Mary Slay
500 NW Harris Lake Dr.
Lake City FL 32055
386-623-0818

Summer Kitchen - Block constructed 9' long, 24" wide, 30" tall summer kitchen capped with granite and faced with ledgestone. Small sink, fridge, electrical, sewer, and gas trim out, two separate doors, and backsplash. Grill to be provided by

Trim tile on all steps, benches, and shelf

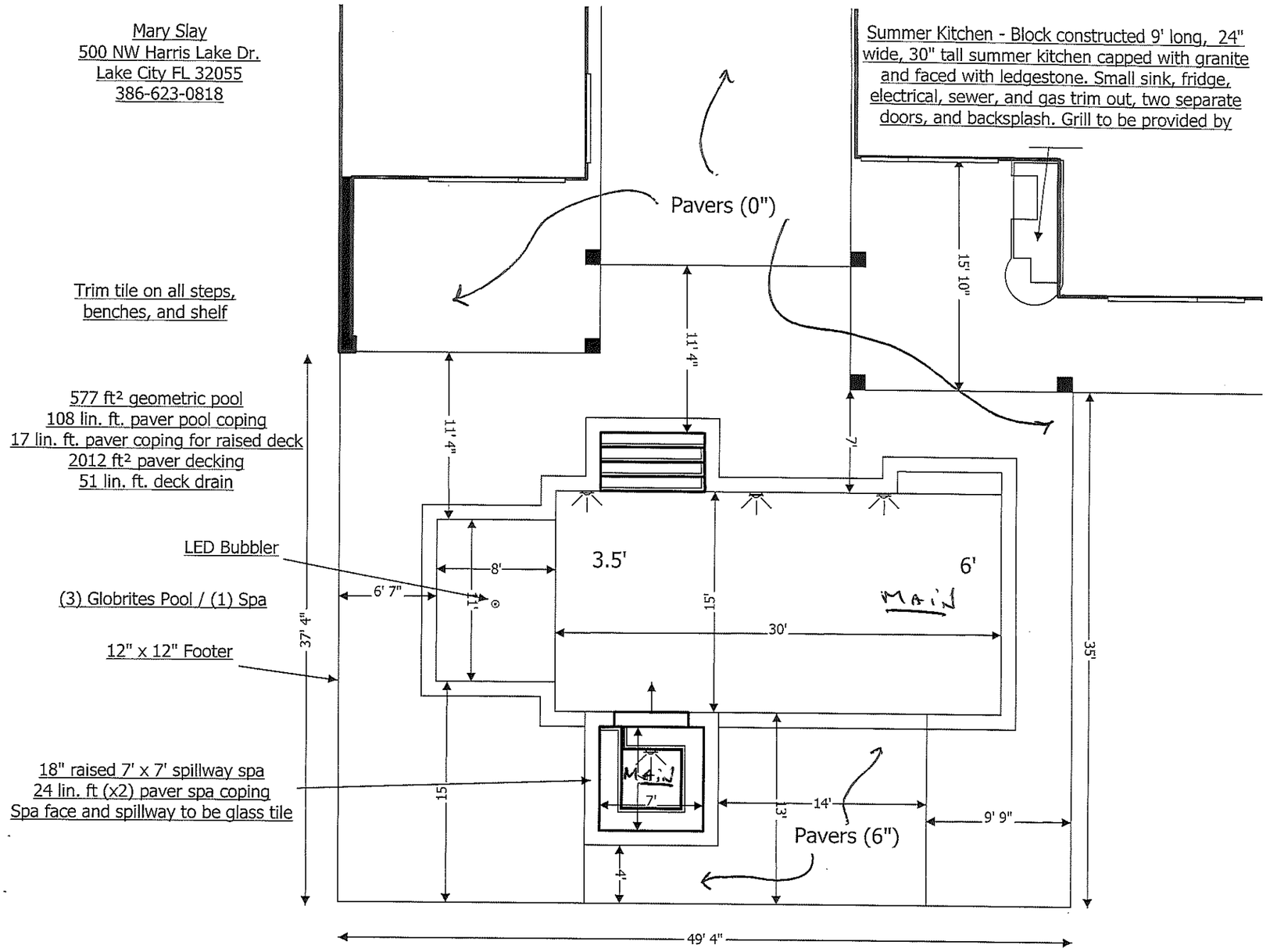
577 ft² geometric pool
108 lin. ft. paver pool coping
17 lin. ft. paver coping for raised deck
2012 ft² paver decking
51 lin. ft. deck drain

LED Bubbler

(3) Globrites Pool / (1) Spa

12" x 12" Footer

18" raised 7' x 7' spillway spa
24 lin. ft (x2) paver spa coping
Spa face and spillway to be glass tile



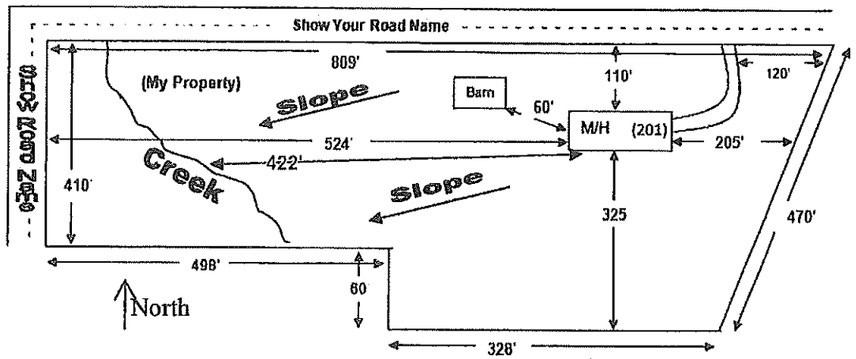
SITE PLAN CHECKLIST

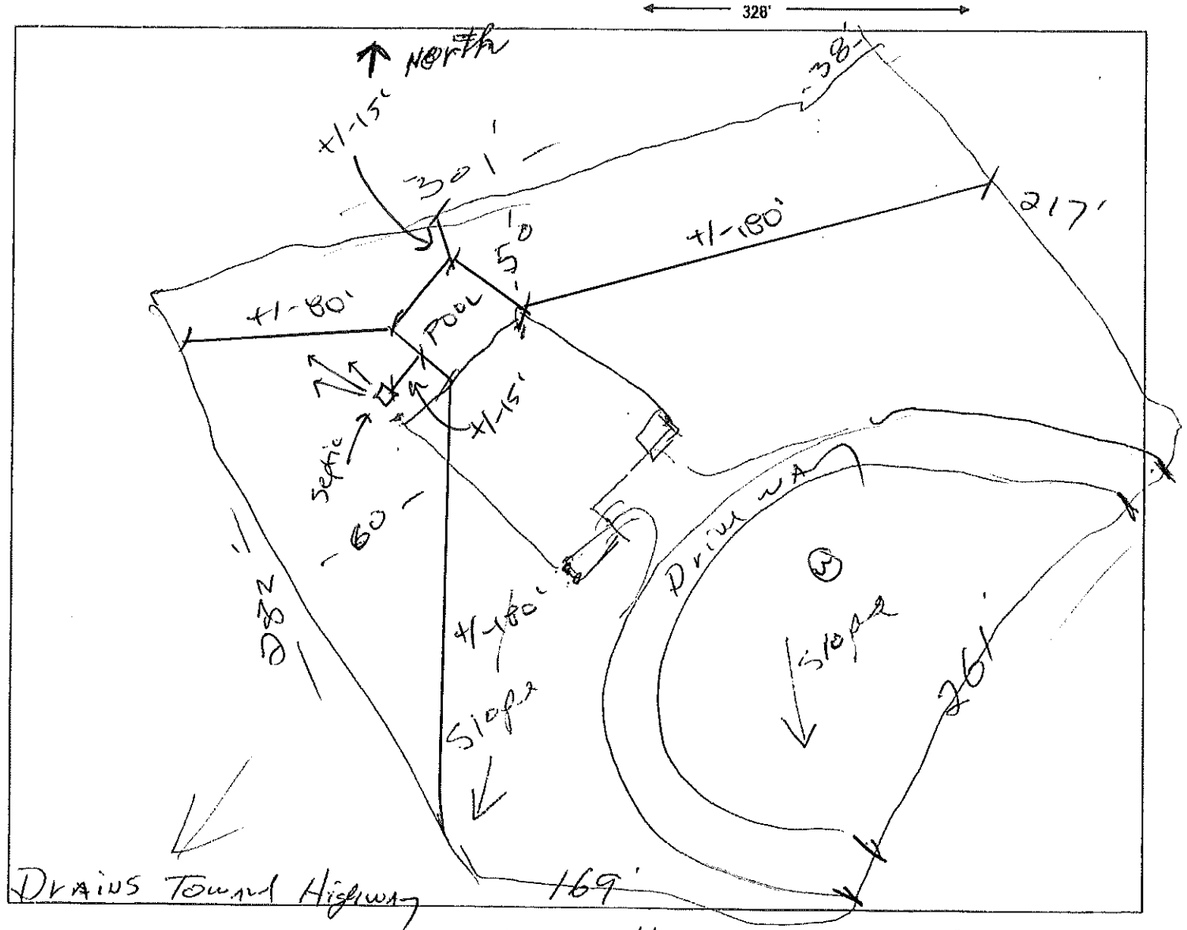
___1) Property Dimensions
___2) Footprint of proposed and existing structures (including decks), label these with existing addresses
___3) Distance from structures to all property lines
___4) Location and size of easements
___5) Driveway path and distance at the entrance to the nearest property line
___6) Location and distance from any waters; sink holes; wetlands; and etc.
___7) Show slopes and or drainage paths
___8) Arrow showing North direction

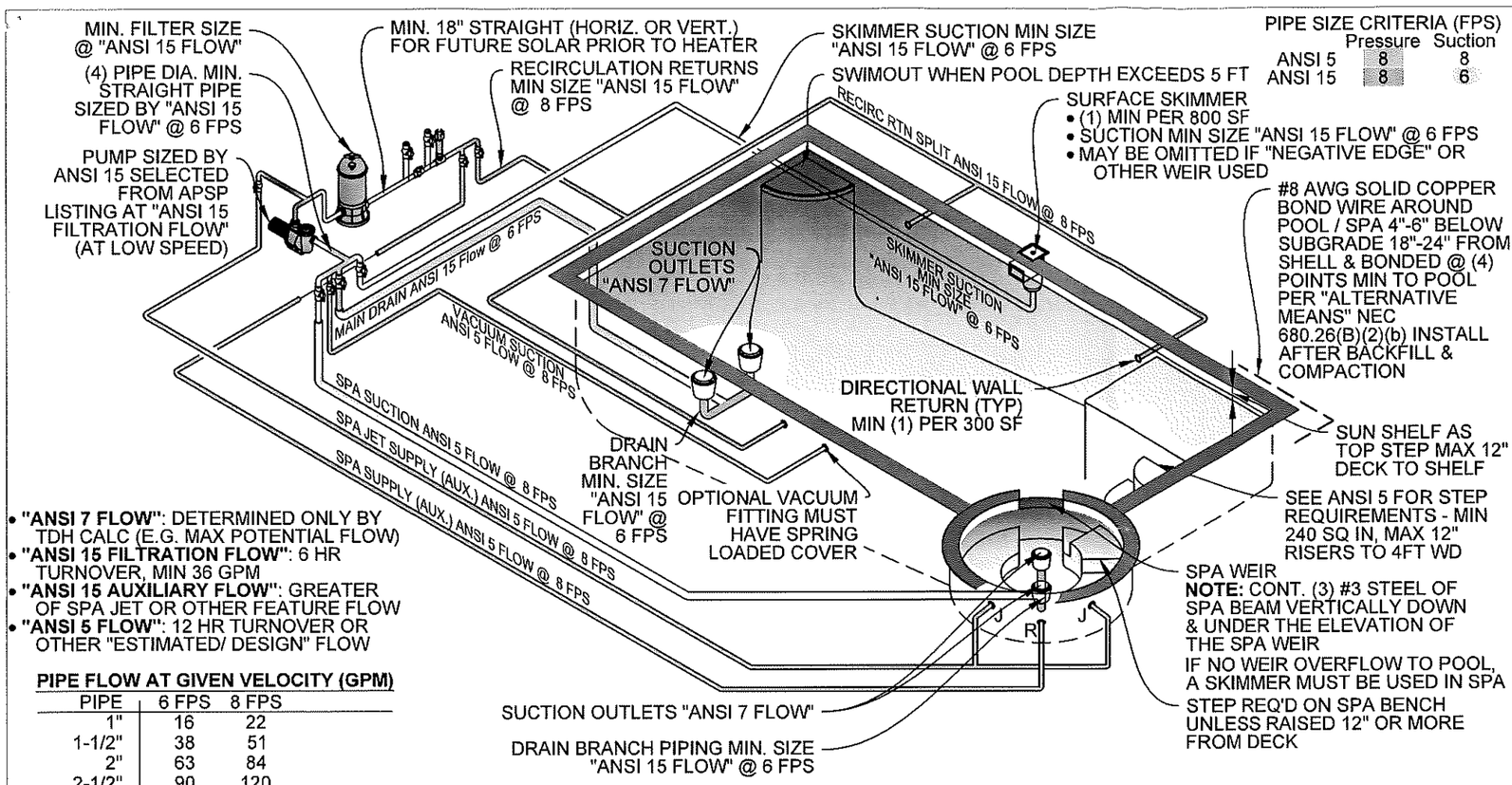
SITE PLAN EXAMPLE

Revised 7/1/15

NOTE:
This site plan can be copied and used with the 911 Addressing Dept. application forms.







PIPE SIZE CRITERIA (FPS)

	Pressure	Suction
ANSI 5	8	8
ANSI 15	8	6

- **"ANSI 7 FLOW"**: DETERMINED ONLY BY TDH CALC (E.G. MAX POTENTIAL FLOW)
- **"ANSI 15 FILTRATION FLOW"**: 6 HR TURNOVER, MIN 36 GPM
- **"ANSI 15 AUXILIARY FLOW"**: GREATER OF SPA JET OR OTHER FEATURE FLOW
- **"ANSI 5 FLOW"**: 12 HR TURNOVER OR OTHER "ESTIMATED/ DESIGN" FLOW

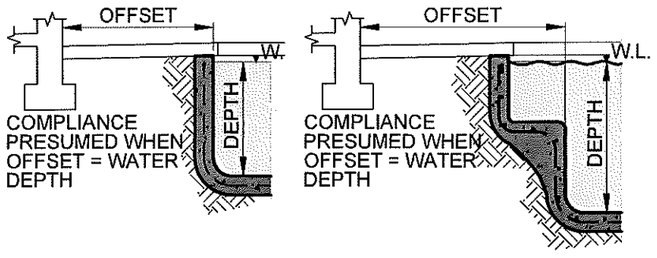
PIPE FLOW AT GIVEN VELOCITY (GPM)

PIPE	6 FPS	8 FPS
1"	16	22
1-1/2"	38	51
2"	63	84
2-1/2"	90	120
3"	138	185
4"	238	318
6"	541	721

1 TYPICAL RESIDENTIAL POOL / SPA SCHEMATIC PLAN

SCALE: N.T.S.

FBC NO LONGER REQUIRES EXCAVATIONS OUT OF THE "ANGLE OF REPOSE PLUS 1 FT". THE CURRENT REQUIREMENT IN 7TH ED (2020) FBC, SECTION 1804.1 STATES THAT "EXCAVATIONS SHALL NOT REMOVE VERTICAL OR LATERAL SUPPORT FROM ANY FOUNDATION." THEREFORE THE FOLLOWING IS REQUIRED:



"ANGLE OF REPOSE"
OR SEE CONTRACTOR PLAN

1. WHEN THE POOL DECK DISTANCE IS EQUAL TO OR GREATER THAN WATER DEPTH, NO MITIGATION OF THE SHELL STRUCTURE IS REQUIRED , AND NO SHORING OR FOUNDATION SUPPORT INITIALLY REQUIRED.
2. WHEN THE POOL DECK DISTANCE IS LESS THAN THE WATER DEPTH, THE ENGINEER SHALL PROVIDE A MITIGATION SPECIFICATION, EITHER TO PROTECT THE FOUNDATION DURING EXCAVATION OR STRENGTHEN THE SHELL FROM STRUCTURE LOADS.
3. IF DURING EXCAVATION, SOIL CONDITIONS APPEAR TO LEAD TO LOSS OF FOUNDATION SUPPORT, THE CONTRACTOR SHALL CEASE EXCAVATION AND CONTACT THE ENGINEER FOR MITIGATION SPECIFICATIONS.
4. IF AFTER EXCAVATION THE CONTRACTOR OR INSPECTOR FIND A LOSS OR THREATENED LOSS OF SOIL SUPPORT AT THE FOUNDATION, CONTACT THE ENGINEER FOR A MITIGATION SPECIFICATION.

2 PROXIMITY TO STRUCTURE

SCALE: N.T.S.

NOTES:

- THIS PLAN IS SCHEMATIC & PIPING SHALL BE CONNECTED TO PROVIDE A FUNCTIONING SYSTEM.
- POOL PIPING SHALL HOLD A STATIC WATER OR AIR PRESSURE NOT LESS THAN 35 PSI FOR 15 MINUTES, PER R4501.12.1
- POOLS SHALL HAVE PUMPS SELECTED TO PROVIDE MINIMUM 12 HR. TURNOVER & MAXIMUM 6 HOUR TURNOVER.
- DETERMINE PIPE SIZING FROM ATTACHED ANSI WORK SHEETS.
- SPA PIPING DETERMINED FROM ATTACHED WORK SHEETS.
- DUAL MAIN DRAINS SHALL HAVE A MINIMUM SEPARATION OF 3 FT, UNLESS ONE IS LOCATED ON A VERTICAL WALL OR A SINGLE UNBLOCKABLE DRAIN IS USED.
- ALL SUCTION COVERS SHALL MEET ANSI/APSP/ICC-16 2017
- ALL PIPING SHALL BE NSF-PW APPROVED & MEET THE REQUIREMENTS OF 7TH ED. (2020) FBC.
- ELECTRICAL EQUIPMENT, WIRING, & INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE 2017 EDITION.
- BONDING OF POOL STEEL & LIGHT TO FOOTING STEEL SHALL BE CONTINUED TO & INCLUDE ALL PUMPS & HEATERS.
- TEMPORARY FENCING SHALL BE INSTALLED & MAINTAINED UNTIL PERMANENT CHILD SAFETY FEATURES ARE INSTALLED.
- THERE SHALL BE A PASSING ELECTRICAL & CHILD SAFETY FINAL INSPECTION PRIOR TO FILLING THE POOL OR SPA WITH WATER.
- POOL SHALL MEET THE APPLICABLE CRITERIA IN ANSI/APSP 3,4,5,6, 7 & 15 STANDARDS ADOPTED IN 7TH ED. (2020) FBC
- REGARDLESS OF THE CRITERIA HERE, THE PROJECT SHALL COMPLY WITH ALL SECTIONS OF THE 7TH ED. (2020) FBC - RESIDENTIAL, BUILDING, MECHANICAL, PLUMBING & GAS CODES, AS APPLICABLE RESPECTIVELY & AMENDED.

SEE INFORMATION ATTACHED TO THIS PERMIT PACKAGE FOR SITE SPECIFIC DETAILS SHOWING ANSI 7 & 15 AND FBC COMPLIANCE

NOTE TO REVIEWER:
DETAILED TDH CALCULATIONS ARE REQUIRED TO DETERMINE ANSI 7-SUCTION ENTRAPMENT COMPLIANCE

COMPLIES WITH 7TH ED. (2020) FBC, ALL VOLUMES

THIS DOCUMENT VALID ONLY 12 MONTHS FROM DATE SIGNED

JAMES KENT KIMES
LICENSE
No. 69878
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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3990 SR 64 E.
Bradenton, FL 34208
Office: 941-749-0311
C.A. 27189

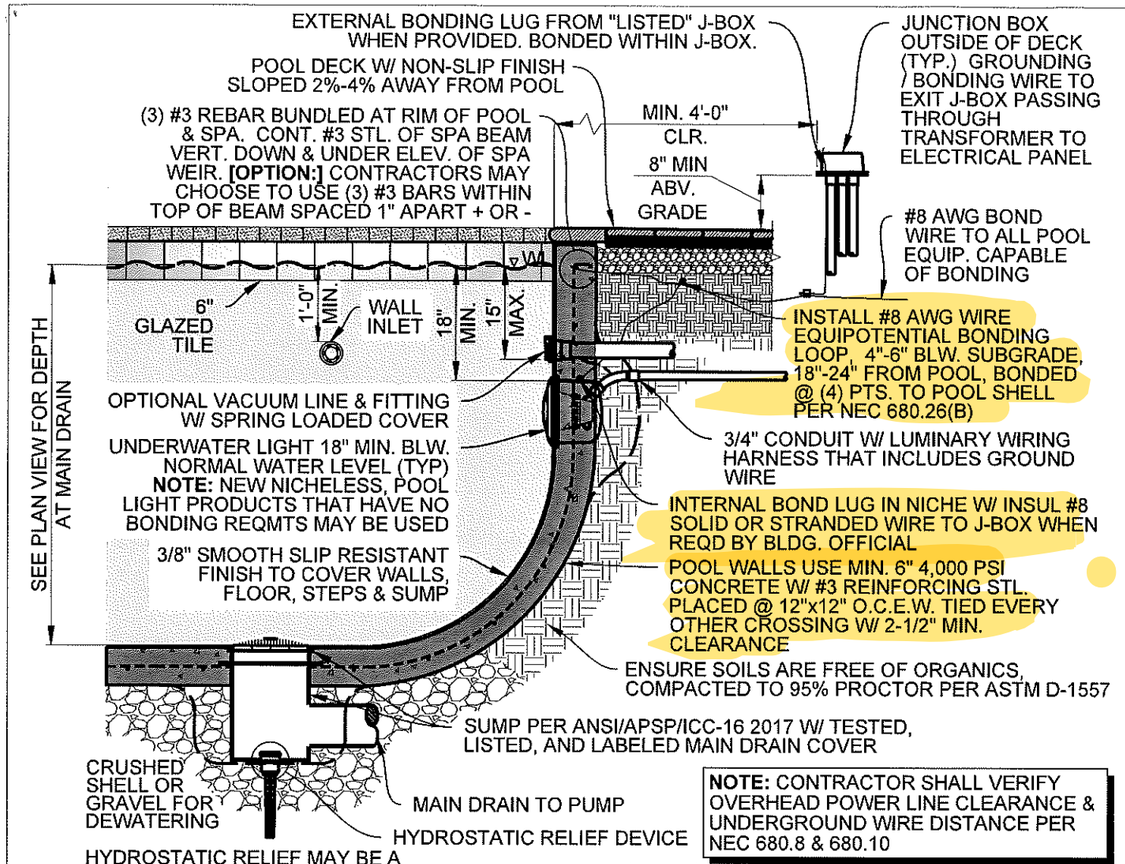
REV.	DATE	DESCRIPTION	VERSION:
		DRAWING:	21-Dec-20
		CKD BY:	JKK 01-Jan-21
PROJ. NO.:		DWG BY:	MCM
KE_RSTD			

FOR USE IN:VARIOUSA JURISDICTIONS
BY: SOUTHERN ESCAPES, LLC.

TYPICAL PLAN & SECTIONS
FOR RESIDENTIAL POOL/SPA

ORIGINAL 17"x11" (ANSI B)

SHEET
S1
SHEET 1 OF 2

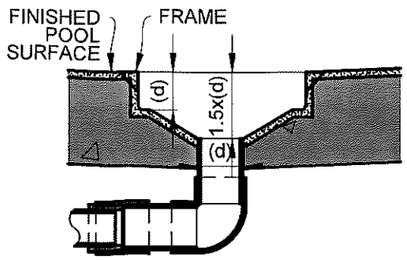


NOTE: CONTRACTOR SHALL VERIFY OVERHEAD POWER LINE CLEARANCE & UNDERGROUND WIRE DISTANCE PER NEC 680.8 & 680.10

NOTE: THIS DETAIL IS FOR MAX 6 FT DEEP SOIL SUPPORTED POOL SHELLS- SEE SUPPLEMENTAL SPECIFICATIONS FOR DEEPER STRUCTURES, LOAD SURCHARGE STRUCTURES, OR APPURTENANT STRUCTURES

1 POOL DEEP END SECTION

SCALE: N.T.S.



SPECIFIED PVC PIPE SIZE	(d)
MIN. SUMP DEPTH	1.5x(d)
MIN. LEDGE DEPTH	(d)

- OR -

FOR FIELD BUILT SUMPS SEE PRODUCT INSTALLATION INSTRUCTIONS

DRAIN COVERS & SUMPS a.k.a. SUCTION OUTLET FITTING ASSEMBLIES (SOFA)

ANSI/APSP/ICC-16 2017

- FOLLOW THE PRODUCT SPECIFICATIONS AND/OR INSTALLATION INSTRUCTIONS FOR MIN./MAX. SUMP DIMENSIONS, DRAIN COVER/GRATE, AND FRAME FASTENING MEETING MFGR'S SOFA CERTIFICATION.
- ***DO NOT USE POWER TOOLS TO INSTALL FASTENERS***
- FIELD MODIFICATIONS TO ANY SOFA NOT AUTHORIZED BY MFGR INSTALLATION INSTRUCTIONS SHALL VOID THE SOFA CERTIFICATION
- HAND CHECK COVER/GRATE SNUGNESS TO SUMP/FRAME AFTER INSTALLATION
- SOFA COMPONENTS HELD IN PLACE BY INTERIOR FINISH OF THE POOL SHALL BE FREE OF DETERIORATION AND VOIDS

2 FIELD BUILT SUMP

SCALE: N.T.S.

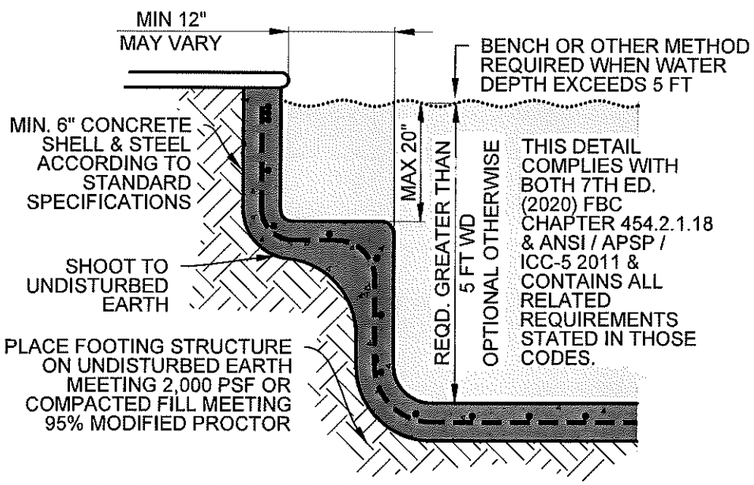
811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
www.callsunshine.com

NOTES:

- APPROVED PRODUCT SPECIFICATION MAY DIFFER FROM FIELD BUILT SUMPS SHOWN ON THIS PAGE

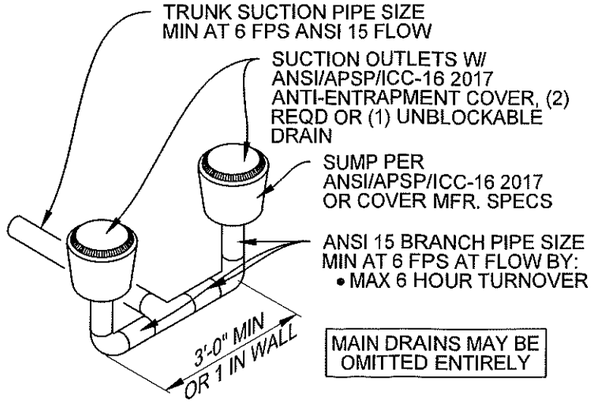
ADDITIONAL STRUCTURAL NOTES:

- USE MINIMUM ASTM A815 GRADE 40 STEEL
- LAP #3 BARS MINIMUM 15"
- LAP #5 BARS MINIMUM 25"
- 6" SHELL THICKNESS AND 2-1/2" CONCRETE COVERAGE ARE MINIMUMS
- USE 4,000 PSI CONCRETE
- CONTRACTOR / OWNER REQUIRED TO:
  - CONTACT ENGINEER IF POOL NOT PLACED ON UNDISTURBED AND DE-WATERED EARTH THAT CAN MEET 2,000 PSF BEARING CAPACITY.
  - WHEN BURIED DEBRIS IS ENCOUNTERED OR QUESTIONABLE CONDITIONS ARE INDICATED AT THE WORK SITE PRIOR / DURING CONSTRUCTION, A SUBSURFACE CONSULTANT SHALL CONDUCT BORING(S) IN THE AREA OF THE POOL TO CONFIRM SOIL BEARING CAPACITY, CLEAR OF BURIED DEBRIS, & VERIFYING GROUND WATER LEVEL
  - ALL MODIFIED SOILS & EARTH FILL UNDER PERSPECTIVE POOL AREA SHALL MEET A SOIL DENSITY AND COMPACTION MINIMUM OF 95% MODIFIED PROCTOR WITHOUT SETTLEMENT.



3 BENCH SECTION

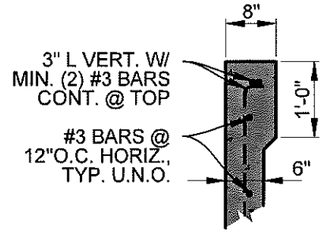
SCALE: N.T.S.



MAIN DRAINS MAY BE OMITTED ENTIRELY

4 BRANCH PIPING

SCALE: N.T.S.



5 POOL BEAM 8"x12" OPTION

SCALE: N.T.S.

NOTE: THIS DETAIL IS FOR MAX 6 FT DEEP SOIL SUPPORTED POOL SHELLS- SEE SUPPLEMENTAL SPECIFICATIONS FOR DEEPER STRUCTURES, LOAD SURCHARGE STRUCTURES, OR APPURTENANT STRUCTURES

COMPLIES WITH 7TH ED. (2020) FBC, ALL VOLUMES

THIS DOCUMENT VALID ONLY 12 MONTHS FROM DATE SIGNED

JAMES KENT KIMES LICENSE No. 39878 STATE OF FLORIDA PROFESSIONAL ENGINEER

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3990 SR 64 E.
Bradenton, FL 34208
Office: 941-749-0311
C.A. 27189

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FOR USE IN: VARIOUS JURISDICTIONS

BY: SOUTHERN ESCAPES, LLC

TYPICAL SECTIONS FOR RESIDENTIAL POOL/SPA

SHEET S2

SHEET 2 OF 2

ORIG. DWG. 17"x11" (ANSI B)

\\kimessrv\Company Shared Docs\2020 FBC 7TH ED\2020 FBC KE Std Eng - r5.dwg

PENTAIR

TDH CALCULATOR

STEP 1
POOL SPECIFICATIONS

STEP 2
SELECT EQUIPMENT

STEP 3
TDH CALCULATION

STEP 3 OF 3: TDH CALCULATION

Pool Specifications

EDIT

Pool Volume (gallons):	16500.00 gallons	Suction Lift:	1.50 ft
Turn Over (hours):	8.00 hours		
Filtration Flow Rate:	36.00 GPM	Maximum Flow Rate	90.00 GPM

Selected Components

EDIT

Components

SELECTION	QUANTITY
 INTELLICHLOR IC - 40	1
2" X 2.5" 2 WAY VALVE	8
MAIN DRAIN	1
CLEAN AND CLEAR RP	1
NO IMAGE AVAILABLE 3/4 INCH RETURN	6
2" X 2.5" 3 WAY VALVE	2
MASTERTEMP	1

Piping

MAXIMUM PIPE VELOCITY (FT/SEC) (CONSULT YOUR LOCAL CODE)	SUCTION OUTLET	8
	DISCHARGE	8
TOTAL PIPING LENGTHS (FT)	INLET	400.00
	DISCHARGE	400.00

SELECTION		QUANTITY
90 DEGREE ELBOW	INLET	10
	DISCHARGE	12
TEE THROUGH	INLET	2
	DISCHARGE	2
CHECK VALVE	INLET	1
	DISCHARGE	1
TEE BRANCH	INLET	2
	DISCHARGE	2

Pump

SELECTION / MODEL	QUANTITY
INTELLIFLO VARIABLE SPEED, VS+SVRS, VF, OR VSF	1

Results: Your TDH Calculation

Flow Rate	90.00 GAL/MIN	**Max Flow Rate at Max RPM:**	80.49 GAL/MIN
Head Loss	97.79 FT	**Head Loss at Max Flow Rate at Max RPM:**	80.68 FT

REQUIRED MINIMUM PIPE SIZE

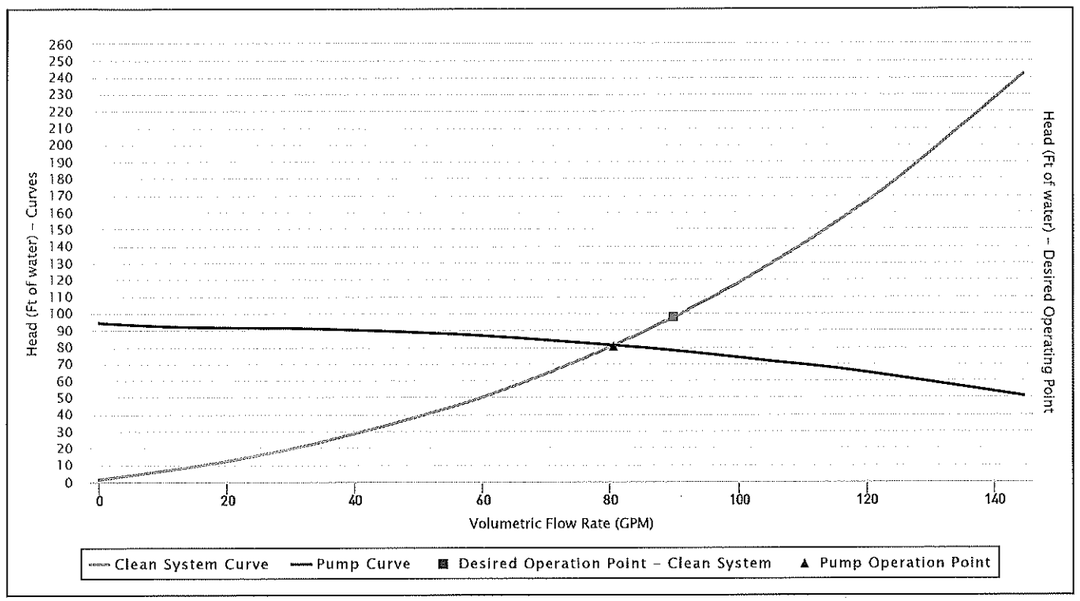
Inlet Piping:	2.50	**Discharge Piping:**	2.50

PUMP RPM

Flow Rate at Selected Pump RPM:	80.49	**Pump RPM:**	3450
Head Loss at Selected Pump RPM:	80.68		

SYSTEM HEAD PRESSURE CURVE

BY PUMP SELECTION



BACK

EMAIL RESULTS DOWNLOAD PDF