

JENNINGS RESIDENCE POOL PLANS

203 NW SPRINGHILL CT.
LAKE CITY, FL. 32055
COLUMBIA COUNTY, FL.



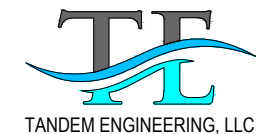
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COMPLIES WITH FLORIDA BUILDING CODE, 8TH EDITION (2023)

FOR: PREMIER POOLS, INC.
JENNINGS RESIDENCE
203 NW SPRING HILL CT.
LAKE CITY, FL. 32055

COVERSHEET



CERTIFICATE OF AUTHORIZATION 36329
2509 NEWBERN DRIVE
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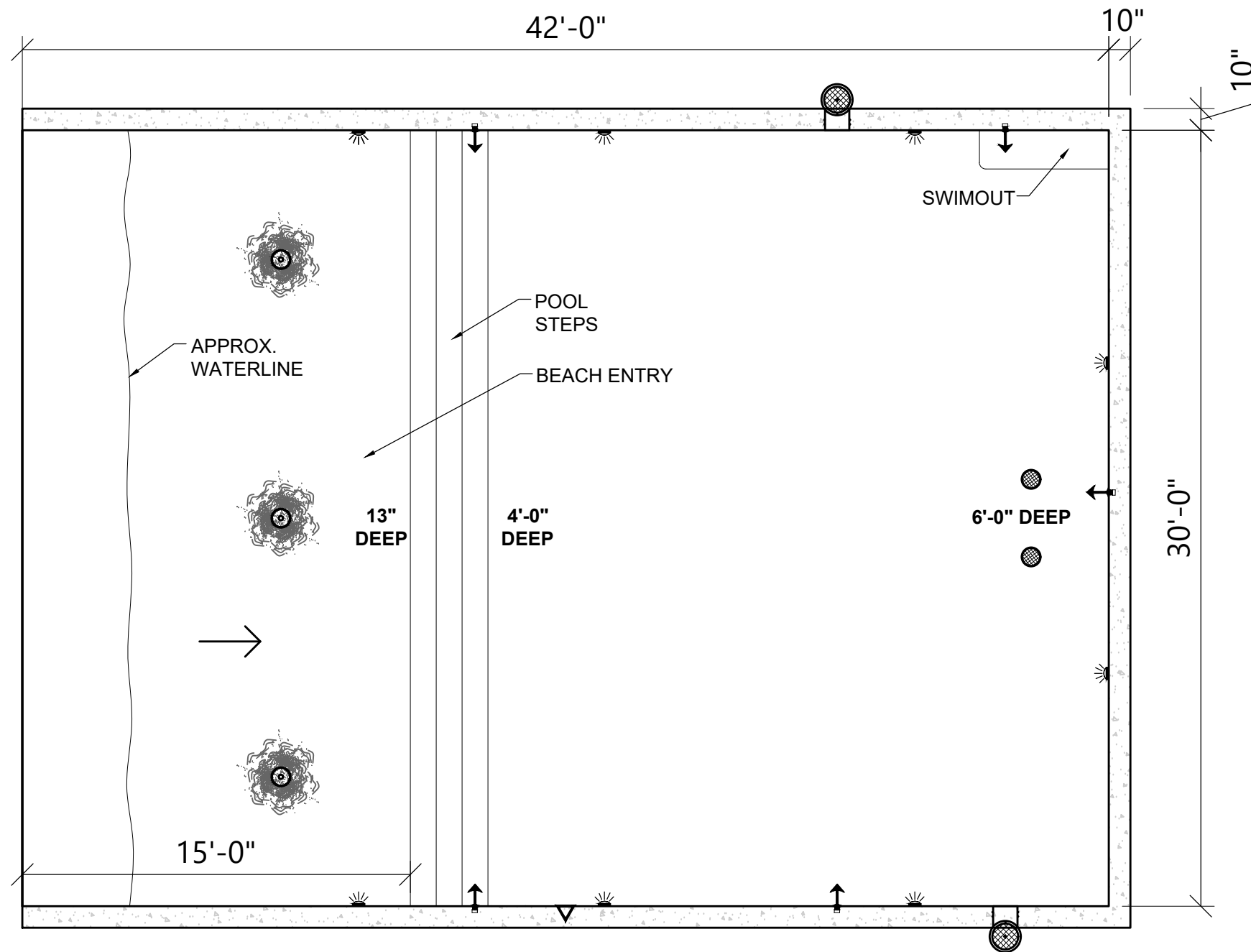
01/12/2026

PROJECT NUMBER
#2025020

PE-0.0

POOL INFORMATION

Pool & Zero Entry Area: 1,260 s.f.
Pool & Zero Entry Volume: 31,980 Gal.
Pool & Zero Entry Perimeter: 144'-0" L.F.
Bubbler: (3) @30gpm/Ea: 90 GPM
Pool & Sunshelf Recirc. @ 6hrs: 31,980 gal/360: 89 GPM
Total Flow Rate w/ Bubblers: 179 GPM

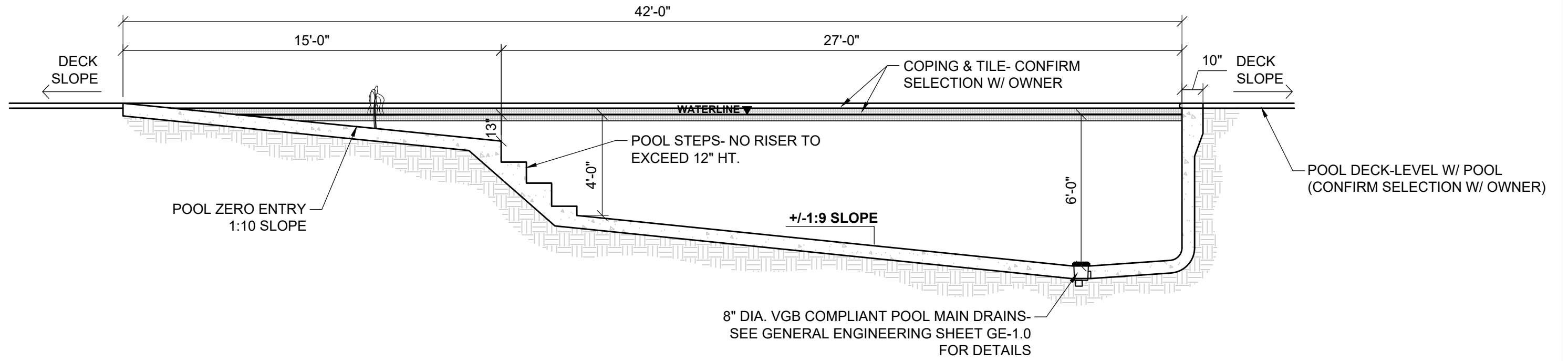


LEGEND	
	(8) POOL LIGHTS (160 LUMEN, COLOR LED) NICHELESS LED
	(2) 8" DIA. ROUND MAIN DRAINS-FLOOR (VGB COMPLIANT)
	(1) VACUUM FITTING (VAC LOCK)
	(5) WALL RETURN FITTINGS
	(2) SKIMMERS
	(3) COLOR LED BUBBLERS

COMPLIES WITH FLORIDA BUILDING CODE, 8TH EDITION (2023)

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


FOR: PREMIER POOLS, INC. JENNINGS RESIDENCE 203 NW SPRING HILL CT. LAKE CITY, FL. 32055		
POOL PLAN		
TANDEM ENGINEERING, LLC.		CERTIFICATE OF AUTHORIZATION 36329 2509 NEWBERN DRIVE CLEARWATER, FL 33761 rtommell@gmail.com (813) 394-2506
01/14/2026	PROJECT NUMBER #2025020	PE-1.0



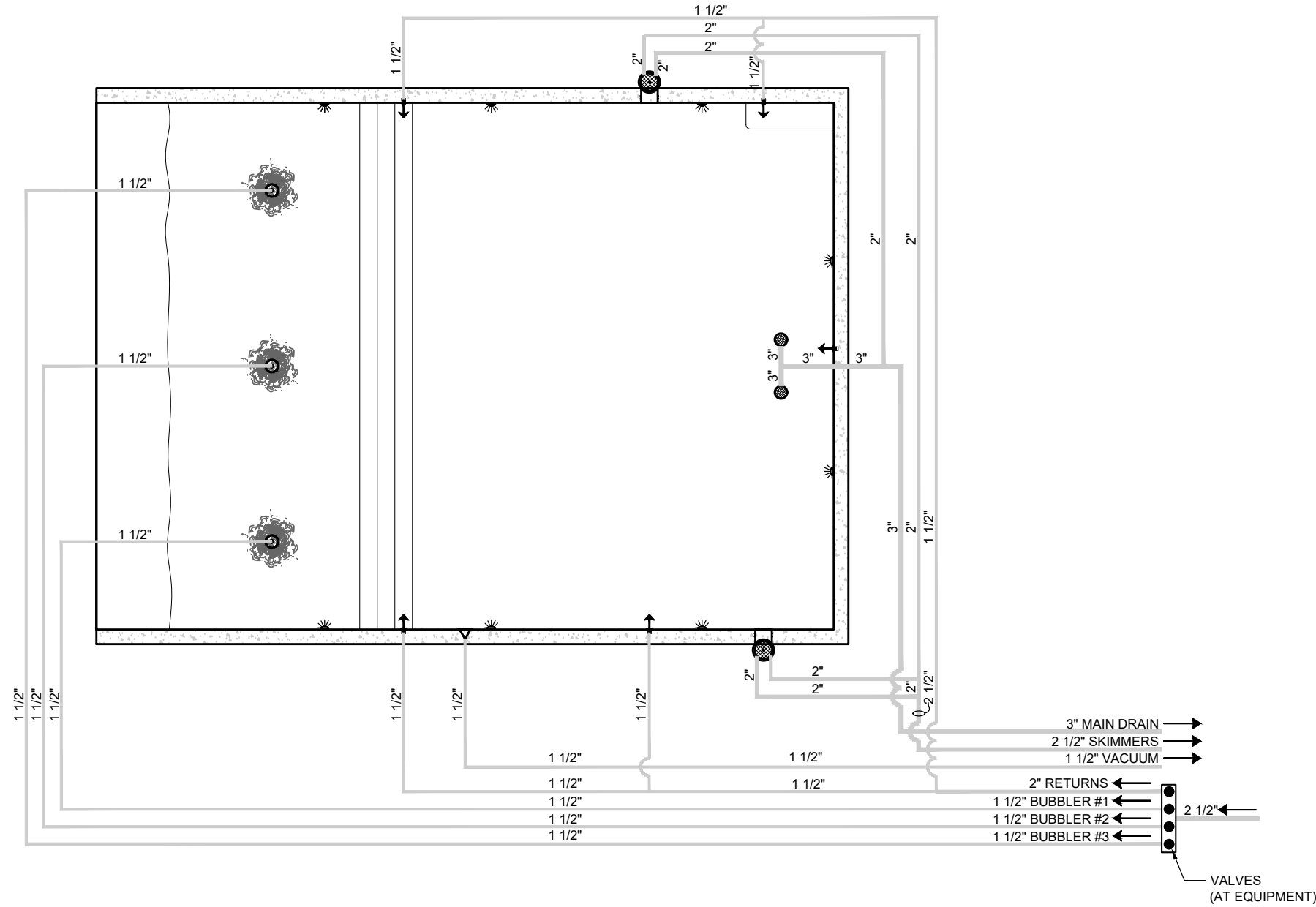
1 POOL CROSS SECTION A-A
SECTION A-A

SCALE: 1/4"=1'-0"

COMPLIES WITH FLORIDA BUILDING CODE, 8TH EDITION (2023)

<p>FOR: PREMIER POOLS, INC. JENNINGS RESIDENCE 203 NW SPRING HILL CT. LAKE CITY, FL. 32055</p>		
<p>POOL CROSS SECTION</p>		
 <p>TANDEM ENGINEERING, LLC.</p>		<p>CERTIFICATE OF AUTHORIZATION 36329 2509 NEWBERN DRIVE CLEARWATER, FL 33761 rtommell@gmail.com (813) 394-2506</p>
<p>01/14/2026</p>	<p>PROJECT NUMBER #2025009</p>	<p>PE-2.0</p>

FLOW & FRICTION LOSS PER FOOT SCH. 40 PVC PIPE				
PIPE SIZE	6 FPS - BRANCH/TRUNK		8 FPS - RETURN	
1"	16 GPM	0.14'	21 GPM	0.23'
1.5"	37 GPM	0.08'	50 GPM	0.14'
2"	62 GPM	0.06'	82 GPM	0.10'
2.5"	88 GPM	0.05'	120 GPM	0.09'
3"	135 GPM	0.04'	181 GPM	0.07'
4"	234 GPM	0.03'	313 GPM	0.05'
6"	534 GPM	0.02'	712 GPM	0.03'

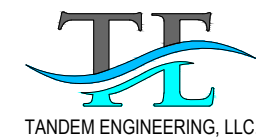


COMPLIES WITH FLORIDA BUILDING CODE, 8TH EDITION (2023)

POOL PLUMBING PLAN
SCALE: 1/8"=1'-0"

FOR: PREMIER POOLS, INC.
JENNINGS RESIDENCE
203 NW SPRING HILL CT.
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POOL PLUMBING PLAN



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01/14/2026 PROJECT NUMBER #2025009 **PE-3.0**

Simplified Total Dynamic Head (TDH) Calculation Worksheet

Minimum Flow Rate Required: 35 GPM Per Skimmer. (Required: 1 Skimmer per 800 Square Feet of Surface Area)

Determine Maximum System Flow Rate

1. Calculate Pool Volume $\frac{1,260 \text{ (Surface Area)}}{\text{Surface Area}} * \frac{5.00 \text{ (Avg. Depth)}}{\text{Avg. Depth}} * 7.481 \text{ (Gal/Cubic Foot)} = \frac{47,130 \text{ (PER PLANS)}}{\text{Vol. In Gallons}}$
2. Determine Preferred Turnover Time in Hours: $\frac{6 \text{ (Hours)}}{\text{Hours}} * 60 \text{ (Min./Hou)} = \frac{360}{\text{Turnover In Mins.}}$
3. Determine Max. Flow Rate $\frac{47,130}{\text{Vol. In Gallons}} / \frac{360}{\text{Turnover In. Mins.}} + \frac{35}{\text{Feature Flow}} = \frac{130 \text{ (MAX FLOW OF PUMP)}}{\text{Total Flow Rate}}$
4. Spa Jets $\frac{\text{---}}{\text{No. Of Jets}} * \frac{15}{\text{Jet Flow}} \text{ GPM Per Jet} = \frac{\text{---}}{\text{Total Jet Flow}}$

For single pump pool/spa combo, use the higher of No. 3 or No. 4 in the following calculations for pool & Spa

Determine Maximum System Flow Rate

- Branch Piping to be 3" Inch to keep velocity at 6 FPS max at 130 GPM Max. System Flow Rate
- Trunk Piping to be 3" Inch to keep velocity at 8 FPS max at 130 GPM Max. System Flow Rate
- Return Piping to be 2.5" Inch to keep velocity at 8 FPS max at 130 GPM Max. System Flow Rate

Determine Simplified TDH

1. Distance From Pool to Pump in feet 50
2. Friction Loss (In Suction Pipe) In 3" Inch Pipe per 1 Foot at 130 GPM = 0.04 (From Pipe Flow/Fricton Loss Chart)
3. Friction Loss (In Return Pipe) In 2.5" Inch Pipe per 1 Foot at 130 GPM = 0.09 (From Pipe Flow/Fricton Loss Chart)
4. $\frac{50}{\text{Length of Suction Pipe}} * \frac{0.04}{\text{Friction Loss}} = \frac{2.0}{\text{---}}$
5. $\frac{50}{\text{Length of Return Pipe}} * \frac{0.09}{\text{Friction Loss}} = \frac{4.5}{\text{---}}$

TDH In Piping	<u>6.50</u>
Filter Loss In TDH (From Filter Data Sheet)	<u>28.00</u>
Heater Loss In TDH (From Heater Data Sheet)	<u>15.00</u>
Total All Other Losses	<u>4.50</u>
TOTAL DYNAMIC HEAD	54.00

Determine Simplified TDH

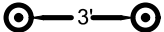



Pump Selection Jandy VSPPlusHP 2.7 HP Variable Speed Pump Model #VSPHP270DV2A Using Pump Curve for TDH & System Flow Rate

Main Drain Cover Waterway 8" Dia. Round Model #640-231x V8" (System Flow Rate must not exceed approved cover flow rates)

Note: Minimum System Flow Rate based on minimum flow per skimmer of 35 GPM.

Determine The Number & Type of Required In-Floor Suctions

(Check the proposed main drain application)

-  3"  640-231x Suction Outlets At 100 GPM Max. Flow (See Note 2)
-  Suction Outlets At GPM Max. Flow (See Note 3)
-  Suction Outlets At GPM Max. Flow (See Note 4)

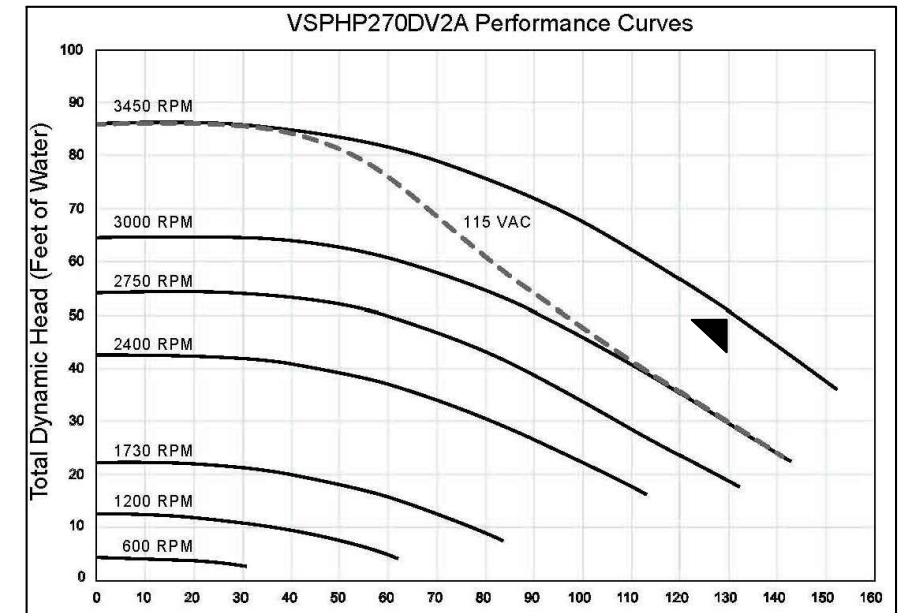
ANSI/APSP-7 2006 Specifies that one of the above options must be followed for determining the maximum system flow rate. The following TDH calculation is one of the methods specified.

TDH Notes

1. TDH calculated based on Combined Infinity Edge Features
Infinity Edge #1: 60GPM
Infinity Edge #2: 20 GPM
Max Flow: 80 GPM
2. In-Floor suction outlet cover/grate must conform to most recent edition of ASME/ANSI A112.19.8 and be embossed with that edition approval.
3. Pump, Filter & Heater make and model cannot change, and equipment location cannot be moved closer to the pool without submitting a revised plan and TDH calculation worksheet for approval.

TDH Calculation

Simplified Total Dynamic Head (STDH)



Jandy VSPPlusHP 2.7 HP Variable Speed Pump Model #VSPHP270DV2A

FLOW & FRICTION LOSS PER FOOT SCH. 40 PVC PIPE

PIPE SIZE	6 FPS - BRANCH/TRUNK		8 FPS - RETURN	
	Flow (GPM)	Friction Loss (ft)	Flow (GPM)	Friction Loss (ft)
1"	16 GPM	0.14'	21 GPM	0.23'
1.5"	37 GPM	0.08'	50 GPM	0.14'
2"	62 GPM	0.06'	82 GPM	0.10'
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6"	534 GPM	0.02'	712 GPM	0.03'

FOR: PREMIER POOLS, INC.

TAYLOR RESIDENCE
949 CR 542 E.
BUSHNELL, FL. 33513

SIMPLIFIED TOTAL DYNAMIC HEAD CALCULATION



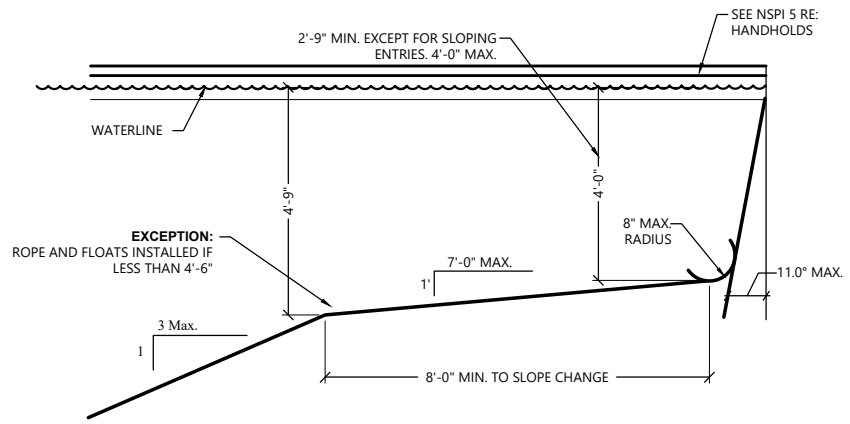
TANDEM ENGINEERING, LLC.
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SCALE: N.T.S.

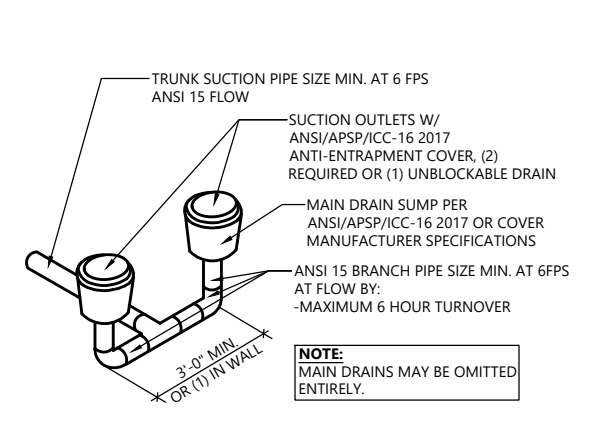
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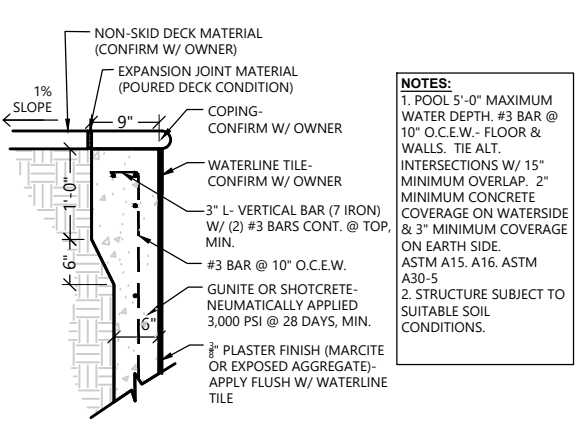
PE-4.0



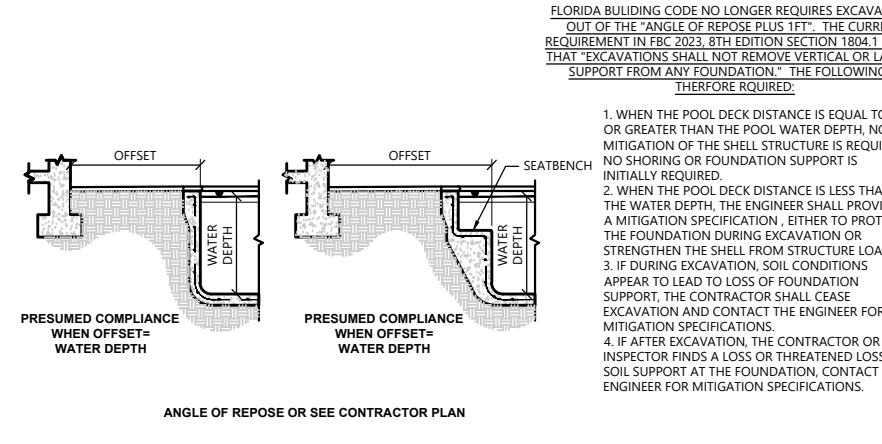
1 GENERAL POOL WALL SECTION
GE-1.0 SCALE: N.T.S.



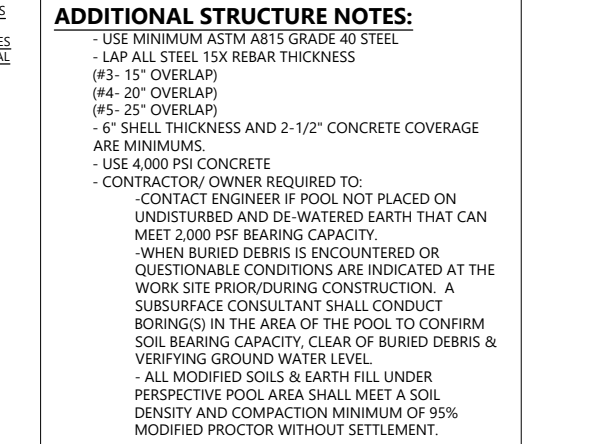
3 MAIN DRAIN BRANCH PIPING
GE-2.0 SCALE: N.T.S.



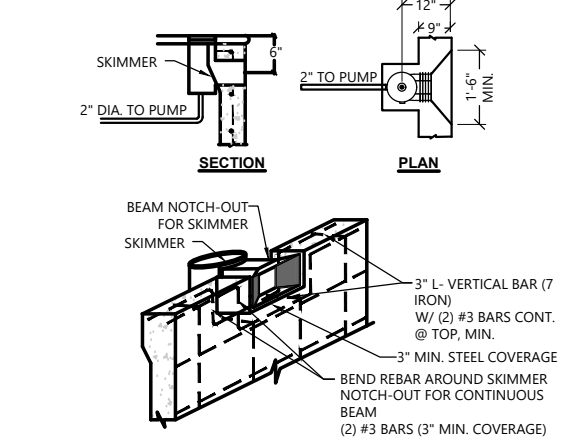
5 9" POOL BEAM CONDITION
GE-1.0 SCALE: N.T.S.



2 GENERAL RESIDENTIAL POOL/SPA PLAN
GE-1.0 SCALE: N.T.S.



4 ADDITIONAL STRUCTURE NOTES
GE-2.0 SCALE: N.T.S.



6 SKIMMER DETAILS
GE-1.0 SCALE: N.T.S.

GENERAL DESIGN REQUIREMENTS

- DESIGN, CONSTRUCTION AND WORKMANSHIP SHALL BE IN CONFORMITY WITH THE REQUIREMENTS OF APSP/ICC 3, APSP/ICC 4, APSP/ICC 5, AND APSP/ICC 6 AND APSP/ICC 7 BASED ON THE POOL TYPE.
- TEMPORARY FENCING SHALL BE INSTALLED AND MAINTAINED UNTIL PERMANENT CHILD SAFETY MEASURES ARE IN PLACE.
- ALL POOLS WHETHER PUBLIC OR PRIVATE SHALL BE PROVIDED WITH A LADDER OR STEPS IN THE SHALLOW END WHERE THE WATER DEPTH EXCEEDS 24 INCHES (610 MM), IN PRIVATE POOLS WHERE WATER DEPTH EXCEEDS 5 FEET (1524 MM) THERE SHALL BE LADDERS, STAIRS OR UNDERWATER BENCHES/ SWIM-OUTS IN THE DEEP END. WHERE MANUFACTURED DIVING EQUIPMENT IS TO BE USED, BENCHES OR SWIM-OUTS SHALL BE RECESSED OR LOCATED IN A CORNER.
- CIRCULATION SYSTEMS, COMPONENTS AND EQUIPMENT SHALL COMPLY WITH NSF 50.
- PUMPS SHALL BE SELECTED TO PROVIDE A MINIMUM OF 12 HR TURNOVER AND MAXIMUM OF 6 HR TURNOVER.
- PUMPS 3 HP AND LESS SHALL MEET ANS/UL1081 CORROSION RESISTANT WITH STRAINER AND MEET THE REQUIRED FLOW.
- ALL SUCTION COVERS SHALL MEET ANS/APSP/ICC-16 2017.
- FILTERS SHALL HAVE AN AIR RELEASE AND PRESSURE GAGE.
- SURFACE SKIMMERS SHALL MEET NSF 50 AND THERE SHALL BE ONE FOR EVERY 800 SQUARE FEET OF SURFACE AREA.
- DUAL MAIN DRAINS SHALL HAVE A MINIMUM OF 3-FT OF SEPARATION UNLESS ONE IS LOCATED ON A VERTICAL WALL.
- APPROVED MANUFACTURED INLET FITTINGS FOR THE RETURN OF RECIRCULATED POOL WATER SHALL BE PROVIDED ON THE BASIS OF AT LEAST ONE PER 300 SQUARE FEET (28 m2) OF SURFACE AREA. SUCH INLET FITTINGS SHALL BE DESIGNED AND CONSTRUCTED TO INSURE AN ADEQUATE SEAL TO THE POOL STRUCTURE AND SHALL INCORPORATE A CONVENIENT MEANS OF SEALING FOR PRESSURE TESTING OF THE POOL CIRCULATION PIPING. WHEN MORE THAN ONE INLET IS REQUIRED, THE SHORTEST DISTANCE BETWEEN ANY TWO REQUIRED INLETS SHALL BE AT LEAST 10 FEET (3048 MM).
- HEATERS SHALL MEET ANS/221.56 OR UL 1261 OR UL 559.
- DISINFECTANT EQUIPMENT SHALL COMPLY WITH NSF 50.
- PRESSURE TEST PIPING AT 35 PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.
- ELECTRICAL AND CHILD SAFETY FINAL INSPECTIONS ARE REQUIRED TO BE PASSED PRIOR TO FILLING THE POOL OR SPA WITH WATER.
- RESIDENTIAL SWIMMING BARRIER REQUIREMENTS TO MEET SECTIONS 4501.17
- SEE NSPI FOR DIVING WATER ENVELOPES.
- WASTE DISPOSAL TO COMPLY WITH SECTION 454.2.10
- R403.10 POOLS & PERMANENT SPA ENERGY CONSUMPTION
- THE ENERGY CONSUMPTION OF POOLS AND PERMANENT SPAS SHALL BE IN ACCORDANCE WITH SECTIONS R403.10.1 THROUGH R403.10.5

IT HAS BEEN CERTIFIED THAT THESE DESIGN REQUIREMENTS ARE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE 8TH EDITION, R4501, ANS/APSP/ICC 3, ANS/APSP/ICC 4, ANS/APSP/ICC 5, ANS/APSP/ICC 6 AND ANS/APSP/ICC 7, ANS/APSP/ICC 14, ANS/APSP/ICC 15.

SPECIAL SPA REQUIREMENTS:

- MAXIMUM WATER DEPTH 4', MAXIMUM SEAT DEPTH 28" MAX.
- FLOOR SLOPE 1:12
- STEPS: MIN. TREAD 10" X 12", 7" MIN. RISER, 12" MAX. RISER EXCEPT THE BOTTOM STEP MAY BE 14" IF IT IS THE SEAT. INTERMEDIATE TREADS AND RISERS TO BE UNIFORM. IF THE SPA IS OPERATED INTERMITTENTLY IT SHALL HAVE A ONE HOUR TURNOVER. IF CONTINUOUS A SIX HOUR TURNOVER. STEP REQUIRED ON SPA BENCH UNLESS RAISED 12" OR MORE FROM DECK.
- SKIMMER(S) MUST BE USED IN SPA IF NO OVERFLOW WEIR TO THE POOL IS PROPOSED.
- MAXIMUM TEMPERATURE 104 DEGREES.
- MEET ANS/NSPI ARTICLE XVII, SAFETY INSTRUCTION/SAFETY SIGNS.
- PRESSURE TEST PIPING AT 35 PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.

POOL POP PREVENTION NOTES:

- DETERMINE THE GROUND WATER TABLE IN THE IMMEDIATE AREA BY: - OBSERVING THE WATER LEVEL IN THE DITCHES, SWALES & RETENTION PONDS. - DIGGING A TEST HOLE WITH POST HOLE DIGGERS AT LEAST 4' DEEP.
- DIVE & PULL THE POOL MAIN DRAIN PLUG(S).
- SEE THAT GROUND WATER ENTERING THE POOL FILLS IT TO THE LEVEL OF THE GROUND WATER TABLE. IF NOT PERFORM THE FOLLOWING PROCEDURES. - CLEAN OUT ANYTHING BLOCKING THE MAIN DRAIN OPENING USING REBAR AND OTHER METHODS OR TOOLS. - ATTACH A PUMP TO THE DEADLINE DISCHARGING WATER AWAY FROM THE POOL AT LEAST 200 FT. - ESTABLISH AT LEAST ONE WEEP HOLE WITH A MINIMUM DIAMETER OF 2" PREFERABLY 4". MAKE SURE IT IS OPEN AND ACTIVE BELOW THE POOL FLOOR. - INSTALL A DEWATERING SYSTEM UTILIZING AT LEAST FOR (4) WELL POINTS DISCHARGING WATER AT LEAST 200 FT. AWAY FROM THE POOL.
- BEGIN THE REMODEL WORK ONCE THE HYDROSTATIC PRESSURE HAS BEEN EQUALIZED AND COMPLETE THE PROJECT WITHIN (2) WEEKS DEPENDING ON THE WEATHER CONDITIONS.
- IT MAY BE NECESSARY TO HAVE A DEWATERING SYSTEM CONTINUOUSLY WHILE THE POOL IS DRAINED.

COMPLIES WITH FLORIDA BUILDING CODE, 8TH EDITION (2023)

FOR: PREMIER POOLS, INC.
JENNINGS RESIDENCE
203 NW SPRING HILL CT
LAKE CITY, FL. 32055

GENERAL RESIDENTIAL POOL & SPA ENGINEERING DETAILS

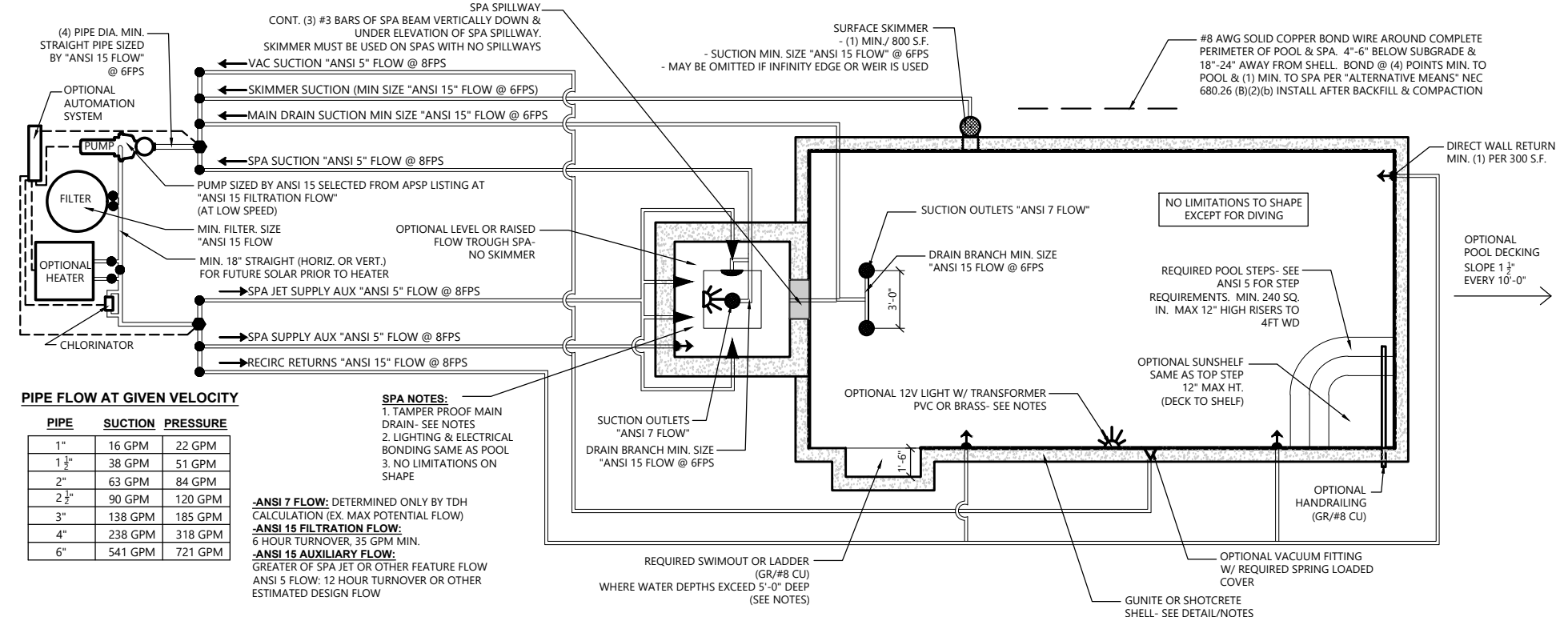


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01/12/2026

PROJECT NUMBER
#2025009

GE-1.0



PIPE FLOW AT GIVEN VELOCITY

PIPE	SUCTION	PRESSURE
1"	16 GPM	22 GPM
1 1/2"	38 GPM	51 GPM
2"	63 GPM	84 GPM
2 1/2"	90 GPM	120 GPM
3"	138 GPM	185 GPM
4"	238 GPM	318 GPM
6"	541 GPM	721 GPM

- SPA NOTES:**
1. TAMPER PROOF MAIN DRAIN- SEE NOTES
2. LIGHTING & ELECTRICAL BONDING SAME AS POOL
3. NO LIMITATIONS ON SHAPE
- ANSI 7 FLOW:** DETERMINED ONLY BY TDH CALCULATION (EX. MAX POTENTIAL FLOW)
- ANSI 15 FILTRATION FLOW:** 6 HOUR TURNOVER, 35 GPM MIN.
- ANSI 15 AUXILIARY FLOW:** GREATER OF SPA JET OR OTHER FEATURE FLOW ANSI 5 FLOW: 12 HOUR TURNOVER OR OTHER ESTIMATED DESIGN FLOW

3 GENERAL RESIDENTIAL POOL/SPA PLAN
GE-1.0 SCALE: N.T.S.