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2023 FLORIDA BUILDING CODE (FBC), 8TH EDITION AND ALL OTHER CODES, RULES, REGULATIONS, AND RESTRICTIONS HAVING JURISDICTION ON THE PROJECT SHALL GOVERN INCLUDING 2023 FBC 8TH EDITION BUILDING, RESIDENTIAL, ENERGY CONSERVATION, MECHANICAL, PLUMBING AND FUEL GAS, PLUS RESIDENTIAL CHAPTER 45: SWIMMING POOLS & BUILDING CHAPTER 4, SECTION 454 SWIMMING POOLS & BATHING PLACES SHALL SPECIFICALLY GOVERN

2023 FBC 8TH EDITION ENERGY CONSERVATION CE404.2, SERVICE WATER HEATING EQUIPMENT PERFORMANCE EFFICIENCY: GAS POOL HEATERS 82%, HEAT PUMP 4.0 COP AT LOW AIR TEMPERATURE, SHALL BE MET FOR THIS PROJECT

2023 FBC 8TH EDITION R4501.6.1 CONFORMANCE STANDARD: DESIGN, CONSTRUCTION AND WORKMANSHIP SHALL BE IN CONFORMITY WITH THE REQUIREMENTS OF ANSI/APSP/ICC 3; ANSI/APSP/ICC 4; ANSI/APSP/ICC 5; ANSI/APSP/ICC 6; ANSI/APSP/ICC 7

2023 FBC 8TH EDITION R4501.6.3 WATER VELOCITY. POOL PIPING DESIGNED SO THE WATER VELOCITY WILL NOT EXCEED 10 FEET PER SECOND FOR PRESSURE PIPING AND 8 FEET PER SECOND FOR SUCTION PIPING. MAIN SUCTION OUTLET VELOCITY MUST COMPLY WITH ANSI/APSP/ICC 7. EXCEPTION: JET INLET FITTINGS SHALL NOT BE DEEMED SUBJECT TO THIS REQUIREMENT

HYDROSTATIC RELIEF VALVES: 2023 FBC 8TH EDITION SECTION 452.21.4 AND 4501.21.4 HYDROSTATIC RELIEF DEVICE: IN AREAS OF ANTICIPATED WATER TABLE AN APPROVED HYDROSTATIC RELIEF DEVICE SHALL BE INSTALLED. EXCEPTION: PLASTIC LINE POOLS
2023 FBC 8TH EDITION BUILDING CHAPTER 4, SECTION 454.1.6.5.10.4: IF THE AREA IS SUBJECT TO HIGH GROUND WATER, THE POOL SHALL BE DESIGNED TO WITHSTAND HYDRAULIC UPLIFT OR SHALL BE PROVIDED WITH HYDROSTATIC RELIEF DEVICES
POOL STRUCTURE HAS NOT BEEN DESIGNED FOR EXTERNAL SURCHARGE LOADING FROM ADJACENT EQUIPMENT STRUCTURES OR FOUNDATIONS, ETC. CONTRACTOR SHALL CONFIRM THAT ALL ADJACENT LOADS BEAR AT A DEPTH SUFFICIENT TO PREVENT

CONCRETE SHALL CONFORM TO THE LATEST EDITION OF ACI 301 AND ACI 318, WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND A W/C RATIO OF 0.45 MAXIMUM. POOL CONCRETE CAN BE APPLIED PNEUMATICALLY AND SHALL CONFORM TO

REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ASTM A615, GRADE 60 (#3, #4, GRADE 60 (#5) AND HAVE A MINIMUM LAP DISTANCE OF 18" FOR #3, 24" FOR #4 AND 30" FOR #5 TO MEET THE REQUIREMENTS OF THE LATEST EDITION OF ACI 318.

2023 FRC 3RD EDITION R1903.3 GLASS FIBER REINFORCED CONCRETE: GFRC AND THE MATERIALS USED IN SUCH CONCRETE SHALL BE IN ACCORDANCE WITH THE PCI M118 STANDARD. IF SHOWN ON THE DRAWINGS

POOL PIPING SHALL BE N.S.F. APPROVED AND MINIMUM SCHEDULE 40. 2023 FBC 8TH EDITION B454.2.6.5 PIPING INSTALLATION: ALL PIPING MATERIAL SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION STANDARDS. EXCEPTION PRIMER AND GLUE ON EXPOSED ABOVE-GROUND PIPING ARE NOT REQUIRED TO BE COLORED

NDPES: A SILT FENCE AND ANY OTHER ITEM, SUCH AS A CONSTRUCTION ENTRANCE, WITH TIRE WASH STATION SHALL BE INSTALLED AND INSPECTED, IF REQUIRED, PRIOR TO CONSTRUCTION SURROUNDING THE WORK AREA MEETING THE REQUIREMENTS OF THE AHJ

EXISTING CONDITIONS. DIMENSIONS AND QUANTITIES SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION, AS THE ENGINEER HAS NOT BEEN TO THE LOCATION AND TYPICAL FIELD CONDITIONS ARE ASSUMED IN THE DESIGN. ENGINEER MAKES NO

WARRANTY FOR EXISTING STRUCTURES ON-SITE OR FOR DAMAGES INCURRED BECAUSE OF THE CONTRACTOR WORK. SHOULD ANYTHING DIFFER, ADDITIONAL ENGINEERING MAY BE REQUIRED, AND THE ENGINEER SHALL BE CONTACTED TO PROVIDE DIRECTIONS. CONTRACTOR SHALL ADEQUATELY BRACE, MONITOR AND PROTECT ALL STRUCTURES IN PROXIMITY TO EXCAVATIONS AND CONSTRUCTION ACTIVITIES. CARE SHALL BE TAKEN BY THE CONTRACTOR IN ALL APPLICATIONS OF THESE DRAWINGS. THE EQUIPMENT AND

PIPING PHYSICAL LOCATION MAY DIFFER IN THE FIELD DUE TO UNFORESEEN CONDITIONS OR OTHER FACTORS. THESE DRAWINGS SHALL NOT BE SCALED, WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE. UNDERGROUND CONDITIONS ARE UNKNOWN, AND CAUTION SHALL BE TAKEN. CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AND PROTECT ALL MATERIAL BROUGHT ON SITE, SHALL RESTORE ALL AREAS IMPACTED BY THE CONSTRUCTION WORK TO THE PREEXISTING CONDITION OR BETTER AND SHALL NOT IMPACT

THESE DRAWINGS ARE THE PROPERTY OF WAYNE MARKHAM BENNETT, P.E. USE OF THESE DRAWINGS WITHOUT PERMISSION FROM THE ENGINEER IS PROHIBITED. THE ENGINEER DOES NOT REVIEW THE DRAWINGS FOR COMPLIANCE WITH THE AGREEMENT

BETWEEN CONTRACTOR AND HOMEOWNER. THE ENGINEER IS NOT RESPONSIBLE FOR ANY ENCROACHMENT INTO EASEMENTS OR SETBACKS, EVEN IF APPROVED BY THE AHJ. THE ENGINEER REVIEWS THE PLANS FOR CODE COMPLIANCE TO THE BEST OF HIS KNOWLEDGE, HOWEVER THE CONTRACTOR IS RESPONSIBLE FOR CODE COMPLIANT CONSTRUCTION

POOL EQUIPMENT ELEVATION, ANCHORING AND LOCATION:

POOL EQUIPMENT ELEVATION SHALL BE AT A MINIMUM OF THE DESIGN FLOOD ELEVATION PER 2023 FBC 8TH EDITION R322.1.4. HOWEVER, PER 2023 FBC 8TH EDITION R322.1.6 EXCEPTION: ASCE 24, POOL/SPA/FEATURE EQUIPMENT SHALL BE PERMITTED BELOW

THE ELEVATION REQUIRED IN 2023 FBC 8TH EDITION R322.2.8.3, PROVIDED IT IS ELEVATED TO THE EXTENT PRACTICAL, IS ANCHORED TO PREVENT FLOTATION AND RESIST FLOOD FORCES, AND IS SUPPLIED BY BRANCH CIRCUITS THAT HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION. ELECTRICAL WIRING SYSTEMS ARE PERMITTED TO BE LOCATED BELOW THE REQUIRED ELEVATION PROVIDED THAT THEY CONFORM TO THE PROVISIONS OF THE ELECTRICAL PART OF THIS CODE FOR WET LOCATIONS

POOL EQUIPMENT ANCHORING SHALL BE DESIGNED, CONSTRUCTED, AND INSTALLED TO MEET THE REQUIREMENTS OF ASCE 7. EQUIPMENT TIE DOWNS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS OR A MINIMUM OF: HEATERS 4 TOTAL (3 PER SIDE OR 2 PER OPPOSITE SIDES); OTHERS 2 TOTAL: 3-1/2" MINIMUM THICK 3000 PSI CONCRETE SLAB, 3" LARGER THAN ON EACH SIDE THAN THE EQUIPMENT; 1/2" DIAMETER TAPCON® CONCRETE SCREWS (1600# TENSION, 1290# SHEAR, 1-1/2" EMBEDMENT IN

ON EXTERIOR OR INTERIOR CORNER SIDING, OTHERS 2" (MIN) 3" (2" MINIMUM THICK, 3000 PSI CONCRETE SIDS, 3" MINIMUM THICK ON EXTERIOR SIDE WITH THE EQUIPMENT); 4" MINIMUM THICK ON CONCRETE SIDINGS (2000 P.S.I. THICK, 2500 P.S.I. STRENGTH 2" X 4" EMBODIMENT IN 2000 PSI CONCRETE) OR EQUAL WITH STAINLESS STEEL FENDER WASHER INTO FACTORY PROVIDED HOLD DOWNS OR 1" WIDE, 14 GAUGE GALVANIZED STRAPS WITH 2 STAINLESS STEEL, #10 X 3/8" PAN HEAD PHILLIPS SS SCREWS EACH STRAP INTO METAL FRAME OF EQUIPMENT

2023 FBC 8TH EDITION BUILDING 1907.1 GENERAL THE THICKNESS OF CONCRETE EQUIPMENT SLAB SUPPORTED DIRECTLY ON THE GROUND SHALL NOT BE LESS THAN 3-1/2 INCHES THICK AND SHALL NOT REQUIRE A VAPOR BARRIER

EQUIPMENT LOCATION AND SCREENING: THE EQUIPMENT AND PIPING PHYSICAL LOCATION MAY DIFFER IN THE FIELD DUE TO UNFORESEEN CONDITIONS OR OTHER FACTORS. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND INSTALL ITEMS IN A LOCATION THAT MEETS LOCAL ZONING CODE AND TO PROVIDE CODE COMPLIANT LANDSCAPE OR FENCE SCREENING. DISTANCE TO HOUSE OPENINGS (4 FEET) AND AIR CONDITIONING UNITS (10 FEET) SHALL BE MAINTAINED FOR GAS HEATERS.

SWIMMING BARRIER REQUIREMENTS:
2023 FRC 8TH EDITION R4501.17 RESIDENTIAL SWIMMING BARRIER REQUIREMENT RESIDENTIAL SWIMMING POOLS SHALL COMPLY WITH SECTIONS R4501.17.1 THROUGH R4501.17.3. **EXCEPTION:** A SWIMMING POOL WITH AN APPROVED SAFETY POOL COVER

2023 IRC 8TH EDITION R4501.19 FINAL INSPECTION: FINAL ELECTRICAL AND BARRIER CODE INSPECTION SHALL BE COMPLETED PRIOR TO FILLING THE POOL WITH WATER. **EXCEPTION:** VINYL LINER AND FIBERGLASS POOLS ARE REQUIRED TO BE FILLED WITH WATER.

FLOOD ZONE:

2023 FBC 8TH EDITION RESIDENTIAL R322 FLOOD RESISTANT CONSTRUCTION: STRUCTURES CONSTRUCTED IN WHOLE OR PART IN FLOOD HAZARD AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION, ESPECIALLY R322.1.2, R322.1.3 AND R322.1.5. STRUCTURES LOCATED IN WHOLE OR IN PART IN IDENTIFIED FLOODWAYS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AFGC 34.

SOIL BEARING AND FOUNDATION NOTES:

FBC 8TH EDITION BUILDING 1803 GEOTECHNICAL INVESTIGATIONS: THE BUILDING OFFICIAL SHALL BE PERMITTED TO WAIVE THE REQUIREMENT OR THE ENGINEER CAN PROVIDE A SOIL BEARING LETTER AT THEIR REQUEST. **ALLOWABLE BEARING CAPACITY:** BASED ON RATIONAL ANALYSIS THROUGH KNOWLEDGE OF OTHER PROJECTS IN THE VICINITY AND A VISUAL EXAMINATION OF THE SURFACE SOIL, FINDING SAND AND ROCK, THE POOL FOUNDATION HAS BEEN DESIGNED ASSUMING 2,000 PSF SOIL BEARING CAPACITY PER

TABLE R401.4.1. IF DURING EXCAVATION DELETERIOUS MATERIAL (SUCH AS SILT, PEAT, MUCK, CLAY, ETC.) IS FOUND THAT CANNOT PROVIDE 2,000 PSF, THE ENGINEER SHALL BE CONTACTED TO PROVIDE DIRECTION

SCOPE OF WORK

SPECIFICATIONS	SCOPE OF WORK
	CONSTRUCTION OF A NEW 30' LONG BY 12' WIDE SWIMMING

POOL SIZE:	13' X 30.5'	SPA AREA:	59 SQ. FT.
POOL DEPTH:	4.0' TO 4.5'	SPA PERIMETER:	35'
POOL AREA:	397 SQ. FT.	SPA DEPTH:	3.0'
PERIMETER:	87'	SPILLWAY SIZE:	13'
POOL VOLUME:	12,622 GA.	SPA VOLUME:	1,328 GA.
COVER RATE:	1.62 HRS.	SPA TURNOVER RATE:	0.17 HRS.
POOL PUMP:	2.7 HP VAR SPEED	SPA PUMP SHARED:	0 YES
SPA FILTER:	200 SQ. FT.	SPA JETS:	6 BACK JETS
GAS HEATER:	JANDY JI 400	SPA RETURNS:	MASS RETURN
FINISHING LEDGE:	110 SQ. FT.	SPA MAIN DRAINS:	1 RING
POOL RETURNS:	3	SPA LIGHT:	1 NICHIESS
SPAR RETURN:	2	CHLORINATOR:	SALT SYSTEM
RAIN DRAINS:	1 RING	SPA FINISH:	FLORIDA GEM
POOL SKIMMER:	1 TURBO	TILE:	STANDARD
POOL LIGHTS:	3 NICHIESS	#8 BOND WIRE:	122 LN. FT.
CRIPOR FINISH:	FLORIDA GEM	AUTOMATIC CONTROL:	JANDY PS-4
COPING:	8 X 16 B.N.	BARRIER:	IN POOL ALARM

CONSTRUCTION OF A NEW 30.5'-LONG BY 13'-WIDE SWIMMING POOL WITH 13'-LONG X 4.5'-WIDE SPA, INSTALL POOL EQUIPMENT IN THE REAR YARD OF THE EXISTING RESIDENCE

LEGAL DESCRIPTION: LOT 6, BLOCK 6, BAY RIDGE ESTATES, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 50, PAGE 74 OF THE PUBLIC RECORDS OF MIAMI - DADE COUNTY, FLORIDA.

	REQUIRED	PROVIDED
POOL REAR SETBACK	15'-0"	50'-0"
POOL NORTH SETBACK	20'-0"	101'-2"
POOL SOUTH SETBACK	20'-0"	88'-10"

NOTE: PROPOSED POOL & DECK ELEVATIONS MAY VARY FROM PLANS
BASED ON ACTUAL SITE CONDITIONS.
NOTE: STATING SURFACE DRAINAGE WILL REMAIN ON SITE
NOTE: GRADE AT PROPERTY LINES WILL NOT BE ALTERED
POOL IS LOCATED IN F.E.M.A. ZONE "X" WHICH IS NOT A FLOOD ZONE.

TREE NO.	COMMON NAME	BOTANICAL NAME	NATIVE	SPECIMEN	DBH	HEIGHT	SPREAD	STATUS	REMOVAL CATEGORY
1	GUMBO LIMBO	BURSEA SIMARUBA	YES	YES	24"	40'	40'	REMAIN	N/A
2	GUMBO LIMBO	BURSEA SIMARUBA	YES	YES	24"	40'	40'	REMAIN	N/A
3	GUMBO LIMBO	BURSEA SIMARUBA	YES	YES	24"	40'	40'	REMAIN	N/A
4	OAK TREE	QUERCUS	YES	YES	24"	40'	40'	REMAIN	N/A
5	GUMBO LIMBO	BURSEA SIMARUBA	YES	NO	12"	30'	25'	REMAIN	N/A
6	GUMBO LIMBO	BURSEA SIMARUBA	YES	NO	16"	30'	25'	REMAIN	N/A
7	GUMBO LIMBO	BURSEASIMARUBA	YES	NO	12"	30'	25'	REMAIN	N/A
8	BOTTLEBRUSH	CALLISTEMON	NO	NO	12"	30'	20'	REMAIN	N/A
9	GUMBO LIMBO	BURSEA SIMARUBA	YES	YES	16"	30'	25'	REMAIN	N/A
10	GUMBO LIMBO	BURSEA SIMARUBA	YES	NO	12"	25'	20'	REMAIN	N/A
11	BOTTLEBRUSH	CALLISTEMON	NO	NO	10"	20'	20'	REMAIN	N/A
12	BOTTLEBRUSH	CALLISTEMON	NO	NO	10"	20'	20'	REMAIN	N/A
13	GUMBO LIMBO	BURSEA SIMARUBA	YES	YES	36"	30'	40'	REMAIN	N/A
14	GUMBO LIMBO	BURSEA SIMARUBA	YES	YES	24"	40'	30'	REMAIN	N/A
15	GUMBO LIMBO	BURSEA SIMARUBA	YES	YES	24"	40'	15'	REMAIN	N/A
16	GUMBO LIMBO	BURSEA SIMARUBA	YES	YES	36"	40'	30'	REMAIN	N/A
17	OAK TREE	QUERCUS	YES	YES	24"	50'	50'	REMAIN	N/A
18	OAK TREE	QUERCUS	YES	NO	12"	30'	25'	REMAIN	N/A
19	OAK TREE	QUERCUS	YES	NO	16"	40'	30'	REMAIN	N/A
20	OAK TREE	QUERCUS	YES	NO	16"	40'	30'	REMAIN	N/A
21	OAK TREE	QUERCUS	YES	YES	48"	60'	60'	REMAIN	N/A
22	OAK TREE	QUERCUS	YES	YES	36"	60'	50'	REMAIN	N/A
23	OAK TREE	QUERCUS	YES	NO	16"	40'	40'	REMAIN	N/A
24	SOUTHERN OAK	QUERCUS VIRGINIANA	YES	YES	24"	50'	7'	REMAIN	N/A
25	OAK TREE	QUERCUS	YES	YES	48"	60'	60'	REMAIN	N/A
26	OAK TREE	QUERCUS	YES	YES	24"	30'	30'	REMAIN	N/A
27	TAMARIND	TAMARINDUS INDICA	NO	YES	36"	60'	50'	REMAIN	N/A
28	OAK TREE	QUERCUS	YES	YES	36"	40'	40'	REMAIN	N/A
29	TAMARIND	TAMARINDUS INDICA	NO	YES	36"	60'	60'	REMAIN	N/A
30	OAK TREE	QUERCUS	YES	YES	24"	60'	50'	REMAIN	N/A
31	OAK TREE	QUERCUS	YES	YES	36"	60'	50'	REMAIN	N/A
32	MANDARIN	CITRUS RETICULATA	NO	YES	24"	30'	30'	REMOVE	INTERFERES W/ DRIVEWAY
33	OAK TREE	QUERCUS	YES	YES	24"	50'	50'	REMOVE	INTERFERES W/ BLDG SITE
34	OAK TREE	QUERCUS	YES	YES	36"	50'	50'	REMAIN	N/A
35	OAK TREE	QUERCUS	YES	YES	36"	50'	50'	REMAIN	N/A

	Terminal Post Dimensions (od x wall thickness) (in inches)	Line Post Dimensions (od x wall thickness) (in inches)	Terminal Post Concrete Foundation Size (diameter x depth) (in inches)	Foundation Post Concrete Foundation Size (diameter x depth) (in inches)
Fence Height (ft)				
Up to 6	2 1/4" x 0.042	1 1/4" x 0.047	10 x 24	8 x 24
Over 6 to 8	2 1/4" x 0.042	1 1/4" x 0.055	10 x 24	8 x 24
Over 8 to 10	2 1/4" x 0.042	1 1/4" x 0.062	10 x 24	8 x 24
Over 10 to 12	2 1/4" x 0.110	2 1/4" x 0.095	10 x 36	10 x 36
Over 12 to 14	2 1/4" x 0.110	2 1/4" x 0.130	12 x 40	10 x 40
Over 14 to 16	2 1/4" x 0.160	2 1/4" x 0.120	12 x 42	12 x 42

NOTES:

1. THIS TABLE IS APPLICABLE ONLY TO FENCES WITH UNRESTRICTED ARROW.
2. FABRIC: 121/2 GAUGE MINIMUM.
3. TENSION BANDS: USE ONE LESS THAN THE HEIGHT OF THE FENCE IN FEET EVENLY SPACED.
4. FABRIC TIES: MUST BE MINIMUM THE SAME GAUGE OF THE FABRIC.
5. FABRIC TIES: SPACING ON THE TOP RAIL: ONE LESS THAN THE HEIGHT OF THE FENCE, EVENLY SPACED.
6. FABRIC TIES: SPACING ON LANE POSTS: ONE LESS THAN HEIGHT OF THE FENCE IN FEET, EVENLY SPACED.
7. EITHER TOP RAIL OR TOP TENSION WIRE SHALL BE USED.
8. EITHER TOP RAIL OR TOP TENSION WIRE: IF TOP TENSION WIRE IS USED INSTEAD OF TOP RAIL.
9. POST SPACING: TO FOOT (3 M) ON CENTER MAXIMUM.
10. POSTS SHALL BE EMBEDDED TO WITHIN 6 INCHES (152 MM) FROM THE BOTTOM OF THE FOUNDATION.
11. IN ORDER TO FOLLOW THE CONTOUR OF THE LAND, THE BOTTOM OF THE FENCE MAY CLEAR THE GROUND BY UP TO 5 INCHES (127 MM) WITHOUT INCREASING TAIL VALUES TO THE NEXT HIGHER LIMIT.

