

## CODE REQUIREMENTS

### CODE REQUIREMENTS

- ALL CONSTRUCTION RELATED TO THE POOL AND SURROUNDING POOL AREA SHALL BE IN FULL ACCORDANCE WITH THE LAC TITLE 51 XXIV CODE, AND ALL OTHER APPLICABLE CODES, AND STANDARDS.
- THIS POOL IS A NEW CONSTRUCTION POOL, CLASS C PER LAC TITLE XXIV CODE.

NOTE: GOING FORWARD WITHIN THIS DOCUMENT: ALL SUBSECTIONS REFERENCED FROM THE LAC TITLE XXIV CODE SHALL EXCLUDE "LAC TITLE 51 XXIV CODE" AND LIST ONLY THE SPECIFIC SUBSECTION BEING REFERENCED. IT IS UNDERSTOOD THAT ALL SUBSECTIONS BEING REFERENCED WITHIN THIS DOCUMENT ARE UNDER LAC TITLE 51 XXIV CODE.

### DESIGN REQUIREMENTS

- PER 301.B - ALL INTERIOR SURFACES OF THE POOL SHALL RECEIVE A WHITE PLASTER ON ALL SURFACES NOT TILED.
- PER 305.A - ALL POOL WALLS SHALL BE PLUMB.
- PER 311.C - THIS POOL IS DESIGNED NOT TO EXCEED THE 5'-0" WATER DEPTH, THEREFORE NOT REQUIRING A 4" MINIMUM CONTRASTING BAND WITH ROPE AND FLOATS.
- PER 311.E - DUE TO THE ESTABLISHED WATER DEPTHS, THERE WILL BE NO DIVING ALLOWED IN THIS POOL. ALL WATER DEPTH TILE MARKER LOCATIONS SHALL ALSO INCLUDE A 6'X6" INTERNATIONAL NO DIVING SYMBOL ON BOTH THE POOL DECK AND POOL WALL. (REFERENCE PLAN SHEETS PL-1.0 AND PL-1.1).
- PER 315.A - THE POOL TURNOVER RATE SHALL BE SIZED AT 5 HOURS.
- PER 323.B - POOL DECK SHALL BE CONSTRUCTED OF 4" CONCRETE WITH REINFORCING STEEL, AND A NON-SLIP RESISTANT FINISH.
- PER 323.F.3 - THE MINIMUM CONTINUOUS UNOBSTRUCTED DECK WIDTH SHALL BE 4 FEET, WHICH THE DECK FOR THIS POOL MEETS OR EXCEEDS ON ALL SIDES.
- PER 323.G - THE POOL DECK SHALL BE 1/8" PER 1 FOOT MINIMUM AS THE POOL DECK WILL HAVE A SLIP RESISTANT DECK FINISH. SHED WATER AWAY FROM POOL, AND POOL DECK INCORPORATES A TRENCH DRAIN TO ACCOMMODATE WATER RUNOFF.
- PER 323.J - GIVEN THE POOL DECK WILL BE SUNDECK SUB-SLAB, CONSTRUCTION JOINTS AROUND THE COPING AND THROUGHOUT THE DECK SHALL BE CONSTRUCTED TO A MINIMUM WIDTH OF 1/2".
- PER 323.O - POOL DECK SHALL BE SLOPED AS INDICATED ON DRAINAGE PLAN.
- PER 323.P - SITE DRAINAGE SHALL BE INSTALLED PER DRAINAGE PLAN TO EFFECTIVELY SHED WATER FROM POOL DECK AND POOL, AND PREVENT FLOODING OR EROSION OF LANDSCAPING ONTO POOL DECK OR POOL.
- PER 323.Q - ALL POOL CIRCULATION SYSTEM PIPING SHALL BE TESTED WITH AN INDUCED STATIC HYDRAULIC PRESSURE TEST AT 25 PSI FOR 30 MINUTES, AND SHALL BE PERFORMED BEFORE ANY OF THE PIPING IS COVERED UP. PIPING WILL REMAIN UNDER PRESSURE THROUGHOUT THE ENTIRE DURATION OF THE CONSTRUCTION PROCESS AS MUCH AS FEASIBLY POSSIBLE.
- PER 323.S - A HOSE BIB AND VACUUM BREAKER SHALL BE PROVIDED FOR WASHING DOWN THE ENTIRE POOL DECK AREA.
- PER 325 - THIS POOL SHALL HAVE TWO HAND RAILS AT THE STEPS, AND AN TWO LADDERS AT THE DEEP END PROVIDING AT LEAST TWO MEANS OF ENTRY/EXIT LOCATIONS, AND ONE ENTRY/EXIT SPANNING NO GREATER THAN 75' AROUND THE PERIMETER OF THE POOL COPING.
- PER 327 - ALL STAIR TREADS ARE 14". ALL RISERS ARE UNIFORMLY 7.25", WITH THE BOTTOM RISER VARYING NO MORE THAN PLUS OR MINUS 2". TWO HANDRAILS SHALL BE PROVIDED, AND SHALL BE NO MORE THAN 18 INCHES HORIZONTAL DISTANCE FROM THE FACE OF BOTTOM RISER. THE OUTSIDE DIAMETER OF THE HANDRAIL IS 1.90" O.D.
- PER 329 - THE POOL LADDER SHALL BE STAINLESS STEEL, WITH TWO HAND RAILS, WITH THE LADDER TREADS BEING BETWEEN 3" AND 6" CLEAR FROM THE FACE OF POOL WALL. THE CLEAR DISTANCE BETWEEN LADDER HANDRAILS WILL BE 18". THE LADDER TREADS ARE UNIFORMLY SPACED WITH A VERTICAL DISTANCE OF 10", AND ALL LADDER TREADS SHALL MEET THE 1-1/2" HORIZONTAL DISTANCE.
- PER 331.2 - THE VERTICAL DISTANCE BETWEEN THE POOL COPING EDGE, DECK, OR STEP SURFACE, AND THE UPPERMOST RECESSED TREAD DOES NOT EXCEED 12 INCHES.

### CIRCULATION SYSTEMS

- PER 501 - ALL POOL EQUIPMENT IS SIZED FOR A 5 HOUR TURNOVER, AND ALL POOL EQUIPMENT SHALL MEET NSF 50 PER LAC
- PER 503.A - WATER VELOCITY FOR RETURN PIPING SHALL NOT EXCEED 8FPS, AND VELOCITY FOR THE SUCTION PIPING SHALL NOT EXCEED 6 FPS. (SEE ATTACHED VELOCITY CHART AS SHOWN ON PLAN SHEET PL-1.1)
- PER 503.C.1 - THIS POOL SHALL BE PROVIDED WITH A FLOW METER SHOWING FLOW RATE THROUGH THE FILTER SYSTEM IN GALLONS PER MINUTE. (SEE SHEET PL-1.4 PIPING SCHEMATIC FOR FLOW METER LOCATION)
- PER 505 - PROPERLY SIZED SAND FILTER SHALL BE PROVIDED WITH A SIGHT GLASS TO DETERMINE WATER CLARITY.
- PER 507 - A RECIRCULATION PUMP SHALL BE PROVIDED WHICH MEETS OR EXCEEDS THE MAXIMUM FLOW RATE FOR THE POOL RECIRCULATION SYSTEM. (SEE DESIGN FLOW RATE AND CALCULATIONS ON SHEET G-1.0, AND RECIRCULATION PUMP PERFORMANCE CURVE ON SHEET PL-1.4).
- PER 509 - THIS POOL SHALL HAVE A TOTAL OF 12 RETURN INLETS (9 ADJUSTABLE DIRECTIONAL EYEBALL INLETS, AND 3 ADJUSTABLE FLOOR RETURN INLET ON THE TANNING LEDGE AS SHOWN PER PLAN PL-1.0 AND PL-1.1). TWO MAIN DRAINS ARE TO BE LOCATED AS SHOWN ON PLANS, AND EACH ACCOMMODATE THE MAXIMUM FLOW RATE. THE WATER SURFACE AREA FOR THE TANNING LEDGE IS 236 SQUARE FEET, AND SHALL HAVE THREE SUBMERGED FLOOR RETURN INLETS. THE WATER SURFACE AREA FOR THE POOL AND ENTRY AREAS IS 1,145 SQUARE FEET, AND SHALL HAVE 9 ADJUSTABLE DIRECTIONAL EYEBALL INLETS.
- PER 511 - ALL WALL RETURN INLETS AND FLOOR RETURN INLET SHALL BE ADJUSTABLE. THE WALL RETURN INLETS ARE ALL LOCATED AT 18 INCHES BELOW POOL OVERFLOW LEVEL.
- PER 513 - ALL SUCTION OUTLETS SHALL HAVE ANTI-VORTEX COVERS (THIS INCLUDES THE MAIN DRAINS, AND ALL SUCTION COVERS FOR THE EQUALIZER LINES ON EACH SKIMMER. EACH 8" MAIN DRAIN IS SPACED AT 6'-0" FROM CENTER TO CENTER.
- PER 515 - A SURFACE SKIMMER SHALL BE PROVIDED FOR EVERY 500 SQ. FT. OF WATER SURFACE AREA.

### GENERAL STANDARDS

- PER 701 - ALL DEPTH MARKER REQUIREMENTS FOR THIS CODE SECTION ARE IDENTIFIED ON PLAN SHEET PL-1.2, DETAIL 03, AND ALL REFERENCED ON PLAN SHEET PL-1.3, DETAIL 02.
- PER 703 - THIS CLASS C POOL SHALL UTILIZE THE EXISTING 1/2FT. LONG STRONG POLE, 60 FT. THROWING ROPE AND RING BUOY, AND POSTED EMERGENCY NAMES AND TELEPHONE NUMBERS IN A CONSPICUOUS AREA.

- PER 707.A - ALL FRESH WATER SUPPLY LINES, AND BACKWASH LINES SHALL BE SEPARATED BY A 6" MINIMUM AIR GAP, PREVENTING A PHYSICAL CONNECTION OF THE FRESH WATER SUPPLY LINE, OR THE BACKWASH LINE TO THE POOL WATER BODY.
- PER 711 - BACKWASH WATER SHALL BE DISCHARGED INTO A SANITARY SEWER LINE THROUGH A 6" MINIMUM AIR GAP.
- PER 713.A - CONTRACTOR TO COMPLY WITH THE REQUIREMENTS OF THE LATEST NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION AGENCY SHALL BE COMPLIED WITH.
- PER 715.A - THIS POOL WILL NOT BE OPEN FOR USE DURING NON-DAYLIGHT HOURS, AND THEREFORE REQUIRES NO UNDERWATER POOL LIGHTING. THIS POOL WILL HAVE 4 300 WATT UNDERWATER POOL LIGHTS INSTALLED TO PROVIDE AN OPTION TO THE OWNER SHOULD DECIDE TO HAVE POOL DECK LIGHTING INSTALLED FOR FUTURE NIGHT TIME USAGE.
- PER 717 - THIS POOL IS AN OUTDOOR POOL. AND WILL NOT REQUIRE VENTILATION. THE POOL EQUIPMENT ROOM WILL BE PROVIDED WITH VENTILATION THAT WILL MEET OR EXCEED THE MINIMUM REQUIREMENTS (REFERENCE THE MECHANICAL DRAWINGS FOR THE POOL HOUSE).
- PER 733.A - POLE HOOKS, ROPES, BUOYS, FIRST AID KIT, AND OTHER LIFESAVING EQUIPMENT ARE TO BE PROVIDED IN COMPLIANCE WITH CODE.

### DISINFECTION AND BACTERIOLOGICAL QUALITY

- PER 901.A - ALL DISINFECTANT EQUIPMENT SHALL COMPLY WITH NSF STANDARD 50.
- PER 901.A.2 - THE CHLORINATOR PROVIDING DISINFECTANT TO THE POOL WATER IS TO BE ADJUSTED PENDING FIELD TESTING MEASURES THAT ARE SIMPLE AND ACCURATE. THIS PREVENTS ANY NEED FOR DIRECT BATCH FEEDING, AND ASSURES A CONTROLLED DISTRIBUTION AND SUPPLY OF DISINFECTANT THROUGHOUT THE ENTIRE BODY OF WATER.
- PER 901.C - THE POOL SHALL BE SUPPLIED WITH A CHEMICAL TEST KIT WHICH TESTS ALLOWS FOR TESTING OF ALL LEVELS MENTIONED IN NOTE 66 WITHIN THIS DOCUMENT VIA THE DPD METHOD OF DETECTING CHLORINE RESIDUAL. (TAYLOR TEST KIT K-2006 OR BETTER WILL BE PROVIDED).
- THE TESTING RESULTS FOR RESIDUALS SHALL MEET THE FOLLOWING.....

- TESTING FOR DETERMINATION OF pH, CHLORINE (TOTAL AND FREE), TOTAL ALKALINITY, AND CALCIUM HARDNESS.
- DISINFECTANT LEVELS AND pH SHALL BE MEASURED TWICE PER DAY, AND HOURLY WHEN POOL IS IN HEAVY USE.
- TOTAL ALKALINITY TO BE MEASURED WEEKLY
- CALCIUM HARDNESS TO BE MEASURED MONTHLY.

LEVEL REQUIREMENTS ARE....

CHLORINE	1.0 ppm MINIMUM
FAC	3.0 ppm MAXIMUM 10 MG/L MAXIMUM
TOTAL ALKALINITY	60 - 180 ppm (MG/l)
CALCIUM HARDNESS	1000 ppm (MG/L) MAXIMUM

## TANNING SHELVES VARIANCE CRITERIA

- THE TANNING SHELF SERVES AS AN EXTENDED AREA OF THE POOL WITH A NEARLY LEVEL FLOOR LOCATED OUTSIDE OF THE INTERNAL POOL STRUCTURE, INTENDED FOR BATHERS TO SIT OR LIE DOWN IN A MINIMUM OF 6" TO 7" OF POOL WATER FOR SUNNING OR TANNING PURPOSES, AND IS NOT INTENDED FOR WADING.
- THE TANNING SHELF SHALL BE CONSTRUCTED ENTIRELY OUTSIDE OF THE NORMAL LOCATION OF THE INTERNAL WALL AS THE SHALLOW END OF THE POOL, WITH THE POOL WALL EXTENDING OUT TO ENCOMPASS THE ENTIRE TANNING SHELF AREA.
- THE TANNING SHELF MEETS AND EXCEEDS THE MINIMUM 36" SETBACK FROM THE NORMAL LOCATION OF THE INTERNAL WALL AT THE SHALLOW END OF THE POOL, AND EXCEEDS THE 5'-0" MINIMUM WIDTH. THE SUNNING SHELF IS 236 SQUARE FEET OF HORIZONTAL SURFACE AREA.
- THE NORMAL OPERATING WATER DEPTH WITHIN ALL PARTS OF THE TANNING SHELF AREA MEETS A MINIMUM OF 6", AND DOES NOT EXCEED 10" MAXIMUM WATER DEPTH.
- A DECK SURFACE CONSTRUCTED IN COMPLIANCE WITH PART XXIV OF THE LAC 51 SANITARY CODE SHALL COMPLETELY SURROUND THE TANNING SHELF EXCEPT WHERE THE SHELF MEETS OR INTERSECTS WITH THE POOL AND ENTRY STAIRS AS SHOWN WITHIN THIS PLAN SET.
- A PERMANENT COLORED DARK CONTRASTING SLIP RESISTANT TILE BAND OF 2" AT THE INTERSECTION / EDGE OF THE POOL WALL AND THE ENTRY STAIRS TO THE POOL ON BOTH HORIZONTAL AND VERTICAL SURFACES.
- THE TANNING SHELF SHALL HAVE A MINIMUM OF A 1 INCH RADIUS ROUND ON ALL CORNERS AND EDGES.
- THIS TANNING SHELF CONSISTS OF 236 SQUARE FEET OF SURFACE AREA, AND WILL HAVE A TOTAL OF 3 SUBMERGED INLETS MEETING / EXCEEDING THE MINIMUM REQUIREMENT.
- THIS TANNING SHELF SHALL HAVE TWO SKIMMERS TO ACCOMMODATE THE 236 SQUARE FOOT OF WATER SURFACE AREA.
- THE SURFACE THE TANNING SHELF IS DESIGNED TO SLOPE TOWARDS THE POOL MAIN DRAINS, ALLOWING FOR SELF DRAINING.
- THIS TANNING SHELF WILL BE INSTALLED AT THE MOST SHALLOW PORTION OF THE POOL, WHICH IS THE POOL ENTRY/EXIT STEPS, AND A WATER DEPTH OF 3'-0".
- DEPTH MARKERS WILL BE PROVIDED IN FULL COMPLIANCE WITH LAC 51 XXIV.701 FOR SURROUNDING POOL DECK, AND POOL WALL (SEE PLANS PL-1.0 AND PL-1.3).
- THE TANNING SHELF IS CONSTRUCTED AS PART OF INGRESS NEXT POOL STEPS, AND THERE SHALL BE TWO HANDRAILS PROVIDED, WHICH ARE BOTH IN FULL COMPLIANCE WITH THE REQUIREMENTS SET FORTH BY LAC TITLE 51 PART XXIV.
- THERE WILL BE NO INTERACTIVE PLAY DEVICES ON THIS POOL DESIGN.

## POOL CALCULATIONS

POOL WATER VOLUME = 3,423 CU. FT. (POOL BODY) + 951 CU. FT. (ENTRY STEPS AND TANNING SHELF) = 4,374 CU. FT.

4,374 CU. FT. \* 7.48 = 32,718 GALLONS

TURN OVER RATE = 32,718 GALLONS / 5 HR = 6,544 GALLONS PER HR  
6,544 GALLONS PER HR / 60 = 110 GPM

POOL WATER BODY PERIMETER = 210 LF.

OUTSIDE OF COPING PERIMETER = 219 LF.

TOTAL WATER SURFACE SQ. FT. = 1381 SQ. FT.

POOL SURFACE INCLUDING COPING = 895 SQ. FT.

RETURN HEAD LOSS CALCULATIONS

1" PIPE ( <sup>80</sup> / <sub>100</sub> * 3.6) =	2.88 FT.
1" 90 ELBOW ( <sup>25</sup> / <sub>100</sub> * 3.6) =	0.90 FT.
1.5" PIPE (3.8) =	1.00 FT.
1.5" 90 ELBOW (44.4/100 * 3.8) =	1.70 FT.
1.5" TEE (22.4/100 * 3.8) =	0.80 FT.
2" PIPE ( <sup>65</sup> / <sub>100</sub> * 4.0) =	3.20 FT.
2" 90 ELBOW (21.6/100 * 4.0) =	0.86 FT.
2" TEE (30.8/100 * 4.0) =	1.20 FT.
3" PIPE (3.1) =	3.10 FT.
3" 90 ELBOW ( <sup>65</sup> / <sub>100</sub> * 3.1) =	1.70 FT.
3" TEE (49.5/100 * 3.1) =	1.50 FT.
3" FLOOR FLUX VALVE =	0.38 FT.
TR140 C SAND FILTER =	8.50 FT.
3/4" DIRECTIONAL EYEBALL FITTINGS = 9	9.27 FT
STA-RITE ADJUSTABLE FLOOR RETURN = 3	6.09 FT.
3" FLOW METER	1.5 FT.
<b>TOTAL HEAD LOSS</b>	<b>44.58 FT.</b>

SUCTION HEAD LOSS CALCULATIONS

3" PIPE ( <sup>140</sup> / <sub>100</sub> * 3.1) =	4.34 FT.
2" PIPE ( <sup>250</sup> / <sub>100</sub> * 3.28) =	6.56 FT.
2" 90 ELBOW ( <sup>65</sup> / <sub>100</sub> * 3.1) =	1.70 FT.
3" TEE (19.8/100 * 3.1) =	0.60 FT.
3" TRUE UNION BALL VALVES = 4 @ <sup>80</sup> / <sub>100</sub> (110 GPM)	3.20 FT.
MAIN DRAIN OUTLETS =	3.00 FT.
SKIMMER SUCTION =	8.75 FT.
<b>TOTAL HEAD LOSS</b>	<b>28.15 FT.</b>

TOTAL HEAD CALCULATED HEAD LOSS = 72.73 FT

WHISPERFLO XF XF-12 MODEL TO BE USED AND SYSTEM DESIGN SET AT 78 FT. OF HEAD FOR OPTIMAL PUMP OPERATION.

## SHALLOW AREA (TANNING SHELF) FLOW RATE VERIFICATION

VOLUME OF WATER = 118 CU. FT. = 883 GALLONS  
WATER SURFACE SQ. FT. = 236 SQ. FT.  
AVERAGE WATER DEPTH = 6 INCHES

883 GALLONS / 60 MINUTES = 14.72 GPM

FLOOR INLET FLOW RATE = 9.17 GPM EACH

3 DEDICATED FLOOR INLETS FOR SHALLOW AREA (TANNING SHELF) = 3 (9.17 GPM) = 27.51 GPM

REQUIRED MINIMUM TURNOVER RATE PER CODE IS 2 HR

14.72 / 2 = 7.36 GPM

MINIMUM REQUIRED FLOW RATE IS 7.36 GPM VERSUS ACTUAL FLOW RATE OF 27.51 GPM.

SHALLOW AREA (TANNING SHELF) WILL ADEQUATELY FACILITATE THE MINIMUM REQUIRED FLOW RATE.

## CONSTRUCTION NOTES

- POOL CONTRACTOR SHALL LAYOUT POOL AND POOL DECK IN ACCORDANCE WITH THE SPRINGS AT RIVER CHASE POOL PLAN SET AND CIVIL PLAN SET.
- GENERAL CONTRACTOR TO PROVIDE POOL CONTRACTOR WITH BENCH MARK LOCATIONS, AND ALL REQUIRED FILES NECESSARY TO ALLOW FOR SURVEYOR TO LOCATE AND ESTABLISH POINTS.
- GENERAL CONTRACTOR TO PROVIDE POOL CONTRACTOR WITH ESTABLISHED SUB GRADES PER POOL, LANDSCAPE, AND CIVIL PLAN SETS.
- THE POOL CONTRACTOR IS TO COORDINATE WITH THE GENERAL CONTRACTOR TO SEE THAT PROPER PROVISIONS ARE INSTALLED AND CONSTRUCTED WHICH ALLOW FOR SANITARY SEWER TIE IN, AND FRESH WATER SUPPLY ARE BROUGHT TO THE PROPER LOCATIONS WITHIN THE EQUIPMENT ROOM.
- THE POOL CONTRACTOR SHALL INSTALL AND PROVIDE FOR ALL LOW VOLTAGE WIRING (110 VOLTS AND LOWER), AND SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR TO SEE THAT ALL HIGH VOLTAGE WIRING AND PROVISIONS ARE PROVIDED WITHIN THE POOL EQUIPMENT ROOM.
- THE POOL CONTRACTOR SHALL GROUND AND BOND THE POOL SHELL.
- THE POOL CONTRACTOR IS RESPONSIBLE FOR FILLING OF THE POOL, THOUGH THE WATER SHALL BE FURNISHED BY OTHERS.
- ALL STEEL REINFORCING AND CONCRETE CONSTRUCTION OF THE POOL SHELL AND POOL DECK SHALL BE IN FULL ACCORDANCE WITH THE POOL STRUCTURAL ENGINEER'S SPECIFICATIONS, AND THAT HAS BEEN APPROVED BY THE PROJECT / RESIDENT ENGINEER.
- EXPANSION CONTROL JOINTS AS REQUIRED ON THE POOL DECK SHALL BE PROVIDED AND INSTALLED BY THE POOL CONTRACTOR.
- THE POOL CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR PROVIDING AND CONSTRUCTION OF THE CONCRETE POOL DECK AREA WHICH FALLS WITH IN THE PERIMETER OF THE POOL FENCE AND LEADING UP TO THE EQUIPMENT ROOM.
- THE CONSTRUCTION OF THE POOL EQUIPMENT ROOM, AND ALL AREA UNDERNEATH THE COVERED PATIO WITHIN THE BACK OF THE POOL HOUSE, WHICH IS ENCAPSULATED BY BOTH THE POOL FENCE AND THE CLUBHOUSE BUILDING, IS NOT THE RESPONSIBILITY OF THE POOL CONTRACTOR.
- SPRAY DECK FINISH ON THE POOL DECK AND COVERED PATIO AREA SHALL BE FURNISHED AND INSTALLED BY THE POOL CONTRACTOR.
- ALL POOL FENCING, FURNISHING, INSTALLATION, AND LAYOUT SHALL NOT BE THE RESPONSIBILITY OF THE POOL CONTRACTOR.
- POOL CONTRACTOR SHALL COORDINATE ALL REQUIRED TESTING AS REQUIRED IN THE GEOTECHNICAL REPORT, AND ALL COSTS SHALL BE THE RESPONSIBLE BY THE OWNER.

## RELATED GOVERNING AUTHORITIES CONTACT LIST

WATER/SEWER UTILITIES INC. SOUTH REGION  
201 HOLIDAY BLD., SUITE 150  
COVINGTON, LOUISIANA 70433  
CONTACT: DELOS WILLIAMS  
TELEPHONE: 985-893-5772  
EMAIL: DRWILLIAMS@UIWATER.COM

DIRECTOR OF PLANNING  
ST. TAMMANY PARISH, PLANNING DIRECTOR  
21490 KOOP DRIVE  
MANDEVILLE, LOUISIANA 70471  
CONTACT: SIDNEY FONTENOT  
TELEPHONE: 985-898-2529

PARISH ENGINEER  
ST. TAMMANY PARISH, ENGINEERING DEPARTMENT  
21410 KOOP DRIVE  
MANDEVILLE, LOUISIANA 70471  
CONTACT: EDDIE WILLIAMS  
TELEPHONE: 985-898-2552  
EMAIL: EVILLIAMS@STPGOV.ORG

PARISH DRAINAGE ENGINEER  
ST. TAMMANY PARISH, ENGINEERING DEPARTMENT  
21410 KOOP DRIVE  
MANDEVILLE, LOUISIANA 70471  
CONTACT: DONNA ODELL  
TELEPHONE: 985-898-2552  
EMAIL: DODELL@STPGOV.ORG

## POOL DESIGN DATA

WATER VOLUME =	32,718 GALLONS
TURNOVER RATE =	5 HOURS
DESIGN FLOW RATE =	110 GPM
TOTAL WATER SURFACE AREA =	773 SQ. FT.
POOL WATER SURFACE AREA =	1,145 SQ. FT.
TANNING SHELF SURFACE AREA =	236 SQ. FT.
POOL PERIMETER =	218 LN. FT.
TOTAL HEAD LOSS =	78.00 FT.
MAXIMUM BATHER LOAD =	55 PERSONS

REMOVE THIS



894 ROBERT BOULEVARD  
SLIDELL, LOUISIANA 70458  
PH. 985-643-2427  
FAX 985-643-2691  
EROTOLO@ROTOLOCONSULTANTS.COM

SPRINGS AT RIVER CHASE  
CLUBHOUSE SWIMMING POOL  
1776 CONTINENTAL DRIVE COVINGTON, LOUISIANA 70433 - ST. TAMMANY PARISH

Copyright 2016 RotoLo Consultants Inc.  
These drawings or parts thereof, may not be reproduced in any form, by any method, for any purpose, without prior written consent from RotoLo Consultants Inc.  
Contact: Rod RotoLo 985-643-2427

Project No: 82-16000-LA

Revisions:

No:	Date:	Description:

Date: 1/11/2016

Drawn: TJH

Checked: MR

Sheet Title:

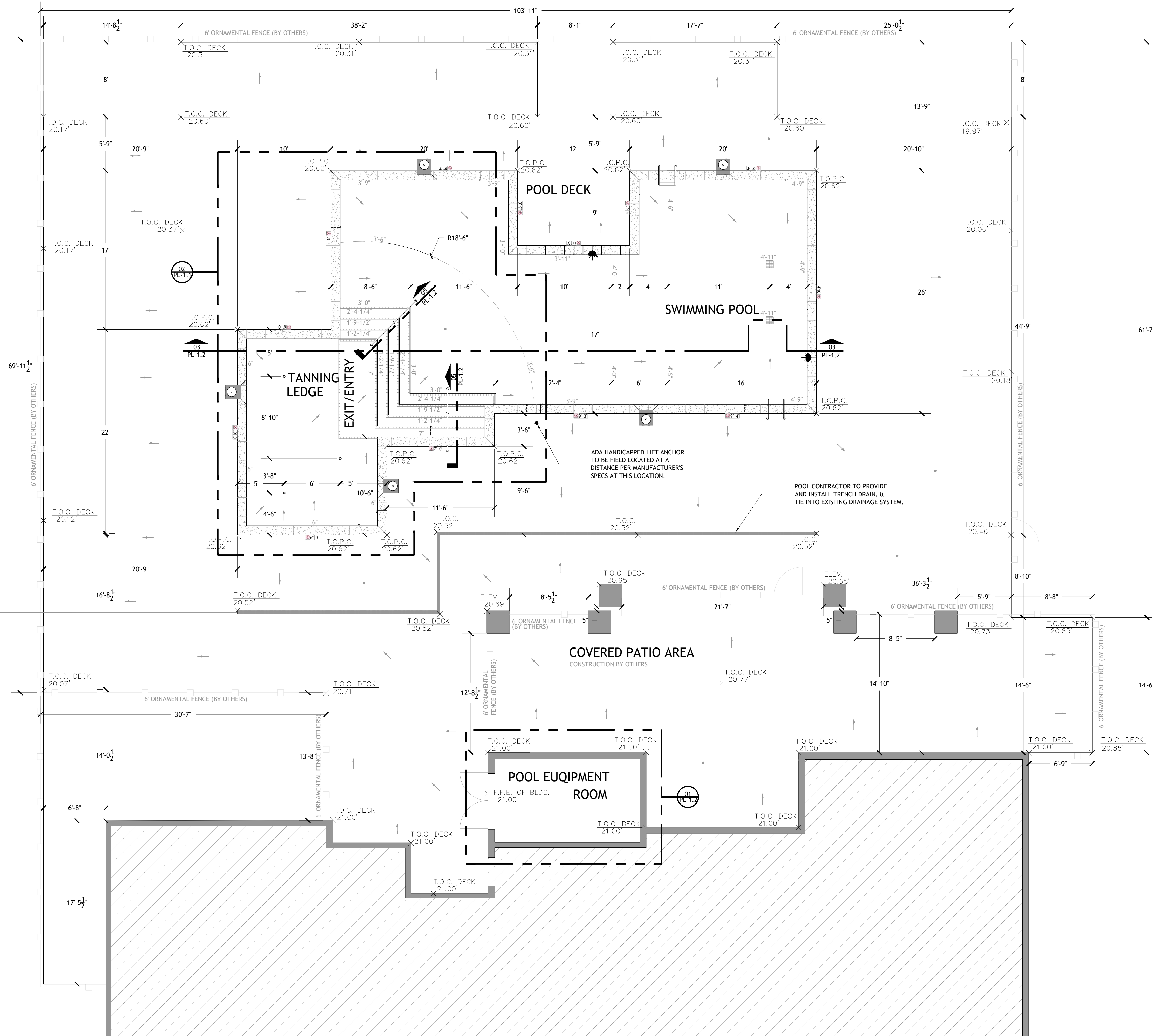
CODE COMPLIANCE, CALCULATIONS, & NOTES

Drawing No.

G-1.0

Sheet No.

1 of 6



**SYMBOL LEGEND**

- SKIMMER (TO BE VGB COMPLIANT AND NSF CERTIFIED, W/ EQUALIZATION LINE)
- DEPTH MARKER TILE (SEE DETAILS & NOTES ON SHEET PL-1.3 / DETAIL 02)
- ADJUSTABLE DIRECTIONAL - EYEBALL INLET (LOCATED 15" MINIMUM BELOW WATER LEVEL)
- UNDERWATER POOL LIGHT
- LADDER WITH RUNGS AND GRAB RAILS
- ADJUSTABLE FLOOR RETURN INLET ASSEMBLY
- FRESH WATER SUPPLY / SENSOR LINE
- HAND RAIL
- MAIN DRAIN SUMP AND GRATE ASSEMBLY WITH DARK CONTRASTING RIM (GRATE AND SUMP TO BE VGB COMPLIANT AND NSF 50 CERTIFIED)



894 ROBERT BOULEVARD  
SLIDELL, LOUISIANA 70458  
PH: 985-643-2427  
FAX: 985-643-2691  
RROTULO@ROTOLOCONSULTANTS.COM

**SPRINGS AT RIVER CHASE  
CLUBHOUSE SWIMMING POOL**  
1776 CONTINENTAL DRIVE COVINGTON, LOUISIANA 70433 - ST. TAMMANY PARISH

Copyright 2016 RotoLo Consultants Inc.  
These drawings or parts thereof, may not be reproduced in any form, by any method, for any purpose, without prior written consent from RotoLo Consultants Inc.  
Contact: Rod RotoLo 985-643-2427  
Project No: 82-16000-LA

Revisions:		
No.	Date:	Description:

Date: 1/11/2016  
Drawn: TJH  
Checked: MR  
Sheet Title:

**SWIMMING POOL  
GRADING  
AND LAYOUT  
PLAN**

Drawing No.

**PL-1.0**

Sheet No.  
2 of 6

**01 POOL LAYOUT PLAN**  
SCALE: 3/16" = 1'-0"

FILE: -- XREFS: --



894 ROBERT BOULEVARD  
SLIDELL, LOUISIANA 70458  
PH: 985-643-2427  
FAX 985-643-2691  
RROTULO@ROTOLOCONSULTANTS.COM

**SPRINGS AT RIVER CHASE  
CLUBHOUSE SWIMMING POOL**  
1776 CONTINENTAL DRIVE COVINGTON, LOUISIANA 70433 - ST. TAMMANY PARISH

Copyright 2016 © Rotolo Consultants Inc.  
These drawings or parts thereof, may not be reproduced in any form, by any method, for any purpose, without prior written consent from Rotolo Consultants Inc.  
Contact: Rod Rotolo 985-643-2427  
Project No: 81-16000-LA

Revisions:		
No:	Date:	Description:

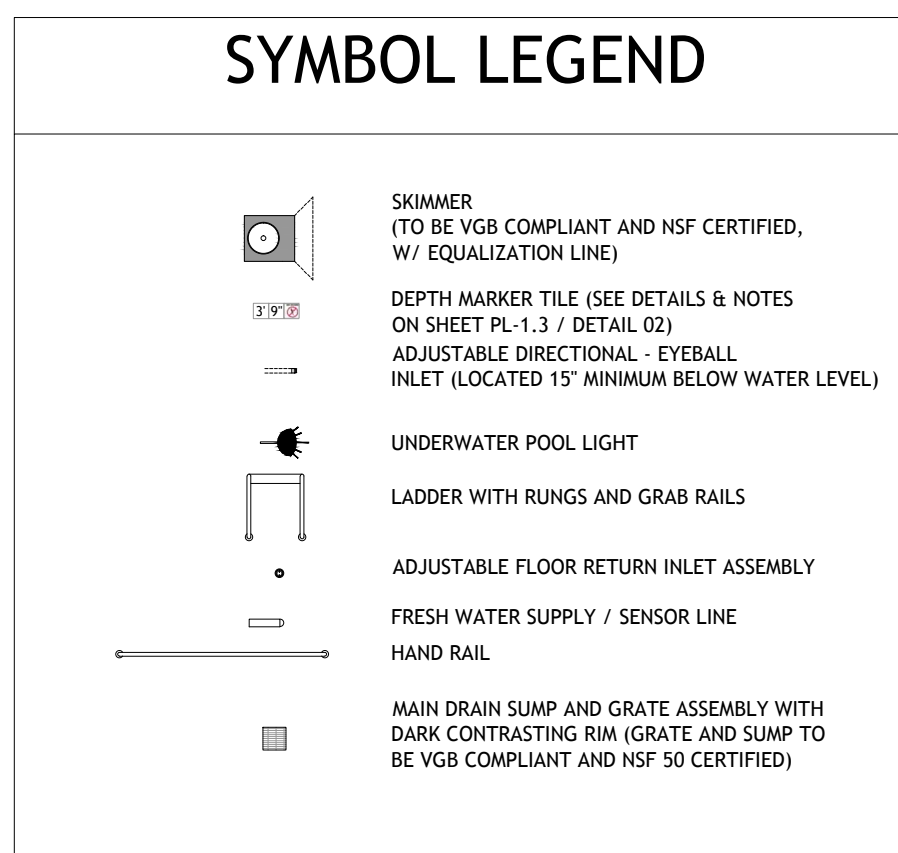
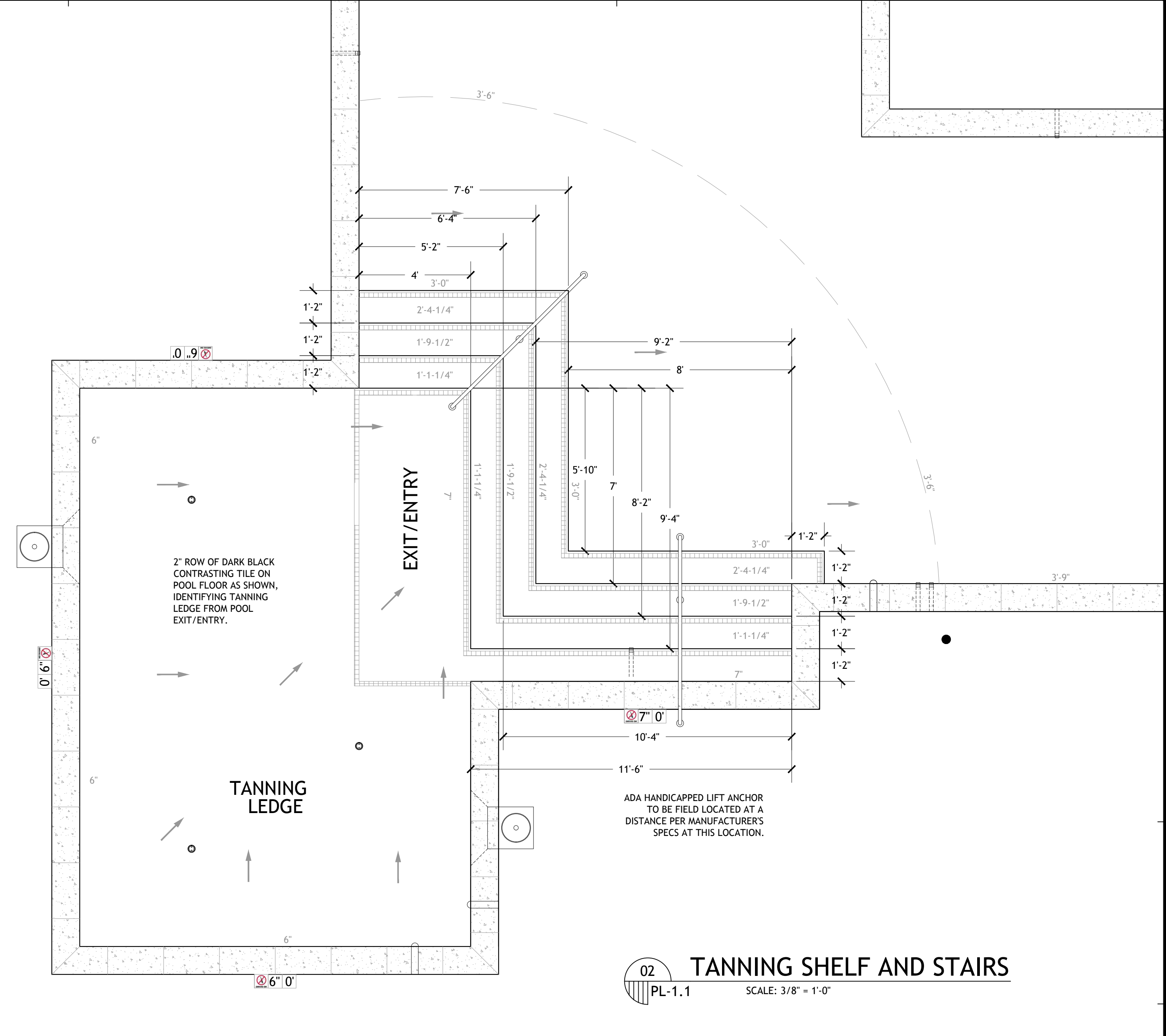
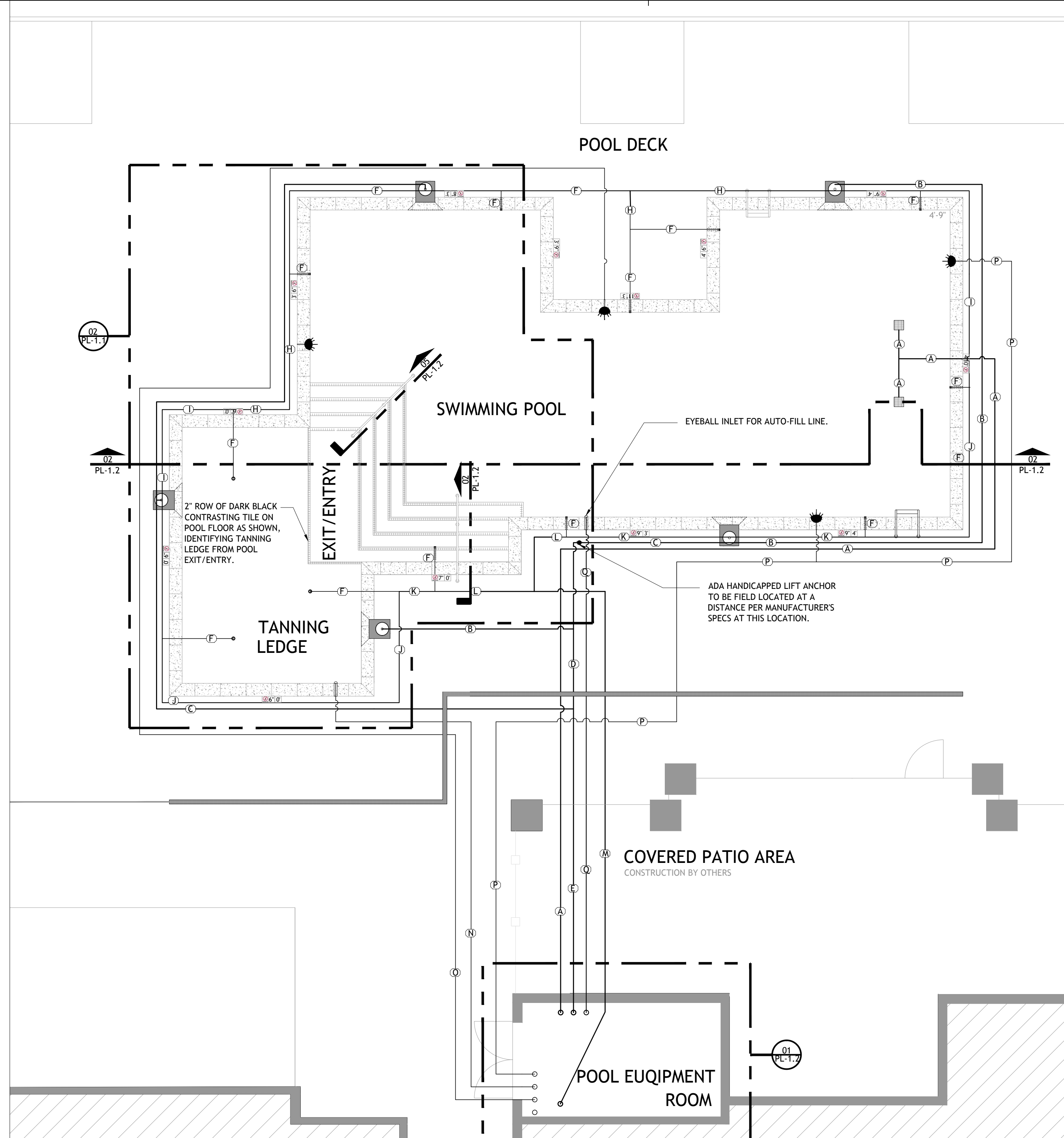
Date: 1/11/2016  
Drawn: TJH  
Checked: KD  
Sheet Title:

**PIPING LAYOUT  
AND  
TANNING SHELF  
PLAN  
BLOW-UP**

Drawing No.

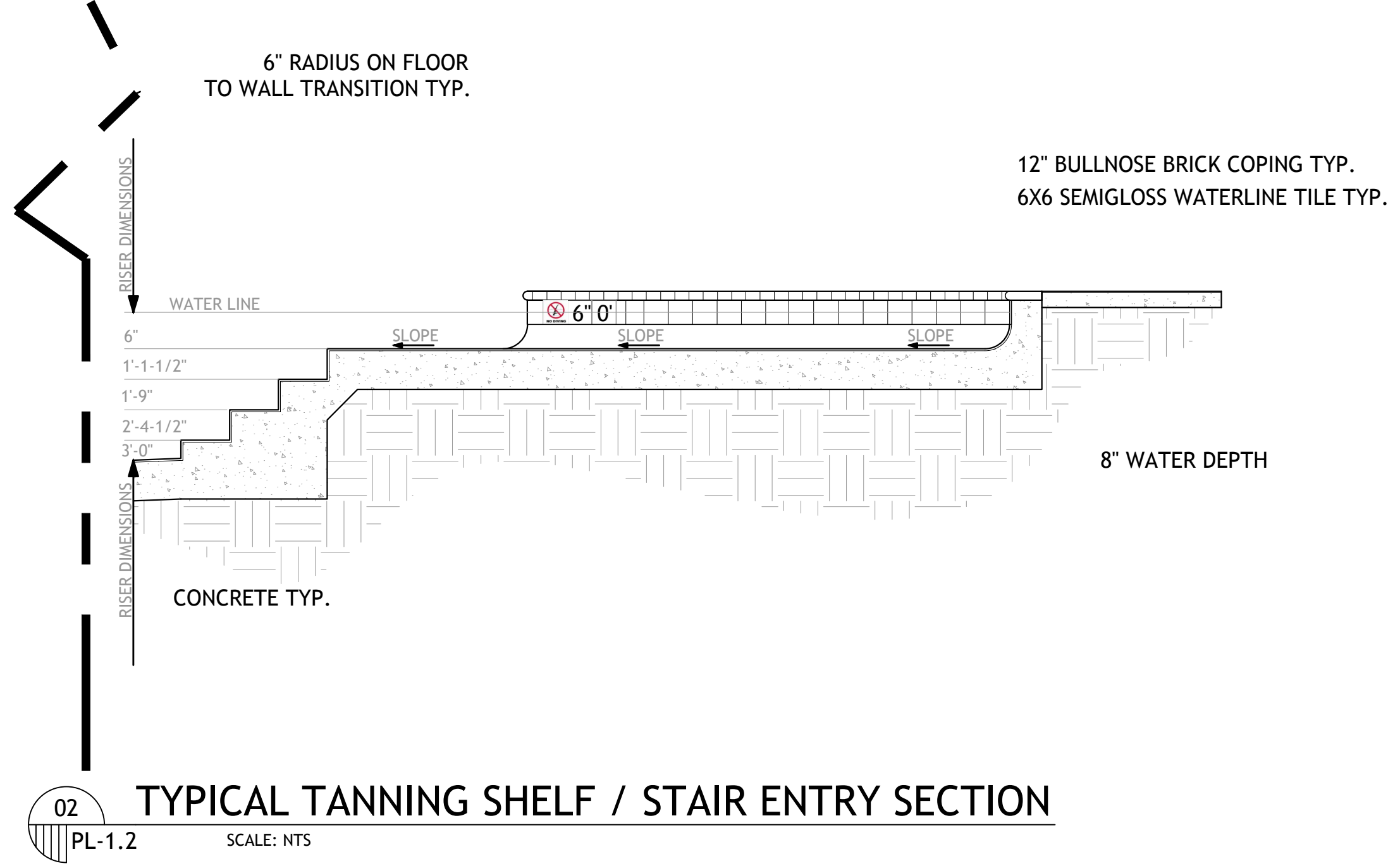
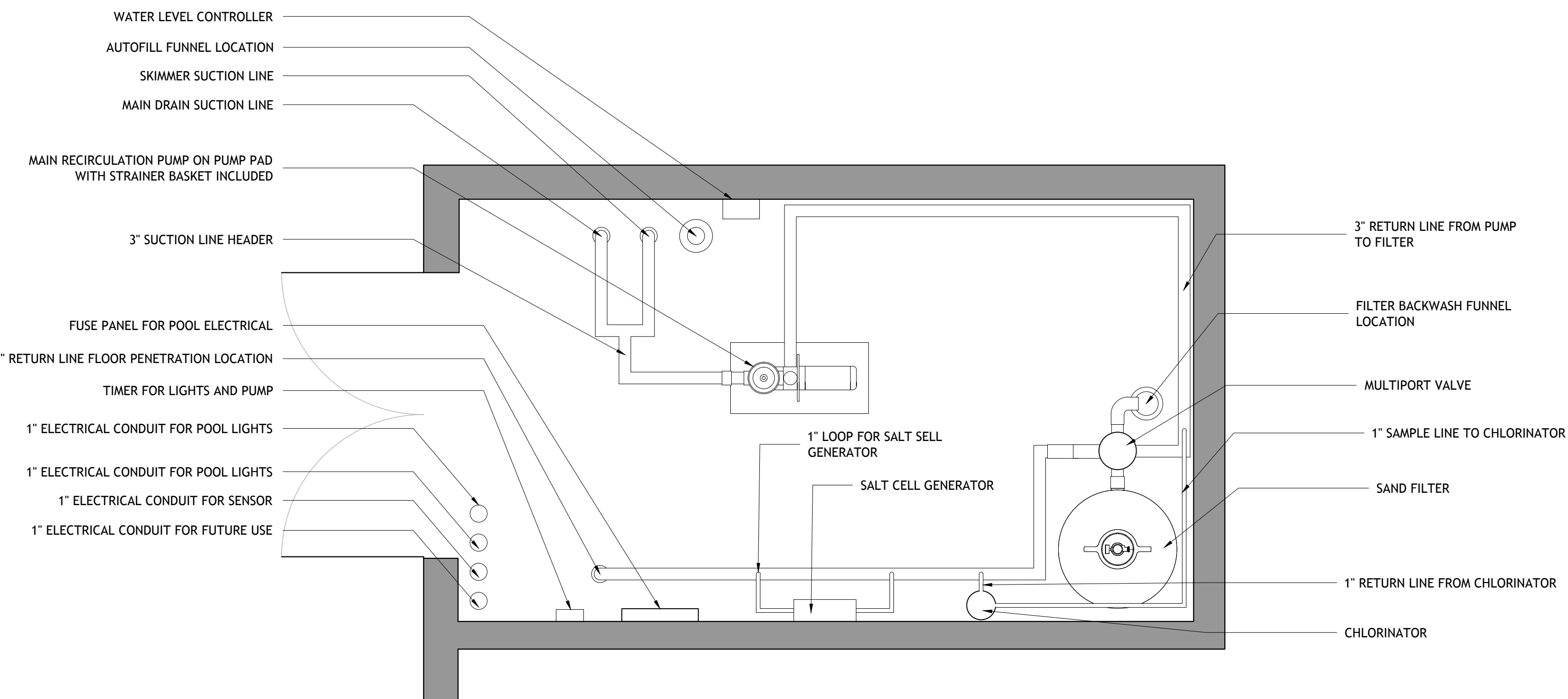
**PL-1.1**

Sheet No:  
3 of 6



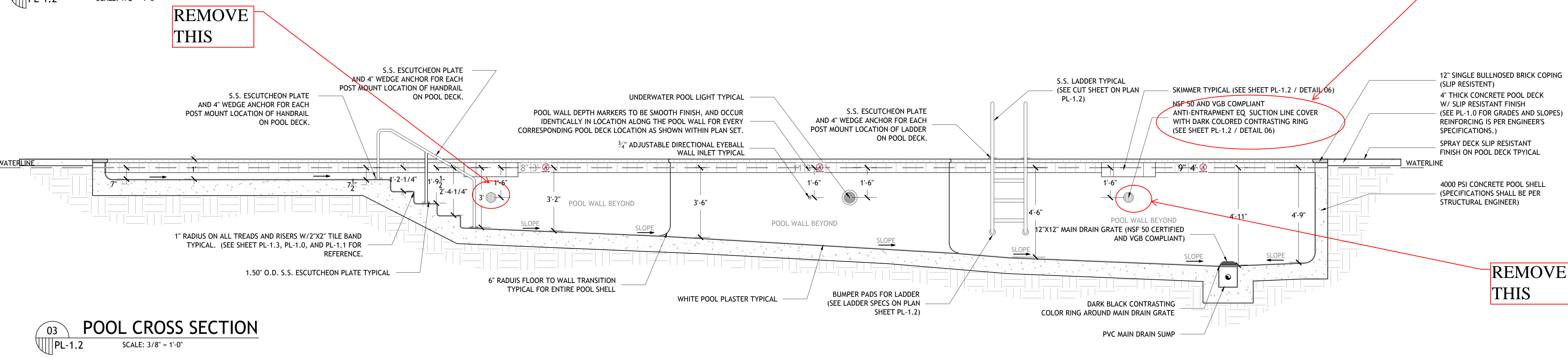
**PIPE IDENTIFICATION LEGEND**

IDENTIFICATION	PLAN ID	SIZE	TYPE	FLOW RATE	VELOCITY
MAIN DRAIN SUCTION	A	3.0"	SCH 40 PVC	110 GPM	4.99 FPS
SKIMMER SUCTION	B	2.0"	SCH 40 PVC	22 GPM	2.25 FPS
SKIMMER SUCTION	C	2.0"	SCH 40 PVC	44 GPM	4.49 FPS
SKIMMER SUCTION	D	3.0"	SCH 40 PVC	66 GPM	3.00 FPS
SKIMMER SUCTION	E	3.0"	SCH 40 PVC	110 GPM	4.99 FPS
INLET RETURN	F	1.0"	SCH 40 PVC	9.16 GPM	1.66 FPS
OVERFLOW LINE	G	2.0"	SCH 40 PVC	N/A	N/A
INLET RETURN	H	1.5"	SCH 40 PVC	18.32 GPM	3.33 FPS
INLET RETURN	I	1.5"	SCH 40 PVC	27.48 GPM	4.99 FPS
INLET RETURN	J	2.0"	SCH 40 PVC	36.64 GPM	3.74 FPS
INLET RETURN	K	2.0"	SCH 40 PVC	45.80 GPM	4.68 FPS
INLET RETURN	L	3.0"	SCH 40 PVC	54.96 GPM	2.49 FPS
INLET RETURN	M	3.0"	SCH 40 PVC	110 GPM	4.99 FPS
WL SENSOR	N	1.0"	CONDUIT	N/A	N/A
LIGHTING CONDUIT	O	1.0"	CONDUIT	N/A	N/A
LIGHTING CONDUIT	P	1.0"	CONDUIT	N/A	N/A
FILL LINE	Q	3.0"	SCH 40 PVC	N/A	N/A

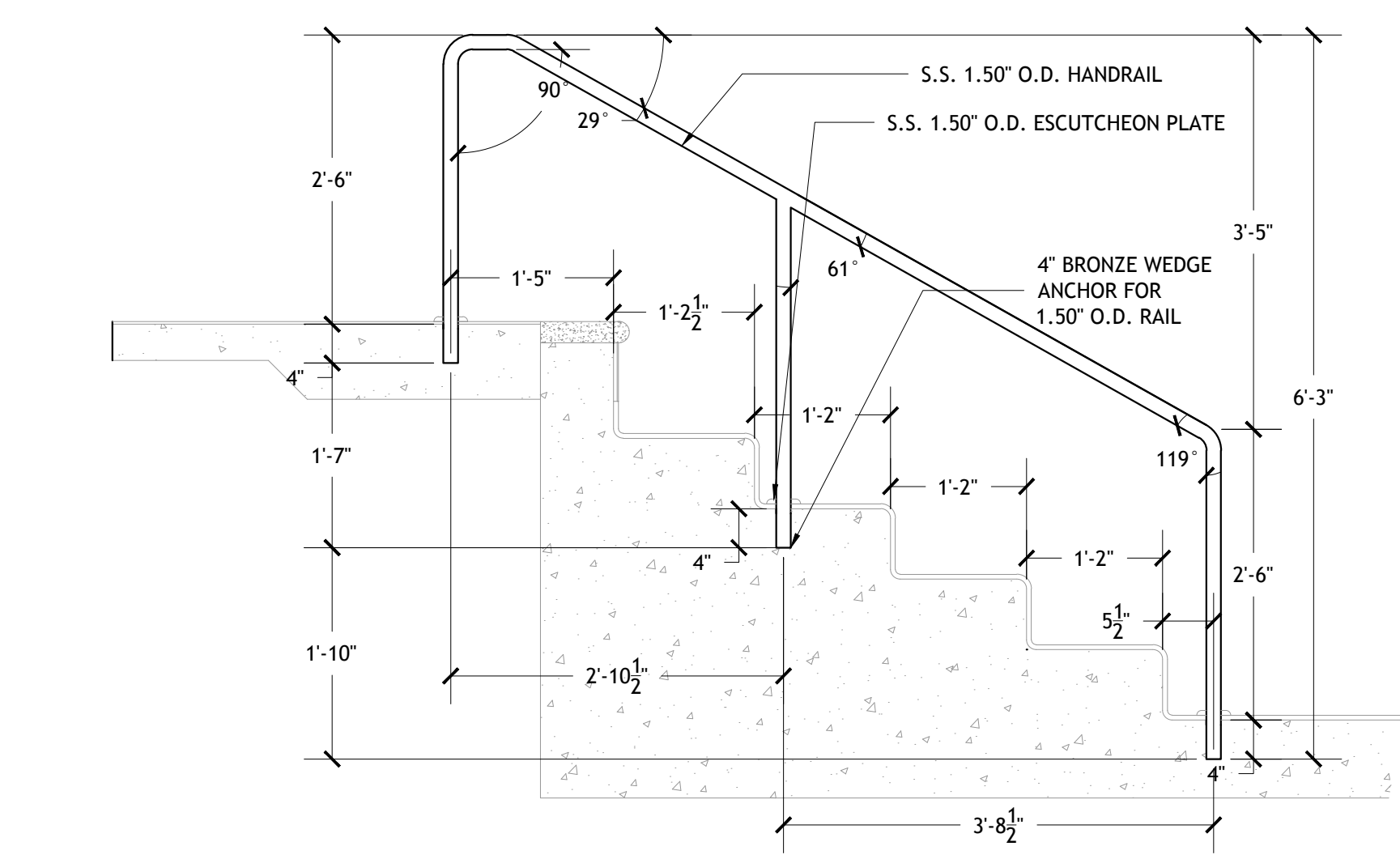


01 EQUIPMENT ROOM LAYOUT  
PL-1.2 SCALE: 1/2" = 1'-0"

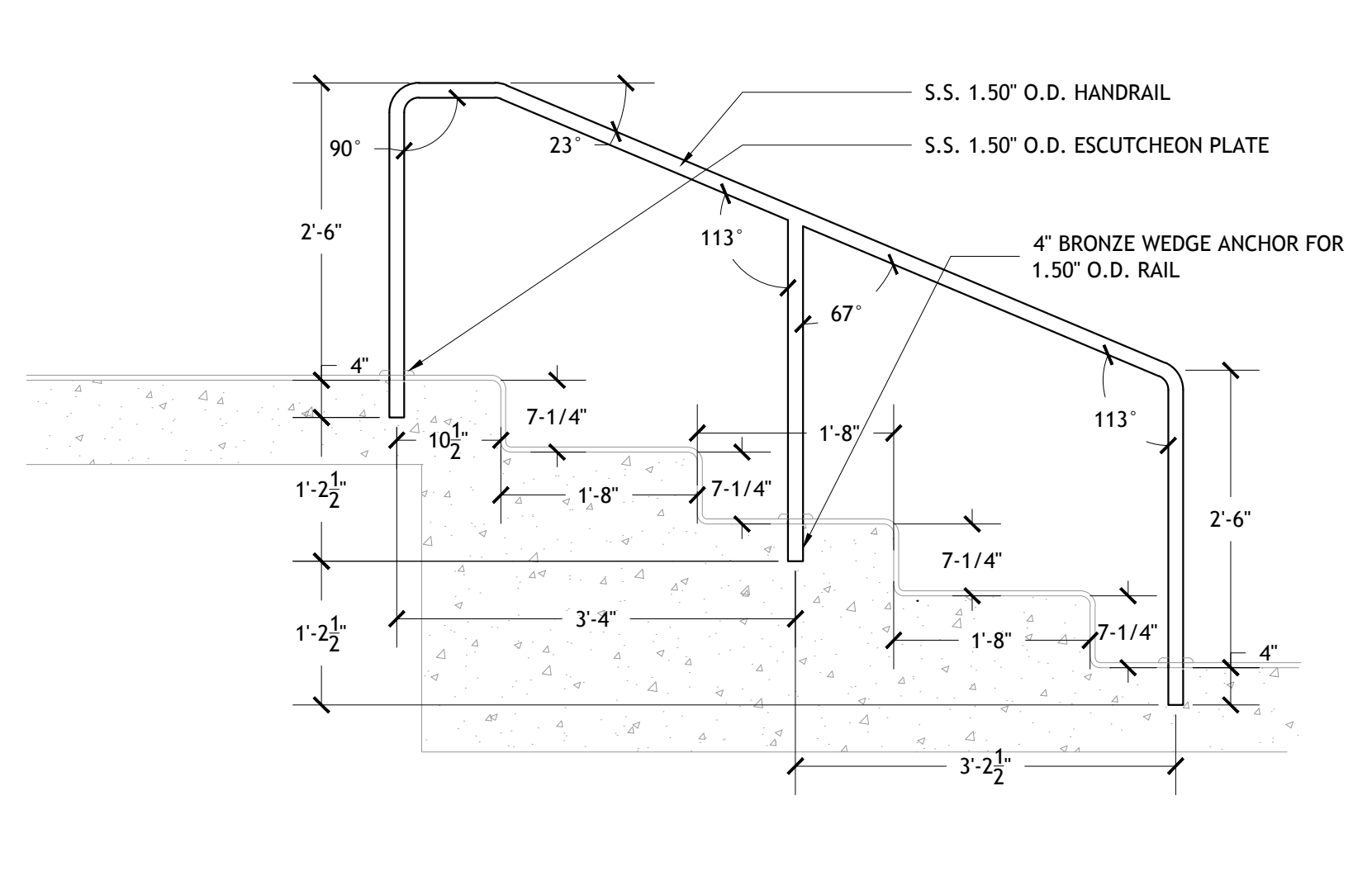
02 TYPICAL TANNING SHELF / STAIR ENTRY SECTION  
PL-1.2 SCALE: NTS



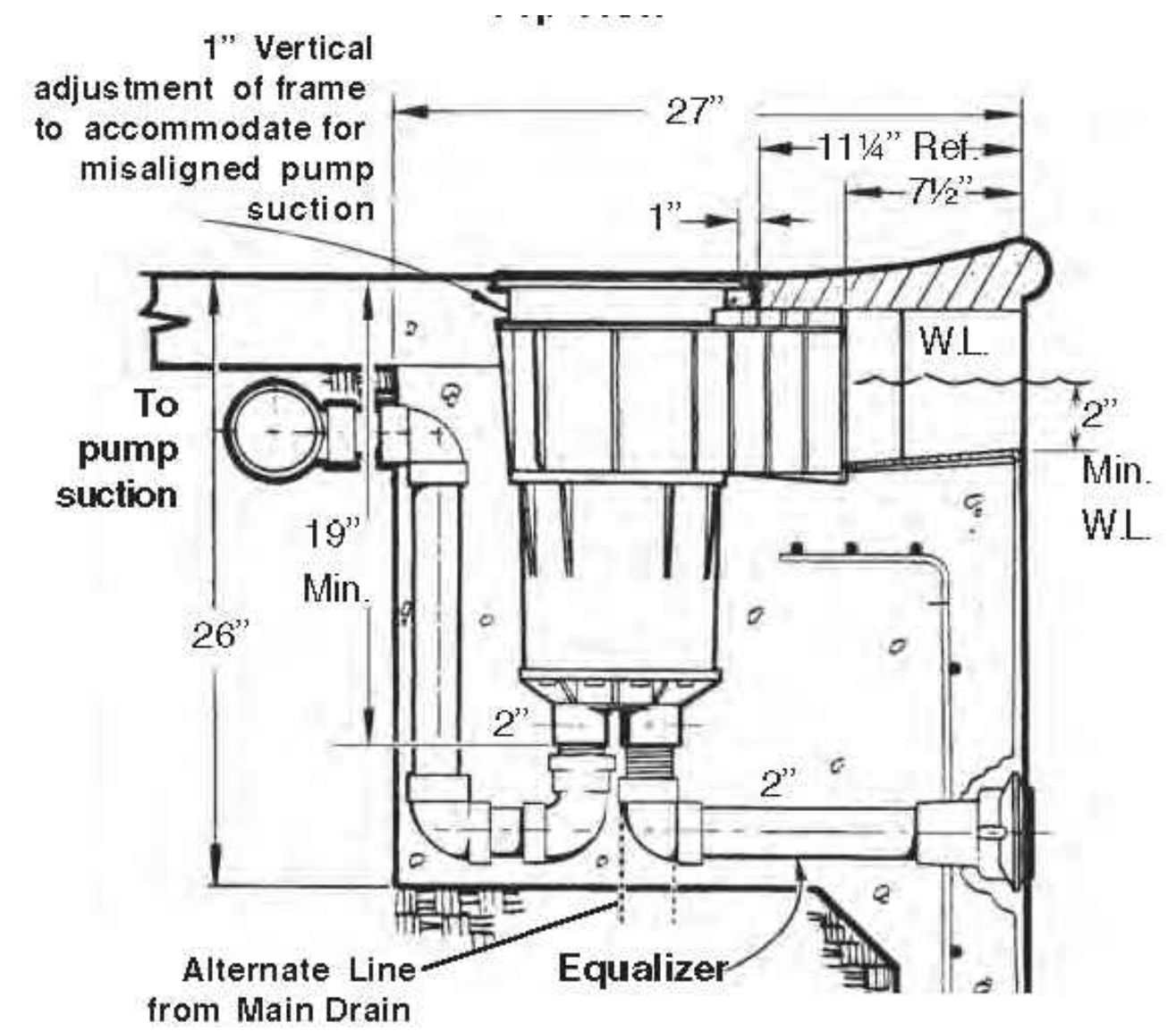
03 POOL CROSS SECTION  
PL-1.2 SCALE: 3/8" = 1'-0"



04 HANDRAIL DETAIL  
PL-1.2 SCALE: 3/4" = 1'-0"



05 HANDRAIL DETAIL  
PL-1.2 SCALE: 3/4" = 1'-0"



06 SKIMMER SECTION SHOWING EQ LINE & COVER  
PL-1.2 SCALE: NTS



894 ROBERT BOULEVARD  
SLIDELL, LOUISIANA 70458  
PH. 985-643-2427  
FAX 985-643-2691  
RROTOL@ROTOLOCONSULTANTS.COM

SPRINGS AT RIVER CHASE  
CLUBHOUSE SWIMMING POOL  
1776 CONTINENTAL DRIVE COVINGTON, LOUISIANA 70433 - ST. TAMMANY PARISH

Copyright 2016 Rotolo Consultants Inc.  
These drawings or parts thereof, may not be reproduced in any form, by any method, for any purpose, without prior written consent from Rotolo Consultants Inc.  
Contact: Rod Rotolo 985-643-2427  
Project No: 82-16000-LA

Revisions:		
No.	Date	Description

Date: 1/11/2016  
Drawn: TJH  
Checked: MR

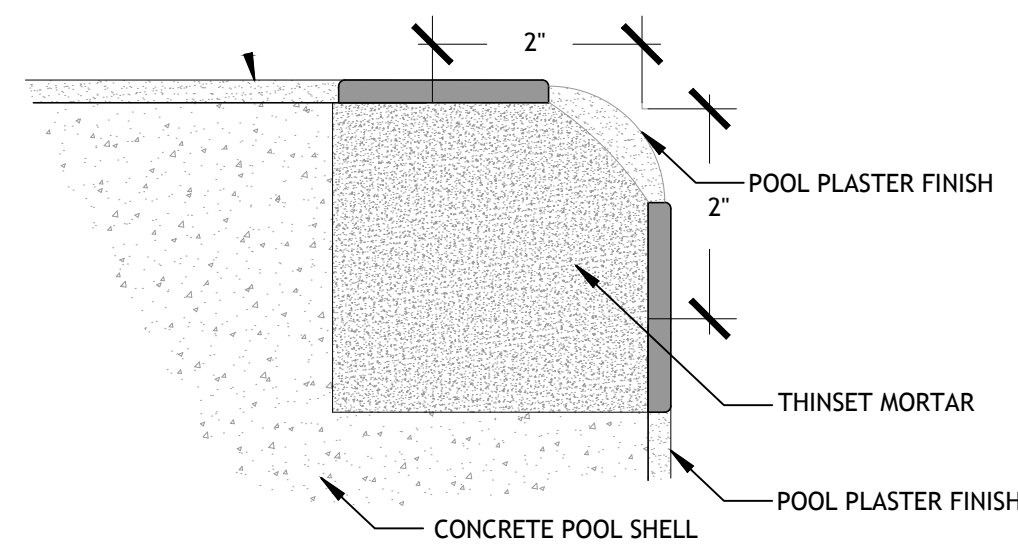
Sheet Title:  
**EQUIPMENT ROOM LAYOUT AND SECTIONS**

Drawing No.

**PL-1.2**

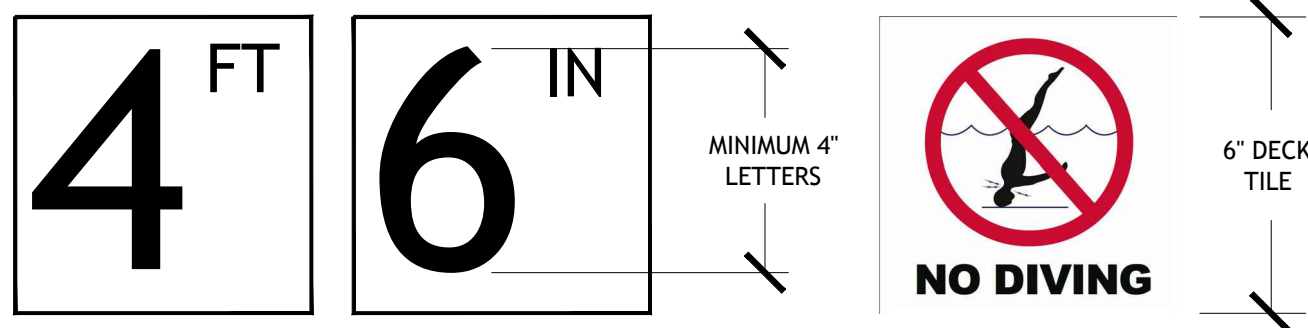
Sheet No.  
4 of 6

POOL PLASTER FINISH



**01 TYPICAL CONTRASTING 2X2 TILE DETAIL**

PL-1.3 SCALE: NTS



DEPTH MARKERS

NO DIVING SYMBOL

MARKER REQUIREMENTS:

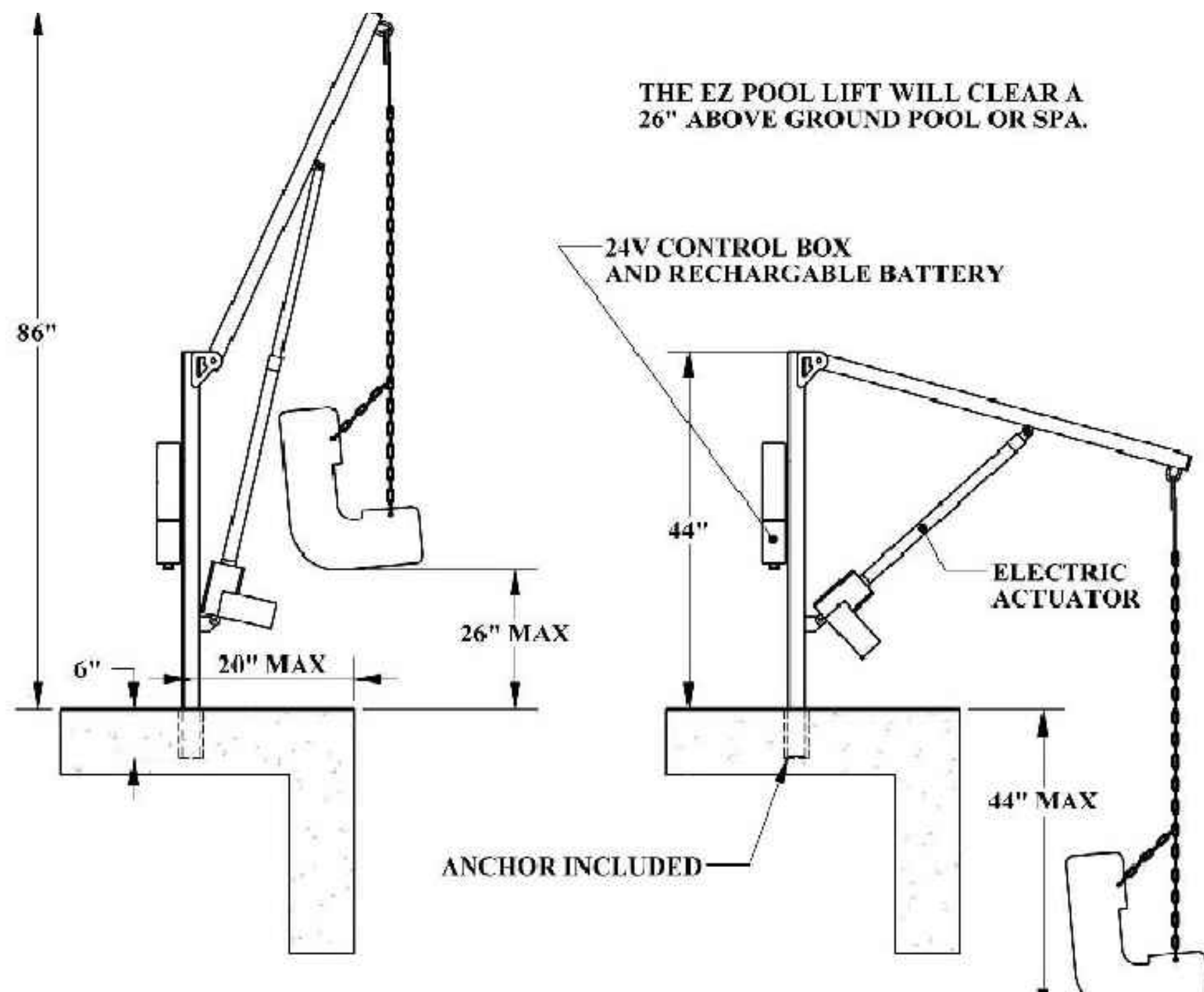
1. DEPTH MARKERS BOTH SHOWING FEET AND INCHES
2. "NO DIVING" SYMBOL MARKER WITH EACH DEPTH MARKER.

NOTES:

1. DEPTH MARKERS SHALL BE PLACED ON THE DECK WITH SPACING NOT TO EXCEED 25'-0", POINTS OF CHANGE IN SLOPE, AND TO ALSO PLACE A CORRESPONDING DEPTH MARKER IN DUPLICATE ON THE POOL WALL.
2. DECK TILES TO BE WITHIN 18" OF THE POOL WATER SURFACE
3. DECK TILES TO BE POSITIONED TO BE READ WHILE STANDING ON THE DECK FACING THE WATER.
4. DEPTH MARKERS TO BE IN ENGLISH.
5. NUMERICAL COLOR OF LETTERING TO BE BLACK, ON WHITE BACKGROUND.
6. "NO DIVING" INTERNATIONAL SYMBOL MARKER TO BE PLACED AT EVERY LOCATION WHERE A DEPTH MARKER IS LOCATED.
7. DECK DEPTH MARKERS TO BE SLIP RESISTING ACCORDING TO LAC 51:XXIV.701.4.

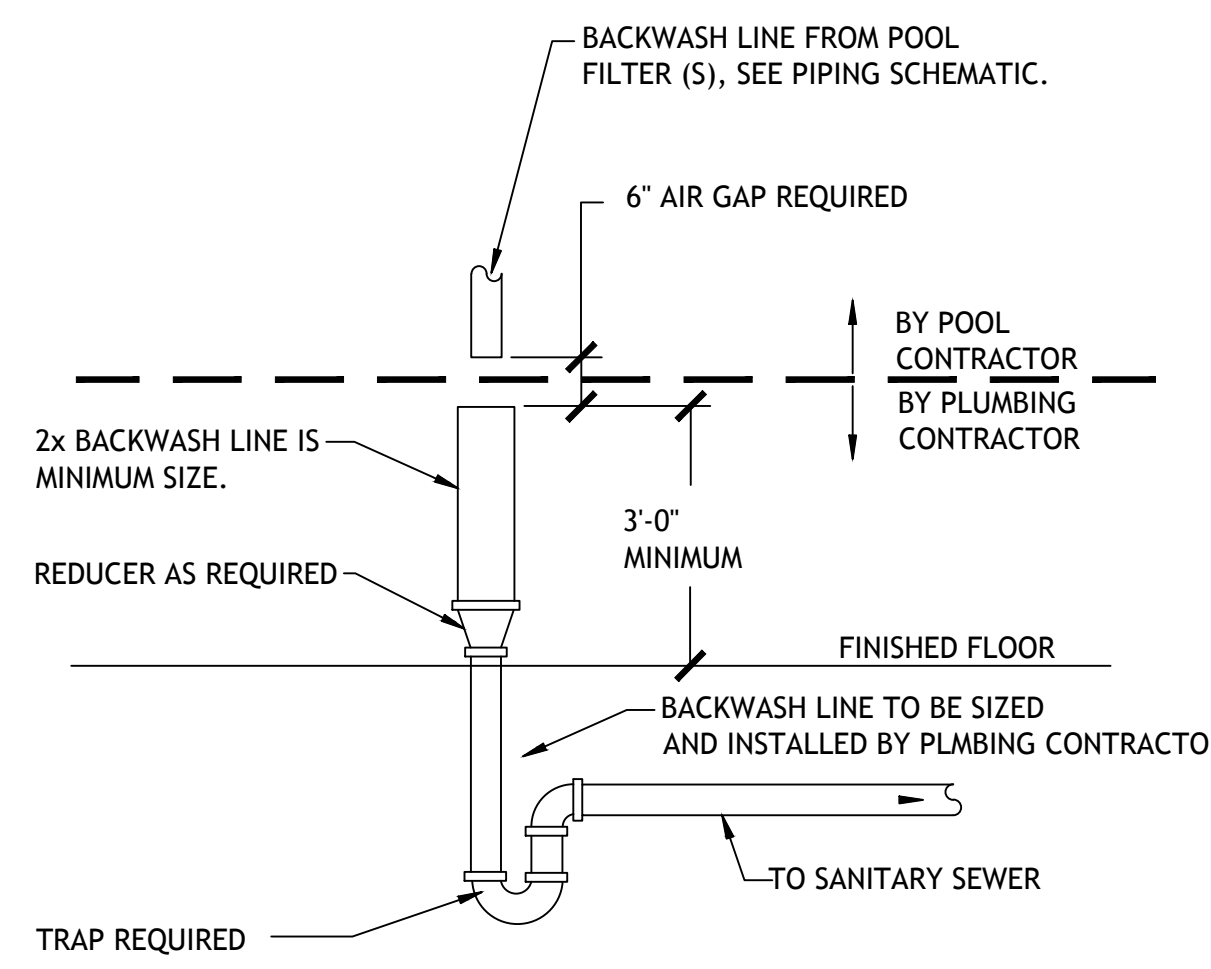
**02 DEPTH MARKER TILE DETAIL AND NOTES**

PL-1.3 SCALE: NTS



**02 CUT SHEETS ON EQUIPMENT & COMPONENTS**

PL-1.2 SCALE: NTS



**04 BACKWASH W/ AIR GAP DETAIL**

PL-1.3 SCALE: NTS

NOTES:

1. ANY AND ALL METAL PARTS ASSOCIATED WITH THE POOL WATER CIRCULATION SYSTEM (I.E. PUMPS) SHALL BE BONDED PER NEC 2008 ARTICLE 680.

2. ALL METAL PARTS WITHIN 5 FT. OF THE INSIDE WALL OF THE POOL AND NOT SEPARATED BY A PERMANENT BARRIER ARE REQUIRED TO BE BONDED PER NEC 2008 ARTICLE 680.

THIS LIST INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: ALL METAL PARTS OF THE POOL STRUCTURE, CONDUIT AND PIPING, METAL DOOR FRAMES, METAL WINDOW FRAMES, DIVING BOARDS, HANDRAILS, LADDERS, DRAINS, OUTLET PIPES, SLIDE SUPPORTS, WATER FEATURES, ETC..

THE BONDING OF THESE PARTS DOES NOT MEAN THEY ARE REQUIRED TO BE CONNECTED TO EACH OTHER; RATHER, IT MEANS THEY ARE REQUIRED TO BE CONNECTED TO A COMMON EQUIPOTENTIAL BONDING GRID.

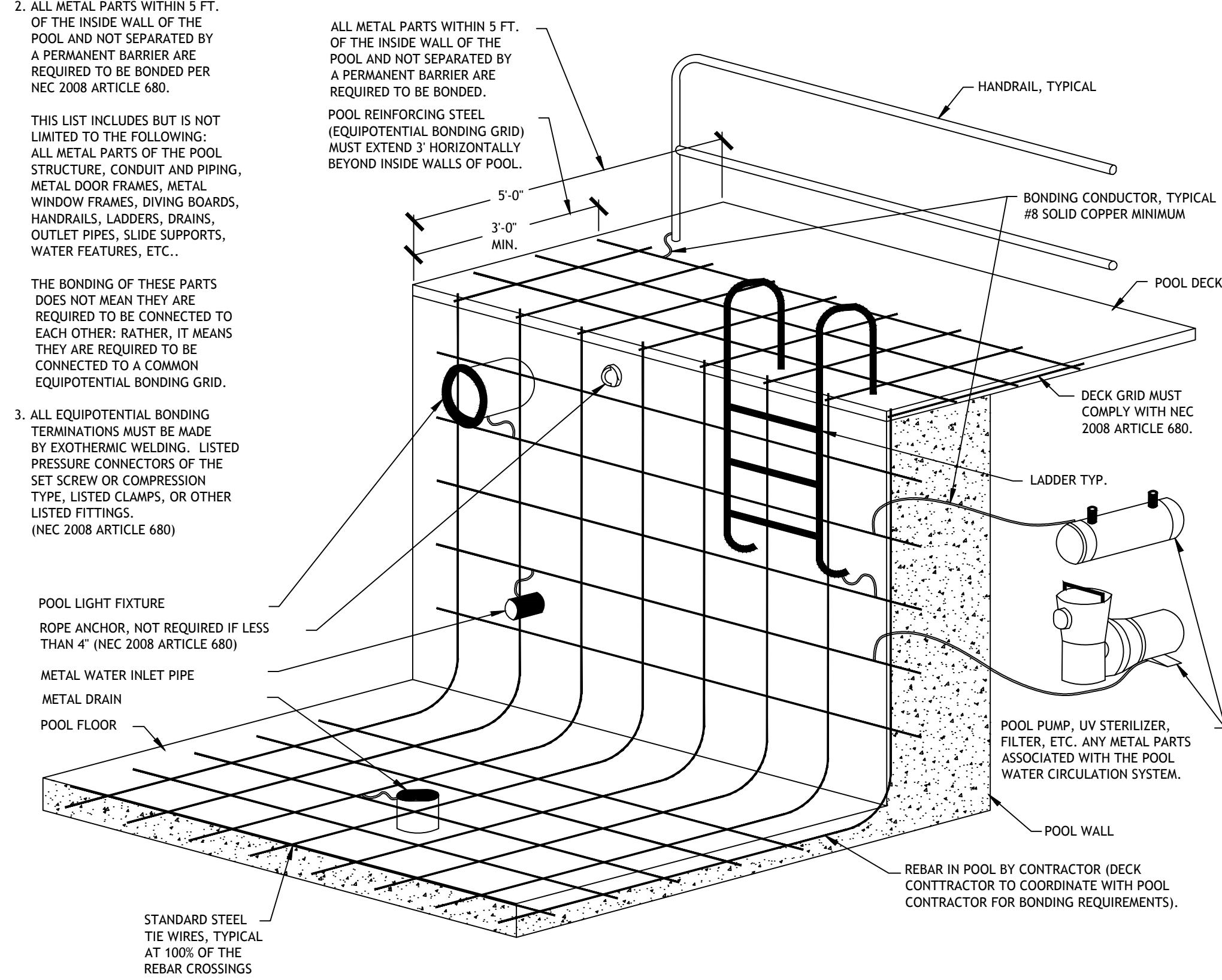
3. ALL EQUIPOTENTIAL BONDING TERMINATIONS MUST BE MADE BY EXOTHERMIC WELDING, LISTED PRESSURE CONNECTORS OF THE SET SCREW OR COMPRESSION TYPE, LISTED CLAMPS, OR OTHER LISTED FITTINGS. (NEC 2008 ARTICLE 680)

- POOL LIGHT FIXTURE
- ROPE ANCHOR, NOT REQUIRED IF LESS THAN 4" (NEC 2008 ARTICLE 680)
- METAL WATER INLET PIPE
- METAL DRAIN
- POOL FLOOR

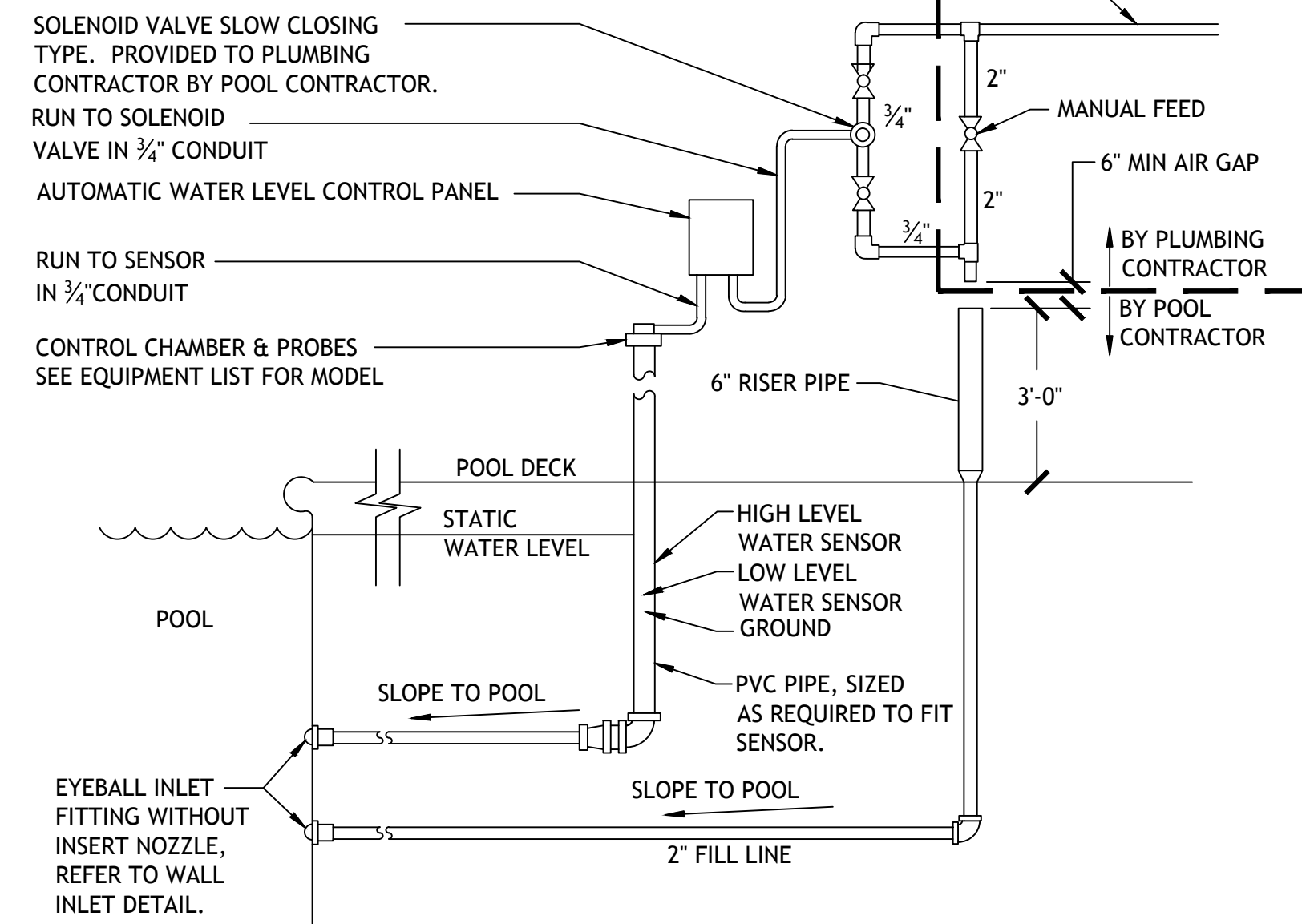
STANDARD STEEL TIE WIRES, TYPICAL AT 100% OF THE REBAR CROSSINGS

**05 TYPICAL GROUNDING / BONDING DETAIL**

PL-1.3 SCALE: NTS



NOTE: ALSO REFER TO THE INSTALLATION AND OPERATION INSTRUCTIONS FROM THE MANUFACTURER ON THE AUTOMATIC WATER LEVEL CONTROLLER. SEE EQUIPMENT LIST FOR MAKE AND MODEL.



**05 AUTOFILL DETAIL W/ AIR GAP**

PL-1.3 SCALE: NTS

SOLENOID VALVE SLOW CLOSING TYPE. PROVIDED TO PLUMBING CONTRACTOR BY POOL CONTRACTOR. RUN TO SOLENOID VALVE IN 3/4" CONDUIT

CONTROL CHAMBER & PROBES SEE EQUIPMENT LIST FOR MODEL



894 ROBERT BOULEVARD  
SLIDELL, LOUISIANA 70458  
PH. 985-643-2427  
FAX 985-643-2691  
RROTOL@ROTOLOCONSULTANTS.COM

SPRINGS AT RIVER CHASE  
CLUBHOUSE SWIMMING POOL  
1776 CONTINENTAL DRIVE COVINGTON, LOUISIANA 70433 - ST. TAMMANY PARISH

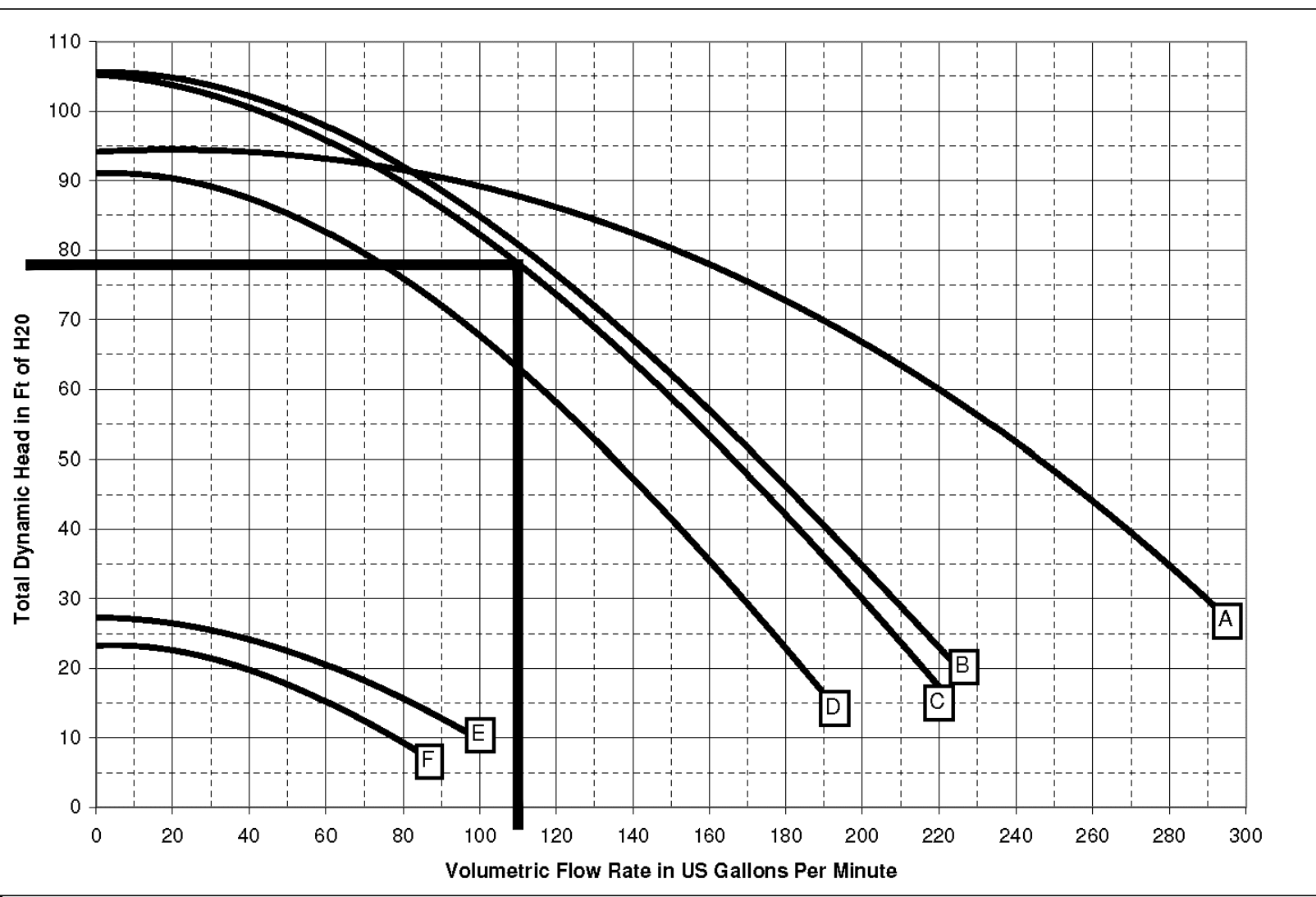
Copyright 2016 RotoLo Consultants Inc. These drawings or parts thereof, may not be reproduced in any form, by any method, for any purpose, without prior written consent from RotoLo Consultants Inc.  
Contact: Rod Rotolo 985-643-2427  
Project No: 82-16000-LA

Revisions:		
No.	Date:	Description:

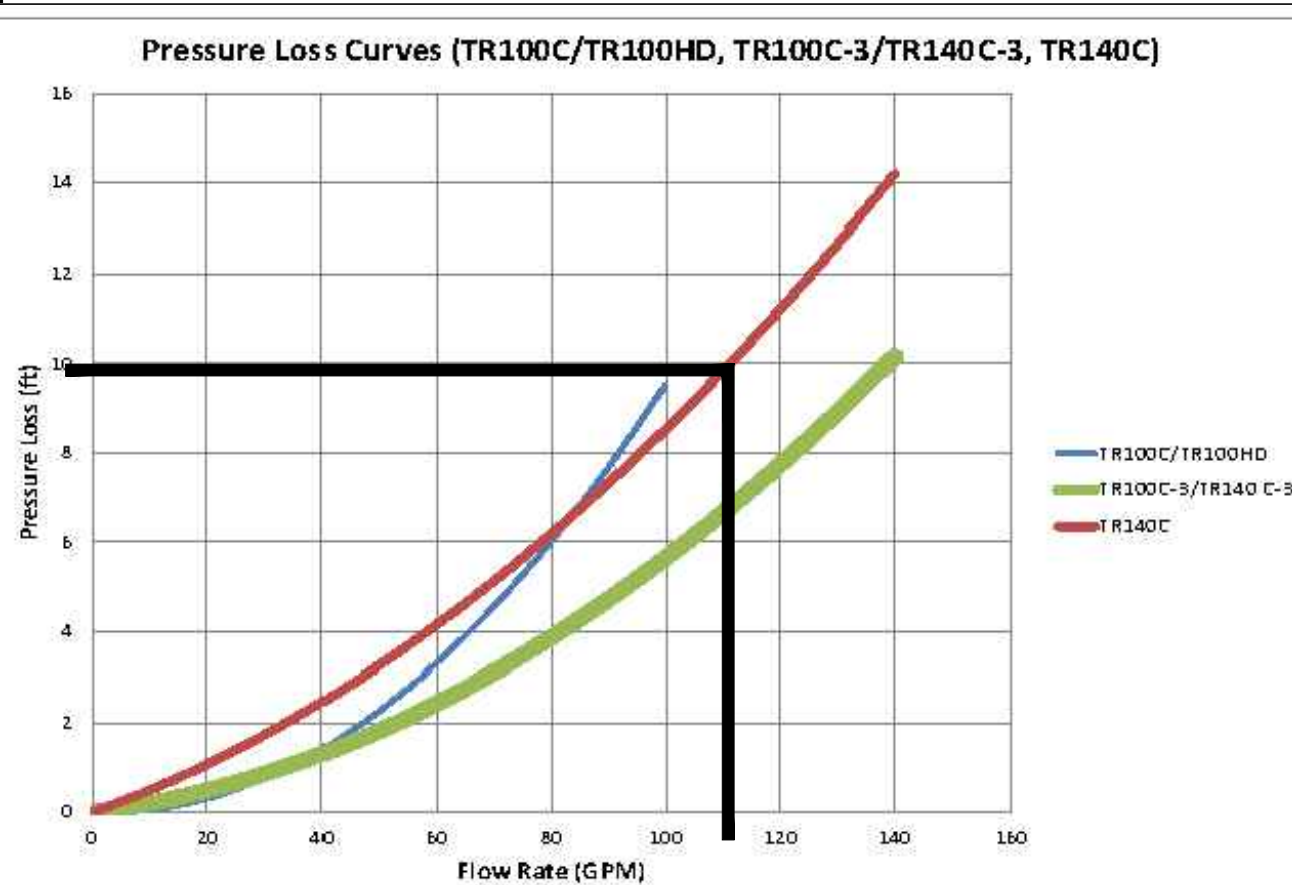
Date: 1-11-2016  
Drawn: TJH  
Checked: MR  
Sheet Title:

TYPICAL POOL DETAILS

Drawing No.  
**PL-1.3**  
Sheet No.  
5 of 6



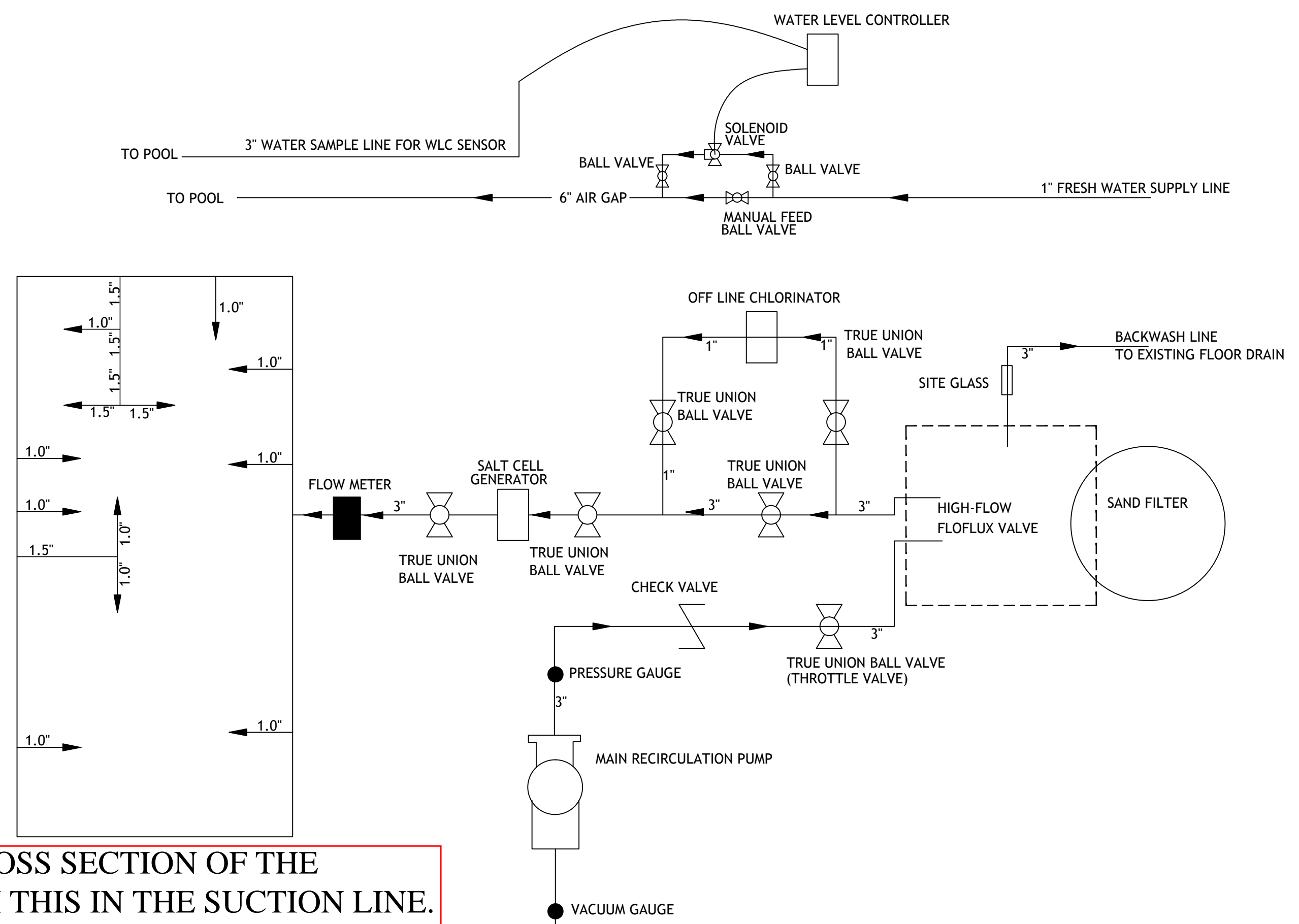
**01 PERFORMANCE PUMP CURVE**  
PL-1.4 SCALE: NTS



**02 FILTER HEADLOSS CHART**  
PL-1.4 SCALE: NTS

### POOL EQUIPMENT LEGEND

DESCRIPTION	QTY
10" DEEP SUMP BODY-CONC-3" SLIP (MODEL# 672-2900 BY WATERWAY PLASTICS)	2 EACH
8" ROUND VGB COMPLIANT GRATE FOR MAIN DRAIN SUMP (MODEL# 640-18XX v)	2 EACH
TRITON COMMERCIAL SERIES SAND FILTER (TR-140C BY PENTAIR)	1 EACH
650 LBS OF MEDIA SAND & 275 LBS OF PEA GRAVEL TO BE 1/4" TO 1/8" DIAMETER	LUMP SUM
180008 FNS PLUS FNSP48 FULL FLOX BACKWASH VALVE FOR TR 140C SAND FILTER	1 EACH
3" FILTER SIGHT GLASS	1 EACH
U-3 SKIMMER	4 EACH
HAYWARD EYEBALL INLET RETURN FITTINGS FOR POOL WALL	14 EACH
EQUALIZER SUCTION COVER FOR U-3 SKIMMER W/ ENTRAPMENT COVER	4 EACH
TIMER FOR POOL LIGHTS	1 EACH
INLINE CHLORINATOR (MODEL# 300-29X BY PENTAIR)	1 EACH
STA-RITE INLET FLOOR RETURN ASSEMBLY (MODEL# 08417)	4 EACH
ADA POOL LIFT (THE SCOUT BY AQUA CREEK PRODUCTS) #F-8005C-DER-D	1 EACH
300W POOL LIGHT BY PENTAIR - WHITE LED	4 EACH
2 HP, SINGLE PHASE CHALLENGER PUMP WITH STRAINER BY PENTAIR	1 EACH
SALT CELL GENERATOR	1 EACH
ALL VALVES TO BE TRUE UNION BALL VALVES UP TO 3"	1 EACH
3" CHECK VALVE TO BE PVC WITH EPDM COATING	1 EACH



SHOW ME A CROSS SECTION OF THE SKIMMER WITH THIS IN THE SUCTION LINE.

#### EQUALIZER

Lawson Aquatics™ 6" Round Skimmer

Technical Data Sheet

VGB certified, NSF and CPSC listed, our stainless-steel equalizer is approved as a submerged suction outlet and designed to be used as a stainless-steel suction fitting for both floor and wall.

**Perfect for swimming pools and commercial spas!**

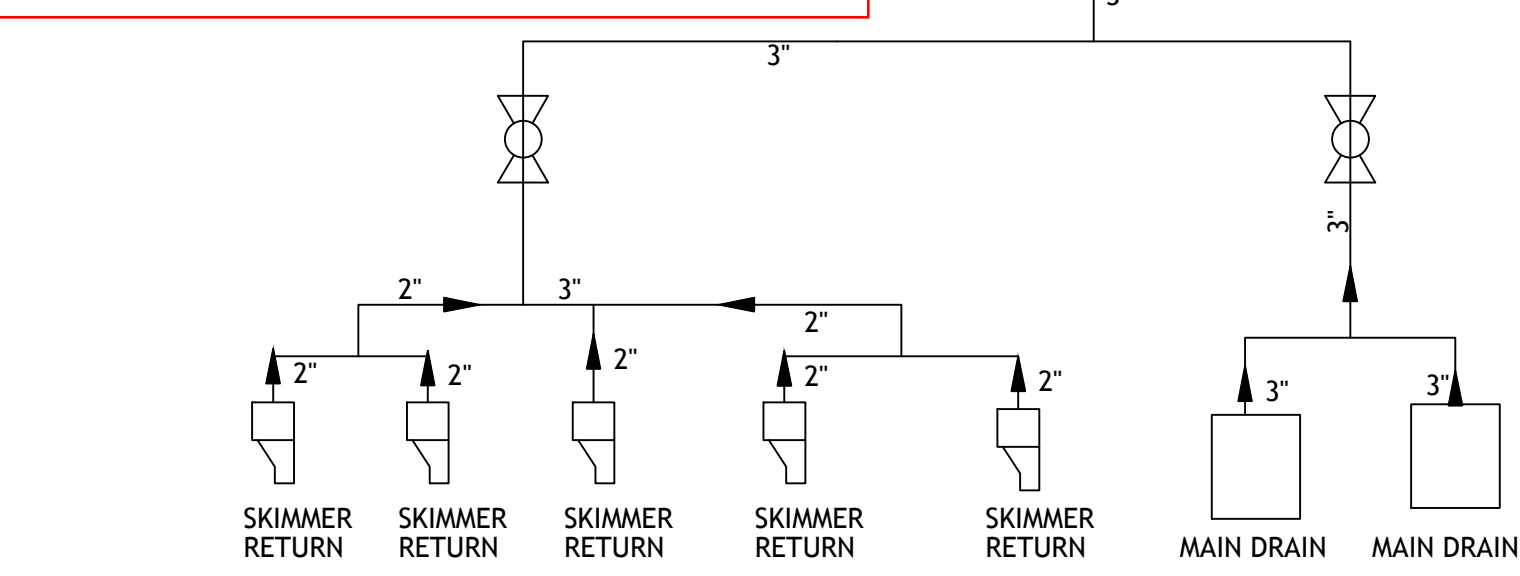
**FEATURES:**

- For 1.5" or 2" Nipples
- Removable grate for isolation of maintenance and plug
- No grinding required
- Made of high-grade PVC
- Available in white
- Ten year warranty

**SPECIFICATIONS**

Size	W. Round
Part Number	NEQ5000001
Material	PVC
Nipple Port	1.5" Or 2"
Flow	44
Rate	41
Vel	41
Open Area (sq")	13.80

**NEPTUNE-BENSON**



**02 POOL PIPING SYSTEM SCHEMATIC**  
PL-1.4 SCALE: NTS

#### 3-bend Stair Rails

Beauty and safety combined!

Short Description  
• Manufactured from high quality stainless steel.  
• All bands are 6" radius.

Low Description  
Commercial ladder are made from thick stainless steel tubing, and are suitable for heavy duty use in commercial aquatic facilities. Commercial ladders come in three different sizes, 24", 30" or 36" to fit pool pools. Stainless steel bands will secure the pool ladder glass looking great for years to come.

Options:  
• 24" or 30" or 36" OD, 304 or 316L  
• Number of Bands: 2, 3, 4, 5, 6  
• 6" radius bands

Model No.	Size	Steps
LF-24-2A	24"	2
LF-24-3	24"	3
LF-24-4	24"	4
LF-24-5	24"	5
LF-30-2A	30"	2
LF-30-3	30"	3
LF-30-4	30"	4
LF-30-5	30"	5
LF-36-2A	36"	2
LF-36-3	36"	3
LF-36-4	36"	4
LF-36-5	36"	5

**ERSmith**

#### INTELLIBRITE™ 5G WHITE LED COMMERCIAL WHITE LIGHTING

Available in 200, 400 and 500 watt and recessed light fixture for application.

**Energy Output in Watts**

Wattage	Input (Watts)	Output (Watts)
200	200	180
400	400	360
500	500	450

**AN Ecos Select® Brand Product**

The Ecos Select brand identifies our "greenest" and "most efficient" equipment to you. These products save energy, conserve water, are durable, and are otherwise certified to a more environmentally responsible equipment system.

**PENTAIR**

#### 4000-BR CHLORINE / BROMINE FEEDER PARTS BREAK DOWN DRAWING

CAUTION: Do not install feeder into copper plumbing. Pipe damage could occur. Never install feeder before heater. Heater damage could occur.

**OPTIONAL FLOW INDICATOR KIT INSTALLATION**

YOU MAY SUBSTITUTE BROMINE TABLETS OR STICKS FOR TRICHLOR IN THIS FEEDER. DO NOT MIX. CALCIUM HYPOCHLORITE IS NOT TO BE USED IN ANY FORM.

**NEPTUNE-BENSON**

#### MAIN DRAINS

Lawson Aquatics™ SuperSump™ - 12" X 12"

Technical Data Sheet

Only Lawson Aquatics™ SuperSump™ VGB-certified main drain and grates with a super flow rate and a unique top profile design that provides superior water flow. Easy to install with no special tools or complicated rebarbing required. Ask your distributor for the number one brand in main drains and grates - Lawson Aquatics™.

**SuperSump™**  
Removes the need for field-built sump certification.

**FEATURES:**

- Open grates made of 316L allowing for maximum flow rate
- Low deck
- Rebar (Rebar) grates (not included) - allows draining and avoids bogging off or cracking during
- 1/8" hole size openings and 1/8" hole size openings
- Heavy-duty stainless steel with no-welded construction
- 1/8" hole size openings and 1/8" hole size openings
- A solid one-piece, injection-molded deck. Low expansion
- Reinforced PVC deck, distributed over 8 bearings
- "Open" body for strength - allows for valve installation
- Drainage and vent stack to reduce drainage noise and draining costs
- Premium hardware stainless steel screws and brass inserts
- 1/2" warranty
- Surges and grates are available in white.

**SPECIFICATIONS**

Size	P.X.P.	12" X 12"	18" X 18"
Flow Rate (GPM)	200	300	450
Flow Rate (GPM)	240	360	540
Open Area (sq")	42.12	81.50	183.00

**NEPTUNE-BENSON**

#### MAIN DRAINS

Lawson Aquatics™ SuperSump™ - 12" X 12"

Technical Data Sheet

Only Lawson Aquatics™ SuperSump™ VGB-certified main drain and grates with a super flow rate and a unique top profile design that provides superior water flow. Easy to install with no special tools or complicated rebarbing required. Ask your distributor for the number one brand in main drains and grates - Lawson Aquatics™.

**SuperSump™**  
Removes the need for field-built sump certification.

**FEATURES:**

- Open grates made of 316L allowing for maximum flow rate
- Low deck
- Rebar (Rebar) grates (not included) - allows draining and avoids bogging off or cracking during
- 1/8" hole size openings and 1/8" hole size openings
- Heavy-duty stainless steel with no-welded construction
- 1/8" hole size openings and 1/8" hole size openings
- A solid one-piece, injection-molded deck. Low expansion
- Reinforced PVC deck, distributed over 8 bearings
- "Open" body for strength - allows for valve installation
- Drainage and vent stack to reduce drainage noise and draining costs
- Premium hardware stainless steel screws and brass inserts
- 1/2" warranty
- Surges and grates are available in white.

**SPECIFICATIONS**

Size	P.X.P.	12" X 12"	18" X 18"
Flow Rate (GPM)	200	300	450
Flow Rate (GPM)	240	360	540
Open Area (sq")	42.12	81.50	183.00

**NEPTUNE-BENSON**

#### CUT SHEETS ON EQUIPMENT & COMPONENTS

PL-1.4 SCALE: NTS

**RCI**  
ROUTING - MAINTENANCE - CONSULTING

894 ROBERT BOULEVARD  
SLIDELL, LOUISIANA 70458  
PH: 985-643-2427  
FAX: 985-643-2691  
RROTOL@RCI-CONSULTANTS.COM

**SPRINGS AT RIVER CHASE CLUBHOUSE SWIMMING POOL**  
 1776 CONTINENTAL DRIVE COVINGTON, LOUISIANA 70433 - ST. TAMMANY PARISH

Copyright 2016 Rotolo Consultants Inc. These drawings or parts thereof, may not be reproduced in any form, by any method, for any purpose, without prior written consent from Rotolo Consultants Inc.

Project No: 82-16000-LA

Date: 1-11-2016

Drawn: TJH

Checked: MR

Sheet Title:

**PIPING SCHEMATIC, EQUIPMENT LIST PERFORMANCE CURVES**

Drawing No.

**PL-1.4**

Sheet No. 6 of 6