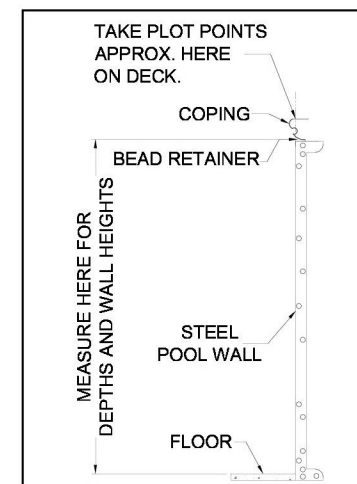
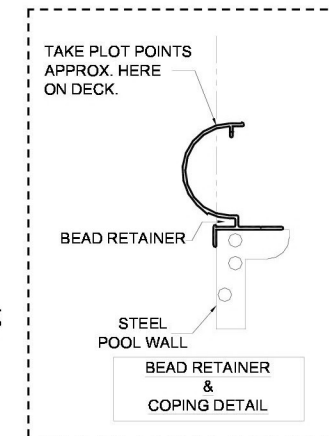
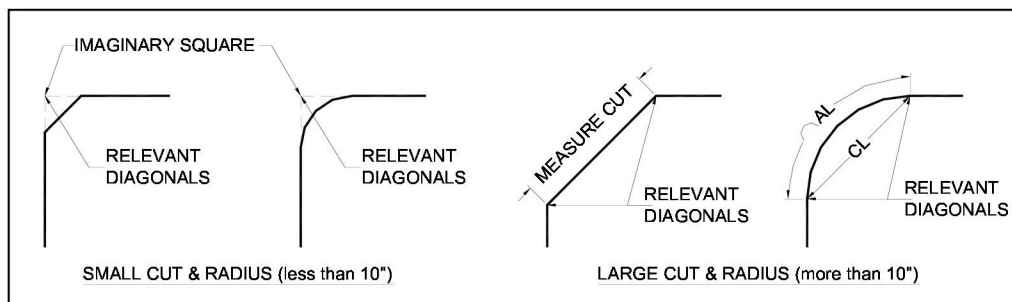


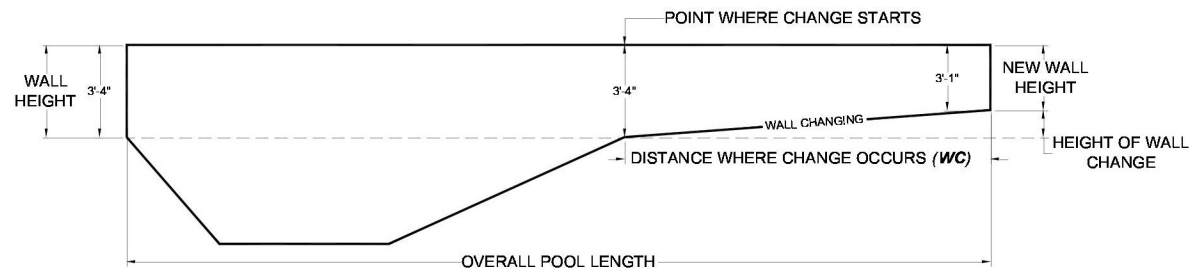
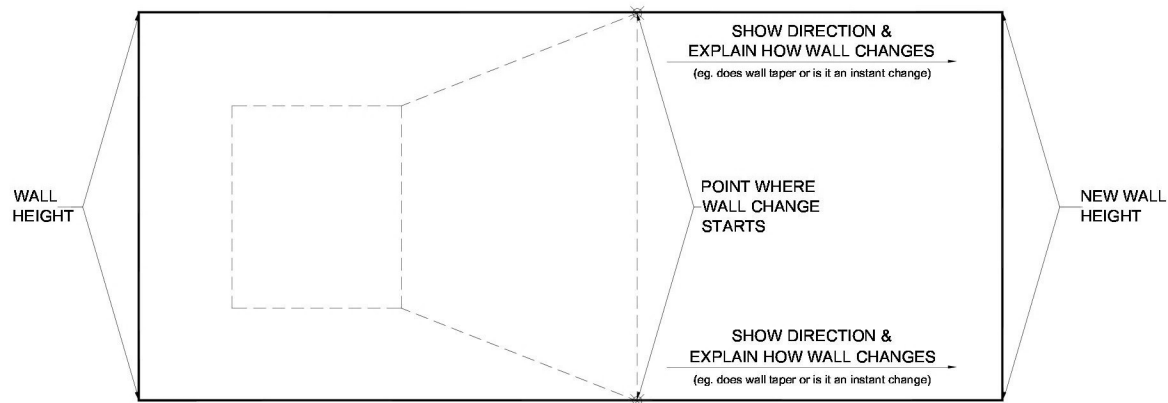
Keys to an Accurate Pool Measure:

- Use appropriate Megna measuring sheet.
- Measure in consistent units Imperial or Metric (*preferably Imperial feet and inches NOT inches alone*).
- Do not round off measurements; measure to ¼ inch accuracy.
- Measure to the center of the bead retainer and not to the coping.
 - On pools being plotted; be sure to plot where the actual pool wall is and not to the edge of the overhanging coping. You can mark on the deck where the pool wall is with chalk.
- For depths and wall heights measure from the bead retainer to the floor **NOT** from the top of the deck (*if you measure from the top of the deck remember to subtract the distance of the deck to the bead retainer from your overall measurement*).
- Pools with small cut/radius corners less than 10 inches, diagonals should be taken to the imaginary square. For larger cut corners measure as and for larger radius corners measure and provided dimensions for the chord (***CL***) and arc (***AL***) length.



- Indicate any irregularities and provide necessary info in the pool for:
 - Safety ledges – width of ledge at back slope and side slopes
 - Deeper break-offs – slopes and depth at break-off

- Coves – slopes and depth
- Convex slopes – mark locations on drawing, very important for fit of liner
- Changes in wall height – mark on drawing top view and profile where, how and over what distance does the wall change (*WC*) occur.



- Ensure overall pool length and width is the sum of the respective profiles.
- Measure perimeter along the actual pool wall not the coping. If you use a perimeter wheel please measure the pool multiple times and provide the average (*We do not recommend using a perimeter wheel*).
- Provide pictures of the entire pool; especially for pools with irregularities (*Take a few around the area you are trying to show from a few different angles and distances. This is so that we can better understand what you are trying to show.*)

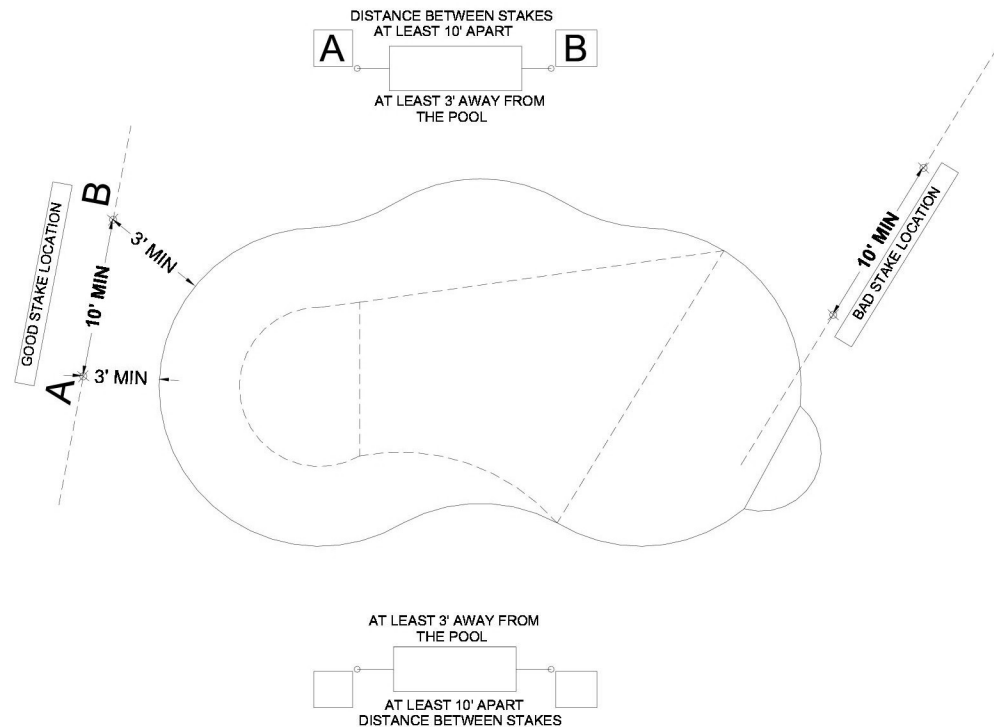
A-B Triangulation/Plot Instructions

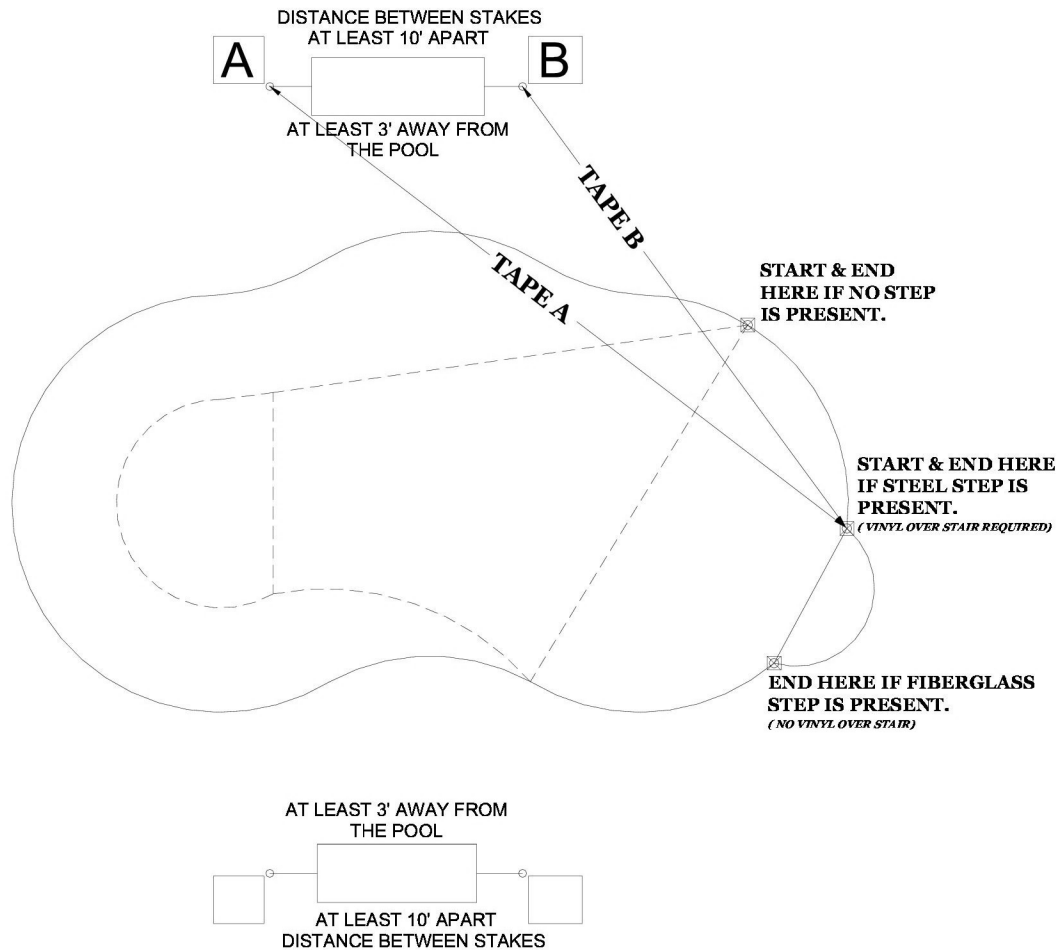
Tools Required for Pool Measuring:

- | | |
|---|-----------------------------------|
| I. 2 x Fiberglass tape measures – 100 ft (two different colors) | V. Megna measuring sheets and pen |
| II. 2 x Stakes (12” nails or similar) | VI. Chalk |
| III. Telescopic pole | VII. Level |
| IV. Plumb bob on string | |

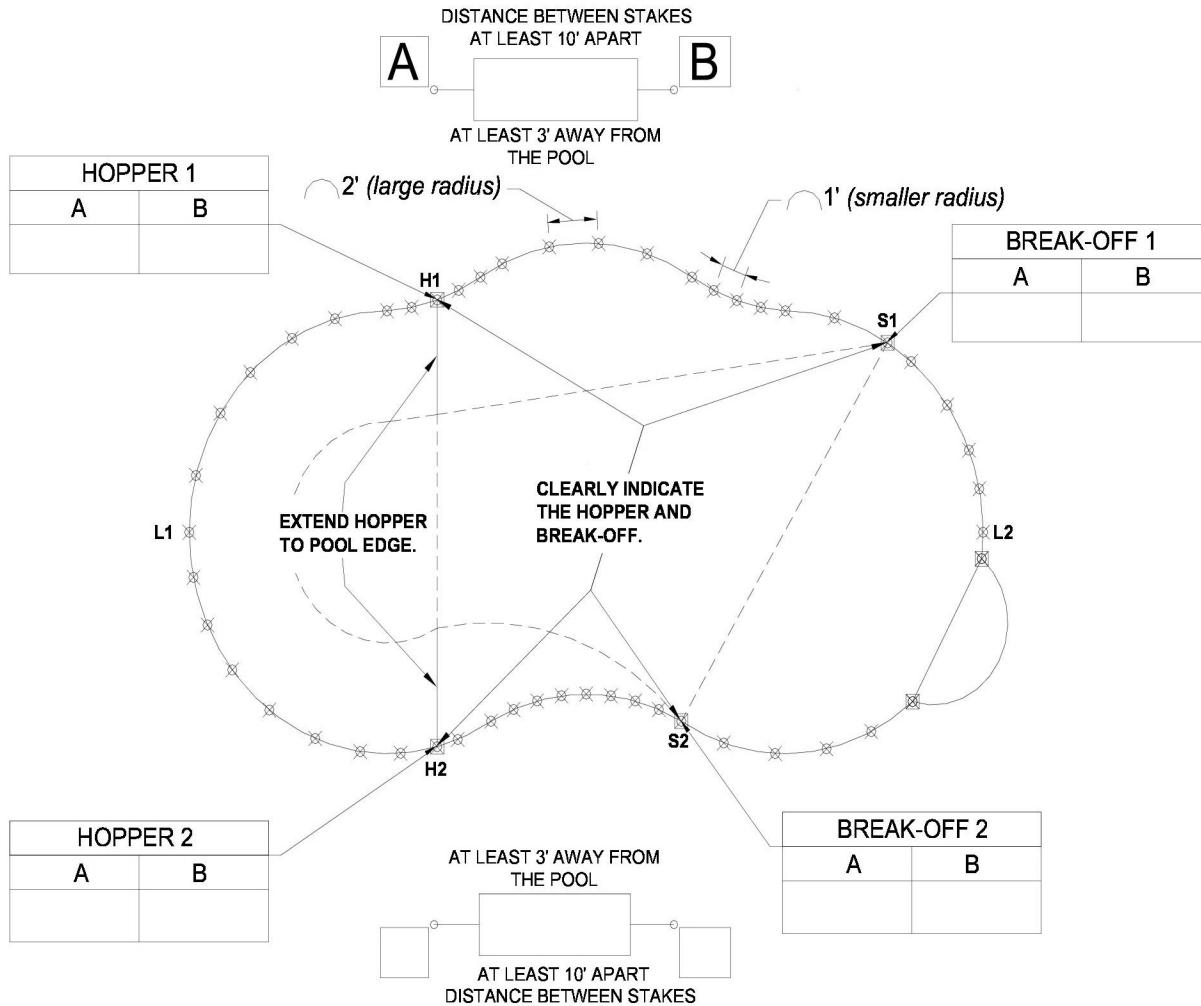
How to Measure:

1. Sketch the pool indicating clearly the location of the hopper and shallow end breaks, if you are using a freeform measuring sheet. For common shapes as provided in the Megna measuring book chose the correct pool measuring sheet.
2. Using your stakes establish two positions with a minimum distance of 10 feet apart and at least 3 feet away from the pool edge. When choosing the position, ensure stakes are parallel or perpendicular to the pool centerline and if extended in either direction they must not intersect the pool. Once the stakes are fixed into position record the distance between them (A-B) and location in relation to the pool. ***Ensure to select the stake out location on the measuring sheet that is most applicable to your pool and stake placement. If you cannot place stakes as shown on the measuring sheet due to obstructions please draw and label where your stakes are set up, this is very important as it determines the hand of the pool.***





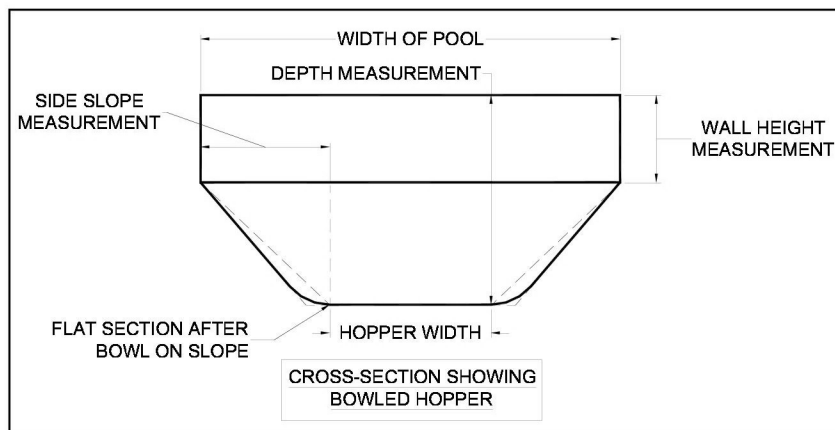
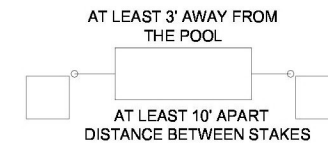
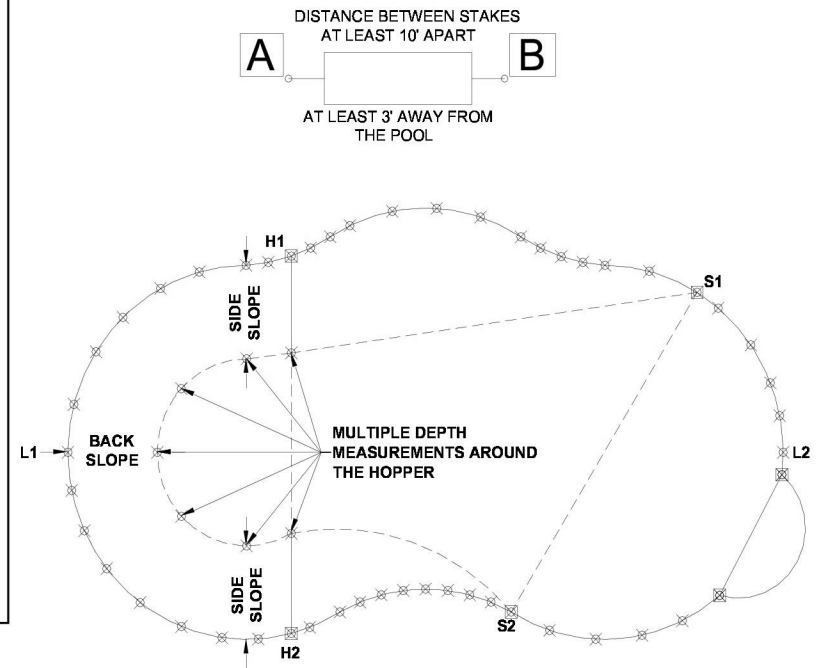
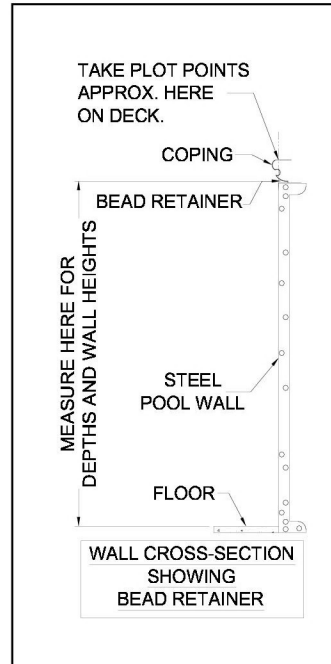
- Attach a tape measure to each of the fixed stakes. Be sure to remember which stake is A and B (*this is why two different color tape measures are suggested*). Start from a definitive point on the pool such as the end of the step or the break-off. Pull both tape measures to the point at the ***same time***. Record the measurement on the “A” tape in the A column on the measuring sheet and the “B” measurement in the B column. ***Ensure to record measurements to ¼ inch accuracy.***



- Use this method; taking measurements around the entire pool **approximately every 2 feet for large radius sections and 1 foot for tight reverse, or smaller radius sections**. On straight wall pools you can go a bit wider but enough points must be taken along the straight in the event that one does not work. **Ensure to plot the start and end of a corner or radius also a minimum of two points in between.**
- Identify Hopper and Break-off locations: use chalk to mark the Break-off points (**S1 and S2**) on the coping and for the Hopper (**H1 and H2**), use an imaginary line to extending to the coping of the pool. The hopper line (**H1 and H2**) is taken where the front transition meets the flat section in the deep end. Record the A-B measurements for each point and ensure to put them into the appropriate boxes on the measuring sheet.

6. Slopes, depth and the wall height measurements: Slopes are measured **horizontally** from the pool wall to the edge of the slope around the hopper. For the depth use the telescopic pole and the plumb bob to measure the **vertical** depth at the edge of the slopes. Take several measurements around the hopper and provide all if they vary more than 3 inches, if not use the shortest depth. Ensure to subtract the distance from the top of the deck to the bead retainer to provide the true depth of the pool. The wall height is determined by taking multiple **vertical** measurements around the shallow end from the bead retainer to the floor.

Measuring Bowled Hopper Slopes: When slopes are bowled or rounded at the hopper the measurement is taken horizontally from the pool wall to the point on the pad that is flat. **DO NOT** measure to the imaginary intersection or middle of the radius as this will increase the possibility of puckers when the liner is installed.





7. Measure overall pool length (*L1-L2*) [*plot a point at the furthest deep end and shallow end section; you must tell us the point numbers with regard to the A-B for these locations*], break-off (*S1-S2*) and hopper (*H1-H2*), these measurements are important as they are used to check the accuracy of the plot.
8. Measure the perimeter, this ***MUST*** be provided because it is used to confirm the plot is accurate. To obtain this measurement use the 100' tape measure and measure from a definitive point on the pool such as; the break-off or the edge of a step and work your way around the pool just below the coping. ***Ensure to also measure the step and indicate if the step is straight or curved.***



Keys to an Accurate Plot:

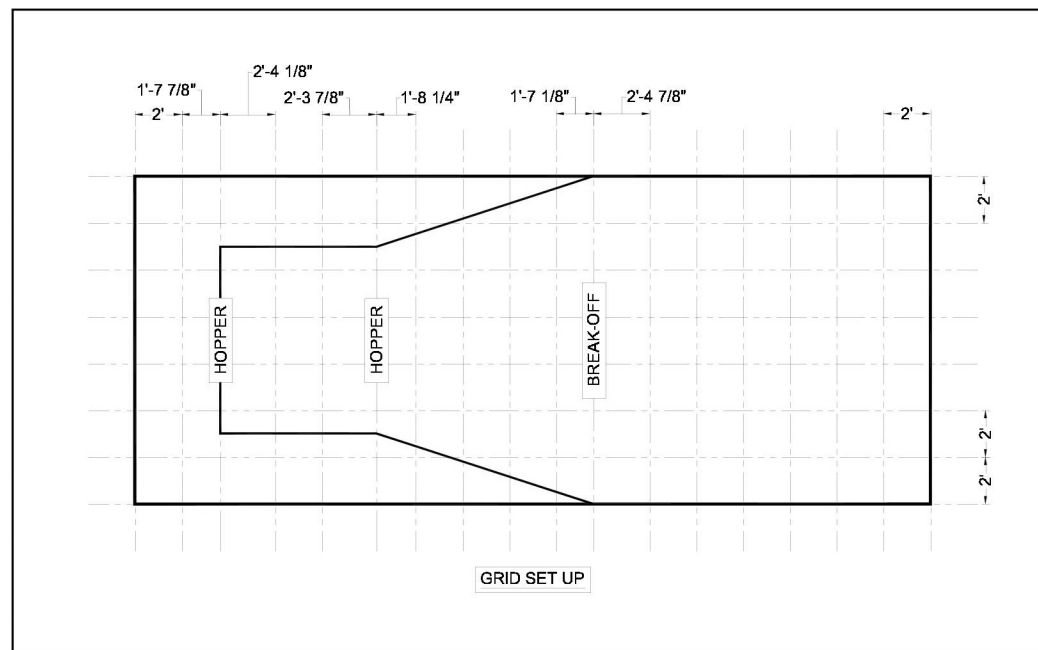
- Ensure stakes are placed at least 3 feet from the pool edge and do not cross the pool if extended in both directions.
- Distance between stakes is at least 10 feet. ***(The wider the stakes the more accurate the plot.)***
- Measure points every 1-2 feet depending on the pool section.
- Measure to the pool wall and not to the overhanging coping. ***DO NOT round dimensions to the nearest inch.***
- Be sure to indicate and plot hopper and break-off locations from the same A-B location.
- Be sure not to mix up the A and B measurements when recording.
- Measure points to ¼" accuracy and record in feet and inches.
- Only plot start and end of step for ***fiberglass*** steps
 - Indicate if step is curved or straight and the manufacturer
 - When vinyl over stair is required remember to plot and indicate what points are the threads along the pool wall.
- Measure and provide overall pool length (***L1-L2***), break-off (***S1-S2***) and extended hopper length (***H1-H2***).
- Provide a couple pictures of the entire pool from different angles.
- ***MEASURE AND PROVIDE POOL PERIMETER.***



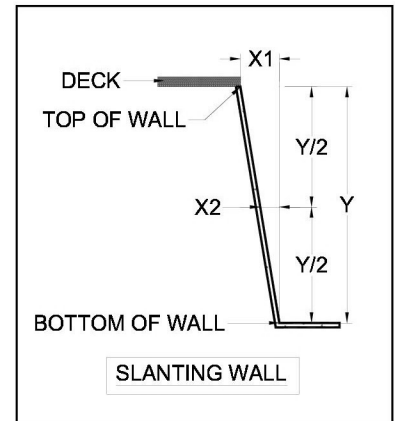
Measuring Concrete Pools

Every concrete pool varies due to the installer and the fact that it is constructed by poured concrete. This makes each concrete pool measure different and some *may require multiple visits to confirm or provide additional measurements*. Megna *cannot guarantee* the fit of these types of liners. Here are a few of the basic tips to get you started:

- We recommend choosing a full print liner pattern
- Take a few pictures from different angles of the entire pool and any features in the pool such as; steps, benches, coves, safety ledges, etc.
- Ensure sure walls are plumb; use a level on the pool wall to check. If walls are not plumb you will need to take measurements to allow us to construct the pool liner wall because *slanting walls will greatly affect the fit of the liner*.
 - For **RECTANGLE** pools a grid of 2-3 feet must be set up around the pool (*ensure you provide the distances of the grid that may vary*). Along the length of the pool ensure that they are grid lines at the break-off and hopper. Use these increments around the pool to measure:



- The *horizontal (X1)* distance between the top of the wall and the bottom wall
 - The *vertical (Y)* distance from the top of the wall to the bottom wall
 - The *horizontal (X2)* distance half way down the *vertical (Y/2)* length of the wall to the bottom of the wall
- For any concrete pool that is **NOT RECTANGULAR**; the pool must be plotted and at each plot point these measurements must be provided:
- The *horizontal (X1)* distance between the top of the wall and the bottom wall
 - The *vertical (Y)* distance from the top of the wall to the bottom wall
 - The *horizontal (X2)* distance half way down the *vertical (Y/2)* length of the wall to the bottom of the wall



- Measure slopes, depth and wall height. Take a few measurements around the hopper and shallow end to ensure depth and wall height is consistent.
- For concrete steps and benches we recommend that a template be made out of tracing paper or vinyl. The template must be of the wall around the step, each thread and riser. We also recommend that concrete steps and benches be built on-site. Along with the template be sure to provide the length of each thread and perimeter of the step/bench to be used to check template accuracy.