

GENERAL DESIGN REQUIREMENTS

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

SEE ANSINSP 5 FOR DIVING WATER ENVELOPES.

SLIDES SHALL MEET THE MANUFACTURER'S INSTALLATION REQUIREMENTS.

ENTR/EXIT: SHALL COMPLY WITH ANSINSP 5 AND NSP 3 LADDERS, UNDERWATER SEATS, AND SWIM OUTF (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 GAGE. PUMPS 3 HP AND LESS SHALL MEET ANSI/UL 1081, 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-Z21.36 OR UL1261 OR UL559.

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 TREAT 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 ANSINSP ARTICLE XVII SAFETY INSTRUCTIONS/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. 1 BOX 4' FROM POOL. BRASS TO 1 BOX OR TRANSFORMER WHICH EVER IS FIRST EXCEPT WHERE PVC IS APPROVED.

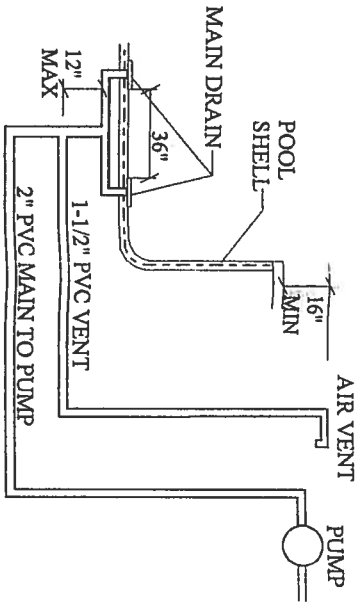
FLORIDA BUILDING CODE 424 - 2

THE POOL CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DETAIL DESIGN REQUIREMENTS FOR EACH INDIVIDUAL POOL IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND ALL CONSTRUCTION SHALL MEET THE FOLLOWING CODES:

FLORIDA BUILDING CODE - BUILDING 2001  
FLORIDA BUILDING CODE - MECHANICAL 2001  
FLORIDA BUILDING CODE - PLUMBING 2001  
FLORIDA BUILDING CODE - FUEL GAS 2001  
NATIONAL ELECTRIC CODE 1999

DESIGNED IS IN COMPLIANCE WITH THE FBC 424.2 ANSINSP 3 1992, STANDARD FOR PERMANENTLY INSTALLED SPAS AND ANSINSP 5 1995 STANDARD FOR RESIDENTIAL IN-GROUND SWIMMING POOLS.

MAIN DRAINS WITH AIR VENT



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 CAP 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. (MIN. 10 FT.). 90 DEGREE BENDS SHOULD BE COUNTED AS 3 FT OF PIPE. 45 DEGREE BENDS AS 2 FT.
6. MINIMUM PUMP FLOW REQUIRED IS 42 gpm; TEST FLOW RATE OF 60 gpm CLEARED VENT LINE IN LESS THAN 3 SEC.
7. THE ABOVE SYSTEM HAS BEEN APPROVED AS COMPLIANT WITH SECTION 424.2.6.6 OF THE FLORIDA BUILDING CODE
8. MAIN DRAINS MAY BE ON SIDE OF POOL SHELL.
9. DRAINS ARE TO BE IN COMPLIANCE WITH ANS/ASME A112.19.8M.

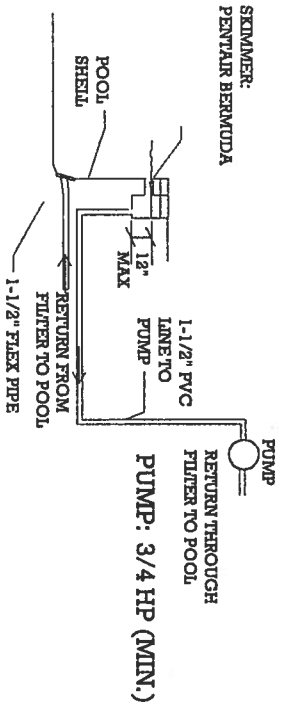
ADDITIONAL NOTES:

1. POOL INSTALLATION SHALL BE BY A QUALIFIED AND LICENSED (APPROVED BY LOCAL BUILDING DEPARTMENT) POOL CONTRACTOR. THE INSTALLATION SHALL CONFORM TO ALL LOCAL BUILDING CODES, IE. PERMITS, SPECIFICATIONS, CODES, RULES, INSPECTIONS, WORKMANSHIP, ETC.
2. TYPICAL PROPERTIES OF A REINFORCED FIBERGLASS POOL:  
BARCOL HARDNESS OF 30 MIL GEL COAT 40 - 50  
GLASS CONTENT BY WEIGHT 27%  
TENSILE STRENGTH, PSI AT 77° F 19,500  
TENSILE ELONGATION 1 - 2%  
FLEXURAL STRENGTH, PSI AT 77° F 23,800 - 27,600  
FLEXURAL MODULUS, PSI X 10 AT 77° F 0.72 - 0.77  
1200 IMPACT FT-LBS/INCH OF NOTCH 5.9  
COMPRESSIVE STRENGTH, PSI 25000 - 38000  
TYPICAL THICKNESS, INCHES 3/8
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 POOL WALLS.
5. POOL TURNOVER SHALL BE 12 HOURS, MAXIMUM WITH CARTRIDGE FILTER. APPROVED PUMP (MIN. 1/4 HP. 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 OUTFS.
8. INSTALL LOW VOLTAGE LIGHT AS PER N.E.C. 680.
9. DIVING PLATFORMS OR DIVING BOARDS ARE NOT TO BE INSTALLED ON THESE POOLS EXCEPT FOR THE ST. CROIX POOL PLAN. THIS POOL MEETS THE ANSINSP 5 2002 DIVING POOL REQUIREMENTS FOR TYPE 1 & TYPE 2 POOLS.
10. DURING A HURRICANE WARNING OR ALERT, THIS POOL SHALL BE FILLED WITH WATER.
11. THESE POOL PLANS MEET OR EXCEED THE ANSINSP 5 2002 RESIDENTIAL IN-GROUND SWIMMING POOL AND ANSINSP 3 1992 PERMANENTLY INSTALLED RESIDENTIAL SPA STANDARDS.

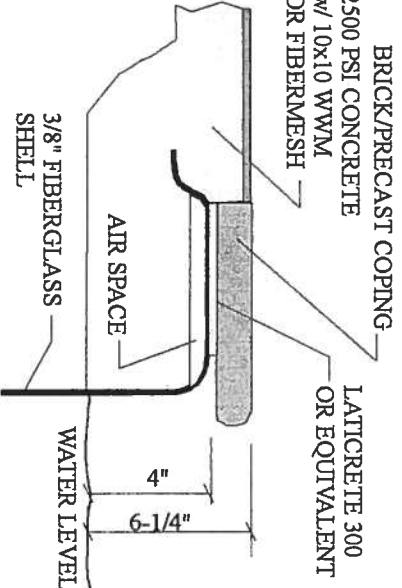
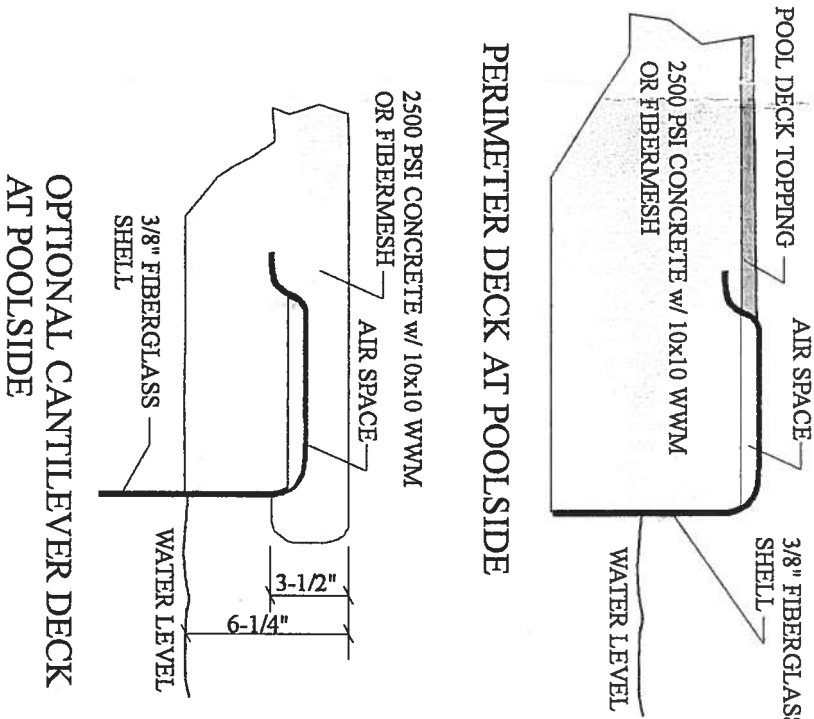
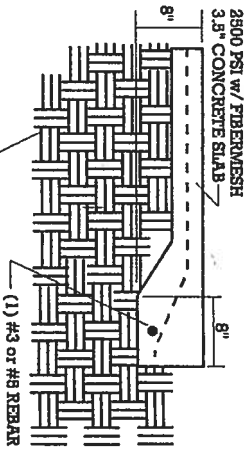
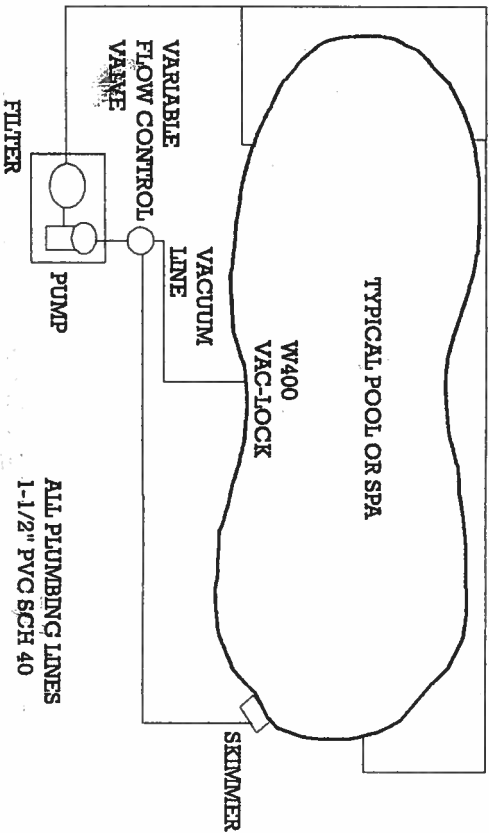
The following codes are to be met where required:

Florida Building Code - Building 2001  
Florida Building Code - Mechanical 2001  
Florida Building Code - Plumbing 2001  
Florida Building Code - Fuel Gas 2001  
1997 Standard Swimming Pool Code  
2002 National Electric Code  
98-16 Building Construction Administrative Code

SUCTION PIPEWORK DIAGRAM FOR SKIMMER MAIN RETURN SYSTEM



MAIN DRAINS ARE NOT REQUIRED. POOL MAY BE DRAINED USING VACUUM LINE WITH SKIMMER. HOWEVER IF ONE MAIN DRAIN IS TO BE EMPLOYED A SECOND DRAIN IS REQUIRED.



McCALL CONSTRUCTION PH: (386) 364-5924  
PO BOX 1571 FAX: (386) 362-1672  
LIVE OAK, FL 32064

LILDON ENGINEERING  
548 B HWY 27  
CLERMONT, FL 34711

Donald P. Block  
Wayne A. Block, P.E., PhD  
(352) 394 2590

MAY 19 2004

GENERAL DESIGN REQUIREMENTS

DESIGN DIMENSIONS SHALL COMPLY WITH SPECIFICATIONS IN ANSINSP 5 RESIDENTIAL IN-GROUND SWIMMING POOLS BASED ON THE POOL TYPE AND NSF 3 PERMANENTLY INSTALLED RESIDENTIAL SPAS. SEE ANSINSP 5 FOR DIVING WATER ENVELOPES. SLIDES SHALL MEET THE MANUFACTURER'S INSTALLATION REQUIREMENTS. ENTRY/EXIT: SHALL COME Y WITH ANSINSP 5 AND NSF 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 GAGE. PUMPS 3 HP AND LESS SHALL MEET ANSI/UL 1081, 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-Z21.36 OR UL1261 OR UL559. 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 TREAT 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. MAXIMUM TEMPERATURE 104 DEGREES. MEET ANS/NSPI ARTICLE XVII'S SAFETY INSTRUCTIONS/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. 1 BOX 4" FROM POOL. BRASS TO J BOX OR TRANSFORMER WHICH EVER IS FIRST EXCEPT WHERE PVC IS APPROVED.

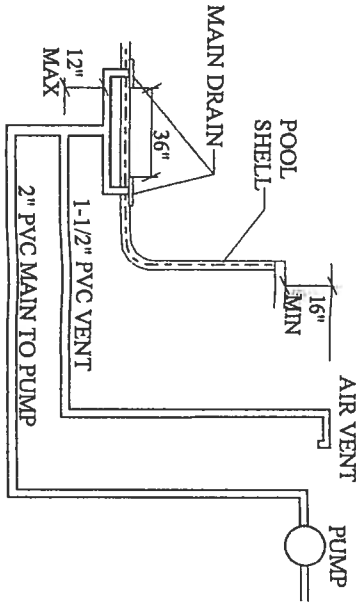
FLORIDA BUILDING CODE 424 - 2

THE POOL CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DETAIL DESIGN REQUIREMENTS FOR EACH INDIVIDUAL POOL IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND ALL CONSTRUCTION SHALL MEET THE FOLLOWING CODES:

FLORIDA BUILDING CODE - BUILDING 2001  
FLORIDA BUILDING CODE - MECHANICAL 2001  
FLORIDA BUILDING CODE - PLUMBING 2001  
FLORIDA BUILDING CODE - FUEL GAS 2001  
NATIONAL ELECTRIC CODE 1999

DESIGNED IS IN COMPLIANCE WITH THE FBC 424-2, ANSINSP-3 1992, STANDARD FOR PERMANENTLY INSTALLED SPAS AND ANS/NSPI-5 1995 STANDARD FOR RESIDENTIAL IN-GROUND SWIMMING POOLS.

MAIN DRAINS WITH AIR VENT



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 CAP 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, (MIN. 10 FT.), 90 DEGREE BENDS SHOULD BE COUNTED AS 3 FT OF PIPE, 45 DEGREE BENDS AS 2 FT.
6. MINIMUM PUMP FLOW REQUIRED IS 42 gpm; TEST FLOW RATE OF 60 gpm CLEARED VENT LINE IN LESS THAN 3 SEC.
7. THE ABOVE SYSTEM HAS BEEN APPROVED AS COMPLIANT WITH SECTION 424.2.6.6 OF THE FLORIDA BUILDING CODE
8. MAIN DRAINS MAY BE ON SIDE OF POOL SHELL.
9. DRAINS ARE TO BE IN COMPLIANCE WITH ANS/ASME A112.19.8M.

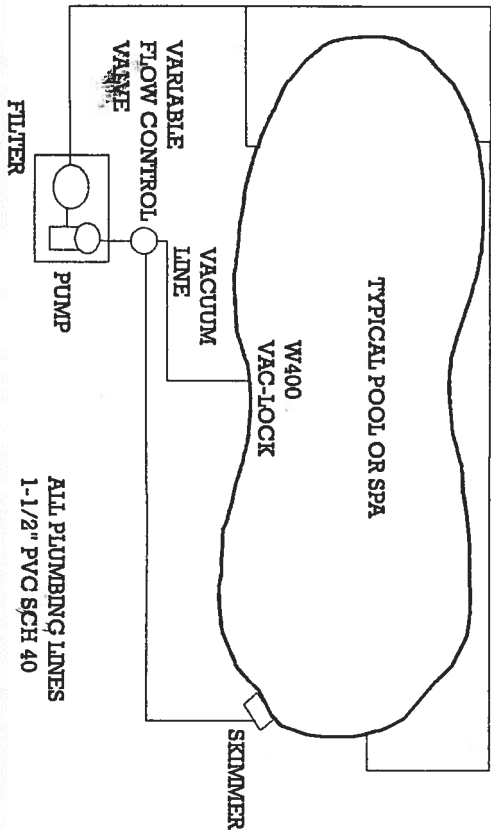
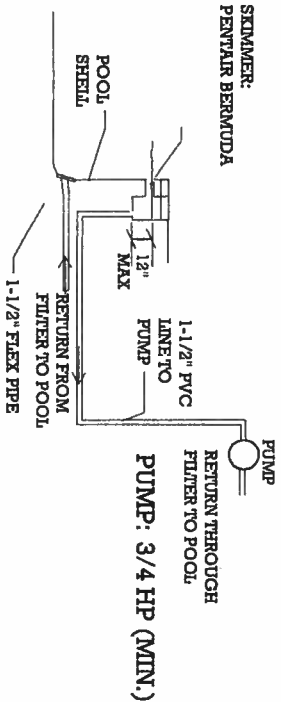
ADDITIONAL NOTES:

1. POOL INSTALLATION SHALL BE BY A QUALIFIED AND LICENSED (APPROVED BY LOCAL BUILDING DEPARTMENT) POOL CONTRACTOR. THE INSTALLATION SHALL CONFORM TO ALL LOCAL BUILDING CODES, IE. PERMITS, SPECIFICATIONS, CODES, RULES, INSPECTIONS, WORKMANSHIP, ETC.
2. TYPICAL PROPERTIES OF A REINFORCED FIBERGLASS POOL:  
BARCOL HARDNESS OF 30 ML GEL COAT 40 - 50  
GLASS CONTENT BY WEIGHT 27%  
TENSILE STRENGTH, PSI AT 77°F 19,500  
TENSILE ELONGATION 1 - 2%  
FLEXURAL STRENGTH, PSI AT 77°F 23,600 - 27,600  
FLEXURAL MODULUS, PSI X 10 AT 77°F 0.72 - 0.77  
1200 IMPACT FT-LBS/INCH OF NOTCH 5.9  
COMPRESSIVE STRENGTH, PSI 25000 - 38000  
TYPICAL THICKNESS, INCHES 3/8
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 POOL WALLS.
5. POOL TURNOVER SHALL BE 12 HOURS, MAXIMUM WITH CANTIRDOE FILTER. APPROVED PUMP (MIN. 1/4 H.P. W/ 29 GPM 60 TDD).
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 PLATFORMS OR DIVING BOARDS ARE NOT TO BE INSTALLED ON THESE POOLS EXCEPT FOR THE ST. CROIX POOL PLAN. THIS POOL MEETS THE ANS/NSPI-5 2002 DIVING POOL REQUIREMENTS FOR TYPE 1 & TYPE 2 POOLS.
10. DURING A HURRICANE WARNING OR ALERT, THIS POOL SHALL BE FILLED WITH WATER.
11. THESE POOL PLANS MEET OR EXCEED THE ANSINSP 5 2002 RESIDENTIAL IN-GROUND SWIMMING POOL, AND ANS/NSPI 3 1992 PERMANENTLY INSTALLED RESIDENTIAL SPA STANDARDS.

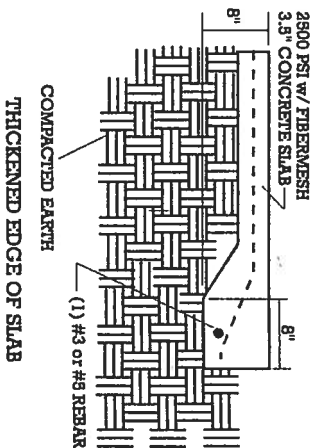
The following codes are to be met where required:

Florida Building Code - Building 2001  
Florida Building Code - Mechanical 2001  
Florida Building Code - Plumbing 2001  
Florida Building Code - Fuel Gas 2001  
1997 Standard Swimming Pool Code  
2002 National Electric Code  
98-76 Building Construction Administrative Code

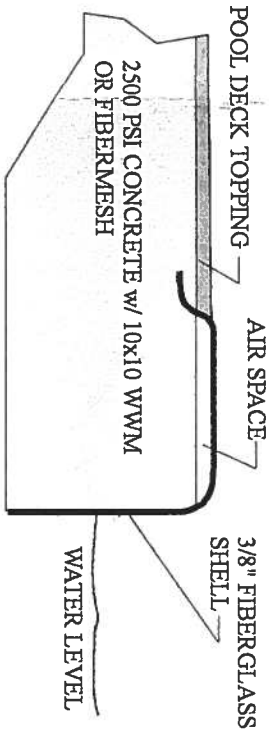
SUCTION PIPEWORK DIAGRAM FOR SKIMMER MAIN RETURN SYSTEM



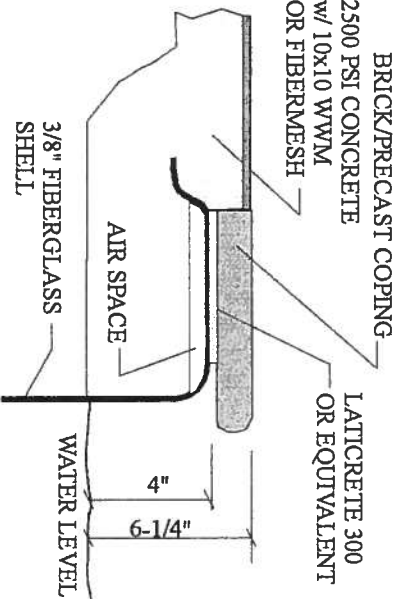
MAIN DRAINS ARE NOT REQUIRED. POOL MAY BE DRAINED USING VACUUM LINE WITH SKIMMER. HOWEVER IF ONE MAIN DRAIN IS TO BE EMPLOYED A SECOND DRAIN IS REQUIRED.



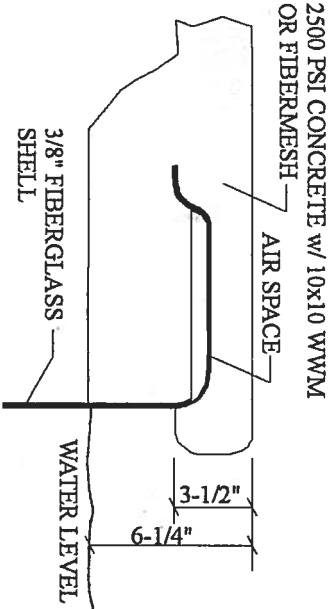
PERIMETER DECK AT POOLSIDE



OPTIONAL BRICK/PRECAST AT POOLSIDE



OPTIONAL CANTILEVER DECK AT POOLSIDE



McCALL CONSTRUCTION PH: (386) 364-5924  
PO BOX 1571 FAX: (386) 362-1672  
LIVE OAK, FL 32064

LILDON ENGINEERING  
548 B HWY 27  
CLERMONT, FL 34711

Donald P. Block  
Wayne A. Block, P.E., PhD  
(352) 394 2590

MAY 19 2004