

GENERAL DESIGN REQUIREMENTS

DESIGN DIMENSIONS SHALL COMPLY WITH SPECIFICATIONS IN ANSI/NSPI 5 RESIDENTIAL IN-GROUND SWIMMING POOLS BASED ON THE POOL TYPE AND NSPI 3 PERMANENTLY INSTALLED RESIDENTIAL SPAS.

SEE ANSI/NSPI 5 FOR DIVING WATER ENVELOPES

SLIDES SHALL MEET THE MANUFACTURER'S INSTALLATION REQUIREMENTS.

ENTRY/EXIT: SHALL COMPLY WITH ANSI/NSPI 5 AND NSPI 3 LADDERS, UNDERWATER SEATS, AND SWIM OUTS (MAX 20" BELOW WATER).

CIRCULATION SYSTEMS, COMPONENTS AND EQUIPMENT SHALL COMPLY WITH NSF 50.

THE MAXIMUM TURNOVER RATE IS 12 HOURS.

FILTERS SHALL HAVE AN AIR RELIEF AND PRESSURE GAUGE. PUMPS 3 HP AND LESS SHALL MEET ANSI/UL1081, CORROSION RESISTANT WITH STRAINER AND MEET THE REQUIRED FLOW. SURFACE SKIMMERS SHALL MEET NSF 50 AND THERE SHALL BE ONE FOR EVERY 800 SQUARE FEET OF SURFACE AREA.

RETURN INLETS SHALL BE A MINIMUM OF ONE FOR EVERY 600 SQUARE FEET.

HEATERS SHALL MEET ANSI-Z21.56 OR UI1261 OR UI559

DISINFECTANT EQUIPMENT SHALL COMPLY WITH NSF 50. PRESSURE TEST PIPING AT 35 PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.

SPECIAL SPA REQUIREMENTS

MAXIMUM WATER DEPTH 4', MAXIMUM SEAT DEPTH 28", MAX FLOOR SLOPE 1:12.

STEPS: MIN TREAD 10"x12", 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.

MAXIMUM TEMPERATURE 104 DEGREES.

MEET ANSI/NSPI ARTICLE XVII SAFETY INSTRUCTION/SAFETY SIGNS.

PRESSURE TEST PIPING AT 35PSI FOR 15 MINUTES OR MEET LOCAL CODE IF GREATER.

ELECTRICAL REQUIREMENTS

WIRING AND BONDING AND ALL ELECTRICAL TO NEC ART. 680 OR LOCAL CODE. NO OUTLET OR OVERHEAD POWER WITHIN 10'. IF WITHIN 15' PROTECT BY GFI TRANSFORMER MIN. 10' FROM POOL. 8" ABOVE WATER. J BOX 4' FROM POOL. BRASS TO J BOX OR TRANSFORMER WHICH EVER IS FIRST EXCEPT WHERE PVC IS APPROVED.

EQUIPOTENTIAL BONDING GRID TO BE ACCOMPLISHED PER THE NEC 2005, SECTION 650.26(C)(3)b

CONSTRUCTION NOTES:

SLAB & FOOTING: 2500 PSI CONCRETE.
STEEL REBAR: GRADE 40

ADDITIONAL NOTES

1. POOL INSTALLATION SHALL BE BY A QUALIFIED AND LICENSED (APPROVED BY LOCAL BUILDING DEPARTMENT) POOL CONTRACTOR. THE INSTALLATION SHALL CONFORM ALL LOCAL BUILDING CODES, IE. PERMITS, SPECIFICATIONS, CODES, RULES, INSTRUCTIONS, WORKMANSHIP, ETC.

2. TYPICAL PROPERTIES OF A REINFORCED FIBERGLASS POOL:

BARCOL HARDNESS OF 30 MIL GEL COAT	30 - 40
GLASS CONTENT (WEIGHT)	37%
TENSILE STRENGTH (PSI AT 77° F)	13,400
TENSILE ELONGATION	1 - 2%
FLEXURAL STRENGTH (PSI AT 77° F)	900,000 - 1,000,000
FLEXURAL MODULUS (PSI X 10 AT 77° F)	0.72 - 0.77
1200 IMPACT FT-LB INCH OF NOTCH	5.9
COMPRESSIVE STRENGTH (PSI)	25000 - 38000
TYPICAL THICKNESS INCHES	1/4" TO 3/8" AVG

3. POOL SHELL SHALL BEAR ON UNDISTURBED SOIL, FREE OF PEAT, MUCK, OR OTHER DELETERIOUS MATERIAL OF ANY SIGNIFICANT AMOUNT.

4. BACKFILL MATERIAL MUST NOT CONTAIN ROCKS OR OTHER MATERIALS THAT COULD DAMAGE JOINTS.

5. POOL TURNOVER SHALL BE 12 HOURS, MAXIMUM WITH CARTRIDGE FILTER. APPROX. PUMP (MIN. 1/4 H.P. W/ 29 GPM 60 TDH).

6. STEPS SHALL BE PROVIDED AT THE SHALLOW END OF THE POOL. CONVENIENCE GRAB BAR SHALL BE PROVIDED PER INSTALLATION PLAN.

7. LADDERS ARE TO BE PROVIDED IN POOLS WITH GREATER THAN 5' DEPTH WITHOUT SWIM OUTS.

8. INSTALL LOW VOLTAGE LIGHT AS PER N.E.C. 680.

9. DIVING PLATFORM OR DIVING BOARDS ARE NOT TO BE INSTALLED ON POOLS.

10. DURING A HURRICANE WARNING OR ALERT, THIS POOL SHALL BE FILLED WITH WATER.

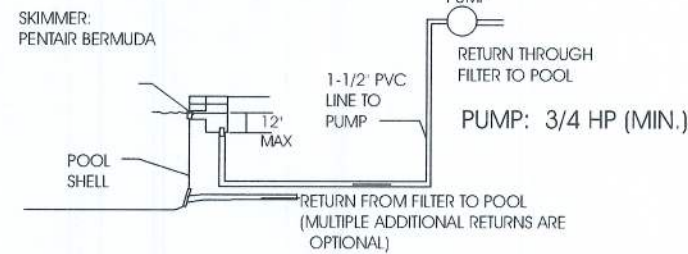
11. THESE POOL PLANS MEET OR EXCEED THE ANSI/NSPI 5 2002 RESIDENTIAL INGROUND SWIMMING POOL AND ANSI/NSPI 3 1992 PERMANENTLY INSTALLED RESIDENTIAL SPA STANDARDS.

12. ALL GLASS WITHIN 5' OF WATER'S EDGE SHALL COMPLY WITH R308.4(9) FOR SAFETY GLASS.

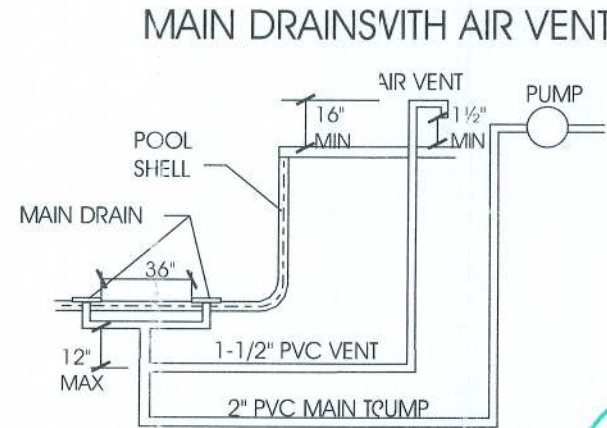
PIPING SIZING CHART (MAXIMUM)

PIPE	SUCTION	PRESSURE
1 1/2"	35 GPM	60 GPM
2"	60 GPM	100 GPM

SUCTION PIPEWORK DIAGRAM FOR SKIMMER MAIN RETURN SYSTEM

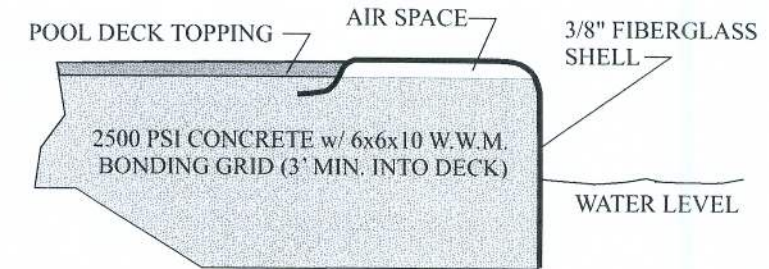


MAIN DRAINS ARE NOT REQUIRED. POOL MAY BE DRAINED USING VACUUM LINE WITH SIMMER.

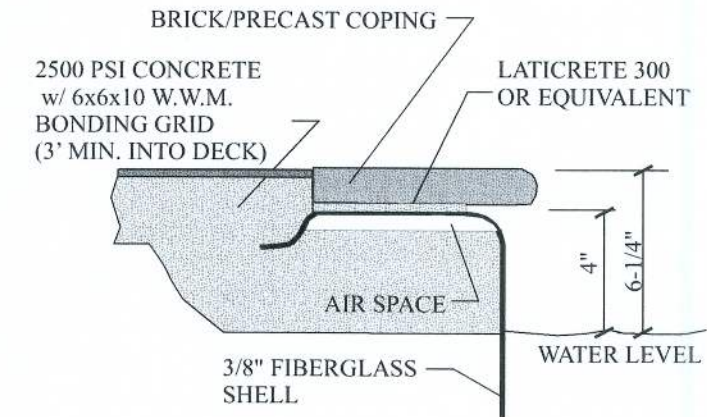


NOTES:

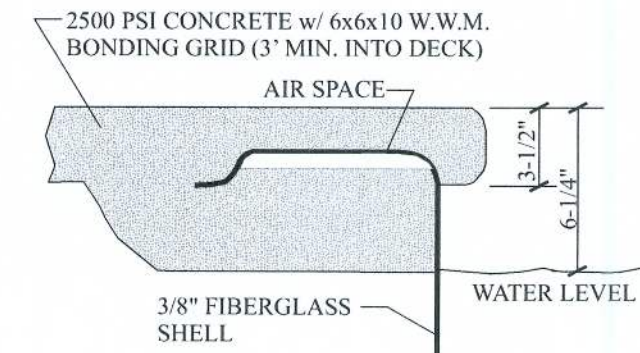
1. MAIN SUCTION LINE IS TO BE 2"
2. VENT LINE IS TO BE 1-1/2"
3. VENT LINE IS TO HAVE SCREENED OUT TO PREVENT CLOGGING WITH DEBRIS OR BUGS.
4. LABEL VENT: HANDS OFF, POOL SAFETY DEVICE.
5. MAXIMUM UNDERWATER LENGTH OF VENT PIPE IS 30 FEET. 90 DEGREE BENDS COULD BE COUNTED AS 3 FT OF PIPE, 45 DEGREE BENDS 2 FT.
6. MINIMUM PUMP FLOW REQUIRED IS: gpm; TEST FLOW RATE OF 60 gpm CLEAR VENT LINE IN LESS THAN 3 SEC.



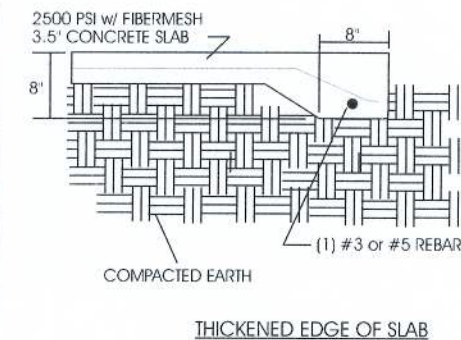
PERIMETER DECK AT POOLSIDE



OPTIONAL BRICK/PRECAST AT POOLSIDE



OPTIONAL CANTILEVER DECK AT POOLSIDE



Lildon Engineering Company, Inc.
548 B Hwy 27
Minneola, Florida 34715
(352) 394-2590 Ph. & FAX

Project #: 80172

Robert C. Kany

AUGUST 5, 2008

Robert C. Kany, PE # 16739

OWNER:

POOL & SPA WORKS
186 NW BUTTERMILK GLEN
LAKE CITY, FLORIDA 32055
386.867.1017

CONTRACTOR: