



332 POOL 3601 N.W. 97th Blvd. Gainesville, Florida 32606

POOL SHAPE RECTANGULAR JOB NO. 138 AREA 600
SIZE 16 X 40 DEPTH 3 1/2 TO 6 PERM 138 DECK SURFACE ANTILEVER DECK O.DRAIN NO
COPING NO 6" X 6" CANTILEVER YES
TILE 6" X 6" COLOR OWNER
STEP COLOR NO COLOR NO
TURNOVER BV FILTER TYPE PUMP SIZE 150 PUMP 15-SRS
SKIMMERS YES INLETS 6 MAIN DRAIN YES
GRAB RAILS NO HAND RAIL NO LADDER NO
POOL LIGHT (2) LED NO VOLTS 120 WATTS NO
DIVING BOARD NO SIZE NO
AUTOMATIC CHLORINATOR SALT TIMER ✓ FILL LINE NO
CLEANING EQUIPMENT MANUAL SWIMOUT POOL SIZE NO JETS NO
ROPE & FLOATS NO ROPE ANCHORS NO
AUTOMATIC CLEANING SYSTEM NO POOL HEATER NO
GAS LINE BY: OWNER SLIDE NO SIZE NO

SPA SPECIFICATIONS

SIZE NO SPA DEPTH NO JETS NO
BLOWER NO SKIMMER NO LIGHT NO
SPILLWAY NO HEATER NO MAIN DRAIN NO
SCREEN ENCLOSURE NO ROOF NO DOORS NO
ALUM. ROOF NO GUTTER NO
REMOVE FENCE OWNER REPLACE FENCE OWNER TEMP FENCE OWNER
TREE REMOVAL OWNER STUMP REMOVAL OWNER
SHRUBS OWNER SAVE OWNER HAULAWAY OWNER
SEPTIC TANK OWNER SEWER LINE OWNER
POWER LINE OWNER RELOCATE OWNER
GAS LINE OWNER WATERLINE OWNER
SPRINKLERS OWNER REROUTE OWNER CAP OWNER
PHONE LINE OWNER ACCESS PERMISSION OWNER
RETAINING WALL OWNER

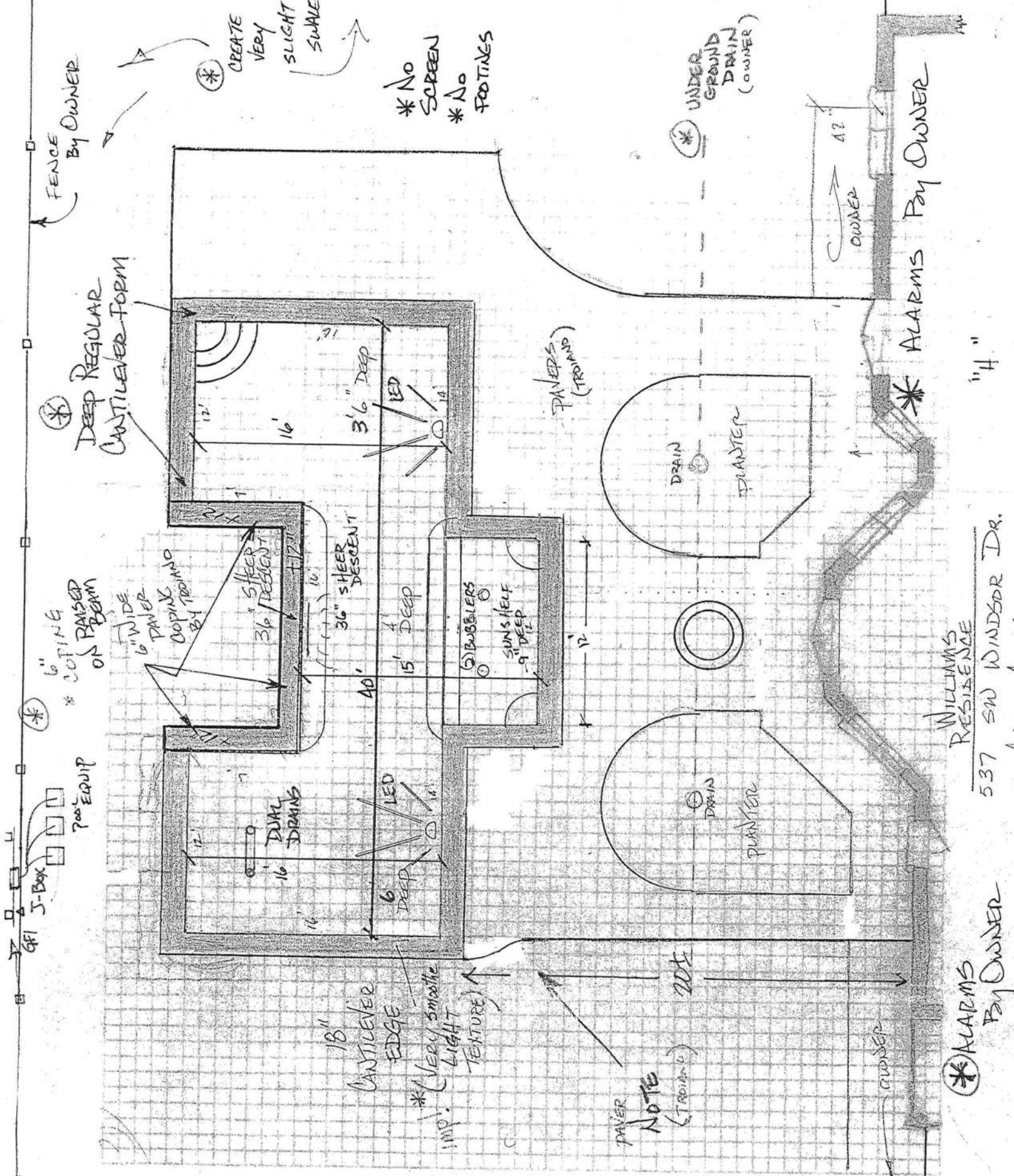
NAME HAL & PENNY WILLIAMS
ADDRESS 537 SW WINDSOR DR.
CITY LAKE CITY PHONE 386-965-7304

LOT 32024 BLOCK 11 SUB HILLS OF WINDSOR for pool at:
BOOK 11 PAGE 11
ALSO DESCRIBED AS 11/21
CUSTOMER'S SIGNATURE Tom Paus DATE 11/21 CHK. BY 11/21

* Mini Midlight Finish

* CANTILEVER SUNDECK COLOR SHERWIN WILLIAMS # Color Wheel

PLOT PLAN SCALE: 1/8" = 1'-0"



Equipotential Bonding Grid as per NEC 680-26 (Code)
Note - Pool shall be wired as per NEC and all metal within 5' of pool shall be bonded.

Note - Angle of repose of existing foundation shall not be disturbed by pool excavation without engineering.

Note: All plan dimensions are subject to field verification and modification

ANSI/APSP-7 2006 Specifies three methods for determining the maximum system flow rate. The following simplified TDH calculation is one of the methods specified.

Simplified Total Dynamic Head (TDH) Calculation Worksheet

Determine Maximum System Flow Rate:

Minimum Flow Rate Required: 35 gpm Per Skimmer (Required: 1 skimmer per 800 sf of surf. area)

1. Calculate Pool Volume: $\frac{600}{(Surf. Area)} \times \frac{4.5}{(Avg. Depth)} \times 7.48 \text{ (gal./cubic foot)} = \frac{20196}{(Vol. in gal.)}$

2. Determine preferred Turnover Time in hours: $\frac{8}{(Hours)} \times 60 \text{ (min. / hr.)} = \frac{480}{(Turnover in Min.)}$

3. Determine Max Flow Rate: $\frac{20196}{(Vol. in gal.)} \div \frac{480}{(Turnover Mins.)} = \frac{42.07}{(Feature Flow Rate)}$

4. Spa Jets: $\frac{(No. of Jets)}{(Vol. in gal.)} \times \frac{(Jet Flow)}{(Turnover Mins.)} = \frac{42.07}{(Total Jet Flow Rate)}$

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

Determine Pipe Sizes:

Branch Piping to be 2" inch to keep velocity @ 6 fps max. at 82 gpm Maximum System Flow Rate.

Trunk Piping to be 2" inch to keep velocity @ 8 fps max. at 82 gpm Maximum System Flow Rate.

Return Piping to be 2" inch to keep velocity @ 10 fps max. at 103 gpm Maximum System Flow Rate.

Determine Simplified TDH:

1. Distance from pool to pump in feet: 2

2. Friction loss (in suction pipe) in 2 inch pipe per 1 ft @ 82 gpm = .10 (from pipe flow/friction loss chart)

3. Friction loss (in return pipe) in 2 inch pipe per 1 ft @ 103 gpm = .16 (from pipe flow/friction loss chart)

4. $\frac{20}{(Length of Suct. Pipe)} \times \frac{.10}{(Ft of head/ft of Pipe)} = \frac{2}{(TDH Suct. Pipe)}$

5. $\frac{20}{(Length of Return Pipe)} \times \frac{.16}{(Ft of head/ft of Pipe)} = \frac{3.2}{(TDH Return Pipe)}$

TDH in Piping: 5.2

Filter loss in TDH (from filter data sheet): 7

Heater loss in TDH (from heater data sheet): -

Total all other loss: 38.89

Total Dynamic Head (TDH): 51.09

Selected Pump and Main Drain Cover:

Pump selection VS-SVRS using pump curve for TDH & System Flow Rate

PESTAIR - D11017
(Pump model and size in Horsepower)

Main Drain Cover AGUASTAR 32CDFL YXX (System Flow Rate must not exceed approved cover flow rates)

(Make and Model)

Notes: Minimum system flow based on min. flow per skimmer of 35 gpm.

Determine the Number and Type of Required In-Floor Suction Outlets:

Check all that apply.

☐ 3'-0" ☒ suction outlets @ 2 gpm max. flow (see note 2).

☐ suction outlets @ 3 gpm max. flow (see note 3).

☐ channel drain @ gpm w/ ports (see note 4).

TDH Calculation Options

For each pump

Check one.

☐ Simplified Total Dynamic Head (STDH)
Complete STDH Worksheet - Fill in all blanks.

☐ Total Dynamic Head (TDH)
Complete Program or other calcs. Fill in required blanks on worksheet & attach calculations.

☐ Maximum Flow Capacity
of the new or replacement pump.

Notes

- If a variable speed pump is used, use the max. pump flow in calculations.
- For side wall drains, use appropriate side wall drain flow as published by manufacturer.
- Insert manufacturer's name and approved maximum flow
- See installation instructions for number of ports to be used.
- 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.
- Pump, Filter & Heater make and model cannot be changed, and equipment location cannot be moved closer to pool without submitting a revised plan and TDH calculation worksheet for approval.

Flow and Friction Loss Per Foot

Schedule 40 PVC Pipe

Pipe Size	6 fps	8 fps	10 fps
1"	16 gpm	21 gpm	26 gpm
1.5"	37 gpm	50 gpm	62 gpm
2"	62 gpm	82 gpm	103 gpm
2.5"	88 gpm	117 gpm	146 gpm
3"	136 gpm	181 gpm	227 gpm
4"	234 gpm	313 gpm	392 gpm
6"	534 gpm	712 gpm	892 gpm

This form is the property of funstatepoolsinc. and may only be used in conjunction with my Residential Swimming Pool Specification Drawings or by others with my written permission.

4-4-11

Date

Michael Pad
Contractor Signature

Michael Casto
Contractor Signature

CPC-1457

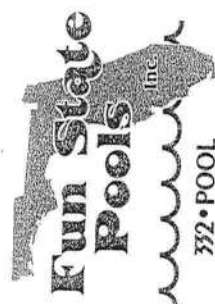
352-332-7665

Total Head In Feet Conversion Chart

		Inches Mercury (Vacuum Gauge)																	
		0	2	4	6	8	10	12	14	16	18								
0	0.0	2.3	4.5	6.8	9.0	11.3	13.6	15.9	18.1	20.4	22.7								
1	2.3	4.6	6.9	9.1	11.4	13.7	15.9	18.2	20.4	22.7	25.0								
2	4.6	6.9	9.1	11.4	13.7	15.9	18.2	20.4	22.7	25.0	27.3								
3	6.9	9.2	11.5	13.8	16.0	18.3	20.5	22.8	25.0	27.3	29.6								
4	9.2	11.5	13.8	16.0	18.3	20.5	22.8	25.1	27.3	29.6	31.9								
5	11.5	13.8	16.1	18.3	20.6	22.8	25.1	27.4	29.6	31.9	34.2								
6	13.9	16.1	18.4	20.6	22.9	25.2	27.4	29.7	32.0	34.3	36.5								
7	16.2	18.4	20.7	23.0	25.3	27.5	29.8	32.1	34.3	36.6	38.9								
8	18.5	20.7	23.0	25.3	27.5	29.8	32.1	34.4	36.7	38.9	41.1								
9	20.8	23.1	25.3	27.6	29.8	32.1	34.3	36.6	38.9	41.2	43.4								
10	23.1	25.4	27.7	29.9	32.2	34.5	36.7	39.0	41.3	43.5	45.8								
11	25.4	27.7	29.9	32.2	34.5	36.8	39.1	41.3	43.6	45.9	48.1								
12	27.7	30.0	32.2	34.5	36.8	39.1	41.3	43.6	45.9	48.2	50.4								
13	30.0	32.3	34.6	36.9	39.1	41.4	43.7	45.9	48.2	50.5	52.7								
14	32.3	34.6	36.9	39.1	41.4	43.7	45.9	48.2	50.5	52.8	55.0								
15	34.6	36.9	39.2	41.4	43.7	46.0	48.3	50.5	52.8	55.0	57.3								
16	37.0	39.2	41.5	43.7	46.0	48.3	50.5	52.8	55.1	57.4	59.6								
17	39.3	41.5	43.8	46.1	48.3	50.6	52.9	55.1	57.4	59.7	61.9								
18	41.6	43.8	46.1	48.4	50.6	52.9	55.2	57.4	59.7	62.0	64.2								
19	43.9	46.2	48.4	50.7	52.9	55.2	57.5	59.8	62.1	64.3	66.5								
20	46.2	48.5	50.7	53.0	55.2	57.5	59.8	62.1	64.4	66.6	68.9								
21	48.5	50.8	53.0	55.3	57.6	59.8	62.1	64.4	66.7	68.9	71.2								
22	50.8	53.1	55.3	57.6	59.9	62.1	64.4	66.7	69.0	71.3	73.5								
23	53.1	55.4	57.7	59.9	62.2	64.4	66.7	69.0	71.3	73.5	75.8								
24	55.4	57.7	60.0	62.2	64.5	66.7	69.0	71.3	73.5	75.8	78.1								
25	57.8	60.0	62.3	64.5	66.8	69.1	71.3	73.6	75.9	78.1	80.4								
26	60.1	62.3	64.6	66.8	69.1	71.4	73.7	76.0	78.2	80.5	82.8								
27	62.4	64.6	66.9	69.2	71.4	73.7	76.0	78.2	80.5	82.8	85.1								
28	64.7	66.9	69.2	71.5	73.7	76.0	78.2	80.5	82.8	85.1	87.3								
29	67.0	69.3	71.5	73.8	76.0	78.3	80.6	82.9	85.1	87.4	89.6								
30	69.3	71.6	73.8	76.1	78.3	80.6	82.9	85.1	87.4	89.7	91.9								
31	71.6	73.9	76.1	78.4	80.7	82.9	85.2	87.4	89.7	92.0	94.3								
32	73.9	76.2	78.4	80.7	83.0	85.2	87.5	89.7	92.0	94.3	96.6								
33	76.2	78.5	80.7	83.0	85.3	87.5	89.8	92.1	94.4	96.6	98.9								
34	78.5	80.8	83.1	85.3	87.6	89.8	92.1	94.4	96.7	98.9	101.2								
35	80.9	83.1	85.4	87.6	89.9	92.2	94.4	96.7	98.9	101.2	103.5								

NOTE: FIELD TDH MUST BE EQUAL TO OR HIGHER THAN THE CALCULATED TDH.

Voice (352) 332-7665
Fax (352) 332-0266
tillis@funstatepoolsinc.com



Tillis Gibson

www.funstatepoolsinc.com

3601 N.W. 97th Blvd. • Gainesville, Florida 32606

Swimming Pool Specification For:

Mr. Williams

537 SW Windsor Dr.

Lake City FL 32024

Order: None

7	3.01
8	3.01
9	3.01
10	3.01
11	3.01
12	3.01
13	3.01
14	2.96
15	3.01
16	3.01
17	3.01
18	4.46
PARCEL A	10.04
PARCEL B	29.64
PARCEL C	6.46
TOTAL	122.6

TOTAL AREA -
122.676

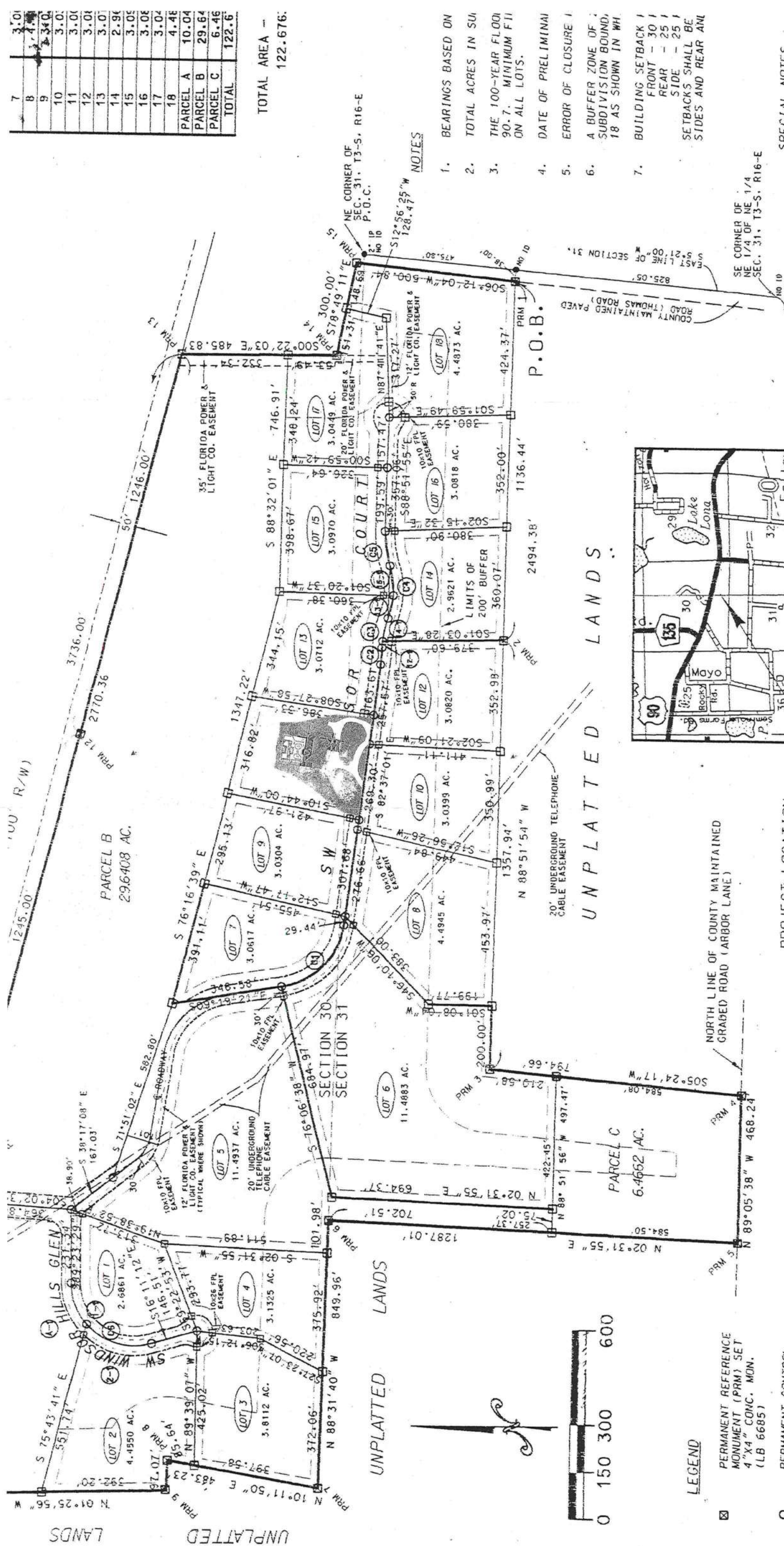
NOTES

1. BEARINGS BASED ON
2. TOTAL ACRES IN SU
3. THE 100-YEAR FLOOD
4. DATE OF PRELIMINAI
5. ERROR OF CLOSURE I
6. A BUFFER ZONE OF
7. BUILDING SETBACK

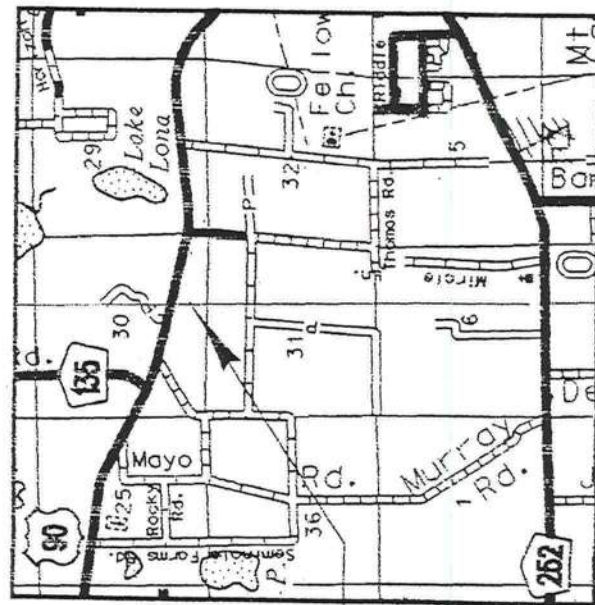
SPECIAL NOTES

NOTICE: ALL UTILIT
EASEMENTS FOR THE C
AND OPERATION OF EL
SERVICES AND ANY OT
NOTICE: THERE MAY
RECORDED ON THIS PR
RECORDS OF THIS COU
PERMIT NO. ERP98-0C
DISTRICT ISSUED FOR

HA WILLIAMS
537 SW WINDSOR Dr
LAKE CITY FL 32024
Lot 11
Hus of Windsor



UNPLATTED LANDS



LOCATION MAP

PROJECT LOCATION

DEVELOPER

JORDAN AND FAISAL
C/O ROBERT F. JORDAN
300 CIRCLE DRIVE
LAKE CITY, FLORIDA 32055
TEL. (904) 752-3666

LEGEND

- PERMANENT REFERENCE MONUMENT (PRM) SET 4"X4" CONC. MON. (LB 6685)
- PERMANENT CONTROL POINT (PCP) SET P-K NAIL & DISC IN PAVEMENT
- 4"X4" CONC. MON. SET AT EACH LOT CORNER (LB 6685)
- 4"X4" CONC. MON. OR IRON FOUND AS NOTED

GENERAL NOTES

Design Criteria

1. Structure to meet wind load requirements of FBC 2007 SEC. 1609 for a design wind speed of 110 mph.
2. Wood framing and fasteners to meet ND S-2005 requirements.
3. Fastener requirements: (1) All nails are Common galvanized; (2) all bolts are to be galvanized steel and include nuts and washers; and (3) all other hardware (Simpson, etc.) is to be installed according to manufacturer's specifications and recommendations. Nailing (size and number) shall satisfy Tables 2306.3.1, 2306.3.2 and 2306.4.1 FBC unless otherwise indicated. Note: Fasteners exposed to the weather are to be treated for weather resistance and compatible with the type of pressure treated wood used (connectors, nails, bolts, nuts and washers).
4. Fasteners shall be driven flush with surface of sheathing.

Concrete Construction Notes

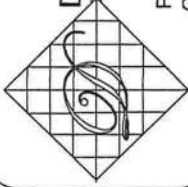
1. Concrete work shall conform to "Building Code Requirements for Reinforced Concrete" (ACI 318) and "Specifications for Structural Concrete" (ACI 301), Latest Edition.
2. Concrete Mix "A" shall be used for foundation walls, footings and interior slabs on grade. Concrete mix "B" shall be used for exterior slabs, curbs and all other exterior concrete. All concrete mixes shall contain a water-reducing admixture conforming to ASTM C-494. Air-entraining admixture shall conform to ASTM C-260.

	Mix A	Mix B
Ultimate Compressive Strength @ 28 days	3000 psi	3000 psi
Slump Range	4"± 1"	3"± 1"
Maximum Aggregate Size	1"	1"
Extruded Air	None	5-7%
Dry Weight per Cubic Foot	150#	150#

3. All concrete shall be cured for a minimum of 28 days. If forms for vertical surfaces are removed prior to the end of the curing period, spray surfaces with liquid membrane curing compound.
4. Reinforcing steel shall conform to ASTM A615, Grade 40 (Fy=40 ksi). Lap continuous bars for tension lap splice per ACI 318, unless otherwise noted. Provide corner bars of same size and spacing as horizontal wall reinforcement. Cover for concrete reinforcing steel shall be in accordance with ACI 318, Paragraph 7.7.
5. Welded wire fabric (WWF) shall conform to ASTM A185. Lap sheets two mesh spaces and wire tie adjacent sheets together securely. Cut alternate reinforcement at control joints.
6. All slabs on grade shall have construction or control joints not to exceed 15' - 0" spacing, unless otherwise noted.
7. Electrical conduit and other pipes to be embedded in structural concrete floor slabs or walls shall be placed in accordance with the requirements of ACI 318, Paragraph 6.3.

Masonry Construction Notes

1. Concrete masonry work shall conform to "Building Code Requirements for Masonry Structures" (ACI 530-02/ASCE 5-02) and "Specifications for Masonry Structures" (ACI 530.1-02/ASCE 6-02).
2. Concrete masonry units shall be Type 1 and comply with "Standard Specifications for Hollow Load-Bearing Concrete Masonry Units" (ASTM C90-90).
3. The minimum net area compressive strength of masonry (f_m), as determined by the unit strength method, shall be 1500 psi.
4. Mortar shall conform to ASTM C270. Type M Mortar shall be used unless otherwise noted. Type S Mortar shall be used with masonry in contact with earth.
5. Masonry column reinforcement shall have #2 ties in the bed joints at 8" oc, unless otherwise noted.
6. Grout for filling block cores and bond beams shall have a minimum compressive strength (f_c) of 3,000 psi at the age of 28 days.



DRISCOLL ENGINEERING, INC.
CONSULTING ENGINEERS

PO BOX 357577
GAINESVILLE, FL. 32606
PH (352) 331-1513
CA 8690

PREPARED FOR

CONTRACTOR:
FUNSTATE POOLS
3601 N.W. 97th BLVD
GAINESVILLE, FL
352-332-7665

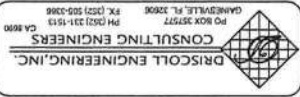
ALL POOL CONSTRUCTION TO COMPLY WITH
ANSI/ APSP-7 & FBC 2007 & 2009 AMENDMENTS.
AND V.G.B.2008 COMPLIANCE

INDEX

- SHEET:1 PROFESSIONAL SERVICES,
GENERAL INFORMATION
SHEET:2 GENERAL NOTES & CHARTS
SHEET:3 DETAIL DRAWINGS
SHEET:4 DETAIL DRAWINGS
SHEET:5 DETAIL DRAWINGS

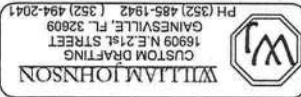
THESE DETAILS HAVE BEEN PREPARED IN COMPLIANCE
WITH REQUIREMENTS OF THE 2007 FLORIDA BUILDING CODE
AND THE 2009 AMENDMENTS TO THE BEST OF MY KNOWLEDGE

REVISED 9-1-09
MICHAEL DRISCOLL P.E.
FL REG. #43922



DRISCOLL ENGINEERING, INC.
CONSULTING ENGINEERS
PO BOX 357577
GAINESVILLE, FL. 32606
PH (352) 331-1513
CA 8690

RESIDENTIAL SWIMMING POOL & SPA DESIGN
FOR FUN STATE POOLS USE ONLY



WILLIAM JOHNSON
CUSTOM DRAFTING
16909 N.E. 21st STREET
GAINESVILLE, FL 32609
PH (352) 485-1942 (352) 494-2041

SHEET:
CS

DRISCOLL ENGINEERING, INC.
Post Office Box 357577
Gainesville, Florida 32635-7577
Phone (352) 331-1513 Fax (352) 505-3366
CA#8690

GENERAL NOTES FOR RESIDENTIAL SWIMMING POOLS

1. Design, construction and workmanship shall be in conformity with the requirements of the 2007 Florida Building Code with 2009 supplement, Chapter 41, ANSI/NSPI 3; ANSI/NSPI 4; ANSI/NSPI 5; and ANSI/NSPI 6; ANSI/Aps-7.
2. Every swimming pool shall be equipped complete with approved mechanical equipment consisting of filter, pump, piping valves and component parts.
3. Pool piping shall be designed so the water velocity will not exceed 10 feet per second (3048 mm/s) for pressure piping and 8 feet per second (2438 mm/s) for suction piping, except that the water velocity shall not exceed 8 feet per second (2438 mm/s) in copper tubing.
4. All pool and spa suction inlets shall be provided with a cover that has been tested and accepted by a recognized testing facility and comply with ANSI/ASME A112.19.8M, Suction Fittings for Use in Swimming Pools, Spas, Hot Tubs, and Whirlpool Bathtub Appliances.

☐ Exceptions:

☐ 1. Surface Skimmers.

☐ 2. Grate or grates having a minimum area of 144 square inches (.09 mm2) or greater.
5. A minimum of one channel drain or two suction outlets shall be provided for each pump in the suction outlet system, separated by a minimum of 3 feet (914 mm) or located on two different planes; i.e., one on the bottom and one on the vertical wall, or one each on two separate vertical walls. These suction outlets shall be plumbed such that water is drawn through them simultaneously through a common line to the pump. When a skimmer is used in conjunction with a single main outlet to meet the requirements of this section, the common suction line must be in compliance with Section R4101.6.6.3 such that a vacuum cannot be drawn on any single main outlet or skimmer.
6. Pumps shall be installed in accordance with manufacturer's recommendations.
7. Pump impellers, shafts, wear rings and other working parts shall be of corrosion-resistant materials.
8. All pool piping shall be tested and proved tight to the satisfaction of the administrative authority, under a static water or air pressure test of not less than 35 pounds per square inch (psi) (241 kPa) for 15 minutes.

☐ Exception: Circulating pumps need not be tested as required in this section.
9. All pools whether public or private shall be provided with a ladder or steps in the shallow end where 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.

☐ Exception: In private pools having more than one shallow end, only one set of steps is required. A bench, swim-out or ladder may be used at all additional shallow ends in lieu of an additional set of steps.
10. The entire design of matched components shall have sufficient capacity to provide a complete turnover of pool water in 12 hours or less.
11. Approved surface skimmers are required and shall be installed in strict accordance with the manufacturer's installation instructions. Skimmers shall be installed on the basis of one per 800 square feet (74 m2) of surface area or fraction thereof, and shall be designed for a flow rate of at least 25 gallons per minute (gpm) (1.6 L/s) per skimmer.
12. Approved manufactured inlet fittings for the return of re-circulated 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. Where more than one inlet is required, the shortest distance between any two required inlets shall be a least 10 feet (3048 mm).
13. Filters shall be equipped with a pressure gauge and an air release system.
14. Piping shall be schedule 40 PVC, NSFpw minimum.
15. Contractor shall install piping so as to not exceed the limits imposed by the tables shown.
16. All electrical design is by others.
17. Minimum soil bearing capacity shall be a min. 2000 psf.
18. Contractor shall submit completed total or simplified total dynamic head calculation worksheet with each permit application to the building dept.

- Notes:
1. If a variable speed pump is used, use the max. pump flow in calculations.
2. For site wall drains, use appropriate side wall drain flow as published by manufacturer.
3. Insert manufacturer's name and approved maximum flow.
4. See installation instructions for number of ports to be used.
5. In-floor suction outlet coverings must conform to most recent edition of ASME/ANSI A112.19.8 and be embossed with that edition approval. & V.G.B. 2008 compliance
6. Pump & Filter make, model and location can not change without submitting a revised plan and TDH worksheet.

TDH Calculation Options
For each pump

☒ Check one.

☐ Simplified Total Dynamic Head (STDH). Complete STDH Worksheet-Fill in all blanks.

☐ Total Dynamic Head (TDH). Complete Program or other calcs. Fill in required blanks on worksheet & attach calculations.

Flow and Friction Loss Per Foot Schedule 40 PVC Pipe				Velocity-Feet Per Second			
Pipe Size	6 fps	8 fps	10 fps	6 fps	8 fps	10 fps	
1"	16 gpm	0.25'	21 gpm	0.66'	28 gpm	0.94'	
1.5"	37 gpm	0.16'	50 gpm	0.28'	62 gpm	0.48'	
2"	62 gpm	0.15'	82 gpm	0.25'	103 gpm	0.40'	
2.5"	68 gpm	0.09'	117 gpm	0.15'	146 gpm	0.23'	
3"	138 gpm	0.09'	181 gpm	0.14'	227 gpm	0.23'	
4"	234 gpm	0.06'	313 gpm	0.10'	392 gpm	0.15'	
6"	534 gpm	0.04'	712 gpm	0.04'	890 gpm	0.10'	

PROFESSIONAL SERVICES
DRISCOLL ENGINEERING, INC.
PO BOX 357577
Gainesville, Florida 32606
(352) 331-1513 C.A. 8690

PLANS AND SPECIFICATIONS

The plans and specifications presented herein are only for the anticipated construction at the locations shown. If construction plans change, the Design Professional should be notified so the plans and specifications can be revised. The Design Professional should be given the opportunity to review final plans and specifications and the Design Professional's seal and signature should be obtained before construction begins. The Design Professional warrants that the plans and specifications are prepared in accordance with generally accepted professional engineering practice. No other warranties are implied or expressed.

CORPORATE PROTECTION

It is understood and agreed that the Design Professional's Basic Services under this agreement do not include project observation or review of the Contractors performance or any other construction phase services will be provided by the client. The client assumes all responsibility for interpretation of the contractors documents and for construction observation and supervision and waives any claims against the Design Professional that may in any way connected thereto.

In addition, The client agrees, to the fullest extent permitted by law, to indemnify and hold the Design Professional harmless from any loss, claim or cost including reasonable attorney's fees and cost of defense, arising or resulting from the performance of such services by the Design Professional or any and all claims against the Design Professional, its agents, employees, subcontractors, or assigns, or damages, injuries, or claims made to contract documents to reflect changed field or other conditions, except for claims arising from the sole negligence or willful misconduct thereof.

OWNERSHIP OF INSTRUMENTS OF SERVICE

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by the Design Professional as instruments of service shall remain property of the Design Professional. The Design Professional shall retain all common law, statutory and other reserved rights, including the copyright thereto.

DEFECTS IN SERVICE

The client shall promptly report to the Design Professional any defects or suspected defects in the Design Professional's work or services of which the client becomes aware, so that the Design Professional may take measures to minimize the consequences of such defect. The client warrants that he or she will impose similar notification requirement on all contractors in this project. The Design Professional shall require all subcontractors at any level to contain a like requirement. Failure by the client's contractor to notify the Design Professional, shall relieve the Design Professional of the cost of remedying the defects above the sum such remedy would have cost had prompt notification been given.

VERIFICATION OF EXISTING CONDITIONS

Inasmuch as the remodeling and/or rehabilitation of an existing building requires certain assumptions be made regarding existing conditions, and because some of these assumptions may not be verifiable without expending additional sums of money or destroying otherwise adequate serviceable portions of the building, The client agrees, to the fullest extent permitted by law, to indemnify and hold the Design Professional harmless in any claim, liability or cost (including attorney's fees and cost of defense) for injury or economic loss arising out of professional services provided under this agreement, except only those damages, liability, or cost attributable to the sole negligence or willful misconduct of the Design Professional.

Total Head In Feet Conversion Chart

Inches Mercury (Vacuum Gauge)																
0	2	4	6	8	10	12	14	16	18							
0	0.0	2.3	4.5	6.8	9.0	11.3	13.6	15.8	18.1	20.3						
1	2.3	4.6	6.8	9.1	11.4	13.6	15.9	18.1	20.4	22.7						
2	4.6	6.9	9.1	11.4	13.7	15.9	18.2	20.4	22.7	25.0						
3	6.9	9.2	11.5	13.7	16.0	18.2	20.5	22.8	25.0	27.3						
4	9.2	11.5	13.8	16.0	18.3	20.5	22.8	25.1	27.3	29.6						
5	11.5	13.8	16.1	18.3	20.6	22.8	25.1	27.4	29.5	31.9						
6	13.9	16.1	18.4	20.6	22.9	25.2	27.4	29.7	31.9	34.2						
7	16.2	18.4	20.7	23.0	25.2	27.5	29.7	32.0	34.3	36.5						
8	18.5	20.7	23.0	25.3	27.5	29.8	32.0	34.3	36.6	38.8						
9	20.8	23.1	25.3	27.6	29.9	32.1	34.3	36.6	38.9	41.1						
10	23.1	25.4	27.6	29.9	32.1	34.4	36.7	38.9	41.2	43.4						
11	25.4	27.7	29.9	32.2	34.5	36.7	39.0	41.2	43.5	45.8						
12	27.7	30.0	32.2	34.5	36.8	39.0	41.3	43.5	45.8	48.1						
13	30.0	32.3	34.6	36.8	39.1	41.3	43.6	45.9	48.1	50.4						
14	32.3	34.6	36.9	39.1	41.4	43.6	45.9	48.2	50.4	52.7						
15	34.6	36.9	39.2	41.4	43.7	45.9	48.2	50.5	52.7	55.0						
16	37.0	39.2	41.5	43.7	46.0	48.3	50.5	52.8	55.0	57.3						
17	39.3	41.5	43.8	46.1	48.3	50.6	52.8	55.1	57.4	59.6						
18	41.6	43.8	46.1	48.4	50.6	52.9	55.1	57.4	59.7	61.9						
19	43.9	46.2	48.4	50.7	52.9	55.2	57.4	59.7	62.0	64.2						
20	46.2	48.5	50.7	53.0	55.2	57.5	59.8	62.0	64.3	66.5						
21	48.5	50.8	53.0	55.3	57.6	59.8	62.1	64.3	66.6	68.9						
22	50.8	53.1	55.3	57.6	59.9	62.1	64.4	66.6	68.9	71.2						
23	53.1	55.4	57.7	59.9	62.2	64.4	66.7	69.0	71.2	73.5						
24	55.4	57.7	60.0	62.2	64.5	66.7	69.0	71.3	73.5	75.8						
25	57.8	60.0	62.3	64.5	66.8	69.1	71.3	73.6	75.8	78.1						
26	60.1	62.3	64.6	66.8	69.1	71.4	73.6	75.9	78.1	80.4						
27	62.4	64.6	66.9	69.2	71.4	73.7	75.9	78.2	80.5	82.7						
28	64.7	66.9	69.2	71.5	73.7	76.0	78.2	80.5	82.8	85.0						
29	67.0	69.3	71.5	73.8	76.0	78.3	80.5	82.8	85.1	87.3						
30	69.3	71.6	73.8	76.1	78.3	80.6	82.9	85.1	87.4	89.6						
31	71.6	73.9	76.1	78.4	80.7	82.9	85.2	87.4	89.7	92.0						
32	73.9	76.2	78.4	80.7	83.0	85.2	87.5	89.7	92.0	94.3						
33	76.2	78.5	80.7	83.0	85.3	87.5	89.8	92.0	94.3	96.6						
34	78.5	80.8	83.1	85.3	87.5	89.8	92.1	94.4	96.6	98.9						
35	80.9	83.1	85.4	87.6	89.9	92.2	94.4	96.7	98.9	101.2						

CERTIFICATION

I certify that to the best of my knowledge, these master plan, residential pool design requirements are in compliance with the 2007 Florida Building Code Residential with 2009 supplement, Chapter 41.

REVISED 9-1-09

MICHAEL E. DRISCOLL P.E.
FL REG. #43922

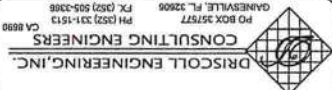
SHEET:

2

WILLIAM JOHNSON
CUSTOM DRAFTING
16909 N.E. 21st, STREET
GAINESVILLE, FL 32609
PH (352) 485-1942 (352) 494-2041

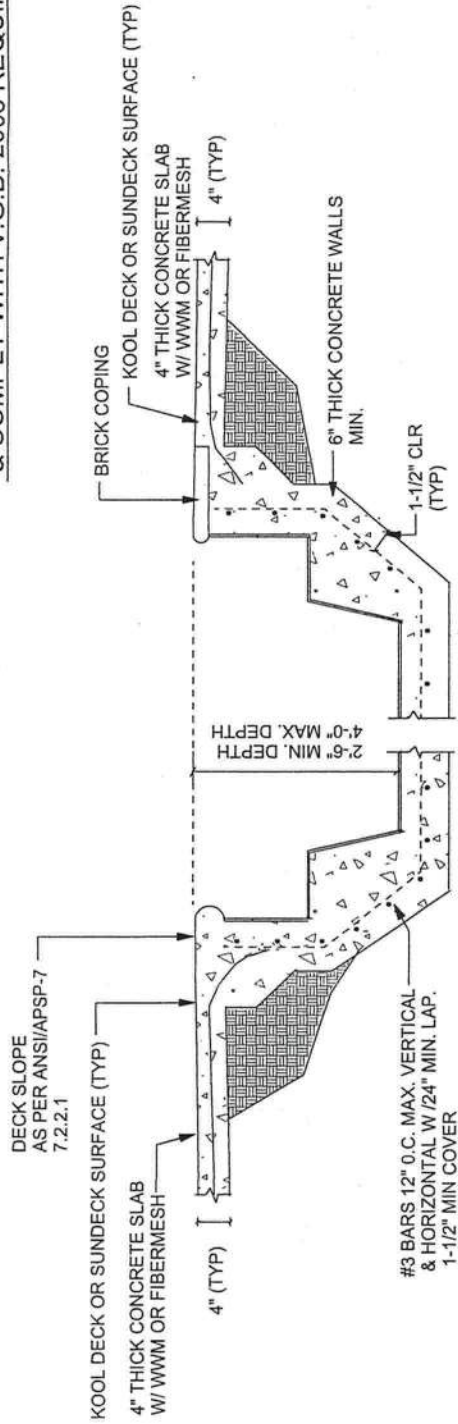


FOR FUN STATE SWIMMING POOL & SPA DESIGN



DRISCOLL ENGINEERING, INC.
CONSULTING ENGINEERS
PO BOX 357577
GAINESVILLE, FL 32606
PH (352) 331-1513
FX (352) 505-3366
CA 8690

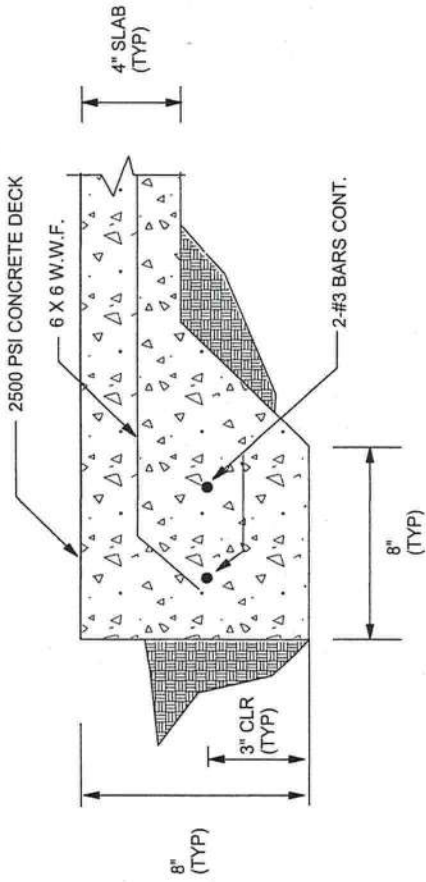
ALL POOL CONSTRUCTION TO COMPLY WITH
ANSI/ APSP-7 & FBC 2007 AND 2009 AMENDMENTS.
& COMPLY WITH V.G.B. 2008 REQUIREMENTS



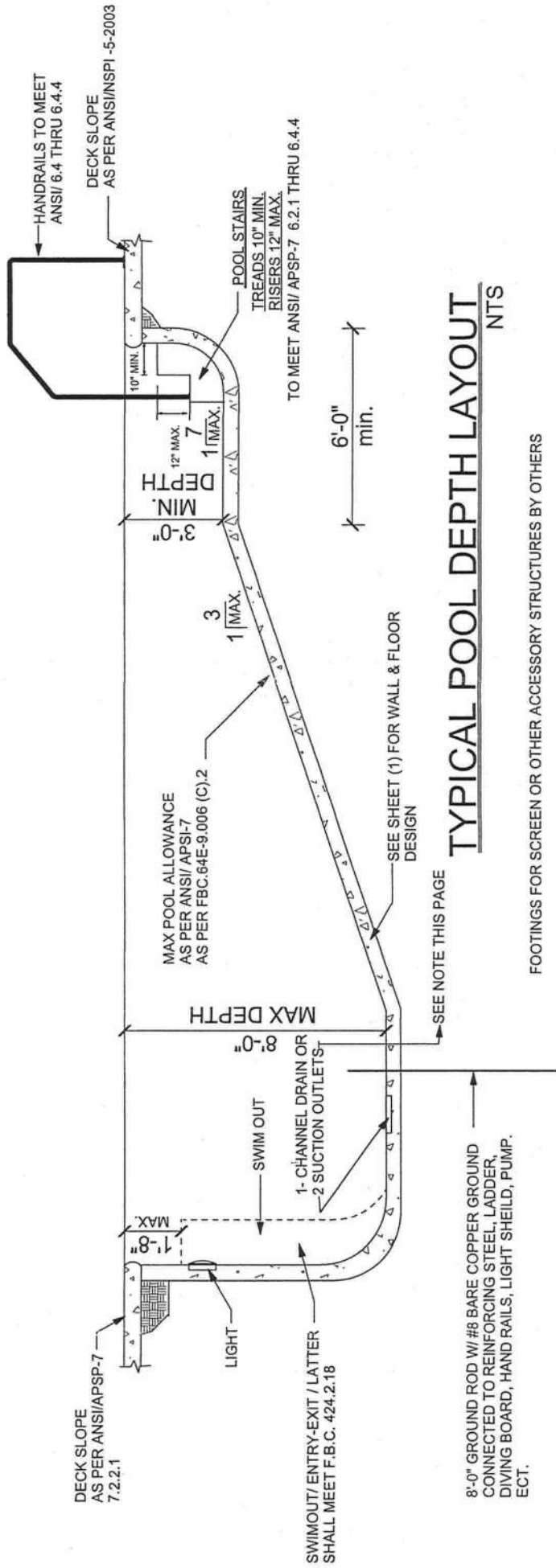
SPA DEPTH LAYOUT
NTS

NOTES:

POOL / SPA SUCTION OUTLETS
2- SUCTION OUTLETS REQUIRED, NO CLOSER THAN 3'-0" O.C. PLUMBED ON COMMON LINE AS PER F.B.C. #424.2.6.4 & COMPLY WITH V.G.B. 2008 REQUIREMENTS
ANSI/APSP-7 COVERS TO MEET ANSI/ASME A112.19.8M OR INSTALL 1 CHANNEL DRAIN MODEL #32CDFLXXX



THICKENED EDGE
8" X 8" W/ 2 #3 BAR CONT.
NTS



TYPICAL POOL DEPTH LAYOUT
NTS

FOOTINGS FOR SCREEN OR OTHER ACCESSORY STRUCTURES BY OTHERS

POOL WALL & FLOOR CONCRETE TO BE 3000 PSI. MIN.

POOL DECK CONCRETE TO BE 2500 PSI. MIN

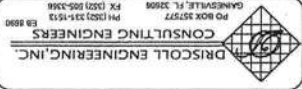
ALL PIPING SHALL BE SCH 40 PVC PIPE

ALL SUCTION DEVICES, SUCTION OUTLETS, ETC. SHALL BE 2" DIA. SCH 40 PVC PIPE.

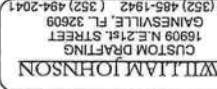
MAX SUCTION PIPE VELOCITY SIX FEET PER SECOND.

REVISED 9-1-09
MICHAEL E. DRISCOLL P.E.
FL REG. #43922

SHEET
3

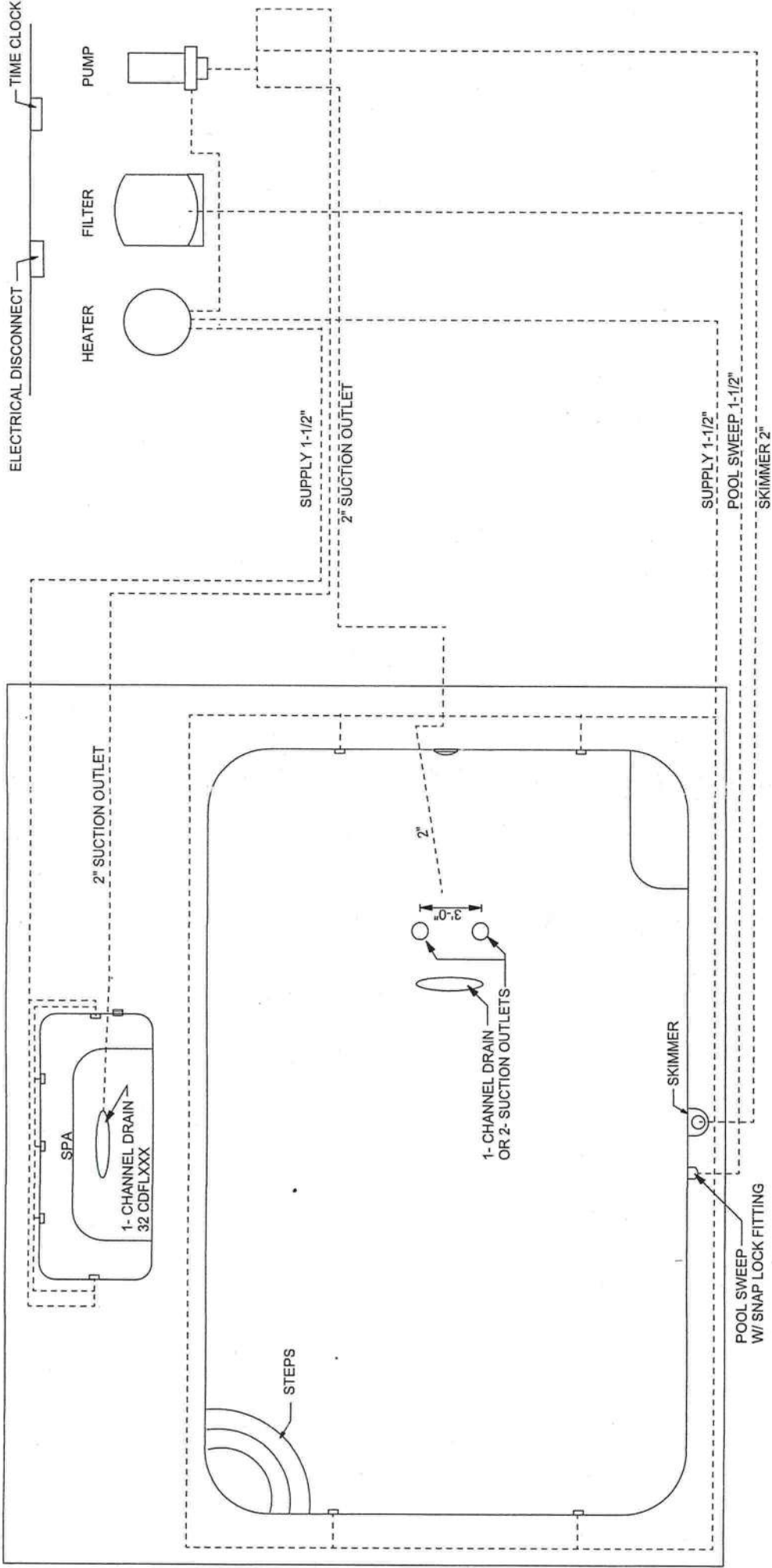


RESIDENTIAL SWIMMING POOL & SPA DESIGN
FOR FUN STATE POOLS USE ONLY



ALL POOL CONSTRUCTION TO COMPLY WITH
ANSI/ APSP-7 & FBC 2007 WITH 2009 AMENDMENTS
WITH V.G.B. 2008 REQUIREMENTS.

SUCTION OUTLETS SHALL MEET
FBC 2007 # 424.2.6.6.4 & ANSI/APSP-7
& COMPLY WITH V.G.B. 2008 REQUIREMENTS
SUCTION OUTLET COVERS SHALL MEET
ASME A112.19.8.M 2007
& COMPLY WITH V.G.B. 2008 REQUIREMENTS



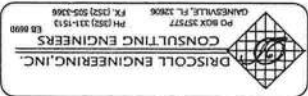
TYPICAL LAYOUT

NTS

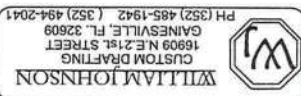
- FOOTINGS FOR SCREEN OR OTHER ACCESSORY STRUCTURES BY OTHERS
- POOL WALL & FLOOR CONCRETE TO BE 3000 PSI. MIN.
- POOL DECK CONCRETE TO BE 2500 PSI. MIN
- ALL PIPING SHALL BE SCH 40 PVC PIPE
- ALL SUCTION DEVICES SUCTION OUTLETS SHALL BE 2" DIA. SCH 40 PVC PIPE.
- MAX SUCTION PIPE VELOCITY SIX FEET PER SECOND.

ALL ELECTRICAL DESIGN BY OTHERS
ANY ELECTRICAL COMPONENTS SHOWN
ON DRAWINGS ARE FOR DIAGRAMMATICAL
PURPOSE ONLY.

REVISED 9-1-09
MICHAEL E. DRISCOLL P.E.
FL REG. #43922

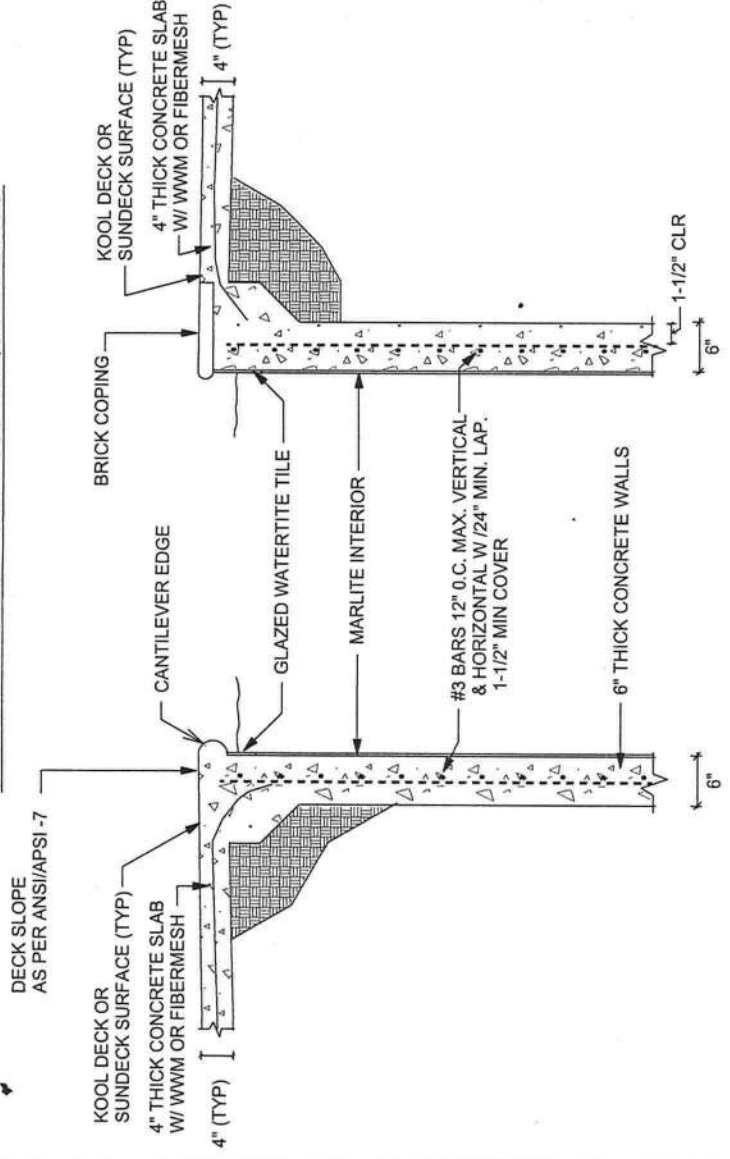


RESIDENTIAL SWIMMING POOL & SPA DESIGN
FOR FUN STATE POOLS USE ONLY

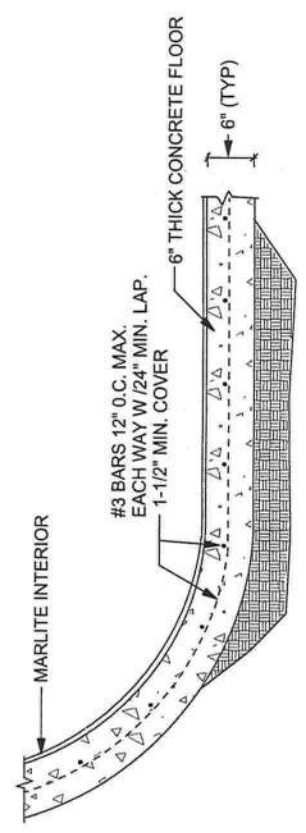


SHEET
4

ALL POOL CONSTRUCTION TO COMPLY WITH
ANSI/ APSP-7 & FBC 2007 WITH 2009 AMENDMENTS.
& COMPLY WITH V.G.B. 2008 REQUIREMENTS



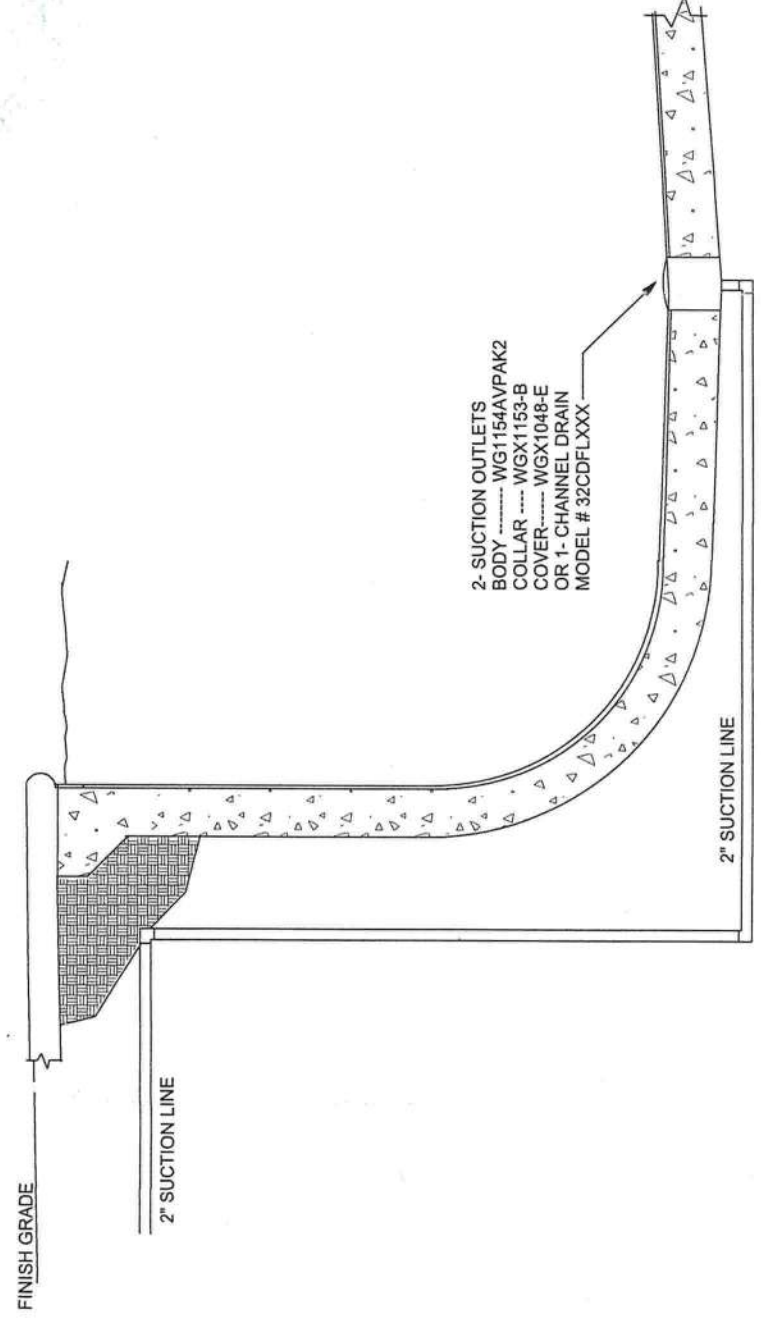
TYP WALL SECTIONS
NTS



FLOOR SECTION (TYP)
NTS

ALL POOL CONSTRUCTION TO COMPLY WITH
ANSI/ APSP-7 & FBC 2007 WITH 2009 AMENDMENTS.
& COMPLY WITH V.G.B. 2008 REQUIREMENTS

POOL / SPA SUCTION OUTLETS
2\"/>



DUAL SUCTION OUTLETS OR
SINGLE CHANNEL SUCTION OUTLET

NTS

FOOTINGS FOR SCREEN OR OTHER ACCESSORY STRUCTURES BY OTHERS

POOL WALL & FLOOR CONCRETE TO BE 3000 PSI. MIN.

POOL DECK CONCRETE TO BE 2500 PSI. MIN

ALL PIPING SHALL BE SCH 40 PVC PIPE

ALL SUCTION DEVICES SUCTION OUTLETS. ETC. SHALL BE 2\"/>

MAX SUCTION PIPE VELOCITY SIX FEET PER SECOND.

REVISED 9-1-09

MICHAEL E. DRISCOLL P.E.
FL REG. #43922