

DATE 01/24/2011

Columbia County Building Permit**PERMIT****This Permit Must Be Prominently Posted on Premises During Construction****000029139**

APPLICANT MIKE CANTO PHONE 352.318.9625
 ADDRESS 3601 NW 97TH BLVD. GAINSVILLE FL 32606
 OWNER DARIN & JEANETTE RYDER PHONE 386.758.3925
 ADDRESS 114 NW HERIAGE DRIVE LAKE CITY FL 32055
 CONTRACTOR MIKE CANTO PHONE 352.332.7665

LOCATION OF PROPERTY 90-W TO BROWN,TR TO EM. LAES S.D. ENTRANCE @ WINDING WAY,TL
TO STOP SIGN,TL(CORNER OF EM. LAKES DR & HERITAGE ON R)

TYPE DEVELOPMENT SWIMMING POOL ESTIMATED COST OF CONSTRUCTION 40000.00

HEATED FLOOR AREA TOTAL AREA HEIGHT STORIES

FOUNDATION WALLS ROOF PITCH FLOOR

LAND USE & ZONING MAX. HEIGHT

Minimum Set Back Requirments: STREET-FRONT REAR SIDE

NO. EX.D.U. 1 FLOOD ZONE DEVELOPMENT PERMIT NO.

PARCEL ID 28-3S-16-02372-523 SUBDIVISION EMERALD LAKES

LOT 23 BLOCK PHASE UNIT TOTAL ACRES 0.53

CPC1457306 *X Michael Cant*
 Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor
 EXISTING BLK TC N
 Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident

COMMENTS: ACCSSORY USE. NOC ON FILE.

Check # or Cash 42040

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power date/app. by Foundation date/app. by Monolithic date/app. by

Under slab rough-in plumbing date/app. by Slab date/app. by Sheathing/Nailing date/app. by

Framing date/app. by Insulation date/app. by

Rough-in plumbing above slab and below wood floor date/app. by Electrical rough-in date/app. by

Heat & Air Duct date/app. by Peri. beam (Lintel) date/app. by Pool date/app. by

Permanent power date/app. by C.O. Final date/app. by Culvert date/app. by

Pump pole date/app. by Utility Pole date/app. by M/H tie downs, blocking, electricity and plumbing date/app. by

Reconnection date/app. by RV date/app. by Re-roof date/app. by

BUILDING PERMIT FEE \$ 200.00 CERTIFICATION FEE \$ 0.00 SURCHARGE FEE \$ 0.00

MISC. FEES \$ 0.00 ZONING CERT. FEE \$ 50.00 FIRE FEE \$ 0.00 WASTE FEE \$

FLOOD DEVELOPMENT FEE \$ FLOOD ZONE FEE \$ CULVERT FEE \$ **TOTAL FEE** 250.00

INSPECTORS OFFICE CLERKS OFFICE

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS THE WORK AUTHORIZED BY SUCH PERMIT IS COMMENCED WITHIN 180 DAYS AFTER ITS ISSUANCE, OR IF THE WORK AUTHORIZED BY SUCH PERMIT IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AFTER THE TIME THE WORK IS COMMENCED. A VALID PERMIT RECIEVES AN APPROVED INSPECTION EVERY 180 DAYS. WORK SHALL BE CONSIDERED NOT SUSPENDED, ABANDONED OR INVALID WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS OT THE PREVIOUS INSPECTION.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

Columbia County Building Permit Application

For Office Use Only Application # 1101-20 Date Received 1/19 By JW Permit # 29139
 Zoning Official BLK Date 24.01.11 Flood Zone N/A Land Use Res. In Dr Zoning RSF-2
 FEMA Map # N/A Elevation N/A MFE N/A River N/A Plans Examiner J.C. Date 1-21-

Comments

☒ NOC ☒ EH ☒ Deed or PA ☒ Site Plan ☐ State Road Info ☐ Parent Parcel #
☐ Dev Permit # ☐ In Floodway ☒ Letter of Auth. from Contractor ☐ F W Comp. letter

IMPACT FEES: EMS _____ Fire _____ Corr ON FILE Road/Code _____
 School _____ = TOTAL 0 SUSPENDED ACCESSORY USE

Septic Permit No. _____ Fax 352-332-0266

Name Authorized Person Signing Permit Barry Blanton Phone 352-332-7665

Address 3801 NW 97TH Blvd Gainesville FL 32606

Owners Name Darin / Jeanette Rydor Phone 386-758-3925

911 Address 114 NW Heritage Drive Lake City FL 32055

Contractors Name Fun State Pools - Michael Canto Phone 352-332-7665

Address 3801 NW 97TH Blvd. Gainesville FL 32606

Fee Simple Owner Name & Address _____

Bonding Co. Name & Address _____

Architect/Engineer Name & Address Fun State Pools Inc / Driscoll Engineering Inc

Mortgage Lenders Name & Address _____

Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progress Energy

Property ID Number 28-35-16-02372-523 Estimated Cost of Construction \$ 40,000

Subdivision Name Emerald Lakes Lot 23 Block _____ Unit _____ Phase _____

Driving Directions 90-W to Brown Rd on Right - .6 miles to Emerald

Lakes Subdivision on left - winding road to stop sign - left to CORNER

Emerald Lakes Dr. Heritage Road ON R. Number of Existing Dwellings on Property 1

Construction of In ground concrete pool Total Acreage 53 Lot Size _____

Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height _____

Actual Distance of Structure from Property Lines - Front _____ Side _____ Side _____ Rear _____

Number of Stories _____ Heated Floor Area _____ Total Floor Area _____ Roof Pitch _____

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

42040

Columbia County Building Permit Application

TIME LIMITATIONS OF APPLICATION : An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

TIME LIMITATIONS OF PERMITS: Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time work is commenced. A valid permit receives an approved inspection every 180 days. Work shall be considered not suspended, abandoned or invalid when the permit has received an approved inspection within 180 days of the previous approved inspection.

FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment: According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO BUILDING PERMITEE: **YOU ARE HEREBY NOTIFIED** as the recipient of building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representative in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

OWNERS CERTIFICATION: I CERTIFY THAT ALL THE FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING.

NOTICE TO OWNER: There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. It may be to your advantage to check and see if your property is encumbered by any restrictions.

(Owners Must Sign All Applications Before Permit Issuance)


Owners Signature

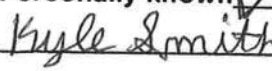
****OWNER BUILDERS MUST PERSONALLY APPEAR AND SIGN THE BUILDING PERMIT APPLICATION**

CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit including all application and permit time limitations.


Contractor's Signature (Permitee)

Contractor's License Number CPC1457306
Columbia County
Competency Card Number 1003801

Affirmed under penalty of perjury to be by the Contractor and subscribed before me this 18 day of Jan 2011
Personally known ☒ or Produced Identification Kyle Smith


State of Florida Notary Signature (For the Contractor)

SEAL:



NOTICE OF COMMENCEMENT

This Instrument Prepared By:

Name: Fun State Pools, Inc. Barry Blanton

Address: 3601 NW 97 Blvd Gville FL 32606

Permit No. _____

Tax Folio No: 28-35-16-02372-523

STATE OF Florida

COUNTY OF: Columbia

Inst: 201112000867 Date: 1/19/2011 Time: 10:13 AM

DC, P. DeWitt Cason, Columbia County Page 1 of 1 B:1208 P:1030

THE UNDERSIGNED HEREBY gives notice that improvement(s) will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

1. DESCRIPTION OF PROPERTY: Street Address: 114 NW Heritage Drive Lake City FL
Legal Description: 28-35-16-02372-523

2. GENERAL DESCRIPTION OF IMPROVEMENT(S): in ground concrete pool

3. OWNER INFORMATION: a.) Name: Darin / Beantle Ryder Address: 114 NW Heritage Drive Lake City FL

b.) Interest in Property: Fee Simple

c.) Fee Simple Titleholder (if other than owner) Name: _____ Address: _____

4. CONTRACTOR: a.) Name: Fun State Pools, Inc. Address: 3601 NW 97 Blvd Gville 32606 b.) Phone: 352-332-7665

5. SURETY: a.) Name: N/A

Address: N/A

b.) Amount of bond \$: N/A

c.) Phone: N/A

6. LENDER: a.) Name: N/A

Address: N/A

b.) Phone: N/A

7. Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a) 7., Florida Statutes:

a.) Name: N/A

Address: N/A

b.) Phone: N/A

8. In addition to himself, Owner designates the following person(s) to receive a copy of Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes.

a.) Name: N/A

Address: N/A

b.) Phone: N/A

9. Expiration date of notice of commencement (the expiration date is one (1) year from the date of recording unless a different date is specified.) N/A

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

[Signature]
Signature of Owner or Owner's Authorized Officer/Director
Partner/Manager

Signatory's Title/Office: _____

The foregoing instrument was acknowledged before me this 18 day of Jan 2011 (year)
by Darin Ryder (name of person) as _____ (type of authority, e.g. officer,
trustee, attorney in fact) for _____ (name of party on behalf of whom instrument was executed).



Kyle Smith
Signature of Notary Public - State of Florida
Print, Type, or Stamp Commissioned Name of Notary Public
Commission Number EE 038053
Personally Known _____ or Produced Identification FLDL

Verification Pursuant to Section 92.525, Florida Statutes

Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

[Signature]
Signature of Natural Person Signing Above

Darin / Jeanette Ryder

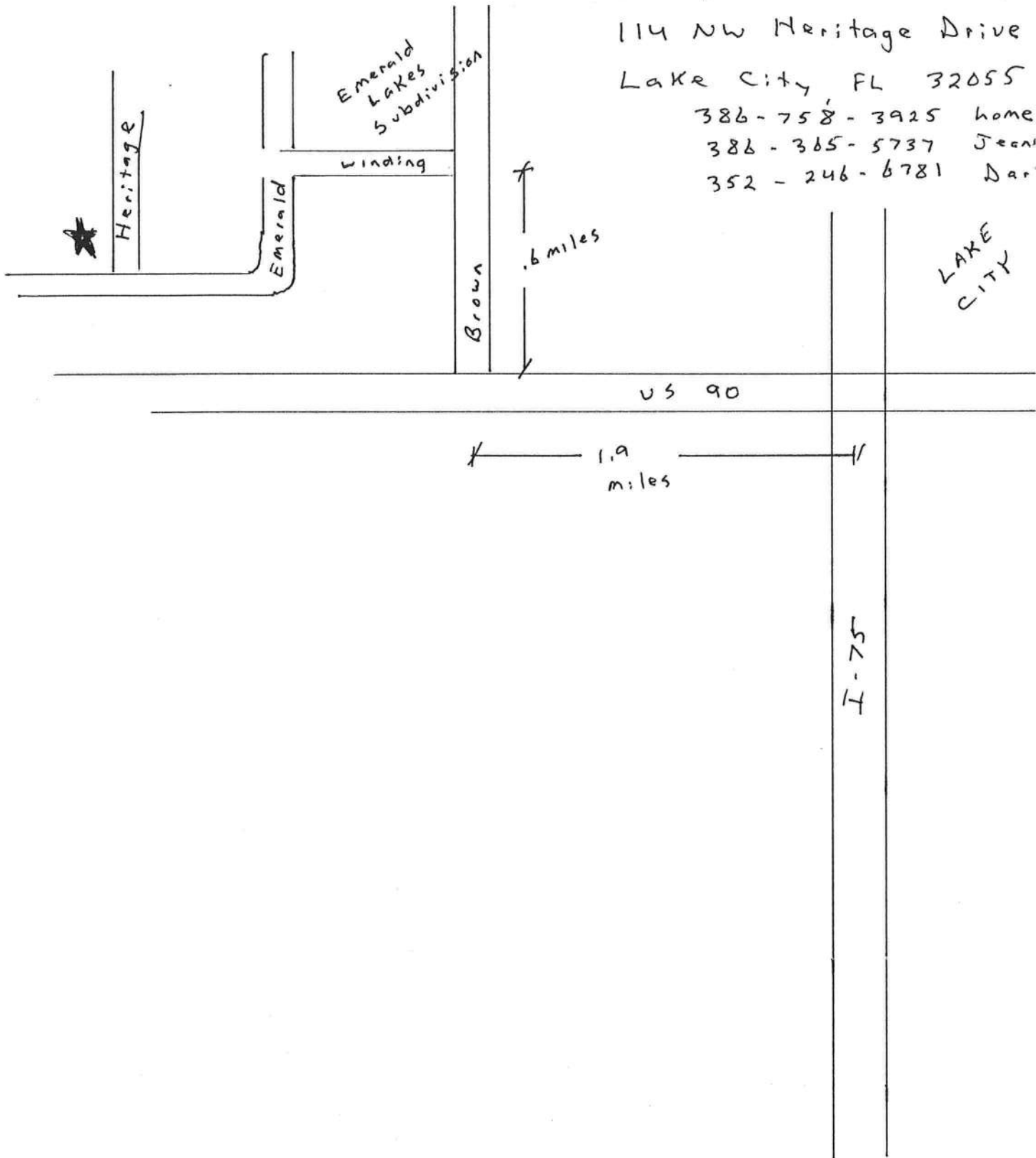
114 NW Heritage Drive

Lake City, FL 32055

386-758-3925 home

386-365-5737 Jean

352-246-6781 Dar



THIS INSTRUMENT WAS PREPARED BY:

Rec. 10.50

TERRY McDAVID
POST OFFICE BOX 1328
LAKE CITY, FL 32056-1328

Doc. _____

RETURN TO:

Inst: 2002Mar26 Date: 03/26/2002 Time: 10:32:05
Doc State-Deed : 136.50

02-156

6D DC, P. DeWitt Tison, Columbia County B: 749 P: 150

TERRY McDAVID
POST OFFICE BOX 1328
LAKE CITY, FL 32056-1328

Grantee #1 S.S. No.

Grantee #2 S.S. No.

Property Appraiser's

Parcel Identification No.: R02372-523

WARRANTY DEED

THIS INDENTURE, made this 22nd day of March, 2002, between D D P CORPORATION, a corporation existing under the laws of the State of Florida, whose post office address is 5012 U.S. Highway 90 West, Lake City, FL 32055 and having its principal place of business in the County of Columbia, State of Florida, party of the first part, and DARIN J. RYDER and JEANETTE L. RYDER, Husband and Wife whose post office address is Route 30, Box 2060, Lake City, FL 32055, of the State of Florida, parties of the second part,

WITNESSETH: that the said party of the first part, for and in consideration of the sum of Ten Dollars (\$10.00), to it in hand paid, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, remised, released, conveyed and confirmed, and by these presents doth grant, bargain, sell, alien, remise, release, convey and confirm unto the said party of the second part, and its heirs and assigns forever, all that certain parcel of land lying and being in the County of Columbia and State of Florida, more particularly described as follows:

Lot 23, ARBOR GREENE AT EMERALD LAKES, a subdivision according to the plat thereof as recorded in Plat Book 7, Pages 82 and 83 of the public records of Columbia County, Florida.

SUBJECT TO: Restrictions, easements and outstanding mineral rights of record, if any, and taxes for the current year.

TOGETHER with all the tenements, hereditaments and appurtenances, with every privilege, right, title, interest and estate, reversion, remainder and easement thereto belong or in anywise appertaining:

TO HAVE AND TO HOLD the same in fee simple forever.

And the said party of the first part doth covenant with said party of the second part that it is lawfully seized of said premises; that they are free of all encumbrances, and that it has good right and lawful authority to sell the same; and the said party of the first part does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the party of the first part has caused these presents to be signed in its name by its President, the day and year above written.

Signed, sealed and delivered
in our presence:

D D P CORPORATION, A Florida
Corporation

Witness: Terry McDavid

Witness: Crystal L. Brunner

By:

O.P. DAUGHTRY, III, President

STATE OF FLORIDA
COUNTY OF COLUMBIA

The foregoing instrument was acknowledged before me this 22nd day of March, 2002, by O.P. DAUGHTRY, III, as President of D D P CORPORATION, a State of Florida corporation, on behalf of the corporation. He is personally known to me and did not take an oath.

Notary Public

My Commission Expires: _____



>> Print as PDF <<

LOT 23 ARBOR GREENE AT EMERALD
LAKES S/D. ORB 949-1537.

RYDER DARIN J & JEANETTE L
114 NW HERITAGE DR
LAKE CITY, FL 32055

28-3S-16-02372-523

Columbia County 2011 R
CARD 001 of 001
BY JEFF

PRINTED 1/06/2011 11:22
APPR 7/10/2008 DF

BUSE 000100 SINGLE FAM

AE? Y

1663 HTD AREA

115.632 INDEX

28316.05 EMRLD LAKE

PUSE 000100 SINGLE FAMILY

MOD 1 SFR

BATH

2.00

EXW 19 COMMON BRK

FIXT

% 0000000000

BDRM

3

92.00 %GOOD

98,213 B BLDG VAL

2002 EYB

RSTR 08 IRREGULAR

RMS

RCVR 03 COMP SHNGL

UNTS

% N/A

C-W%

INTW 05 DRYWALL

HGHT

% N/A

PMTR

FLOR 14 CARPET

STYS

1.0

10% 08 SHT VINYL

ECON

HTTP 04 AIR DUCTED

FUNC

A/C 03 CENTRAL

SPCD

QUAL 05 05

DEPR 52

FNDN N/A

UD-1

N/A

SIZE 04 IRREGULAR

UD-2

N/A

CEIL N/A

UD-3

N/A

ARCH N/A

UD-4

N/A

FRME 02 WOOD FRAME

UD-5

N/A

KTCH 01 01

UD-6

N/A

WNDO N/A

UD-7

N/A

CLAS N/A

UD-8

N/A

OCC N/A

UD-9

N/A

COND 03 03

%

N/A

SUB A-AREA % E-AREA

SUB VALUE

BAS02 1663 100 1663

81379

FSP02 132 55 73

3572

FGR02 460 55 253

12381

FOP02 60 30 18

881

TOTAL 2315 2007 98213

EXTRA FEATURES

FIELD CK:

AE BN CODE DESC LEN WID HGHT QTY QL YR ADJ UNITS UT PRICE ADJ UT PR SPCD % %GOOD XFOB VALUE

Y 0166 CONC,PAVMT 1 2002 1.00 1251.000 SF 2.000 2.000 100.00 2,502

Y 0169 FENCE/WOOD 1 2007 1.00 180.000 LF 13.500 13.500 100.00 2,430

LAND DESC

ZONE ROAD {UD1 {UD3 FRONT DEPTH

FIELD CK:

AE CODE TOPO UTIL {UD2 {UD4 BACK DT ADJUSTMENTS UNITS UT PRICE ADJ UT PR LAND VALUE

Y 000100 SFR RSF-2 0007 0002 0003 1.00 1.00 1.00 1.00 1.000 LT 23040.000 23040.00 23,040

SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER

11/01-20

CONTRACTOR

FUN STATE POOLS INC.

PHONE 352-332-7644

THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County one permit will cover all trades doing work at the permitted site. It is REQUIRED that we have records of the subcontractors who actually did the trade specific work under the permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.

| | | |
|---------------------------|--|---|
| * ELECTRICAL 583 ✓ | Print Name <u>Kurt Swindel</u> License #: <u>EC-0002384</u> | Signature <u>Kurt Swindel</u> Phone #: <u>352-262-0792</u> |
| MECHANICAL/ A/C | Print Name _____ License #: _____ | Signature _____ Phone #: _____ |
| PLUMBING/ GAS | Print Name _____ License #: _____ | Signature _____ Phone #: _____ |
| ROOFING | Print Name _____ License #: _____ | Signature _____ Phone #: _____ |
| SHEET METAL | Print Name _____ License #: _____ | Signature _____ Phone #: _____ |
| FIRE SYSTEM/ SPRINKLER | Print Name _____ License #: _____ | Signature _____ Phone #: _____ |
| SOLAR | Print Name _____ License #: _____ | Signature _____ Phone #: _____ |

| Specialty License | License Number | Sub-Contractors Printed Name | Sub-Contractors Signature |
|--------------------|----------------|------------------------------|---------------------------|
| MASON | | | |
| CONCRETE FINISHER | | | |
| FRAMING | | | |
| INSULATION | | | |
| STUCCO | | | |
| DRYWALL | | | |
| PLASTER | | | |
| CABINET INSTALLER | | | |
| PAINTING | | | |
| ACOUSTICAL CEILING | | | |
| GLASS | | | |
| CERAMIC TILE | | | |
| FLOOR COVERING | | | |
| ALUM/VINYL SIDING | | | |
| GARAGE DOOR | | | |
| METAL BLDG ERECTOR | | | |

F. S. 440.103 Building permits; identification of minimum premium policy.--Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.

Fun State Pools Inc.

REF. NO. _____

332-POOL

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

POOL SHAPE Random JOB NO. _____
 SIZE 12'x17'x18'x34'8" 36" TO 7 PERM 96 AREA 546
 DECK 1000 DECK SURFACE Pavers DECK-O-DRAIN yes
 COPING paver CANTILEVER no
 TILE 6"x6" COLOR owner
 STEP COLOR no COLOR no
 TURNOVER 8hr FILTER TYPE PLM SIZE 150 PUMP V51SVRS
 SKIMMER yes INLETS 5 MAIN DRAIN yes
 GRAB RAILS no HAND RAIL no LADDER no
 POOL LIGHT yes (LED) VOLTS 120 WATTS 300
 DIVING BOARD no SIZE no
 AUTOMATIC CHLORINATOR SALT TIMER yes FILL LINE no
 CLEANING EQUIPMENT manual SWIMOUT yes SIZE 16'x5' JETS no
 ROPE & FLOATS no ROPE ANCHORS no
 AUTOMATIC CLEANING SYSTEM Legend II POOL HEATER 333,000
 GAS LINE BY: owner SLIDE no SIZE no

SPA SPECIFICATIONS

SIZE 7' DEPTH 3' JETS 6-wall
 BLOWER no SKIMMER no LIGHT yes
 SPILLWAY tile HEATER 333,000 MAIN DRAIN yes
 SCREEN ENCLOSURE owner ROOF owner DOORS owner
 ALUM. ROOF owner GUTTER owner
 REMOVE FENCE owner REPLACE FENCE owner TEMP. FENCE owner
 TREE REMOVAL owner STUMP REMOVAL owner
 SHRUBS owner SAVE owner HAUL AWAY owner
 SEPTIC TANK owner SEWER LINE owner
 POWER LINE owner RELOCATE owner
 GAS LINE owner WATER LINE owner
 SPRINKLERS owner REROUTE owner CAP owner
 PHONE LINE owner ACCESS PERMISSION owner
 RETAINING WALL owner

Custom Design...FUN-STATE POOLS

NAME Darin and Jeanette Ryder
 ADDRESS 114 NW Heritage Drive
 CITY Lake City PHONE: 386-758-3925

Part 2 of contract dated _____ for pool at:

LOT _____ BLOCK _____ SUB _____

BOOK _____ PAGE _____

ALSO DESCRIBED AS _____

CUSTOMER'S SIGNATURE _____

DWN. BY Barry DATE 1/18/11 CHK. BY _____

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.



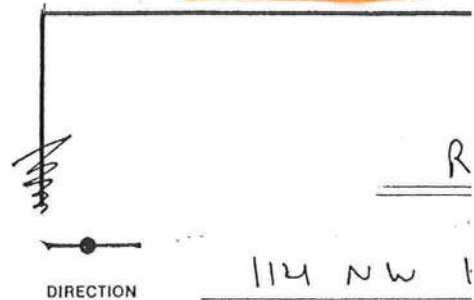
PLOT PLAN

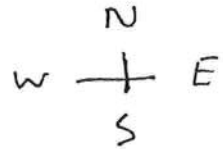
SCALE: 1/8" = 1'0"

Access →

Perimeter
fence to code

Equipment





65' +/-

Darin / Jeanette Ryder

114 NW Heritage Drive

lot #23 Arbor Greene at Emerald Lakes

28-35-16-02372-523

30' +/-

20' +/-

65' +/-



Heritage Drive

NW Emerald Lakes Drive

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 sq ft of surf. area)

- Calculate Pool Volume: $546 \times 5.25 \times 7.48$ (gal/cubic foot) = $21,441$
- Determine preferred Turnover Time in hours: $\frac{8}{24} \times 60$ (min. / hr.) = 20
- Determine Max Flow Rate: $\frac{21,441}{20} = 1,072$ gpm
- Spa Jets: $\frac{100 \text{ (No. of Jets)}}{100 \text{ (Jet Flow Rate)}} \times \text{gpm per jet} = \text{flow rate.}$

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:

- Distance from pool to pump in feet: 10'
- Friction loss (in suction pipe) in 2" inch pipe per 1 ft. @ 82 gpm = .10 (from pipe flow/friction loss chart)
- Friction loss (in return pipe) in 2" inch pipe per 1 ft. @ 103 gpm = .16 (from pipe flow/friction loss chart)
- $\frac{10}{100} \times \frac{.10}{100} = \frac{.10}{100}$
- $\frac{10}{100} \times \frac{.16}{100} = \frac{.16}{100}$

TDH in Piping: 2.60

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

Heater loss in TDH (from heater data sheet): 7.80

Total all other losses: 21.06

Total Dynamic Head (TDH): 38.46

Selected Pump and Main Drain Cover:

Pump selection: V515VAS / 51A A:te

using pump curve for TDH & System Flow Rate

Main Drain Cover

A4va 51A

(System Flow Rate must not exceed approved cover flow rates)

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.

| | | | |
|--------------------------------|----------------------------|-------------------|---|
| <input type="checkbox"/> 3'-0" | <input type="checkbox"/> 2 | suction outlets @ | <input type="checkbox"/> gpm max. flow (see note 2). |
| <input type="checkbox"/> 32" | <input type="checkbox"/> 3 | suction outlets @ | <input type="checkbox"/> gpm max. flow (see note 3). |
| <input type="checkbox"/> | <input type="checkbox"/> | channel drain @ | <input type="checkbox"/> gpm w/ <u>2/2"</u> 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 codes. 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 fpe | 8 fpe | 10 fpe |
|-----------|---------|---------|---------|
| 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 |
| 5" | 334 gpm | 451 gpm | 551 gpm |

Total Head In Feet Conversion Chart

| Inches Mercury (Vacuum Gauge) | | | | | | | | | | | | | | | | |
|-------------------------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 |
| 0.0 | 2.3 | 4.5 | 6.8 | 9.0 | 11.3 | 13.6 | 15.8 | 18.1 | 20.3 | 22.6 | 24.8 | 27.1 | 29.3 | 31.6 | 33.8 | 36.1 |
| 1 | 2.3 | 4.6 | 6.9 | 9.1 | 11.4 | 13.7 | 15.9 | 18.2 | 20.4 | 22.7 | 25.0 | 27.2 | 29.5 | 31.7 | 34.0 | 36.3 |
| 2 | 4.6 | 6.9 | 9.1 | 11.4 | 13.7 | 15.9 | 18.2 | 20.4 | 22.7 | 25.0 | 27.2 | 29.5 | 31.7 | 34.0 | 36.3 | 38.6 |
| 3 | 6.9 | 9.2 | 11.5 | 13.7 | 16.0 | 18.3 | 20.5 | 22.8 | 25.0 | 27.3 | 29.6 | 31.8 | 34.1 | 36.4 | 38.7 | 40.9 |
| 4 | 9.2 | 11.5 | 13.8 | 16.0 | 18.3 | 20.6 | 22.8 | 25.1 | 27.4 | 29.7 | 31.9 | 34.2 | 36.5 | 38.8 | 41.1 | 43.4 |
| 5 | 11.5 | 13.8 | 16.1 | 18.3 | 20.6 | 22.9 | 25.2 | 27.4 | 29.7 | 31.9 | 34.2 | 36.5 | 38.8 | 41.1 | 43.4 | 45.7 |
| 6 | 13.8 | 16.1 | 18.4 | 20.6 | 22.9 | 25.2 | 27.5 | 29.8 | 32.0 | 34.3 | 36.6 | 38.9 | 41.2 | 43.5 | 45.8 | 48.1 |
| 7 | 16.1 | 18.4 | 20.7 | 23.0 | 25.3 | 27.5 | 29.8 | 32.1 | 34.4 | 36.7 | 39.0 | 41.3 | 43.6 | 45.9 | 48.2 | 50.5 |
| 8 | 18.4 | 20.7 | 23.0 | 25.3 | 27.6 | 29.9 | 32.1 | 34.4 | 36.7 | 39.0 | 41.3 | 43.6 | 45.9 | 48.2 | 50.5 | 52.8 |
| 9 | 20.7 | 23.0 | 25.3 | 27.6 | 29.9 | 32.2 | 34.5 | 36.8 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 |
| 10 | 23.0 | 25.3 | 27.6 | 29.9 | 32.2 | 34.5 | 36.8 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 |
| 11 | 25.3 | 27.6 | 29.9 | 32.2 | 34.5 | 36.8 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 |
| 12 | 27.6 | 29.9 | 32.2 | 34.5 | 36.8 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 |
| 13 | 29.9 | 32.2 | 34.5 | 36.8 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 |
| 14 | 32.2 | 34.5 | 36.8 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 |
| 15 | 34.5 | 36.8 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 |
| 16 | 36.8 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 |
| 17 | 39.1 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 |
| 18 | 41.4 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 |
| 19 | 43.7 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 |
| 20 | 46.0 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 |
| 21 | 48.3 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 |
| 22 | 50.6 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 |
| 23 | 52.9 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 |
| 24 | 55.2 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 |
| 25 | 57.5 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 |
| 26 | 59.8 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 |
| 27 | 62.1 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 |
| 28 | 64.4 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 | 98.9 |
| 29 | 66.7 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 | 98.9 | 101.2 |
| 30 | 69.0 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 | 98.9 | 101.2 | 103.5 |
| 31 | 71.3 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 | 98.9 | 101.2 | 103.5 | 105.8 |
| 32 | 73.6 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 | 98.9 | 101.2 | 103.5 | 105.8 | 108.1 |
| 33 | 75.9 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 | 98.9 | 101.2 | 103.5 | 105.8 | 108.1 | 110.4 |
| 34 | 78.2 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 | 98.9 | 101.2 | 103.5 | 105.8 | 108.1 | 110.4 | 112.7 |
| 35 | 80.5 | 82.8 | 85.1 | 87.4 | 89.7 | 92.0 | 94.3 | 96.6 | 98.9 | 101.2 | 103.5 | 105.8 | 108.1 | 110.4 | 112.7 | 115.0 |

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



Michael Canto

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

Swimming Pool Specification For:

Darin and Seavette Ryder

114 NW Heritage Drive

Lake City, FL 32055

Scale Name

Date: 1/18/11

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.

Michael Canto

CPC 1457306

352-332-7665





COLUMBIA COUNTY BUILDING DEPARTMENT

135 NE Hemando Ave., Suite B-21
Lake City, FL 32055

Office: 386-758-1008 Fax: 386-758-2160

Application Number _____

NOTICE TO SWIMMING POOL OWNERS

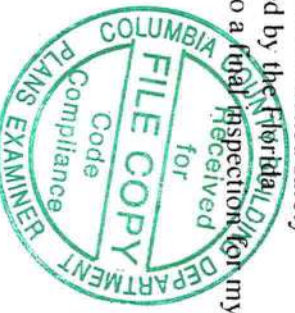
I Darin Seavette Ryder have been informed and I understand that prior to the final inspection approval and use of my pool, I will need all the inspections approved and the required fencing installed in accordance with applicable regulations. The Florida Building Code Chapter 4 Section 24 requires private residential swimming pools, hot tubs, or non-portable spas containing water over 24 inches deep to meet the following pool barrier safety feature requirements:

- The pool access must be isolated by a barrier at least 4 feet high and installed around the perimeter of the pool. Unless the pool is equipped with a safety cover complying with the specifications of American Society for Testing and Materials standard F-1346-91.
- The barrier shall not have any gaps or openings which would allow a child to crawl under, squeeze through or climb over and must be placed no less than 20 inches from the water's edge.
- Gates located in the pool barrier must open outward away from the pool and be both self-closing and self latching, with a release mechanism not less than 54" above the standing surface at the gate.
- The barrier must be separate from any other fence, wall, or other enclosure surrounding the yard unless the fence, wall or other enclosure or portion thereof is situated on the perimeter of the pool and meets the pool barrier requirements.
- Where a wall of a dwelling serves as part of the barrier one of the following shall apply:
 - 1) All doors and first floor windows with a sill height of less than 48 inches providing direct access from the home to the pool must be equipped with an alarm that has a minimum sound pressure rating of 85 decibels at 10 feet. The alarm shall sound immediately upon opening the window or door unless the temporary bypass mechanism is activated.
 - 2) Or, all doors providing direct access from the home to the pool must be equipped with a self-closing, self-latching device with a release mechanism located at least 54 inches above the floor.

According to Florida statutes, failure to comply with these requirements is a misdemeanor of the second degree, punishable by imprisonment for up to 60 days or a fine of up to \$500, except that no penalty shall be imposed if within 45 days after arrest or issuance of a summons or notice to appear, the pool is equipped with the aforementioned safety features and the responsible person attends a drowning prevention education program developed by the Florida Department of Health. I also understand that there are several inspections required in addition to a final inspection for my swimming pool.

Owner Signature _____ Date _____

Address: 114 NW Heritage Drive Lake City, FL 32055



Contractor Signature Darin Seavette Ryder Date 1-18-11

License Number CPC1457306

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 NDS-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

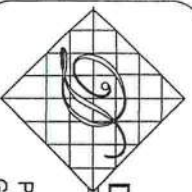
1. Concrete work shall conform to "Building Code Requirements for Reinforced Concrete" (ACI 318) and "Specifications for Structural Concrete" (ACI 301), Latest Edition.
2. Concrete Mix "A" shall be used for foundation walls, footings and interior slabs on grade. Concrete mix "B" shall be used for exterior 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 |
| Shrinkage | 4" x 4" 1" | 3" x 4" 1" |
| Maximum Aggregate Size | 1" | 1" |
| Excluded 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 the 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. 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-02) and "Specifications for Masonry Structures" (ACI 530.1-02/ASCE-02).
2. Concrete masonry units shall be Type I 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 columns 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 3000 psi at the age of 28 days.



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

PREPARED FOR

Darin and Jeannette Ryder
114 NW Heritage Drive
Lake City, FL 32055

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



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

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



DRISCOLL ENGINEERING, INC.
CONSULTING ENGINEERS
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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

- Design, construction and workmanship shall be in conformity with the requirements of the 2007 Florida Building Code with 2009 supplement, Chapter 4-1, ANSI/NSPI 3; ANSI/NSPI 4, ANSI/NSPI 5; and ANSI/NSPI 6, ANSI/APSP-7.
- Every swimming pool shall be equipped complete with approved mechanical equipment consisting of filter, pump, piping valves and component parts.
- 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.
- 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 m²) or greater.
- 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 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 R4101.6.5.3 such that a vacuum cannot be drawn on any single main outlet or skimmer.
- Pumps shall be installed in accordance with manufacturer's recommendations.
- Pump impellers, shafts, wear rings and other working parts shall be of corrosion-resistant materials.
- 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.
- 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.
- The entire design of matched components shall have sufficient capacity to provide a complete turnover of pool water in 12 hours or less.
- 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.
- 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).
- Filters shall be equipped with a pressure gauge and an air release system.
- Piping shall be schedule 40 PVC, NSF-PW minimum.
- Contractor shall install piping so as to not exceed the limits imposed by the tables shown.
- All electrical design is by others.
- Minimum soil bearing capacity shall be a min. 2000 psf.
- Contractor shall submit completed total or simplified total dynamic head calculation worksheet with each permit application to the building dept.

| Flow and Friction Loss Per Foot | | | | | | |
|---------------------------------|--------------------------|-------|---------|-------|---------|-------|
| Schedule 40 PVC Pipe | | | | | | |
| Pipe Size | Velocity-Feet Per Second | | | | | |
| | 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" | 88 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' |

| Total Head in Feet Conversion Chart | | | | | | | | | | | | | | | | | |
|-------------------------------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Inches Mercury (Vacuum Gauge) | | | | | | | | | | | | | | | | | |
| 0 | 0.0 | 2.3 | 4.5 | 6.8 | 9.0 | 11.3 | 13.6 | 15.8 | 18.1 | 20.3 | 22.6 | 24.8 | 27.1 | 29.3 | 31.6 | 33.8 | 36.1 |
| 1 | 2.3 | 4.6 | 6.8 | 9.1 | 11.4 | 13.6 | 15.9 | 18.1 | 20.4 | 22.7 | 25.0 | 27.2 | 29.5 | 31.7 | 34.0 | 36.2 | 38.5 |
| 2 | 4.6 | 6.9 | 9.1 | 11.4 | 13.7 | 15.9 | 18.2 | 20.4 | 22.7 | 25.0 | 27.3 | 29.5 | 31.8 | 34.1 | 36.3 | 38.6 | 40.8 |
| 3 | 6.9 | 9.2 | 11.5 | 13.7 | 16.0 | 18.2 | 20.5 | 22.8 | 25.0 | 27.3 | 29.6 | 31.8 | 34.1 | 36.4 | 38.6 | 40.9 | 43.2 |
| 4 | 9.2 | 11.5 | 13.8 | 16.0 | 18.3 | 20.6 | 22.8 | 25.1 | 27.3 | 29.6 | 31.9 | 34.2 | 36.4 | 38.7 | 41.0 | 43.3 | 45.6 |
| 5 | 11.5 | 13.8 | 16.1 | 18.3 | 20.6 | 22.9 | 25.2 | 27.4 | 29.7 | 32.0 | 34.3 | 36.5 | 38.8 | 41.1 | 43.4 | 45.7 | 48.0 |
| 6 | 13.8 | 16.1 | 18.4 | 20.6 | 22.9 | 25.2 | 27.5 | 29.7 | 32.0 | 34.3 | 36.6 | 38.9 | 41.2 | 43.5 | 45.8 | 48.1 | 50.4 |
| 7 | 16.2 | 18.4 | 20.7 | 23.0 | 25.2 | 27.5 | 29.7 | 32.0 | 34.3 | 36.6 | 38.9 | 41.2 | 43.5 | 45.8 | 48.1 | 50.4 | 52.7 |
| 8 | 18.5 | 20.7 | 23.0 | 25.3 | 27.5 | 29.8 | 32.0 | 34.3 | 36.6 | 38.9 | 41.2 | 43.5 | 45.8 | 48.1 | 50.4 | 52.7 | 55.0 |
| 9 | 20.8 | 23.1 | 25.3 | 27.6 | 29.8 | 32.1 | 34.3 | 36.6 | 38.9 | 41.2 | 43.5 | 45.8 | 48.1 | 50.4 | 52.7 | 55.0 | 57.3 |
| 10 | 23.1 | 25.4 | 27.6 | 29.9 | 32.1 | 34.4 | 36.7 | 38.9 | 41.2 | 43.5 | 45.8 | 48.1 | 50.4 | 52.7 | 55.0 | 57.3 | 59.6 |
| 11 | 25.4 | 27.7 | 29.9 | 32.2 | 34.5 | 36.7 | 39.0 | 41.2 | 43.5 | 45.8 | 48.1 | 50.4 | 52.7 | 55.0 | 57.3 | 59.6 | 61.9 |
| 12 | 27.7 | 30.0 | 32.2 | 34.5 | 36.8 | 39.1 | 41.3 | 43.6 | 45.9 | 48.1 | 50.4 | 52.7 | 55.0 | 57.3 | 59.6 | 61.9 | 64.2 |
| 13 | 30.0 | 32.3 | 34.6 | 36.8 | 39.1 | 41.4 | 43.6 | 45.9 | 48.2 | 50.5 | 52.7 | 55.0 | 57.3 | 59.6 | 61.9 | 64.2 | 66.5 |
| 14 | 32.3 | 34.6 | 36.9 | 39.1 | 41.4 | 43.7 | 45.9 | 48.2 | 50.5 | 52.7 | 55.0 | 57.3 | 59.6 | 61.9 | 64.2 | 66.5 | 68.8 |
| 15 | 34.6 | 36.9 | 39.2 | 41.4 | 43.7 | 45.9 | 48.2 | 50.5 | 52.7 | 55.0 | 57.3 | 59.6 | 61.9 | 64.2 | 66.5 | 68.8 | 71.1 |
| 16 | 37.0 | 39.2 | 41.5 | 43.7 | 46.0 | 48.3 | 50.5 | 52.8 | 55.0 | 57.3 | 59.6 | 61.9 | 64.2 | 66.5 | 68.8 | 71.1 | 73.4 |
| 17 | 39.3 | 41.5 | 43.8 | 46.1 | 48.3 | 50.6 | 52.8 | 55.1 | 57.4 | 59.7 | 61.9 | 64.2 | 66.5 | 68.8 | 71.1 | 73.4 | 75.7 |
| 18 | 41.6 | 43.8 | 46.1 | 48.4 | 50.7 | 52.9 | 55.2 | 57.4 | 59.7 | 62.0 | 64.2 | 66.5 | 68.8 | 71.1 | 73.4 | 75.7 | 78.0 |
| 19 | 43.9 | 46.2 | 48.4 | 50.7 | 52.9 | 55.2 | 57.4 | 59.7 | 62.0 | 64.2 | 66.5 | 68.8 | 71.1 | 73.4 | 75.7 | 78.0 | 80.3 |
| 20 | 46.2 | 48.5 | 50.7 | 53.0 | 55.2 | 57.5 | 59.8 | 62.0 | 64.3 | 66.5 | 68.8 | 71.1 | 73.4 | 75.7 | 78.0 | 80.3 | 82.6 |
| 21 | 48.5 | 50.8 | 53.0 | 55.3 | 57.6 | 59.8 | 62.1 | 64.3 | 66.6 | 68.9 | 71.2 | 73.4 | 75.7 | 78.0 | 80.3 | 82.6 | 84.9 |
| 22 | 50.8 | 53.1 | 55.3 | 57.6 | 59.9 | 62.1 | 64.4 | 66.6 | 68.9 | 71.2 | 73.5 | 75.7 | 78.0 | 80.3 | 82.6 | 84.9 | 87.2 |
| 23 | 53.1 | 55.4 | 57.7 | 59.9 | 62.2 | 64.4 | 66.7 | 69.0 | 71.2 | 73.5 | 75.8 | 78.0 | 80.3 | 82.6 | 84.9 | 87.2 | 89.5 |
| 24 | 55.4 | 57.7 | 60.0 | 62.2 | 64.5 | 66.7 | 69.0 | 71.3 | 73.5 | 75.8 | 78.1 | 80.3 | 82.6 | 84.9 | 87.2 | 89.5 | 91.8 |
| 25 | 57.8 | 60.0 | 62.3 | 64.5 | 66.8 | 69.1 | 71.3 | 73.6 | 75.8 | 78.1 | 80.4 | 82.6 | 84.9 | 87.2 | 89.5 | 91.8 | 94.1 |
| 26 | 60.1 | 62.3 | 64.6 | 66.8 | 69.1 | 71.4 | 73.6 | 75.9 | 78.1 | 80.4 | 82.7 | 84.9 | 87.2 | 89.5 | 91.8 | 94.1 | 96.4 |
| 27 | 62.4 | 64.6 | 66.9 | 69.2 | 71.4 | 73.7 | 75.9 | 78.2 | 80.5 | 82.7 | 84.9 | 87.2 | 89.5 | 91.8 | 94.1 | 96.4 | 98.7 |
| 28 | 64.7 | 66.9 | 69.2 | 71.5 | 73.7 | 76.0 | 78.2 | 80.5 | 82.8 | 85.0 | 87.3 | 89.5 | 91.8 | 94.1 | 96.4 | 98.7 | 101.0 |
| 29 | 67.0 | 69.3 | 71.5 | 73.8 | 76.0 | 78.3 | 80.5 | 82.8 | 85.1 | 87.3 | 89.6 | 91.8 | 94.1 | 96.4 | 98.7 | 101.0 | 103.3 |
| 30 | 69.3 | 71.6 | 73.8 | 76.1 | 78.3 | 80.6 | 82.9 | 85.1 | 87.4 | 89.6 | 91.9 | 94.1 | 96.4 | 98.7 | 101.0 | 103.3 | 105.6 |
| 31 | 71.6 | 73.9 | 76.1 | 78.4 | 80.7 | 82.9 | 85.2 | 87.4 | 89.7 | 92.0 | 94.2 | 96.4 | 98.7 | 101.0 | 103.3 | 105.6 | 107.9 |
| 32 | 73.9 | 76.2 | 78.4 | 80.7 | 83.0 | 85.2 | 87.5 | 89.7 | 92.0 | 94.3 | 96.5 | 98.7 | 101.0 | 103.3 | 105.6 | 107.9 | 110.2 |
| 33 | 76.2 | 78.5 | 80.7 | 83.0 | 85.3 | 87.5 | 89.8 | 92.0 | 94.3 | 96.6 | 98.8 | 101.0 | 103.3 | 105.6 | 107.9 | 110.2 | 112.5 |
| 34 | 78.5 | 80.8 | 83.1 | 85.3 | 87.6 | 89.8 | 92.1 | 94.4 | 96.6 | 98.9 | 101.1 | 103.3 | 105.6 | 107.9 | 110.2 | 112.5 | 114.8 |
| 35 | 80.9 | 83.1 | 85.4 | 87.6 | 89.9 | 92.2 | 94.4 | 96.7 | 98.9 | 101.2 | 103.4 | 105.6 | 107.9 | 110.2 | 112.5 | 114.8 | 117.1 |

- Notes:
- If a variable speed pump is used, use the max. pump flow in calculations.
 - For site wall drains, use appropriate side wall drain flow as published by manufacturer.
 - Insert manufacturer's name and approved maximum flow.
 - See manufacturer's literature 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. & V.G.B. 2008 compliance
 - Pump & filter make, model and location can not change without obtaining a revised plans 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 calc. Fill in required blanks on worksheet & attach calculations.

PROFESSIONAL SERVICES
DRISCOLL ENGINEERING, INC.

PO BOX 357577
Gainesville, Florida 32635
(352) 331-1513 CA 8690

PLANS AND SPECIFICATIONS

The plans and specifications presented herein are only for the anticipated construction at the location shown. If construction plans change, the Design Professional should be notified on the plans and specifications can be re-evaluated. The Design Professional should be given the opportunity to review final plans and specifications to see if the intent of the plans and specifications have been followed and/or if supplement details and recommendations are needed. The Design Professional warrants that the plans and specifications contained herein, have been 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 retains 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 other person or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustments or changes made to contract documents to reflect changed field or other conditions, except for claims arising from the sole negligence or willful misconduct thereto.

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 Professionals 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 or her client/contractor contract and shall require all subcontractors at any level to contain a similar requirement. Failure by the client's contractors or subcontractors 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 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.

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

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

SHEET
2

WILLIAM JOHNSON
CUSTOM DRAFTING
16900 N.E. 21st STREET
GAINESVILLE, FL 32609
PH (352) 485-1942 (352) 494-2041

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

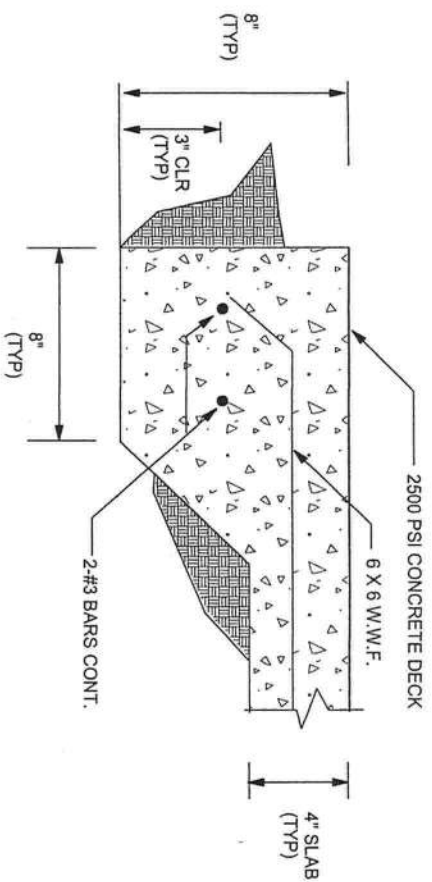
NOTES:

POOL /SPA SUCTION OUTLETS

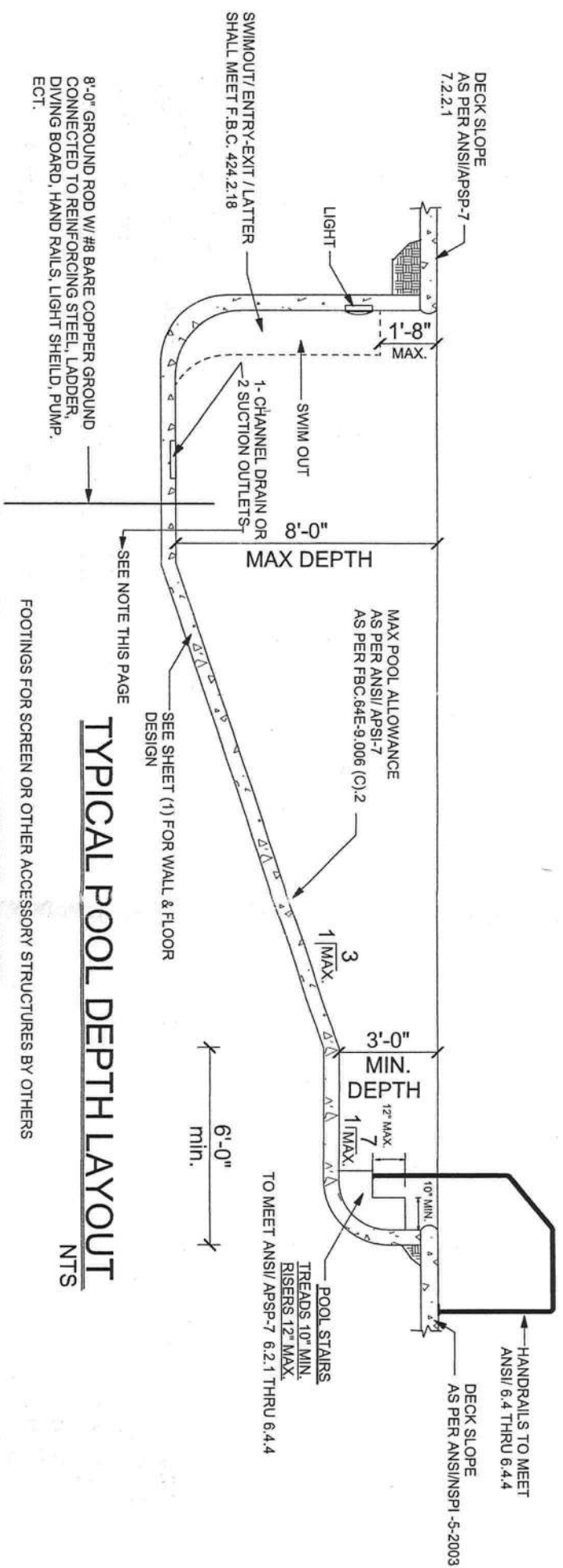
2- SUCTION OUTLETS REQUIRED, NO CLOSER THAN 3'-0" O.C. PLUMBED ON COMMON LINE AS PER F.B.C. #424.2.6.6.4 & COMPLY WITH V.G.B. 2008 REQUIREMENTS

ANSI/APSP-7 COVERS TO MEET ANSI/ASME A112.19.8M

AN INSTALL 1 CHANNEL DRAIN MODEL #32CDFLXXX



THICKENED EDGE



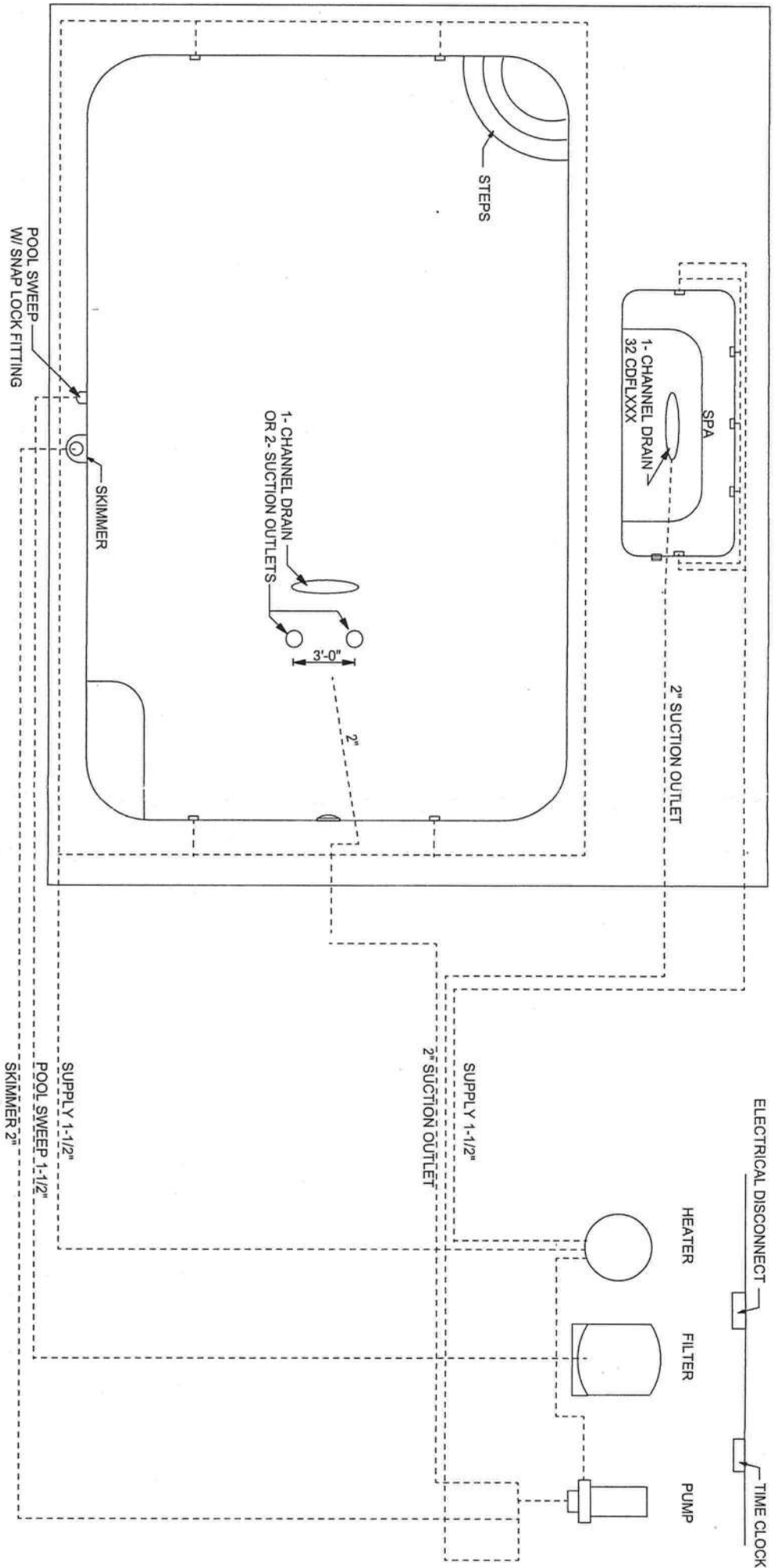
TYPICAL POOL DEPTH LAYOUT

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

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

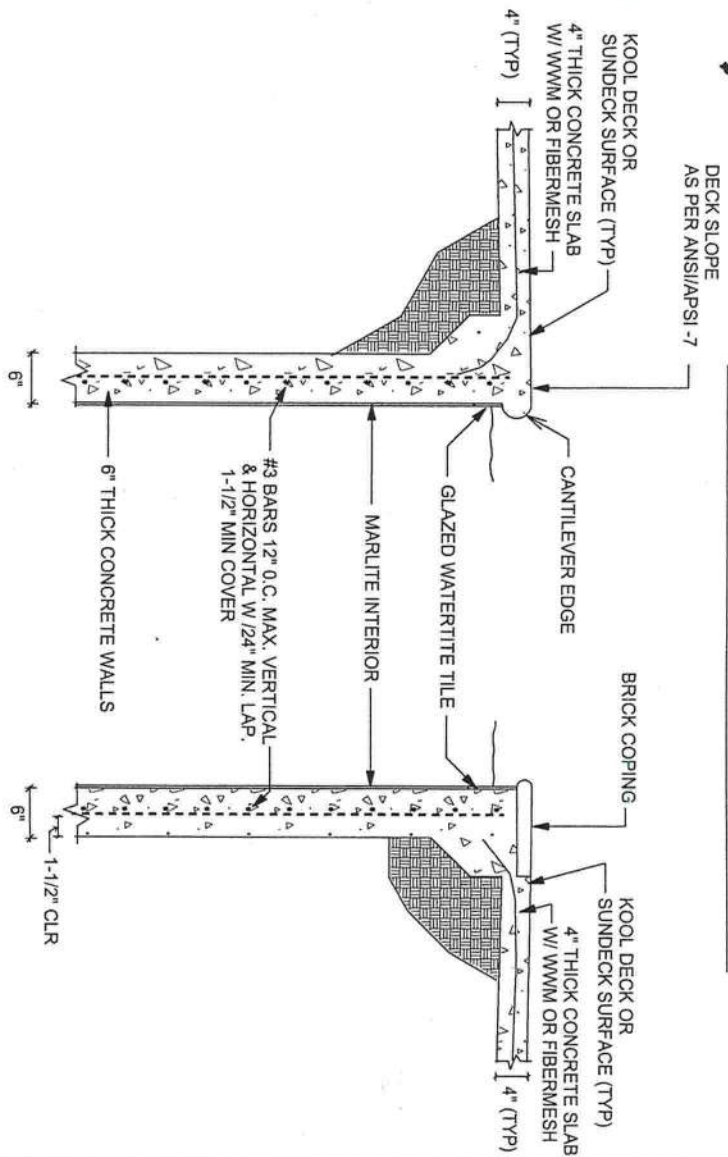
RESIDENTIAL SWIMMING POOL & SPA DESIGN
FOR FUN STATE POOLS USE ONLY

WILLIAM JOHNSON
CUSTOM DRAFTING
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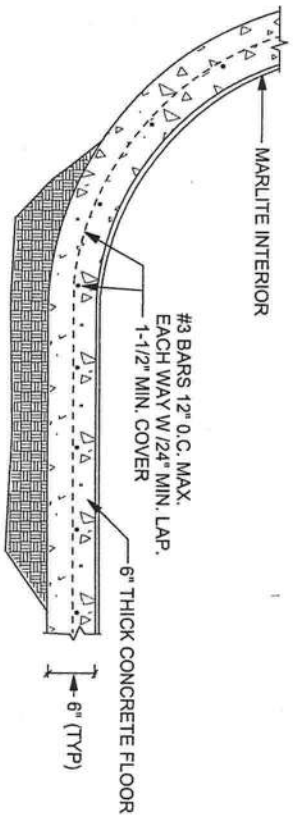
DRISCOLL ENGINEERING, INC.
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GAINESVILLE, FL 32606
PH (352) 333-1513
FX (352) 555-3366
EN 9100

4 SHEET

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

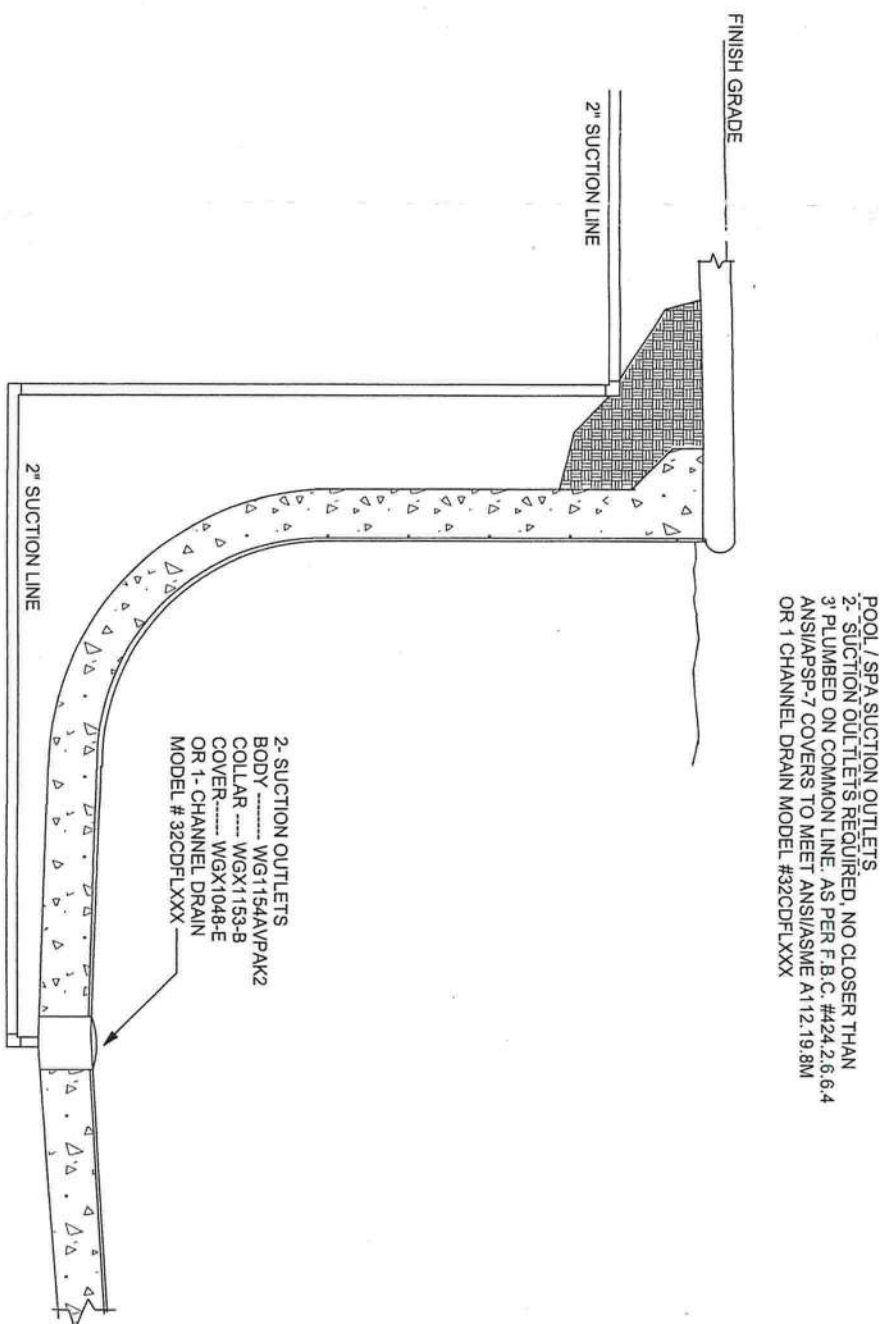


TYP WALL SECTIONS
NTS



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



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\"/>

REVISED 9-1-09
MICHAEL E. DRISCOLL P.E.
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