

## WETLAND DELINEATION REPORT

16

April 16, 2024

Project: 160 SW Ray Terrace, Columbia County (Parcel ID 04-4S-16-02759-000)

A wetland delineation was completed on April 5, 2024 on an approximately 6-acre parcel located at 160 SW Ray Terrace (Parcel ID 04-4S-16-02759-000) in Columbia County, Florida (Figures 1 and 2) to determine the presence and extent of wetlands within the parcel limits. According to the Columbia County Property Appraiser, the parcel is zoned as *RSF-2: Residential – Low* and mapped as flood zone *A: within the 100 Year Flood*. The parcel zoning and floodplain information from the Columbia County Property Appraiser are attached.

### Wetland Delineation

The wetland limits on the parcel were flagged consistent with Chapter 62-340 Florida Administrative Code. The determination resulted in approximately 2.5 acres of onsite uplands and 3.5 acres of onsite wetlands. Results of the wetland delineation are depicted in the attached Figure 3. This depiction represents the location of the flagged wetland limits as determined using a Garmin GPS, and while very accurate, is not formal survey.

The parcel has about 3% slope from east to west. The uplands consist of forest and open yard. The forested component is dominated by live oak, laurel oak, water oak, sweetgum, pignut hickory, loblolly pine, and Carolina laurel cherry. The parcel has an abrupt change in elevation at the wetland boundary. The wetland is dominated by blackgum and cypress. The parcel has an existing homesite, barn, sheds, boardwalk/dock, and driveway.

The proposed onsite work is for construction of a pool. The proposed pool is more than 50 feet from the closest wetland point (Figures 4 and 5) and will not trip any environmental thresholds with state or federal agencies and will not require an environmental resource permit.

### Summary and Recommendations

The onsite wetlands were delineated using state methodology (Ch. 62-340 F.A.C.) and total approximately 3.5 acres. Any work in or over wetlands, including excavation or fill, may require an Environmental Resource Permit (ERP) from the Florida Department of Environmental Protection (FDEP) or US Army Corps of Engineers (USACE). The proposed construction of a pool is entirely outside of the wetland limits and will not trip any thresholds for environmental permitting.

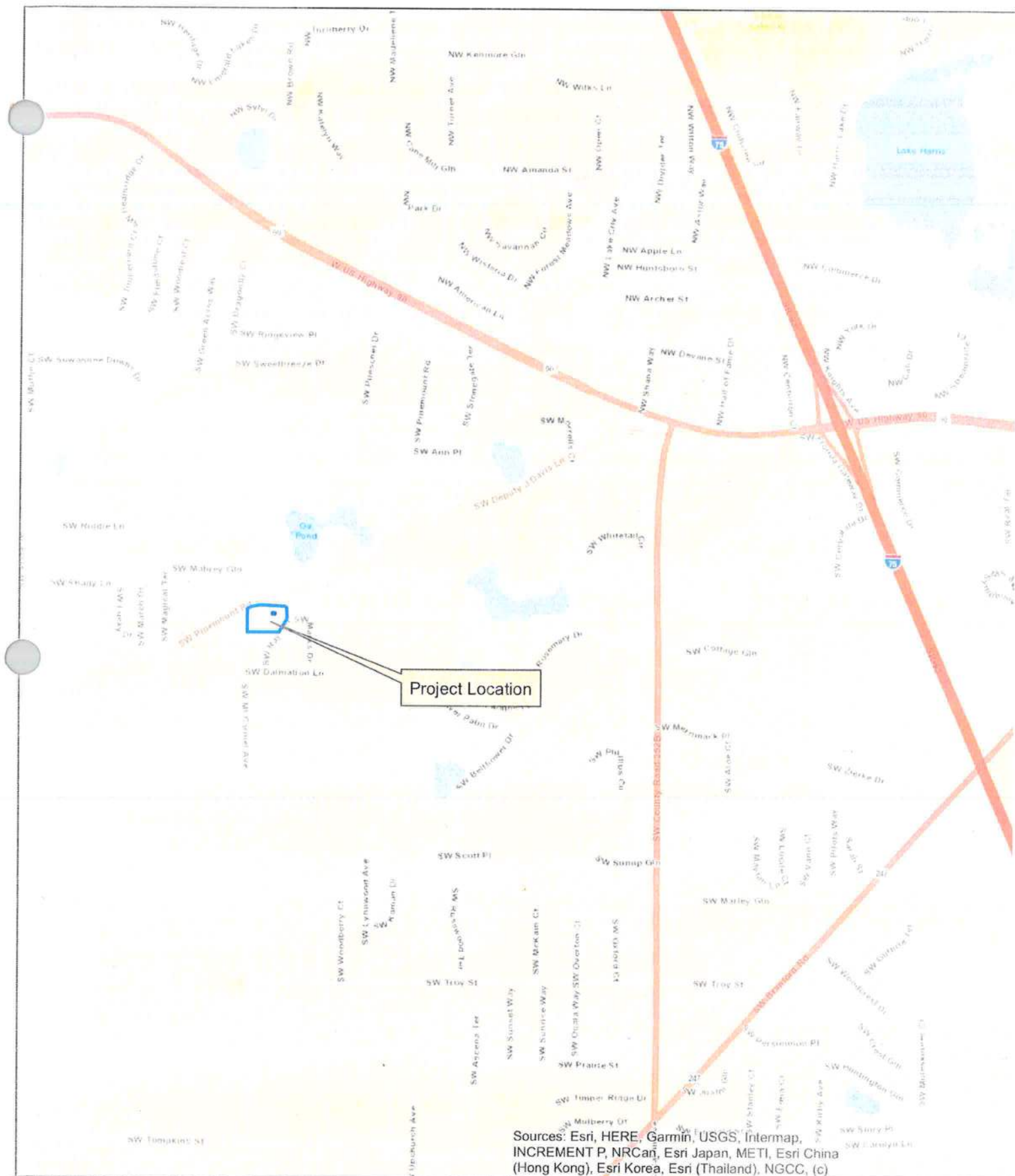
Sincerely,

*Travis C Richardson*

Travis Richardson, Certified Professional Soil Scientist

# ATTACHMENTS:

Figures 1-5  
Zoning/Flood Zone Information



**FIGURE 1. General Project Location**

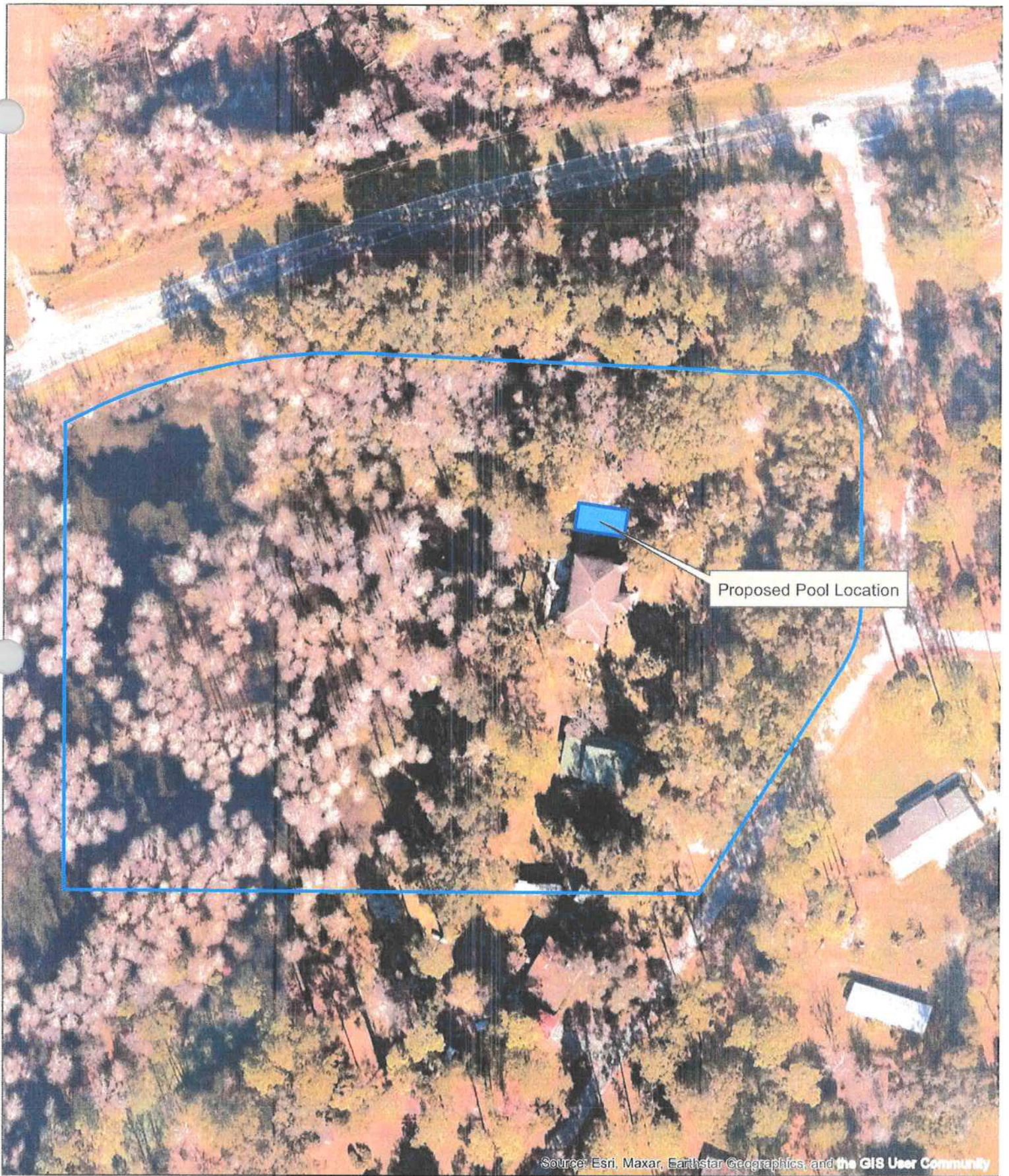
160 SW Ray Terr  
Parcel 04-4S-16-02759-000  
Columbia County

1 in = 2,000 ft



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& ENVIRONMENTAL





Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

**FIGURE 2. Recent Aerial Imagery**

160 SW Ray Terr  
Parcel 04-4S-16-02759-000  
*Columbia County*

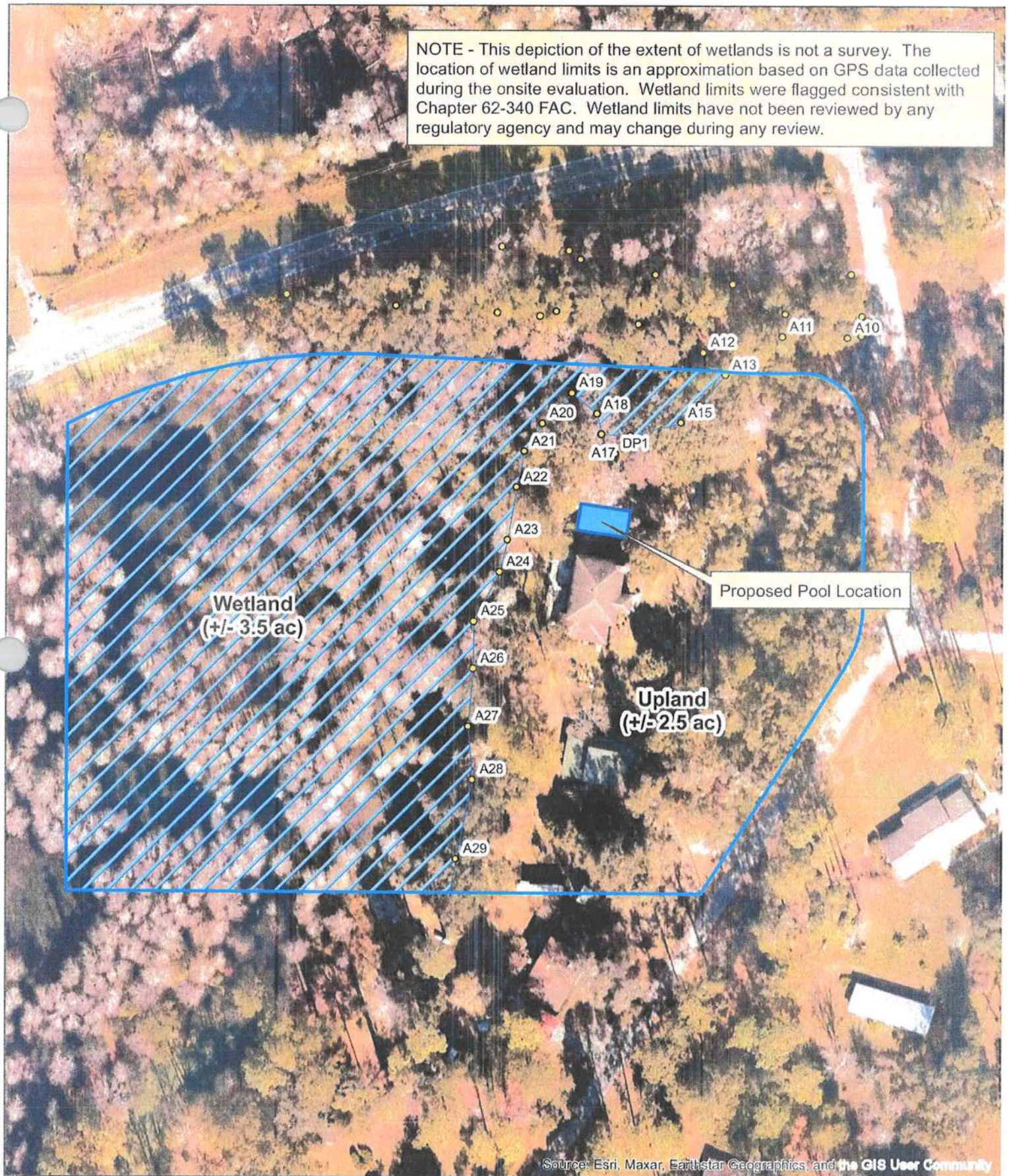
1 in = 100 ft



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LLC



NOTE - This depiction of the extent of wetlands is not a survey. The location of wetland limits is an approximation based on GPS data collected during the onsite evaluation. Wetland limits were flagged consistent with Chapter 62-340 FAC. Wetland limits have not been reviewed by any regulatory agency and may change during any review.



**FIGURE 3. Wetland Determination**

160 SW Ray Terr  
Parcel 04-4S-16-02759-000  
Columbia County

1 in = 100 ft



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Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

**FIGURE 4. Proposed Pool Location**

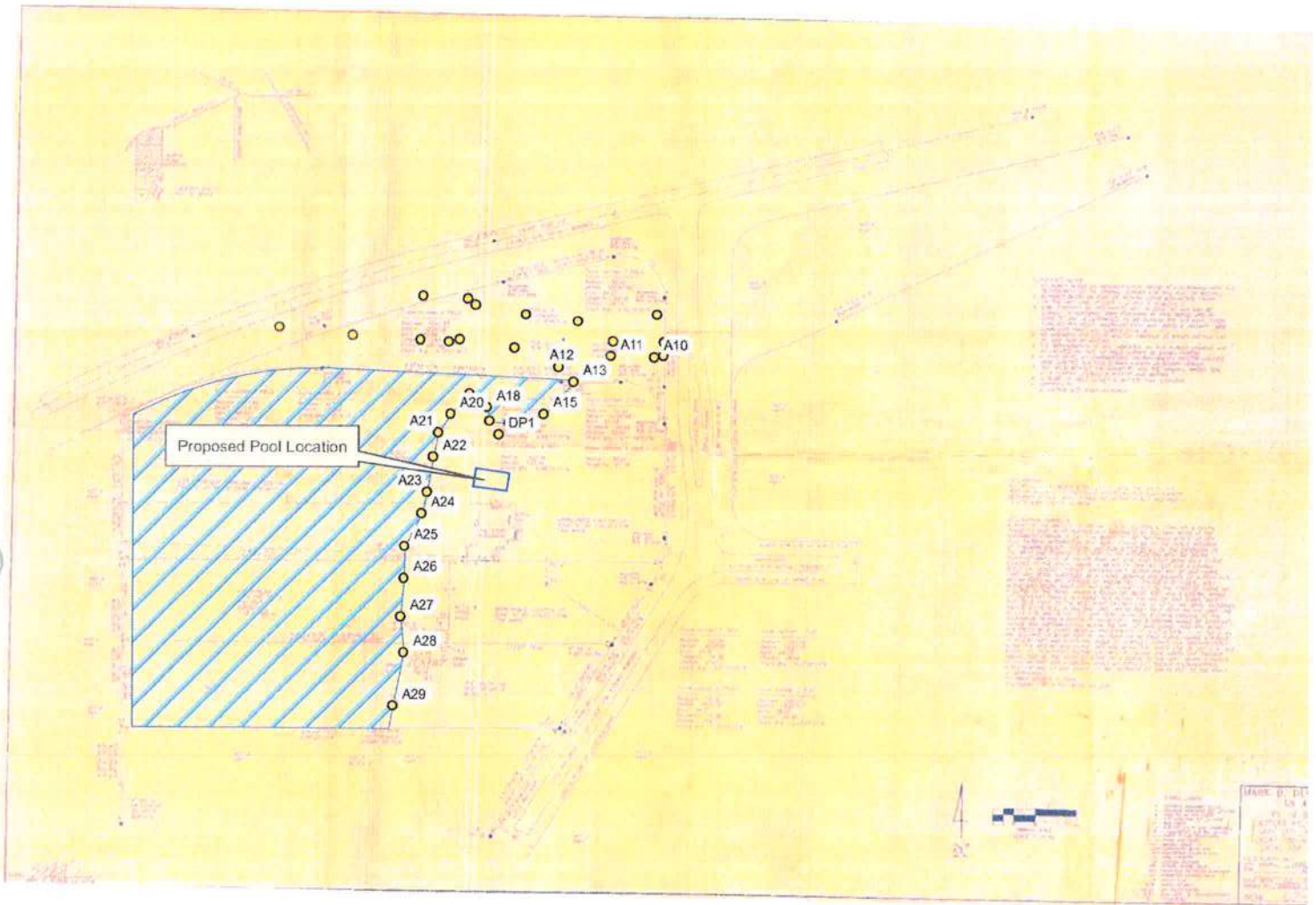
160 SW Ray Terr  
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**FIGURE 5. Wetland Line Overlay on Survey**

160 SW Ray Terr  
Parcel 04-4S-16-02759-000  
Columbia County

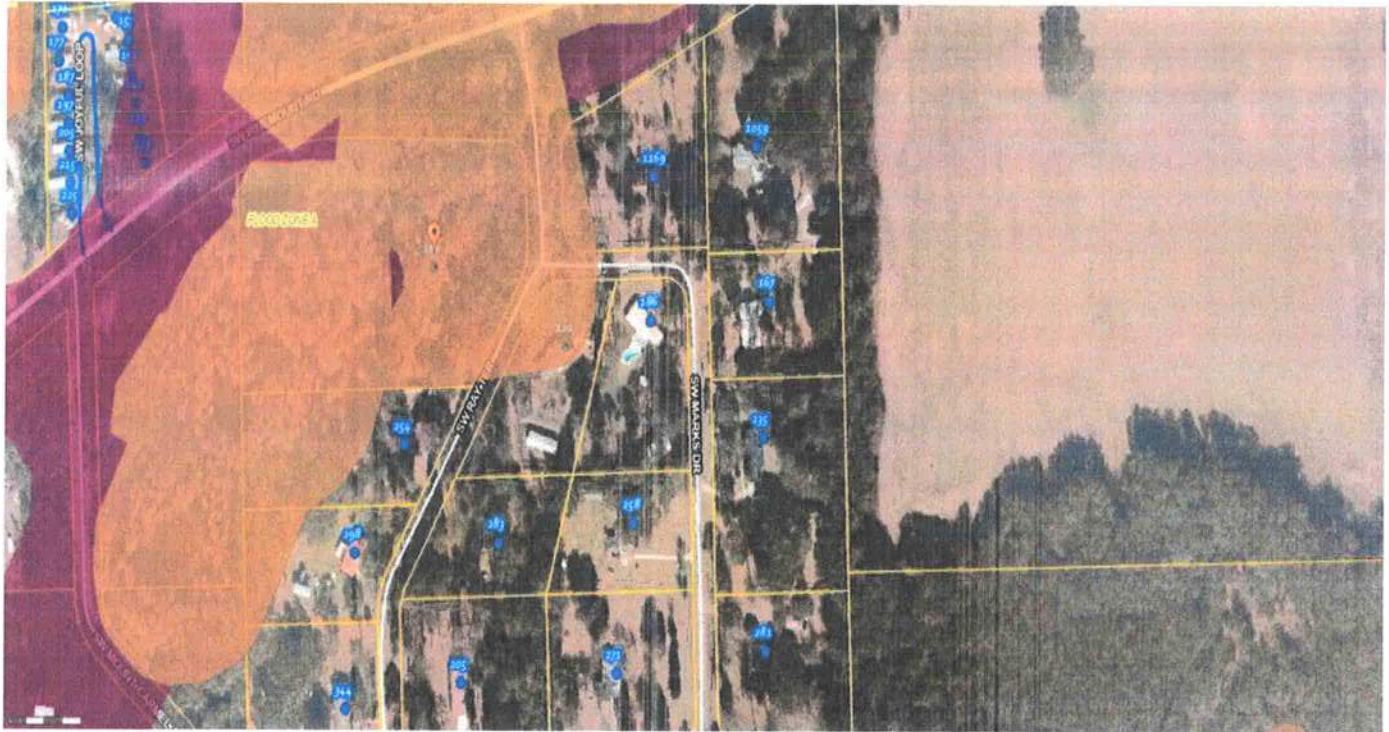
1 in = 200 ft



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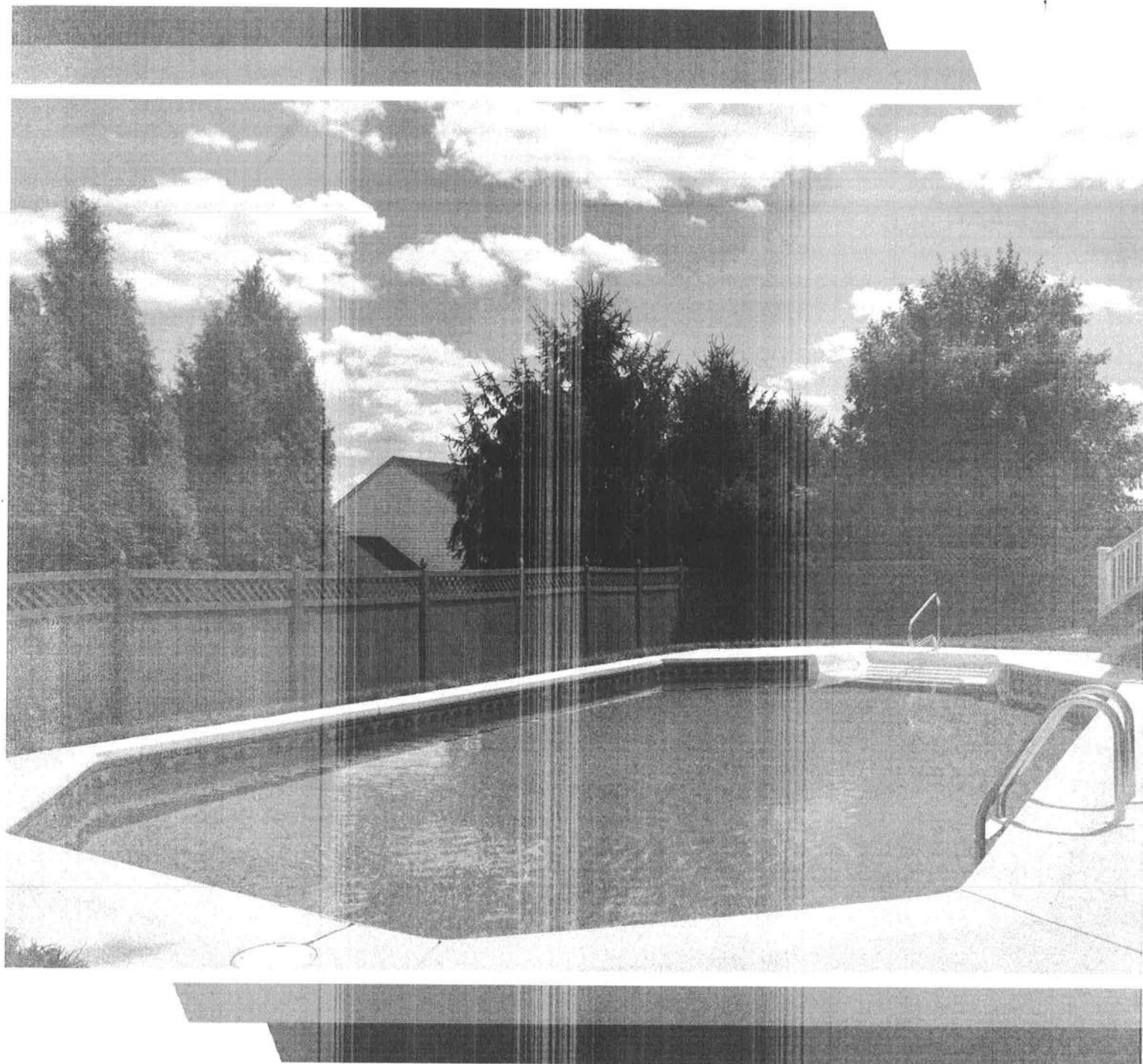
# Columbia County, FLA - Building & Zoning Property Map

Printed: Mon Mar 11 2024 07:59:28 GMT-0400 (Eastern Daylight Time)



Parcel No: 04-4S-16-02759-000  
Owner: BELLINGER MAGARITA N, GEE DAVID N  
Subdivision: WESTWOOD ACRES  
Lot:  
Acres: 5.98984  
Deed Acres: 6 Ac  
District: District 3 Robbie Hollingsworth  
Future Land Uses: Residential - Low  
Flood Zones: A,  
Official Zoning Atlas: RSF-2





# **The Ultimate Pool**

## **Grecian Style**

**Installation Manual**



# Introduction

Congratulations on your decision to purchase the truly unique and superior Ultimate Grecian Pool! The 14-gauge powder coated steel wall system is the strongest hybrid pool on the market today.

**IMPORTANT! - This pool must be buried at least 18" below grade and have a concrete collar poured around it.**

As you read through this manual, you will notice that we stress the importance of proper installation to ensure a long lasting and safe investment for your family. This pool is designed to be installed by the 'do-it-yourself' homeowner or a professional pool installer. **Rebar stakes (provided) MUST be installed in every hole at the base of the pool wall or the manufacturer's warranty is void.**

The Ultimate Grecian Pool carries a lifetime warranty on the steel panel system as well as a pro-rated warranty on the liner. To protect your investment, please fill out and send back your warranty cards when this pool is constructed.



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# Safety

## Safety

A pool is a wonderful investment for years of fun and relaxation for you and your family. Proper safety measures should always be followed to ensure a safe and fun environment in your backyard.



Every Ultimate Grecian Pool kit is supplied with safety packet including information about the swimming pool safety and a no-diving/no jumping sign to be placed on top rail of the pool near the ladder entry/exit.

The Ultimate Grecian pool is not safe for diving or jumping of any kind. For your safety and the safety of your family and friends, please read the safety information thoroughly.

Also supplied in the pool kit is a locking/removable ladder that should always be locked or removed when the pool is not in use.



### Tools and Materials Needed

#### Site Prep

- Transit or similar leveling device
- Earth moving tools; shovel, rake, wheelbarrow...
- String line
- Hammer
- Spray paint or similar ground marking product
- Two tape measures

#### Pool Assembly

- (2) 9/16" wrenches/ratchet sockets
- 2' or 4' level
- Drill with 5/16 nut driver head & #2 Phillips bit
- #2 & #3 Phillips screw driver
- Duct tape
- Drift pins
- Hammer
- Sharp razor knife
- Shop vacuum
- Rounded (bottom) trowel
- Sand bottom mix (see chart below)
- (1) 36" flat board 1x3 (to level bottom mix)

#### Pool Bottom Base

- 7.5 cubic yards

#### Footer Mix

- 7 cubic yards (walls underground)



### Site Location and Preparation

Site location in the yard is a very important part of building a swimming pool. It is vital to locate the pool within the current building code requirements for your local municipality. A building permit may be required for the installation of your swimming pool and it is important to follow all guidelines associated with the local municipality.

The location selected should be virgin or compacted ground free of overhead power lines and other dangerous obstructions. If the pool is placed at the bottom of a large slope, a surface water management system may need to be added when landscaping around the pool. Unlike other hybrid pools, the Ultimate Grecian Pool can be buried completely in the ground, set into a hill or slope, and the ground can be backfilled against the pool wall if needed.

Once the location of your pool is determined begin the layout process by locating the center point of your pool. Refer to the pool drawing in the back of this manual that coincides with your pool.

The first thing you need to do is to create a center line for the pool. Run a string line through the length of the pool location you have chosen. Drive a stake into the ground several feet beyond each end of the pool dimension and tie your string line to them. Locate the center of your pool and drive a stake into the ground. This center pin will be used to pinpoint all the layout points for the pool and wall assembly.

**DO NOT REMOVE THIS CENTER STRING UNTIL ALL THE WALL PLACEMENT PINS ARE LOCATED!**



## Site Location and Preparation

Mark the ground to represent the over-dig area of the pool. This over-dig is located 24" outside the perimeter of the pool. If a walk-in stair is installed, the over-dig for the stair is 4'6".

With the ground marked for the outline of the over-dig, begin removing the dirt to a minimum depth of 18". It is important that the pool is built on undisturbed earth not fill dirt. Fill dirt will settle over time causing your pool to sink and become unlevelled.

Remove the dirt until the ground is level, and free of rocks and/or sharp objects. A transit or laser level is the best tool for this job. These items can be rented at any tool rental store or mass merchant rental department.





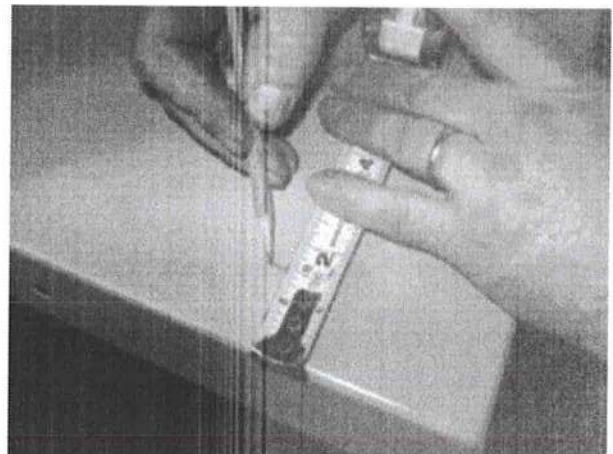
## Pool and Wall Layout

### Pool and Wall Layout

Now that the dirt is removed and the ground is level it is time to begin laying out the pool and wall panel placement. From the center pin you can establish the four points that identify the end of the straight walls. Place a stake at each of these points. Check diagonal measurements to assure these pins are square with each other. Place a stake along the center string line to establish your points using the measurements noted on your drawing.

Place a stake at each panel seam location as noted. For ease of installation, countersink a patio block behind each panel seam stake and confirm proper elevation by using the transit and story pole. The next step is to establish where the skimmer panel will be placed. It is important that the skimmer panel be placed next to the straight wall. This position will play a crucial part when installing the liner. This panel also should be positioned so the prevailing wind will help push the surface water into the opening. Another suggestion is that the skimmer panel be placed out of sight toward the back of the pool because this is where the filtration system will set.

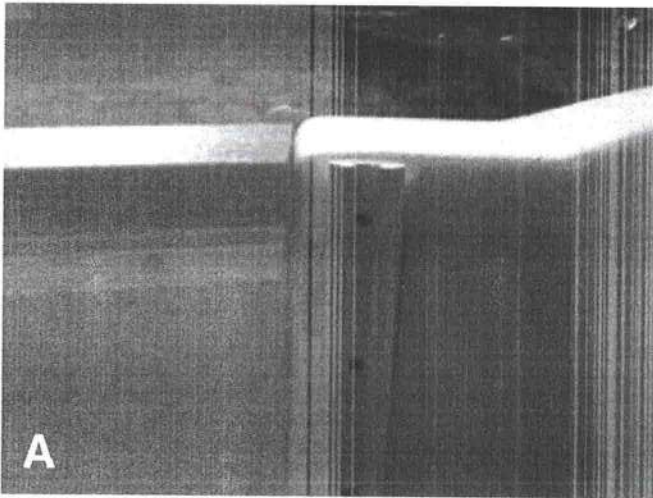
There are several steps that need to be followed before placing the panels into position. Each panel must be marked on the inside face with a line 1 ½" up from the bottom. This line will mark the finished level for the pool bottom under the liner.





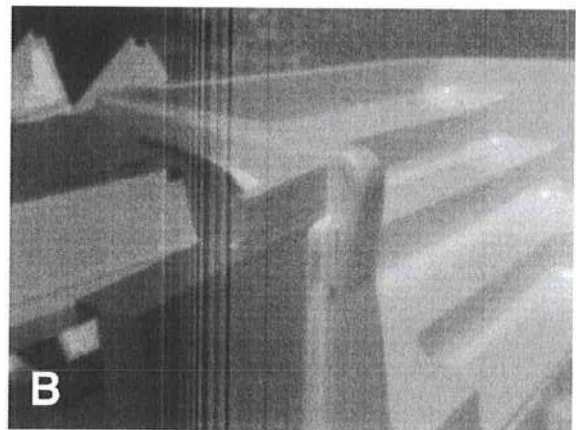
### Optional Walk-In Stair

There is an option to install an 8 foot 5-tread walk-in stair in the Ultimate Grecian Pool. This stair must be installed in the narrow end of the pool. Be sure to order the stair that matches your coping selection.



First locate the stair placement at the site. When using the “synthetic wood” top seat, the coping must be flush with the top of the cantilever stair as shown in photo A.

When using the “bendable aluminum coping”, you should bring the elevation up to or near the top of the bullnose stair as shown in photo B. There will be a void below the stair shell that must be framed out to hold back the concrete bond beam that will be poured behind and under the stair shell. After the finished elevation is established, drill through the stair flange at each bolt hole location using a 1/2” drill bit and bolt together.

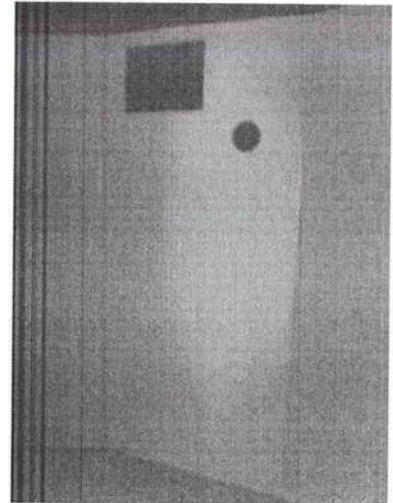




# Setting the Walls

## Setting the Walls

Begin moving your wall panels into place. Make sure you place the skimmer panel in the proper location. Remember when installing the pool on-ground, the filtration equipment will be placed behind this wall section. That said, it will be visible and an electric service will be required to operate the pump.

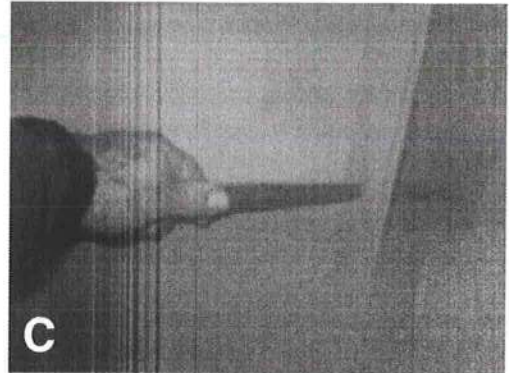


After all of the wall panels are placed around the site, it is time to begin the wall erection. Starting with the corner skimmer panel, align the front edge of the panel with the layout stakes in the location of your choice.

Secure the panels by using the 9/16" galvanized nuts and bolts that were supplied with this package. Begin bolting the panels together **using only the top two and the bottom bolt on each seam**, until you have closed the perimeter. NOTE: Keep the panel connection on the outside of the layout stakes. We suggest that you hand tighten the panel bolts until the entire pool wall is erected.

## Setting the Walls

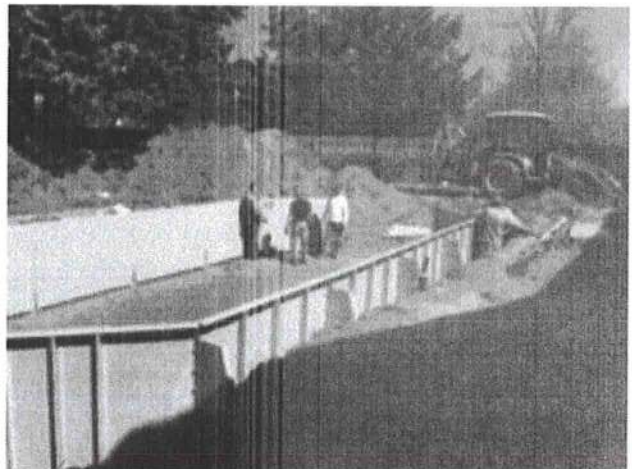
The use of a drift pin (photo C), will help to align the bolt holes and keep the panels in position until the bolts are in place. An **“A” frame buttress** is also installed at every panel joint.



**Do not use the two round holes at the base of the buttress support for plumbing runs. These holes are designed to allow the concrete bond beam to flow through for added support (photo D).**

As you tighten the bolts make sure the panels are flush on the inside to ensure a smooth liner installation at the joints. Use a level to make sure that the pool walls are both plumb and level.

Do not remove the inside perimeter pins. They will be needed to attach string lines for the pool bottom. If any sections of the pool wall are going to be buried completely into the ground, we highly recommend a concrete bond-beam be placed behind all of these panels.





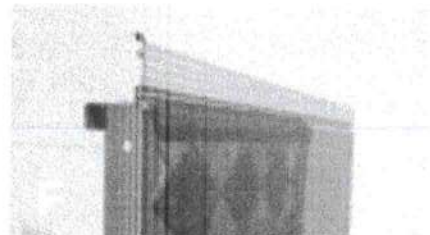
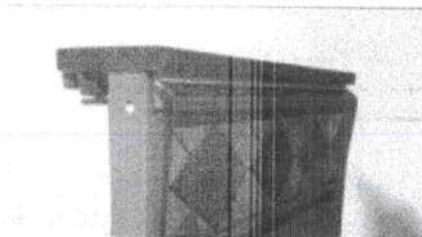
## Installing Top Seats and Coping

After the wall is assembled, double check the position of the wall matching the wall seam to the perimeter layout stakes.

Finish the wall positioning by driving the 12" rebar stakes into the ground through all of the holes at the base of each panel. **These rebar stakes must be installed in every hole at the base of the pool wall or the manufacturer's warranty is void.**

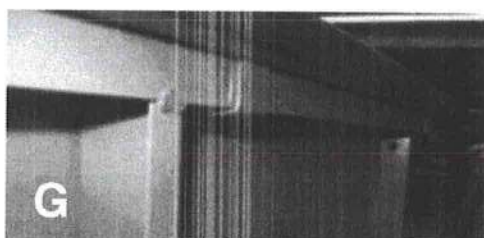
### Installing the Top Seats and Coping

There are two top seat/coping options for the Ultimate Grecian Pool. There is the (E) brown "synthetic wood" with the aluminum side mount bead receiver, and the (F) white bendable aluminum coping. Each option will be covered in the following pages.



#### "Synthetic Wood"

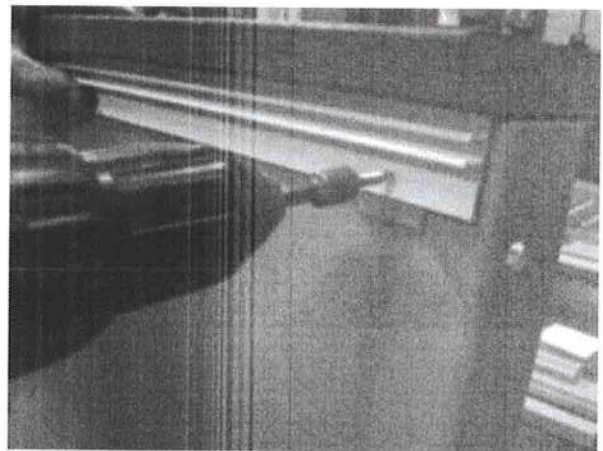
This top seat is a brown "synthetic wood" with mounting brackets on the underside. Center the top seat on top of each pool wall panel. The 90° angled bracket hooks under the outside of the panel top as shown in photo G.



## Installing Top Seats and Coping

In your pool kit you will find sections of “dual track” white aluminum coping. To install the coping, you will need your power drill and a 5/16 hex head socket bit. Each section of coping should be positioned tight against underside of the top seat and attached to the pool wall using the self-drilling self-tapping hex head screws. These screws should pass through both the coping and the top seat bracket.

It is very important to make sure the top seat is pressed against the top of the panel and both the coping and top seat are centered on the panel and before mounting. These self-tapping screws should be installed a maximum of 6” apart to insure the coping is secure to the panel and the liner will not “pull down” the coping. These screw heads will be hidden after the liner is installed.



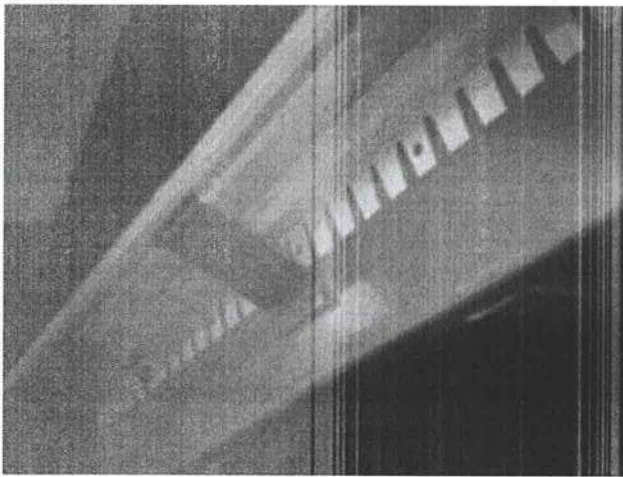
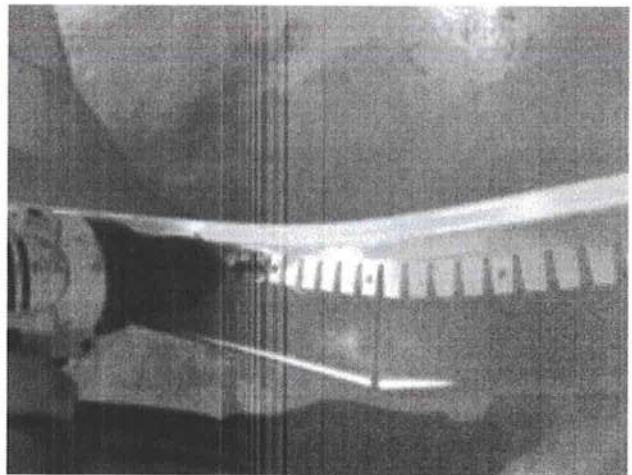
Locate the top cap joint covers and position them over each miter joint. Each cap hooks in the front first and secured to the top seat with color coated nails as shown in photo H.



## Installing Top Seats and Coping

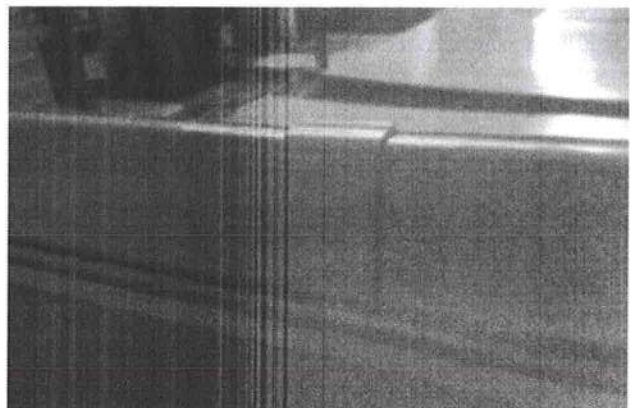
### “Bendable Aluminum Coping”

The bendable aluminum coping is primarily used when pouring a concrete deck. This coping comes in 10ft sections and provide Grecian corners that are pre drilled for mounting to the top of the pool panel.



After the coping is mounted, place a support bracket on the back side in the middle of each panel and behind each coping joint. Lock the bracket into the back of the coping and fasten it to the top of the panel using one of the self-drilling screws.

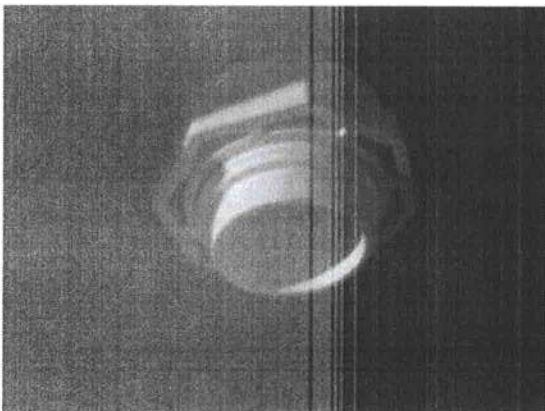
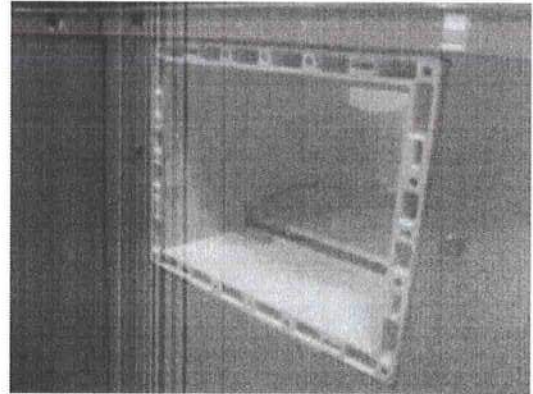
Finish the installation by snapping a coping cap over each butt joint.



## Mounting Skimmer and Return Fittings

### Mounting the Skimmer and Return Fittings

Every Ultimate Pool is supplied with a pre-punched wall panel to mount the skimmer and return plumbing fittings. To mount the skimmer, simply insert the face of the skimmer through the rectangle opening in the wall and secure it using the two set screws supplied with the skimmer. If you have any questions, please refer to the manufacture's installation instruction in the skimmer package.



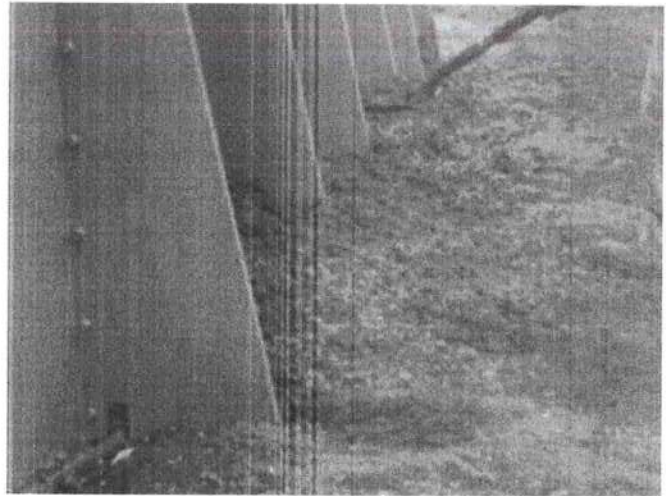
To install the return fitting, you need to un-thread the retaining nut from the fitting. Insert the threads through the pre-punched hole from the inside of the pool and tighten the retaining nut to the back of the fitting. **Be careful not over tighten this nut.**



## Pouring Concrete Bonding Ring

### Pouring the Concrete Bonding Ring

It is necessary to pour a concrete bonding ring at the base of the straight walls. This mix should be on the dry side so it can be piled on a mound. When placing the concrete behind the wall, it needs to be piled high enough to cover the last two bolts at the base of the panels and continue beyond the support angles.



**The concrete bond beam needs to be a minimum of 2500 PSI truck mix.**

**DO NOT USE A BAG MIX.**

### Installing the Pool Bottom

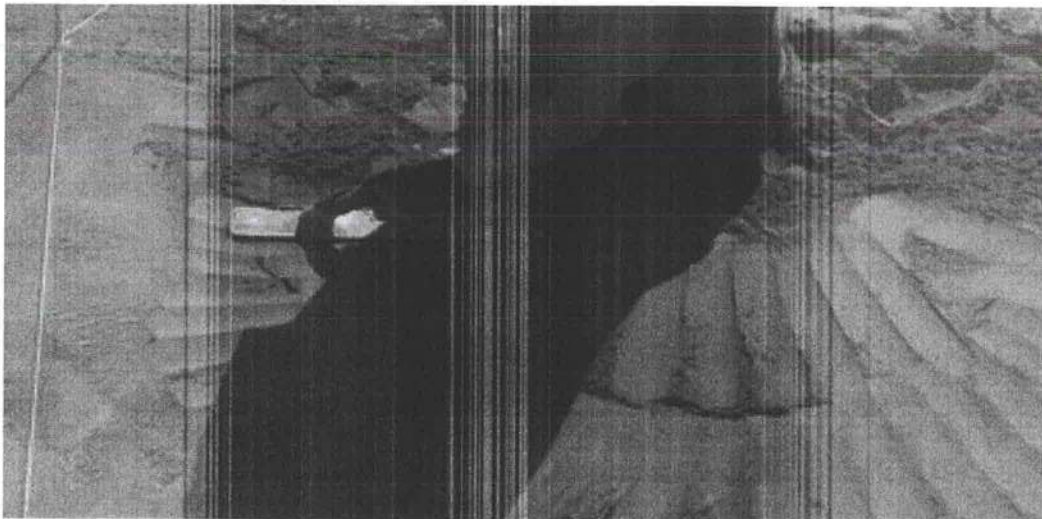
The first thing you need to do is to remove any loose rocks from inside the pool and level the ground as flat as possible. Make sure the pool walls are clean then run a piece of duct tape down the face of each panel joint to cover the entire seam.

Remember the pencil line we drew on the bottom of the panels? Now you need to tie a string line to the perimeter pins inside the pool at the level of the pencil mark or 1½" up from the bottom of the panel. Then run a series of string lines across the pool to another pin. Continue doing this so you have several pie sections of string lines. The lines need to be taught so they will hold the level height of the finished bottom. The goal is to have at least 1½" of space between the string line and the virgin ground. Begin to transfer the bottom material into the pool.

The bottom mix should be damp but not wet. There are several materials that can be used to make up the pool bottom. Mason sand is the easiest, but you can also mix a 7 to 1 sand to Portland cement mixture to create a harder bottom that will not shift with foot traffic during the swim season. If you choose to go with a hard-bottom mixture and the sand is damp, **don't add water**; just mix them together for a "sand castle" consistency. See your pool dealer for additional pool base options.

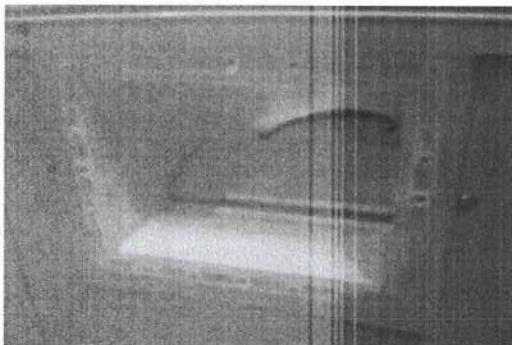


## Installing Liner



Spread the bottom material around the floor of the pool and **compact** it to cover the string lines as you go. Use the edge of a flat board (about 36" long) to scrape the excess bottom material to expose the string lines. Run a trowel across the surface to smooth it out. A rounded bottom trowel works best. Remember to pull your pins and fill in their divots as you progress.

## Installing the Liner

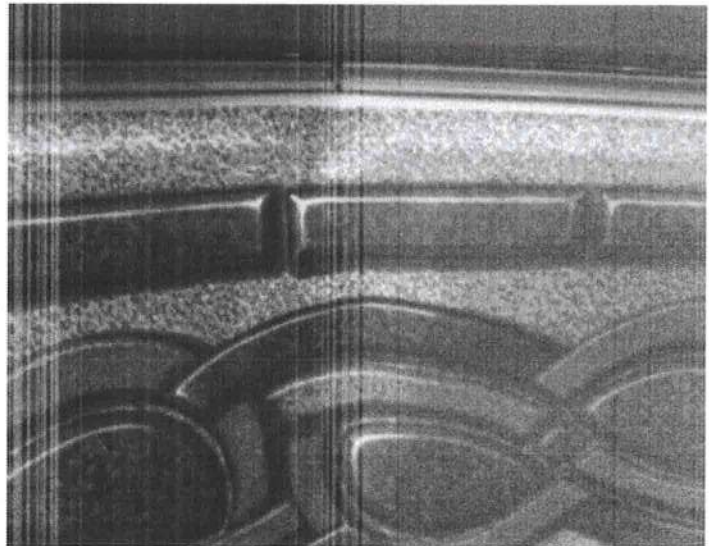


Remove the liner from the box and if possible, unroll it (end to end) in a clean, safe area near the pool. This will allow the vinyl to relax and the sun to soften the material as well. **Do not unfold** the liner at this time. A warm flexible liner will be easier to install than a cold stiff one. Also be sure to save the safety/warranty packet for later.

## Installing Liner

Before installing the liner, double check the pool walls and the pool bottom for any dirt or sharp objects that could damage the vinyl material. Lastly, make sure the skimmer and return gaskets are in place.

Find the seam in the side wall of the liner and position the liner so it will align over the skimmer opening inside the pool. We do this in case the pattern at the seam does not match well. This tile section will be cut out when installing the skimmer faceplate. With several people in place, pick up the unrolled liner and rest it on the top seat of the pool. The liner is folded so that it can be pulled across the pool area as it unfolds. Try not to drag the liner across the pool bottom any more that you have to.



The top of the liner has a vinyl bead welded to it. Install the liner by inserting the liner bead into the bottom track of the white aluminum coping.

The weight of the vinyl pulling down will keep the bead in the coping. Make sure that the points around the perimeter of the liner floor match up with the panel joints of the pool wall. All wrinkles must be removed before filling with water.



## Cutting in Skimmer and Return Openings

If you have a soft “push broom” you can tap the bristle end against the base of the liner wall to help move the bottom material and remove any wrinkles.

Another trick is to insert a shop-vac hose through the top of the skimmer and down the pool wall through the rectangle opening behind the liner. Keep the vacuum hose at least 15” up from the floor. Turn on the vacuum and suck the liner back against the wall. If your suction is poor, you may need to tape the skimmer lid closed where the vacuum hose was inserted.

If you are satisfied with the fit of the liner, start filling it with water. After you have between 6” and 8” of water in the pool, you can remove the vacuum hose and prepare cutting in the skimmer and return fittings.

## Cutting in the Skimmer and Return Openings

Now that the water level in the pool is at least 6” deep, the side wall vinyl should be stretched tight enough to install the skimmer and return face plates. You will need a #3 Phillips head screwdriver and a good razor edge to install these plates.

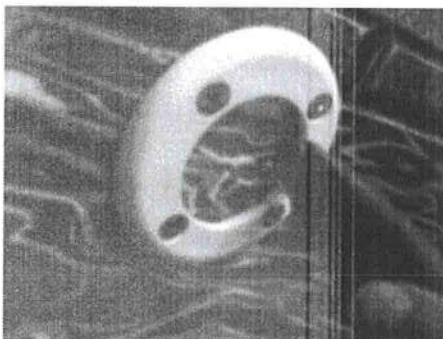
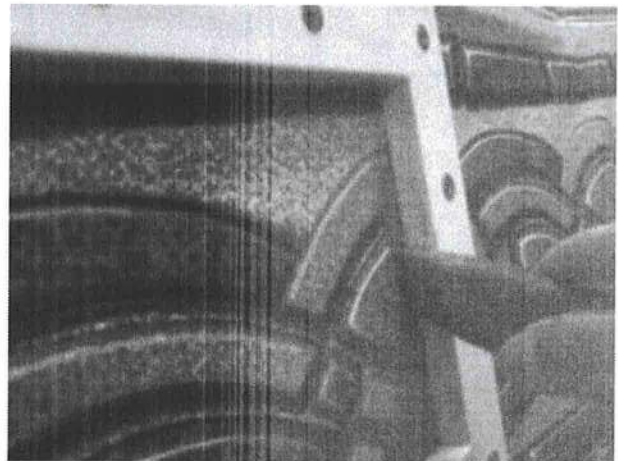
*Note: Do not use a power screwdriver to install these screws. Over tightening can cause the holes to strip or the face plate to crack. If you have any questions, please refer to the installation instructions supplied with each fitting.*

Find the twelve flat head skimmer screws that came with the skimmer along with the rectangle face plate and gasket.

## Cutting in Skimmer and Return Openings

To start the mounting of the skimmer face plate, you must first find the four corner holes. Push your finger against the liner to find the round depression of the screw sockets for each corner screw. Push the tip of the #3 Phillips screw driver against the depression and turn the screwdriver to mark the vinyl. Insert one of the top corner screws through the face plate and gasket and drive it through the vinyl liner into the skimmer. Make sure the gasket is attached to face plate before mounting. Continue installing the other corner screws and fill in the blanks to complete.

After the plate is mounted insert the razor edge through the vinyl at the inside edge of the face plate. Slowly run the blade around the inside perimeter and remove the section of material. You may want to keep this section of liner for future patch material.



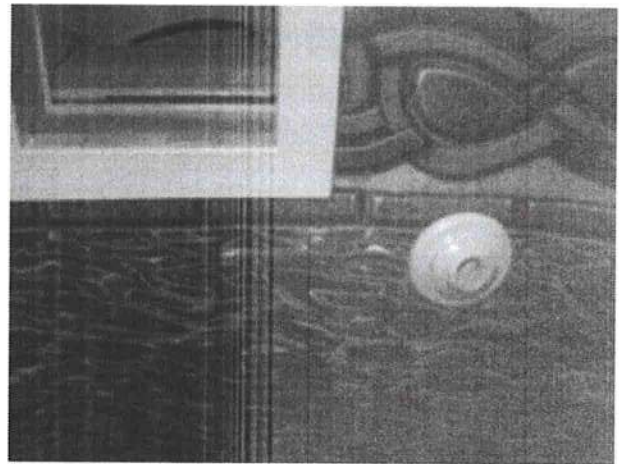
The return fitting face plate is installed in a similar manner as the skimmer. First find the round face plate and the pack of four faceplate screws supplied with the fitting.



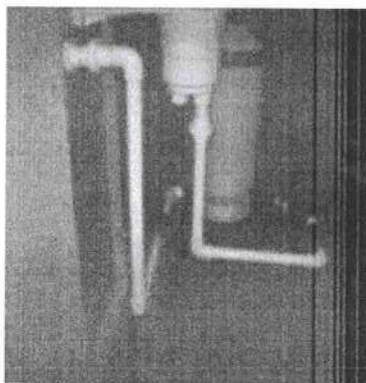
## Installing the Filtration Equipment

Note: There is no gasket installed between the liner and the return face plate. Press your finger against the liner to locate and mark the (4) holes. Screw down the faceplate with the #3 Phillips screw driver and cut out the center section of vinyl with the razor edge.

To finish, snap on the face plate escutcheon to hide the screw heads. The return fitting has a directional eye that threads into the fitting. The directional eye should be positioned in an upward position away from the skimmer. The purpose of this fitting is to move the surface water around the pool and back to the skimmer. This fitting should not be tightened completely, only positioned for easy adjustment.



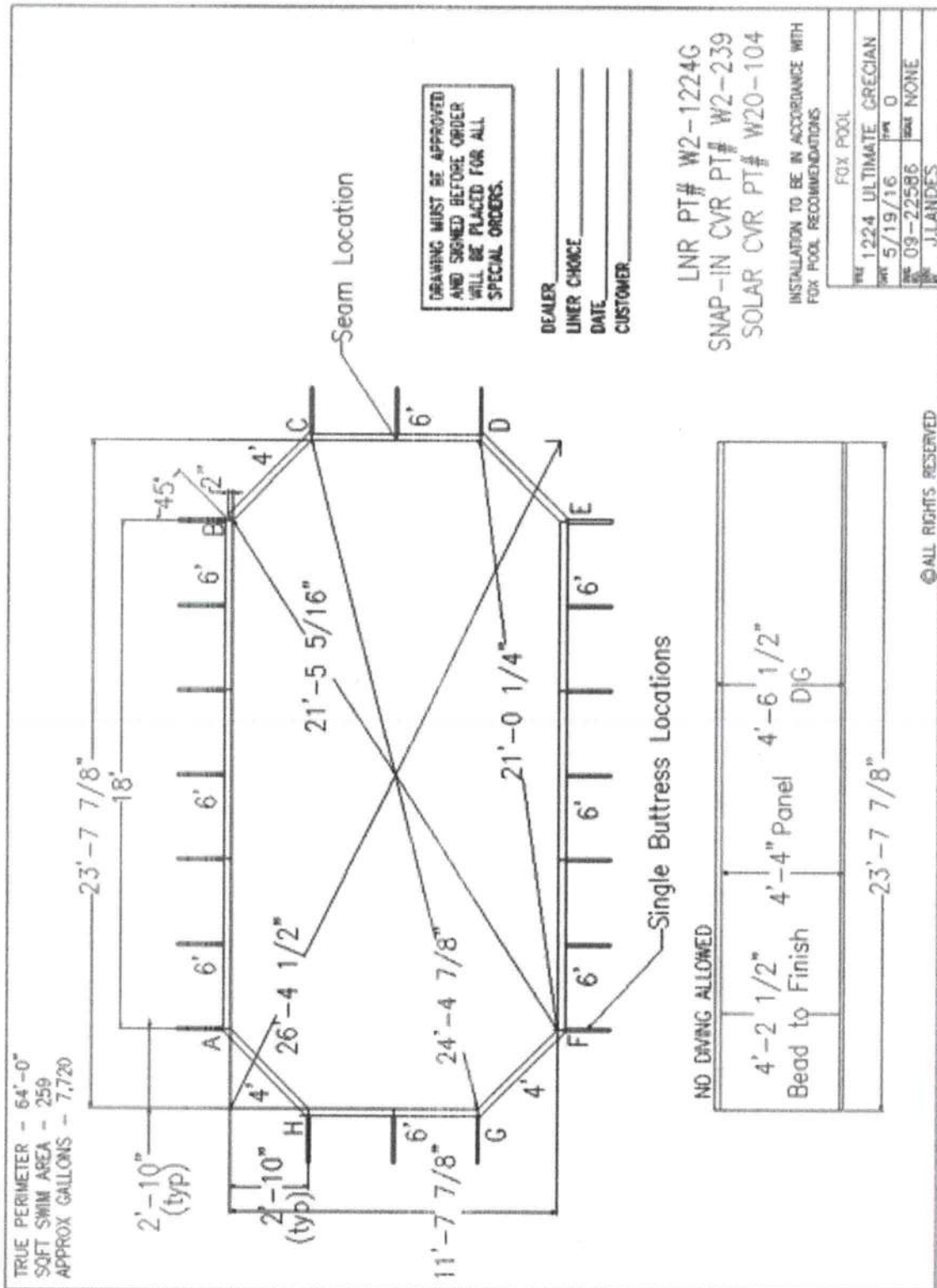
## Installing the Filtration Equipment



There are many types of equipment designed to filter the swimming pool water. Please check with your local pool dealer for the proper sizing and filter media to meet your needs. When installing the plumbing lines, make sure that the skimmer is connected to the front (suction) of the pump and the return fitting is connected to the discharge side of the filter. Shut off valves are recommended for service and maintenance on this equipment.

# Pool Drawings

## 12x24 Grecian

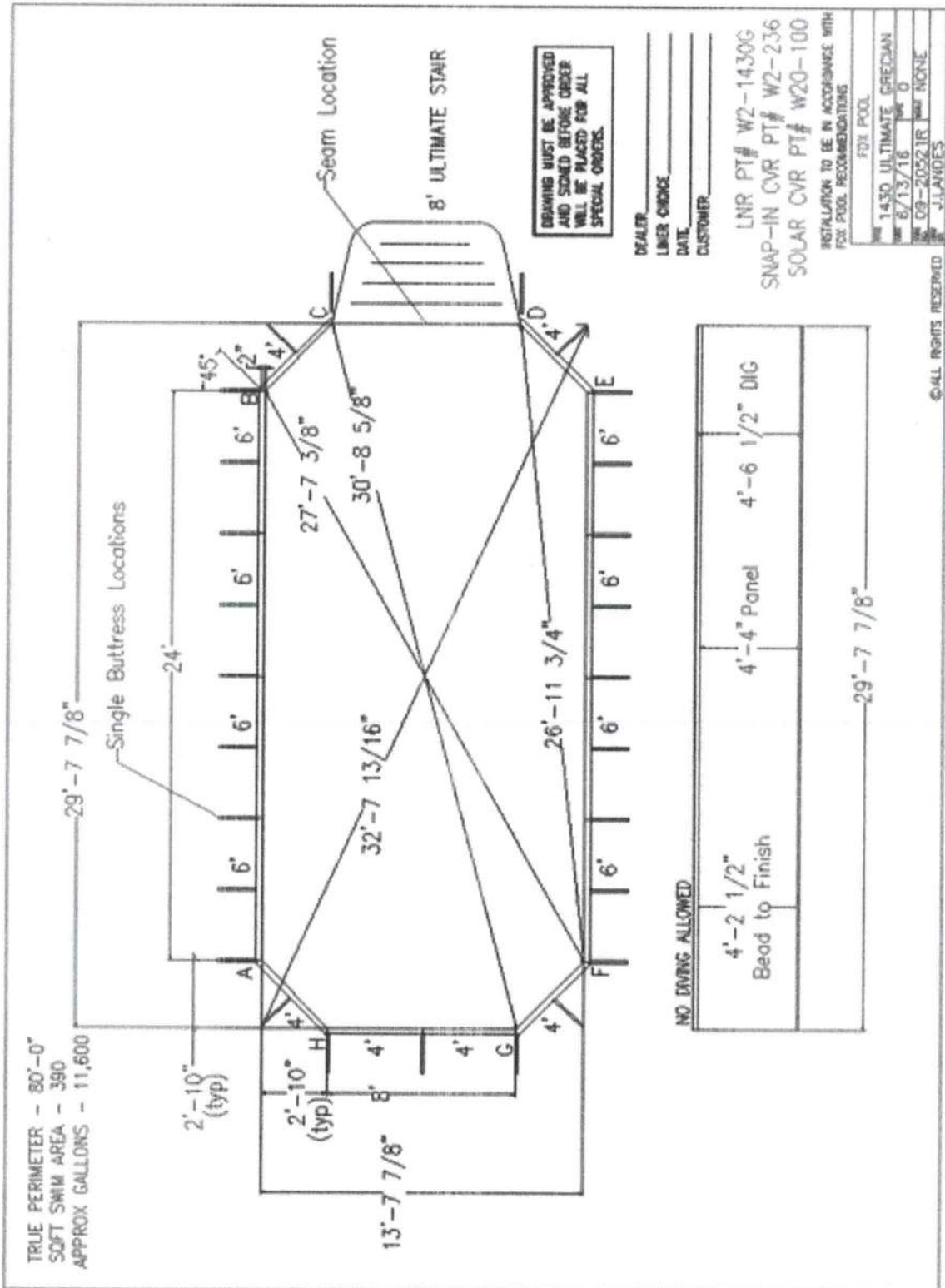




14x30 Grecian



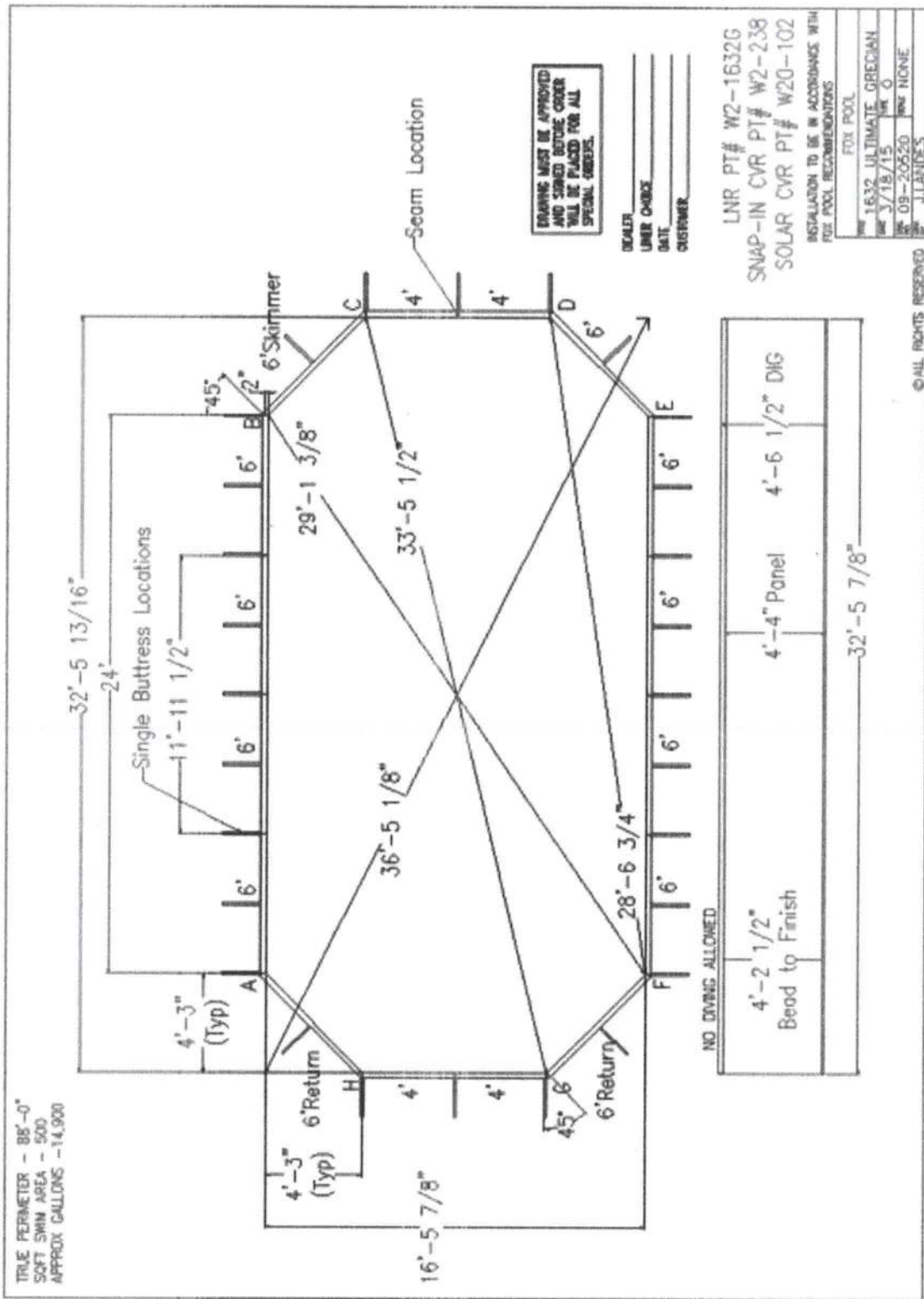
### 14x30 Grecian With Stair



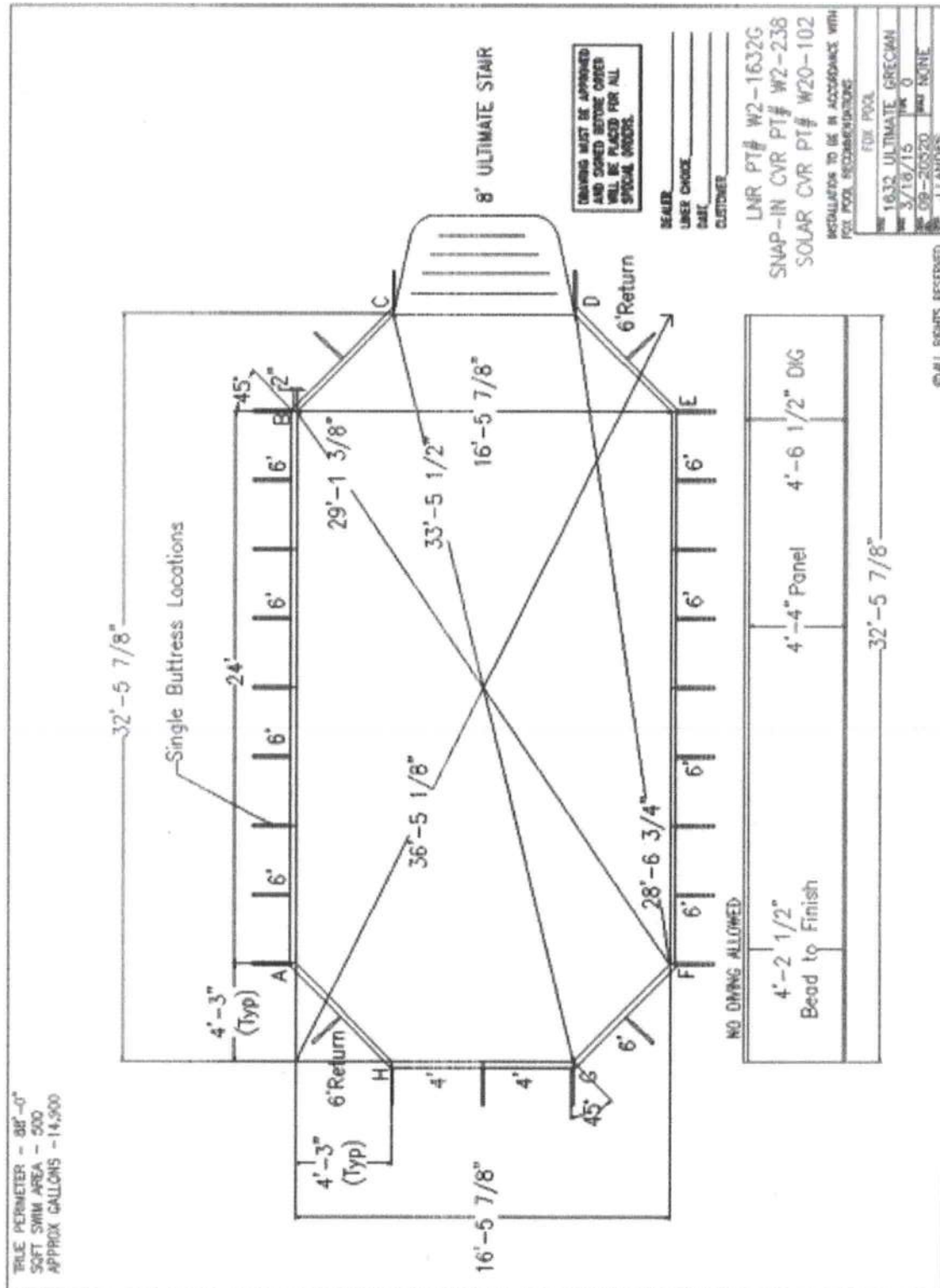


## Pool Drawings

## 16x32 Grecian



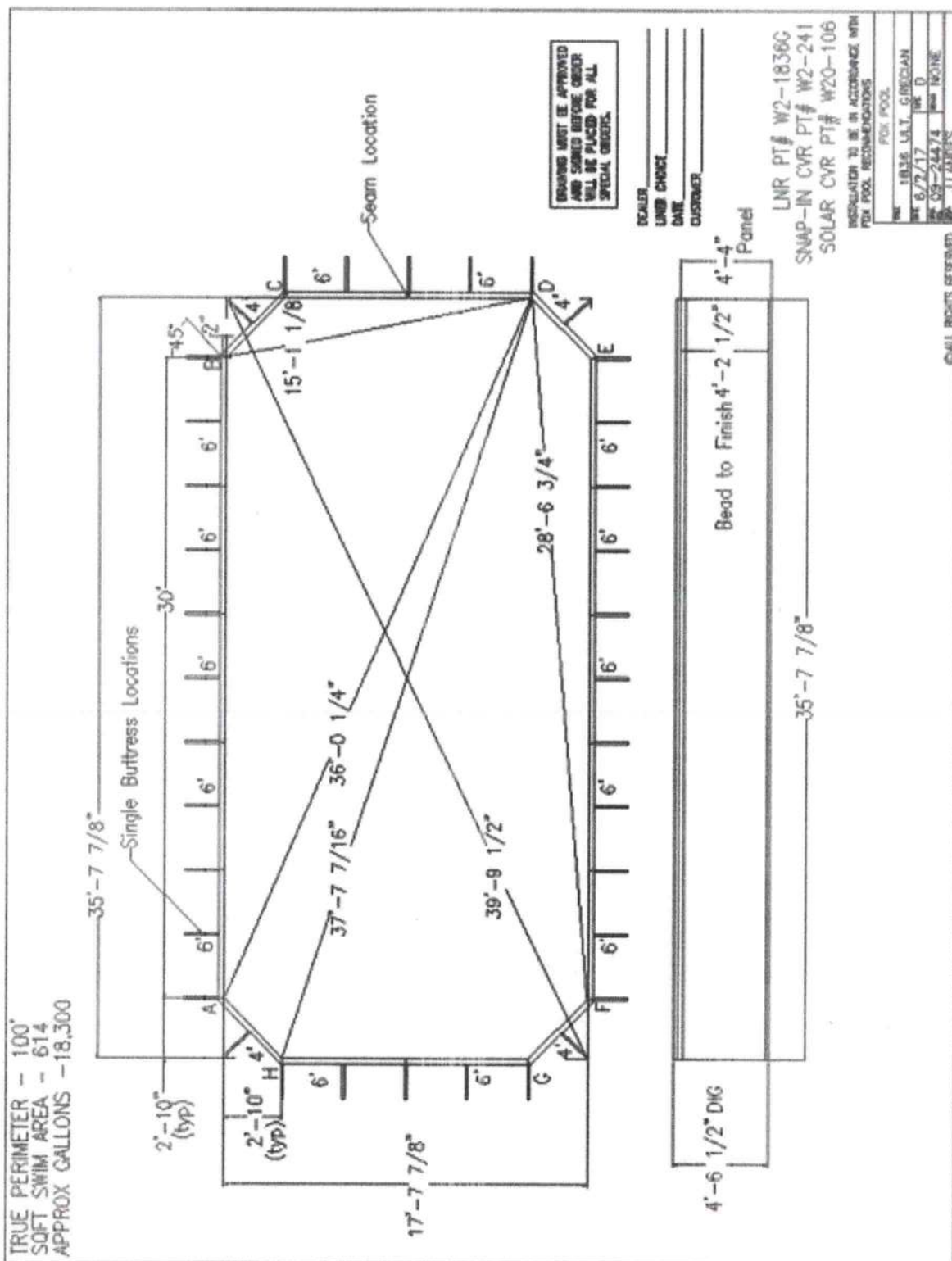
### 16x32 Grecian With Stair



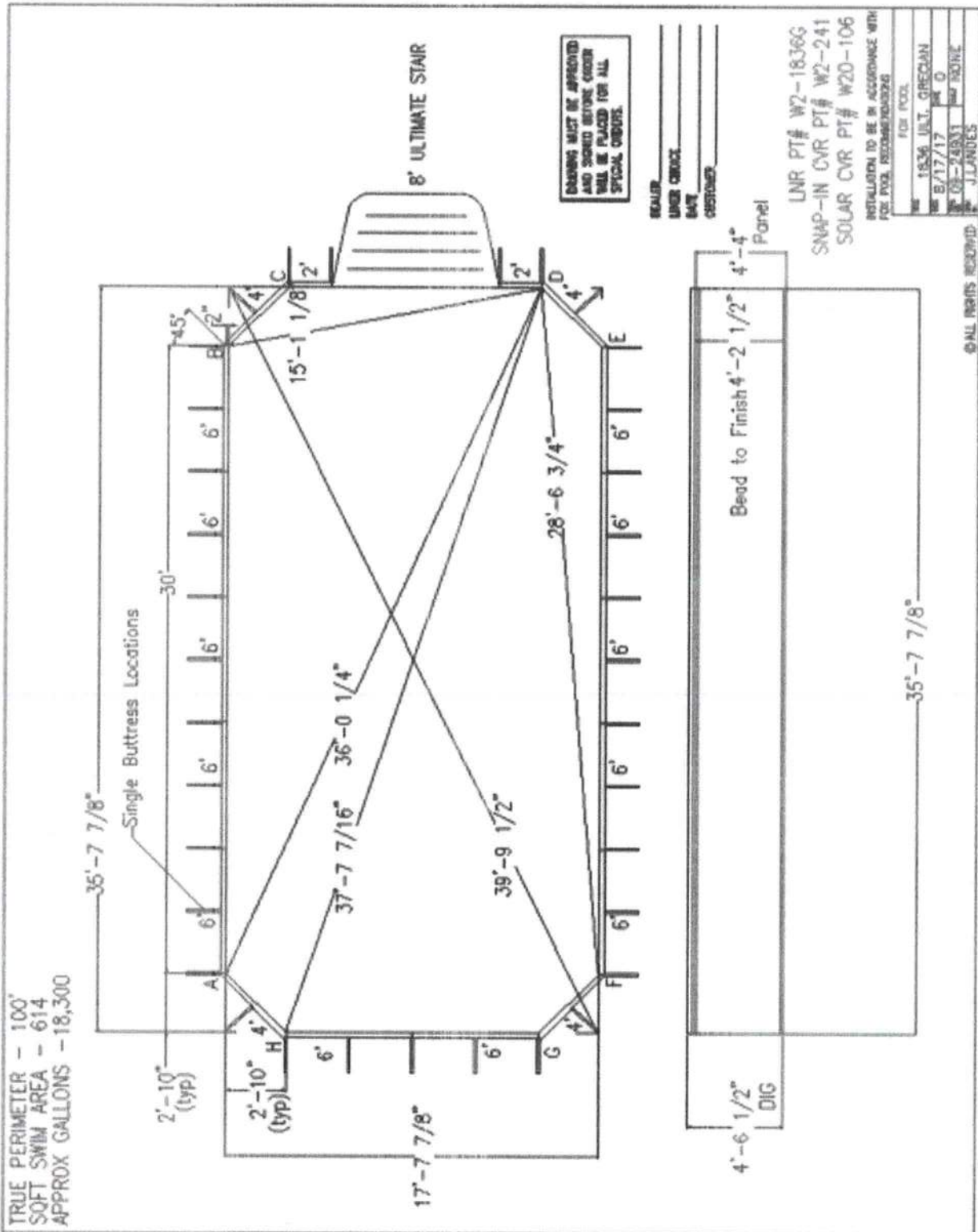


# Pool Drawings

## 18x36 Grecian



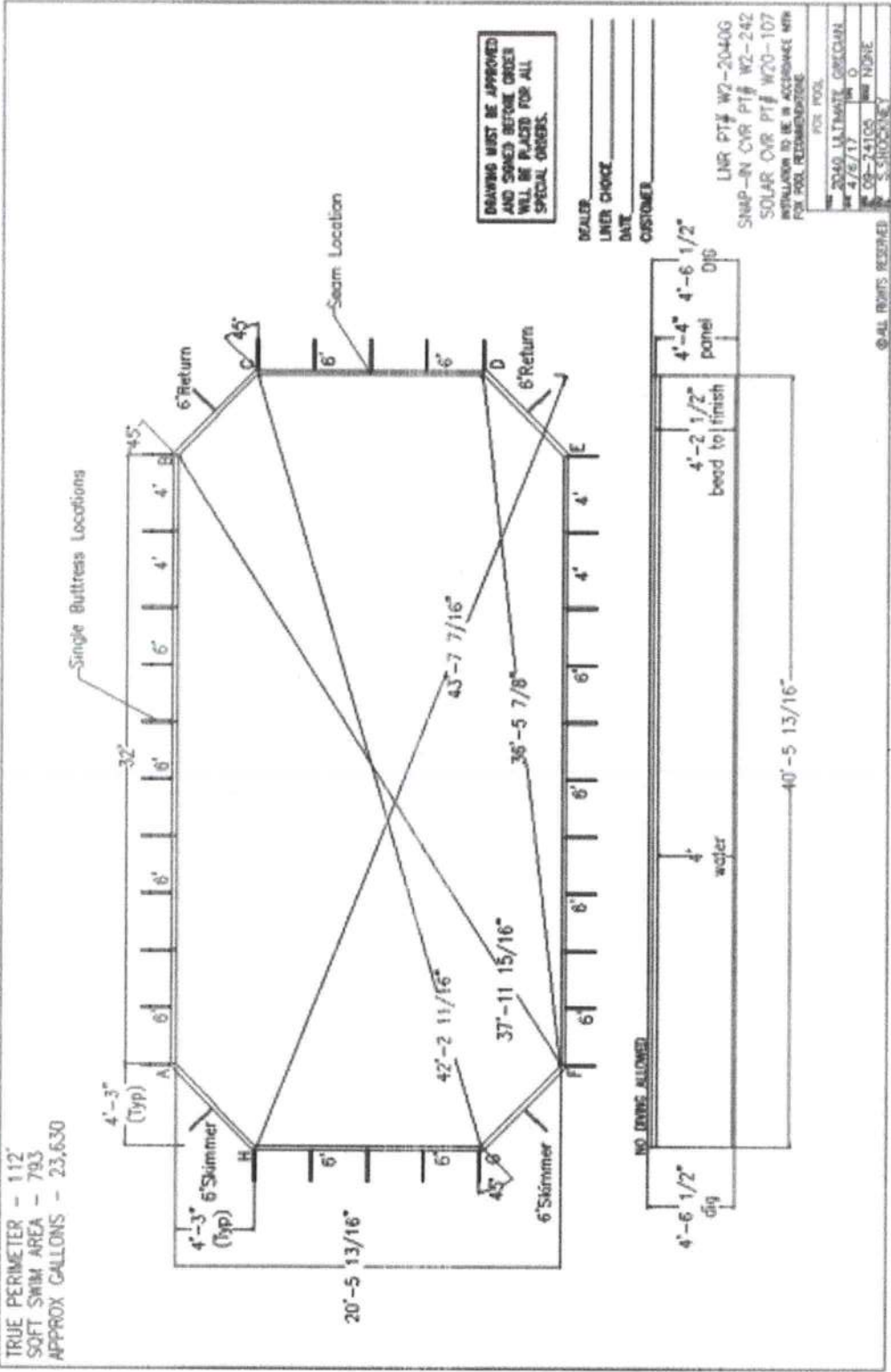
### 18x36 Grecian With Stair





## Pool Drawings

## 20x40 Grecian



### 20x40 Grecian With Stair

