various materials used to construct barriers.*



**Conclusions:**

1. The Installation Instructions of the product note throughout the documents that the safety fence is “removable”. The provisions within Section AV105 are for a permanent pool barrier so this product does not meet the prescriptive requirements of the code for use as a pool barrier within the 2018 NCRC.
2. The gate latching and mesh fence segment attachment method with hooks and eyes noted in the Installation Instructions does not meet the access gate requirements included in Section AV105.2 #8, so this product does not meet the prescriptive requirements of the code for use as a pool barrier within the 2018 NCRC.
3. Page 16 of the Installation Instructions notes that the product is designed to meet ANSI/NSPI 1996 Model Barrier Code for Residential Swimming Pools, Spas, And Hot Tubs. This standard is not recognized within the 2018 NCRC and is not considered part of the code as an applicable reference within Sections AV108.1 and R102.4, so this product does not meet the prescriptive requirements of the code for use as a pool barrier within the 2018 NCRC.

Sincerely,

David Rittlinger, PE, LEED AP  
Division Chief – Codes & Interpretations  
North Carolina Office of State Fire Marshal

cc: Nathan Childs, NCDOJ, counsel for NC Building Code Council, [nchilds@ncdoj.gov](mailto:nchilds@ncdoj.gov)  
Nicki Shaffer, NCDOJ, counsel for NC Residential Code Council, [wshaffer@ncdoj.gov](mailto:wshaffer@ncdoj.gov)  
Pak Yip, NCOSFM, Chief Code Consultant, [pak.yip@ncdoj.gov](mailto:pak.yip@ncdoj.gov)



**ATTACHMENT A**

(see attached pdf)





**APPENDIX E  
 APPEALS  
 NORTH CAROLINA  
 BUILDING CODE COUNCIL  
 1429 Rock Quarry Road, Suite 105  
 Raleigh, North Carolina 27610  
 (919) 647-0008  
 david.rittlinger@ncdoi.gov**

APPEAL TO NCDOI/NCBCC Hearing Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

GS 153A-374, GS 160A-434  
 Formal Interpretation by NCDOI  X   
 Appeal of Local Decision to NCDOI \_\_\_\_\_

GS 143-140, GS 143-141  
 Appeal of Local Decision to NCBCC \_\_\_\_\_  
 Appeal of NCDOI Decision to NCBCC \_\_\_\_\_

**APPELLANT**  Michael Rettie  **PHONE (**  919  **)**  245  -  2604  **x** \_\_\_\_\_  
**REPRESENTING**  ORANGE COUNTY INSPECTIONS DIVISION   
**ADDRESS**  131 WEST MARGARET LANE   
**CITY**  HILLSBOROUGH  **STATE**  NC  **ZIP**  27278   
**E-MAIL**  mrettie@orangecountync.gov  **FAX (** \_\_\_\_\_ **)** \_\_\_\_\_ - \_\_\_\_\_

North Carolina State Building Code, Volume  Residential  - Section  Appendix V section AV105.2

REQUEST ONE:  Formal Interpretation by NCDOI  Appeal of Local Decision to NCBCC  
 Appeal of Local Decision to NCDOI  Appeal of NCDOI Decision to NCBCC

Type or print. Include all background information as required by the referenced General Statutes and the attached policies. Attach additional supporting information.

See attached formal interpretation request and supporting information

REASON:

It is the position of Orange County Inspections Division that a removable mesh pool barrier assembly with the accessory "Perma-Lock" device installed, does not satisfy the minimum requirements of the 2018 NC Residential Code Appendix V section AV105.2 or section 105.1 of the 2018 NC Administrative and Policy Code.

Signature  Michael Rettie

APPEAL TO NCDOI/NCBCC  
 DATE:  03 /07/ 2024  FORM  3/14/17



## PROTECT-A-POOL® INGROUND REMOVABLE SAFETY FENCE INSTALLATION INSTRUCTIONS



GLI POOL PRODUCTS • 215 SINTER COURT • YOUNGSTOWN, OH 44510  
WWW.GLIPOOLPRODUCTS.COM • PH. 800-448-2343



## INSTALLATION TOOLS

The following tools are required for installation.

- Chalk
- Pencil
- Utility Knife
- Tape Measure
- Template (included)
- Power Drill
- Rope - (need enough to outline the fence layout)
- Scissors
- Power Screw Driver
- Rotary Drill or Hammer Drill\*
- 1/4' bit - (to be used as a pilot bit if you are using a Hammer Drill)
- 5/8' bit
- All purpose glue or PVC Cement
- Concrete Epoxy
- Compressed Air (to clean the holes of debris)

\*If using a Rotary Drill, then you will only need a 5/8" diamond bit.

## PLEASE NOTE:

If your patio was built with rebar or any other substance that may damage a normal drill bit, it is recommended that you use a Rotary Drill with a 5/8" Diamond Bit to drill the holes.

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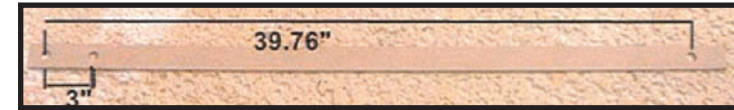
## WARNING

THERE IS NO SUBSTITUTE FOR COMPETENT ADULT SUPERVISION IN THE SWIMMING POOL ENVIRONMENT! LIVES DEPEND ON YOU!

- ❑ **ALWAYS** KEEP THE GATE CLOSED AND FENCE PANELS FASTENED.
- ❑ IT IS **ALWAYS** RECOMMENDED TO WATCH CHILDREN AT ALL TIMES.
- ❑ THE USE OF THIS FENCE CAN HELP REDUCE THE UNAUTHORIZED USE OF A SWIMMING POOL, BUT **DOES NOT** GUARANTEE AGAINST ACCESS TO THE POOL AND IS **NOT** A SUBSTITUTE FOR ADULT SUPERVISION.

## FENCE COMPONENTS

### TEMPLATE



### SECTION OF FENCE



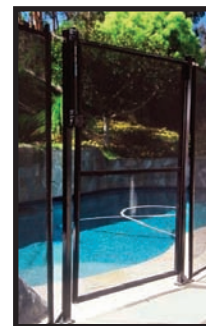
### (2) LATCHES



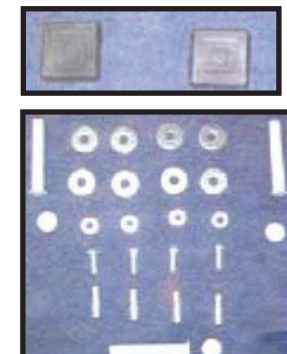
### (4) SLEEVES



### GATE (OPTIONAL)

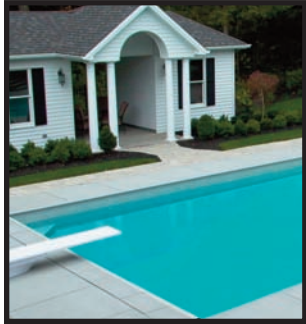


### GATE HARDWARE



**PLEASE READ THROUGH THE ENTIRE INSTRUCTION MANUAL BEFORE YOU BEGIN THE INSTALLATION.**

**GETTING STARTED**

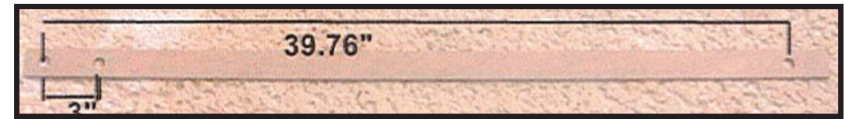


**1. Determine the location of your fence.**

Keep in mind that the fence **MUST** follow these guidelines:

- The fence must isolate the pool from every exit of the house.
- The pool must be encompassed on all sides by the fence and/or other permanent barriers (i.e, house, retaining walls, landscaping boulders, etc.)
- If the fence does not entirely surround the pool, it must be securely fastened to a strong and solid structure. That structure should be impassible to children.
- The fence should not be located near any structure that children could climb to gain access to the pool (unless the structure is inside of the fence)
- The fence should be located far enough away from the pool to allow for regular maintenance.

2. Determine the starting point of the fence along your proposed fence line.
3. Mark the holes for drilling using the template provided with the safety fence, or use a tape measure to mark holes for fence posts.



**Note:** When installing a curved run, the holes will need to be marked up to 1/4" closer or farther apart to compensate for slack in the fence.

**MARKING THE HOLES**



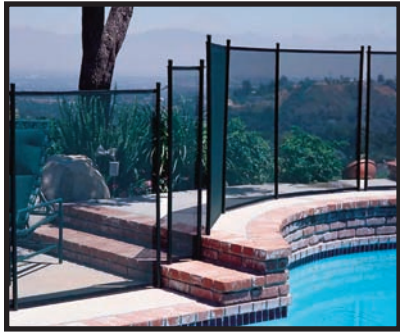
The following method is recommended in order to mark your fence layout as well as the holes that will need to be drilled.

- A. Take a rope and place it around the pool in the desired layout of the fence.
- B. Use the template and a tape measure to determine exactly where the holes will need to be drilled.



- C. Place the anchor caps or use chalk to mark where the holes will be drilled.
- D. Repeat this process until the entire fence layout and hole locations are marked in order to ensure the best setup of your fence.

## PLANNING THE GATE

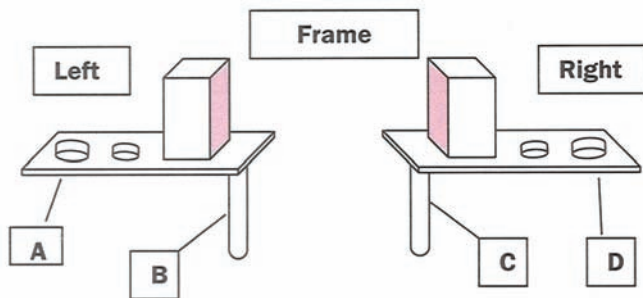


If you intend on installing the gate, you must consider the following measurements. This is due to the fact that a gate installation will alter the location of the fence holes where the gate is located.

**Note:** Detailed installation instructions for the gate can be found in steps 8 and 14 of this manual.

### Measurements to consider when including a gate:

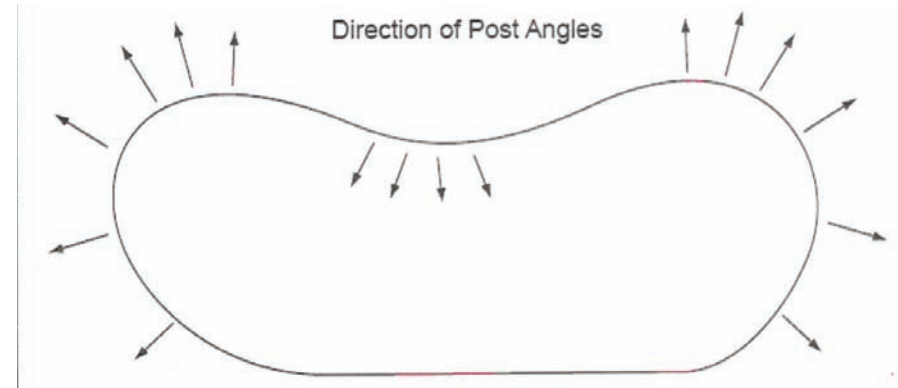
- A. Mark first hole for left gate post (point B) 5-1/2" from last hole of fence (point A) along same line as fence.
- B. Mark next hold for right gate post (point C) 36" from left gate post (point B).
- C. Mark second hole (point D) 5-1/2" from right gate post hole (point C). Hole (point D) will also contain fence pole of connecting fence section.
- D. When drilling holes A and D for fence, drill plum and level with deck.
- E. Drill holes for left and right gate posts (B and C) angling towards each other 4 degrees.



## 4. Drill holes for the fence posts.

It is recommended to drill a pilot hole with a 1/4" bit first, then finish the hole with a 5/8" bit.

**Note:** The posts **must** be installed at the correct angle to be fully functional.



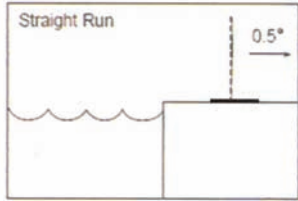
**Note:** It is recommended that you use a tape measure and the template to verify the location of the holes before you begin drilling.

*Post Angle diagrams and descriptions are detailed on the next page...*

## POST ANGLES

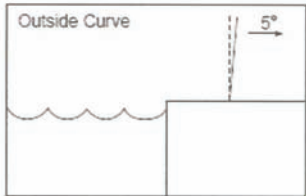
STEP 4 CONTINUED...

### Straight Runs



Posts for straight runs of fence should be angled at 1/2 degree with the top angled away from the pool.

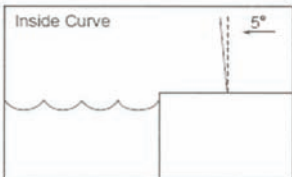
### Outside Curves



Posts on an outside curve of fence should be angled at 3-5 degrees with the top angled away from the pool.

**Note:** Holes must be marked closer together in this situation to compensate for the fabric wrapping around the post.

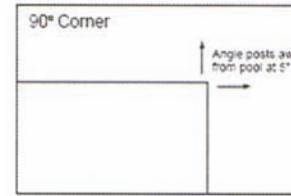
### Inside Curves



Posts for an inside curve of fence should be angled at 3-5 with the top angled toward the pool.

**Note:** It is recommended that you use a tape measure and the template to verify the location of the holes before you begin drilling.

## 90 Degree Corners



**90 degree corners** should use two panels for maximum strength and stability.

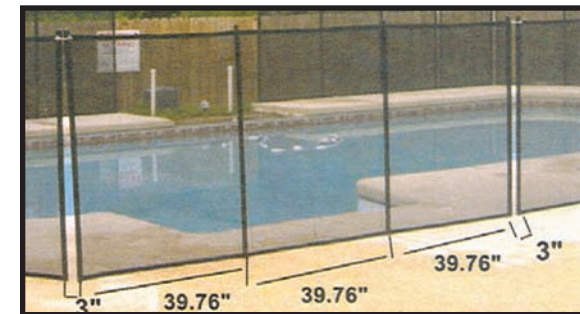
This can be done by placing two panels at a right angle and angling the posts away from each other at 5 degrees.

Make any adjustments **before** drilling holes.

5. **Clean any debris out of the drilled post holes; then install the plastic post sleeves and the first panel.**

**Note:** *DO NOT HAMMER THE SLEEVES.* If they do not install easily, try drilling the hole again.

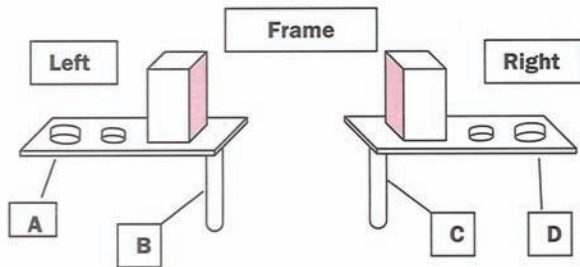
6. **Use the two closest holes on the template to mark the distance between the next panels, allowing three inches on center.**



7. Repeat steps 3 through 6 up to the location where the gate is to be installed.

8. Drill the holes for the gate.

- A. The gate is installed between two sections of fence.
- B. Gate needs to be installed along a straight run of fencing (not around a curve)
- C. The gate has been notched by the hinges and can be hung from left or right side, simply by rotating the gate 180 degrees.
- D. Gate should be hung so material is on the outside of gate, and gate always swings out.
- E. Gate posts are installed per below illustration



- F. First hole for left gate post is the same as last hole for fence pole ( point A)
- G. Mark first hole for left gate post (point B) 5-1/2" from last hole of fence (point A) along same line as fence.
- H. Mark next hole for right gate post (point C) 36" from left gate post (point B)
- I. Mark second hole (point D) 5-1/2" from right gate post hole (point C). Hole (point D) will also contain fence pole of connecting fence section.
- J. When drilling holes A and D for fence, drill plum and level with deck.

K. Drill holes for left and right gate posts (B and C) angling towards each other 4 degrees.



L. Continuing installing fence, attach fence to sides of gateposts with hook and eyes supplied



9. Repeat steps 3 through 6 until all holes are drilled and all panels are installed.



**10. In the event that custom panel sizes are needed, use the following process.**

*(It is recommended to locate custom panels at the back of the pool, away from the gates or access points).*

- a. Find the desired width.
- b. Cut the fabric of a standard panel to be at least 4” wider than the desired width.
- c. Find an unused post and detach the trim using a screw driver with a 1/4” hex head bit.
- d. Mark the desired width with chalk.
- e. Fold the fabric back leaving it 1/2” longer than marked and fasten it back to the post along the chalk line.

**Note:** *Make sure that the fabric is between the trim and the post.*

- f. Once the proper width is achieved, trim off the excess material from the post and melt any frayed edges.



**11. After all the hole have been drilled and all panels have been installed, attach the safety hooks and eyes.**

- a. First, remove the top screw with a screwdriver and 1/4” hex head bit.
- b. Then screw the hook in one hole and the eye in the corresponding hole on the adjacent panel.

*The screwdriver can be slipped through the eye and turned for additional leverage during installation .*



**Note:** *Be sure not to over tighten because eyes will break under too much torque.*

**Note:** *When the panel attaches to a structure it may be necessary to install two hooks on the panel and an eye on the structure.*

**12. Install post caps using an all purpose glue or PVC cement.**

- a. Place a few drops of glue on the inside of the caps and slide the cap into place on the post.
- b. When in place twist the caps half a turn to ensure the glue is spread evenly.

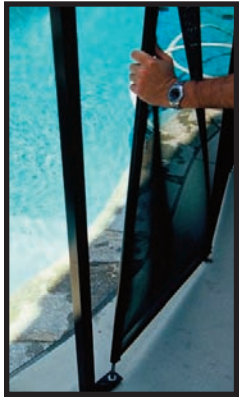
**13. When everything is assembled and the arrangement of the fence is acceptable, remove the panels and the sleeves.**

Use a concrete epoxy to secure the sleeves in the drilled holes.

**Note:** *Be sure not to get epoxy inside the sleeves and clean up any excess on the pool deck with acetone.*



**14. Complete the installation of the gate.**

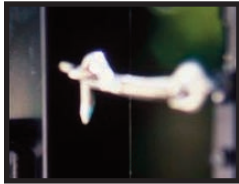


- A. Once fence panels have been installed and tension applied, hang gate by attaching hinges to frame with the self-tapping screws supplied.



**Note:** Hinges should be attached with tension adjustment facing up and the ridge flat against gate frame.

- B. Attach frame to posts. Frame should be hung level with top of fence.



- C. Attach latch and strike to frame. Follow directions on latch packaging. For 4' fence, top of latch should be 54" from the ground. For 5' fence top of latch should be 60" from ground.

- D. Adjust tension on gate by turning eye closer or further away from fence.
- E. Large washers are supplied to shim the gate if necessary. Shims are installed underneath the gate flange and through stainless steel rods.
- F. Use center hole to bolt gate into position (recommended for safety). To do this, drill 1/2" hole and tap anchor into place (hardware included), then slip (small) washer onto bolt and through gate flange. Turn until tight and the gate is level.

- G. Continue to adjust tension if necessary with shims.



**WARNING**

**THERE IS NO SUBSTITUTE FOR COMPETENT ADULT SUPERVISION IN THE SWIMMING POOL ENVIRONMENT! LIVES DEPEND ON YOU!**

- Always** keep the gate closed and fence panels fastened.
- It is **always** recommended to watch children at all times.
- The use of this safety fence can help reduce the unauthorized use of a swimming pool, but does not guarantee against access to the pool and is not a substitute for adult supervision.
- Check with local building codes to be sure you are in compliance with fencing laws.

The Protect-a-Pool® Inground Removable Safety Fence is designed to meet the ANSI/NSPI 1996 Model Barrier Code for Above ground/Inground swimming pools. The Protect-a-Pool® fence is not designed as a handrail for decking and does not meet handrail codes.

# INGROUND REMOVABLE SAFETY FENCE

## FIVE-YEAR WARRANTY/ONE-YEAR FULL

1. The manufacturer warrants to the original purchaser of the Inground Removable Safety Fence that the Company, at its option will repair free of charge or replace any component which, to our satisfaction, proves defective either in workmanship or material, within the first (1) year of purchase. The prorated basis for fence replacement is as follows:
  - a. The customer shall pay the list price at the date of claim, less 1/60 of the price for each full month remaining in the warranty period. Freight charges for repairs or replacements are paid by the consumer.
2. Inground Removable Safety Fence that has been improperly installed, altered, abused, subject to accident or used improperly, is specifically excluded from this warranty.
3. Under no conditions will the Company be responsible for cost of freight or labor to replace fence or cost of labor or any damages resulting from faulty installation.
4. CUSTOMER HAS THE SOLE RESPONSIBILITY FOR PERIODICALLY INSPECTING PRODUCT AND REPORTING DEFECTS OR FAILURES.
5. MANUFACTURER DOES NOT WANT TO CREATE A FALSE SENSE OF SECURITY. INGROUND REMOVABLE SAFETY FENCING IS NOT INTENDED TO BE A SUBSTITUTE FOR PROPER ADULT SUPERVISION NOR IS IT A GUARANTEE AGAINST ACCESS TO THE POOL.

Although any warranties implied are limited to the five-year period after the date sold to the original purchaser, some states and/or provinces do not allow limitations on the length of time of an implied warranty. Therefore, the above may not apply in such states/provinces. Any claimant under this warranty has specific legal rights and the provisions in the warranty are neither a modification nor subtraction, but rather, an addition to the statutory warranties and other rights and remedies contained in the applicable state or provincial legislation.

The Manufacturer will not be liable for any incidental or consequential damages resulting from any defects in workmanship or material. Some states and or provinces do not allow the exclusion or limitation or incidental or consequential damages therefore the foregoing limitation or exclusion may not apply.

This warranty gives the original consumer purchaser specific legal right. The purchaser also has implied warranty rights. In the event of a problem with warranty service or performance, you may be able to go to small claims court, a state court or a federal district court.

For warranty, installation and product use information on your Inground Removable Safety Fence, please contact manufacturer at 1-800-448-2343.

### **WARNING!**

There is no substitute for competent  
adult supervision in the swimming  
pool environment!  
Lives depend on you!

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IF YOU WISH TO MAKE A CLAIM,  
CALL TOLL FREE 1-800-448-2343.

**REGISTER WARRANTY ONLINE AT  
WWW.GLIPOOLPRODUCTS.COM**  
*Please register within 10 days of purchase.*

# Perma-Lock

\$7.10

Shipping calculated at checkout.



QUANTITY

- 1 +

In stock, ready to ship

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Pay in 4 interest-free installments for orders over **\$50.00** with **shop** Pay

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## 2.5 in. - Makes a Pool Fence "Permanent" by Requiring a Tool to Unlock

For use with the Pool Fence DIY pool safety system from Life Saver, the Perma-Lock is custom machined, made of stainless steel components. This is the only latch that was designed specifically for mesh pool safety fencing. Each unit comes with one (1) latch and one (1) eyelet. It requires tools and two hands to operate, adding to the security of your child safety fence. This latch requires a screwdriver and a wrench to install, remove, and adjust, which can qualify your pool fence as a permanent barrier to meet local codes in some areas.

**From:** Ricardo Valdes <rvales@vandalgroup.com>  
**To:** Christopher Wiggins <cwiggins@orangecountync.gov>  
**Subject:** Re: [EXTERNAL] Pool Fence Disclosure

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**From:** Ricardo Valdes <rvales@vandalgroup.com>  
**Sent:** Monday, March 4, 2024, 10:21 PM  
**To:** Christopher Wiggins <cwiggins@orangecountync.gov>  
**Cc:** Curtis McLaughlin <curtis.mclaughlin@ncdot.gov>  
**Subject:** [EXTERNAL MAIL] Re: [EXTERNAL MAIL] CR24-0397 (0301, DOOSIGONS CREOSIGRAGS)

Hi Christopher,

I hope this message finds you well.

I wanted to inform you that in my recent communications with Curtis McLaughlin, Chief Residential Code Consultant for the NC Department of Insurance, it has been clarified that the 2018 residential code supports the proposed 52" mesh barrier, provided that we utilize a locking mechanism such as Perma-Lock between each section of the fence.

Please utilize this email as the submission of new material regarding the safety fence. I intend to utilize Perma-Lock hardware between fence sections to ensure further safety around the pool.

For your reference, you can find more information about Perma-Lock via the following link: <https://www.permaonly.com/products/perma-lock>

Following my signature block, you will find a thread between Curtis and myself confirming the submission of the fence proposal.

Best regards,  
Ricardo Valdes  
703.401.9587  
rvales@vandalgroup.com

On Mar 4, 2024, at 5:25 PM, McLaughlin, Curtis <curtis.mclaughlin@ncdot.gov> wrote:

Regards,

In the past, permaonlys has been one of the acceptable means to turn a removable safety fence into a permanent barrier. Again, the current code doesn't address the word "permanent" because it was assumed that others would know that it would be required to be permanent. The latch can be easily removed, so it will need a locking/latching that would not be easily removed.

Regards,

Curtis McLaughlin  
Chief Residential Code Consultant  
Engineering Division

N.C. Department of Insurance  
Office of State Fire Marshal  
1429 Rock Quarry Road, Suite 105  
Raleigh, NC 27610  
919.847.8071

Links:

2018 NC Codes: <https://codes.ncdoef.org/codes/north-carolina>  
Formal interpretation request: <https://www.ncdoef.gov/approval-and-formal-interpretation>

-----Original Message-----

**From:** Ricardo Valdes <rvales@vandalgroup.com>  
**Sent:** Monday, March 4, 2024, 5:17 PM  
**To:** McLaughlin, Curtis <curtis.mclaughlin@ncdot.gov>  
**Subject:** RE: [EXTERNAL] Pool Fence Disclosure

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Hello Curtis,

Based on this information, I can then assume that a 52" tall barrier using permaonly is acceptable per the Residential 2018 Code. So long as the gate opens away from the pool and the Magan Latch is appropriately installed.

Thank you.

Regards,

On Mar 4, 2024, at 5:14 PM, McLaughlin, Curtis <curtis.mclaughlin@ncdot.gov> wrote:

Regards,

It was a pleasure speaking with you today. The 2018 NCRC does not address the language for pool barriers as "permanent" because it was thought that people would assume automatically that the barrier would be permanent. The 2024 NCRC which will take effect in January 2025 has defined the barrier as being "permanent". The word "removable" in the manufacturer brochure indicates that the post barrier is not permanent. In the past, builders have used a permaonly to link the mesh fence barrier together, which requires a special tool to be used to unlock/remove the barrier rather than the latch that is easily removable.

I hope the information above is helpful. Please let me know if you have any questions.

Regards,

Curtis McLaughlin  
Chief Residential Code Consultant  
Engineering Division

N.C. Department of Insurance  
Office of State Fire Marshal  
1429 Rock Quarry Road, Suite 105  
Raleigh, NC 27610  
919.847.8071

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-----Original Message-----

**From:** Ricardo Valdes <rvales@vandalgroup.com>  
**Sent:** Monday, March 4, 2024, 5:14 PM  
**To:** McLaughlin, Curtis <curtis.mclaughlin@ncdot.gov>  
**Subject:** [EXTERNAL] Pool Fence Disclosure

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<Mail Attachment.es>

On Feb 29, 2024, at 8:25 PM, Christopher Wiggins <cwiggins@orangecountync.gov> wrote:

Good Evening,

We have had discussions in the office about this barrier and do not believe that this barrier meets the intent of the code. This barrier is advertised as being removable and does not guarantee that it will be installed and utilized for the life of the pool. The intent of the code is to protect against potential drawings and rear drawings by restricting access to the pool. When the proposed panels are removed there will be nothing in place to protect against the potential hazard of drowning. At your earliest convenience please submit a barrier that is in compliance with Appendix V of the 2018 Residential Code.

**From:** Ricardo Valdes <rvales@vandalgroup.com>  
**Sent:** Wednesday, February 28, 2024, 5:38 PM  
**To:** Christopher Wiggins <cwiggins@orangecountync.gov>  
**Subject:** [EXTERNAL MAIL] Re: CR24-0397 (0301, DOOSIGONS CREOSIGRAGS)

Hi Christopher,

The fence provided meets Residential pool code. This is a rigid structure mounted on concrete. I have used this fence across the state and it regularly approved. Using this fence requires it to be 52" high.

I am free if you want to give me a call and discuss more.

Thank you,  
Ricardo Valdes  
Vandal Pools  
Cell: 703.401.9587  
E-mail: [rvales@vandalgroup.com](mailto:rvales@vandalgroup.com)  
[www.vandalpools.com](http://www.vandalpools.com)

On Feb 28, 2024, at 5:35 PM, Christopher Wiggins <cwiggins@orangecountync.gov> wrote:

Good Afternoon,

This email is a request for additional information to assist with plans review regarding 0301 Doocons Creosigrag. A pool barrier that complies with the attached Appendix V of the 2018 Residential Code is needed. The submitted barrier opens do not appear to meet this standard and are removable. The intent of the code is to have a barrier that is permanent to protect against potential drawings and rear drawings by restricting access to the pool. The requested information can be directly emailed to me using this email address.

Best Regards,

Christopher Wiggins  
Residential Plans Examiner  
Planning & Inspections Department  
Office: (919) 245-2028  
Mobile: (919) 883-7944

<http://www.orangecountync.gov/22726>  
Orange County, North Carolina  
Public Works and Safety Information

[plans@orange001.usnc](mailto:plans@orange001.usnc)

Pursuant to North Carolina General Statute 132, correspondence sent and received from this account is a public record and may be disclosed to third parties.

<Appendix V Pool, Spa and Hot Tubs.pdf>