



Optimum Pool

by Wilbar



**GENERAL
INSTRUCTIONS**

**OVAL
95-0771**



Optimum Pool

In order for your pool warranty to be deemed valid
you **must** register your pool at

www.mypoolwarranty.com



POOL SAFETY

PLEASE READ PRIOR TO INSTALLATION

WARNING!

Failure to observe these warnings may result in permanent injury, paralysis from a broken neck, and death due to electrocution or drowning. This pool is NOT designed for diving or jumping. Serious injuries can result from jumping or diving into shallow water! Carefully read, understand and follow all information in this user manual before installing and enjoying your swimming pool. These warnings, instructions and safety guidelines address common risks of water recreation, but they cannot cover all possible risks and dangers in all cases. Always use caution and employ common sense and good judgment when enjoying any water activity.

Your pool contains a large quantity of water, and any amount of water, even shallow water, can present serious dangers to life and health unless these safety rules are strictly observed. First-time users run the highest risk of injury. Ensure all bathers understand these safety rules, and encourage all bathers, especially children, to learn how to swim. Learn basic life support (CPR) and refresh this knowledge regularly. Instruct all bathers, including children, what to do in case of emergency. Keep a working phone and a list of emergency phone numbers near the pool. This can save a life. To ensure your pool is used safely, you MUST observe and enforce the following safety precautions:

1. NO JUMPING OR DIVING

The top rail of your pool is not a walkway and must not be used for jumping or diving. Do not permit jumping or diving into the pool from a pool deck, the top rail of the pool, or from any structure outside the pool. Diving or jumping into the pool can result in serious injury.

2. NEVER USE THE POOL ALONE

Never permit the pool to be used unless it is attended by at least one person other than the bather. Someone should always be available to lend assistance in an emergency. Designate a competent adult to supervise the pool when in use. Vigilant supervision of weak swimmers and non-swimmers by a competent adult is required at all times. Children under five are at the highest risk of drowning.

3. NEVER LEAVE CHILDREN UNATTENDED

Never leave a child alone and unsupervised in or near the pool — not even for a second. There is no substitute for constant adult supervision.

4. NO ROUGH PLAY

Do not permit rough playing or roughhousing in and around your pool. Surfaces can become slippery and hazardous when wet.

5. LIGHT THE POOL AT NIGHT

If the pool is used after dusk, adequate lighting must be provided. Illumination in the pool area must be sufficient to allow swimmers to clearly judge pool depth and all features in and around the pool. For lighting recommendations, consult your local licensed electrical contractor.

6. RESTRICT ACCESS TO THE POOL

Do not leave chairs or other furniture beside the pool that could be used by a child to access the pool. Ladders must be removed whenever the pool is unattended. A fence with a lockable gate around the pool or yard is strongly recommended and may be required by law in some areas. Secure doors and windows, where applicable, to prevent unauthorized access to the swimming pool. Remove all toys from the swimming pool and surrounding area when not in use to avoid attracting children to the pool. Barriers, pool covers, pool alarms or similar safety devices are helpful aids, but they are not substitutes for continuous adult supervision.

7. NO ALCOHOL OR DRUGS

Never drink alcoholic beverages or use any intoxicants which could hinder your judgment and reflexes in an emergency.

8. KEEP YOUR POOL CLEAN AND SANITARY

Your filter system will remove suspended particles from the water and the surface skimmer will remove insects, leaves and other debris from the water surface. Use the correct pool chemicals as directed to destroy harmful bacteria and prevent formation of algae. Remember, unsanitary water is a serious health hazard.

8. KEEP OFF THE TOP LEDGES

Do not walk or stand on the top ledges. They can become slippery and result in serious injury.

9. POOL COVER SAFETY

The pool cover (sold separately) must have a tamper-proof locking retainer cable that positions the cover around the pool wall and keeps it securely in place. Never allow anyone, especially small children on the cover. Asphyxiation or drowning could result. Be sure to remove pool cover completely from the water surface before entering the pool. When purchasing any pool cover, please consult a pool professional.

11. ELECTRICAL HAZARD

Never touch or attempt to service electrical equipment, including the filter, when your body and/or the ground is wet. Electrocution or permanent injury due to high voltage (120V AC) could result. The pool should be bonded in accordance with Section 680-26 of the National Electrical Code. For further assistance contact your dealer or a local licensed electrician. Do not use pool during electrical or rain storms.

12. SAFETY ROPE AND POLE

Keep a safety rope measuring at least 50 feet long (15.24 meters) by ¼" thick (.635cm) securely attached to a flotation buoy with an outside diameter of 15" (38.1cm) in a prominent, easily accessible area by your pool. Keep a pole not less than 16 feet (4.88m) long with a blunt or hook end available at poolside in case of emergencies. Weak swimmers and non-swimmers should wear personal protection equipment when using the pool.

13. POOL CHEMICALS

Store pool chemicals out of the reach of children. Do not place chlorine, chlorine tablets or sticks directly into skimmer, or winterize your pool with liquid chlorine. Damage to the skimmer, pool liner and filter will result. Failure to observe this instruction will void all component warranties. Always follow chemical manufacturer's instructions when storing, handling and dispensing pool chemicals.

14. CHECK FOR DAMAGE

Periodically inspect your pool and ladder components for damage and wear. Be sure all screws are in place and tightened according to manufacturer's instructions. Replace all damaged or worn components and tighten all screws before you use the pool, deck or ladders. At first sign of rust, remove and touch up immediately.

15. POOL PARTS

Never modify the pool, its components or its accessories, remove hardware, or drill holes in the pool, deck or ladder components unless instructed to do so by the manufacturer. Your pool wall is made of thin, but strong metal, so please use work gloves to protect your hands during installation. Always utilize original manufactured parts for replacement. Failure to do so may void your warranty.

IMPORTANT NOTICE BEFORE INSTALLATION

SAFETY STICKERS

The safety stickers must be installed as per the following instructions. Failure to properly install warning labels will void warranty. Failure to mount these safety labels may subject you to substantial liability in case of injury. These warnings are not to be removed under any circumstances. If they become discolored or fall off, please request replacements from the manufacturer, which will be provided free of charge.

SITE CHOICE AND PREPARATION:

- Site choice and preparation is your responsibility.
- All parts to be handled with care and free of dirt and debris.
- Confirm you have all parts.
- Assure entire framework is level.
- Pool rupture due to improper installation could cause serious property damage.

FOLLOW ALL SAFETY INSTRUCTIONS

Read and follow all safety instructions packaged with pool, ladder, deck or any other accessory. Additional pool safety publications can be obtained by contacting: The Association of Pool & Spa Professionals (www.apsp.org)

Place signs on liner above water line, opposite entry to pool



Place signs on wall next to pool entry



Remember to watch children



INTRODUCTION

CONGRATULATIONS on becoming the owner of a new above ground swimming pool! This is the instruction packet for installation of your pool. The following are some helpful hints to keep in mind before installing.

- Read through the entire instruction booklet prior to installation so that you can familiarize yourself with everything involved with installing your swimming pool before you begin.
- **DO NOT ATTEMPT INSTALLATION IN WINDY OR GUSTY WEATHER.** This will make installation more difficult and could damage your pool before it's even completely installed.
- You will find that steps 1, 2 and 3 will be the most labor intensive and time-consuming steps, although the installation is broken down into many simple steps. Once you have completed the first three steps, you should find that the rest of the installation process moves along much more quickly.
- Please review all safety material and local code guidelines before beginning your installation. There is a yellow safety envelope packed with your pool. This envelope contains safety material and warning stickers to be placed on your pool. If any of these items are missing, please contact your dealer or the factory to obtain them. The warranty is void if all safety precautions are not followed.

- In the event that you need to make a warranty claim, it is important to know the size and model of your swimming pool in order to expedite the handling of your claim. Please fill in the information below and keep for your records. All of this information can be found on the labels attached to the cartons in which your pool is packed.

NAME OF POOL: _____
SIZE OF POOL: _____
DATE OF PURCHASE: _____
NAME OF POOL WALL: _____
NAME OF LINER: _____

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**OVAL POOL FOOTPRINTS
ARE LOCATED AT THE END
OF THE INSTRUCTIONS.
(PAGES 54-59)**

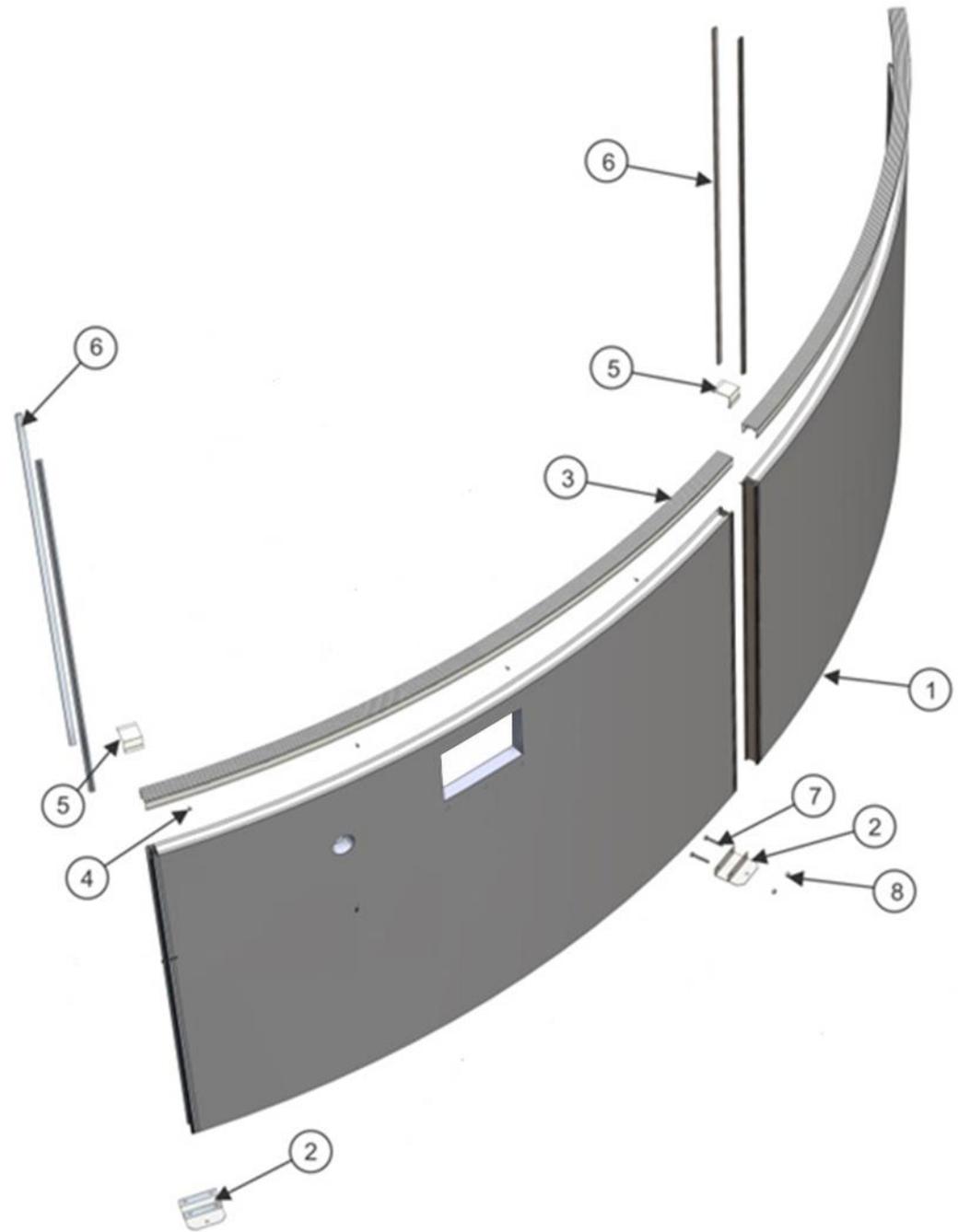
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Pool Components Check List

Components:

1	Curved Panel	See Pages 9-12
2	Bottom Plate	#77004
3	PVC Coping, Clay	See Pages 9-12
4	Painted Head Screws #8x1/2"	#99-0138
5	Coping Clip, 2" Standard Clay	#77310
6	Splines - 52"	#77002
7	Bolt, Hex Head Alum. 3/8" x 2-1/2"	#99-0137
8	Nut, Alum. 3/8"	#99-0134

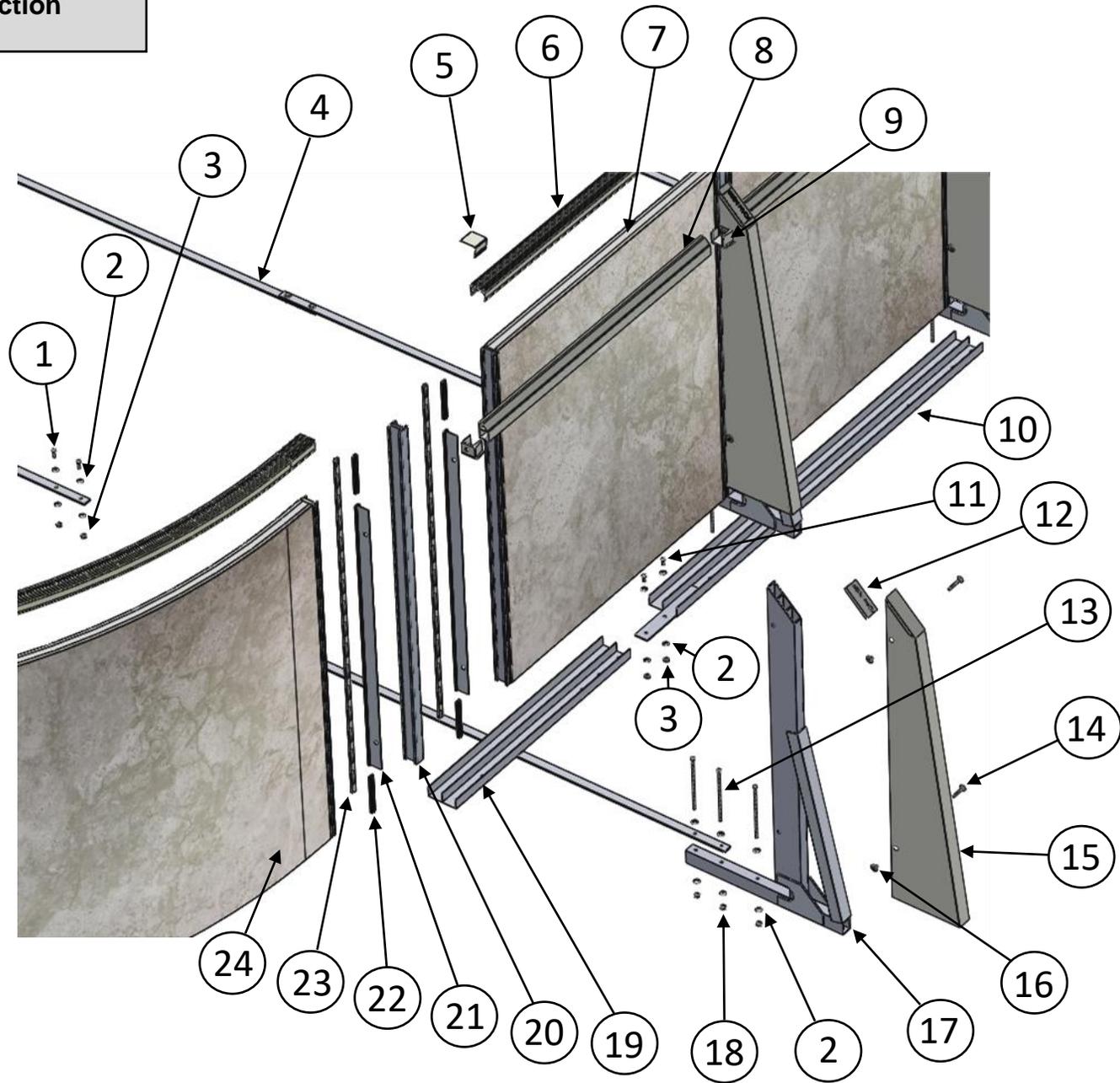


Section 1

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Pool Components Check List

1	Bolt, Hex Head 3/8"-16 x 1"	#99-0136
2	Washer, 7/8" Alum.	#99-0133
3	Nut, Hex 3/8"-16 Alum.	#99-0134
4	Straps, 16ft Oval	#77023
5	Coping Clip Standard Clay	#77310
6	PVC Coping, Clay	See Pages 9-12
7	Panel, Straight	#77059
8	Straight Side Brace 45-7/16"	#77156
9	Side Brace Mounting Bracket - Right	#77155
10	Straight Bottom Channel 66" W/B	#77021
11	Bolt, Hex Head 3/8"-16 x 3/4"	#99-0135
12	Foam Insert, A-frame Cover	#77069
13	Bolt, Hex Head 3/8"-16 x 8" SS	#99-0141
14	Bolt, Socket Flat Head 3/8"-16 x 2"	#99-0130
15	Cover, A-frame	#77036
16	Nut, Flat Head Rivet 3/8"-16	#99-0132
17	A-frame Upright	#77033
18	Nut, Hex 3/8"-16 SS	#99-0142
19	Straight Bottom Channel 36"	#77016
20	Straight Panel Connector	#77026
21	Extended Spline 40-1/2"	#77013
22	Spline, Short 5-3/4"	#77014
23	Spline, Standard 52"	#77002
24	Curved Panel	See Pages 9-12



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Pool Components Check List: Above Ground Skimmer Panel

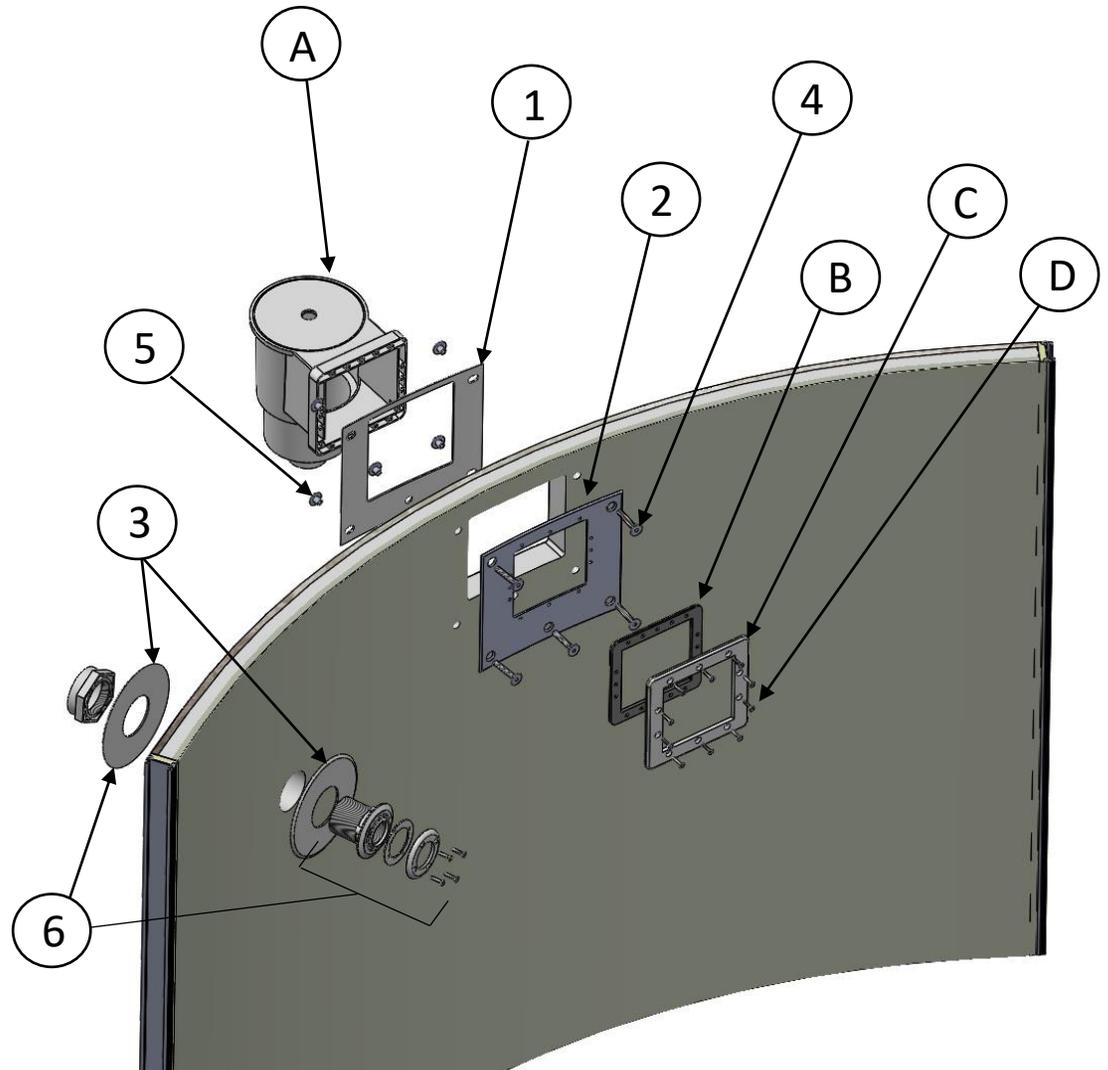
Pool

1. Skimmer Plate SP1091, White #77516
2. Skimmer Plate SP1091, Gray #77517
3. White Return Plate #77064
4. Bolt, Countersunk SS- 2 ¼" #99-0131
5. Nut, Flat Head Rivet SS #99-0132
6. Extended Return Fitting Set #77092

Skimmer Kit – (NOT INCLUDED)

- For Illustration Purposes Only -

- A. Skimmer
- B. Double Layer Gasket
- C. Skimmer Face Plate
- D. Screw, Flat Head



Section 1

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Pool Components Check List: In-Ground Skimmer Panel

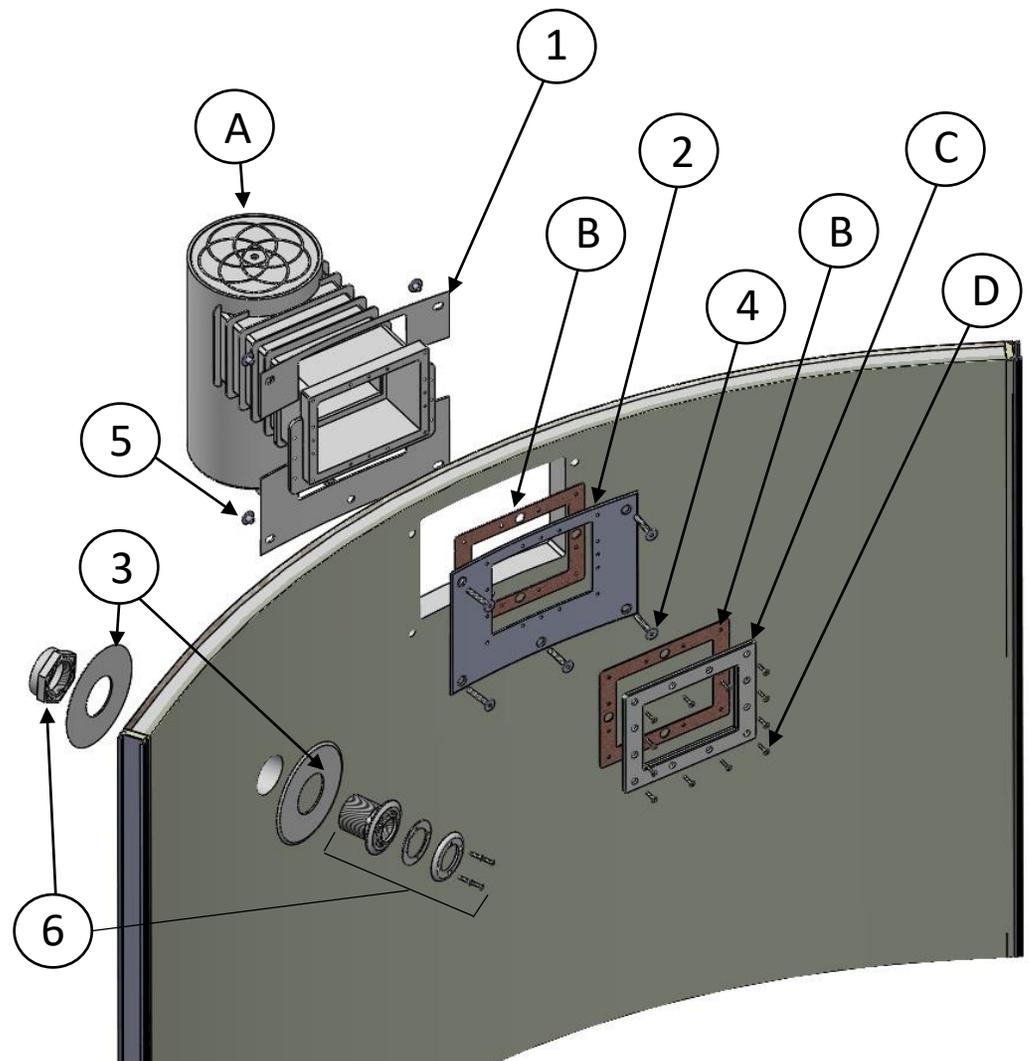
Pool

1. Skimmer Plate SP1084, White #77518
2. Skimmer Plate SP1084, Gray #77519
3. White Return Plate #77064
4. Bolt, Countersunk SS- 2 ¼" #99-0131
5. Nut, Flat Head Rivet SS #99-0132
6. Extended Return Fitting Set #77092

Skimmer Kit – (NOT INCLUDED) –

- For Illustration Purposes Only -

- A. Skimmer
- B. Synthetic Gasket
- C. Skimmer Face Plate
- D. Screw, Flat Head



Section 1

OPTIMUM OVAL ABOVE GROUND

PARTS PER POOL (ABOVE GROUND 2" COPING)

1. PANELS	Part No	1624	1628	1632	1826	1830	1834
OPTIMUM 16FT PANEL, STANDARD 73-7/16"	77055	7	7	7			
OPTIMUM 16FT PANEL, ABOVEGROUND SKIMMER 73-7/16"	77458	1	1	1			
OPTIMUM 16FT PANEL, IN-GROUND SKIMMER 73-7/16"	77501						
OPTIMUM 16FT PANEL, STEP FILLER 26-1/4"	77133						
OPTIMUM 18FT PANEL, STANDARD 82-3/4"	77056				7	7	7
OPTIMUM 18FT PANEL, ABOVE GROUND SKIMMER 82-3/4"	77459				1	1	1
OPTIMUM 18FT PANEL, IN-GROUND SKIMMER 82-3/4"	77502						
OPTIMUM 18FT PANEL, STEP FILLER 36"	77134						
OPTIMUM STRAIGHT PANEL 46"	77059	4	6	8	4	6	8
TOTAL PANEL COUNT	-	12	14	16	12	14	16
2. TOP RAIL COPING / PARTS	Part No	1624	1628	1632	1826	1830	1834
PVC COPING STANDARD CLAY 16FT 77-1/8"	77006	8	8	8			
PVC COPING STANDARD CLAY 18FT 86-5/8"	77007				8	8	8
COPING CLIP STANDARD CLAY	77310	10	12	14	10	12	14
PVC COPING STANDARD CLAY STRAIGHT 96"	77010	2	2	4	2	2	4
PVC COPING STANDARD CLAY STRAIGHT 48"	77128		2			2	
3. COMPONENTS	Part No	1624	1628	1632	1826	1830	1834
BOLT, COUNTERSUNK SS - 2"	99-0130	10	12	14	10	12	14
BOLT, COUNTERSUNK SS - 2-3/4"	99-0131	7	9	11	7	9	11
NUT, FLAT HEAD RIVET SS - 3/8"	99-0132	17	21	25	17	21	25
WASHER - 7/8" ALUMINUM	99-0133	68	96	116	68	96	116
NUT, ALUM. - 3/8"	99-0134	28	36	40	28	36	40
BOLT, HEX HEAD 3/8"-16 X 3/4"	99-0135	4	8	8	4	8	8
WASHER - 7/8" ALUMINUM	99-0133	68	96	116	68	96	116

3. COMPONENTS (CONTINUED)	Part No	1624	1628	1632	1826	1830	1834
BOLT, HEX HEAD 3/8"-16 X 1"	99-0136	12	16	20	12	16	20
BOLT, HEX HEAD ALUM. - 2-1/2"	99-0137	12	12	12	12	12	12
CAP SCREWS - #8 X 1/2" - CLAY HEAD	99-0138	60	75	75	60	75	75
HEX KEY - 7/32" SHORT ARM	99-0140	1	1	1	1	1	1
BOLT, HEX HEAD 8" LONG	99-0141	18	24	30	18	24	30
NUT, 3/8" SS	99-0142	18	24	30	18	24	30
REBAR - 3/8 X 15"	77001	12	14	16	12	14	16
SPLINE - 52"	77002	24	28	32	24	28	32
STRAIGHT BOTTOM CHANNEL 66" - W/ BRACKET	77021	2	4	4	2	4	4
STRAIGHT BOTTOM CHANNEL 36"	77016	2			2		
STRAIGHT BOTTOM CHANNEL 18"	77281		2			2	
STRAIGHT BOTTOM CHANNEL 66"	77018			2			2
SLIMMER PLATE SP 1091 WHITE (OUTSIDE POOL)	77516	1	1	1	1	1	1
SKIMMER PLATE SP 1084 WHITE (OUTSIDE POOL)	77518						
SKIMMER PLATE SP 1091 GRAY (INSIDE POOL)	77517	1	1	1	1	1	1
SKIMMER PLATE SP 1084 GRAY (INSIDE POOL)	77519						
RETURN PLATE WHITE (INSIDE/OUTSIDE)	77064	2	2	2	2	2	2
BOTTOM PLATE	77004	6	6	6	6	6	6
EXTENDED RETURN FITTING	77092	1	1	1	1	1	1
STRAIGHT PANEL CONNECTOR	77026	6	8	10	6	8	10
SPLINE, SHORT 5-3/4"	77014	24	32	40	24	32	40
SPINE, EXTENDED 52"	77013	12	16	20	12	16	20
A-FRAME UPRIGHT	77033	6	8	10	6	8	10
COVER, A-FRAME	77036	6	8	10	6	8	10
FOAM INSERT, A-FRAME COVER	77069	6	8	10	6	8	10
STRAPS, 16FT OVAL 64-3/16"	77023	9	12	15			
STRAPS, 18FT OVAL 72-3/16"	77025				9	12	15
SIDE BRACE MOUNTING BRACKET - LEFT	77153	4	6	8	4	6	8
SIDE BRACE MOUNTING BRACKET - RIGHT	77155	4	6	8	4	6	8
STRAIGHT SIDE BRACE - 45-7/16"	77156	4	6	8	4	6	8

Section 1

OPTIMUM OVAL ABOVE GROUND

PARTS PER POOL (ABOVE GROUND 4" COPING)

1. PANELS	Part No	1624	1628	1632	1826	1830	1834
OPTIMUM 16FT PANEL, STANDARD 73-7/16"	77055	7	7	7			
OPTIMUM 16FT PANEL, ABOVEGROUND SKIMMER 73-7/16"	77458	1	1	1			
OPTIMUM 16FT PANEL, IN-GROUND SKIMMER 73-7/16"	77501						
OPTIMUM 16FT PANEL, STEP FILLER 26-1/4"	77133						
OPTIMUM 18FT PANEL, STANDARD 82-3/4"	77056				7	7	7
OPTIMUM 18FT PANEL, ABOVE GROUND SKIMMER 82-3/4"	77459				1	1	1
OPTIMUM 18FT PANEL, IN-GROUND SKIMMER 82-3/4"	77502						
OPTIMUM 18FT PANEL, STEP FILLER 36"	77134						
OPTIMUM STRAIGHT PANEL 46"	77059	4	6	8	4	6	8
TOTAL PANEL COUNT	-	12	14	16	12	14	16
2. TOP RAIL COPING / PARTS	Part No	1624	1628	1632	1826	1830	1834
PVC COPING 4" PREMIUM CLAY 16FT 77-1/8"	77254	8	8	8			
PVC COPING 4" PREMIUM CLAY 18FT 86-5/8"	77255				8	8	8
COPING CLIP 4" PREMIUM CLAY	77253	10	12	14	10	12	14
PVC COPING 4" PREMIUM CLAY STRAIGHT 96"	77261	2	2	4	2	2	4
PVC COPING 4" PREMIUM CLAY STRAIGHT 48"	77260		2			2	
PVC SCREW COVER 4" PREMIUM CLAY 16FT 77-1/8"	77254	8	8	8			
PVC SCREW COVER 4" PREMIUM CLAY 18FT 86-5/8"	77255				8	8	8
PVC SCREW COVER 4" PREMIUM CLAY STRAIGHT 96"	77261	2	2	4	2	2	4
PVC SCREW COVER 4" PREMIUM CLAY STRAIGHT 48"	77261		2			2	
3. COMPONENTS	Part No	1624	1628	1632	1826	1830	1834
BOLT, COUNTERSUNK SS - 2"	99-0130	10	12	14	10	12	14
BOLT, COUNTERSUNK SS - 2-¼"	99-0131	7	9	11	7	9	11
NUT, FLAT HEAD RIVET SS - 3/8"	99-0132	17	21	25	17	21	25
WASHER - 7/8" ALUMINUM	99-0133	68	96	116	68	96	116
NUT, ALUM. - 3/8"	99-0134	28	36	40	28	36	40
BOLT, HEX HEAD 3/8"-16 X 3/4"	99-0135	4	8	8	4	8	8
WASHER - 7/8" ALUMINUM	99-0133	68	96	116	68	96	116

3. COMPONENTS (CONTINUED)	Part No	1624	1628	1632	1826	1830	1834
BOLT, HEX HEAD 3/8"-16 X 1"	99-0136	12	16	20	12	16	20
BOLT, HEX HEAD ALUM. - 2-½"	99-0137	12	12	12	12	12	12
CAP SCREWS - #8 X ½" - CLAY HEAD	99-0138	60	75	75	60	75	75
HEX KEY - 7/32" SHORT ARM	99-0140	1	1	1	1	1	1
BOLT, HEX HEAD 8" LONG	99-0141	18	24	30	18	24	30
NUT, 3/8" SS	99-0142	18	24	30	18	24	30
REBAR - 3/8 X 15"	77001	12	14	16	12	14	16
SPLINE - 52"	77002	24	28	32	24	28	32
STRAIGHT BOTTOM CHANNEL 66" - W/ BRACKET	77021	2	4	4	2	4	4
STRAIGHT BOTTOM CHANNEL 36"	77016	2			2		
STRAIGHT BOTTOM CHANNEL 18"	77281		2			2	
STRAIGHT BOTTOM CHANNEL 66"	77018			2			2
SLIMMER PLATE SP 1091 WHITE (OUTSIDE POOL)	77516	1	1	1	1	1	1
SKIMMER PLATE SP 1084 WHITE (OUTSIDE POOL)	77518						
SKIMMER PLATE SP 1091 GRAY (INSIDE POOL)	77517	1	1	1	1	1	1
SKIMMER PLATE SP 1084 GRAY (INSIDE POOL)	77519						
RETURN PLATE WHITE (INSIDE/OUTSIDE)	77064	2	2	2	2	2	2
BOTTOM PLATE	77004	6	6	6	6	6	6
EXTENDED RETURN FITTING	77092	1	1	1	1	1	1
STRAIGHT PANEL CONNECTOR	77026	6	8	10	6	8	10
SPLINE, SHORT 5-¾"	77014	24	32	40	24	32	40
SPINE, EXTENDED 52"	77013	12	16	20	12	16	20
A-FRAME UPRIGHT	77033	6	8	10	6	8	10
COVER, A-FRAME	77036	6	8	10	6	8	10
FOAM INSERT, A-FRAME COVER	77069	6	8	10	6	8	10
STRAPS, 16FT OVAL 64-3/16"	77023	9	12	15			
STRAPS, 18FT OVAL 72-3/16"	77025				9	12	15
SIDE BRACE MOUNTING BRACKET - LEFT	77153	4	6	8	4	6	8
SIDE BRACE MOUNTING BRACKET - RIGHT	77155	4	6	8	4	6	8
STRAIGHT SIDE BRACE - 45-7/16"	77156	4	6	8	4	6	8

Section 1

OPTIMUM OVAL IN-GROUND

PARTS PER POOL (IN-GROUND – IG COPING)

1. PANELS	Part No	1624	1628	1632	1826	1830	1834
OPTIMUM 16FT PANEL, STANDARD 73-7/16"	77055	7	7	7			
OPTIMUM 16FT PANEL, ABOVEGROUND SKIMMER 73-7/16"	77458						
OPTIMUM 16FT PANEL, IN-GROUND SKIMMER 73-7/16"	77501	1	1	1			
OPTIMUM 16FT PANEL, STEP FILLER 26-1/4"	77133						
OPTIMUM 18FT PANEL, STANDARD 82-3/4"	77056				7	7	7
OPTIMUM 18FT PANEL, ABOVE GROUND SKIMMER 82-3/4"	77459						
OPTIMUM 18FT PANEL, IN-GROUND SKIMMER 82-3/4"	77502				1	1	1
OPTIMUM 18FT PANEL, STEP FILLER 36"	77134						
OPTIMUM STRAIGHT PANEL 46"	77059	4	6	8	4	6	8
TOTAL PANEL COUNT	-	12	14	16	12	14	16
2. TOP RAIL COPING / PARTS	Part No	1624	1628	1632	1826	1830	1834
PVC COPING STANDARD CLAY 16FT 77-1/8"	77006						
PVC COPING STANDARD CLAY 18FT 86-5/8"	77007						
COPING CLIP STANDARD CLAY	77310						
PVC COPING STANDARD CLAY STRAIGHT 96"	77010						
PVC COPING STANDARD CLAY STRAIGHT 48"	77128						
PVC COPING 4" PREMIUM CLAY 16FT 77-1/8"	77254						
PVC COPING 4" PREMIUM CLAY 18FT 86-5/8"	77255						
COPING CLIP 4" PREMIUM CLAY	77253						
PVC COPING 4" PREMIUM CLAY STRAIGHT 96"	77261						
PVC COPING 4" PREMIUM CLAY STRAIGHT 48"	77260						
IN-GROUND COPING FOAM STRIP - 10'	77177	7	9	9	7	9	10
SCREW - #10 X 3/4" TEK SS (34PK)	22-10142	4	5	5	4	5	6
IN-GROUND COPING ADAPTOR CLIP (17PK)	77149	4	5	5	4	5	6
3. COMPONENTS	Part No	1624	1628	1632	1826	1830	1834
BOLT, COUNTERSUNK SS - 2"	99-0130	10	12	14	10	12	14
BOLT, COUNTERSUNK SS - 2-3/4"	99-0131	7	9	11	7	9	11
NUT, FLAT HEAD RIVET SS - 3/8"	99-0132	17	21	25	17	21	25
WASHER - 7/8" ALUMINUM	99-0133	68	96	116	68	96	116
NUT, ALUM. - 3/8"	99-0134	28	36	40	28	36	40
BOLT, HEX HEAD 3/8"-16 X 3/4"	99-0135	4	8	8	4	8	8
WASHER - 7/8" ALUMINUM	99-0133	68	96	116	68	96	116

3. COMPONENTS (CONTINUED)	Part No	1624	1628	1632	1826	1830	1834
BOLT, HEX HEAD 3/8"-16 X 1"	99-0136	12	16	20	12	16	20
BOLT, HEX HEAD ALUM. - 2-3/4"	99-0137	12	12	12	12	12	12
CAP SCREWS - #8 X 1/2" – CLAY HEAD	99-0138						
HEX KEY – 7/32" SHORT ARM	99-0140	1	1	1	1	1	1
BOLT, HEX HEAD 8" LONG	99-0141	18	24	30	18	24	30
NUT, 3/8" SS	99-0142	18	24	30	18	24	30
REBAR - 3/8 X 15"	77001	12	14	16	12	14	16
SPLINE - 52"	77002	24	28	32	24	28	32
STRAIGHT BOTTOM CHANNEL 66" – W/ BRACKET	77021	2	4	4	2	4	4
STRAIGHT BOTTOM CHANNEL 36"	77016	2			2		
STRAIGHT BOTTOM CHANNEL 18"	77281		2			2	
STRAIGHT BOTTOM CHANNEL 66"	77018			2			2
SKIMMER PLATE SP 1091 WHITE (OUTSIDE POOL)	77516						
SKIMMER PLATE SP 1084 WHITE (OUTSIDE POOL)	77518	1	1	1	1	1	1
SKIMMER PLATE SP 1091 GRAY (INSIDE POOL)	77517						
SKIMMER PLATE SP 1084 GRAY (INSIDE POOL)	77519	1	1	1	1	1	1
RETURN PLATE WHITE (INSIDE/OUTSIDE)	77064	2	2	2	2	2	2
BOTTOM PLATE	77004	6	6	6	6	6	6
EXTENDED RETURN FITTING	77092	1	1	1	1	1	1
STRAIGHT PANEL CONNECTOR	77026	6	8	10	6	8	10
SPLINE, SHORT 5-3/4"	77014	24	32	40	24	32	40
SPINE, EXTENDED 52"	77013	12	16	20	12	16	20
A-FRAME UPRIGHT	77033	6	8	10	6	8	10
COVER, A-FRAME	77036	6	8	10	6	8	10
FOAM INSERT, A-FRAME COVER	77069	6	8	10	6	8	10
STRAPS, 16FT OVAL 64-3/16"	77023	9	12	15			
STRAPS, 18FT OVAL 72-3/16"	77025				9	12	15
SIDE BRACE MOUNTING BRACKET - LEFT	77153	4	6	8	4	6	8
SIDE BRACE MOUNTING BRACKET - RIGHT	77155	4	6	8	4	6	8
STRAIGHT SIDE BRACE – 45-7/16"	77156	4	6	8	4	6	8

Section 1

OPTIMUM OVAL IN-GROUND W/ STEP

PARTS PER POOL (IN-GROUND W/ STEP – IG COPING)

1. PANELS	Part No	1624	1628	1632	1826	1830	1834
OPTIMUM 16FT PANEL, STANDARD 73-7/16"	77055	5	5	5			
OPTIMUM 16FT PANEL, ABOVEGROUND SKIMMER 73-7/16"	77458						
OPTIMUM 16FT PANEL, IN-GROUND SKIMMER 73-7/16"	77501	1	1	1			
OPTIMUM 16FT PANEL, STEP FILLER 26-1/4"	77133	2	2	2	2	2	2
OPTIMUM 18FT PANEL, STANDARD 82-3/4"	77056				5	5	5
OPTIMUM 18FT PANEL, ABOVE GROUND SKIMMER 82-3/4"	77459						
OPTIMUM 18FT PANEL, IN-GROUND SKIMMER 82-3/4"	77502				1	1	1
OPTIMUM 18FT PANEL, STEP FILLER 36"	77134				2	2	2
OPTIMUM STRAIGHT PANEL 46"	77059	4	6	8	4	6	8
TOTAL PANEL COUNT	-	12	14	16	12	14	16
2. TOP RAIL COPING / PARTS	Part No	1624	1628	1632	1826	1830	1834
PVC COPING STANDARD CLAY 16FT 77-1/8"	77006						
PVC COPING STANDARD CLAY 18FT 86-5/8"	77007						
COPING CLIP STANDARD CLAY	77310						
PVC COPING STANDARD CLAY STRAIGHT 96"	77010						
PVC COPING STANDARD CLAY STRAIGHT 48"	77128						
PVC COPING 4" PREMIUM CLAY 16FT 77-1/8"	77254						
PVC COPING 4" PREMIUM CLAY 18FT 86-5/8"	77255						
COPING CLIP 4" PREMIUM CLAY	77253						
PVC COPING 4" PREMIUM CLAY STRAIGHT 96"	77261						
PVC COPING 4" PREMIUM CLAY STRAIGHT 48"	77260						
IN-GROUND COPING FOAM STRIP - 10'	77177	7	9	9	7	9	10
SCREW - #10 X 3/4" TEK SS (34PK)	22-10142	4	5	5	4	5	6
IN-GROUND COPING ADAPTOR CLIP (17PK)	77149	4	5	5	4	5	6
3. COMPONENTS	Part No	1624	1628	1632	1826	1830	1834
BOLT, COUNTERSUNK SS - 2"	99-0130	10	12	14	10	12	14
BOLT, COUNTERSUNK SS - 2-3/4"	99-0131	7	9	11	7	9	11
NUT, FLAT HEAD RIVET SS - 3/8"	99-0132	17	21	25	17	21	25
WASHER - 7/8" ALUMINUM	99-0133	68	96	116	68	96	116
NUT, ALUM. - 3/8"	99-0134	28	36	40	28	36	40
BOLT, HEX HEAD 3/8"-16 X 3/4"	99-0135	4	8	8	4	8	8
WASHER - 7/8" ALUMINUM	99-0133	68	96	116	68	96	116

3. COMPONENTS (CONTINUED)	Part No	1624	1628	1632	1826	1830	1834
BOLT, HEX HEAD 3/8"-16 X 1"	99-0136	12	16	20	12	16	20
BOLT, HEX HEAD ALUM. - 2-1/2"	99-0137	12	12	12	12	12	12
CAP SCREWS - #8 X 1/2" – CLAY HEAD	99-0138						
HEX KEY – 7/32" SHORT ARM	99-0140	1	1	1	1	1	1
BOLT, HEX HEAD 8" LONG	99-0141	18	24	30	18	24	30
NUT, 3/8" SS	99-0142	18	24	30	18	24	30
REBAR - 3/8 X 15"	77001	12	14	16	12	14	16
SPLINE - 52"	77002	24	28	32	24	28	32
STRAIGHT BOTTOM CHANNEL 66" – W/ BRACKET	77021	2	4	4	2	4	4
STRAIGHT BOTTOM CHANNEL 36"	77016	2			2		
STRAIGHT BOTTOM CHANNEL 18"	77281		2			2	
STRAIGHT BOTTOM CHANNEL 66"	77018			2			2
SLIMMER PLATE SP 1091 WHITE (OUTSIDE POOL)	77516						
SKIMMER PLATE SP 1084 WHITE (OUTSIDE POOL)	77518	1	1	1	1	1	1
SKIMMER PLATE SP 1091 GRAY (INSIDE POOL)	77517						
SKIMMER PLATE SP 1084 GRAY (INSIDE POOL)	77519	1	1	1	1	1	1
RETURN PLATE WHITE (INSIDE/OUTSIDE)	77064	2	2	2	2	2	2
BOTTOM PLATE	77004	5	5	5	5	5	5
EXTENDED RETURN FITTING	77092	1	1	1	1	1	1
STRAIGHT PANEL CONNECTOR	77026	6	8	10	6	8	10
SPLINE, SHORT 5-3/4"	77014	28	36	44	28	36	44
SPINE, EXTENDED 52"	77013	14	18	22	14	18	22
A-FRAME UPRIGHT	77033	6	8	10	6	8	10
COVER, A-FRAME	77036	6	8	10	6	8	10
FOAM INSERT, A-FRAME COVER	77069	6	8	10	6	8	10
STRAPS, 16FT OVAL 64-3/16"	77023	9	12	15			
STRAPS, 18FT OVAL 72-3/16"	77025				9	12	15
SIDE BRACE MOUNTING BRACKET - LEFT	77153	4	6	8	4	6	8
SIDE BRACE MOUNTING BRACKET - RIGHT	77155	4	6	8	4	6	8
STRAIGHT SIDE BRACE – 45-7/16"	77156	4	6	8	4	6	8
4. STEP COMPONENTS	Part No	1624	1628	1632	1528	1730	1932
NUT, HEX FLANGE 3/8" SS	10660	18	18	18	18	18	18
STEP ROD EXTENSION 52"	77173	2	2	2	2	2	2
BOLT, HEX FLANGE 3/8" X 1" SS	99-0104	18	18	18	18	18	18
STEP SOCKET EXTRUSION 52"	77143	2	2	2	2	2	2
STEP ATTACHEMENT FENDER WASHER 3/8" X 1-3/4"	77175	12	12	12	12	12	12
STEP ANCHOR PLATE MODIFIED RIGHT	77142	1	1	1	1	1	1
STEP ANCHOR PLATE MODIFIED LEFT	77141	1	1	1	1	1	1
STEP DIAGONAL BRACE ANGLE 18"	77146	2	2	2	2	2	
STEP HORIZONTAL BRACE ANGLE 37-13/16"	77148	2	2	2	2	2	2

Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Tools You Will Need:

- | | |
|----------------------------------|-------------------------------|
| Tape measure - 100' | Pliers - channel lock |
| Marking spray paint or powder | 9/16" open end wrench |
| String - 25' length | Screwdrivers, flat & Phillips |
| Stake or peg – 12" | Metal file |
| Transit, laser level or 3' level | Utility knife |
| Rubber mallet | PVC pipe cutter |
| Hacksaw | Pool trowel |
| Spade | Cloth rag |
| Square shovel | Cooking spray |
| Pick | Shop vacuum |
| Rake | Soft bristle broom |
| Tamper square 10" or 12" | Extension cord |
| 2x4, straight - 12' | Hose with spray nozzle |
| Square | Wheelbarrow |
| Power drill | |
| 7/16" and 1/8" drill bits | |
| ¼" hex nut driver bit | |
| Socket set | |
| Duct tape | |

Also Needed But Not Included:

Patio blocks - (2" x 12" x 12")

Masonry Blocks - (8" x 8" x 16")

Masonry Sand

Concrete

INGROUND Installations:

Backfill (Crushed stone or gravel 3/8"- 3/4" dia. recommended)

Perforated Drain Pipe (for drainage if site floods easily)

Pool Size	Masonry Sand Cubic Yards	Patio Blocks	Masonry Blocks	Concrete Footing Cubic Yards	Concrete Collar Cubic Yards*	Concrete In-Ground Step Support
1624	2.4	22*	8	2	2	3
1628	2.8	22*	8	2-3/4	2-1/4	3
1632	3.3	30*	12	3-3/4	2-1/2	3
1826	2.9	22*	8	2	2	3
1830	3.4	22*	8	2-3/4	2-1/4	3
1834	3.9	30*	12	3-3/4	2-1/2	3

*Note – Concrete collar is necessary in addition to the concrete footing once pool is installed deeper than 24" below grade.

*Note - Add (1) patio block to total required when using the In-ground step.

Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 1 – Select a Pool Location

DO NOT locate the pool:

- over underground lines (electrical, sewage, plumbing, gas).
- over septic tanks.
- under overhead electrical lines.
- near hazardous structures.
- out of compliance with local code restrictions.

DO NOT locate the pool on a site:

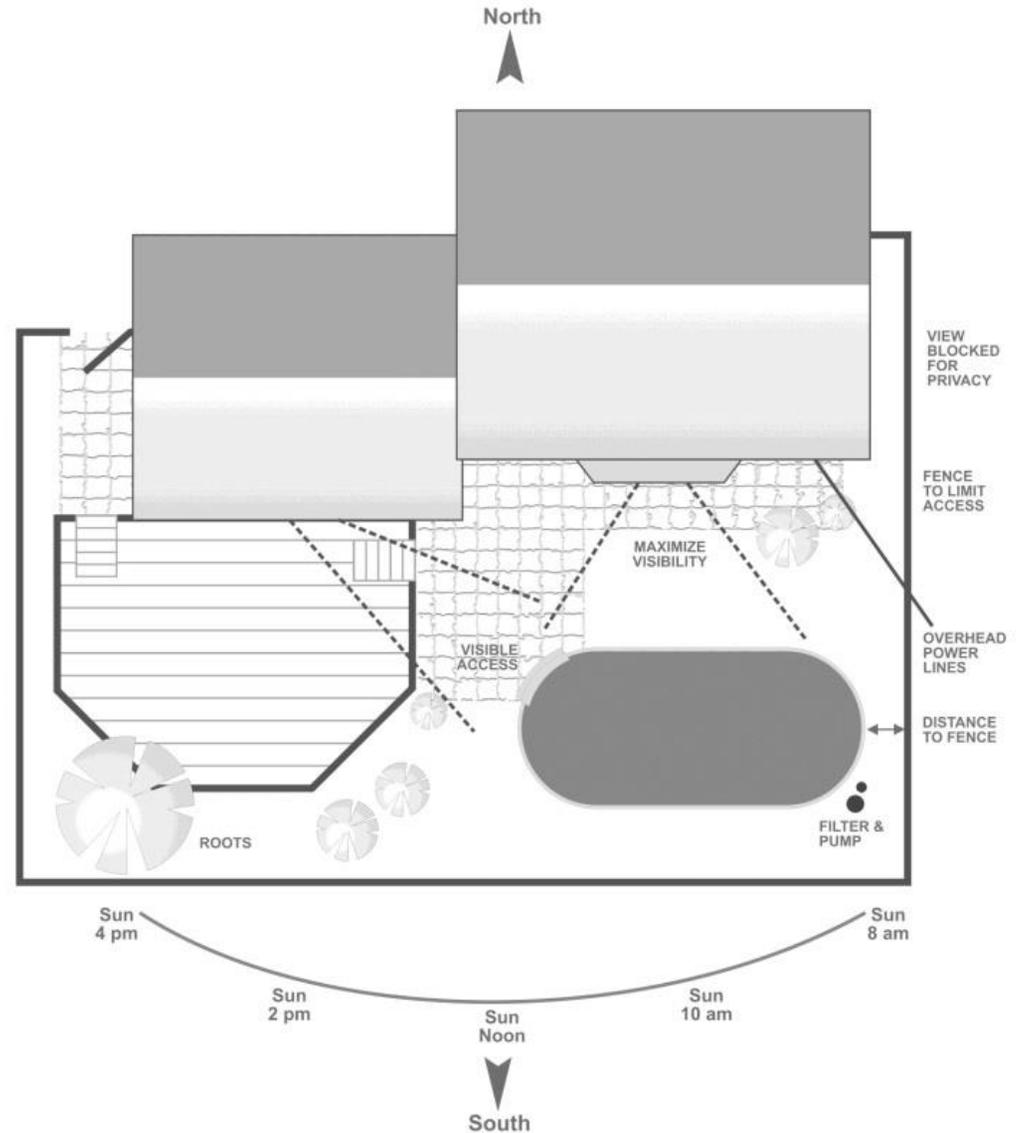
- that is hilly - avoid areas with sudden slopes within 6' of pool
- that has poor drainage or tends to flood.
- in areas with sharp objects.
- on ground that has been treated with weed killer, pesticides or other chemicals.
- that has nut grass, Bermuda grass or bamboo grass growing nearby, as they can grow through your liner and puncture it.

DO NOT assemble your pool:

- on asphalt, tar or oil-based surfaces.
- with components such as filters, pumps, and heaters placed where they can be used to access the pool by young children.

DO ensure:

- the area selected has a level and firm base.
- surface is flat 2' beyond pool diameter.
- access is available to electrical and water supplies.
- the pool is installed far from structures which could encourage dangerous activities, like jumping from a roof or playset.
- you are aware of your local codes and restrictions.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 2 – Create a Foundation

2.1 Define the initial geometry by marking the pool site. The specific dimensions for each pool foundation is shown on the following footprints located on pages 17 through 22. Establish the centers of the two semi-circles as illustrated by driving a stake into the ground at both center points.

2.2 Attach one end of a string to one of the center stakes, measure the string out to equal the pool radius, plus an additional 12 inches for clearance. Holding the string taut, walk the semi-circle of the planned outer perimeter while marking the ground with spray paint, a lawn edger or white powder. Repeat with the opposing stake.

Mark the straight sections of the pool next to join the two previously created semi-circles.

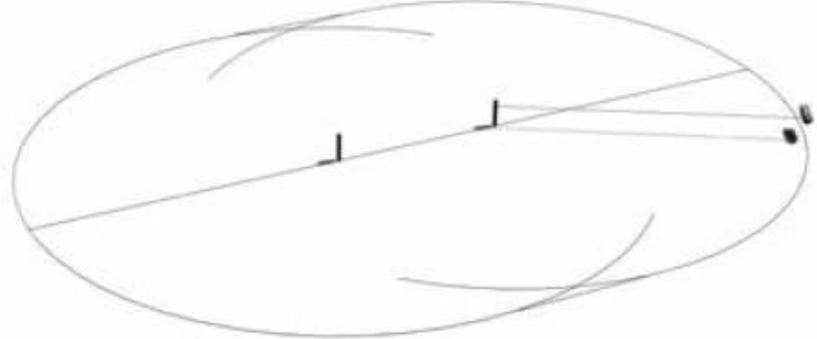
Remove all sod, weeds and other growth from within the marked pool location. Dig to the depth the pool will be installed for below-grade installations. Find the lowest spot within the pool area and level the surrounding ground to this point. Remove protruding roots, stones and other sharp objects that could damage the pool. Tamp down with a square tamper. DO NOT add dirt to raise the low areas as the weight of the filled pool will cause settling.

2.3 Confirm the site is level and flat using a long, straight board or 2x4 and a carpenter's level or transit. Continue to remove high areas of ground where necessary.

2.1



2.2



2.3



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 3 – Create Trench and Place Support Blocks

- 3.1 Create two trenches for the freeform section wall foundations.
- Trenches MUST be a minimum of 11-5/8" deep
 - Trenches MUST be 33" wide (21" inward & 12" outward from wall center)
 - Trenches MUST be the length listed on the specific footprint.

See following pages 17 through 22 for specific trench dimensions and location.

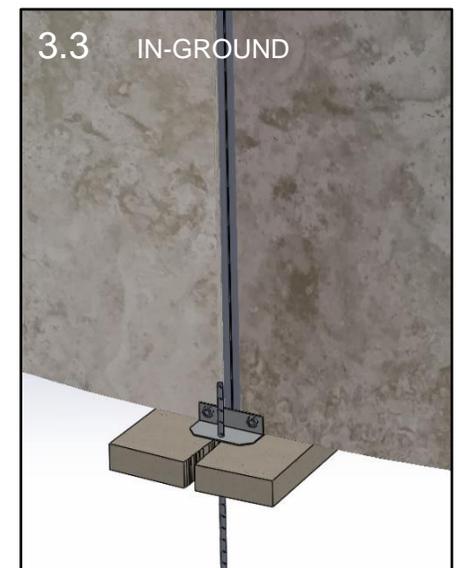
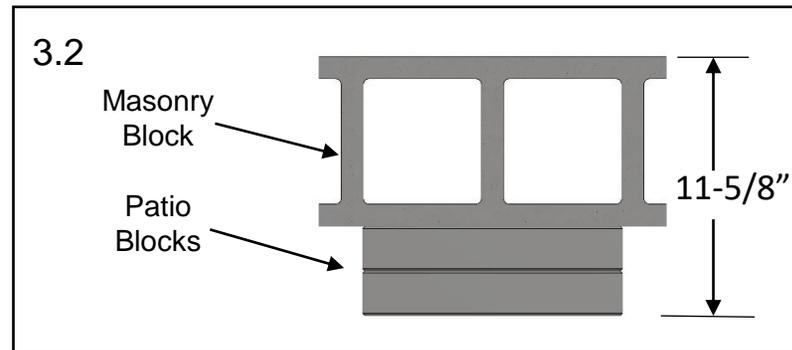
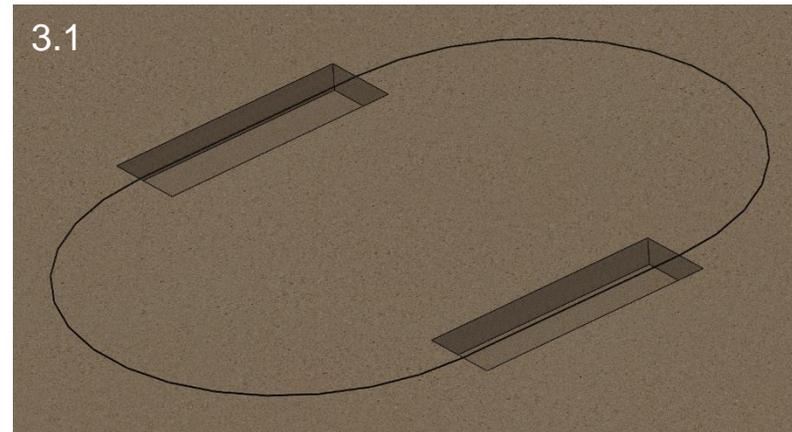
IMPORTANT! IT IS EXTREMELY IMPORTANT TO THE STRUCTURAL STABILITY OF THE POOL THAT THE CONCRETE DIMENSIONS ARE FOLLOWED EXACTLY. FAILURE TO DO SO MAY VOID THE WARRANTY.

- 3.2 Place concrete block support structures as illustrated in Figure 3.2 at the locations specified on the following footprints on pages 17-22.

Each assembly is constructed from two patio blocks (2" actual) and one masonry blocks (7 5/8" actual), giving a total stacked height of 11 5/8". This is equal to the depth of the trench dug earlier.

- 3.3 Place patio blocks at each wall joint for the curved ends of the pool. All patio blocks must be flush with the ground, solid and level with each other in all directions.

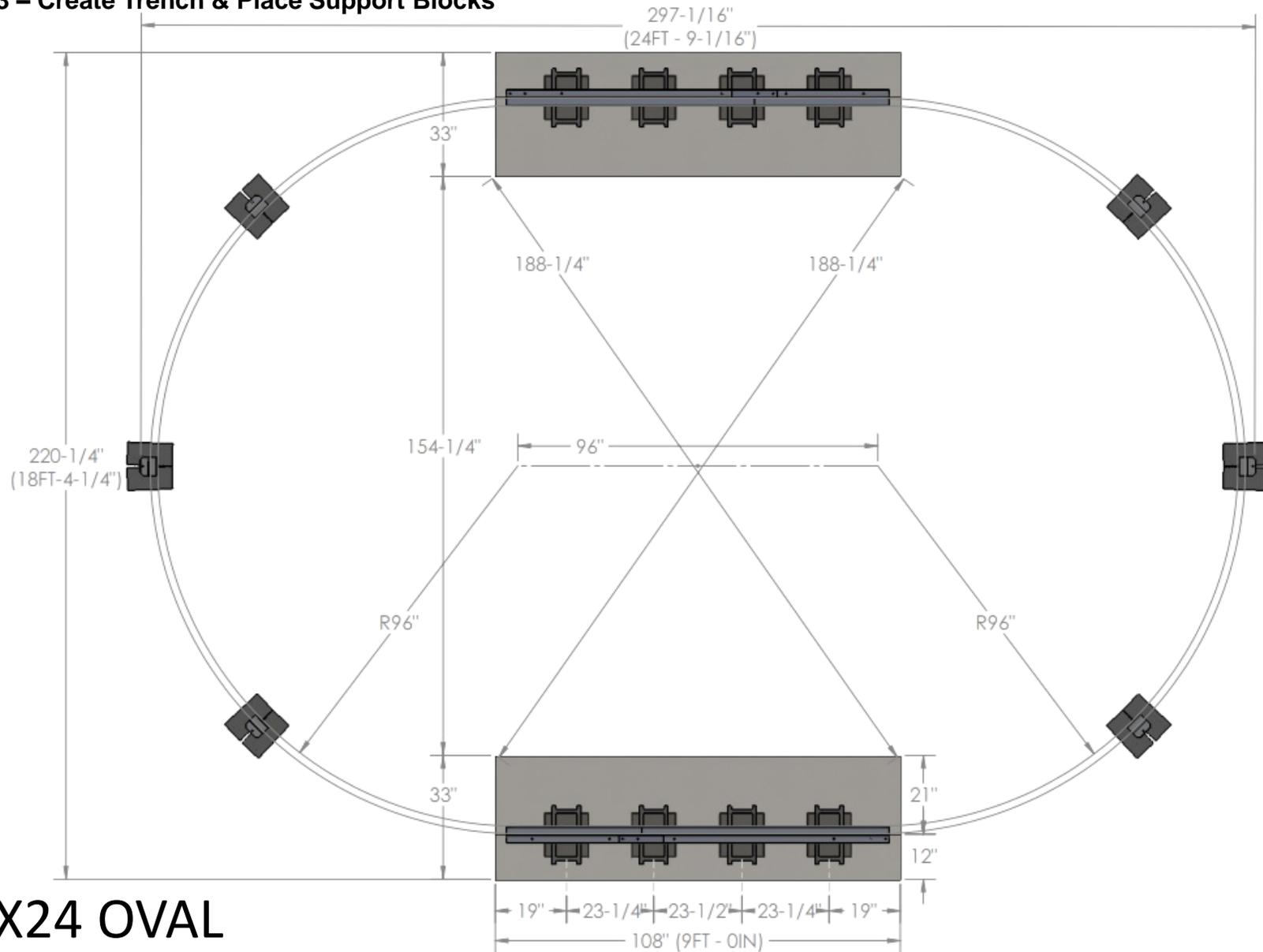
Patio blocks for pools installed deeper than 24" below grade should be split to allow installation of the included rebar. This rebar will later be encapsulated by a required concrete collar.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 3 – Create Trench & Place Support Blocks



16X24 OVAL

Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 4 – Bottom Channel Assembly

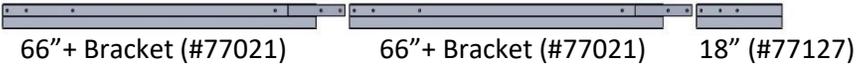
- 4.1 The straight sides of the oval pool will sit within a Bottom channel. Each oval size uses a specific bottom channel configuration. Use Fig 4.1 to determine the correct configuration assembly required.
- 4.2 Attach bottom channels together with 3/4" Alum. bolts (#99-0135) nuts (#99-0134) and washers (#99-0133) as illustrated. Place the bottom channels onto the support blocks with the exterior channel facing outward. The interior channel will house the straight side pool panels.

4.1

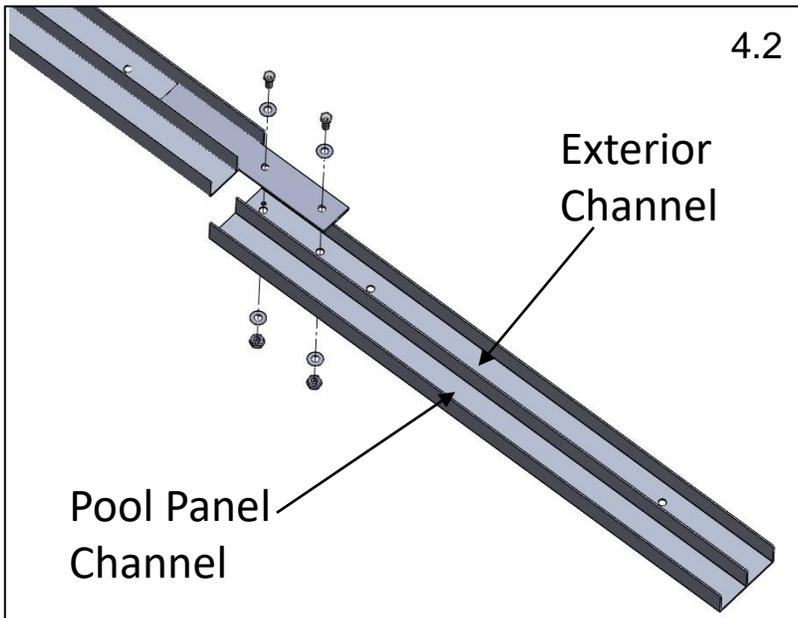
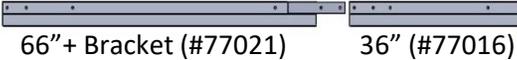
16'x32' & 18'X34'



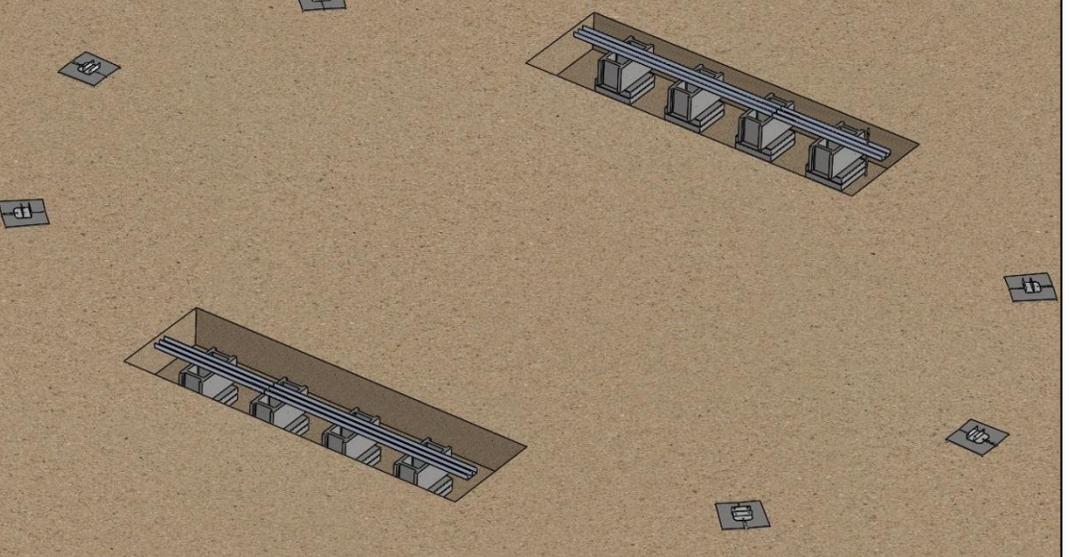
16'x28' & 18'X30'



16'x24' & 18'X26'



4.3



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 5 – Curved Side Panel Installation

- 5.1 Decide where the skimmer panel and plumbing will be located and place the skimmer panel accordingly.

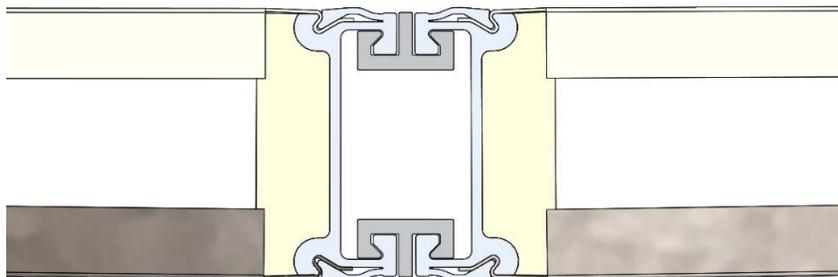
Place the next panel symmetrically centered into the bottom plate (#77004), leaving a 1/8" gap between both panels.

- 5.2 Slide two 52" splines (#77002) into the compression seams, locking both panels together.

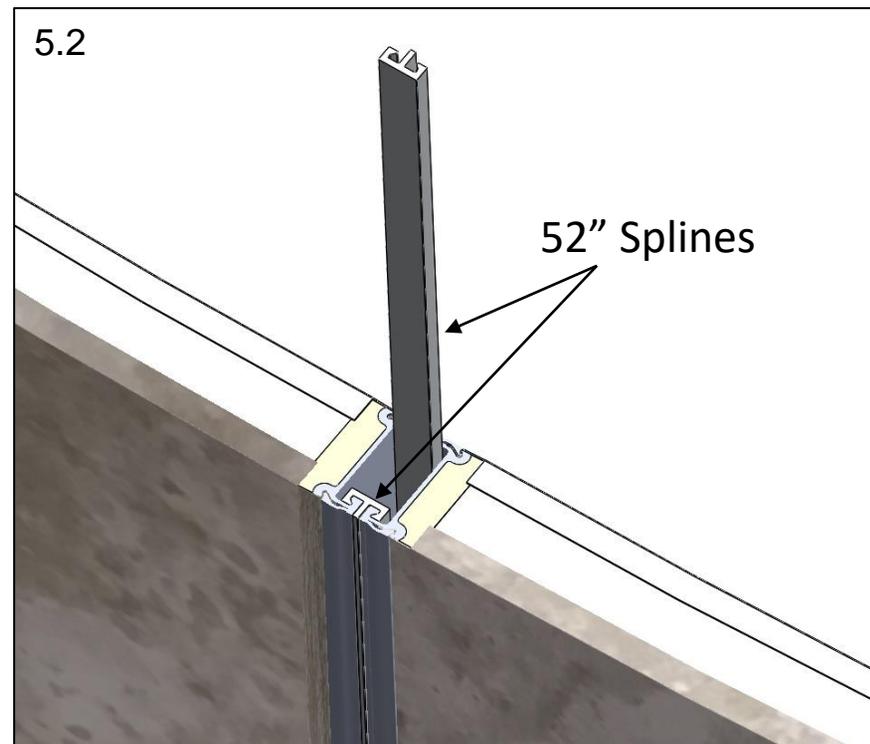
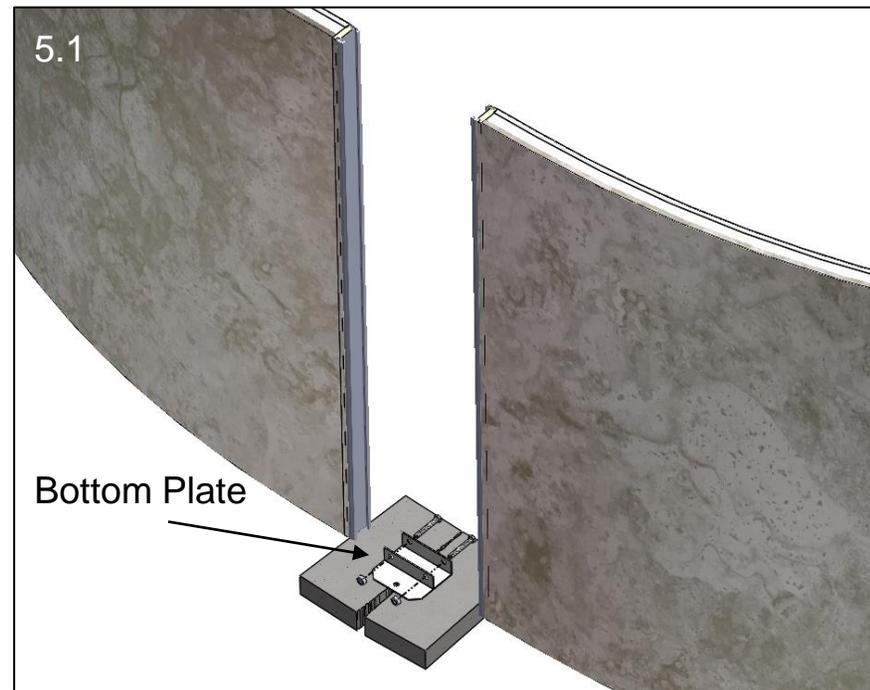
If inserting the splines is difficult, ensure:

- panels are level.
- there is a uniform 1/8" gap between both panels.
- parts are free of any sand or debris.

Apply cooking oil to ease installation. **DO NOT USE PETROLEUM LUBRICANTS like WD-40.**



Curved Panel Connection



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

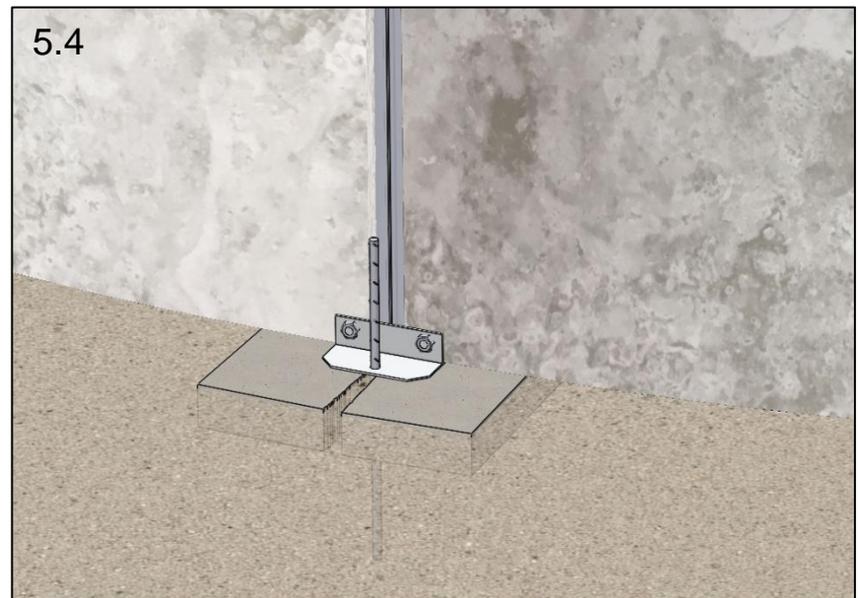
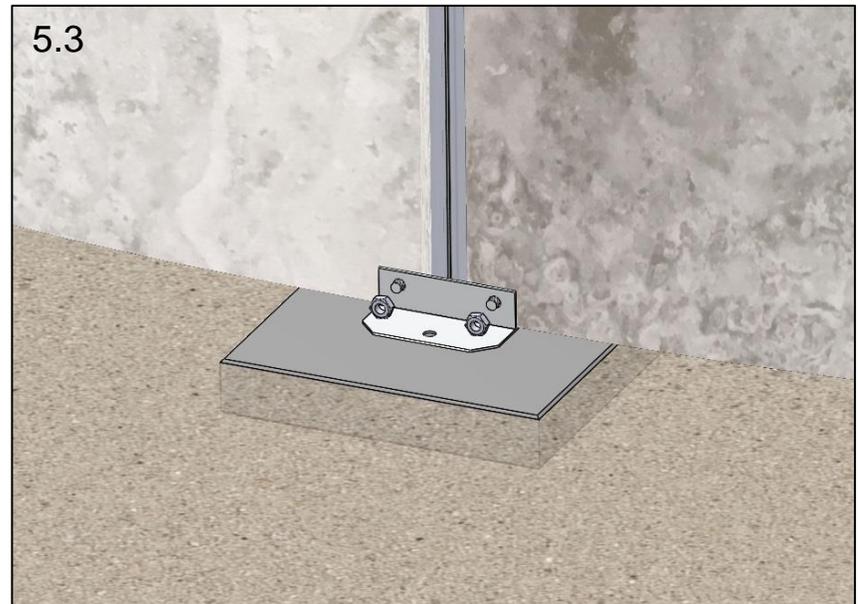
Step 5 – Curved Side Panel Installation

5.3 Ensure panels are centered and fully inserted into the bottom plates. Drill two 7/16" holes through the pool panels using the two bottom plate holes as drill guides.

Secure panels with aluminum 2-1/2" bolts (#99-0137) and aluminum nuts (#99-0134).

5.4 **INGROUND ONLY:** If the pool is installed greater than 24" below grade, insert Rebar (#77001) halfway into the ground through the bottom plate holes. A required concrete collar will be installed during step 15 to encapsulate the Rebar.

If the pool is installed less than 24" below grade, no concrete collar or rebar is required.



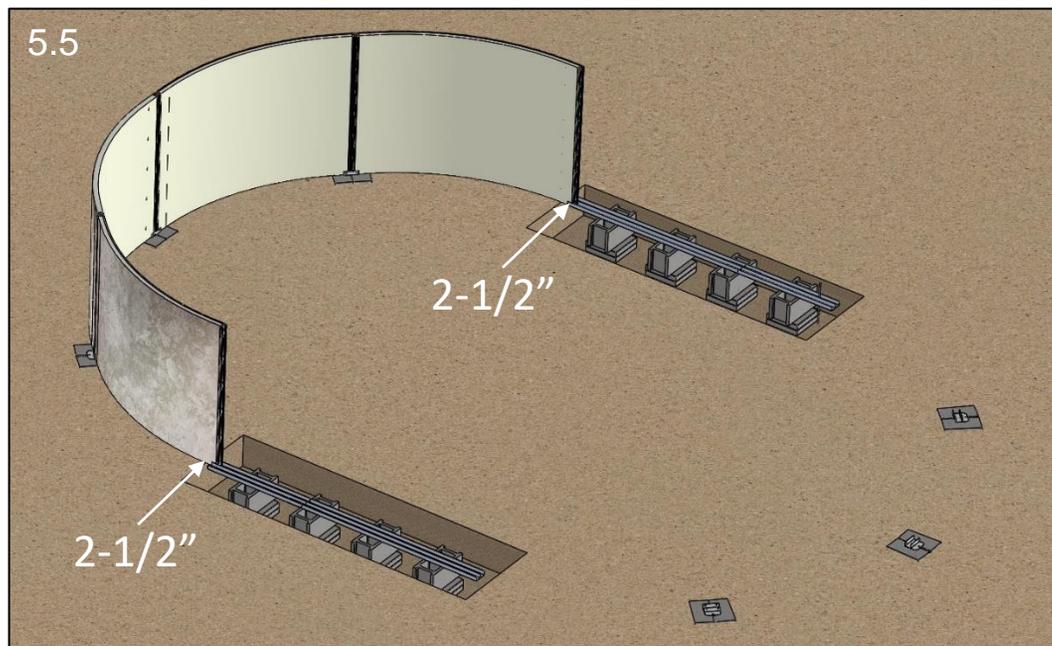
Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 5 – Curved Side Panel Installation

5.5 If an In-ground step is not being utilized, complete assembling one end of the pool to resemble figure 5.5 then skip to [page 35](#) for further instructions.

Place the ends of the curved wall section 2-1/2" into each bottom channel.

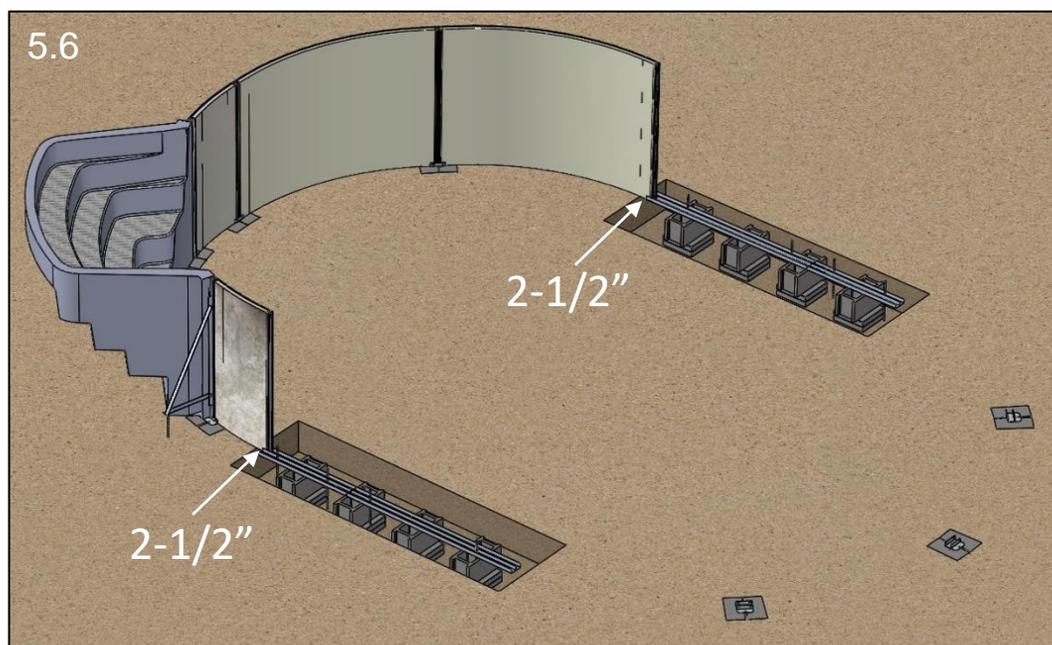


Section 2

IN-GROUND STEP ASSEMBLY

5.6 If an In-Ground Step is being utilized, please refer to Section 2 on the following pages for step assembly instructions. Once complete with Section 2, the pool should resemble figure 5.6. (Step location may vary)

Place the ends of the curved wall section 2-1/2" into each bottom channel.



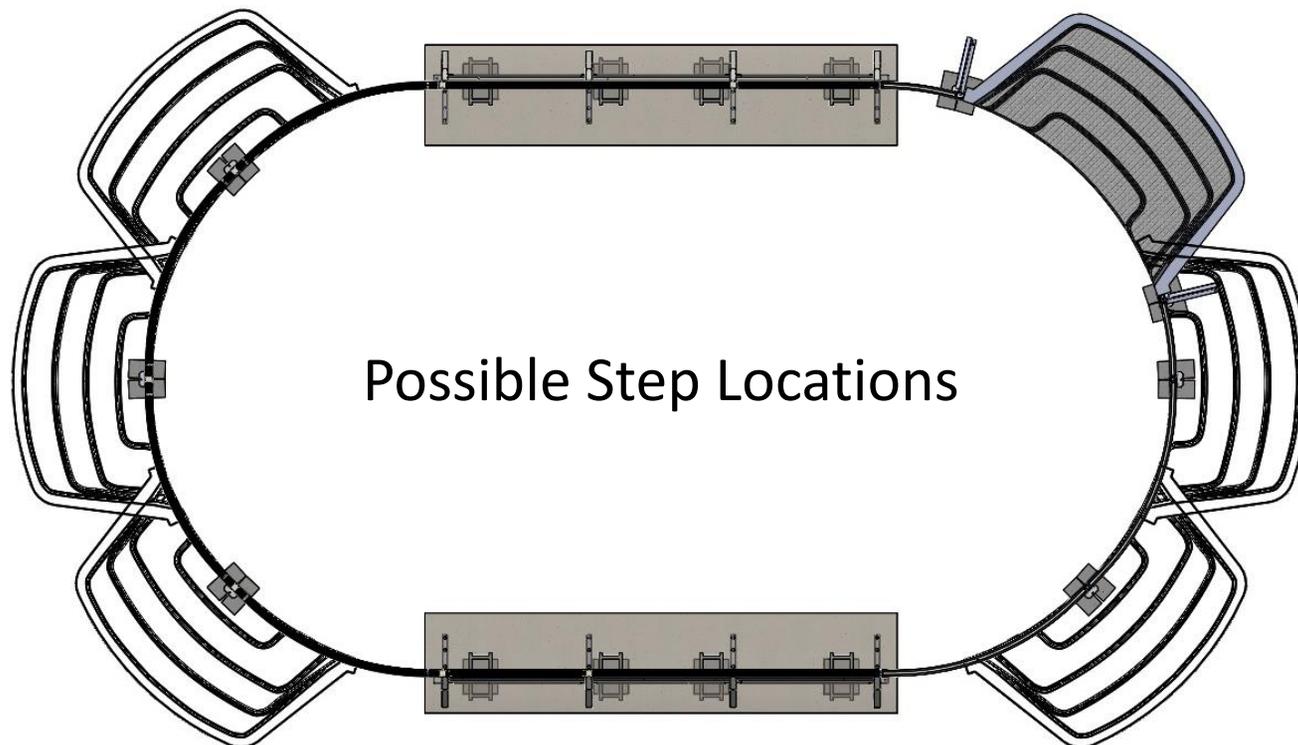
Section 2

IN-GROUND STEP ASSEMBLY

Step 6 – Curved Side Panel Assembly with Step

- 6.1 **Section 2** will outline the installation of an In-ground step into the curved side of the Optimum pool. If an In-ground step is not being utilized, please skip this section and continue on [page 35](#).
- 6.2 At this time, determine where the step will be placed within the pool and place the step within this general vicinity.

The 16' and 18' oval pools have six different possible locations for the step.



Section 2

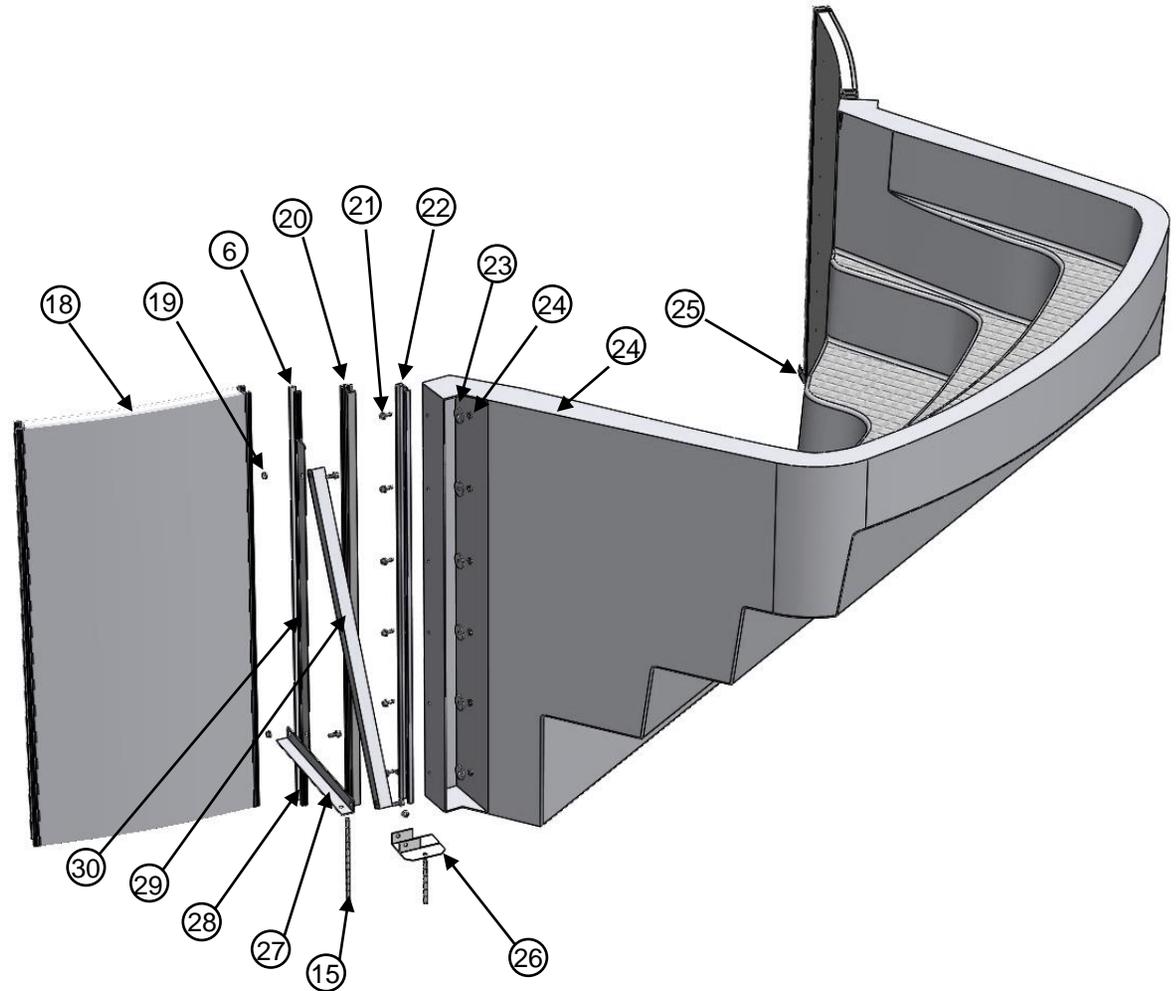
IN-GROUND STEP ASSEMBLY

Step Components Check List

Step Assembly

18. Step filler panel	See Page 12
19. Nuts, hex flange 3/8" SS	#10660
6. Splines, 52"	#77002
20. Step rod extrusion 52"	#77173
21. Bolts, hex flange 3/8" x 1" SS	#99-0104
22. Step socket extrusion 52"	#77143
23. Step fender washers 3/8" x 1-3/4"	#77175
24. Radius step (NOT INCLUDED)	-
25. Step bottom plate, right	#77142
26. Step bottom plate, left	#77141
15. Rebar 3/8" x 15"	#77001
27. Step diagonal brace 18"	#77146
28. Short splines 5-3/4"	#77014
29. Step horizontal brace 37-13/16"	#77148
30. Extended spline 40-1/2"	#77013

IMPORTANT:
16' AND 18' OVAL POOLS MUST USE
THE 91-3/4" WIDE RADIUS STEP.



Section 2

IN-GROUND STEP ASSEMBLY

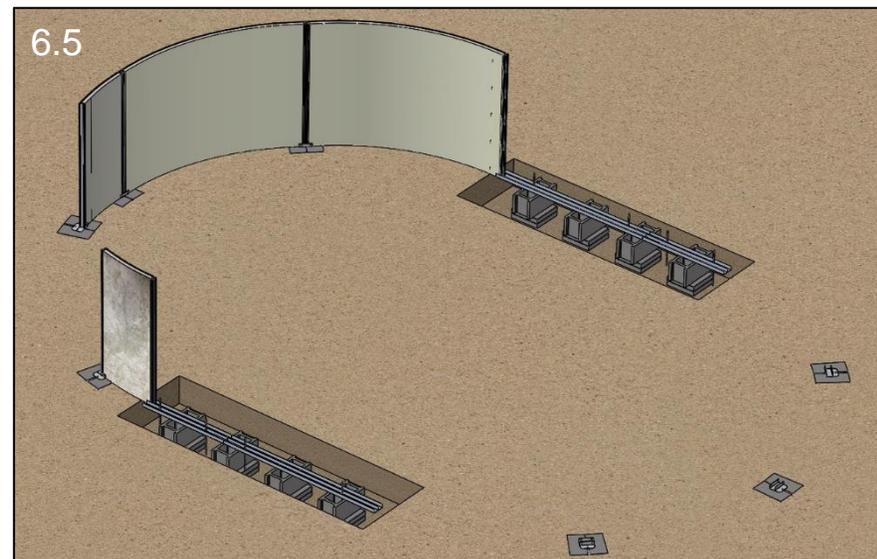
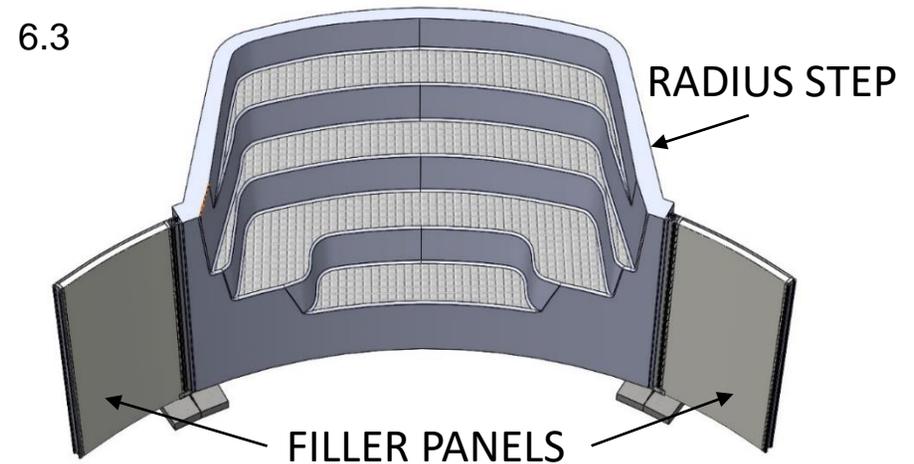
Step 6 – Curved Side Panel Assembly with Step

6.3 The Optimum pool with in-ground step provisions excludes two standard curved panels. This void in the pool is where the step and two filler panels will be located. The filler panels must be located adjacent to each side of the step.

6.4 Assemble shorter filler panels on each side of the void where the step will be placed using two 52" splines (#77002) and one bottom plate (#77004). Refer to the previous step 5.

6.5 At this time the pool assembly should look similar to Figure 4.6 with the step void located at the desired location.

(Possible step locations are outlined on page 27)



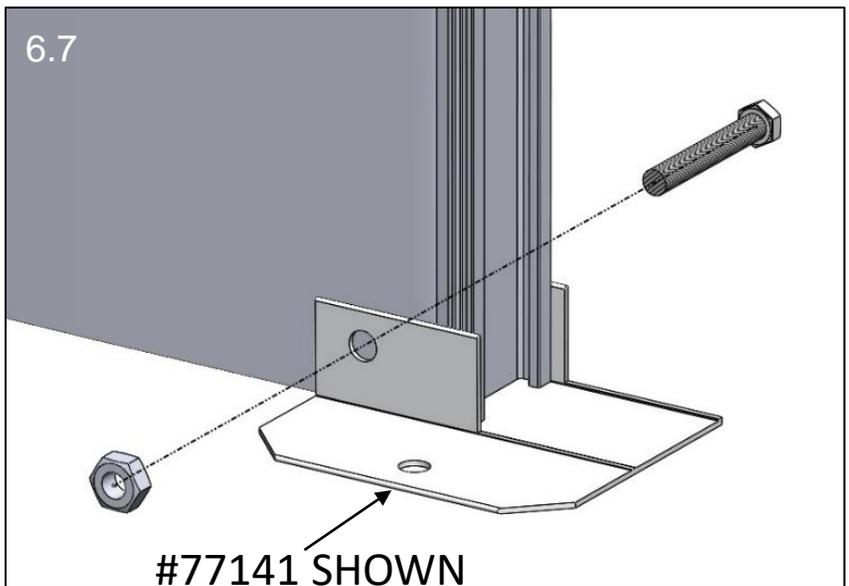
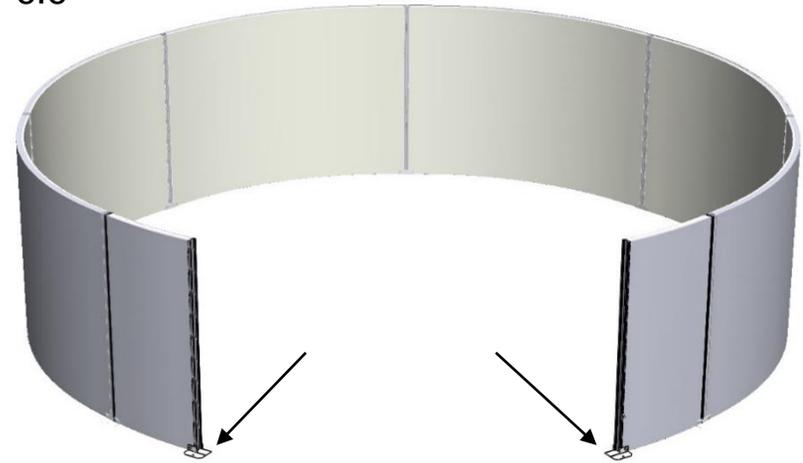
Section 2

IN-GROUND STEP ASSEMBLY

Step 6 – Curved Side Panel Assembly with Step

- 6.6 Two bottom plates included with the pool have only one mounting hole as pictured in Figure 4.9. These bottom plates (#77141 & #77142) are to be used on the filler panels at the step void. There is a specific left and right bottom plate for these two locations (Figure 5.1).
- 6.7 Drill one 7/16" hole through each filler panel at the bottom plate hole location and secure with one 2-1/2" bolt (#99-0137) and nut (#99-0134).

6.6



Section 2

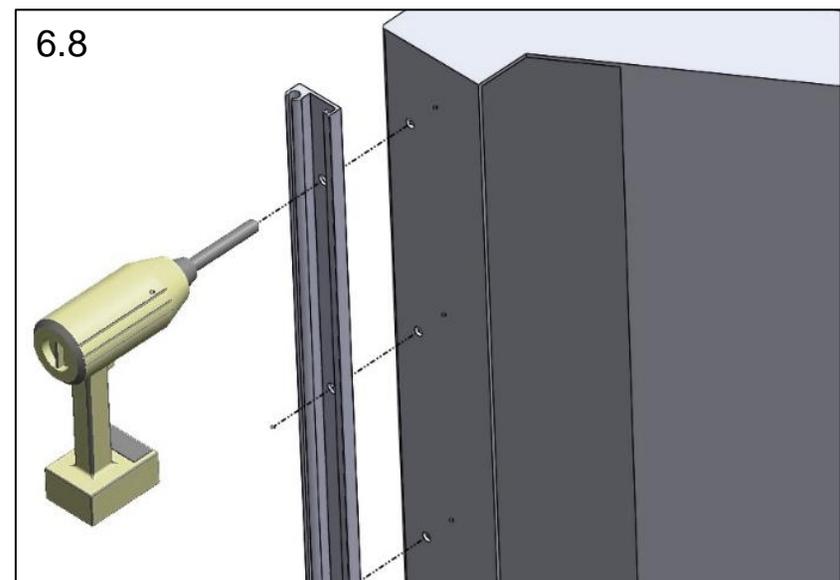
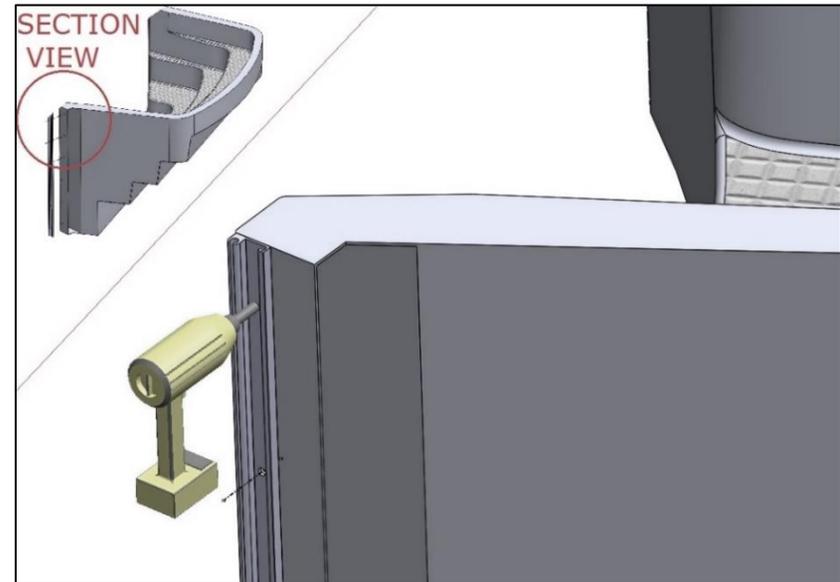
IN-GROUND STEP ASSEMBLY

Step 6 – Curved Side Panel Assembly with Step

- 6.8 Use the step socket spline (#77143) as a drill template on the side flange of the step. ensure the socket side of the extrusion is towards the interior of the pool as illustrated and drill six 13/32" holes.

Repeat for opposite side.

NOTE – The front face of the step and step socket spline must be parallel to each other before drilling. This will ensure the step is correctly positioned once installed into the pool.

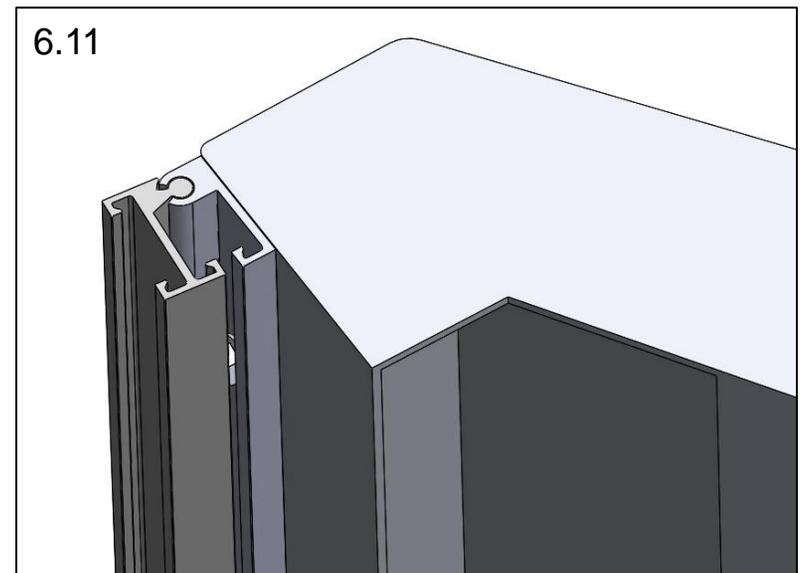
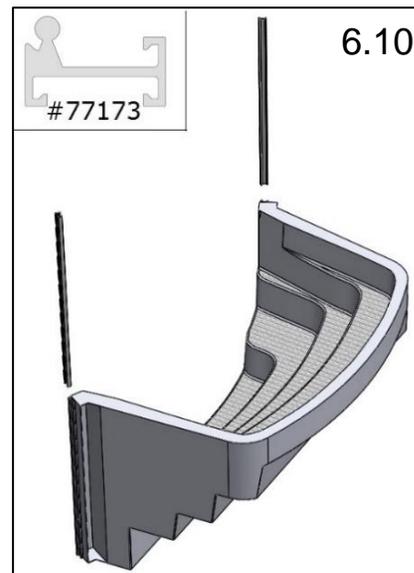
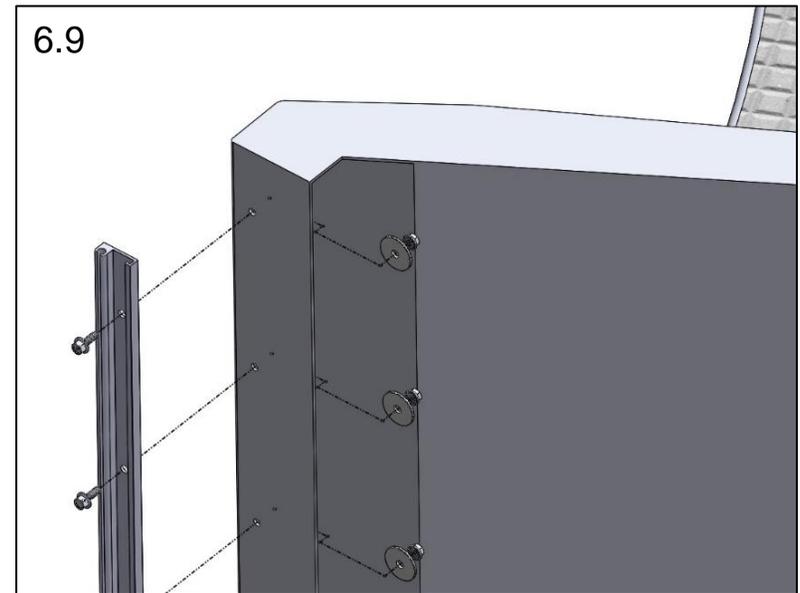


Section 2

IN-GROUND STEP ASSEMBLY

Step 6 – Curved Side Panel Assembly with Step

- 6.9 Attach step socket spline (#77143) to each side of the step with the included 3/8"x 1" bolts, nuts and 1-3/4" fender washers as illustrated. (Hardware bag #77144)
- 6.10 Slide step rod spline (#77173) into the step socket spline on both sides of the step.
- 6.11 **NOTE - This part must articulate freely within the step socket spline. A spline will not be inserted into this compression joint.**



Section 2

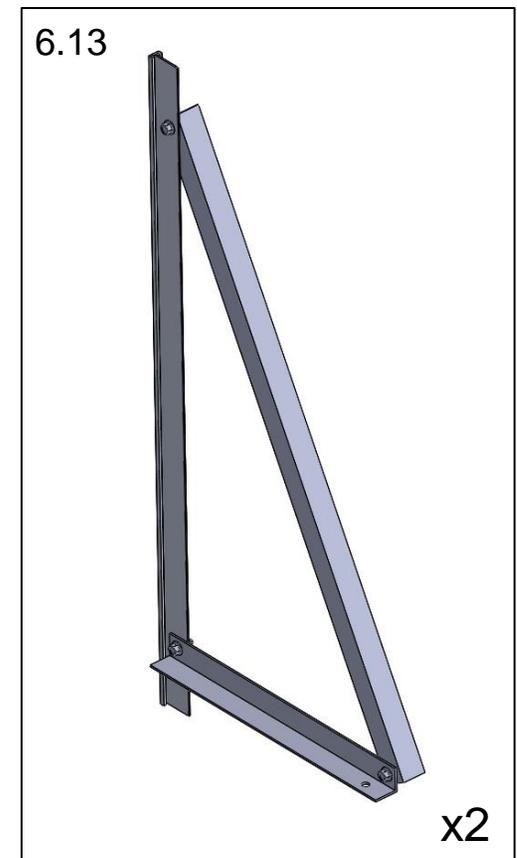
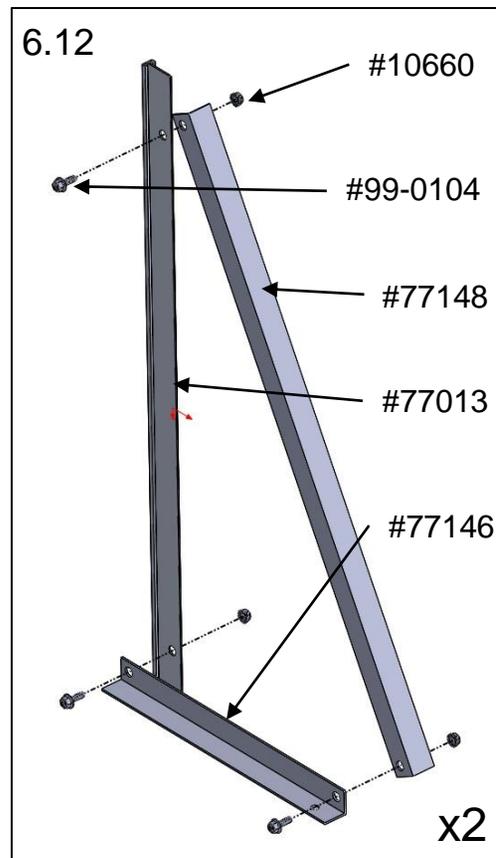
IN-GROUND STEP ASSEMBLY

Step 6 – Curved Side Panel Assembly with Step

6.12 Assemble step A-frame support with the included 3/8" x 1" bolts (#99-0136) and nuts (#99-0134).

There will be two of these assemblies, one for each side of the step.

6.13 Assembled step A-frame support.



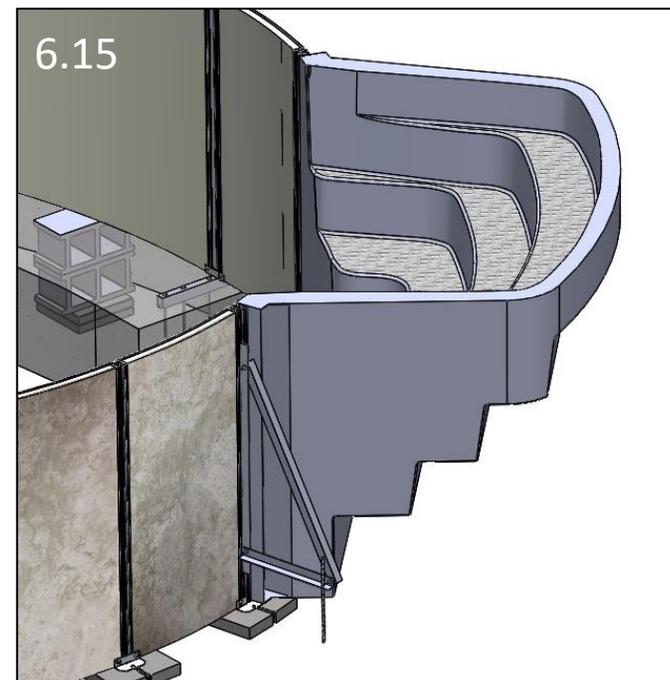
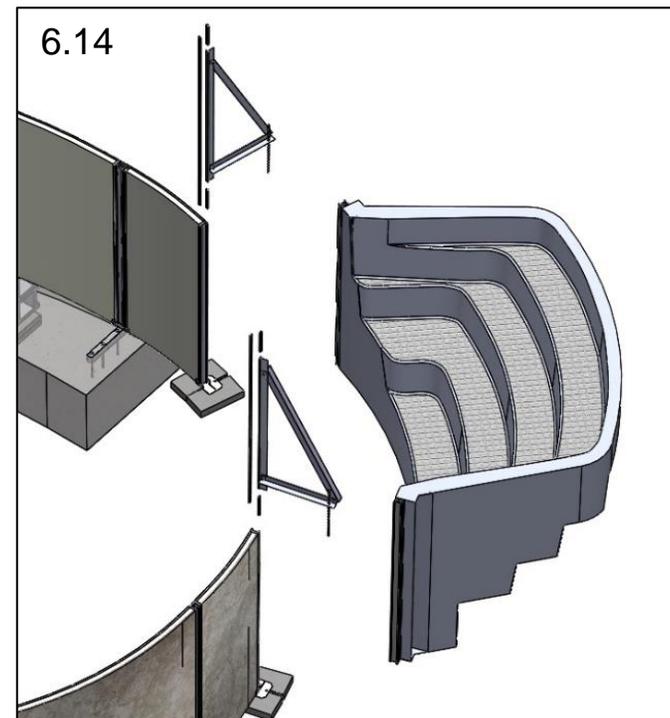
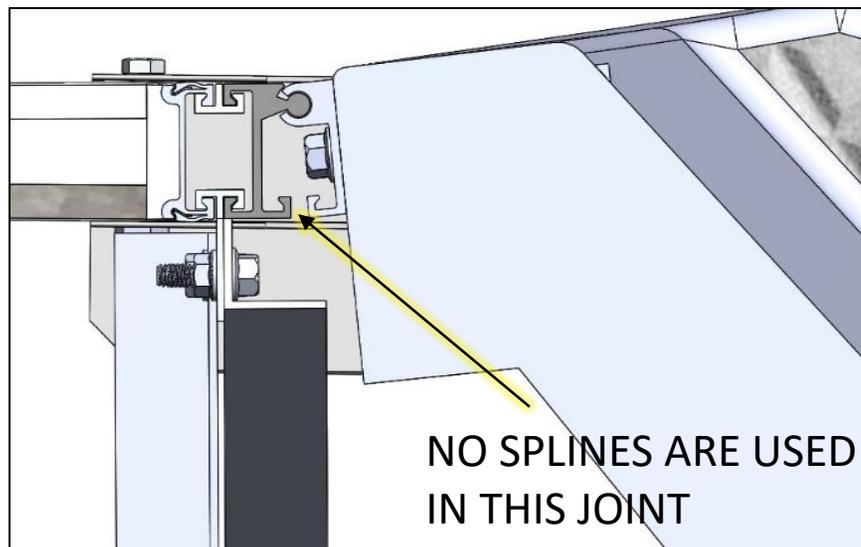
Section 2

IN-GROUND STEP ASSEMBLY

Step 6 – Curved Side Panel Assembly with Step

- 6.14 Position step within the void of the pool wall making sure the step rod splines are parallel to the ends of each filler panel. Slide a 52" spline (#77002) into the interior compression seams to lock the step to the filler panels.
- 6.15 Slide one 5- $\frac{3}{4}$ " short spline (#77014) into the exterior compression seams between the filler panel and step rod spline. Follow this part with the A-frame step support previously assembled in step 5.6 and one additional 5- $\frac{3}{4}$ " short spline (#77014). Once complete, there should be three components stacked within the same joint.

Repeat for the opposing side.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 7 – Straight Side Installation

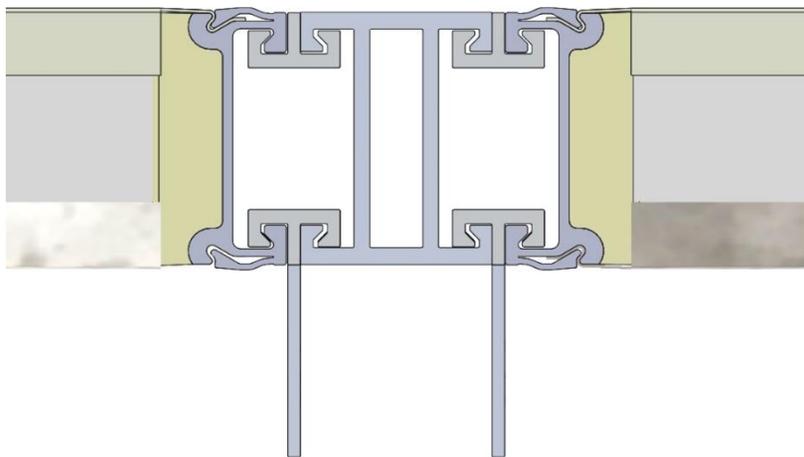
7.1 Attach the straight panel connector (#77026) onto the curved section of the pool as illustrated in Figure 7.1.

Two short splines (#77014), one extended spline (#77013) and one 52" spline (#77002) are used to attach the straight panel connector.

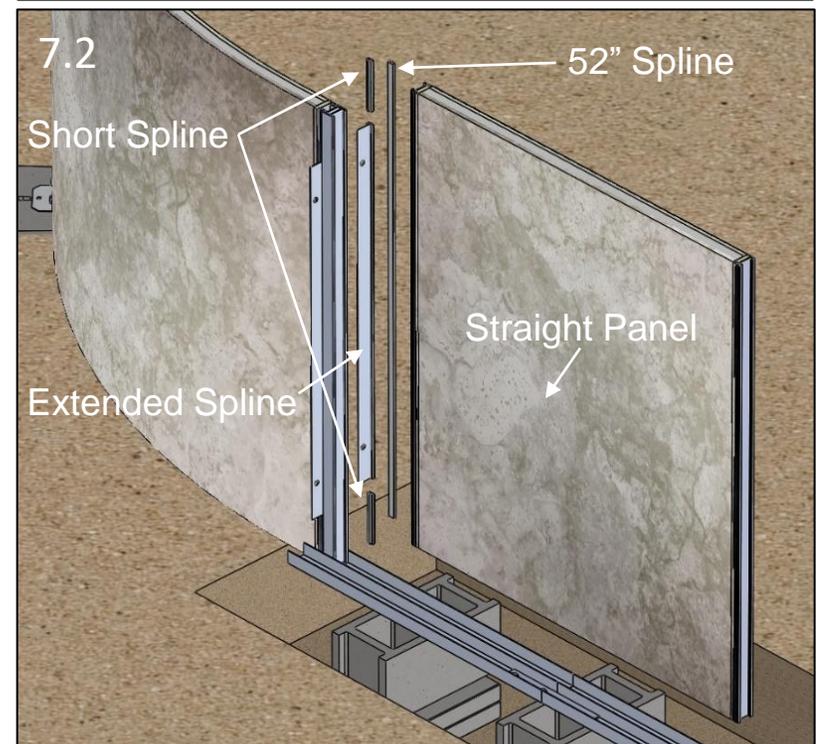
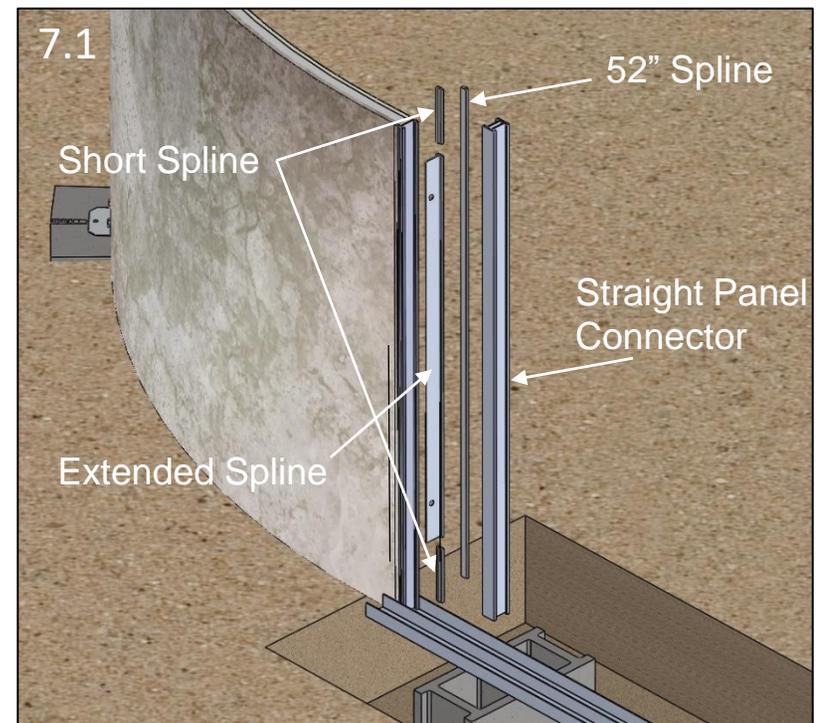
7.2 Attach the straight panel (#77059) to the straight panel connector as illustrated in Figure 7.2

Two short splines (#77014), one extended spline (#77013) and one 52" spline (#77002) are used to attach the straight panel.

7.3 The straight panel connection should resemble the below illustration once assembled. Repeat this process for all remaining straight panels.



Straight Panel Connection

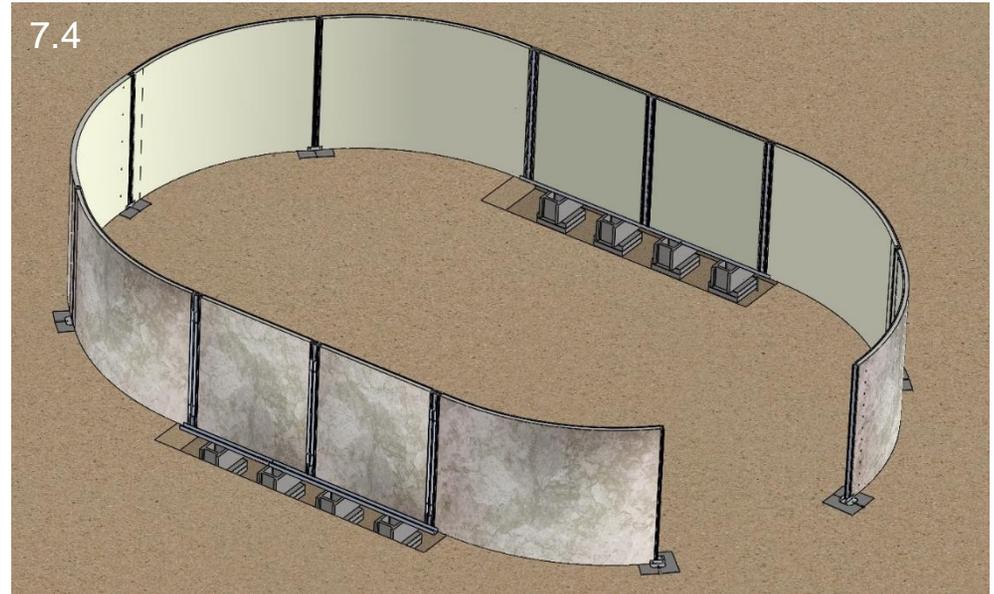


Section 1

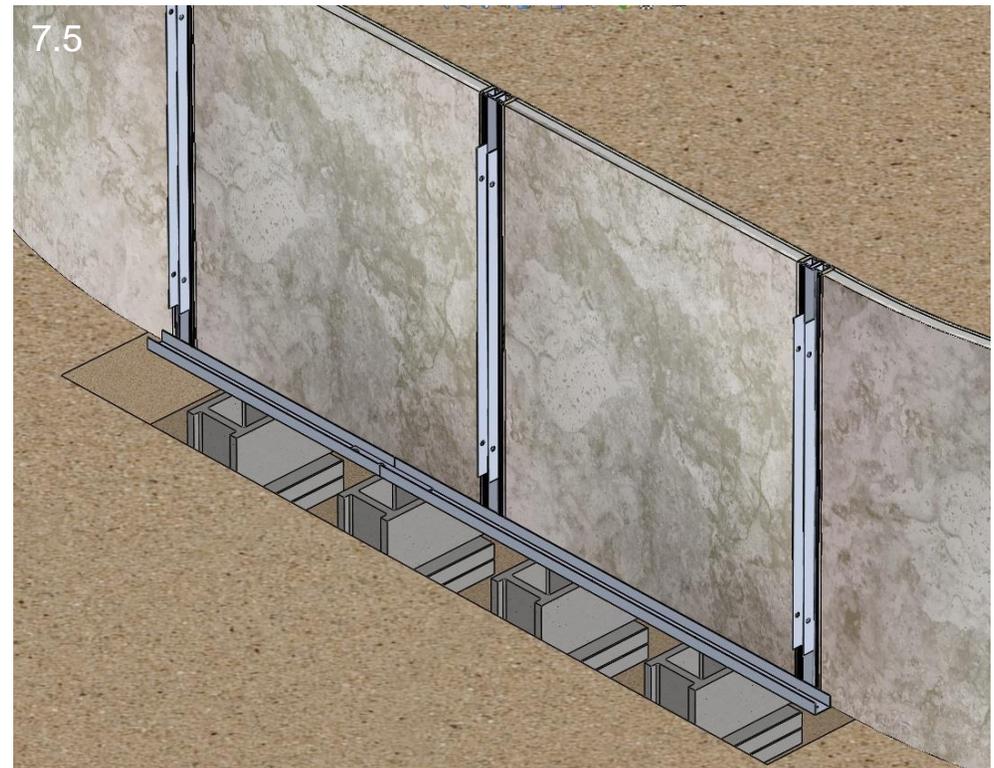
OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 7 – Straight Side Installation

7.4 Once all the straight panels have been assembled, attach the remaining curved side panels as previously outlined in [step 5](#). Leave one curved panel out of the assembly to allow access to the interior of the pool.



7.5 Straight side panel assembly complete – (16x24 illustrated)



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 7 – Straight Side Installation

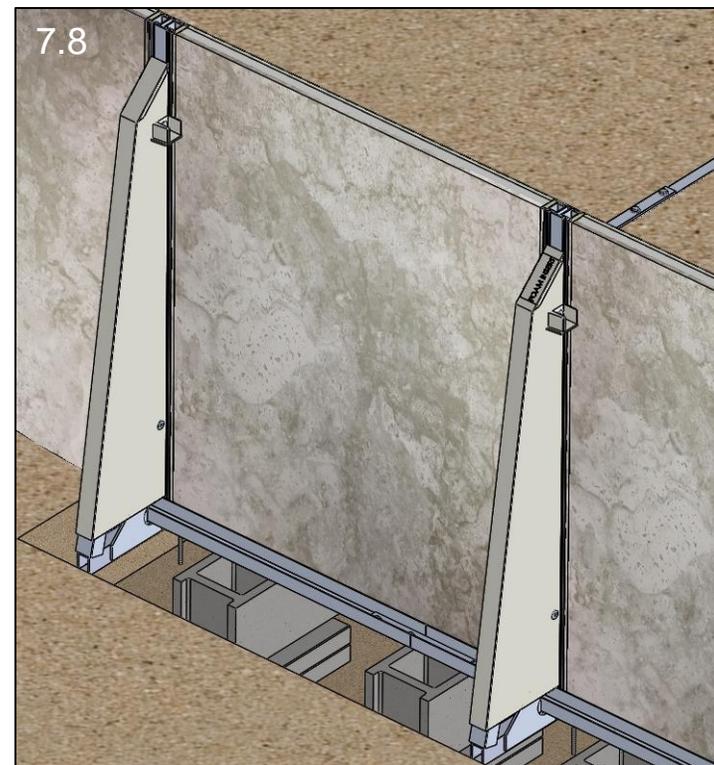
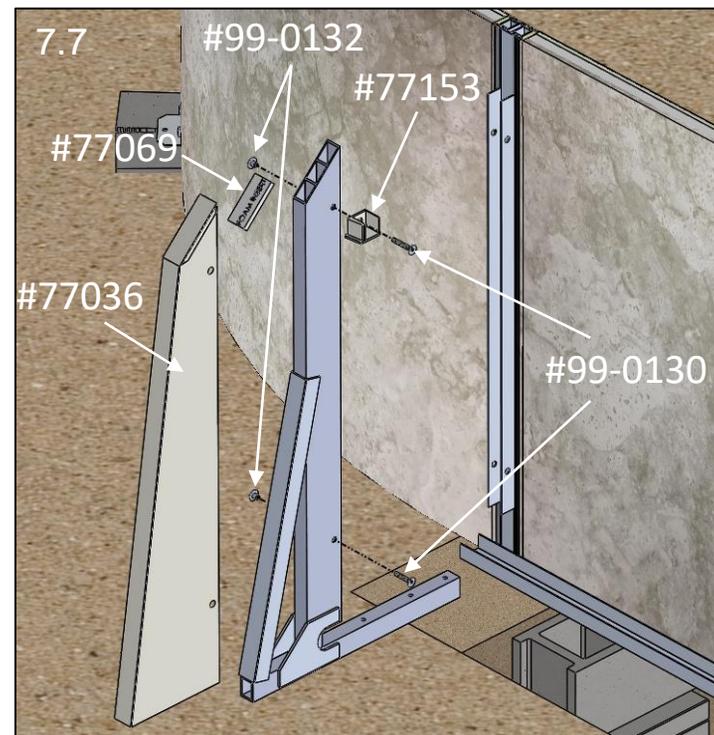
- 7.7 Place the A-frame cover foam Insert (#77069) inside the top section of the A-frame cover (#77036).

Install the A-frame upright (#77033) along with the A-frame cover assembly and side brace mounting brackets (#77153 and/or #77155) onto the pool structure as outlined on the following page with the appropriate 2" long (#99-0130) or 2-1/4" long (#99-0131) countersunk SS bolts and (#99-0132) Rivet Nuts.

Repeat for all remaining A-frame locations.

NOTE: The longer 2-1/4" bolts (#99-0131) must only be used where a left and right Side Brace Mounting Bracket are mounted at the same location.

- 7.8 At this time the A-frame will be "floating" until the concrete trench is poured. Ensure the A-frame assembly is perfectly upright to avoid issues later on.



Section 1

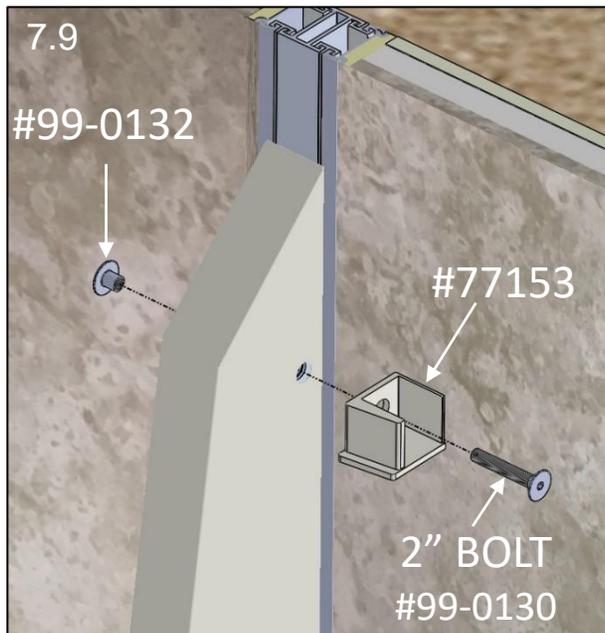
OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 7 – Straight Side Installation

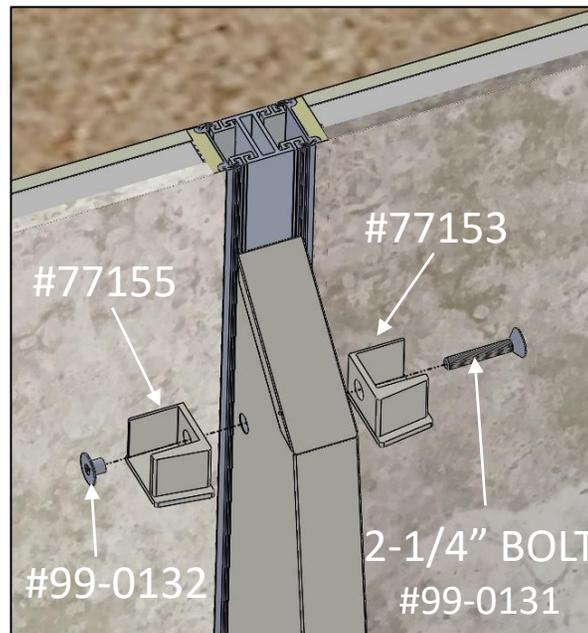
7.9 All straight side panels require additional upper braces (#77156). Left and right side mounting brackets (#77153 & #77155) will be used to mount these braces with the supplied 2" long (#99-0130) or 2-1/4" long (#99-0131) countersunk SS bolts and (#99-0132) Rivet Nuts.

NOTE: The longer 2-1/4" bolts (#99-0131) must only be used where a left and right Side Brace Mounting Bracket are mounted at the same location.

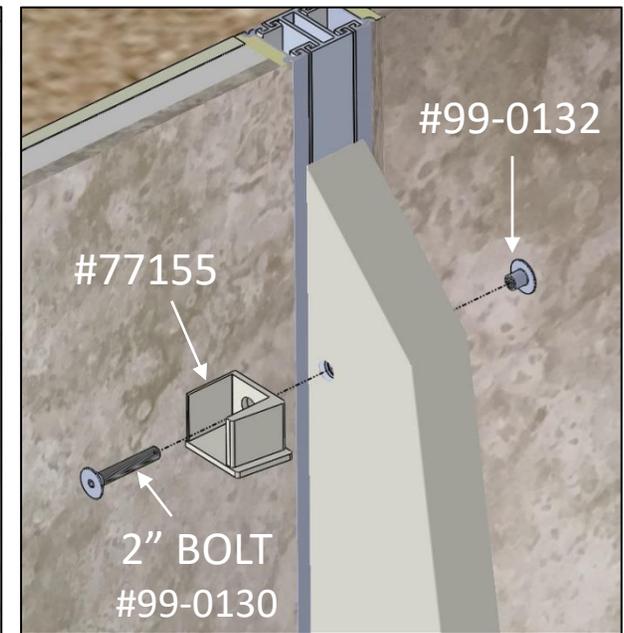
7.10 Place the straight side braces (#77156) into the left and right mounting brackets. Once the pool is filled with water, the braces will be located firmly in place.



LEFTMOST A-FRAME



CENTRAL A-FRAMES



RIGHTMOST A-FRAME

Section 1

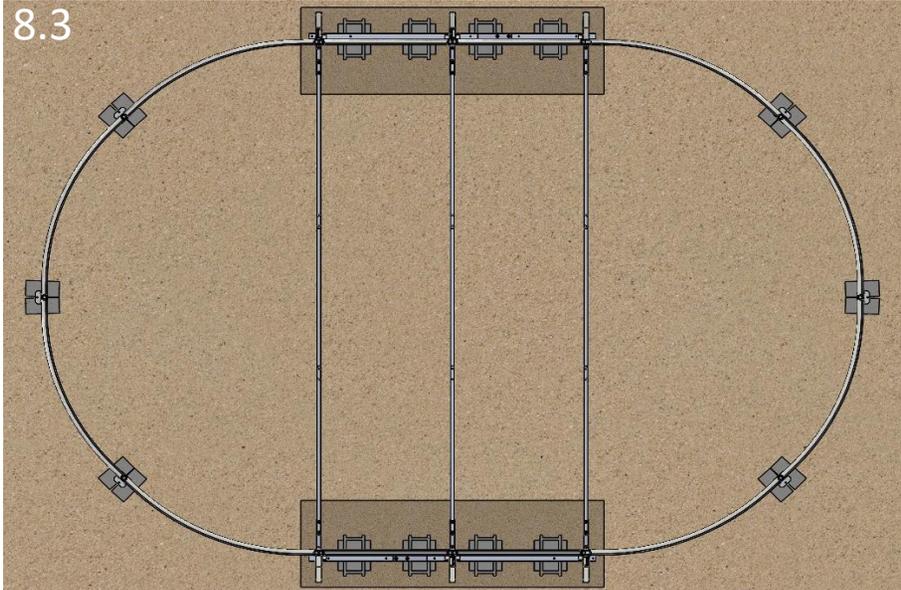
OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 8– Bottom Strap Assembly

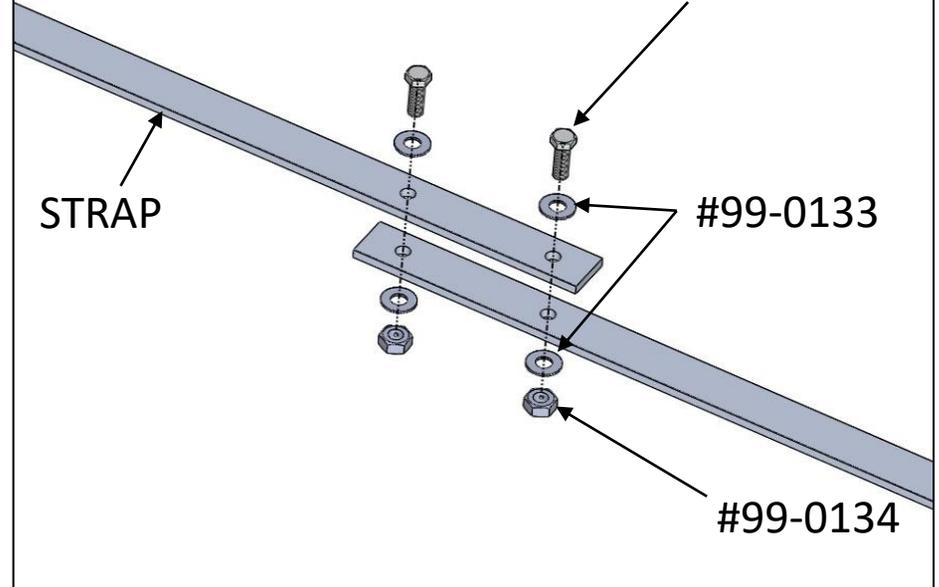
- 8.1 Attach three Oval Straps (#77023 or #77025) together to create one long strap with Hex Head 1" Bolts (#99-0135), Washers (#99-0133) and Alum. Hex Nuts (#99-0134).
- 8.2 Attach each strap assembly to each opposing A-frame with Hex Head 8" Bolts (#99-0141), Aluminum Washers (#99-0133) and SS Hex Nuts (#99-0142). The extra long bolts will be used to anchor the straight side assembly into the concrete footing/foundation.

DEEP END : The oval straps may be eliminated from the installation if the oval pool is installed greater than 30" below grade. This will allow for a deep end to be formed.

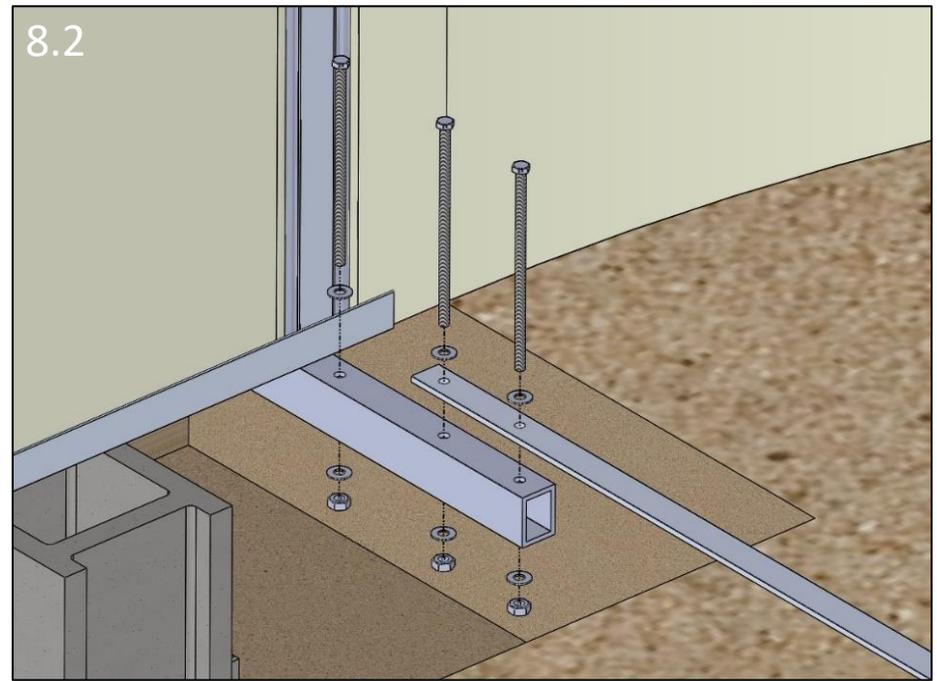
8.3



8.1



8.2



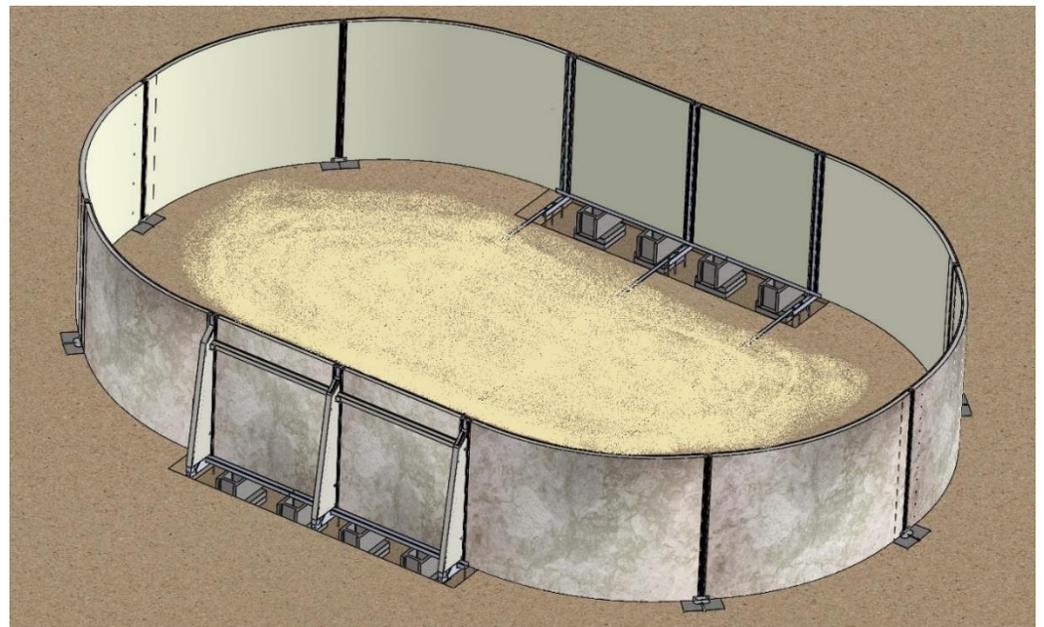
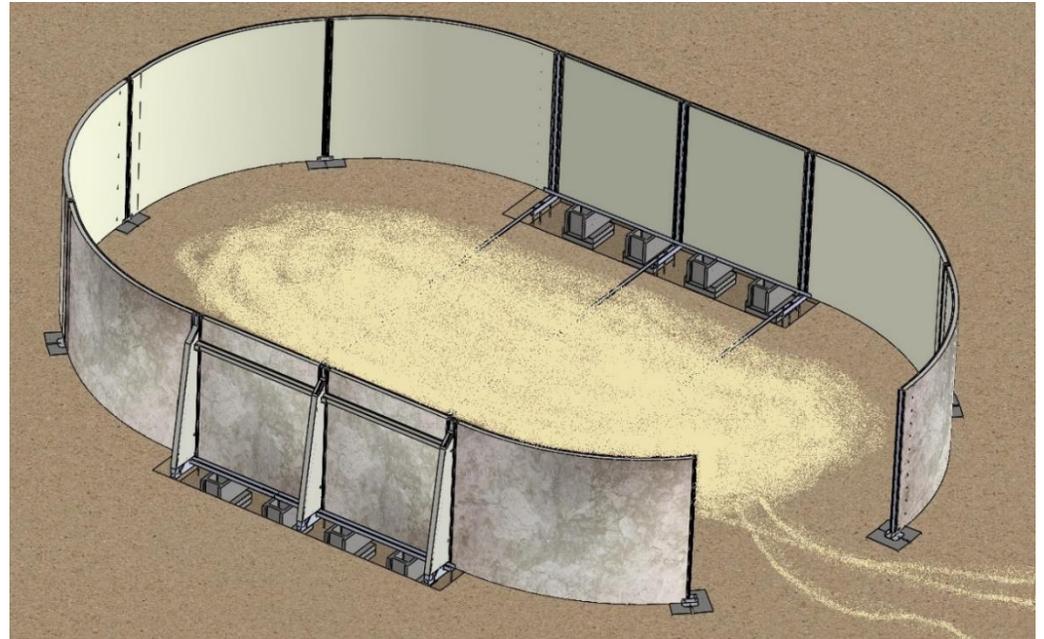
Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 9 – Sand Base and Measurement Verification

- 9.1 Bring the total required quantity of sand for the pool base and cove into the interior of the pool at this time. Refer to the table below. It is recommended to use neutral alkalinity sifted earth, or fine sand without pebbles.
- 9.2 Assemble the last curved panel into place then confirm that the pool is level and square before proceeding to the next step.

Pool Size	Masonry Sand (Cubic Yards)
1624	2.4
1628	2.8
1632	3.3
1826	2.9
1830	3.4
1834	3.9



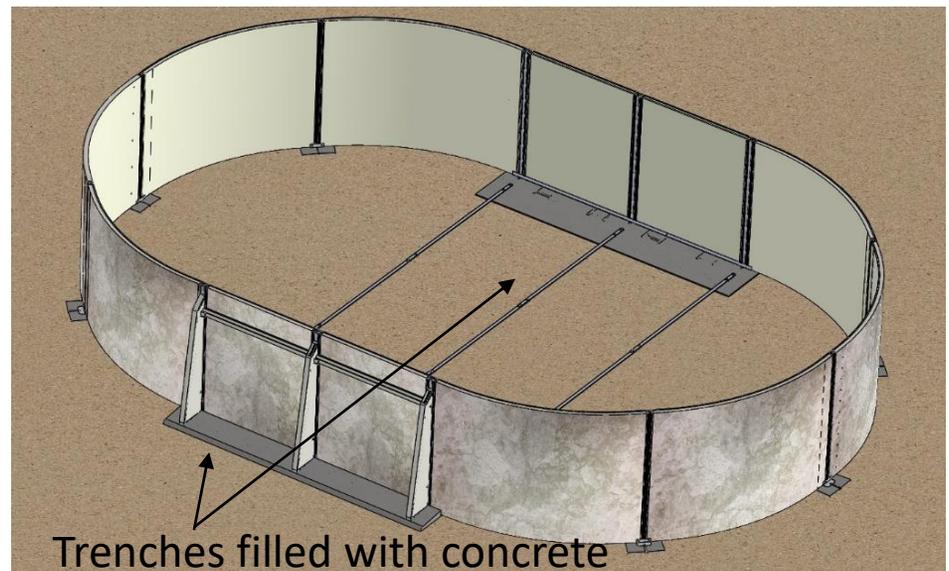
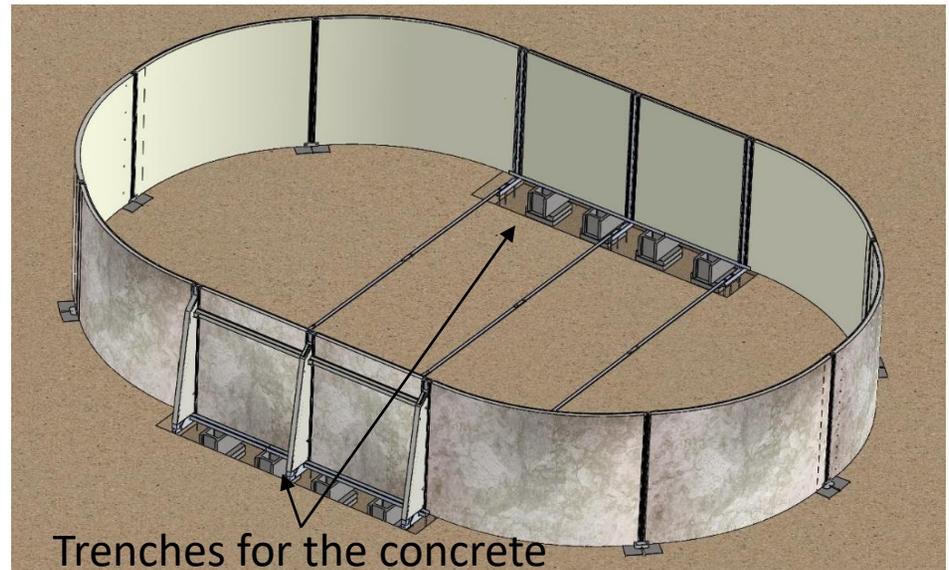
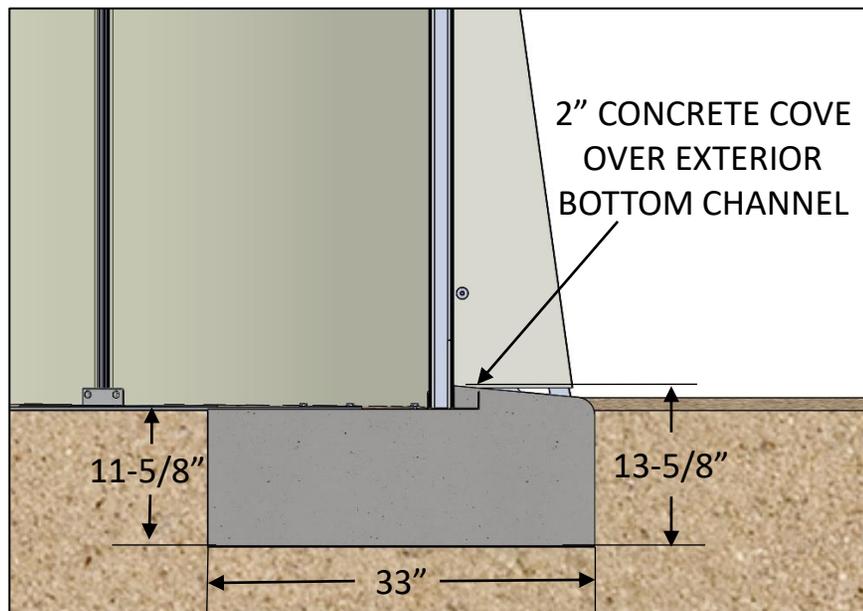
Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 10 - Install Concrete for the Freeform Base

10.1 Confirm that the pool is level, square and matches the footprint dimensions before pouring the concrete footings. Confirm the concrete trench matches the specified dimensions before pouring the concrete footing.

10.2 Pour the concrete trench. A calcium chloride free mixture is recommended. The concrete must be level with the A-frame bottom channel on the interior of the pool. A 2" concrete cove is required on the exterior of the pool.



IMPORTANT! IT IS EXTREMELY IMPORTANT TO THE STRUCTURAL STABILITY OF THE POOL THAT THE CONCRETE DIMENSIONS ARE FOLLOWED EXACTLY. FAILURE TO DO SO MAY VOID THE WARRANTY.

Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 11 – Create Pool Cove and Base

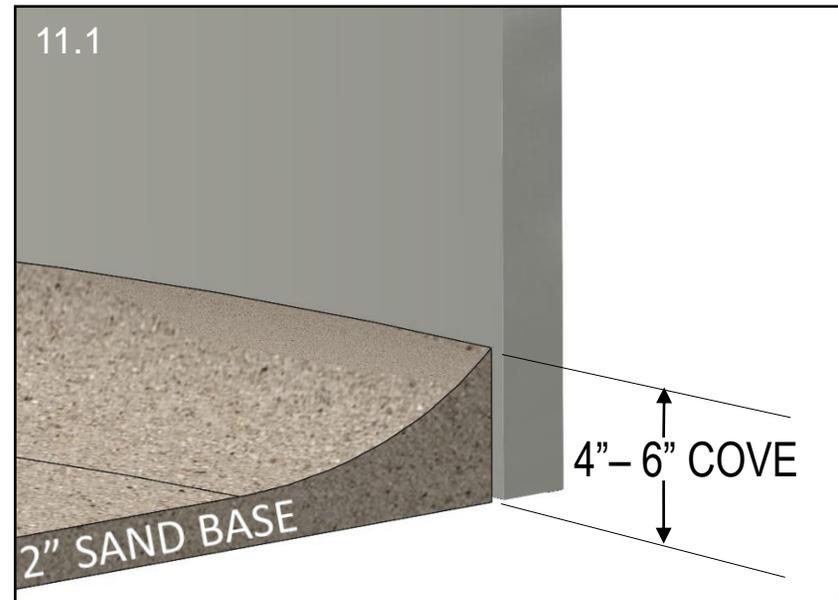
11.1 Using neutral alkalinity sifted earth, or fine sand without pebbles, create pool cove 4"-6" high along entire inside perimeter of pool. **THIS IS NOT AN OPTIONAL STEP** See Figure 11.1. The cove will prevent the liner from distending beneath the pool wall once filled with water.

Since chemicals in the ground can cause discoloration or corrosion, we suggest laying polyethylene plastic sheeting under the cove around the perimeter of the wall, ensuring that no earth comes in contact with the metal. Since the presence of such chemicals is beyond the control of the manufacturer, this damage is not covered by the warranty.

DO NOT USE ANY SUBSTANCE WITH HIGH ALKALINE OR ACID CONTENT, ESPECIALLY PEAT MOSS, AS IT WILL CORRODE METAL PARTS.

Use remaining sand to create 2" deep sand base over the entire pool area to protect the liner.

Rake and tamp whole area until it is level and smooth. Any remaining bumps or ridges will be evident under the liner.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 12 – Skimmer Installation

12.1 Use the specific gray and white skimmer mounting plates for the above ground skimmer or in-ground skimmer.

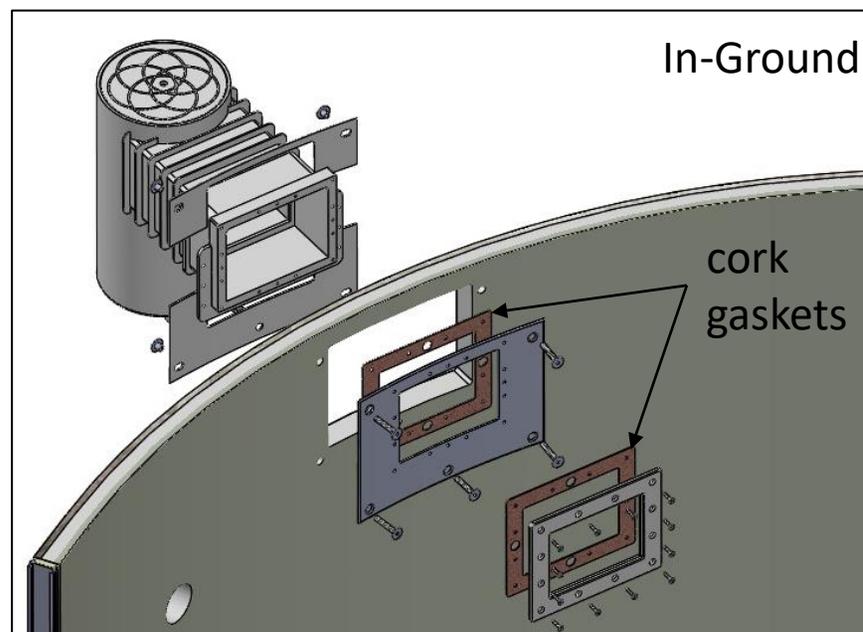
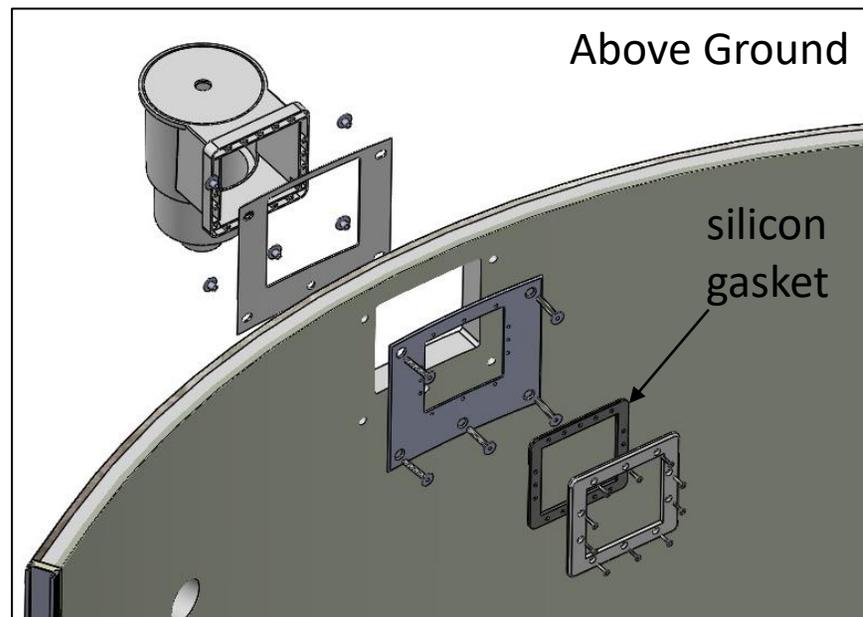
12.2 Place gray skimmer mounting plate assembly on the inside of the pool, and white skimmer mounting plate on the outside of the panel, sandwiching the skimmer inside the wall panel cutout. Ensure gaskets are located as illustrated.

Loosely secure assembly with five 2- $\frac{1}{4}$ " countersunk bolts (#99-0131) and flat-head rivet nuts (#99-0132).

Ensure plates are centered and level, then tighten hardware, taking care not to overtighten.

12.3 With hardware provided in the skimmer kit, secure skimmer to the gray skimmer plate with 4 screws. Do not fully tighten as these screws will be removed later.

NOTE: Skimmer face plate (in skimmer assembly) and remaining screws will be attached after pool liner is installed, locking the skimmer firmly in place. Refer to skimmer kit installation instructions for more information.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

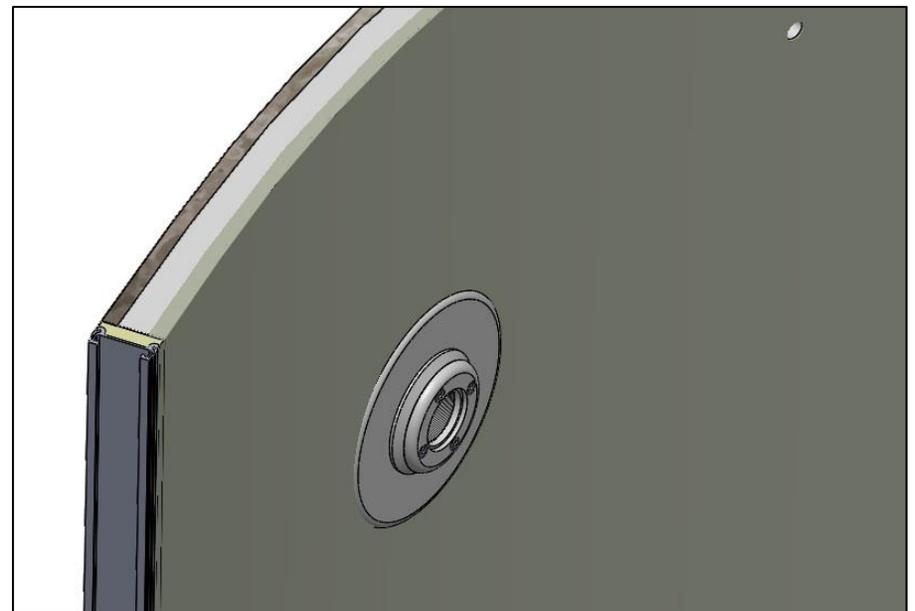
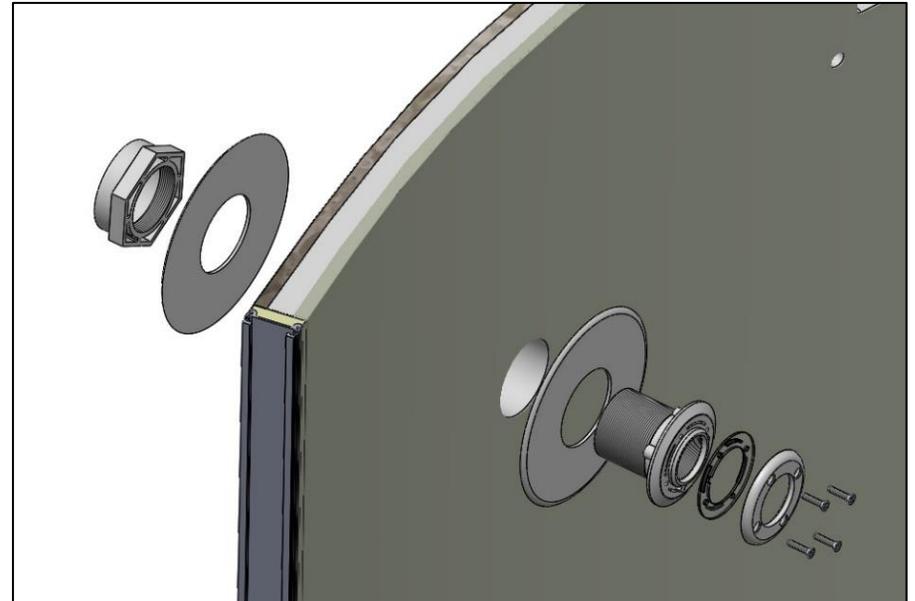
Step 13 – Return Fitting Installation

- 13.1 Place white return plate (#77064) over round opening on skimmer panel and insert extended return fitting (#77092) through assembly from interior of the pool.

Place second white return plate (#77064) over extended return fitting on the outside of the pool.

Install extended return fitting nut to secure to panel. Do not overtighten.

NOTE: Return fitting face plate and four screws will be removed once pool liner is ready to be installed.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 14 - Installing Top Coping

2" Standard Above Ground Coping

14.1 Place 2" PVC top coping onto each pool panel, leaving a $\frac{1}{2}$ " gap between each length. Coping should be offset from wall panel joints by 2" to allow easier installation of the top caps.

14.2 Each length of top coping will be attached to the pool with screws from the **exterior side of the pool only**. Drill evenly spaced $\frac{1}{8}$ " pilot holes through the top coping and exterior pool wall, ensuring the top coping is fully seated. Spacing should be every 12-18".

Attach the top coping to the pool panels with colored head cap screws #8 x $\frac{1}{2}$ " (#99-0138). DO NOT OVERTIGHTEN.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 14 - Installing Top Coping

4" Premium Above Ground Coping

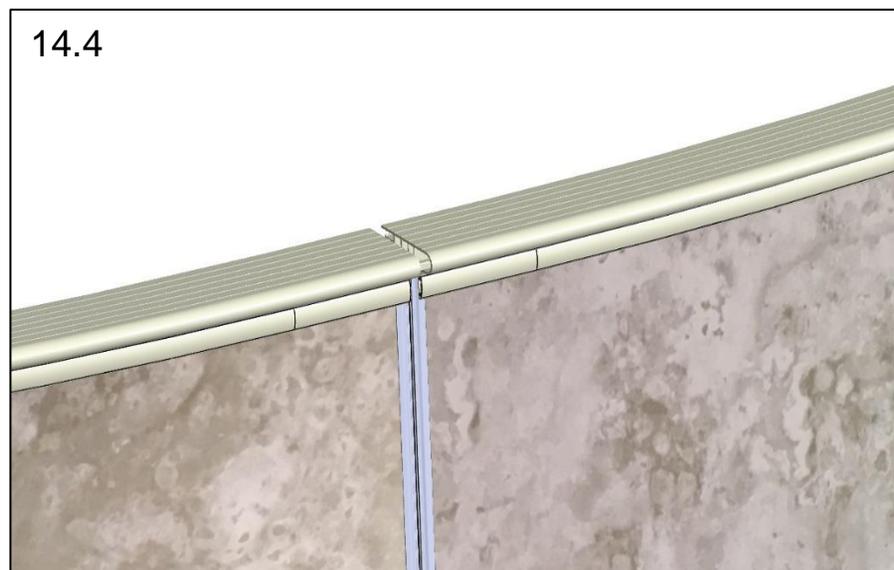
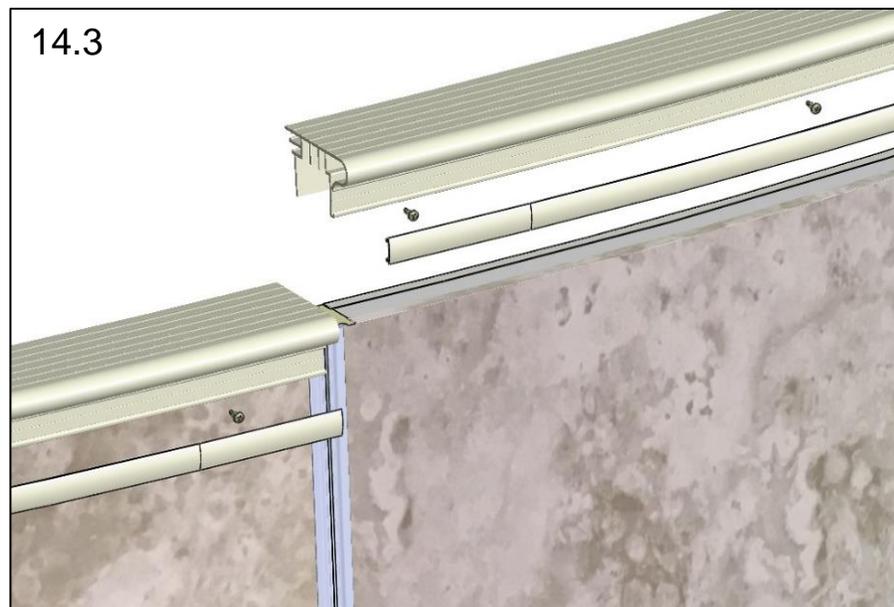
14.3 Place 4" PVC top coping onto each pool panel, leaving a $\frac{1}{2}$ " gap between each length.

14.4 Each length of top coping will be attached to the pool with screws from the **exterior side of the pool only**. Drill evenly spaced $\frac{1}{8}$ " pilot holes through the top coping and exterior pool wall, ensuring the top coping is fully seated. Spacing should be every 12-18".

Attach the top coping to the pool panels with colored head cap screws #8 x $\frac{1}{2}$ " (#99-0138). **DO NOT OVERTIGHTEN.**

Clip or slide screw cover strip into the strip receiver once all screws have been installed. If inserting the screw covers is difficult:

- apply a PVC safe lubricant to the cover.
- Bend profile of the screw cover to more easily clip in.
- Ensure parts are free of any sand or debris.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 14 - Installing Top Coping (continued)

In-Ground Coping

14.5 PAVER COPING: Place coping adaptor clips (#77176) around the perimeter of the pool with raised edge facing outward. Space clips 12" on center. **Attach to the exterior pool wall only** with one #10 x 3/4" Tek screw (#99-0090).

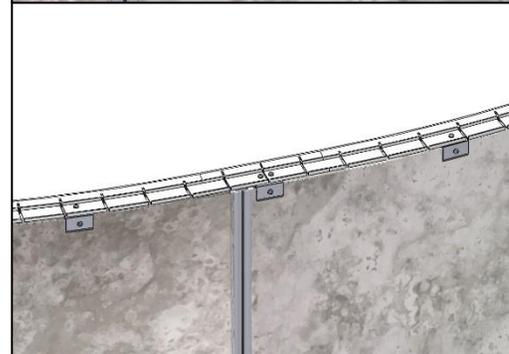
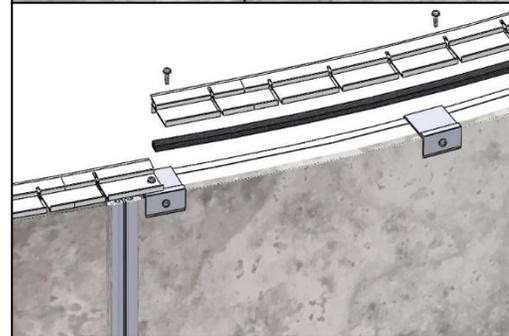
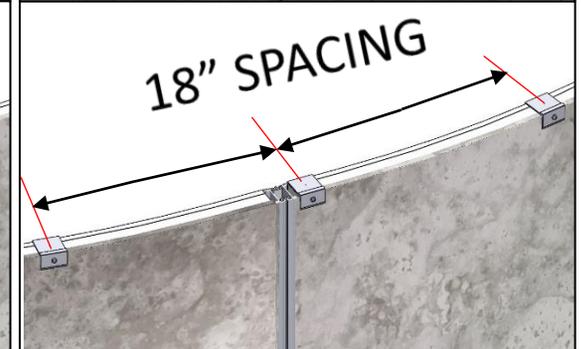
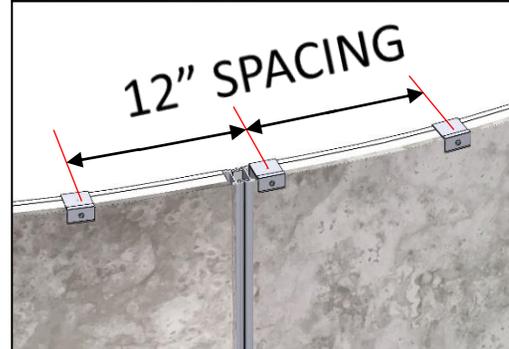
Under each length of paver coping (NOT INCLUDED), place the included foam sealer strip (#77177) under the inside edge as illustrated. This will prevent backfill or debris from falling behind the pool liner.

Use one #10 x 3/4" Tek screw (#99-0090) to attach the paver coping to each coping adaptor clip.

14.6 CP2 COPING OR DECK COPING: Place coping adaptor clips (#77176) around the perimeter of the pool with raised edge facing outward. Space clips 18" on center. Attach to the exterior pool wall only with one #10 x 3/4" Tek screw (#99-0090).

Under each length of coping (NOT INCLUDED), place the included foam sealer strip (#77177) under the inside edge as illustrated. This will prevent backfill or debris from falling behind the pool liner.

Use one #10 x 3/4" Tek screw (#99-0090) to attach the paver coping to each coping adaptor clip.



Section 1

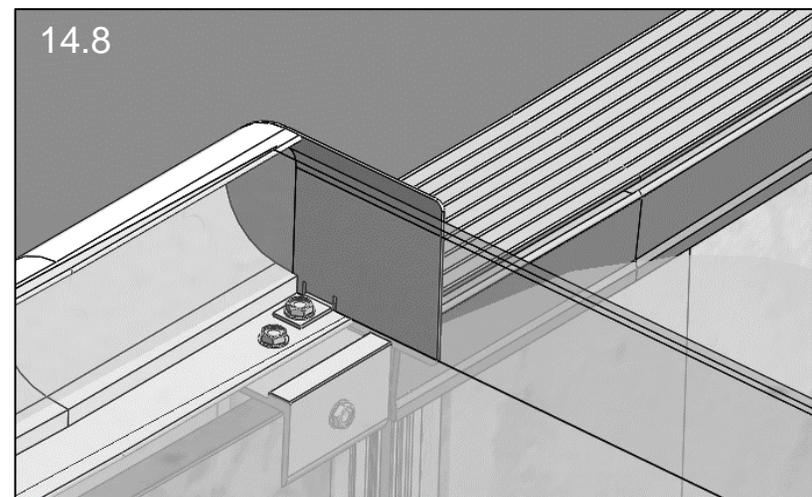
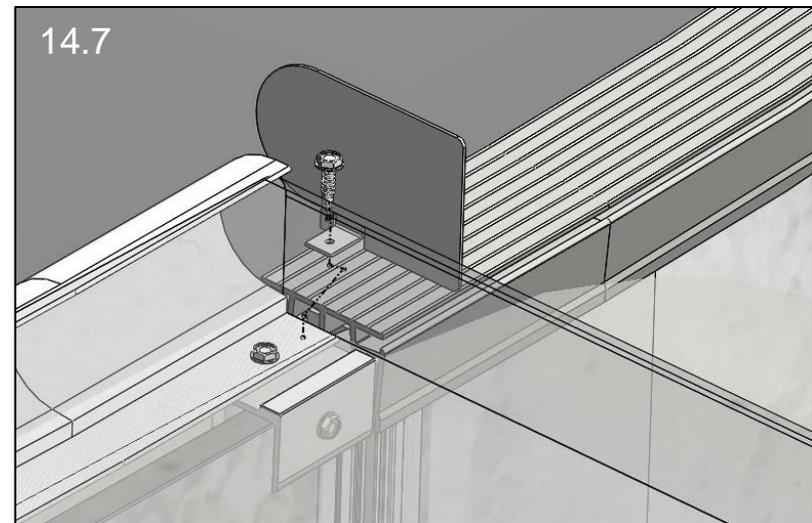
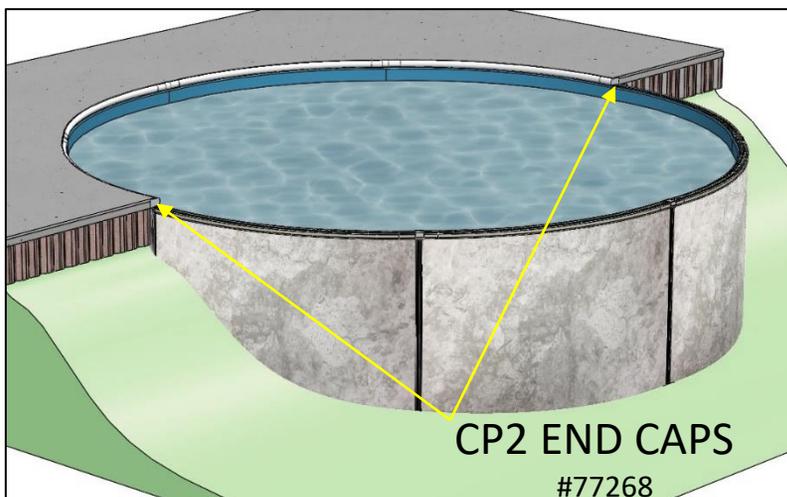
OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 14 - Installing Top Coping (continued)

14.7 For pools that are installed into a hillside and will utilize both 2" PVC top coping and CP2 coping as illustrated below, there is a transition kit available (#77268). This kit includes two stainless steel plates to cap off the ends of the CP2 coping to give a finished edge.

Bend the lower tab on the end plate slightly more than 90 degrees as seen in Figure 14.7.

Attach the end plate with #10 x 3/4" Tek screw (#99-0090) through the CP2 coping and into the coping adaptor clip (#77176). Repeat on the opposite end.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 15 – Concrete Collar (In-Ground 24”+ Only)

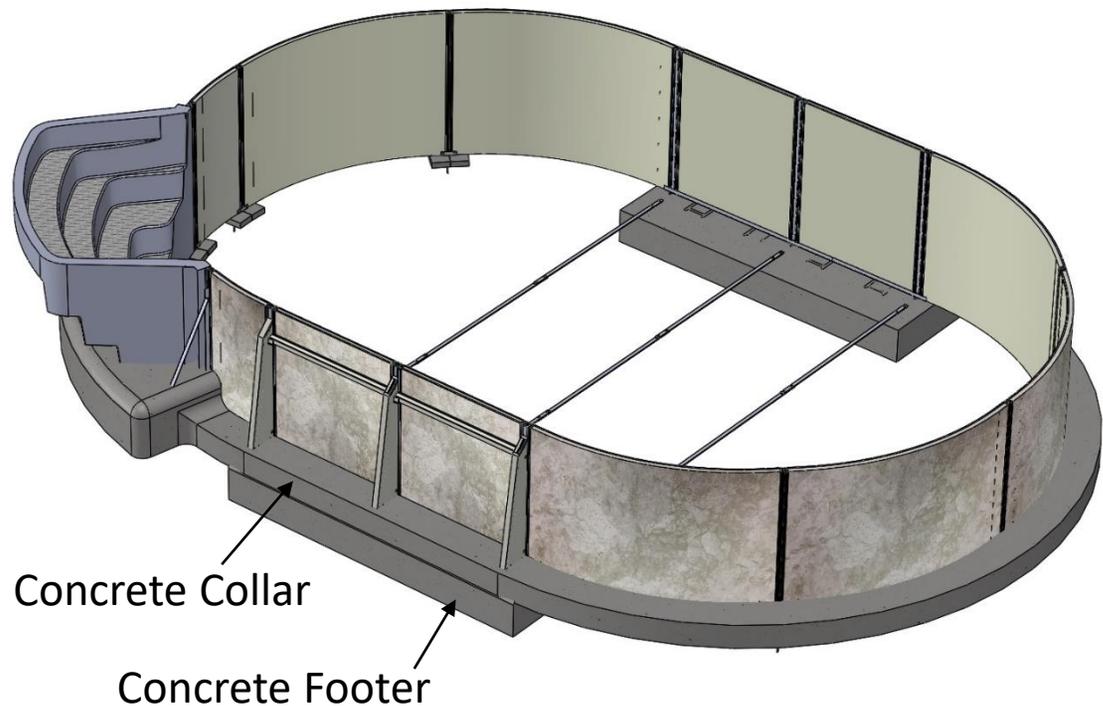
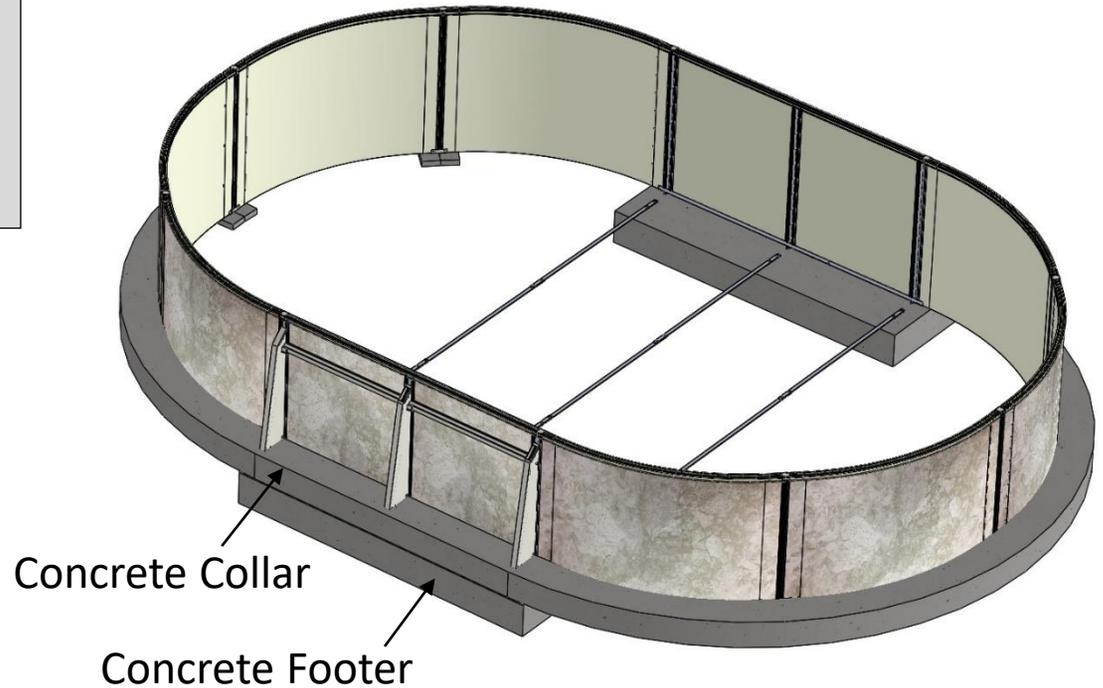
- 15.1 If the pool is installed greater than 24” below grade, a concrete collar is required, otherwise skip this step.

Ensure the supplied 3/8” x 15” rebar (#77001) is inserted halfway into the ground through every bottom plate and bottom channel hole around the perimeter of the pool. If extra supports are required for patio or other pool features, consider installing them before pouring the concrete.

IMPORTANT – Confirm the pool is level and square before pouring concrete!

- 15.2 Pour a 8” high by 12” wide concrete collar around the perimeter of the pool. If a step is used, pour a concrete foundation around the backside of the step. See [page 13](#) for recommended quantities.

Note: Do not fill pool with water until concrete has cured.

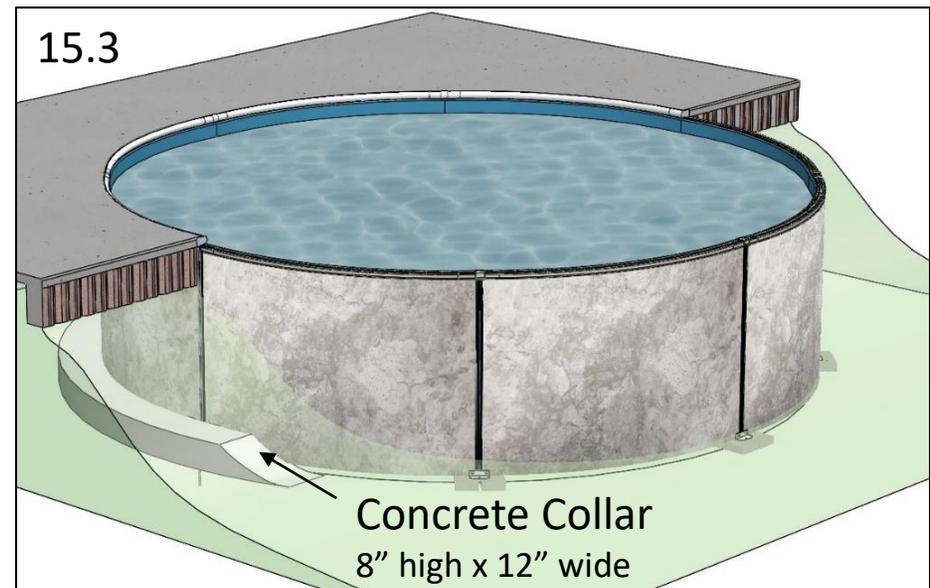
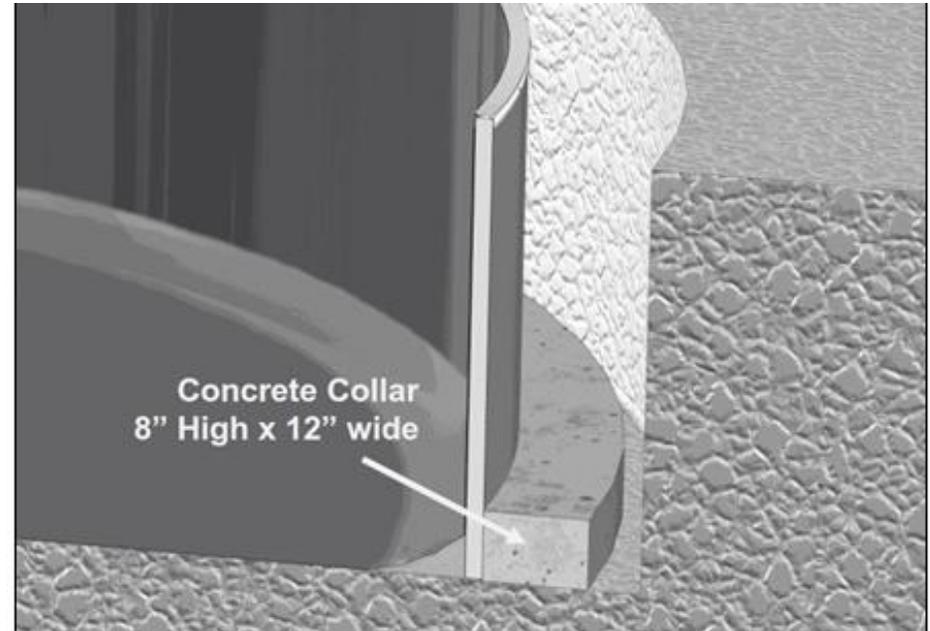


Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 15 – Concrete Collar (In-Ground 24”+ Only)

- 15.3 If the pool is installed into a hill, as illustrated in Figure 15.3, the pool still requires a concrete collar 12” wide by 8” high at any location where the pool is buried more than 24” below grade. Start tapering the ends of the concrete collar once the depth below grade becomes less than 24”.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 16 – Install liner

16.1 Ensure sand in pool is level with no impressions.

Remove liner (NOT INCLUDED) from carton and unfold liner outside of the pool.

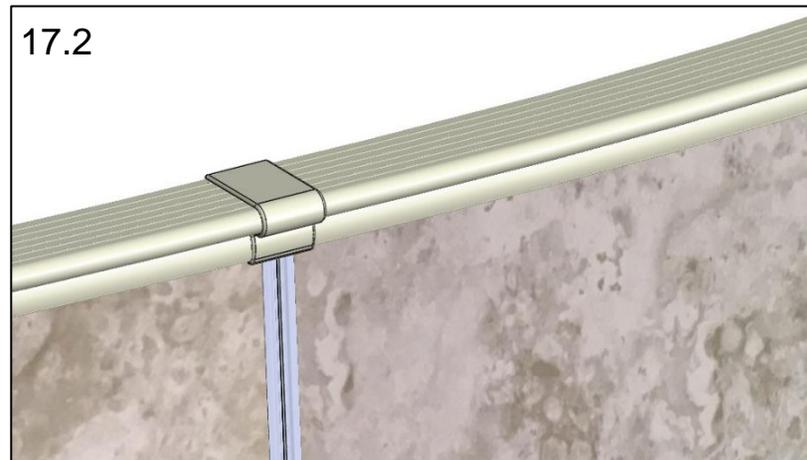
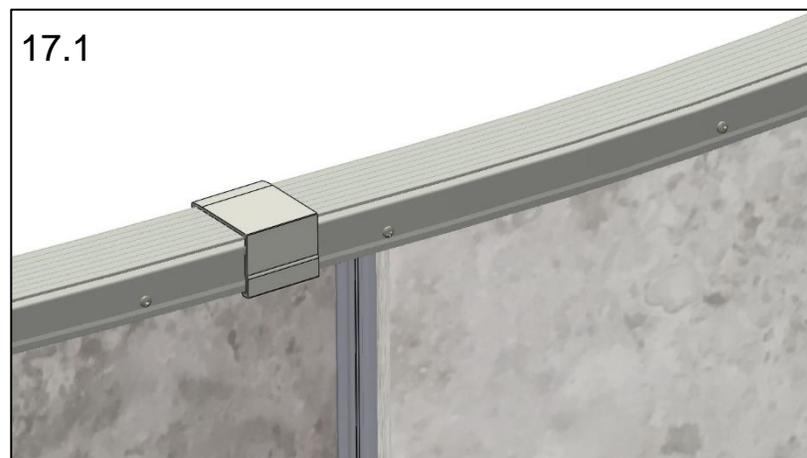
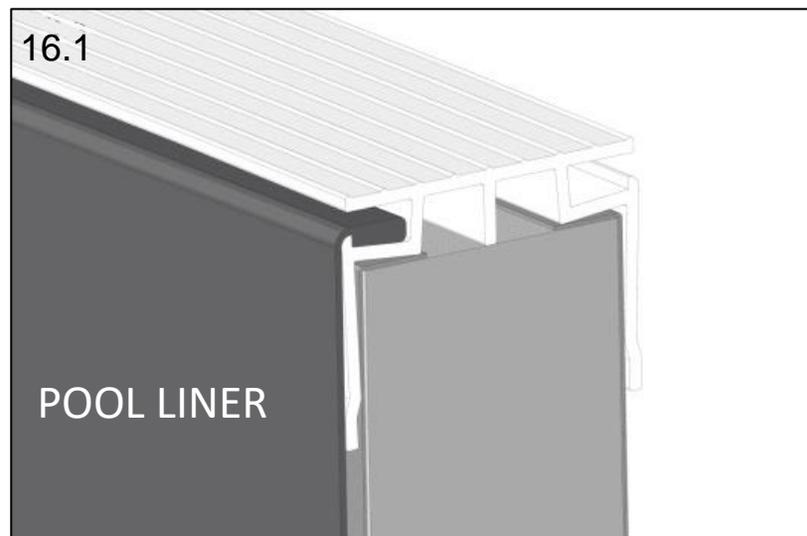
Loosely refold liner and gently place it in the pool, taking care to not disturb the smoothed sand base of the pool.

While standing outside of the pool, snap liner bead into coping receiver track around entire pool. Remove as many wrinkles from the liner as possible as you go by gently tugging on the liner or using a soft broom. A shop vacuum can be used to remove wrinkles by attaching the vacuum hose to the skimmer outlet and sealing with duct tape. Remove vacuum once pool has 6" of water.

Step 17 – Install Coping Clips

17.1 Install 2" Standard coping clips (#77310) or 4" Premium coping clips (FIG 17.2 - #77253) onto top coping by inserting interior lip first, then snapping into place.

CP2 coping clips (NOT INCLUDED) – install coping clips by first catching top edge then pressing down firmly to lock in place.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

Step 18 – Add Water

18.1 Start filling the pool with water after the concrete has cured.

Once the water level reaches 2-3" from the return fitting hole, install the faceplates on the return fitting and skimmer as shown in Figures 19.1 and 19.2.

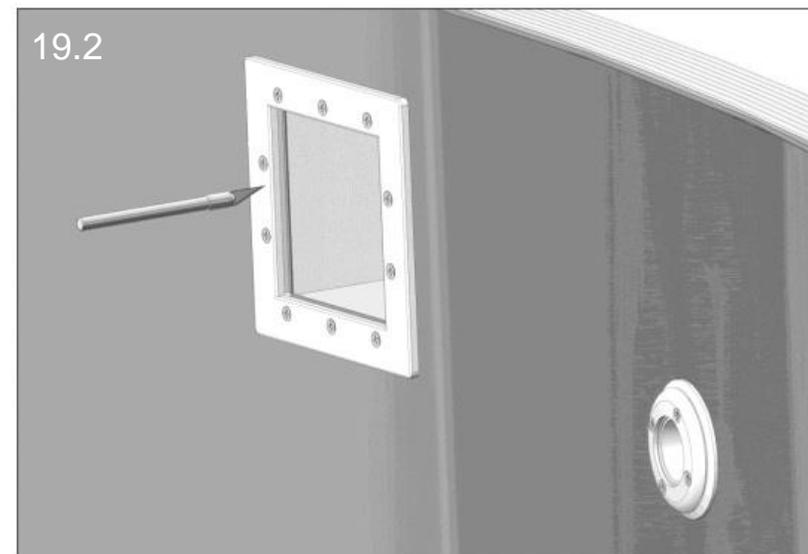
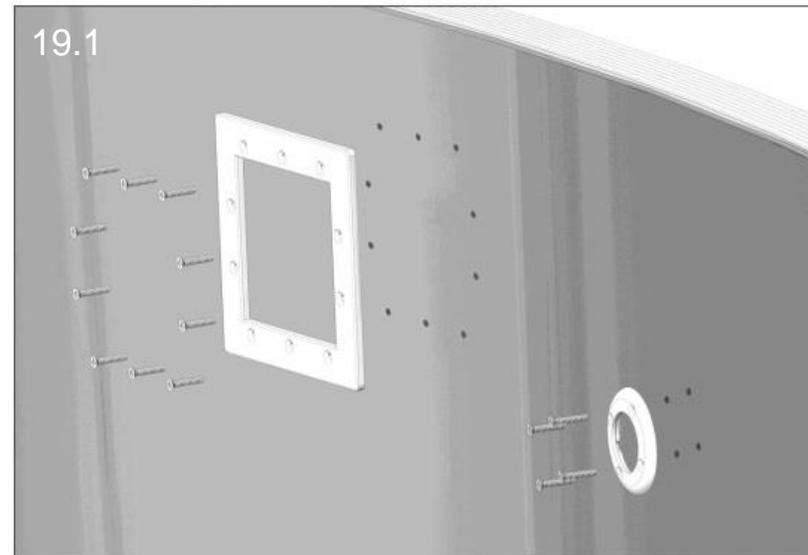
When faceplates are installed, complete filling the pool until water level is at the middle of the skimmer opening.

Step 19 – Install Face Plates

19.1 Locate screw holes for each opening in pool wall.

Carefully pierce liner within the frame of the skimmer and return faceplates with a nail or awl. Attach skimmer and return faceplates using screws provided in the skimmer kit and tighten.

19.2 Using a sharp blade, carefully trim liner inside the openings for skimmer and return openings. Install eyeball (not included) into return fitting.



Section 1

OPTIMUM OVAL ABOVE / IN-GROUND POOL

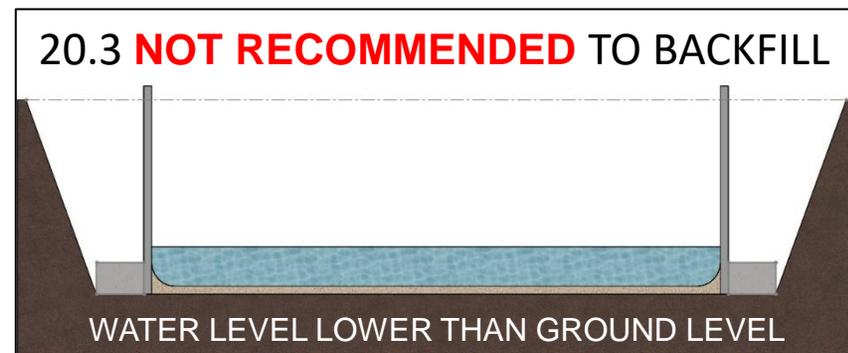
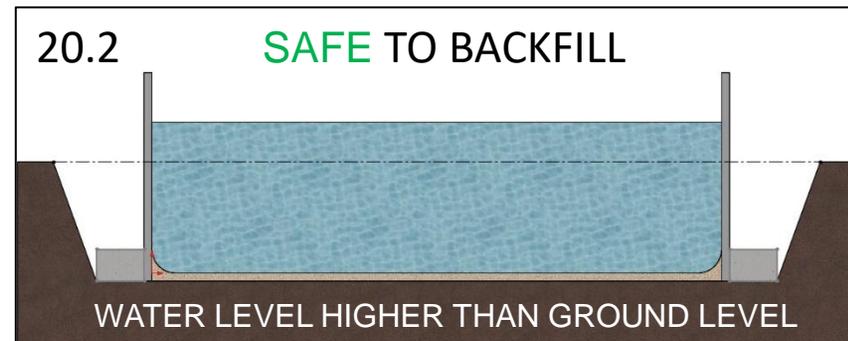
Step 20 - Backfill

20.1 Ensure all electrical bonding required in your area is completed before backfilling the pool. This is a good time to add any concrete foundation forms or perforated drain pipes, if they will be used.

IMPORTANT: Before any backfilling is started, the pool water level must exceed the height of the surrounding backfill required, as in examples 20.1 and 20.2. Failure to do so will put excessive inward pressure on the pool panels which may cause irreversible damage, and may void the warranty.

Crushed stone or gravel aggregate, 3/8" to 3/4" in diameter is the recommended backfill material. Backfill may be placed directly against the pool wall. Do not use expansive soils such as clay since this type of soil will place additional stress on the pool and not allow for proper drainage away from the surrounding area.

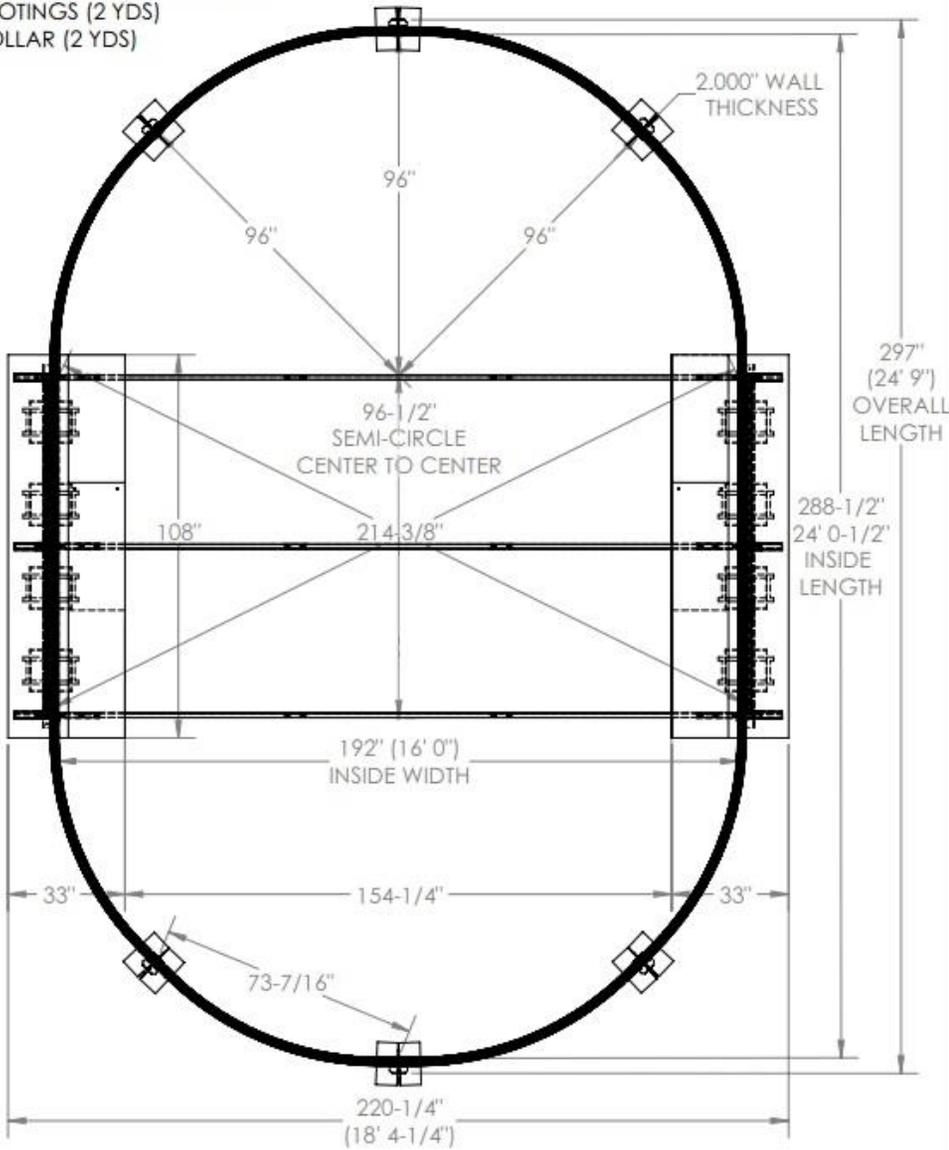
Only compact the backfill material by hand. Do not use heavy machinery, especially around the skimmer and plumbing fittings.



16' X 24' FOOTPRINTS

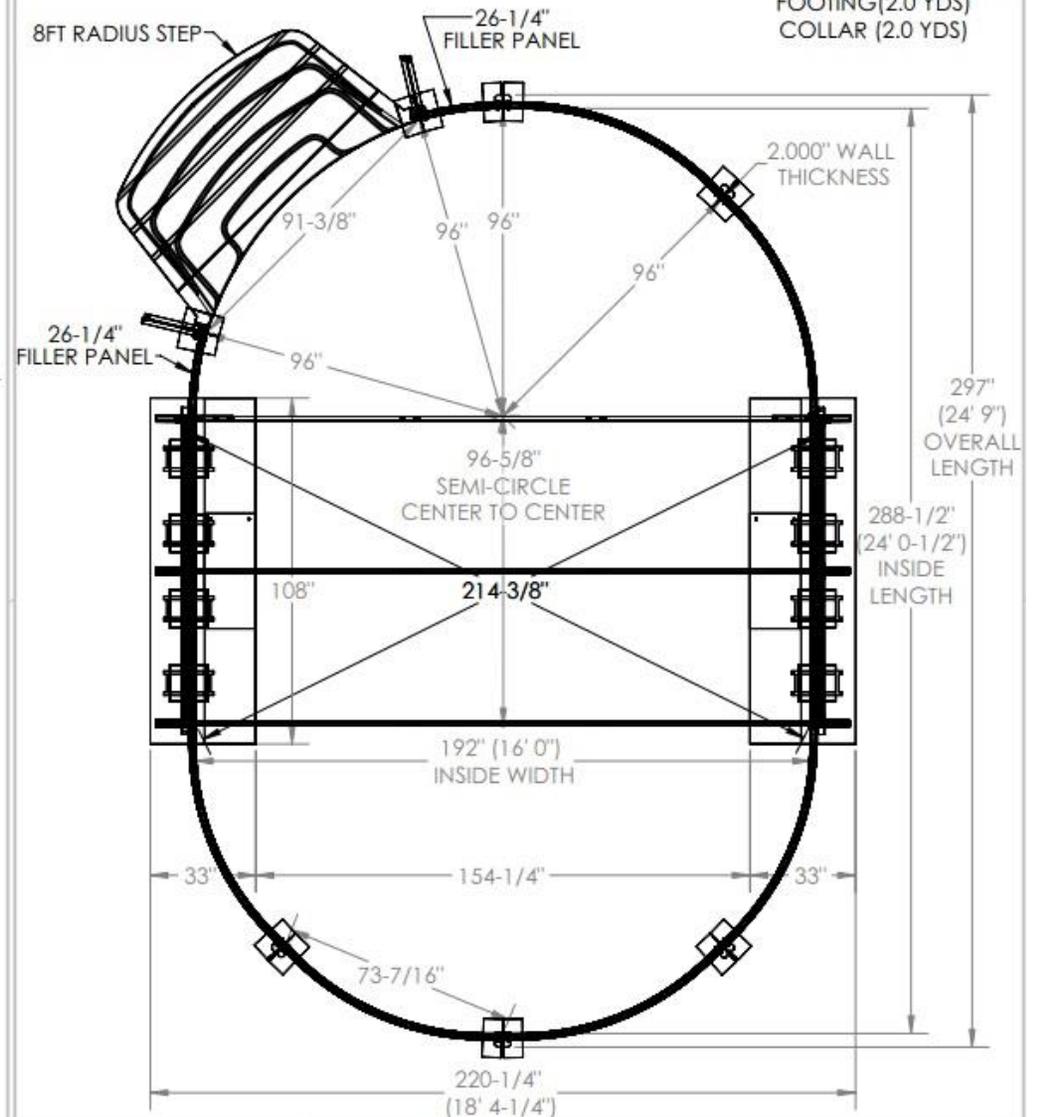
CONCRETE REQUIREMENTS

FOOTINGS (2 YDS)
COLLAR (2 YDS)



CONCRETE REQUIREMENTS

STEP FOUNDATION (3.0 YDS)
FOOTING (2.0 YDS)
COLLAR (2.0 YDS)



WILBAR
INTERNATIONAL

16 X 24 FOOT OVAL

PERIMETER: 66'-3 3/4"	AREA: 329 SQ. FT.	GALLONAGE: 9,026 GAL.	SAND REQ: 2.4 YDS	MODEL NO.: POPT52-1624V
SCALE: 1:38	DATE: 01/11/17	DRAWN BY: P.INMAN	DRAWING NO. 10362	

WILBAR
INTERNATIONAL

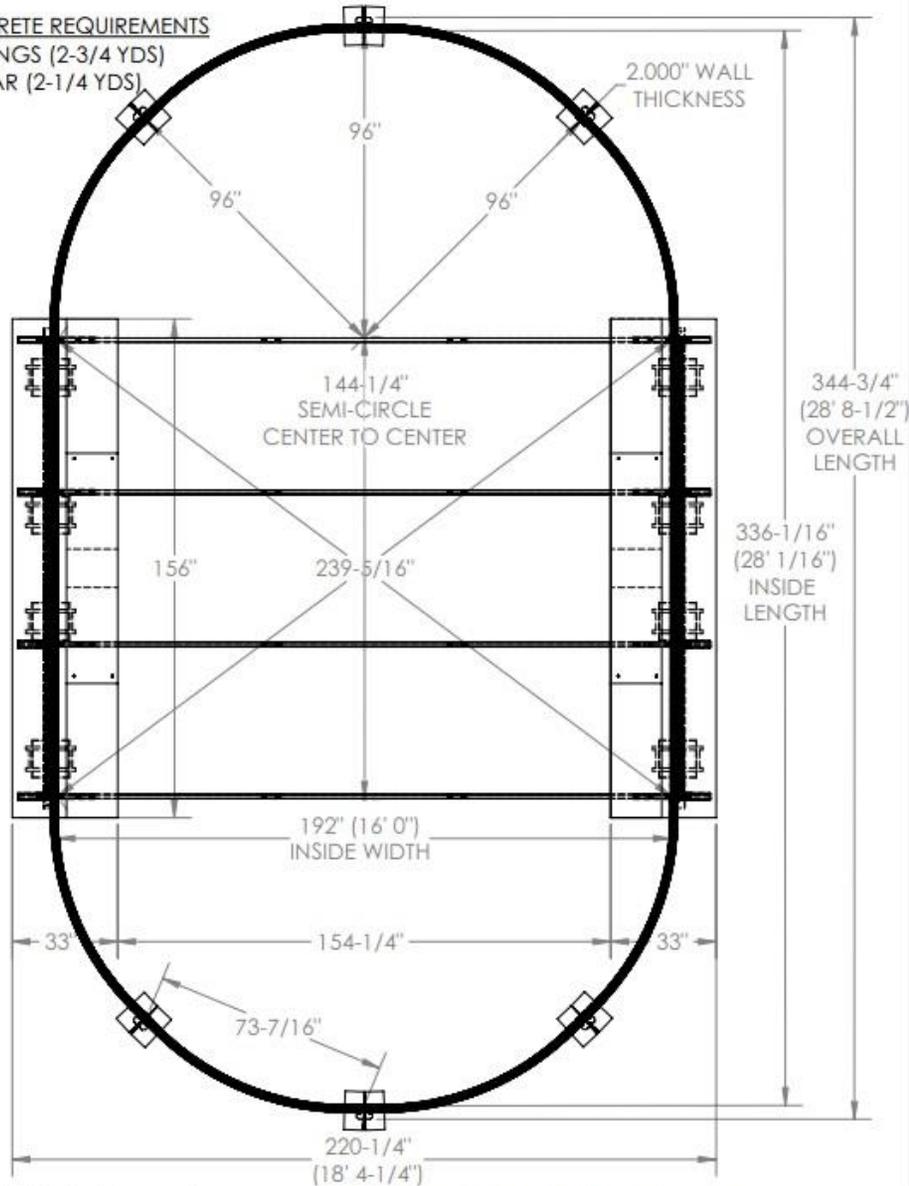
16 X 24 FOOT OVAL WITH STEP

PERIMETER: 66'-3 3/4"	AREA: 369 SQ. FT.	GALLONAGE: 9,326 GAL.	SAND REQ: 2.4 YDS	MODEL NO.: POPT52-1624VIGS
SCALE: 1:42	DATE: 10/02/17	DRAWN BY: P.INMAN	DRAWING NO. 10438	

16' X 28' FOOTPRINTS

CONCRETE REQUIREMENTS

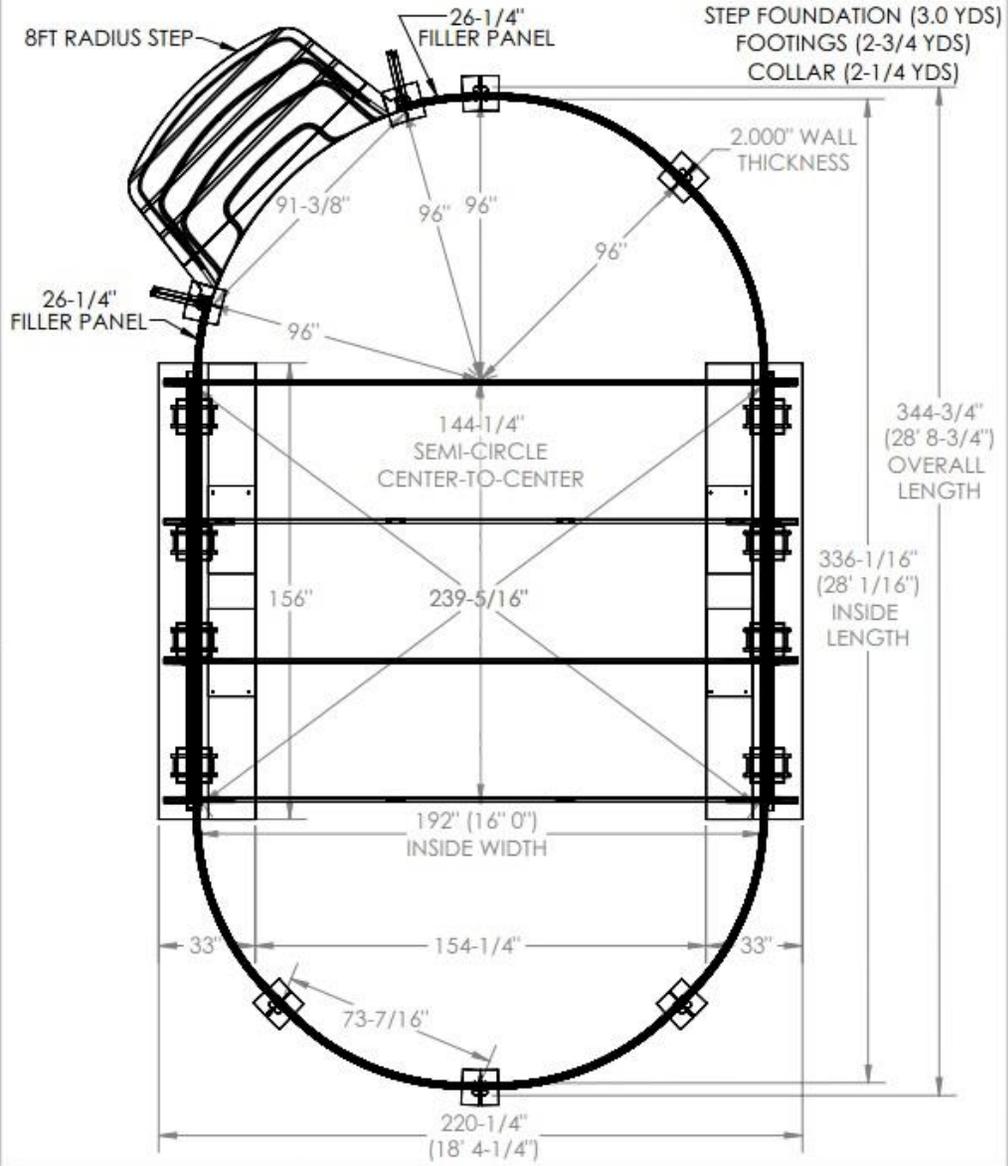
FOOTINGS (2-3/4 YDS)
COLLAR (2-1/4 YDS)



WILBAR INTERNATIONAL		16 X 28 FOOT OVAL			
PERIMETER: 74'-3 1/2"	AREA: 393 SQ. FT.	GALLONAGE: 10,781 GAL.	SAND REQ: 2.8 YDS	MODEL NO: POPT52-1628V	
SCALE: 1:42	FOAM WALL POOL	DATE: 01/11/17	DRAWN BY: P.INMAN	DRAWING NO. 10363	

CONCRETE REQUIREMENTS

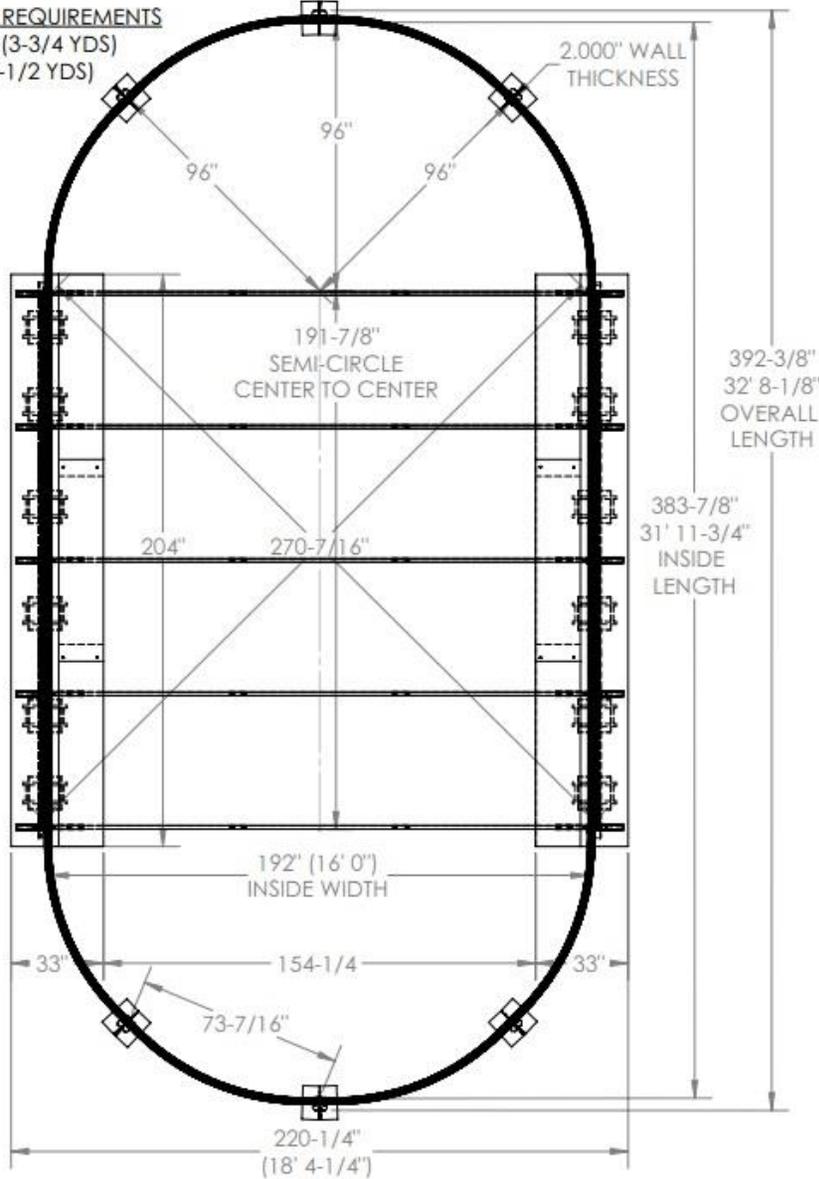
STEP FOUNDATION (3.0 YDS)
FOOTINGS (2-3/4 YDS)
COLLAR (2-1/4 YDS)



WILBAR INTERNATIONAL		16 X 28 FOOT OVAL WITH STEP			
PERIMETER: 74'-3 1/2"	AREA: 433 SQ. FT.	GALLONAGE: 11,081 GAL.	SAND REQ: 2.8 YDS	MODEL NO: POPT52-1628VIGS	
SCALE: 1:46	FOAM WALL POOL	DATE: 10/02/17	DRAWN BY: P.INMAN	DRAWING NO. 10439	

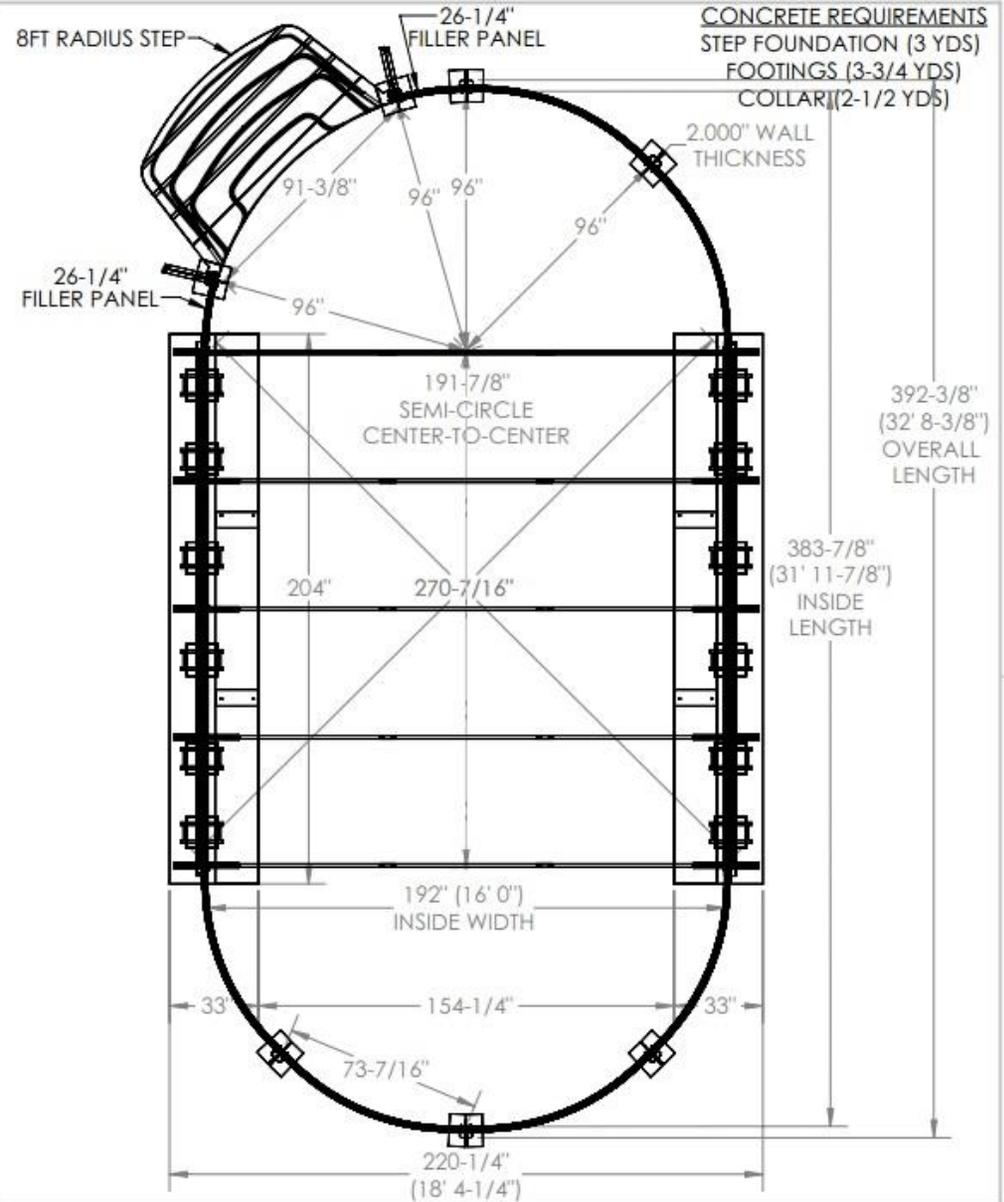
16' X 32' FOOTPRINTS

CONCRETE REQUIREMENTS
FOOTINGS (3-3/4 YDS)
COLLAR (2-1/2 YDS)



WILBAR INTERNATIONAL		16 X 32 FOOT OVAL			
PERIMETER: 82'-3 1/4"	AREA: 457 SQ. FT.	GALLONAGE: 12,537 GAL.	SAND REQ: 3.3 YDS	MODEL NO. POPT52-1632V	
SCALE: 1:46	FOAM WALL POOL	DATE: 01/11/17	DRAWN BY: P.INMAN	DRAWING NO. 10364	

CONCRETE REQUIREMENTS
STEP FOUNDATION (3 YDS)
FOOTINGS (3-3/4 YDS)
COLLAR (2-1/2 YDS)

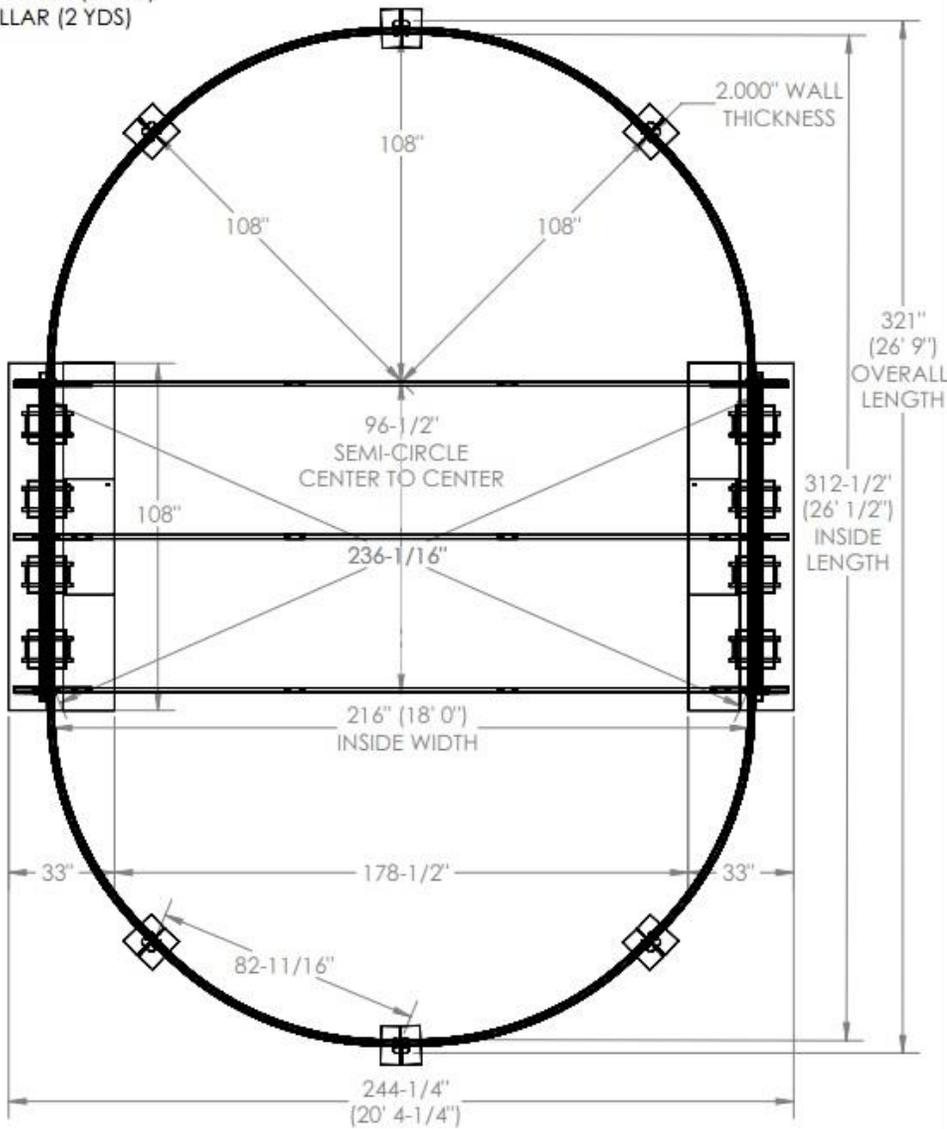


WILBAR INTERNATIONAL		16 X 32 FOOT OVAL WITH STEP			
PERIMETER: 82'-3 1/4"	AREA: 497 SQ. FT.	GALLONAGE: 12,837 GAL.	SAND REQ: 3.3 YDS	MODEL NO. POPT52-1632VIGS	
SCALE: 1:50	FOAM WALL POOL	DATE: 10/02/17	DRAWN BY: P.INMAN	DRAWING NO. 10440	

18' X 26' FOOTPRINTS

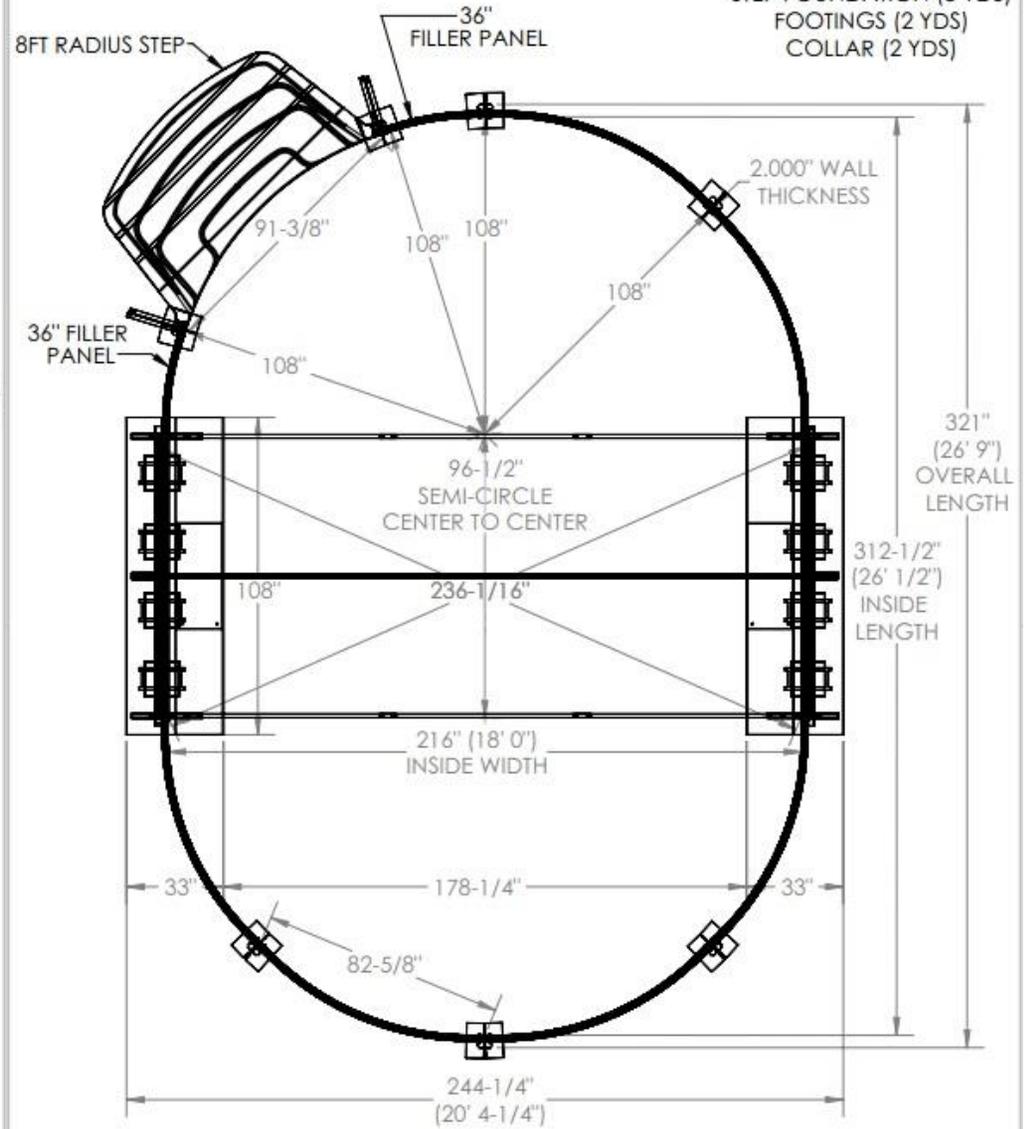
CONCRETE REQUIREMENTS

FOOTINGS (2 YDS)
COLLAR (2 YDS)



CONCRETE REQUIREMENTS

STEP FOUNDATION (3 YDS)
FOOTINGS (2 YDS)
COLLAR (2 YDS)



WILBAR
INTERNATIONAL

18 X 26 FOOT OVAL

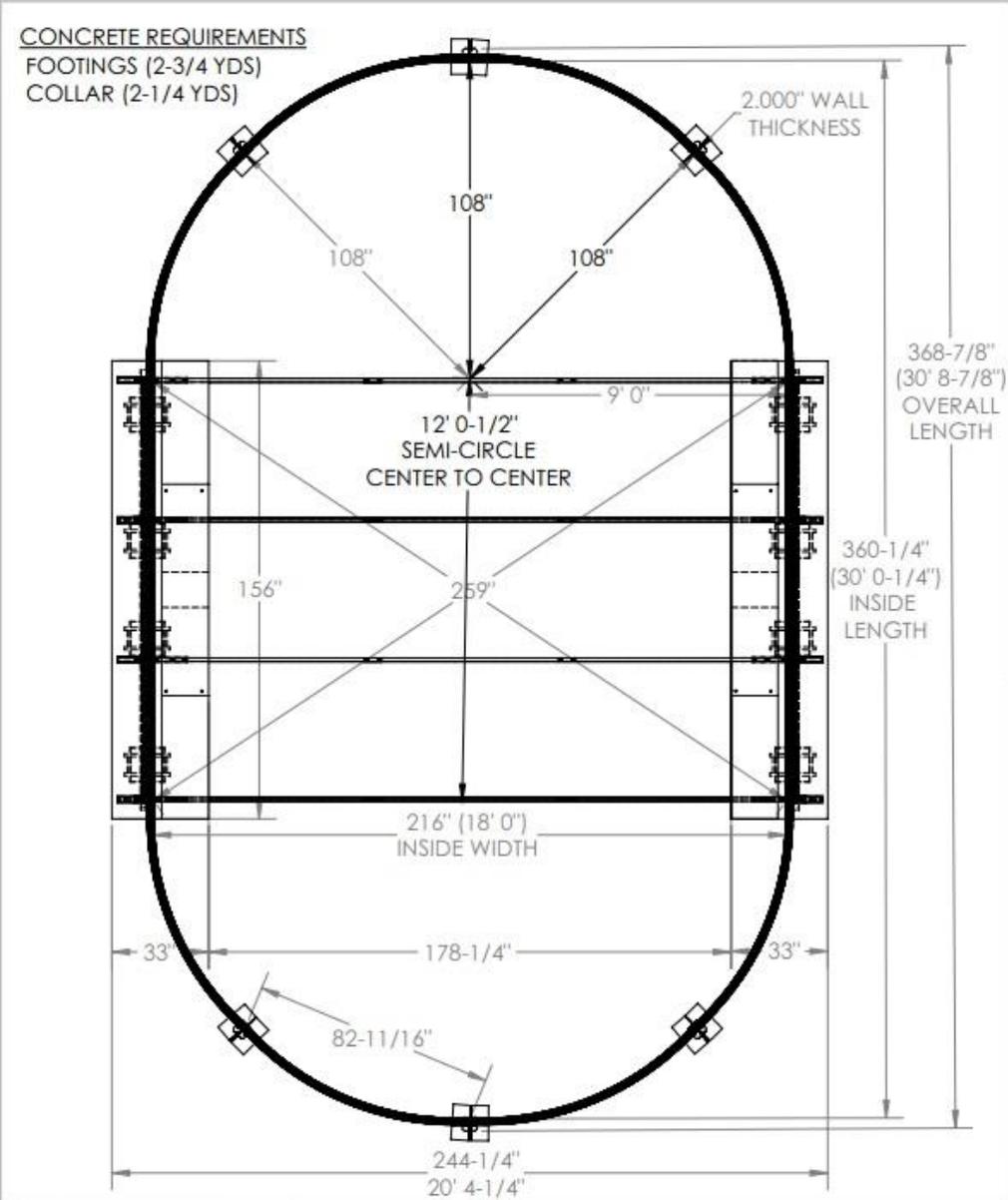
PERIMETER: 72'-6 1/2"	AREA: 398 SQ. FT.	GALLONAGE: 10,929 GAL.	SAND REQ: 2.9 YDS	MODEL NO. POPT52-1826V
SCALE: 1:36	FOAM WALL POOL		DATE: 10/02/17	DRAWN BY: P.INMAN
			DRAWING NO. 10453	

WILBAR
INTERNATIONAL

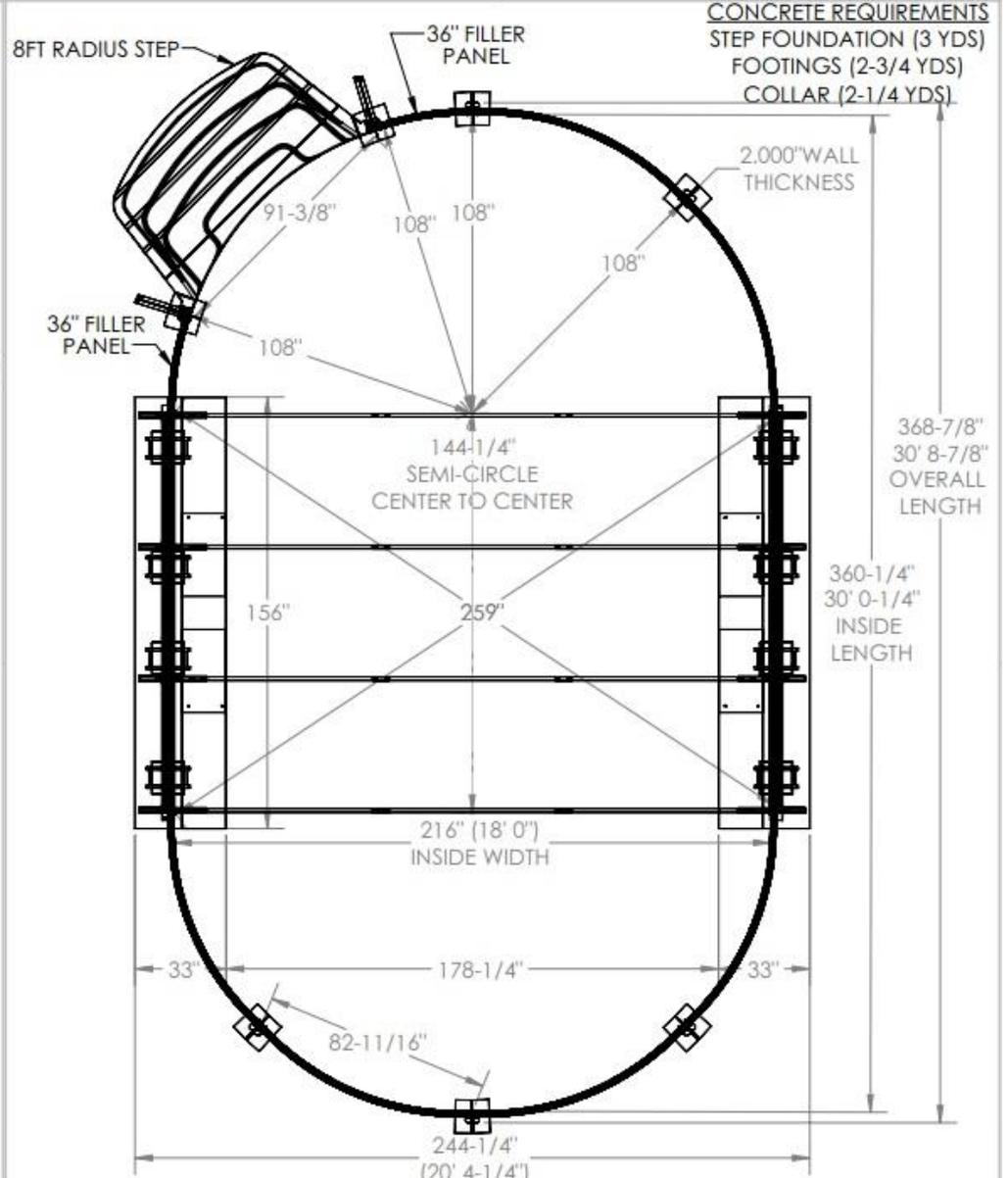
18 X 26 FOOT OVAL WITH STEP

PERIMETER: 72'-6 1/2"	AREA: 438 SQ. FT.	GALLONAGE: 11,229 GAL.	SAND REQ: 2.9 YDS	MODEL NO. POPT52-1826VIGS
SCALE: 1:46	FOAM WALL POOL		DATE: 10/02/17	DRAWN BY: P.INMAN
			DRAWING NO. 10441	

18' X 30' FOOTPRINTS



WILBAR INTERNATIONAL		18 X 30 FOOT OVAL			
PERIMETER: 80'-6 1/2"	AREA: 470 SQ. FT.	GALLONAGE: 12,904 GAL.	SAND REQ: 3.4 YDS	MODEL NO.: POPT52-1830V	DRAWING NO.: 10365
SCALE: 1:32	FOAM WALL POOL	DATE: 01/16/17	DRAWN BY: P.INMAN		

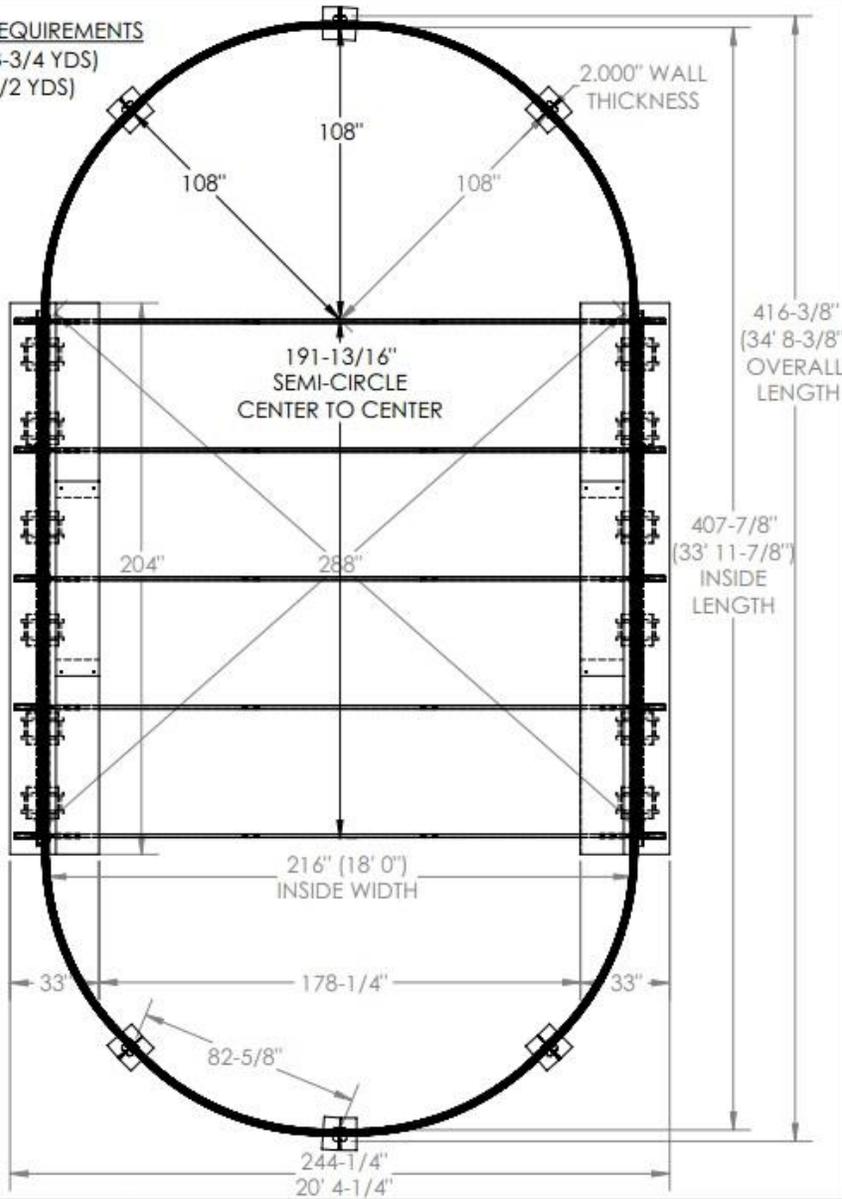


WILBAR INTERNATIONAL		18 X 30 FOOT OVAL WITH STEP			
PERIMETER: 80'-6 1/2"	AREA: 510 SQ. FT.	GALLONAGE: 13,104 GAL.	SAND REQ: 3.4 YDS	MODEL NO.: POPT52-1830VIGS	DRAWING NO.: 10442
SCALE: 1:48	FOAM WALL POOL	DATE: 10/04/17	DRAWN BY: P.INMAN		

18' X 34' FOOTPRINTS

CONCRETE REQUIREMENTS

FOOTINGS (3-3/4 YDS)
COLLAR (2-1/2 YDS)



WILBAR
INTERNATIONAL

18 X 34 FOOT OVAL

PERIMETER: 88'-6 1/2" AREA: 542 SQ. FT. GALLONAGE: 14,879 GAL. SAND REQ: 3.9 YDS MODEL NO. POPT52-1834V

SCALE: 1:50 DATE: 01/16/17 DRAWN BY: P.INMAN DRAWING NO. 10366

FOAM WALL POOL

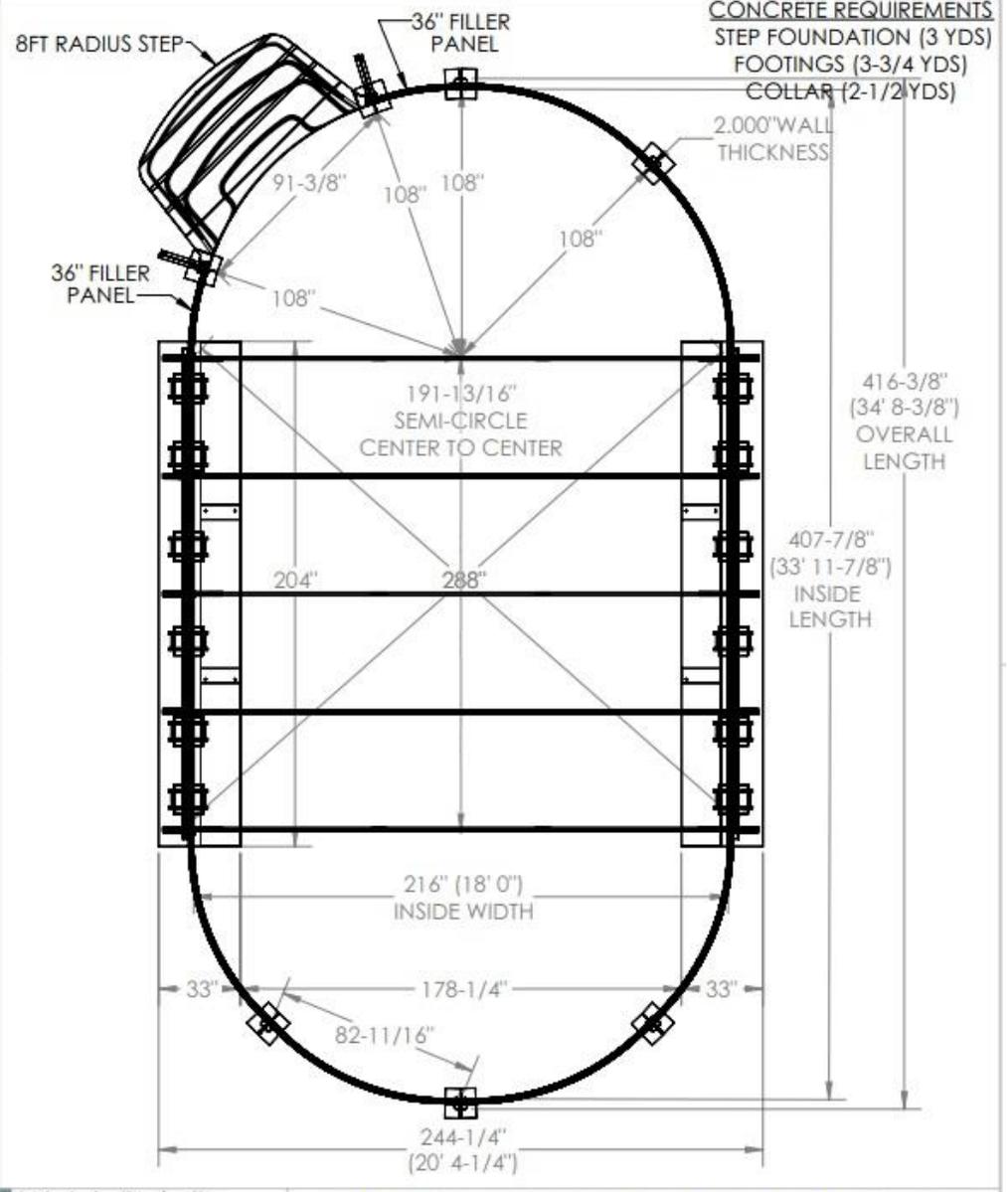
01/16/17

P.INMAN

10366

CONCRETE REQUIREMENTS

STEP FOUNDATION (3 YDS)
FOOTINGS (3-3/4 YDS)
COLLAR (2-1/2 YDS)



WILBAR
INTERNATIONAL

18 X 34 FOOT OVAL WITH STEP

PERIMETER: 88'-6 1/2" AREA: 582 SQ. FT. GALLONAGE: 15,179 GAL. SAND REQ: 3.9 YDS MODEL NO. POPT52-1834VIGS

SCALE: 1:54 DATE: 10/04/17 DRAWN BY: P.INMAN DRAWING NO. 10443

FOAM WALL POOL

10/04/17

P.INMAN

10443