

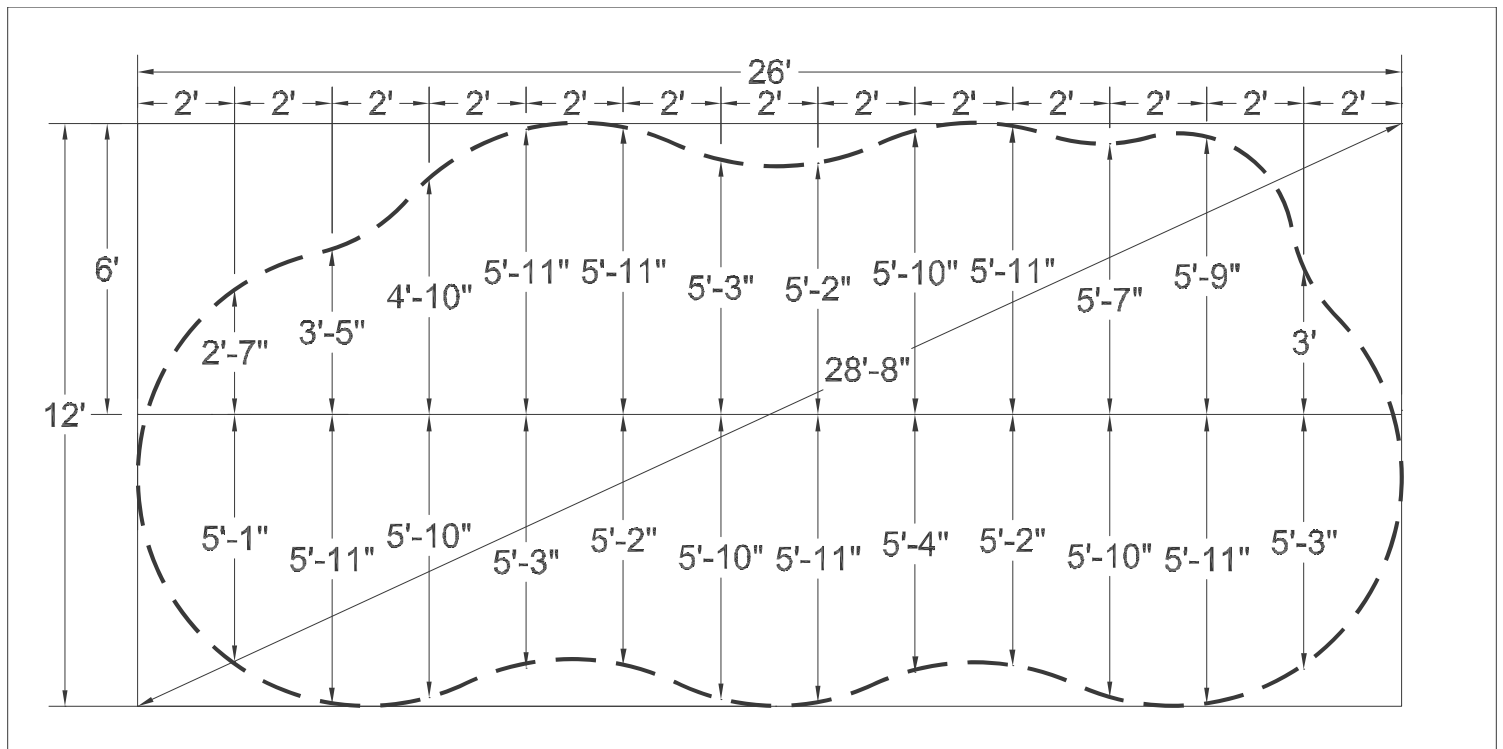
Step 2. POOL LAYOUT

When laying out the pool, note that the dimensions are to the outside edge of the pool beam. Most permit plans are measured to the water's edge. The beam of a Latham fiberglass pool is approximately 4" to 10" on all sides. Therefore, there is generally a difference of 8" to 20" between the length and width dimensions in the installation guide and those of the permit plans in most cases (see the Latham fiberglass pool specification document for inside and outside dimensions for each model). Overall length and width measurements may vary up to 3%. Depending on the customer and the local building inspector, this fact can be a critical consideration. Distances between the water's edge to most property lines, electrical lines, and other structures such as houses, garages, sheds and patios must be within plan specifications.

Start by laying out the pool template or with a 12' wide by 26' long rectangle with diagonal measurements of 28'-8". Next, layout the center point, making sure the center lines are at 90 degrees. Stake each point around the perimeter of the pool as shown in Figure 1. Connect each stake with string. Denote the location of the skimmer with a 2'x2' box outside of the pool layout. Use spray paint to follow the contour of the string. The outline will be the shape of the outside dimensions of the pool shell. Remove the string and stakes, leaving only the outline of the pool. Be sure to mark tanning ledge location, if any.

NOTE: Latham Pool Products offers yard templates for each pool model offered. The yard templates are reusable and are the dimensions of the shell. If using a yard template, simply lay the template out in the yard where the pool is to be set and paint a line on the edge of the template. Check price and availability. The template order form can be found in the Dealer Manual.

Figure 1 - Excavation Dimensions



Step 3. ELEVATION

Elevation and grade of the pool area are two of the most often overlooked or miscalculated variables in the installation process. While considering all the variables concerning elevation and grade, always remember that you want water to run away from the pool. Before excavation, use the provided Form 1 – INSTALLATION PLANNING GUIDE to calculate all critical measurements.

Check the four corners of the pool layout with the aid of a laser level or a sight level to determine the highest corner. This corner will be used in planning the elevation of the pool. In a typical installation, the elevation of the pool should be 4-6 inches above the highest point of the existing grade around the pool. However, careful consideration should be given to pool type, size and drainage of the future pool deck, as well as the elevation of the surrounding landscape and existing structures, patios and sidewalks.

INSTALLATION PLANNING GUIDE

Job: _____ Pool:AL Date: _____

Finish Grade	_____
* Slope	_____
Top of Concrete at Pool	_____
Thickness of Concrete	+ 3.5"
Top of Pool	_____
Shallow End Depth	+ 42" or 3'-6"
Top of Bedding Material Shallow End	_____
Thickness of Bedding Material	+ 3.5"
Top of Dig Shallow End	_____
Top of Pool	_____
Deep End Depth	+ 66" or 5'-6"
Top of Bedding Material Deep End	_____
Thickness of Bedding Material	+ 3.5"
Top of Dig Deep End	_____



* SLOPE = DISTANCE TO POOL X .25 (1/4")
 ** IF POOL IS INDEPENDENT OF ANY EXISTING STRUCTURES OR PATIOS, FINISH GRADE IS TO BE 3 1/2" BELOW EDGE OF POOL DECK.

3" - 4" 1/2 INCH CRUSHED, WASHED CLEAN ANGULAR STONE OR SAND FREE OF FOREIGN MATERIAL

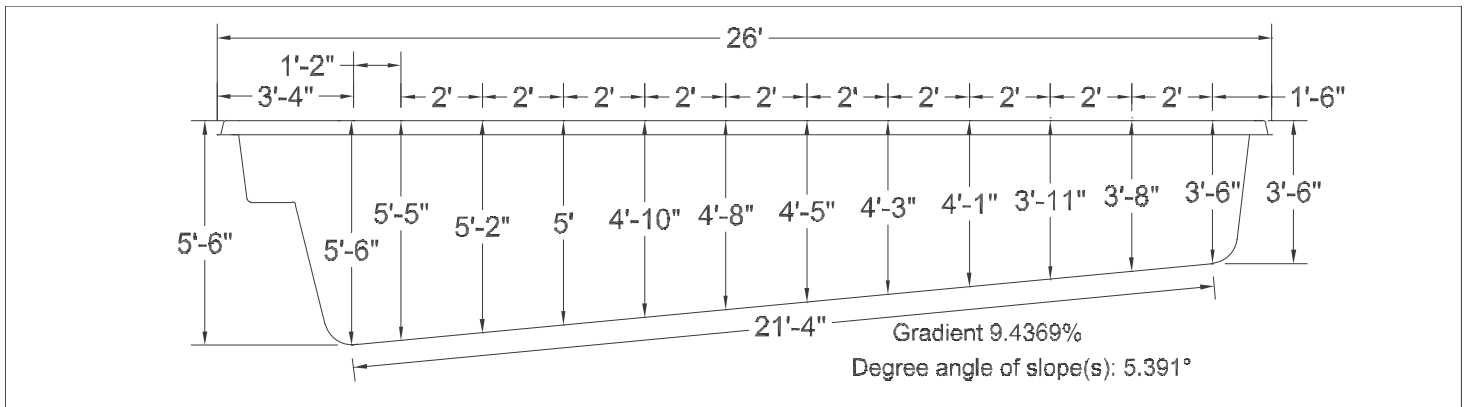
Step 4. EXCAVATION

Correct excavation of the pool is very important. A hole that is too small can mean hours of picking and shoveling by hand. A hole that is too large will require extra recommended backfill material, which if not dealt with properly, can result in settling or bulging of the pool.

The excavation should be dug very close to the pool size with a minimum disturbance to the unexcavated soil which will support the pool. The clearance is approximately 6" on the sides and 6" on the ends (see Figure 2). The use of an excavation bucket with a grading blade attached will cause less disturbance to the soil than an excavation bucket with teeth.

NOTE: THE MEASUREMENTS PROVIDED BELOW ENABLE THE BUILDER TO SET THE SHELL WITHIN A FEW INCHES OF LEVEL. LIFT THE SHELL AND ADJUST THE BASE AS NECESSARY TO ACHIEVE LEVELNESS OF THE SHELL WITHIN THE INDUSTRY STANDARD.

Figure 2 - Pool Shell Depth Dimensions



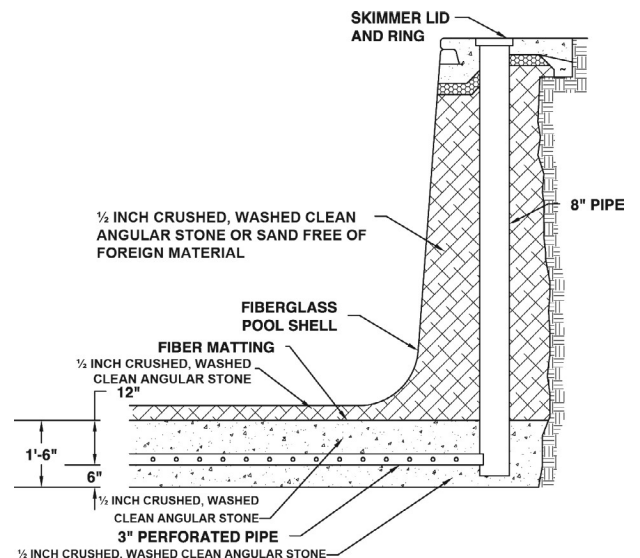
The depth of the excavation is determined with the use of a transit level and grade pole. The bottom of the excavation is over dug approximately 4". This size pool will require approximately 20 to 25 yards of ½ inch crushed, washed clean angular stone or sand free of foreign material for backfill (more may be required if the excavation is significantly over-dug).

The excavation should be 13' by 27', with a total depth of approximately 3'-10" (shallow end) to approximately 5'-10" (deep end) from the desired elevation of the pool. It can be helpful to give yourself extra room the first 6" in width and 12" in length of the hole, to get past the coping, and allow space for the skimmer and bottom suction fittings (if any). Also, keep in mind that the wall of our pools are tapered, usually 1" in for every 12" in depth. A place for the skimmer must also be dug in the side of the excavation wall. The skimmer cutout should be 2' by 2' and 3' deep. See Figure 1 for placement. Pools with tanning ledges require the tanning ledge area excavated to the depth stated in Fig. 1 plus 4" for bedding material.

Never use excavated material as fill or backfill in the hole; the material will settle. We suggest ½ inch crushed, washed clean angular stone or sand free of foreign material compacted thoroughly (a plate tamper is recommended for the pool base). The fill material used for the pool base must also be used to backfill around the sides of the pool shell. In the case of significant over excavation on the sides of the pool or in seasonal high water or poor drainage areas, you may want to mix 10% Portland cement with the backfill for stabilization.

In order to be in compliance with Latham's recommended guidelines Latham requires that a permanent sump pipe (see Figure 3) be installed on all pools. A gravity fed "daylight drain" is preferred to a permanent sump pipe installation, if applicable. The purpose of the sump pipe installation (or daylight drain) is to provide a means of checking for groundwater around the pool and allow for dewatering the site prior to any work on the pool that requires lowering the water level within the pool shell, thus minimizing potentially high hydrostatic pressure. Latham recommends the installation of a permanent sump pump in areas with a high water table and/or significant ground water. Latham suggests digging an 18" x 8' x 18" trench across the deep end of the excavation. Six inches of 1/2" clean gravel should be placed in the bottom of the trench. A section of 3" perforated PVC pipe is placed on the rock base and connected to a vertical stand of 8" PVC pipe running to the surface of the excavation. Cover the new sump line with landscaping fabric. The 8" PVC riser pipe should be trimmed with a skimmer ring and lid for aesthetics and safety. After the connection has been made to the vertical stand of 8" PVC, finish covering the 3" perforated PVC pipe with 1/2" to 1" clean gravel to the bottom of the excavation (see Figure 3). The bottom of the excavation is now ready for approximately 4" of base material. Be sure to secure the skimmer lid (with screws) to the ring attached to the top of the vertical 8" PVC.

Figure 3 - Sump Pipe Installation



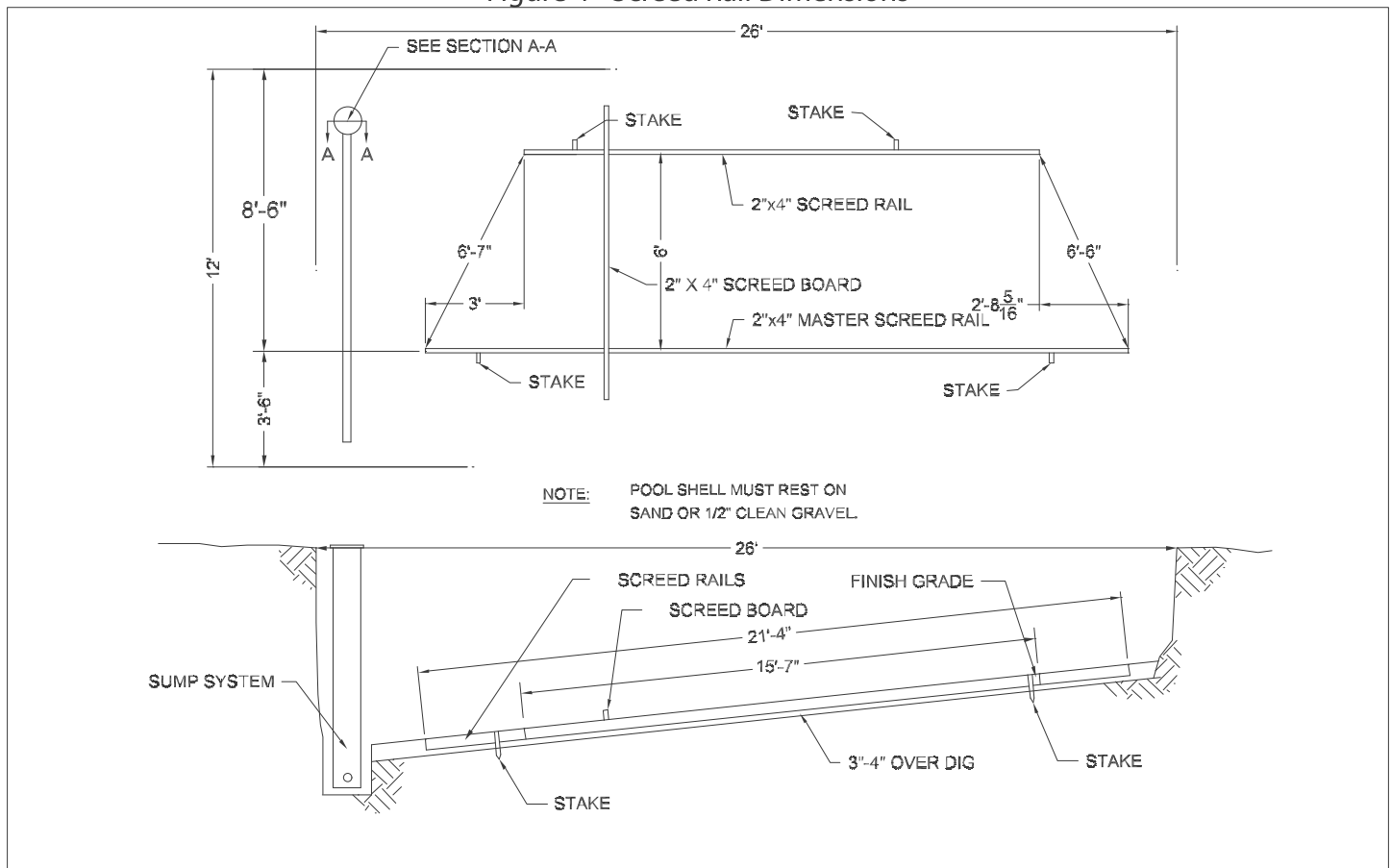
Step 5. PREPARATION OF THE BOTTOM SURFACE OF THE EXCAVATION

The preparation of the excavation bottom is critical so the pool will fit properly. Thorough preparation will reduce settling, stress cracks and a minimize the amount of time will be spent setting and leveling the pool.

First, install the 2" x 4" master screed rail(s) length wise in the excavation, using wood or metal stakes (See Figure 4). Make sure the diagonal measurement is exact to insure that the bottom is square. Adjust the master screed rail(s) to the appropriate height using a transit level (See Figure 2). Next, install the remaining screed rail(s) parallel to the master screed rail(s) using the offset dimensions as shown in Figure 4 and making sure that they are aligned to the Master screed rail(s) to insure that the bottom is square. Next, spread a layer of fill material approximately 4" deep evenly over the bottom of the excavation. Rake the fill material flat to the top of the screed rails (See Figure 3). Compaction of the fill material is generally achieved by screeding it into place, but depths of greater than 4" will require use of a plate tamper. Rake and compact the area until a stable base for the shell is achieved. Screed the bottom of the excavation, filling any low spots as you go. Remove the screed rails and fill in the voids with fill material, being careful not to disturb the fill.

NOTE: THE MEASUREMENTS PROVIDED BELOW ENABLE THE BUILDER TO SET THE SHELL WITHIN A FEW INCHES OF LEVEL. LIFT THE SHELL AND ADJUST THE BASE AS NECESSARY TO ACHIEVE LEVELNESS OF THE SHELL WITHIN THE INDUSTRY STANDARD.

Figure 4 - Screed Rail Dimensions



Step 6. SETTING THE POOL

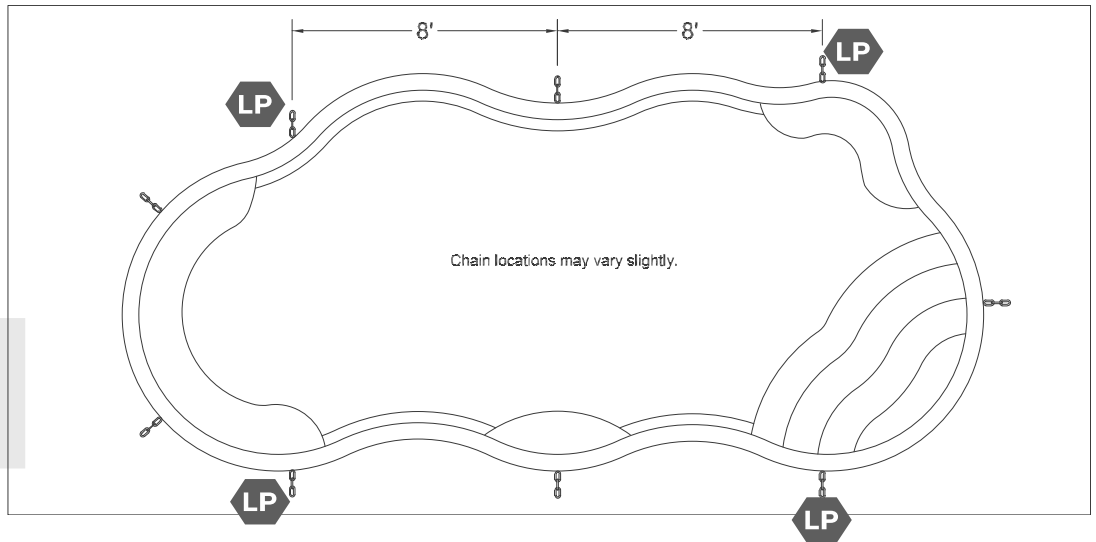
Upon arrival/delivery of your pool shell, be sure to inspect the pool for damage that may have occurred during transportation and for conformity to order specifications. The recommended method of setting the pool shell is by making use of a crane or boom truck. A track-mounted excavator can be used to lower the pool into the excavation, but directions should be obtained from Latham prior to setting the shell. Please note that Latham recommends lifting all pool models over 12' wide with a spreader bar and 20' lifting straps. Once the pool is set in the excavation, the pool should be checked for level and the bottom should be walked over to detect any voids in the fill material that might be present.

The pool is then lifted and reset as many times as necessary to achieve a "good fit." A good fit is realized by raking the surface of the fill material in order to see where the pool's perimeter is touching (footprint) and by walking around on the inside of the pool to detect low spots. It is normal to feel a slight void under the center of the pool, but walking in the pool should cause the floor to rest on the bed of fill material. The pool shell will conform to the base material under the weight of the water. It is important to make certain that the bottom, perimeter, and all transition points are sitting firmly upon the bed of fill material. The pool can be separated from the lifting equipment when the entire perimeter of the pool (including all transitions) is level within the industry guidelines.

Figure 12 - Chain Locations

LEGEND:

LP - Lifting Point



POOL LIFTING NOTE:

1. When being lifted from the trailer and/or set in the excavated installation site, four (4) 20' straps should be used. The 4 straps should be connected to a common lift point, typically the ball of the crane.

LIFTS SHOULD BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE STANDARDS SUCH AS OSHA AND ASME. SPECIFIC STANDARDS THAT MAY BE APPLICABLE ARE LISTED BELOW. THIS IS NOT AN ALL-INCLUSIVE LIST AND OTHER REGULATIONS WHICH MAY APPLY DEPENDING HOW LIFT IS PERFORMED AND EQUIPMENT USED.

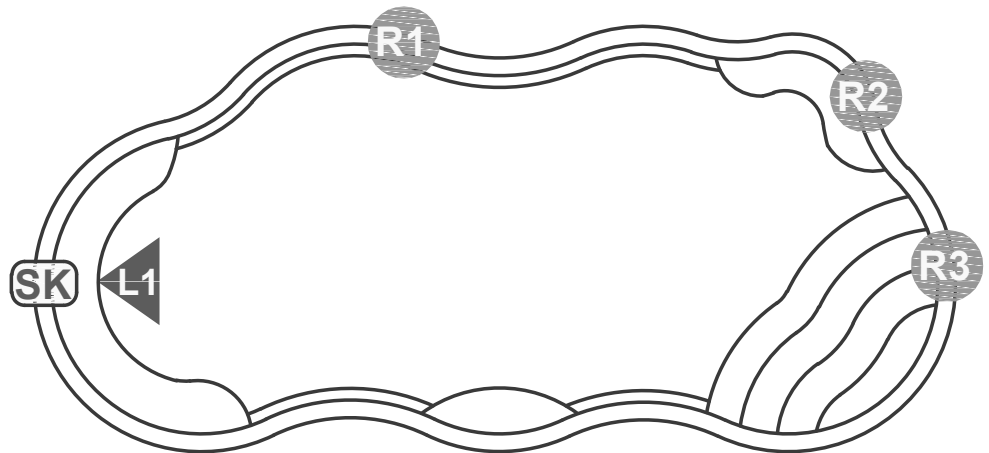
ASME B30.5 OSHA 29 CFR 1910.133 OSHA 29 CFR 1910.179 OSHA 29 CFR 1910.180 OSHA 29 CFR 1926.753

IT IS THE RECIPIENT'S RESPONSIBILITY TO PROPERLY ASSESS THE SITUATION AND ACCOUNT FOR VARIABLES SUCH AS, BUT NOT LIMITED TO WEATHER, EQUIPMENT CONDITION, LOCAL REGULATIONS, ETC. BEFORE OFFLOADING CAN OCCUR. ANY DAMAGE RESULTING FROM THE LIFTING OF THE POOL SHELL IS THE RECIPIENT'S RESPONSIBILITY TO BEAR

Figure 13 - Standard Fitting Locations

LEGEND:

- SK - Skimmer
- R - Return Fitting
- L - Light
- OS - Optional Skimmer Location for Auto Cover Bundle

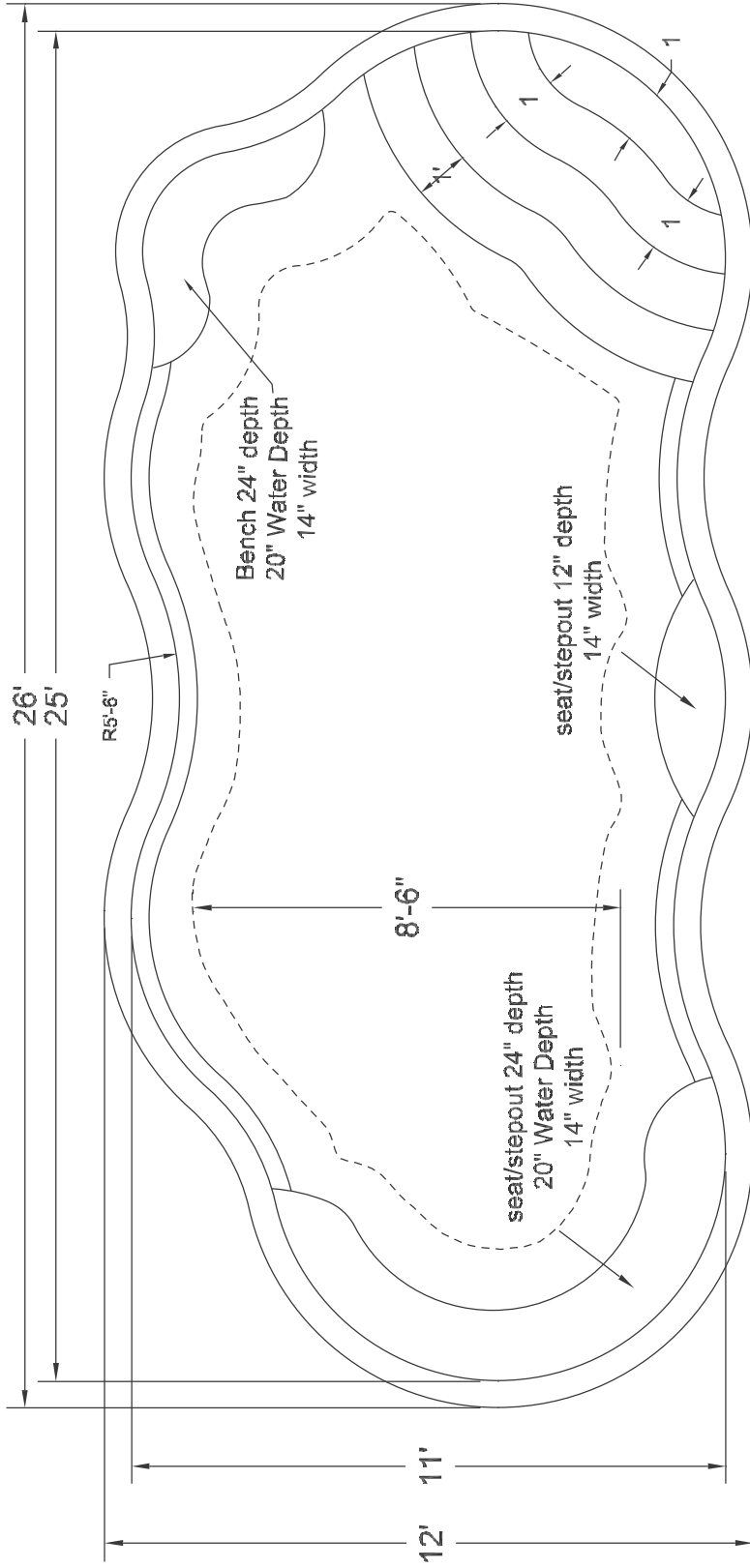


Drawing denotes approximate standard outfitting locations. Additional fittings and custom outfitting not shown.

WARNING TO THE BUYER:

The pool is designed to be kept full at all times. The shell can be damaged if the water level is allowed to drop below the skimmer. When appreciable draw-down is noticed, or if it becomes necessary to drain the pool, contact Latham Pool Products, or their agents for instructions. The pool shell may be damaged and separation from the concrete may occur if the pool is allowed to overflow or if heavy water drainage is allowed to over-run the deck to pool shell connection. Keep the water level in the middle of the skimmer. Latham Pool Products will not be held responsible for any unforeseen problems or circumstances which arise from inadequate site drainage or incorrect deck installation. Refer to the Latham Warranty for conditions, circumstances, or installation practices that may void the pool's warranty.

POOL	CODE	SIZE - WIDTH x LENGTH	DEPTHS - SHALLOW, DEEP	GALLONS APPROX.	WATERSURFACE AREA (SF)	PERIMETER - LINEAR FEET	LINEAR FEET - STEPS	LINEAR FEET - SEATS	WEIGHT
Bermuda	AL	12' x 26'	3'-6", 5'-6"	7,000	226	63	29	23	1,838



Length, width and depth may vary up to 3% - all dimensions are to outside edge of coping, measured from parallel lines. All other dimensions +/- 1inch.

